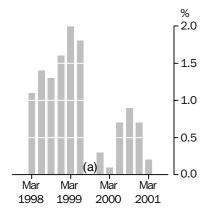
AUSTRALIA

# INVENTORIES AND SALES, SELECTED INDUSTRIES

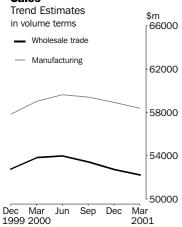
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## **Inventories % change**

Trend Estimates in volume terms



#### Sales



 For further information about these and related statistics, contact Karen Young on 02 9268 4165, or the National Information Service on 1300 135 070.

## MARCH QTR KEY FIGURES

## TREND(b)

	Mar 2000	Dec 2000	Mar 2001	Dec 2000 to Mar 2001	Mar 2000 to Mar 2001
	\$m	\$ <i>m</i>	\$ <i>m</i>	% change	% change
Inventories Sales	84 829	86 811	87 015	0.2	2.6
Manufacturing (c)	59 022	58 917	58 385	-0.9	-1.1
Wholesale trade	53 837	52 736	52 206	-1.0	-3.0

#### SEASONALLY ADJUSTED(b)

		Mar 2000	Dec 2000	Mar 2001	Dec 2000 to Mar 2001	Mar 2000 to Mar 2001
		\$ <i>m</i>	\$m	\$m	% change	% change
lην	entories	84 869	87 614	86 229	-1.6	1.6
Sa	les					
	Manufacturing (c)	59 160	58 812	58 407	-0.7	-1.3
	Wholesale trade	53 818	51 895	52 804	1.8	-1.9

- (a) A break in series occurred in Wholesale Trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.
- (b) Estimates for private businesses, in volume terms.
- (c) The Manufacturers' sales series has been replaced. See page 2 for details.

## MARCH QTR KEY POINTS

#### INVENTORIES

- The trend estimate (in volume terms) of inventories held by private businesses for the March quarter 2001 is \$87,015m, an increase of \$204m (0.2%) from the revised December quarter 2000 estimate of \$86,811m. The rate of growth has decreased in the past two quarters, but the March quarter 2001 estimate is 2.6% higher than the March quarter 2000 estimate.
- The increase in inventories in March quarter 2001 has been driven by Retail trade (up \$485m, 2.4%), continuing the increases reported in the previous three quarters. However, this increase has been partially offset by the decrease in Wholesale trade (down \$145m, -0.5%), continuing the decrease in the rate of growth in the previous two quarters.

## SALES

Trend estimates for Wholesale trade and Manufacturing sales decreased by 1.0% and 0.9% respectively in the March quarter 2001. Growth rates for both industries have been in decline in the past three quarters.

## NOTES

FORTHCOMING ISSUES

ISSUE (Quarter) RELEASE DATE

June 2001 10 September 2001

September 2001 3 December 2001

CHANGES TO THIS ISSUE

As advised in previous issues, from March quarter 2001, the Manufacturers' sales series has been replaced by a new series - Manufacturing sales - comprising income from sales of goods and services for the manufacturing industry. In addition to sales of goods manufactured by the business, the new series includes sales by manufacturing businesses of other goods as well as income from services, and is consistent with the estimates for Wholesale trade sales and the experimental estimates of income from sales of goods and services for the service industries included in this publication. The new series is available in original and (reanalysed) seasonally adjusted and trend forms, in both current price and chain volume terms, back to June quarter 1984.

For level estimates there are significant differences between the old and new series. However, the movement estimates for the two series are broadly similar. For the December quarter 2000, the new series is 14.1% greater than the old in original terms, and 14.0% greater in seasonally adjusted terms. The movement in the December quarter 2000 on the new basis is 0.8 percentage points greater than on the old basis in original terms, and 0.8 percentage points greater in seasonally adjusted terms. At the industry subdivision level, the impact on level estimates is most pronounced for Printing, publishing and recorded media; Machinery and equipment; Other manufacturing; and Textiles, clothing, footwear and leather.

CHANGES IN
FORTHCOMING ISSUES

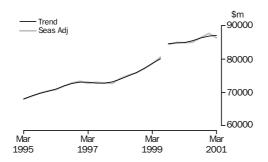
The ABS is implementing some major changes to selected ABS quarterly business indicators, which will impact on the statistics presented in this publication. These changes will improve the consistency and coherence of these statistics, particularly for the purposes of compiling the quarterly Australian National Accounts. Details will be provided in the information paper *Improvements to ABS Quarterly Business Indicators* (ABS Cat. no. 5677.0) to be released shortly.

One of the changes is that inventories data will not be collected from businesses with less than 20 employees from the June quarter 2001. Instead, estimates will be derived using quarterly sales information for small businesses and an estimated sales to inventories ratio. This change is being made because it has been demonstrated that smaller businesses have difficulty in providing accurate quarterly information on the level of their inventories.

The estimated sales to inventories ratio will be based on data from the current quarter for medium sized businesses, and benchmarked to data from the annual Economic Activity Survey for small businesses. Investigations indicate that this technique produces estimates of inventories of sufficient quality, and the change from the directly collected to the estimated series will not have a significant impact on the time series.

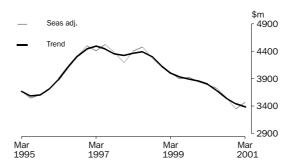
Dennis Trewin Australian Statistician ALL SELECTED INDUSTRIES(b)

The rate of growth in the trend estimate (in volume terms) of inventories held by private businesses has slowed in the past two quarters.



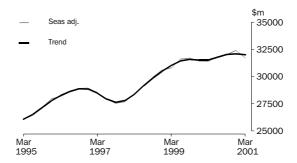
MINING

The trend estimate for Mining inventories has continued to fall from the most recent peak in June quarter 1998. Mining inventories are at the lowest level since December quarter 1989, however the rate of decline has slowed in the last two quarters.



MANUFACTURING

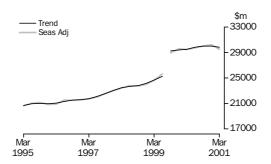
The rate of growth in the trend estimate for Manufacturing inventories has decreased in the past two quarters following small increases in the previous two quarters. The major contributors to the decrease in March quarter 2001 were Machinery and equipment (down \$77m, -0.9%) and Non-metallic mineral product (down \$56m, -4.7%). The current trend estimate for Manufacturing inventories is slightly higher than March quarter 2000 (up 1.5%).



- (a) Reference year for chain volume measures is 1998–1999.
- (b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.

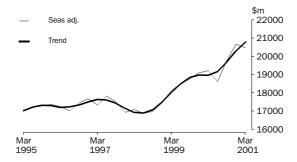
WHOLESALE TRADE(b)

The rate of growth in the trend estimate for Wholesale trade inventories has decreased in the past three quarters, and the current estimate is relatively unchanged from the March quarter 2000 (up 1.0%).



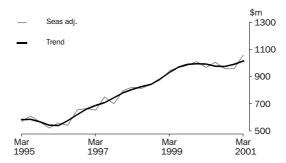
RETAIL TRADE

After decreasing slightly in March quarter 2000, inventories held by the Retail trade have been increasing over the last four quarters with trend growth rates of 1.1%, 2.7%, 3.1% and 2.4% recorded. The current estimate for Retail trade inventories is \$1,809m (9.5%) higher than the March quarter 2000 estimate.



OTHER SELECTED INDUSTRIES (Electricity and gas supply; accommodation, cafes and restaurants)

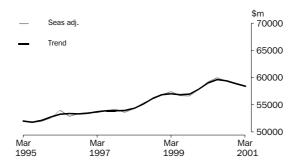
The trend estimate for inventories held by Other selected industries have increased in the past two quarters following small decreases in the previous three quarters. The current estimate of 1.015m is 23m (2.3%) higher than the March quarter 2000 and 85m (9.1%) higher than March quarter 1999.



- (a) Reference year for chain volume measures is 1998–1999.
- (b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.

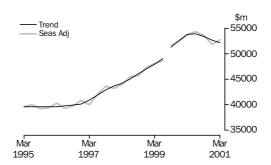
MANUFACTURING SALES

The trend estimate for Manufacturing sales has decreased in the past three quarters. The major contributors to the decrease in the March quarter 2001 were Machinery and equipment (down \$258m, -2.0%), Non-metallic mineral product (down \$128m, -4.2%), and Wood and paper products (down \$113m, -3.3%).



WHOLESALE TRADE SALES(b)

Wholesale trade sales have decreased in the past three quarters following three successive increases since the trend break in September quarter 1999.



- (a) Reference year for chain volume measures is 1998–1999.
- (b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.



# INVENTORIES, By Industry—Current prices

	Mining	Manufacturing	Wholesale trade(a)	Retail trade	Other selected industries(b)	Total selected industries(a)
At end of	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
			ORIGINA	AL .		
June 1998	4 508	29 405	23 457	16 418	757	74 546
June 1999	3 857	31 185	24 966	18 197	937	79 141
June 2000	4 188	33 914	29 572	18 663	1 024	87 361
1998–1999						
March	3 951	31 015	24 493	18 322	941	78 721
June	3 857	31 185	24 966	18 197	937	79 141
1999-2000						
September	4 052	31 524	27 750	18 940	981	83 246
December	4 104	31 361	30 686	19 627	1 136	86 914
March	4 195	33 160	30 062	19 682	1 007	88 106
June	4 188	33 914	29 572	18 663	1 024	87 361
2000–2001						
September	4 179	34 525	30 505	19 450	959	89 619
December	4 004	34 709	33 813	20 763	1 074	94 363
March	4 052	35 289	32 340	20 683	1 107	93 470
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		DUIGTED	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
			SEASONALLY A	DJUSTED		
June 1998	4 534	29 333	23 812	16 782	790	75 251
June 1999	3 874	31 109	25 554	18 595	980	80 112
June 2000	4 203	33 847	30 352	19 068	1 071	88 541
1000 1000						
1998–1999	2.052	20,600	04.044	10.000	OF 4	70 505
March	3 952	30 608	24 811	18 200	954	78 525
June	3 874	31 109	25 554	18 595	980	80 112
<b>1999–2000</b> September	4 026	31 541	28 029	18 946	1 007	83 549
December	4 113	31 847	29 262	19 343	1 049	85 614
March	4 196	32 705	29 550	19 539	1 022	87 012
June	4 203	33 847	30 352	19 068	1 071	88 541
2000–2001	4 203	33 041	30 332	13 000	10/1	00 341
September	4 152	34 542	31 041	19 464	985	90 184
December	4 013	35 260	32 303	20 464	990	93 030
March	4 053	34 792	31 921	20 526	1 124	92 416
• • • • • • • • • •		• • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • •		• • • • • • • • •
			TREND ESTI	MATES		
June 1998	4 452	29 418	23 796	16 766	808	75 240
June 1999	3 925	31 065	25 529	18 602	984	80 105
June 2000	4 189	33 761	30 331	19 342	1 026	88 649
<b>1998–1999</b> March	3 957	30 832	24 882	18 080	939	78 691
			24 883			
June <b>1999–2000</b>	3 925	31 065	25 529	18 602	984	80 105
September	3 997	31 429	28 300	19 031	1 013	83 770
December	4 110	32 000	28 997	19 284	1 035	85 426
March	4 110	32 772	29 635	19 305	1 046	86 949
June	4 189	33 761	30 331	19 342	1 026	88 649
2000–2001	4 103	00.101	30 331	10 042	1 020	00 043
September	4 133	34 522	31 238	19 648	1 014	90 555
December	4 069	34 946	31 829	20 142	1 030	92 016
March	4 015	35 138	32 237	20 671	1 065	93 126
	-					•

<sup>(</sup>a) A break in series occurred in Wholesale trade between the June (b) Includes Electricity and gas supply and Accommodation, cafes and and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.

restaurants.



# INVENTORIES, By Industry—Chain volume measures(a)

	Mining	Manufacturing	Wholesale trade(b)	Retail trade	Other selected industries(c)	Total selected industries(b)
At end of	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	ODIOINI	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
			ORIGINA	AL.		
June 1998	4 450	29 243	23 457	16 512	777	74 457
June 1999	3 881	31 690	25 244	18 075	925	79 816
June 2000	3 707	31 886	29 453	18 223	960	84 229
1998–1999						
March	4 007	31 212	24 526	18 255	931	78 932
June	3 881	31 690	25 244	18 075	925	79 816
1999-2000						
September	3 952	31 673	28 411	18 754	959	83 748
December	3 840	30 945	31 921	19 369	1 094	87 169
March	3 790	31 832	30 536	19 348	953	86 459
June	3 707	31 886	29 453	18 223	960	84 229
2000–2001	0 101	01 000	20 100	10 220	300	01220
September	3 571	31 978	29 871	19 771	935	86 126
December	3 338	31 895	32 641	20 969	1 039	89 882
March	3 471	32 122	30 590	20 619	1 041	87 844
Maich	3 4/1	32 122	30 390	20 019	1 041	67 644
• • • • • • • • • • • •	• • • • • • • • • • •		SEASONALLY A	DIUSTED	• • • • • • • • • • • • • • • •	• • • • • • • • •
			OLMOOTIMELT M	5,00125		
June 1998	4 475	29 166	23 811	16 878	812	75 161
June 1999	3 898	31 608	25 629	18 470	968	80 573
June 2000	3 721	31 804	29 749	18 619	1 005	84 898
1998–1999						
March	4 009	30 801	24 650	18 133	943	78 542
June	3 898	31 608	25 629	18 470	968	80 573
1999–2000	0 000	01 000	20 020	20 110	000	000.0
September	3 926	31 695	28 957	18 760	984	84 322
December	3 848	31 421	29 571	19 088	1 010	84 938
March	3 791	31 400	29 503	19 207	968	84 869
June	3 721	31 804	29 749	18 619	1 005	84 898
2000–2001	0 121	01 00 1	20 1 10	10 010	1 000	04 030
September	3 548	32 002	30 061	19 785	959	86 356
December	3 346	32 402	30 243	20 667	958	87 614
March	3 472	31 680	29 557	20 462	1 057	86 229
March	3412	31 080	29 331	20 402	1037	86 229
• • • • • • • • • • • •			TREND ESTI	MATES	• • • • • • • • • • • • • • • •	• • • • • • • • •
luna 1000	4.200	20.405	22.662	46.000	925	74.007
June 1998	4 390	29 165	23 682	16 888	825	74 967
June 1999	3 933	31 436	25 274	18 479	970	80 092
June 2000	3 679	31 770	29 845	19 165	976	85 435
1998–1999						
March	4 000	31 031	24 721	18 025	930	78 712
June	3 933	31 436	25 274	18 479	970	80 092
1999-2000						
September	3 893	31 579	29 262	18 845	989	84 567
December	3 858	31 531	29 418	18 978	994	84 779
March	3 801	31 507	29 565	18 965	992	84 829
June	3 679	31 770	29 845	19 165	976	85 435
2000–2001		•			- · · ·	22 100
September	3 547	32 029	29 991	19 688	973	86 228
December	3 444	32 090	29 999	20 289	989	86 811
March	3 381	31 991	29 854	20 774	1 015	87 015
Maion	3 331	01 001	25 054	20114	1 010	01 013

<sup>(</sup>a) Reference year for chain volume measures is 1998–1999.

<sup>(</sup>c) Includes Electricity and gas supply and Accommodation, cafes and restaurants.

<sup>(</sup>b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.



# PERCENTAGE CHANGES IN INVENTORIES, By Industry—Chain volume measures(a)

	Mining	Manufacturing	Wholesale trade(b)	Retail trade	Other selected industries(c)	Total selected industries(b)
Year to/Quarter to	%	%	%	%	%	%
• • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	ORIGIN	IAL	• • • • • • • • • • • • • • • • • • • •	• • • • • • •
June 1998	-0.8	4.2	8.1	-5.3	7.8	2.8
June 1999	-12.8	8.4	7.6	9.5	19.0	7.2
June 2000	-4.5	0.6	16.7	0.8	3.8	5.5
1998–1999						
March	-2.5	3.7	1.1	2.9	-1.6	2.3
June	-3.1	1.5	2.9	-1.0	-0.5	1.1
1999-2000						
September	1.8	-0.1	12.5	3.8	3.6	4.9
December	-2.8	-2.3	12.4	3.3	14.1	4.1
March	-1.3	2.9	-4.3	-0.1	-12.9	-0.8
June	-2.2	0.2	-3.5	-5.8	0.7	-2.6
2000-2001						
September	-3.7	0.3	1.4	8.5	-2.7	2.3
December	-6.5	-0.3	9.3	6.1	11.1	4.4
March	4.0	0.7	-6.3	-1.7	0.2	-2.3
• • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • •
			SEASONALLY	ADJUSTED		
June 1998	-1.0	4.3	8.1	-5.3	7.9	2.8
June 1999	-12.9	8.4	7.6	9.4	19.2	7.2
June 2000	-4.6	0.6	16.1	0.8	3.8	5.4
340 2000						
1998–1999						
March	-2.6	0.7	2.6	3.8	7.9	1.9
June	-2.8	2.6	4.0	1.9	2.6	2.6
1999–2000						
September	0.7	0.3	13.0	1.6	1.7	4.7
December	-2.0	-0.9	2.1	1.8	2.7	0.7
March	-1.5	-0.1	-0.2	0.6	-4.2	-0.1
June	-1.9	1.3	0.8	-3.1	3.9	0.0
2000-2001						
September	-4.6	0.6	1.0	6.3	-4.6	1.7
December	-5.7	1.2	0.6	4.5	-0.1	1.5
March	3.8	-2.2	-2.3	-1.0	10.4	-1.6
• • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •	• • • • • • • •
			TREND EST	IMAIES		
June 1998	-1.2	4.3	7.1	-4.0	16.5	3.0
June 1999	-10.4	7.8	6.7	9.4	17.5	6.8
June 2000	-6.5	1.1	18.1	3.7	0.7	6.7
1998–1999						
March	-3.2	1.8	2.3	3.0	5.3	2.0
June	- <b>1.</b> 7	1.3	2.2	2.5	4.2	1.8
1999–2000		1.0		2.0	1.4	2.0
September	-1.0	0.5	n.p.	2.0	2.0	n.p.
December	-0.9	-0.2	0.5	0.7	0.5	0.3
March	-1.5	-0.1	0.5	-0.1	-0.2	0.1
June	-3.2	0.8	0.9	1.1	-1.6	0.7
2000–2001	J.2	0.0	0.0	±1.±	1.0	0.1
September	-3.6	0.8	0.5	2.7	-0.4	0.9
December	-2.9	0.2	0.0	3.1	1.7	0.7
March	-1.8	-0.3	-0.5	2.4	2.6	0.2
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<sup>(</sup>a) Reference year for chain volume measures is 1998–1999.

<sup>(</sup>c) Includes Electricity and gas supply and Accommodation, cafes and restaurants.

<sup>(</sup>b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.



# INVENTORIES, By Manufacturing industries—Current prices

	Food,	Textiles,		Printing,	Petroleum,	Non-				
	beverage	clothing,	Wood	publishing	coal, chemical			Machinery	Other	Total
	and tobacco	footwear and leather(a)	and paper products	and recorded media	and assoc. products	mineral product	Metal product	and equipment	manu- facturing	manu– facturing
At end of	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •		• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • •	• • • • • •
				C	RIGINAL					
June 1998	6 528	1 803	2 015	882	5 569	1 138	4 427	6 330	714	29 405
June 1999	6 990	1 719	2 200	843	6 000	1 320	4 787	6 643	682	31 185
June 2000	7 731	1 532	2 143	955	6 971	1 164	4 277	8 387	755	33 914
1998–1999										
March	6 489	1 831	2 204	948	6 068	1 295	4 701	6 685	794	31 015
June	6 990	1 719	2 200	843	6 000	1 320	4 787	6 643	682	31 185
1999–2000										
September	6 811	1 646	2 100	922	6 137	1 094	4 622	7 415	777	31 524
December	6 670	1 729	2 125	865	6 243	980	4 308	7 716	725	31 361
March	7 249	1 708	2 135	900	6 922	1 082	4 441	7 917	808	33 160
June	7 731	1 532	2 143	955	6 971	1 164	4 277	8 387	755	33 914
2000–2001										
September	7 401	1 606	1 880	978	7 723	1 301	4 337	8 536	763	34 525
December	7 449	1 603	2 016	939	7 359	1 204	4 859	8 537	742	34 709
March	7 782	1 703	2 154	972	7 824	1 092	4 450	8 651	660	35 289
• • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •		• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •		
				SEASON	ALLY ADJUS	TED				
June 1998	6 278	1 811	1 990	902	5 601	1 129	4 482	6 409	731	29 333
June 1999	6 718	1 727	2 172	865	6 042	1 309	4 845	6 729	702	31 109
June 2000	7 428	1 540	2 115	981	7 024	1 155	4 328	8 498	778	33 847
1998–1999										
March	6 445	1 812	2 188	935	5 942	1 285	4 660	6 571	770	30 608
June	6 718	1 727	2 172	865	6 042	1 309	4 845	6 729	702	31 109
1999–2000										
September	6 864	1 654	2 118	916	6 115	1 086	4 595	7 425	768	31 541
December	6 948	1 729	2 151	862	6 357	1 003	4 322	7 738	737	31 847
March	7 195	1 691	2 119	885	6 775	1 074	4 399	7 786	781	32 705
June	7 428	1 540	2 115	981	7 024	1 155	4 328	8 498	778	33 847
2000–2001	- 4-0			070				0 = 40		
September	7 459	1 616	1 895	972	7 696	1 292	4 312	8 546	754	34 542
December	7 763	1 602	2 042	936	7 494	1 232	4 876	8 560	755	35 260
March	7 721	1 686	2 137	955	7 656	1 084	4 406	8 510	637	34 792
• • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • •	• • • • • •
				TREN	D ESTIMATE	S				
June 1998	6 274	1 811	1 993	927	5 641	1 177	4 461	6 390	744	29 418
June 1999	6 680	1 726	2 161	899	6 007	1 236	4 721	6 892	743	31 065
June 2000	7 376	1 606	2 048	946	7 153	1 175	4 356	8 324	777	33 761
1998–1999										
March	6 563	1 799	2 140	924	5 928	1 310	4 747	6 643	778	30 832
June	6 680	1 726	2 161	899	6 007	1 236	4 721	6 892	743	31 065
1999–2000		-	- <del>-</del>			- *	=	<del>.</del>	_	
September	6 824	1 705	2 153	878	6 159	1 121	4 590	7 264	735	31 429
December	7 010	1 687	2 144	881	6 375	1 042	4 437	7 667	757	32 000
March	7 182	1 654	2 115	912	6 742	1 067	4 308	8 021	771	32 772
June	7 376	1 606	2 048	946	7 153	1 175	4 356	8 324	777	33 761
2000-2001										
September	7 539	1 592	2 007	963	7 439	1 229	4 475	8 517	761	34 522
December	7 667	1 622	2 027	957	7 603	1 210	4 565	8 574	721	34 946
March	7 770	1 670	2 083	944	7 696	1 150	4 614	8 536	675	35 138

<sup>(</sup>a) In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.



# INVENTORIES, By Manufacturing industries—Chain volume measures(a)

	Food,	Textiles,		Printing,	Petroleum,	Non-				
	beverage	clothing,	Wood	publishing	coal, chemical			Machinery	Other	Total
	and	footwear	and paper	and recorded	and assoc.	mineral	Metal	and	manu-	manu-
	tobacco	and leather(b)	products	media	products	product	product	equipment	facturing	facturing
At end of	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •
				0	RIGINAL					
June 1998	6 477	1 804	2 032	909	5 503	1 135	4 352	6 318	730	29 243
June 1999	7 124	1 734	2 228	846	6 098	1 339	4 949	6 686	684	31 690
June 2000	7 596	1 516	2 016	956	5 644	1 146	4 091	8 182	739	31 886
1998–1999										
March	6 507	1 826	2 212	941	6 146	1 300	4 789	6 708	790	31 212
June	7 124	1 734	2 228	846	6 098	1 339	4 949	6 686	684	31 690
1999–2000										
September	6 882	1 685	2 134	930	5 912	1 104	4 810	7 439	777	31 673
December	6 636	1 780	2 122	873	5 720	985	4 432	7 677	721	30 945
March	7 175	1 732	2 051	906	5 875	1 074	4 409	7 810	800	31 832
June	7 596	1 516	2 016	956	5 644	1 146	4 091	8 182	739	31 886
2000–2001	7 000	4 500	4 740	054	0.000	4.000	4.057	0.000	744	04.070
September	7 233	1 562	1 742	951	6 060	1 263	4 057	8 368	741	31 978
December	7 190	1 538	1 847	887	5 783	1 164	4 484	8 290	712	31 895
March	7 394	1 604	1 979	905	6 099	1 052	4 117	8 346	627	32 122
• • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • •
				SEASONA	LLY ADJUST	ED				
June 1998	6 230	1 812	2 007	929	5 535	1 126	4 406	6 396	744	29 166
June 1999	6 847	1 743	2 199	868	6 141	1 328	5 010	6 772	700	31 608
June 2000	7 298	1 523	1 990	982	5 687	1 137	4 140	8 289	758	31 804
1998–1999										
March	6 463	1 807	2 195	928	6 019	1 290	4 747	6 594	766	30 801
June	6 847	1 743	2 199	868	6 141	1 328	5 010	6 772	700	31 608
1999–2000	0 047	1745	2 199	808	0 141	1 320	3 010	0112	700	31 000
September	6 935	1 694	2 152	924	5 891	1 096	4 782	7 450	771	31 695
December	6 913	1 780	2 148	870	5 824	1 008	4 446	7 698	734	31 421
March	7 121	1 715	2 035	891	5 750	1 066	4 368	7 681	773	31 400
June	7 298	1 523	1 990	982	5 687	1 137	4 140	8 289	758	31 804
2000-2001										
September	7 290	1 571	1 756	945	6 039	1 254	4 034	8 378	734	32 002
December	7 493	1 537	1 870	884	5 889	1 191	4 500	8 312	726	32 402
March	7 337	1 589	1 964	889	5 967	1 044	4 077	8 209	606	31 680
• • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •
				TREND	) ESTIMATES					
June 1998	6 222	1 806	2 005	953	5 531	1 174	4 367	6 374	752	29 165
June 1999	6 766	1 744	2 189	900	6 039	1 249	4 882	6 929	742	31 436
June 2000	7 252	1 596	1 929	941	5 800	1 154	4 181	8 157	760	31 770
1998–1999										
March	6 611	1 798	2 144	916	5 999	1 316	4 819	6 663	773	31 031
June	6 766	1 744	2 189	900	6 039	1 249	4 882	6 929	742	31 436
1999–2000										
September	6 886	1 744	2 178	886	5 962	1 134	4 769	7 283	735	31 579
December	7 004	1 729	2 130	891	5 808	1 046	4 543	7 625	754	31 531
March	7 105	1 677	2 045	919	5 747	1 060	4 283	7 908	762	31 507
June	7 252	1 596	1 929	941	5 800	1 154	4 181	8 157	760	31 770
2000–2001										
September	7 352	1 549	1 861	938	5 885	1 197	4 195	8 313	738	32 029
December	7 395	1 552	1 863	909	5 949	1 171	4 227	8 331	693	32 090
March	7 405	1 573	1 904	884	5 982	1 115	4 243	8 254	655	31 991

<sup>(</sup>a) Reference year for chain volume measures is 1998–1999.

<sup>(</sup>b) In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.



# PERCENTAGE CHANGES IN MANUFACTURING INVENTORIES—Chain volume measures(a)

	Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu– facturing
Year to/Quarter to	%	%	%	%	%	%	%	%	%	%
• • • • • • • • • • • •	• • • • • • • •		• • • • • • •	• • • • • • • •			• • • • • • • •	• • • • • • • •		• • • • • • •
				(	ORIGINAL					
June 1998	8.1	3.3	5.6	4.6	1.4	-14.9	5.9	5.0	15.1	4.2
June 1999	10.0	-3.9	9.7	-6.9	10.8	17.9	13.7	5.8	-6.3	8.4
June 2000	6.6	-12.6	-9.5	13.0	-7.4	-14.4	-17.3	22.4	8.1	0.6
1998–1999										
March	3.1	0.0	11.4	0.4	8.3	2.5	3.2	0.8	-4.8	3.7
June	9.5	-5.0	8.0	-10.1	-0.8	3.0	3.3	-0.3	-13.4	1.5
1999–2000				40.0		4= 0				
September	-3.4	-2.8	-4.2	10.0	-3.1	-17.6	-2.8	11.3	13.5	-0.1
December	-3.6	5.6	-0.6	-6.2	-3.2	-10.7	-7.9	3.2	-7.1	-2.3
March	8.1	-2.7	-3.3	3.8	2.7	9.0	-0.5	1.7	10.9	2.9
June	5.9	-12.5	-1.7	5.5	-3.9	6.7	-7.2	4.8	-7.6	0.2
2000–2001	4.0	2.4	12.6	0.5	7.4	10.0	0.0	0.0	0.0	0.0
September	-4.8	3.1	-13.6	-0.5	7.4	10.2	-0.8	2.3	0.2	0.3
December	-0.6	-1.6	6.0	-6.7	-4.6	-7.8	10.5	-0.9	-3.9	-0.3
March	2.8	4.3	7.2	1.9	5.5	-9.6	-8.2	0.7	-11.9	0.7
• • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •	SEASON	ALLY ADJUS	TED	• • • • • • • •	• • • • • • • •	• • • • • • • • •	•••••
June 1998	7.9	3.5	5.6	5.1	1.5	-14.8	5.9	5.1	15.7	4.3
June 1999	9.9	-3.8	9.6	-6.6	10.9	18.0	13.7	5.9	-5.9	8.4
June 2000	6.6	-12.6	-9.5	13.2	-7.4	-14.4	-17.4	22.4	8.3	0.6
1998–1999										
March	-1.6	-1.1	9.3	-0.7	4.1	-0.6	2.1	-1.2	-9.2	0.7
June	6.0	-3.6	0.2	-6.5	2.0	2.9	5.5	2.7	-8.7	2.6
1999–2000										
September	1.3	-2.8	-2.1	6.5	-4.1	-17.5	-4.5	10.0	10.2	0.3
December	-0.3	5.1	-0.2	-5.9	-1.1	-8.0	-7.0	3.3	-4.7	-0.9
March	3.0	-3.7	-5.2	2.5	-1.3	5.7	-1.8	-0.2	5.3	-0.1
June	2.5	-11.2	-2.2	10.2	-1.1	6.7	-5.2	7.9	-2.0	1.3
2000-2001										
September	-0.1	3.2	-11.7	-3.8	6.2	10.3	-2.6	1.1	-3.1	0.6
December	2.8	-2.2	6.5	-6.4	-2.5	-5.0	11.5	-0.8	-1.2	1.2
March	-2.1	3.4	5.0	0.5	1.3	-12.4	-9.4	-1.2	-16.5	-2.2
• • • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • •		• • • • • • •
				TREN	D ESTIMATE	S				
June 1998	7.8	2.0	5.4	8.2	1.6	-11.2	3.7	5.6	21.7	4.3
June 1999	8.7	-3.5	9.2	-5.5	9.2	6.4	11.8	8.7	-1.4	7.8
June 2000	7.2	-8.5	-11.9	4.6	-4.0	-7.6	-14.4	17.7	2.5	1.1
1998–1999										
March	2.5	-3.9	3.2	-1.5	2.4	2.1	3.7	1.2	-2.9	1.8
June	2.3	-3.0	2.1	-1.8	0.7	-5.1	1.3	4.0	-4.0	1.3
1999–2000										
September	1.8	0.0	-0.5	-1.6	-1.3	-9.2	-2.3	5.1	-0.9	0.5
December	1.7	-0.8	-2.2	0.6	-2.6	-7.7	-4.7	4.7	2.5	-0.2
March	1.5	-3.0	-4.0	3.1	-1.1	1.3	-5.7	3.7	1.1	-0.1
June	2.1	-4.8	-5.7	2.5	0.9	8.9	-2.4	3.1	-0.2	0.8
2000–2001		2.2	o =	6.5	4 -	c =	2.5		6.5	
September	1.4	-2.9	-3.5	-0.3	1.5	3.7	0.3	1.9	-3.0	0.8
December	0.6	0.2	0.1	-3.1	1.1	-2.2	0.7	0.2	-6.0	0.2
March	0.1	1.4	2.2	-2.8	0.6	-4.7	0.4	-0.9	-5.6	-0.3

<sup>(</sup>a) Reference year for chain volume measures is 1998–1999.



# MANUFACTURING AND WHOLESALE TRADE SALES—Current prices

	MANUE	ACTURING									WHOLESALE TRADE
	WANUFA	ACTURING									TRADE
	Food, beverage	Textiles, clothing,	Wood	Printing, publishing	Petroleum, coal,chemical	Non- metallic		Machinery	Other	Total	
	and tobacco	footwear and leather	and paper products	and recorded media		mineral product	Metal product	and equipment	manu- facturing	manu- facturing	Total wholesale(a)
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Tenou	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ	ΨΠ
• • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	ORIGINA	L	• • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • • • • • •
Year to	40.070	40.442	4.4.000	4.4.004	27.676	0.000	24 604	10 5 11	7.005	047.005	470 505
June 1998	48 078	10 113	14 282	14 931	37 676	9 863	31 604	43 541	7 205	217 295	178 535
June 1999 June 2000	48 665 51 335	10 667 9 308	14 894 17 050	15 804 16 950	37 206 39 183	11 919 10 749	33 425 34 038	46 759 52 418	7 612 7 508	226 951 238 541	189 812 214 612
Julie 2000	01 000	3 300	17 000	10 330	33 103	10 143	34 030	32 410	1 300	200 0-1	214 012
1998–1999											
March	11 582	2 544	3 427	3 897	8 810	2 856	7 731	11 008	1 865	53 720	45 085
June <b>1999–2000</b>	11 186	2 553	3 801	4 076	9 396	3 047	8 496	11 557	1 744	55 856	47 915
September	11 789	2 503	4 058	4 297	9 673	2 646	8 420	12 753	1 852	57 991	51 408
December	13 779	2 285	4 406	4 498	9 984	2 543	8 587	13 325	1 989	61 396	54 735
March	12 517	2 260	4 190	3 896	9 519	2 635	8 232	12 613	1 675	57 537	51 980
June	13 250	2 260	4 396	4 259	10 007	2 925	8 799	13 727	1 992	61 617	56 489
2000-2001											
September	14 205	2 251	3 798	4 209	11 143	3 291	8 412	14 165	1 874	63 347	56 799
December	15 887	2 246	3 601	4 080	11 264	3 061	9 365	13 873	1 889	65 266	58 836
March	13 767	2 116	3 450	3 818	10 596	2 709	8 153	12 380	1 584	58 573	54 613
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • • • • •
V				SEAS	SONALLY AD	JUSTED					
Year to June 1998	48 066	10 114	14 268	14 967	37 723	9 876	31 556	43 570	7 226	217 366	178 645
June 1999	48 691	10 690	14 884	15 802	37 173	11 893	33 464	46 795	7 634	227 025	190 403
June 2000	51 269	9 270	17 019	16 939	39 137	10 756	33 905	52 357	7 545	238 197	213 298
1998–1999											
March	12 515	2 660	3 655	4 191	9 118	2 941	8 258	11 812	2 070	57 220	47 856
June	11 750	2 549	3 760	4 107	9 338	3 073	8 357	11 557	1 837	56 328	48 135
1999–2000											
September	11 546	2 406	4 001	4 285	9 642	2 599	8 252	12 340	1 793	56 864	51 084
December	12 575	2 310	4 261	4 185	9 695	2 496	8 336	12 887	1 792	58 537	51 669
March June	13 234 13 914	2 298 2 256	4 419 4 339	4 183 4 286	9 838 9 962	2 710 2 950	8 670 8 648	13 400 13 730	1 857 2 102	60 609 62 187	54 089 56 456
2000–2001	13 914	2 230	4 339	4 280	9 902	2 930	8 048	13 730	2 102	02 187	30 430
September	14 073	2 198	3 748	4 120	11 035	3 207	8 289	13 708	1 792	62 170	55 767
December	14 471	2 252	3 486	3 818	11 048	3 044	9 237	13 405	1 662	62 423	55 782
March	14 681	2 171	3 678	4 139	11 028	2 793	8 588	13 306	1 803	62 187	57 182
• • • • • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • • • • • • • • • • • • •
Voorte				TI	REND ESTIN	1ATES					
Year to June 1998	47 926	10 181	14 240	14 881	37 628	9 974	31 743	43 620	7 159	217 352	178 347
June 1998 June 1999	48 539	10 161	14 925	15 873	37 328	11 712	33 314	46 925	7 693	217 332	190 746
June 2000	51 324	9 281	16 851	16 865	39 308	10 930	33 922	52 180	7 458	238 119	212 317
1998–1999											
1998–1999 March	12 095	2 642	3 683	4 044	9 250	3 049	8 342	11 767	1 970	56 842	47 842
June	11 853	2 543	3 787	4 186	9 362	2 900	8 271	11 862	1 904	56 668	48 472
1999–2000	500	0		50	<del>-</del>			J <b>u</b> _			- · · <del>-</del>
September	11 897	2 422	4 009	4 222	9 543	2 685	8 302	12 242	1 796	57 118	50 559
December	12 412	2 332	4 272	4 219	9 671	2 582	8 418	12 863	1 816	58 585	52 313
March	13 205	2 278	4 378	4 242	9 849	2 699	8 521	13 410	1 915	60 497	54 150
June	13 809	2 250	4 193	4 182	10 245	2 964	8 680	13 665	1 931	61 919	55 295
2000–2001											
September	14 150	2 230	3 872	4 090	10 702	3 076	8 795	13 638	1 852	62 405	56 217
December	14 436	2 211	3 628	4 011	11 026	3 031	8 853	13 487	1 759	62 442	56 305
March	14 678	2 194	3 489	3 972	11 218	2 903	8 856	13 305	1 697	62 312	56 517

<sup>(</sup>a) A break in series occurred in Wholesale trade between the June and September 1999 quarters.

See paragraphs 34 and 35 of the Explanatory Notes. ......



## MANUFACTURING AND WHOLESALE TRADE SALES—Chain volume measures(a)

	MANUFA	CTURING.									WHOLESAL TRADE
	Food, beverage and	Textiles, clothing, footwear	Wood and paper	Printing, publishing and recorded	Petroleum, coal, chemical and assoc.	Non- metallic mineral	Metal	Machinery and	Other manu-	Total manu-	Total
	tobacco	and leather		media	products	product	product	equipment	facturing	facturing	wholesale(b)
Period	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • •
ear to					ORIGIN	AL					
June 1998	48 445	10 082	14 475	15 523	36 764	9 920	31 114	43 759	7 310	217 391	176 435
June 1999	48 665	10 667	14 894	15 804	37 206	11 919	33 425	46 759	7 612	226 951	189 812
June 2000	50 653	9 255	16 730	16 249	37 743	10 708	33 104	51 761	7 323	233 527	212 469
1998–1999											
March	11 563	2 541	3 432	3 891	8 925	2 857	7 810	11 032	1 870	53 915	45 578
June	11 326	2 555	3 792	4 062	9 494	3 055	8 620	11 556	1 738	56 204	48 664
L999-2000											
September	11 813	2 513	4 022	4 131	9 579	2 642	8 464	12 702	1 822	57 687	51 932
December	13 616	2 287	4 369	4 319	9 771	2 541	8 473	13 181	1 961	60 517	54 693
March	12 336	2 229	4 091	3 735	9 088	2 619	7 888	12 435	1 631	56 051	51 427
June	12 888	2 227	4 248	4 065	9 305	2 908	8 278	13 442	1 909	59 271	54 418
2000–2001	40.000	0.000	2.000	2.004	0.000	2.004	7 000	40.070	4 700	00.070	F2 070
September	13 860	2 223	3 632	3 884	9 990	3 261	7 860	13 870	1 790	60 370	53 979
December March	15 282 13 013	2 182 2 041	3 413 3 285	3 744 3 477	9 876 9 461	3 028 2 676	8 601 7 532	13 483 11 927	1 774 1 477	61 382 54 890	54 016 50 514
Water	15 015	2 041	3 203	3 411	3 401	2010	7 332	11 321	1 4//	34 030	30 314
	• • • • • • •	• • • • • • •	• • • • • • •	SE	ASONALLY A	DJUSTED	)	• • • • • • • •	• • • • • •	• • • • • • •	
ear to											
June 1998	48 446	10 082	14 475	15 524	36 764	9 920	31 114	43 760	7 311	217 392	176 434
June 1999	48 665	10 667	14 894	15 804	37 206	11 919	33 425	46 759	7 612	226 951	189 812
June 2000	50 653	9 255	16 730	16 249	37 743	10 708	33 104	51 761	7 323	233 527	212 469
L998–1999											
March	12 484	2 650	3 662	4 186	9 246	2 951	8 329	11 827	2 070	57 390	48 097
June	11 893	2 549	3 755	4 096	9 447	3 088	8 477	11 552	1 824	56 679	48 622
L999–2000	44 577	0.400	0.074	4.400	0.504	0.507	0.040	10.007	4 757	50.045	E4 700
September	11 577	2 420	3 971	4 123	9 561	2 597	8 312	12 297	1 757	56 615	51 723
December	12 444	2 321	4 233	4 021	9 500	2 493	8 258	12 763	1 760	57 793 50 160	52 539
March June	13 068	2 278	4 323	4 012 4 093	9 406	2 690	8 350	13 232	1 801	59 160	53 818 54 390
2000–2001	13 564	2 236	4 202	4 093	9 276	2 928	8 183	13 470	2 006	59 959	54 590
September	13 761	2 183	3 592	3 805	9 907	3 173	7 791	13 446	1 705	59 363	53 648
December	13 950	2 200	3 312	3 506	9 700	3 007	8 532	13 051	1 554	58 812	51 895
March	13 907	2 107	3 510	3 772	9 861	2 755	7 979	12 842	1 674	58 407	52 804
• • • • • • • • • • • • •	• • • • • • •		• • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • •
ear to					TREND ESTI	MATES					
June 1998	48 280	10 149	14 445	15 421	36 670	10 018	31 284	43 807	7 236	217 367	175 930
June 1999	48 509	10 441	14 935	15 862	37 320	11 735	33 304	46 891	7 675	226 801	190 335
June 2000	50 781	9 268	16 566	16 185	37 879	10 885	33 150	51 605	7 248	233 471	211 939
L998-1999											
March	12 119	2 633	3 685	4 035	9 320	3 058	8 398	11 774	1 963	56 993	48 002
June	11 919	2 545	3 782	4 132	9 435	2 910	8 382	11 856	1 889	56 835	49 098
L999-2000											
September	11 924	2 431	3 989	4 104	9 512	2 688	8 354	12 193	1 770	56 965	51 353
December	12 326	2 335	4 224	4 060	9 465	2 575	8 314	12 749	1 774	57 842	52 750
March	13 001	2 270	4 290	4 058	9 414	2 683	8 240	13 231	1 854	59 022	53 837
June	13 530	2 232	4 062	3 963	9 487	2 939	8 242	13 432	1 850	59 642	53 999
2000–2001	40 77:	0.001	0.740	2 244	0.050	2.24=	0.050	40.010	4 75 .	EO 440	E0 404
September December	13 771	2 201	3 712	3 811	9 653	3 045	8 253	13 348	1 754	59 418	53 434
LIECEMBER	13 902	2 167	3 458	3 682	9 794	2 995	8 240	13 126	1 648	58 917	52 736
March	13 949	2 138	3 345	3 622	9 874	2 867	8 191	12 868	1 598	58 385	52 206

and September 1999 quarters. See paragraphs 34 and 35 of the

Explanatory Notes.



# PERCENTAGE CHANGES IN SALES—Chain volume measures(a)

	MANUFA	ACTURING.									WHOLESALE TRADE
	Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	manu-	Total manu- facturing	Total wholesale(b)
Period	%	%	%	%	%	%	%	%	%	%	%
• • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • • •					• • • • • • •	• • • • • • • • • •
					ORIGINA	L					
Year to											
June 1998	4.3	-1.6	5.0	9.8	5.7	-3.9	-8.9	0.5	3.6	1.4	8.3
June 1999	0.5	5.8	2.9	1.8	1.2	20.2	7.4	6.9	4.1	4.4	7.6
June 2000	4.1	-13.2	12.3	2.8	1.4	-10.2	-1.0	10.7	-3.8	2.9	11.9
1998–1999											
March	-13.3	-5.9	-10.6	-3.2	-5.4	-8.2	-9.0	-10.8	-15.1	-9.5	-8.0
June	-2.1	0.5	10.5	4.4	6.4	6.9	10.4	4.8	-7.1	4.2	6.8
1999–2000											
September	4.3	-1.6	6.1	1.7	0.9	-13.5	-1.8	9.9	4.9	2.6	6.7
December	15.3	-9.0	8.6	4.5	2.0	-3.8	0.1	3.8	7.6	4.9	5.3
March	-9.4	-2.6	-6.4	-13.5	-7.0	3.1	-6.9	-5.7	-16.8	-7.4	-6.0
June	4.5	-0.1	3.9	8.8	2.4	11.0	4.9	8.1	17.0	5.7	5.8
2000-2001											
September	7.5	-0.2	-14.5	-4.4	7.4	12.1	-5.0	3.2	-6.2	1.9	-0.8
December	10.3	-1.8	-6.0	-3.6	-1.1	-7.1	9.4	-2.8	-0.9	1.7	0.1
March	-14.8	-6.4	-3.8	-7.1	-4.2	-11.6	-12.4	-11.5	-16.7	-10.6	-6.5
• • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •		SONALLY AD	JUSTED	•••••	• • • • • • •	•••••	• • • • • •	• • • • • • • • • •
Year to				O E / \	OOMALLI AD	300125					
June 1998	4.3	-1.6	5.0	9.8	5.7	-3.9	-8.9	0.5	3.6	1.4	8.3
June 1999	0.5	5.8	2.9	1.8	1.2	20.2	7.4	6.9	4.1	4.4	7.6
June 2000	4.1	-13.2	12.3	2.8	1.4	-10.2	-1.0	10.7	-3.8	2.9	11.9
1998–1999											
March	4.1	-0.2	-1.2	10.9	-0.9	-4.6	0.0	-1.1	4.1	1.0	1.5
June	-4.7	-3.8	2.5	-2.2	2.2	4.7	1.8	-2.3	-11.9	-1.2	1.1
1999–2000	-2.7	-5.0	5.8	0.7	1.2	-15.9	1.0	6.4	-3.7	-0.1	6.4
September December		-5.0 -4.1	5.8 6.6		-0.6	-15.9 -4.0	−1.9 −0.7	3.8	-3. <i>1</i> 0.1	-0.1 2.1	1.6
March	7.5 5.0	-4.1 -1.9	2.1	-2.5 -0.2	-0.6 -1.0	-4.0 7.9	-0.7 1.1	3.7	2.3	2.1	2.4
June	3.8	-1.9 -1.8	-2.8	2.0	-1.0 -1.4	8.9	-2.0	1.8	11.4	1.3	1.1
2000–2001	3.6	-1.6	-2.0	2.0	-1.4	0.9	-2.0	1.6	11.4	1.5	1.1
September	1.4	-2.4	-14.5	-7.1	6.8	8.4	-4.8	-0.2	-15.0	-1.0	-1.4
December	1.4	0.8	-7.8	-7.9	-2.1	-5.2	9.5	-2.9	-8.9	-0.9	-3.3
March	-0.3	-4.2	6.0	7.6	1.7	-8.4	-6.5	-1.6	7.8	-0.7	1.8
				Т	REND ESTIM	1ATFS					
Year to				•	KEND LOTH						
June 1998	3.9	-0.5	4.3	8.4	4.9	-2.7	-7.8	0.8	3.5	1.4	7.9
June 1999	0.5	2.9	3.4	2.9	1.8	17.1	6.5	7.0	6.1	4.3	8.2
June 2000	4.7	-11.2	10.9	2.0	1.5	-7.2	-0.5	10.1	-5.6	2.9	11.4
1998–1999											
March	-1.1	-0.8	-0.8	3.8	0.7	2.5	0.7	0.3	0.9	0.3	2.0
June	-1.7	-3.4	2.6	2.4	1.2	-4.9	-0.2	0.7	-3.8	-0.3	2.3
1999–2000				a =	6.5			<b>a</b> -	<b>a</b> -	<u> </u>	
September	0.0	-4.5	5.5	-0.7	0.8	-7.6	-0.3	2.8	-6.3	0.2	n.p.
December	3.4	-4.0	5.9	-1.1	-0.5	-4.2	-0.5	4.6	0.2	1.5	2.7
March	5.5	-2.8	1.6	-0.1	-0.5	4.2	-0.9	3.8	4.5	2.0	2.1
June	4.1	-1.6	-5.3	-2.3	0.8	9.5	0.0	1.5	-0.2	1.1	0.3
2000–2001	4.0		0.0	2.2	4.0	0.0	0.4	2.2		0.4	4.0
September	1.8	-1.4	-8.6	-3.8	1.8	3.6	0.1	-0.6	-5.2	-0.4	-1.0
December March	0.9	-1.5 1.3	-6.9	-3.4 1.6	1.5	-1.7	-0.2	-1.7	-6.0 3.0	-0.8	-1.3 1.0
March	0.3	-1.3	-3.3	-1.6	0.8	-4.2	-0.6	-2.0	-3.0	-0.9	-1.0

(b) A break in series occurred in Wholesale trade between the June and September 1999 quarters. See paragraphs 34 and 35 of the

Explanatory Notes.

(a) Reference year for chain volume measures is 1998–1999.

and September 1999 quarters. See paragraphs 34 and 35 of the Explanatory Notes.

	MANUFA	MANUFACTURING												
Year to/Quarter to	Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal,chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu- facturing	Total wholesale(b)			
• • • • • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
June 1998	0.51	0.72	0.53	0.24	0.58	0.46	0.56	0.57	0.39	0.53	0.51			
June 1999	0.57	0.68	0.58	0.21	0.65	0.43	0.58	0.58	0.38	0.55	0.53			
June 2000	0.53	0.68	0.49	0.23	0.71	0.39	0.50	0.62	0.37	0.54	0.54			
1998–1999														
March	0.51	0.68	0.60	0.22	0.65	0.44	0.56	0.56	0.37	0.53	0.52			
June	0.57	0.68	0.58	0.21	0.65	0.43	0.58	0.58	0.38	0.55	0.53			
1999-2000														
September	0.59	0.69	0.53	0.21	0.63	0.42	0.56	0.60	0.43	0.55	0.55			
December	0.55	0.75	0.50	0.21	0.66	0.40	0.52	0.60	0.41	0.54	0.57			
March	0.54	0.74	0.48	0.21	0.69	0.40	0.51	0.58	0.42	0.54	0.55			
June	0.53	0.68	0.49	0.23	0.71	0.39	0.50	0.62	0.37	0.54	0.54			
2000-2001														
September	0.53	0.74	0.51	0.24	0.70	0.40	0.52	0.62	0.42	0.56	0.56			
December	0.54	0.71	0.59	0.25	0.68	0.40	0.53	0.64	0.45	0.56	0.58			
March	0.53	0.78	0.58	0.23	0.69	0.39	0.51	0.64	0.35	0.56	0.56			
	(-) 0-	- the salines of			(la) A la a l				burgara Albara I					
	(a) Seasor	nally adjusted :	series.		(b) A break in	series occu	urrea in Whol	esale trade be	tween the Ju	ne				



# EXPERIMENTAL ESTIMATES, Income from Sales of Goods and Services—Current prices

Quarter to	Manufactu- ring	Wholesale trade	Motor vehicle retail and services	Accomm- odation	Transport and storage	Commun- ication services	Property and business services	Cultural and recreational services	Personal services	Total selected industries
• • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	ODICINA	LECTIMATE	C (fmillion)	• • • • • • •	• • • • • • • •	• • • • • • •	• • •
1998–1999				ORIGINA	L ESTIMATES	5 (\$million)				
March	n.a.	n.a.	12 573	1 540	11 682	2 421	20 345	4 452	756	n.a.
June	n.a.	n.a.	12 954	1 610	12 039	2 518	21 434	4 745	858	n.a.
1999–2000				1 010	12 000	2 0 2 0			000	
September	57 991	51 408	13 230	1 664	13 380	2 432	24 756	5 240	1 006	171 107
December	61 396	54 735	13 557	1 777	14 202	2 698	22 963	4 985	995	177 308
March	57 537	51 980	13 802	1 781	13 747	2 816	22 270	5 011	1 000	169 944
June	61 617	56 489	13 748	1 821	14 426	2 930	24 355	5 297	950	181 633
2000–2001										
September	63 347	56 799	12 239	1 916	14 469	3 068	23 312	5 050	924	181 124
December	65 266	58 836	13 538	2 130	15 187	3 473	25 022	5 308	978	189 738
March	58 573	54 613	13 128	1 941	14 378	3 550	23 513	4 455	942	175 093
• • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •
			CI	HANGE FRO	M PREVIOU	S QUARTER	(%)			
1998–1999										
June	n.a.	n.a.	3.0	4.5	3.1	4.0	5.4	6.6	13.5	n.a.
1999–2000										
September	n.a.	n.a.	2.1	3.4	11.1	-3.4	15.5	10.4	17.2	n.a.
December	5.9	6.5	2.5	6.8	6.1	10.9	-7.2	-4.9	-1.1	3.6
March	-6.3	-5.0	1.8	0.2	-3.2	4.4	-3.0	0.5	0.5	-4.2
June	7.1	8.7	-0.4	2.2	4.9	4.0	9.4	5.7	-5.0	6.9
2000–2001										
September	2.8	0.5	-11.0	5.2	0.3	4.7	-4.3	-4.7	-2.7	-0.3
December	3.0	3.6	10.6	11.2	5.0	13.2	7.3	5.1	5.8	4.8
March	-10.3	-7.2	-3.0	-8.9	-5.3	2.2	-6.0	-16.1	-3.7	-7.7
	n.a. not availa	able								

INTRODUCTION

**1** This publication contains estimates of the book value of inventories, and income from sales of goods and services for selected industries in Australia. The series have been compiled from data collected by the Australian Bureau of Statistics (ABS) in its quarterly Survey of Inventories, Sales and Services. The survey collects data from private businesses only.

SCOPE AND COVERAGE

2 The Survey of Inventories, Sales and Services includes the following industries classified according to the Australian and New Zealand Standard Industrial Classification 1993 (ANZSIC):

Industries	Inventories	Income from sales of goods and services
•••••	• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
Mining (Division B)	Χ	
Manufacturing (Division C)	Χ	X
Electricity and gas supply (36)	Х	
Wholesale trade (Division F)	Х	Х
Retail Trade (Division G) Food (51) Personal and household goods (52) Motor vehicle retailing (531) Automotive fuel retailing (5321) Automotive electrical services (5322) Smash repairs (5323) Tyre retailing (5324) Automotive repair and services nec. (5239)  Accommodation, cafes and restaurants (Division H) Accommodation (571) Pubs, taverns and bars (572) Cafes and restaurants (573)	X X X X	x x x x x
Clubs (Hospitality) (574)	Χ	
Transport and storage (Division I)		X
Communication services (Division J)		X
Property and business services (Division L)		X
Cultural and recreational services (Division P) excluding: Libraries (921), Museums (922) and Parks and gardens (923)		X
Personal services (95) excluding: Video hire outlets (9511) and Hairdressing and beauty salons (9526)		Х

**3** The scope excludes public sector business units (i.e. all departments, authorities and other organisations owned and controlled by Commonwealth, State and Local Government).

SCOPE AND COVERAGE continued

- **4** The Survey of Inventories, Sales and Services, like most ABS economic collections, takes its frame from the ABS Business Register which is primarily based on registrations to the Australian Taxation Office's Group Employer scheme. The frame is updated quarterly to take account of new businesses, cessations, changes in employment levels, changes in industry and other general business changes. Cessations include businesses which have cancelled their Group Employer registration or have not remitted to the Australian Taxation Office for five quarters or more.
- **5** The statistics in this publication exclude non-employing businesses which had not registered as group employers with the Australian Taxation Office. Though a substantial number, it is expected that these businesses would not contribute significantly to the estimates, although the impact would vary from industry to industry.

SURVEY METHODOLOGY

- **6** The survey is conducted by mail on a quarterly basis. It is based on a random sample of approximately 10,000 units which is stratified by industry, state/territory and number of employees. All private sector units with over 250 employees, and other statistically significant units, such as joint venture partners, are included in the sample.
- **7** Respondents are asked to provide data on the same basis as their own management accounts. Where a selected unit does not respond in a given survey period, a value is estimated. If data are subsequently provided, the estimated value is replaced with the reported data. Aggregates are calculated from all data using the 'number raised' estimation technique. Data are edited at both individual unit level and at aggregate level.

TIMING OF SURVEY CYCLE

**8** Surveys are conducted in respect of each quarter and returns are completed during the 8 or 9 week period after the end of the quarter to which survey data relate e.g. December quarter survey returns are completed during January and February.

SAMPLE REVISION

- **9** The survey frames and samples are revised each quarter to ensure that they remain representative of the survey population. The timing for creating each quarter's survey frame is consistent with that of other ABS surveys. This provides for greater consistency when comparing data across surveys.
- **10** Additionally, with these revisions to the sample, some of the units from the sampled sector are rotated out of the survey and are replaced by others, to spread the reporting workload equitably.
- **11** Adjustments are included in the estimates to allow for lags in processing new businesses to the ABS business register, and the omission of some businesses from the business register. The majority of businesses affected and to which the adjustments apply are small in size. The adjustments contributed 4.2% to the current quarter's estimate of reported inventories and 3.4% to reported Manufacturing and Wholesale trade sales.

STATISTICAL UNIT

12 This survey uses the management unit as the statistical unit. The management unit is the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts are maintained. In nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it.

CLASSIFICATION BY INDUSTRY

- **13** The Australian and New Zealand Standard Industrial Classification has been developed for use in both countries for the production and analysis of industry statistics. For more information, users are referred to *Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993* (Cat. no. 1292.0).
- **14** In order to classify inventories and income from sales of goods and services data by industry, each statistical unit (as defined above) is classified to the Australian and New Zealand Standard Industrial Classification industry in which it *mainly* operates.

**DESCRIPTION OF TERMS** 

- **15** *Income from the sales of goods and services.* This includes income from sales of goods by the business and income from services provided such as commission income, repair and service income and fees, management fees, rent leasing and hiring income, delivery and installation charges, income from consulting services, sponsorship income, membership/subscription fees and royalties income.
- **16** *Manufacturing Sales.* Income from the sales of goods and services (as defined above) by businesses classified to the Manufacturing industry. From the March quarter 2001 issue of this publication this series replaced the Manufacturers' sales series which was more narrowly defined. A consistent time series on the new basis has been compiled back to the June quarter 1984.
- **17** *Wholesale trade Sales.* From September quarter 1999, the Wholesale trade Sales comprises all income from sales of goods and services (as defined above) by businesses classified to the Wholesale trade industry. Prior to September quarter 1999, only the sales of goods by wholesalers was collected. No break in series was identified with this change.
- **18** *Inventories*. All inventories of materials etc., work in progress and finished goods owned by the business, whether held at locations of the business or elsewhere.

INCOME FROM SALES OF GOODS AND SERVICES

- **19** As part of a strategy to increase the range of information available relating to service industries, the ABS introduced quarterly experimental estimates relating to income from sales of goods and services for most service industries in the June quarter 2000 issue of this publication. This information was first collected in the March quarter 1999. Previously, quarterly data relating to sales had only been released in respect of the Manufacturing and Wholesale trade industries.
- 20 Income from sales of goods and services is the most readily available measure of output across different industries. This measure is consistent with that used in the Manufacturing and Wholesale trade sales series currently released in this publication. Table 11 presents experimental estimates of income from sales of goods and services for private sector businesses in the newly-measured service industries, as well as comparable data for the Manufacturing and Wholesale trade industries.
- **21** Users should treat the estimates in table 11 with caution. They are experimental at this stage and further analysis is required to ensure that they are robust and reliable indicators for measuring income in the selected service industries over time.
- **22** In addition to the current price data, the ABS has recently produced chain volume estimates of income from sales of goods and services for service industries. These are also experimental, and require further analysis to ensure they are of sufficient quality for publication. However, if users are interested in accessing the chain volume data, they should contact Stephen Butcher on Sydney 02 9268 4241.

CHAIN VOLUME MEASURES

- **23** The chain volume measures appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in the chosen reference year (currently 1998-1999). Chain volume measures were introduced in September quarter 1998, replacing constant price estimates. The current price value may be thought of as being the product of a price and quantity. The value in chain volume terms can be derived by linking together movements in volumes, calculated using the average prices of the previous financial year and applying the compound movements to the current price estimates of the reference year. Each year's quarter-to-quarter growth rates in the chain volume series are based on the prices of the previous financial year, except for those of the quarters of the latest incomplete year which are based upon the second most recent financial year. With each release of the June quarter of this publication, a new base year will be introduced and the reference year will be advanced one year to coincide with it. This means that with the release of the June quarter 2001 issue of this publication, the chain volume measures for 2000–2001 will have 1999–2000 (the previous financial year) as their base year rather than 1998–1999, and the reference year will be 1999–2000. A change in reference year changes levels but not growth rates for all periods. A change in the base year can result in revisions, small in most cases, to growth rates for recent quarters.
- **24** Chain volume measures are not generally additive. In other words, component chain volume measures do not, in general, sum to a total in the way original current price components do. For inventories and sales data, this means that the original chain volume estimates for industry groups will not add to total inventories and sales for Australia. In order to minimise the impact of this, the ABS uses the latest base year as the reference year. By adopting this approach, addivity does exist for the quarters following the reference year and non-additivity is relatively small for the quarters in the reference year and those immediately preceding it. For further information on chain volume measures refer to the *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0).

RELIABILITY OF THE ESTIMATES

- **25** Estimates provided in this publication are subject to non-sampling and sampling errors. Details of sampling errors are on pages 23 and 24 of this publication.
- **26** Non-sampling errors may arise as a result of errors in the reporting, recording or processing of the data and can occur even if there is a complete enumeration of the population. These errors can be introduced through inadequacies in the questionnaire, treatment of non-response, inaccurate reporting by respondents, errors in the application of survey procedures, incorrect recording of answers, and errors in data entry and processing.
- **27** It is difficult to measure the size of non-sampling errors. However, every effort is made in the design of the survey and development of survey procedures to minimise their effects.

SEASONAL ADJUSTMENT

- **28** The quarterly inventories and sales series in this publication are affected to some extent by seasonal influences and it is useful to recognise and take account of this element of variation.
- **29** Seasonal adjustment is a means of removing the estimated effects of normal seasonal variations for the series so that the effects of other influences can be more clearly recognised.

SEASONAL ADJUSTMENT continued

- **30** In the seasonal adjustment of the series, account has been taken of both normal seasonal factors (e.g. increase in retail inventories due to Christmas period) and, in the case of sales, also 'trading' day effects (arising from the varying lengths of the quarters and the varying numbers of Sundays, Mondays, Tuesdays etc. in each quarter). Seasonal adjustment does not remove from the series the effect of irregular or non-seasonal influences (e.g. change in interest rates), and reflects the sampling and other errors to which the original figures are subject. Particular care should be taken in interpreting quarterly movements in the adjusted figures in this publication, especially for detailed industry estimates.
- **31** At least once each year the seasonally adjusted series are revised to take account of the latest available data. The most recent reanalysis takes into account data collected up to and including the March quarter 2000 survey. Data for periods after March 2000 are seasonally adjusted on the basis of extrapolation of historical patterns. The nature of the seasonal adjustment is such that the magnitude of some revisions resulting from reanalysis may be quite significant especially for data for more recent quarters.
- **32** Seasonally adjusted data is not available for income from sales and goods and services in table 11 as at least five years of data are required to discern a seasonal pattern.

TREND ESTIMATES

**33** The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. The 7-term Henderson average (like all Henderson averages) is 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 weights employed here have been tailored to suit the particular characteristics of individual series. 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 three quarters as additional observations become available. There may also be revisions because of changes in the original data and as a result of the re-estimation of the seasonal factors. For further information, see *Information Paper: A Guide to Interpreting Time Series* — *Monitoring Trend, An Overview* (Cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on Canberra 02 6252 6345.

PRIVITISATION OF
PUBLIC SECTOR UNITS

- **34** Three significant privatised marketing authorities came into scope of the Survey of Inventories, Sales and Services from the September quarter 1999. The introduction of these units resulted in a break in series between the June and September quarters 1999 and comparison of the series over time should be undertaken with care.
- **35** The methodology used by the ABS has ensured that the trend series has not been distorted by the introduction of these units, although the shift in level is still evident between the June and September quarters 1999. For this reason, the trend estimates of movement have not been published for the Wholesale trade inventories, Total inventories and Wholesale trade sales series in respect of the September quarter 1999.

COMPARABILITY WITH NATIONAL ACCOUNTS ESTIMATES

**36** The data collected in the Survey of Inventories, Sales and Services are used to compile estimates of the increase in book value of non-farm inventories in the quarterly and annual national accounts. Income from the sales of goods and services for the Manufacturing and Wholesale trade industries are used to help derive quarterly chain volume measures of gross value added for these industries. For further details see *Australian National Accounts: Concepts, Sources and Methods* (Cat. no. 5216.0).

COMPARABILITY WITH NATIONAL ACCOUNTS ESTIMATES continued

- **37** The statistics shown for the movement in the book value of inventories in this publication will differ from corresponding data for private non-farm inventories shown in the national accounts publications because the national accounts estimates are benchmarked to the annual supply and use tables and include estimates for the construction and transport industries.
- **38** Income from the sales of goods and services now collected from the service industries is eventually expected to lead to an improvement in the quality of the quarterly national accounts chain volume estimates of gross value added for the service industries involved, after the series have been subject to further analysis.

RELATED PUBLICATIONS

- **39** Users may also wish to refer to the following publications:
- Australian Business Expectations (Cat. no. 5250.0)
- Australian National Accounts: Concepts, Sources and Methods (Cat. no. 5216.0)
- Australian National Accounts: National Income, Expenditure and Product (Cat. no. 5206.0)
- Business Operations and Industry Performance, Australia (Cat. no. 8140.0).
- Company Profits, Australia (Cat. no. 5651.0)
- Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts (Cat. no. 5248.0)
- Manufacturing Production, Australia (Cat. no. 8301.0)
- Private New Capital Expenditure and Expected Expenditure, Australia (Cat. no. 5625.0)
- Retail Trade, Australia (Cat. no. 8501.0)
- State Estimates of Private New Capital Expenditure (Cat. no. 5646.0)
- **40** Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (Cat. no. 1101.0). The ABS also issues on Tuesdays and Fridays a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

ABS DATA AVAILABLE ON REQUEST

**41** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to the National Information Service on 1300 135 070.

SYMBOLS AND OTHER USAGES

n.p. not available for publication

n.a. not applicable

## STANDARD ERRORS

INTRODUCTION

The estimates in this publication are based on a sample drawn from units in the surveyed population. Because the entire population is not surveyed, the published estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic.

LEVEL ESTIMATES

To illustrate, let us say that the published level estimate for total inventories is \$77,000m and the calculated standard error in this case is \$965m. The standard error is then used to interpret the level estimate of \$77,000m.

For instance, the standard error of \$965m indicates that:

- There are approximately two chances in three that the real value falls within the range \$76,035m to \$77,965m (\$77,000m  $\pm$  \$965m).
- There are approximately nineteen chances in twenty that the real value falls within the ranges \$75,070m and \$78,930m (\$77,000m ± \$1,930m).

The real value in this case is the result we would obtain if we could enumerate the total population.

The following tables show the standard errors for national quarterly level estimates. These standard errors are based on a smoothed average of inventories and sales estimates over a number of quarters.

	Inventories	
	\$m	
Mining	88	
Manufacturing	438	
Wholesale trade	667	
Retail trade	530	
Other	75	
Total selected industries	965	

Income from sales of goods and services

\$m

Manufacturing	992
Wholesale trade	1 369
Motor vehicle retailing services	103
Accommodation	122
Transport and storage	412
Communication services	130
Property and business services	825
Cultural and recreation services	316
Personal services	48
Total selected industries	997

MOVEMENT ESTIMATES

The following example illustrates how to use the standard error to interpret a movement estimate. Let us say that one quarter the published level estimate for total inventories is \$77,000m, and the next quarter the published level estimate is \$79,000m. In this example the calculated standard error for the movement estimate is \$754m. The standard error is then used to interpret the published movement estimate of +\$2,000m.

For instance, the standard error of \$754m indicates that:

- There are approximately two chances in three that the real movement over the two quarter period falls within the range 1,246m to 2,754m (2,000m  $\pm 754$ m).
- There are approximately nineteen chances in twenty that the real movement falls within the range \$492m to \$3,508m (\$2,000m  $\pm$  \$1,508m).

The following table shows the standard errors for national quarterly movement estimates. These standard errors are based on a smoothed average of inventories and sales estimates.

• • • • • • • • • • • •	Inventories						
	\$m						
Mining	98						
Manufacturing	329						
Wholesale trade	490						
Retail trade	449						
Other	92						
Total selected industries	754						

Income from sales of goods and services

\$m

****
663
829
55
71
239
85
482
207
27
590

#### EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

#### TREND REVISIONS

The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of inventories owned by private businesses and Manufacturing and Wholesale trade sales.

- **1** The June quarter seasonally adjusted estimate of chain volume measures is higher than the March quarter estimate by the percentage shown.
- **2** The June quarter seasonally adjusted estimate of chain volume measures is lower than the March quarter estimate by the percentage shown.

The percentages chosen are the long term average movements, without regard to sign, in the seasonally adjusted series.



MANUFACTURING SALES			TREND AS PUBLISHED		WHAT IF NE	XT QUARTER'S S	EASONALLY A	DJUSTED ESTIMATE:
1     Published trend	\$m 62000		Φ	0/	•	1 on Mar 2001	,	on Mar 2001
- Published trend	60000	2000	\$m	% change	\$m	% change	\$m	% change
	- 58000	June September	59 642 59 418	1.1 -0.4	59 642 59 415	1.1 -0.4	59 642 59 497	1.1 -0.2
	-56000	December 2001	58 917	-0.8	58 931	-0.8	58 903	-1.0
j b j b 1999 2000 :	54000 2001	March June	58 385 —	-0.9 —	58 712 58 744	-0.4 0.1	58 316 57 804	-1.0 -0.9

WHOLESALE TRADE SALES			TREND AS PUBLISHED		WHAT IF NEXT OUARTER'S SEASONALLY ADJUSTED ESTIMATE				
— 1 — Published trend	\$m Г <sup>56000</sup>				<b>1</b> rises by 1.7	on Mar 2001	<b>2</b> falls by 1.7	on Mar 2001	
2	- 54000	2000	\$ <i>m</i>	% change	\$m	% change	\$m	% change	
	- 52000	June	53 999	0.3	53 999	0.3	53 999	0.3	
,		September	53 434	-1.0	53 355	-1.2	53 497	-0.9	
	- 50000	December	52 736	-1.3	52 777	-1.1	52 727	-1.4	
	L <sub>48000</sub>	2001							
		March	52 206	-1.0	52 859	0.2	52 173	-1.1	
1999 2000 200	)1	June	_	_	53 411	1.0	51 783	-0.7	

# FOR MORE INFORMATION...

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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.

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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).

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