

MANUFACTURING PRODUCTION, AUSTRALIA, JANUARY 1991, PRELIMINARY

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(06) 252 5405 Main Economic Indicator inquiries.

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, which are published at the back of this publication.

The seasonally adjusted estimates for the production of some commodities show large movements between December 1990 and January 1991 which have a significant impact on the trend estimates, at the end of the series (see paragraph 9 of the Explanatory Notes).

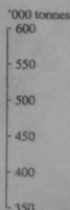
Factors known to have affected some of the series are as follows:

- iron and steel production in January was affected by difficulties in production processes.
- there were longer shutdown periods in January 1991 than normal which affected some producers of bricks, clothes washing machines and chocolate based confectionary.
- there were shorter shutdown periods in January 1991 than normal for some producers of cotton yarn, refrigerators, lawn mowers and textile floor coverings.

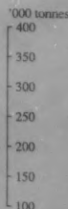
IAN CASTLES
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PRODUCTION STATISTICS, AUSTRALIA: TRENDS

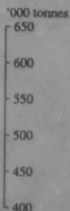
1. BASIC IRON



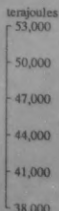
3. BLOOMS AND SLABS



2. IRON AND STEEL IN PRIMARY FORMS



4. GAS



Jan Jul Jan Jul Jan Jul Jan Jul Jan
1987 1988 1989 1990 1991*

Jan Jul Jan Jul Jan Jul Jan
1987 1988 1989 1990 1991

PRODUCTION STATISTICS, AUSTRALIA : TRENDS

5. ELECTRICITY



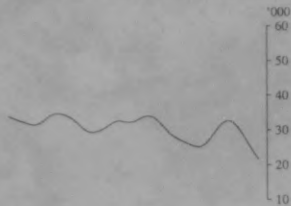
11. REFRIGERATORS, DOMESTIC(a)



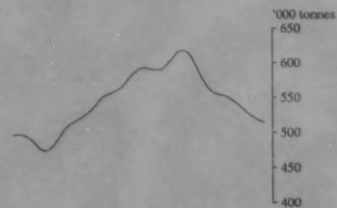
6. BRICKS, CLAY



12. CLOTHES WASHING MACHINES, DOMESTIC



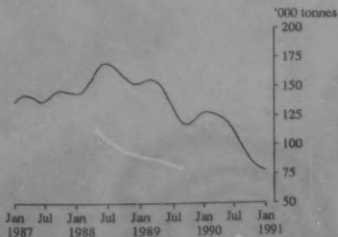
7. CEMENT, PORTLAND



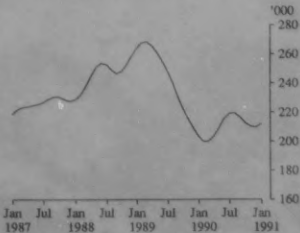
13. TELEVISION SETS



10. SULPHURIC ACID; OLEUM



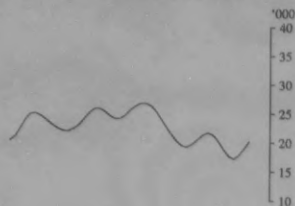
14. ELECTRIC MOTORS



(a) Trend estimates are not available for the last two periods

PRODUCTION STATISTICS, AUSTRALIA : TRENDS

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



19. YARN, WOOL



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



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



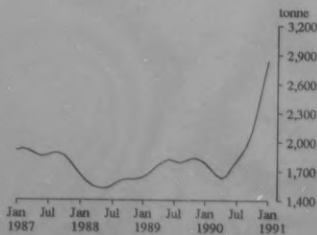
17. MOTOR VEHICLES FOR GOODS AND MATERIALS(b)



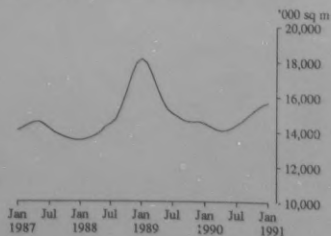
21. WOVEN FABRIC, WOOL (INCL. BLANKETING)



18. YARN, COTTON



22. WOVEN FABRIC, MAN-MADE FIBRE



(a) Trend estimates are not available for the last two periods. (b) The recent trend estimates have been temporarily suspended because recent factory shut-downs have adversely affected their reliable estimation.

PRODUCTION STATISTICS, AUSTRALIA : TRENDS

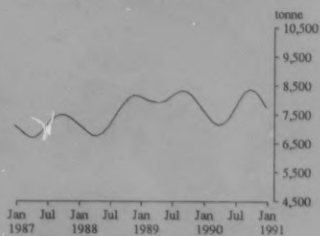
23. TEXTILE FLOOR COVERINGS



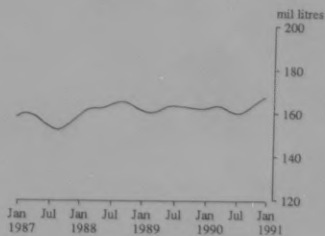
25. CONFECTIONERY, OTHER



24. CONFECTIONERY, CHOCOLATE BASED



26. BEER



PRODUCTION STATISTICS, AUSTRALIA, JANUARY 1991, PRELIMINARY

No. Item	Series	Unit	1990								Percentage changes between:		
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1991	Dec. 90 and Jan. 91	Jan. 90 and Jan. 91
1. Basic iron, spiegeleisen and sponge iron	Orig. "000 tonnes		518	476	515	551	526	521	539	523	454	-13.2	-15.0
	S. adj. "		520	487	494	533	520	503	547	508	452	-11.0	-14.1
	Trend r "		500	504	510	516	518	517	512	504	493	-2.1	-4.7
2. Iron and steel in ingots or other primary forms(a)	Orig. "		532	530	553	626	601	573	569	562	468	-16.7	-18.8
	S. adj. "		539	529	518	598	589	549	576	554	477	-13.9	-17.3
	Trend r "		542	547	556	564	567	565	556	543	528	-2.8	-5.6
3. Blooms and slabs(b)	Orig. "		188	213	230	228	227	209	187	217	199	-8.3	4.7
	S. adj. "		197	217	230	221	214	191	196	214	203	-5.1	5.1
	Trend r "		207	215	218	216	211	207	204	202	201	-0.6	7.4
4. Gas(c)	Orig. terajoules		47,051	51,446	52,456	53,264	45,839	45,841	41,998	36,147	35,751	-1.1	-2.8
	S. adj. "		44,137	44,840	42,329	45,181	43,423	44,683	45,852	41,552	42,798	3.0	-3.0
	Trend r "		43,505	43,788	44,096	44,262	44,244	44,102	43,856	43,523	43,241	-0.6	-0.8
5. Electricity	Orig. mil kWh		13,306	13,988	14,002	14,338	12,867	12,761	12,449	12,684	13,097	3.3	6.2
	S. adj. "		12,927	13,130	12,551	13,037	13,087	12,726	13,022	13,347	13,777	3.2	6.1
	Trend r "		12,917	12,898	12,877	12,882	12,927	13,019	13,148	13,295	13,462	1.3	5.2
6. Bricks, clay	Orig. million		188	165	169	169	154	172	158	126	89	-29.4	-29.9
	S. adj. "		166	162	160	152	155	158	152	151	125	-17.4	-29.8
	Trend r "		164	162	160	158	156	153	149	145	140	-3.0	-18.3
7. Cement, Portland	Orig. "000 tonnes		608	587	552	572	546	585	580	511	356	-30.3	-17.4
	S. adj. "		588	580	534	534	520	539	530	525	497	-5.4	-18.7
	Trend r "		554	552	547	542	535	528	523	518	515	-0.6	-10.8
8. Particle board and similar boards(d)	Orig. "000 cu m		65.6	46.7	53.0	60.4	53.7	63.6	60.3	39.2	33.6	-14.3	-14.1
	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		83.8	75.9	85.1	83.9	72.4	87.7	73.4	65.3	67.0	2.6	-9.3
	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. "		125	113	104	96	72	72	74	92	104	13.0	-28.3
	S. adj. "		118	115	127	114	84	84	75	82	91	11.6	-30.0
	Trend r "		123	119	112	104	96	88	83	80	78	-2.1	-38.6
11. Refrigerators, domestic	Orig. "000		34.4	28.3	30.1	32.7	26.0	29.5	33.9	25.3	26.3	3.8	50.5
	S. adj. "		30.2	29.0	29.6	27.6	24.5	26.0	29.4	30.5	38.6	26.3	47.4
	Trend r "		28.0	28.3	27.9	27.4	27.2	27.9	29.4	(k)	(k)	n.a.	n.a.
12. Clothes washing machines, domestic	Orig. "		30.7	33.0	38.0	39.3	27.4	33.4	31.6	20.5	9.7	-52.7	-20.3
	S. adj. "		27.9	31.8	36.1	35.2	26.6	30.3	28.6	23.0	19.1	-17.2	-23.4
	Trend r "		29.7	31.6	32.7	32.5	31.1	28.9	26.5	24.0	21.7	-9.6	-14.2
13. Television sets(f)	Orig. "		14.0	13.8	14.6	17.1	12.8	15.7	17.5	12.1	5.1	-57.7	34.0
	S. adj. "		12.2	13.4	14.8	13.4	12.7	13.2	14.3	14.5	15.3	5.8	29.5
	Trend r "		12.8	13.1	13.3	13.5	13.6	13.7	14.0	14.3	14.6	2.2	20.0
14. Electric motors	Orig. "		225	249	223	262	221	258	240	174	118	-32.3	12.8
	S. adj. "		203	244	219	229	204	216	206	197	231	17.2	9.3
	Trend r "		209	215	219	220	217	213	210	210	212	1.1	4.2

For footnotes see end of table

PRODUCTION STATISTICS, AUSTRALIA, JANUARY 1991, PRELIMINARY

No. Item	Series	Unit	1990								Percentage changes between:		
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1991 Jan.	Dec. 90 and Jan. 91	Jan. 90 and Jan. 91
15. Lawn mowers petrol-rotary type	Orig. '000		10.3	10.5	13.1	22.2	19.4	36.3	33.4	22.5	16.9	-24.8	45.3
	S. adj. "		20.1	18.3	16.2	18.5	13.2	26.4	21.5	19.1	24.9	30.2	38.5
	Trend r "		20.1	18.8	17.8	17.3	17.8	19.0	20.3	(k)	(k)	n.a.	n.a.
Motor vehicles—													
16. Cars and station wagons	Orig. "		40.1	33.9	37.1	35.2	24.0	30.1	28.2	20.1	12.0	-40.6	-5.5
	S. adj. "		34.0	32.8	33.0	29.7	22.3	26.3	24.2	23.8	36.3	52.9	-8.3
	Trend r "		34.0	32.5	(l)	(l)	(l)	(l)	(l)	(l)	(l)	n.a.	n.a.
17. Vehicles for goods and materials(g)	Orig. "		2.51	2.03	1.97	2.37	1.61	2.32	1.55	r 1.17	0.76	-35.2	-33.0
	S. adj. "		2.11	1.95	1.88	2.00	1.53	2.04	1.47	r 1.43	1.88	31.1	-33.2
	Trend r "		2.04	1.98	(l)	(l)	(l)	(l)	(l)	(l)	(l)	n.a.	n.a.
Yarn(h)—													
18. Cotton	Orig. tonne		2,188	1,945	1,827	2,339	2,272	2,510	1,984	r 1,498	1,065	-28.9	84.6
	S. adj. "		1,779	1,701	1,674	1,992	2,219	2,218	1,796	r 1,807	4,126	128.3	85.3
	Trend r "		1,653	1,738	1,813	1,884	1,968	2,109	2,314	2,566	2,837	10.5	59.0
19. Wool	Orig. "		1,882	1,629	1,695	1,794	1,638	1,853	1,825	r 1,221	790	-35.3	14.8
	S. adj. "		1,654	1,577	1,522	1,572	1,629	1,549	1,623	r 1,516	1,707	12.6	14.0
	Trend r "		1,613	1,595	1,577	1,569	1,574	1,582	1,594	1,609	1,624	1.0	-2.1
Woven fabric(h)—													
20. Cotton (incl. towelling)	Orig. '000 sq m		4,127	3,838	3,504	3,466	3,116	3,470	2,972	r 2,362	1,194	-49.4	50.2
	S. adj. "		3,509	3,453	3,065	2,836	2,827	3,261	2,652	r 3,158	4,275	35.4	46.3
	Trend r "		3,275	3,243	3,132	3,009	2,952	3,001	3,139	(k)	(k)	n.a.	n.a.
21. Wool (incl. blanketing)	Orig. "		645	692	669	810	617	745	776	r 578	401	-30.6	1.5
	S. adj. "		588	689	673	699	648	640	666	r 774	627	-19.0	-0.8
	Trend r "		618	636	655	668	675	677	678	680	682	0.3	-1.5
22. Man-made fibre	Orig. "		15,911	16,789	15,851	15,843	16,242	15,926	17,010	r 14,635	4,358	-70.2	2.9
	S. adj. "		14,389	14,529	14,780	13,438	15,636	14,629	14,837	r 17,878	14,137	-20.9	3.0
	Trend r "		14,108	14,215	14,400	14,602	14,858	15,130	15,383	15,571	15,687	0.7	8.4
23. Textile floor coverings	Orig. "		4,239	3,794	4,294	4,255	3,624	4,338	r 3,901	r 3,384	1,930	-43.0	20.4
	S. adj. "		3,652	3,703	4,039	3,800	3,314	3,802	r 3,316	r 3,599	4,963	37.9	17.8
	Trend r "		3,735	3,739	3,709	3,659	3,624	3,648	3,745	3,899	4,073	4.5	4.2
Confectionary—													
24. Chocolate base	Orig. tonne		8,859	7,291	r 7,529	8,715	8,450	r 9,085	8,350	r 7,080	3,146	-55.6	-17.9
	S. adj. "		7,632	7,128	r 6,896	7,717	9,418	r 8,314	8,202	r 9,347	5,779	-38.2	-18.1
	Trend r "		7,195	7,366	7,679	8,008	8,271	8,378	8,295	8,072	7,762	-3.8	0.9
25. Other	Orig. "		5,667	5,962	5,216	6,846	5,893	6,099	r 6,111	r 4,331	2,628	-39.3	-4.6
	S. adj. "		5,451	6,042	4,806	6,279	5,383	4,815	r 5,243	r 4,969	5,213	4.9	-4.1
	Trend r "		5,513	5,575	5,579	5,499	5,377	5,256	5,154	5,076	5,064	-0.2	-2.2
26. Beer(i)	Orig. mil litres		153	135	148	148	133	194	208	197	164	-16.8	-4.6
	S. adj. "		161	166	158	158	156	162	173	164	158	-3.4	-3.3
	Trend r "		162	161	160	160	161	162	163	164	164	0.3	1.5
27. Tobacco and cigarettes(j)	Orig. tonne		2,864	2,436	2,437	2,960	1,977	r 2,263	r 2,651	1,649	n.y.a.	n.a.	n.a.
	S. adj. "		2,382	2,339	2,264	2,627	2,270	r 2,086	1,629	1,945	n.y.a.	n.a.	n.a.
	Trend r "		2,286	2,311	2,343	2,344	2,305	2,238	2,159	2,093	n.y.a.	n.a.	n.a.

(a) Includes ingots, puddled bars, pilings, blocks or lumps and steel in the molten state. (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) Excludes combination with radio etc. (g) Includes utilities, panel vans and prime movers for semi-trailers. (h) Includes mixtures predominantly of the fibre named. (i) Includes ale and stout. Excludes beverages with alcohol content of less than 1.15 per cent. (j) Source: Australian Customs Service. (k) See paragraph 9 of Explanatory Notes. (l) The recent trend estimates have been temporarily suspended because recent factory shut-downs have adversely affected their reliable estimation. However, these influences are not expected to affect the reliability of the seasonally adjusted series.

EXPLANATORY NOTES

Introduction

Preliminary estimates for January 1991 for certain major indicators of production are shown in the table on page 5. Production statistics for January 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 series 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, Paint, 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)

12. 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 from any ABS office.

Symbols and other usages

- r figure or series revised since previous issue
- n.a. not available
- n.y.a. not yet available

Electronic services

DISCOVERY. Key *656# for selected current economic, social and demographic statistics.

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- foreign trade statistics tailored to users' requirements. Further information is available on (06) 252 5404.
- text and tables for selected Main Economic Indicator publications. Further information is available on (06) 252 5405.

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