

# MANUFACTURING PRODUCTION

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) WED 11 FEB 2004

# CONTENTS

#### Page

Notes	
TABLES <b>1</b> Qu	arterly commodity production
ADDITION	AL INFORMATION
Explana	tory notes
Append	ix: Clarification of terms

# INQUIRIES

 For further information about these and related statistics, contact Graeme Thomas on Adelaide (08) 8237 7536 or the National Information and Referral Service on 1300 135 070.

	NOTES					
FORTHCOMING ISSUES	ISSUE (Qu	ıarter)	RELEASE DATE			
	March 20		11 May 2004			
	June 200		12 August 2004			
	• • • • •		••••••••••••••••			
CHANGES IN THIS ISSUE	This publication presents estimates of selected major indicators of manufacturing production for Australia.					
	More detailed and other commodity items are collected by the Australian Bureau of					
	Statistics	(ABS) and are available to users of	n request and for a charge, as are monthly			
	series for	a limited number of data items. T	hese data items are listed in paragraph 21 of			
	the Expla	anatory Notes.				
	• • • • •	• • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
EFFECTS OF ROUNDING	Estimates	s of change shown in this publicati	on have been calculated using unrounded			
	estimates and may be different from, but are more accurate than, movements obtained					
	from the rounded estimates.					
	• • • • •	• • • • • • • • • • • • • • • • • •				
ABBREVIATIONS AND	ABARE	Australian Bureau of Agricultura	l and Resource Economics			
SYMBOLS	ABS	Australian Bureau of Statistics				
	DITR Department of Industry, Tourism and Resources					
	n.a.	not available				
	n.p.	not publishable				
	n.y.a.	not yet available				
	r	figure or series revised since pre-	evious issue			
	—	nil or rounded to zero				

Dennis Trewin Australian Statistician

## QUARTERLY COMMODITY PRODUCTION: All series(a)

		2001	2002				2003				Percentage between lat	est
											prov.	same
No.	Item and unit/Series	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	prev. quarter	quarter prev. year
110.	tem and anitysenes	Dec	iviai	Jun	Sep	Dec	war	Jun	Sep	Dec	quarter	prev. year
• • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	•••••	• • • • • •	• • • • • •	•••••	•••••	•••••	• • • • • •	••••	• • • • • • •	• • • • • •
1	Red meat ('000 tonnes)											
	Original	744	716	810	807	799	739	745	721	757	5.0	-5.2
	Seasonally adjusted	737	746	790	802	788	770	730	714	749	5.0	-4.9
2	Trend Chicken meat ('000 tonnes)	755	756	779	797	790	762	738	729	730	0.2	-7.7
~	Original	166	169	176	176	178	171	164	170	176	3.4	-1.5
	Seasonally adjusted	162	100	178	177	174	173	166	172	171	-0.6	-1.8
	Trend	164	171	176	177	175	171	170	170	170	0.4	-2.3
3	Cheese (tonnes)											
	Original	135 867	109 710	78 386	80 781	122 558	94 681	69 998	76 029	n.y.a.	8.6	-5.9
	Seasonally adjusted	104 065	105 898	98 048	93 931	94 019	91 382	87 354	88 540	n.y.a.	1.4	-5.7
	Trend	105 288	103 207	99 360	95 510	92 688	90 884	88 976	87 575	n.y.a.	-1.6	-8.3
4	Butter (tonnes)											
	Original	57 637	41 293		37 326	56 833	32 859	21 565	26 869	n.y.a.	24.6	-28.0
	Seasonally adjusted	39 070	43 151		41 741	38 667	34 396	31 682	29 963	n.y.a.	-5.4	-28.2
_	Trend	40 970	41 792	42 736	41 520	38 390	34 929	31 943	29 919	n.y.a.	-6.3	-27.9
5	Beer (megalitres)	400	100	409	106	FOC	105	200	401	400	10 5	2.0
	Original Seasonally adjusted	492 425	428 432	408 455	406 424	506 440	435 437	380 423	421 440	490 425	16.5 -3.3	-3.2 -3.4
	Trend	425	432	435	424	440 435	437	423	440 430	425	-3.3 -0.1	-3.4 -1.1
6	Tobacco and cigarettes (tonnes)	452	401	400	433	400	400	400	400	450	-0.1	- 7.7
•	Original	4 522	3 843	4 806	5 280	4 709	4 362	5 210	5 258	4 526	-13.9	-3.9
	Seasonally adjusted	4 618	4 263	4 672	4 862	4 776	4 900	5 052	4 804	4 554	-5.2	-4.6
	Trend	4 547	4 487	4 593	4 751	4 876	4 934	4 920	4 813	4 655	-3.3	-4.5
7	Newsprint ('000 tonnes)											
	Original	99	104	100	103	101	101	102	107	106	-1.2	5.1
	Seasonally adjusted	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
_	Trend	99	101	102	102	102	103	104	106	107	0.6	4.9
8	Wood pulp ('000 tonnes)(b)											
	Original	212	211	222	216	224	217	220	226	207	-8.6	-7.8
	Seasonally adjusted Trend	211	213	219	217	223	220	217	228	206	-9.6	-7.7 0.3
9	Undressed sawn timber ('000 m <sup>3</sup> )(c)	210	213	217	220	220	221	221	221	221	-0.2	0.3
5	Original	1 093	1 153	1 098	962	1 204	r893	990	n.y.a.	n.y.a.	10.9	-9.8
	Seasonally adjusted	1 098	1 183	1 0 7 6	955	1 204	908	977	n.y.a.	n.y.a.	7.6	-9.2
	Trend	1 034	1 108	1 109	1 065	1 041	1 010	969	n.y.a.	n.y.a.	-4.1	-12.6
10	Hardwood woodchips ('000 tonnes)								5	5		
	Original	1 340	1 494	1 690	1 869	1 716	1 603	1 891	1 823	1 786	-2.0	4.1
	Seasonally adjusted	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
	Trend	1 413	1 519	1 668	1 746	1 760	1 752	1 761	1 795	1 825	1.7	3.7
11	Automotive gasoline (megalitres)											
	Original	4 251	4 433	4 602	4 612	4 462	4 437	4 473	4 345	n.y.a.	-2.9	-5.8
	Seasonally adjusted	4 347	4 519	4 508	4 547	4 554	4 557	4 360	4 272	n.y.a.	-2.0	-6.1
10	Trend	4 476	4 471	4 507	4 559	4 557	4 498	4 396	4 303	n.y.a.	-2.1	-5.6
12	Fuel oil (megalitres) Original	396	424	372	359	336	377	369	295	nvo	-20.1	-17.8
	Seasonally adjusted		424 n.p.	572 n.p.	359 n.p.				295 n.p.	n.y.a.	-20.1 n.p.	
	Trend	n.p. 429	400	11.p. 376	362	n.p. 356	n.p. 356	n.p. 348	333	n.p. n.y.a.	-4.2	n.p. -7.8
13	Aviation turbine fuel (megalitres)(d)	120	100	0.0	002	000	000	0.0	500			1.5
-	Original	1 290	1 321	1 262	1 305	1 372	1 366	1 106	1 131	n.y.a.	2.3	-13.3
	Seasonally adjusted	1 258	1 295	1 306	1 320	1 339	1 336	1 146	1 146	n.y.a.	_	-13.2
	Trend	1 264	1 288	1 309	1 335	1 333	1 281	1 205	1 147	n.y.a.	-4.9	-14.1

. . . . .

. . . . . . . . . . . . . . . . . .

(a) Users should note that the seasonally adjusted and trend estimates have been revised. Generally, the most recent trend estimates published in this release are likely to be improved (revised) when next quarter's seasonally adjusted estimates become available. For more information, users should refer to paragraphs 12–16 of the Explanatory Notes.

(c) The volatility in the original series over the last two years due to the introduction of the Goods and Services Tax and the First Home Owners Grant means that the seasonally adjusted and trend figures should be interpreted with caution.

(d) A trend break for December quarter 2001 has been included in this series, due to an abnormal movement in the original series for that quarter. The large downward movement in the original series has caused some uncertainty in the trend estimates from June quarter 2003. A longer span of data is required before the effects of the changes in this industry, and hence the final trend for this series, can be determined.

(b) Due to an abnormal movement in the original series for September quarter 2001, the trend has been modified to remove the effect. See also paragraphs 15–17 of the Explanatory Notes.

## QUARTERLY COMMODITY PRODUCTION: All series(a) continued

. . . . . . . . . . . . . . .

											Percentage between lat	est
		2001	2002				2003				quarter sho	wn and
												same
											prev.	quarter
No.	Item and unit/Series	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	quarter	prev. year
											•	
•••	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • •	• • • • • •	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • • •		• • • • • •	•••••	• • • • • •
14	Automotive diesel oil (megalitres)											
	Original	3 213	3 241	3 206	3 356	3 396	3 280	3 303	2 983	n.y.a.	-9.7	-11.1
	Seasonally adjusted	3 151	3 270	3 234	3 403	3 279	3 367	3 337	2 966	n.y.a.	-11.1	-12.9
45	Trend <b>Portland cement</b> ('000 tonnes)(b)	3 257	3 232	3 274	3 326	3 346	3 338	3 307	3 279	n.y.a.	-0.8	-1.4
15	. , , , ,	4 000	4 700	1 000	0.020	1 978	4 047	1 892	0.007	0.000	4.0	17.0
	Original Seasonally adjusted	1 836 1 764	1 729 1 916	1 992 1 947	2 030 1 952	1978	1 617 1 788	1 892	2 227 2 146	2 329 2 265	4.6 5.5	17.8 19.0
	Trend	1 7 7 1	1 881	1 947	1 952 1 942	1 904 1 868	1 834	1 920	2 082	2 205	5.5 8.3	20.7
16	Clay bricks (million)	1111	1 001	1 954	1 942	1 000	1 034	1 920	2 082	2 200	0.5	20.7
10	Original	380	356	411	422	415	389	417	449	409	-8.9	-1.5
	Seasonally adjusted	379	388	411	422	413	422	417	449	409	-3.2	-1.5
	Trend	379	389	398	400	411	422	411	423	410	-0.7	-0.2
17	<b>Ready mixed concrete</b> ('000 m <sup>3</sup> )	514	505	550	405	411	410	410	410	414	-0.7	0.0
	Original	4 896	4 523	5 148	5 570	5 433	4 787	5 213	5 903	5 541	-6.1	2.0
	Seasonally adjusted	4 794	4 991	5 104	5 209	5 342	5 226	5 213	5 531	5 478	-1.0	2.0
	Trend	4 814	4 970	5 117	5 2 3 0	5 257	5 265	5 316	5 412	5 517	2.0	5.0
18	Alumina ('000 tonnes)	+01+	+ 510	5 117	0 200	5 251	0 200	0.010	0 412	0.011	2.0	0.0
_0	Original	4 149	4 077	4 072	4 161	4 072	4 013	4 161	4 125	n.y.a.	-0.9	-0.9
	Seasonally adjusted	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
	Trend	4 129	4 127	4 100	4 075	4 083	4 102	4 106	4 104	n.y.a.		0.7
19	Zinc ('000 tonnes)											
	Original	146	139	142	140	144	146	140	141	n.y.a.	0.7	0.7
	Seasonally adjusted	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
	Trend	144	143	141	141	143	145	143	140	n.y.a.	-2.1	-0.6
20	Silver (tonnes)									<b>,</b>		
	Original	156	147	159	159	179	179	155	159	n.y.a.	2.6	
	Seasonally adjusted	152	149	159	162	174	180	157	161	n.y.a.	2.7	-0.3
	Trend	152	154	156	166	172	171	166	159	n.y.a.	-3.9	-3.9
21	Copper ('000 tonnes)									-		
	Original	137	142	137	123	143	127	139	121	n.y.a.	-12.9	-1.6
	Seasonally adjusted	139	147	133	122	144	131	135	120	n.y.a.	-11.2	-1.5
	Trend	142	141	140	141	140	136	130	123	n.y.a.	-4.9	-12.3
22	Lead ('000 tonnes)(c)											
	Original	70	69	71	58	70	69	70	69	n.y.a.	-1.4	19.0
	Seasonally adjusted	69	70	70	59	69	70	69	70	n.y.a.	1.8	18.8
	Trend	69	70	69	68	69	69	70	70	n.y.a.	_	1.7
23	Tin (tonnes)											
	Original	187	193	183	218	197	136	157	166	n.y.a.	5.7	-23.9
	Seasonally adjusted	217	185	163	216	227	129	136	164	n.y.a.	0.8	-17.2
	Trend	224	185	165	153	141	137	141	151	n.y.a.	6.5	-1.6
24	Gold (tonnes)(d)											
	Original	88	86	88	84	92	114	96	101	n.y.a.	5.2	20.2
	Seasonally adjusted	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
	Trend	86	85	86	89	91	95	99	103	n.y.a.	3.9	16.1
25	Electricity (million kWh)											
	Original	45 977	45 814		48 462	46 459	46 159	46 128		46 261	-4.9	-0.4
	Seasonally adjusted	46 800	46 586		46 896	47 285	46 869	46 290		46 924	-0.5	-0.8
	Trend	46 383	46 654	46 835	46 997	47 010	46 840	46 738	46 804	46 980	0.4	-0.1
26	Gas (petajoules)											
	Original	185	166	204	228	186	172	204	232	188	-18.8	1.0
	Seasonally adjusted	199	190	194	199	200	196	195	203	202	-0.6	0.9
	Trend	193	193	195	197	198	197	198	200	203	1.4	2.0

(a) Users should note that the seasonally adjusted and trend estimates have been revised. Generally, the most recent trend estimates published in this release are likely to be improved (revised) when next quarter's seasonally adjusted estimates become available. For more information, users should refer to paragraphs 12-16 of the Explanatory Notes.

(c) Due to abnormal movements in the original series for December quarter 2000 and June quarter 2001, the trend has been modified to remove these effects. See also paragraphs 15–17 of the Explanatory Notes.

(b) The large upward movement in the original series driven by an increase in demand in the building industry has caused some uncertainty in the trend estimates from September quarter 2003. A longer span of data is required before the effects of the changes in this industry, and hence the final trend for this series, can be determined.

(d) Due to an abnormal movement in the original series for June quarter 2001, the trend has been modified to remove the effect. See also paragraphs 14-16 of the Explanatory Notes.

ABS • MANUFACTURING PRODUCTION • 8301.0 • DECEMBER QUARTER 2003

# EXPLANATORY NOTES

#### INTRODUCTION

SCOPE AND COVERAGE

**1** This publication presents quarterly estimates of production of selected major manufacturing commodities for Australia.

**2** Data presented in this publication are collected from a number of different sources. The prime source is the ABS surveys of manufacturing production. Data are also obtained from surveys undertaken by the Department of Industry, Tourism and Resources (DITR), the Australian Bureau of Agricultural and Resource Economics (ABARE), Dairy Australia and from ABS agriculture collections. Scope and coverage varies slightly depending on the source of the information.

**3** Production statistics sourced from ABS manufacturing production surveys are not collected from single establishment manufacturing businesses with fewer than four persons employed, nor from establishments predominantly engaged in non-manufacturing activities but which may carry out some manufacturing in a minor way. 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.

**4** The statistics on meat production include data collected from abattoirs and other major slaughtering establishments, plus estimates of animals slaughtered for human consumption on farms and by country butchers and other small slaughtering establishments. Further information about this series, including more detail, is available in the monthly publication *Livestock and Meat*, *Australia–Electronic Publication* (cat. no. 7218.0.55.001) and in the quarterly publication *Livestock Products, Australia* (cat. no. 7215.0).

**5** The statistics on chicken meat production have been collected from commercial poultry slaughtering establishments. Many very small producers and Tasmanian producers are excluded from the collection; however, the statistics represent a high level of coverage. Further information about this series, including more detail, is available in the quarterly publication *Livestock Products, Australia* (cat. no. 7215.0).

**6** Data on the production of base metals and sawn timber are obtained from the ABARE publications *Mineral Statistics* and *Australian Forest and Wood Products Statistics*.

**7** Data on the production of fuels are obtained from the DITR Petroleum and International Energy Division publication *Australian Petroleum Statistics*.

**8** Data on the production of cheese and butter are obtained from Dairy Australia as unpublished data.

#### COMPARABILITY WITH OTHER ESTIMATES

**9** The quarterly production statistics presented in this publication account, in total, for less than one-fifth of the output of the manufacturing sector. For information on general trends in the manufacturing sector, refer to the publications shown in paragraphs 10, 11 and 19.

#### COMPARABILITY WITH OTHER ESTIMATES continued

**10** Details of the value of manufacturers' sales and inventories are published quarterly in *Business Indicators, Australia* (cat. no. 5676.0) (which has replaced *Inventories and Sales, Selected Industries, Australia* (cat. no. 5629.0)). Information about the manufacturing sector's contribution to the Australian economy is published quarterly in *Australian National Accounts: National Income, Expenditure and Product* (cat. no. 5206.0).

**11** Details from the annual manufacturing collection are published in *Manufacturing Industry, Australia* (cat. no. 8221.0) and corresponding state publications.

#### SEASONALLY ADJUSTED AND TREND ESTIMATES

**12** In the seasonal adjustment process, 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 quarter) which may, in successive years, affect figures for different quarters. Details of the methods used in seasonally adjusting these series are available on request.

**13** Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular quarter, such as the non-systematic effect of strikes, holiday shutdowns, providers' inconsistent reporting periods (where, for example, a 'quarter' may variously represent 13 or 14 weeks production), 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. Seasonally adjusted estimates of production for the series 8 Wood pulp, 14 Automotive diesel oil, 20 Silver, 21 Copper, 22 Lead and 23 Tin are more volatile than other series. Seasonally adjusted estimates for 7 Newsprint, 10 Hardwood woodchips, 18 Alumina and 19 Zinc are not sufficiently reliable to be published, while those for 12 Fuel oil and 24 Gold do not exhibit sufficient seasonal behaviour to be published.

**14** From September quarter 2003, the seasonally adjusted estimates are produced by the concurrent seasonal adjustment method which takes account of the latest available original estimates. The concurrent method improves the estimation of seasonal factors, and therefore, the seasonally adjusted and trend estimates for the current and previous quarters. As a result of this improvement, revisions to the seasonally adjusted and trend estimates will be observed for recent periods. The estimates that will improve the most will be for the current quarter, previous quarter and the same quarter one year ago. The concurrent seasonal adjustment methodology replaces the forward factor methodology previously used to adjust Manufacturing Production series, where seasonal factors were only revised following an annual reanalysis.

**15** 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 7-term moving average to the quarterly seasonally adjusted series. The 7-term Henderson averages (like all Henderson averages) are symmetric but, as the end of a time series is approached, asymmetric forms of the average are applied. Unlike the weights of the standard 7-term Henderson moving average, the surrogate weights employed with the quarterly data have been tailored to suit the particular characteristics of individual series.

# EXPLANATORY NOTES continued

### SEASONALLY ADJUSTED AND TREND ESTIMATES continued

	<b>16</b> While the asymmetric weights enable trend estimates for recent quarters to be produced, it does result in revisions to the estimates for the most recent quarters as additional observations become available. Generally, subsequent revisions become smaller and after two quarters have little impact on the series. There will also be revisions as a result of changes to the original estimates and annual reviews of seasonal and 'working day' factors.
	<b>17</b> More detailed up-to-date information on smoothing of seasonally adjusted time series data is available in unpublished form. Interested users should contact the ABS's Time Series Analysis section, on Canberra 02 6252 6345 or by email to <timeseries@abs.gov.au>.</timeseries@abs.gov.au>
ACKNOWLEDGEMENT	
	<b>18</b> ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the <i>Census and Statistics Act 1905</i> .
RELATED PUBLICATIONS	
	<ul> <li><b>19</b> Other ABS publications which may be of interest are:</li> <li>Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0) Quarterly</li> <li>Business Indicators, Australia (cat. no. 5676.0) Quarterly</li> <li>Electricity, Gas, Water and Sewerage Industries, Australia, 1999–2000 (cat. no. 8208.0)</li> <li>Experimental Estimates, Australian Industry, a State Perspective (cat. no. 8156.0)</li> <li>Livestock and Meat, Australia–Electronic Publication (cat. no. 7218.0.55.001) Monthly</li> <li>Livestock Products, Australia (cat. no. 7215.0) Quarterly</li> <li>Manufacturing, Australia, 2001 (cat. no. 8225.0)</li> <li>Manufacturing Industry, Australia, Preliminary, 2000–01 (cat. no. 8201.0)</li> <li>Mining Operations, Australia, 2000–2001 (cat. no. 8415.0)</li> <li>Information Paper: Availability of Statistics Related to Manufacturing, 1997 (cat. no. 8205.0)</li> </ul>
OTHER PUBLISHED STATISTICS	
	<b>20</b> Some annual manufacturing production series which mainly relate to textiles, clothing and footwear are now published in the September quarter issues of this publication. Selected annual food series (which are now collected

less frequently) were last published in the September quarter 2000 issue.

#### ABS DATA AVAILABLE ON REQUEST

**21** More detailed and other commodity items are collected by the ABS and are available to users on request and for a charge. Items for which additional production data are available are:

#### beer

cars and station wagons clay bricks (for structural purposes) clay bricks (for other than structural purposes) commercial office furniture concrete bricks, blocks and pavers cotton broadwoven fabric hosierv knitted sweatshirts and sloppy-joes knitted underwear malt man-made fibre broadwoven fabric men's and boys' long trousers men's and boys' shirts men's and boys' woven coats mowers other clothing (excluding those listed here) plasterboard Portland cement and cement clinkers ready mixed concrete roofing tiles semi-trailers synthetic fibre yarn textile floor coverings water heaters women's knitted briefs and panties women's shirts and blouses women's footwear wool broadwoven fabric wool yarn

For further information, please contact Graeme Thomas on Adelaide 08 8237 7536.

**22** The value of sales for commodities produced (classified in accordance with the Manufacturing Input-Output Commodity Classification) is collected in the annual manufacturing industry survey, and is available to users on request and for a charge. For further information, please contact John Ridley on Sydney 02 9268 4541.

#### CURRENT PUBLICATIONS

**23** Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <a href="http://www.abs.gov.au">http://www.abs.gov.au</a>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

## APPENDIX CLARIFICATION OF TERMS

1 Red meat	Includes veal, pork and buffalo.
2 Chicken meat	Expressed in the dressed weight of whole birds, pieces and giblets.
3 Cheese	Includes fresh cheeses such as ricotta, cottage, cream and quark.
4 Butter	Includes direct butter oil.
5 Beer	Includes ale, stout and porter; excludes low alcohol beer containing less than 1.15% but more than 0.5%, by volume of alcohol.
6 Tobacco and cigarettes	Includes those containing tobacco substitutes.
7 Newsprint	Excludes directory paper, mechanical and printing paper.
8 Wood pulp	Expressed as air-dried weight.
9 Undressed sawn timber	Expressed in terms of green off saw volumes.
10 Hardwood woodchips	Expressed as greenweight; excludes chips which are not sold or are used in own works.
11 Automotive gasoline	Produced by Australian refineries from imported and indigenous petroleum.
12 Fuel oil	Oils derived from the distillation of petroleum which are generally used for domestic heating or fuelling furnaces; produced by Australian refineries from imported and indigenous petroleum.
13 Aviation turbine fuel	Produced by Australian refineries from imported and indigenous petroleum.
14 Automotive diesel oil	Produced by Australian refineries from imported and indigenous petroleum.
15 Portland cement	Includes blended Portland cement. Excludes both Portland cement clinker and Portland cement used to make blended Portland cement in-house.
16 Clay bricks	Saleable bricks (of all sizes) removed from kiln; excludes firebricks and bricks for other than structural purposes.
17 Ready mixed concrete	Excludes production used or for use within the same business.
18 Alumina	Aluminium oxide.
19 Zinc	Primary origin only.
20 Silver	Refined.
21 Copper	Primary origin only.
22 Lead	Includes lead content of lead from primary sources.
23 Tin	Primary origin only.
24 Gold	From primary and secondary sources.
25 Electricity	Excludes purchases or transfers in of electricity.
26 Gas	Gas (including natural gas) available for issue through mains, including gas production for distribution via natural gas pipelines which service a single user.

# FOR MORE INFORMATION...

INTERNET	<b>www.abs.gov.au</b> the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
LIBRARY	A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
CPI INFOLINE	For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).

DIAL-A-STATISTIC For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

### INFORMATION SERVICE

	Data which have been published and can be provided within five minutes are free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user-pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.
PHONE	1300 135 070
EMAIL	client.services@abs.gov.au
FAX	1300 135 211
POST	Client Services, ABS, GPO Box 796, Sydney 2001

# WHY NOT SUBSCRIBE?

ABS subscription services provide regular, convenient and prompt deliveries of ABS publications and products as they are released. Email delivery of monthly and quarterly publications is available.

PHONE	1300 366 323
EMAIL	subscriptions@abs.gov.au
FAX	03 9615 7848
POST	Subscription Services, ABS, GPO Box 2796Y, Melbourne 3001

© Commonwealth of Australia 2004



ISSN 1323-3645

RRP \$19.00

8301.0 • MANUFACTURING PRODUCTION, AUSTRALIA • December Quarter 2003