

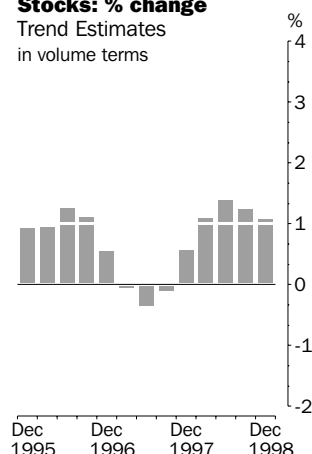
STOCKS AND SALES, SELECTED INDUSTRIES

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) MON 1 MAR 1999

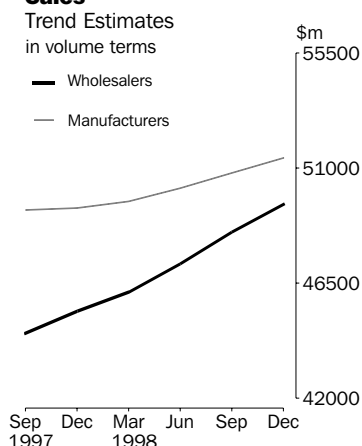
Stocks: % change

Trend Estimates
in volume terms



Sales

Trend Estimates
in volume terms



DECEMBER QTR KEY FIGURES

TREND ESTIMATES (a)

	Dec 1997	Sep 1998	Dec 1998	Sep 1998 to Dec 1998 % change	Dec 1997 to Dec 1998 % change
	\$m	\$m	\$m		
Stocks held by					
Private businesses	72 074	74 791	75 599	1.1	4.9
Sales by					
Manufacturers	49 442	50 813	51 395	1.1	4.0
Wholesale trade	45 413	48 499	49 578	2.2	9.2

SEASONALLY ADJUSTED (a)

	Dec 1997	Sep 1998	Dec 1998	Sep 1998 to Dec 1998 % change	Dec 1997 to Dec 1998 % change
	\$m	\$m	\$m		
Stocks held by					
Private businesses	71 708	74 634	75 678	1.4	5.5
Sales by					
Manufacturers	49 268	50 567	51 572	2.0	4.7
Wholesale trade	44 766	48 266	49 739	3.1	11.1

(a) In volume terms.

DECEMBER QTR KEY POINTS

STOCKS

- The trend estimate (in volume terms) of stocks held by private businesses increased by \$808m (1.1%) since September 1998. Rates of growth have been steady over the last four quarters, between 1.1% and 1.4% per quarter.
- Over the past four quarters, Manufacturers' stocks have experienced the highest growth rates since 1995-96, with growth rates between 1.6% and 2.4% per quarter.
- Stocks held by Wholesale trade increased by \$337m (1.4%) since September 1998. The current estimate is \$24,157m.

SALES

- Over the last eight quarters, trend estimates (in volume terms) for Wholesale sales have grown between 1.6% and 3.1% per quarter. Growth in Manufacturers' sales has been between 1.1% and 1.2% over the last three quarters.
- The third estimate (in current price terms) of Manufacturers' expected sales for 1998-99 is \$208,756m.

- For further information about these and related statistics, contact John Stamolis on 02 9268 4241, or any ABS office shown on the back cover of this publication.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)

RELEASE DATE

March 1999

31 May 1999

June 1999

30 August 1999

.....

CHANGES TO NEXT ISSUE

As from March quarter 1999, the publication *Stocks and Sales, Selected Industries* (Cat. no. 5629.0) will be renamed *Inventories and Sales, Selected Industries* to bring it into line with new terminology used in the Australian National Accounts.

As part of the ongoing rationalisation of ABS collections, Manufacturers' expected sales will not be collected as part of the Survey of Inventories and Sales from March quarter 1999 onwards. Users of these statistics can refer to *Australian Business Expectations* (Cat. no. 5250.0) as an alternative source for this information.

.....

SAMPLING ERRORS

The estimates in this publication are based on a sample survey of businesses. Because data are not collected from all businesses, the published estimates are subject to sampling variability.

Standard errors for estimates contained in this publication are shown on pages 23–24.

.....

REVISIONS TO TREND

Readers should exercise care in the interpretation of the trend data as the data for the last three quarters in particular are likely to be revised with the addition of subsequent quarters' data. For further information and examples showing the sensitivity of trend data, refer to Trend Estimates in paragraph 35 of the Explanatory Notes.

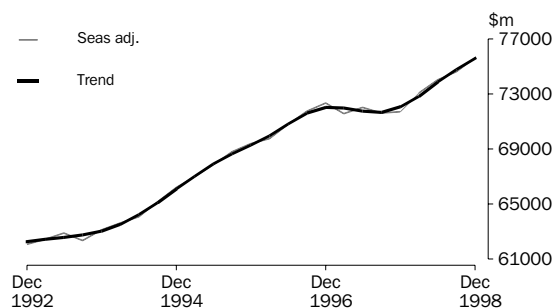
Dennis Trewin

Acting Australian Statistician

STOCKS: Trend estimates—Chain volume measures(a)

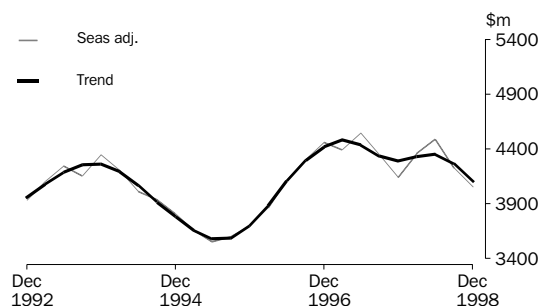
ALL SELECTED INDUSTRIES

Over the last four quarters, growth rates for trend estimates of stocks held by private businesses have been between 1.1% and 1.4% per quarter.



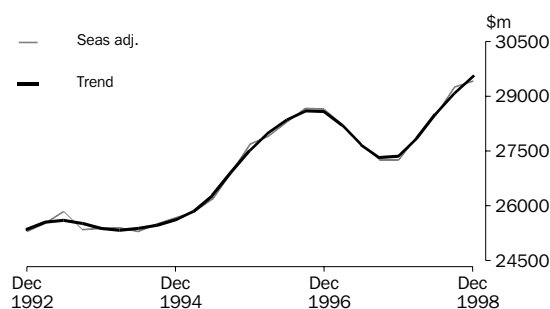
MINING

Level estimates for stocks held by the Mining industry have been falling over the past two quarters, by 2.0% last quarter and 3.8% this quarter. The current estimate of \$4,097m is the lowest since March 1996 (\$3,880m).



MANUFACTURING

Growth rates for stocks held by Manufacturers have been between 1.6% and 2.4% over the last four quarters. Level estimates have increased by \$2,174m (7.9%) since December 1997. The main contributors to this increase have been the following industry subdivisions: Machinery and equipment \$669m (11.8%), Metal product \$434m (11.0%), Food, beverage and tobacco \$420m (7.3%) and Petroleum, coal and chemical product \$404m (7.3%).

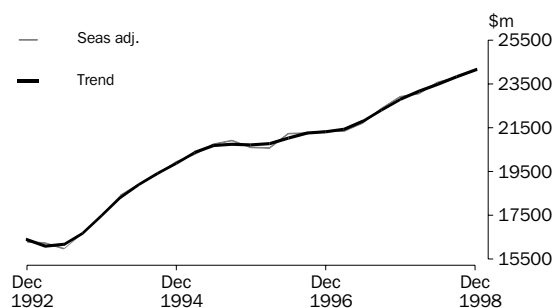


(a) Reference year for chain volume measures is 1996–1997.

STOCKS: Trend estimates—Chain volume measures(a)

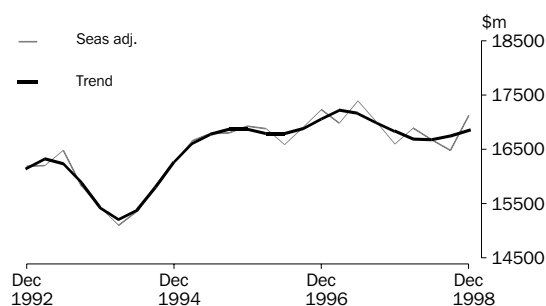
WHOLESALE TRADE

Over the last seven quarters, growth rates for stocks held by the Wholesale industry have been between 1.3% and 2.4% per quarter.



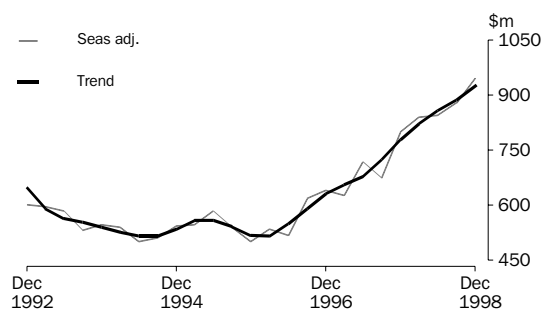
RETAIL TRADE

Stock levels held by the Retail trade have increased by \$113m (0.7%) this quarter. Level estimates have been relatively flat over the fifteen quarters from June 1995.



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

Level estimates for stocks held by Other selected industries have grown over the last eleven quarters. Growth rates since June 1996 have been between 3.3% and 7.6% per quarter. The current estimate of \$925m is \$37m (4.1%) higher than for last quarter.

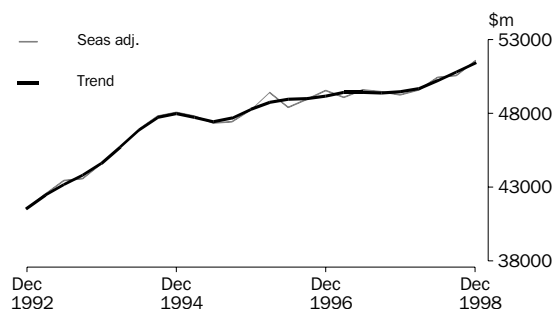


(a) Reference year for chain volume measures is 1996–1997.

SALES: Trend estimates—Chain volume measures(a)

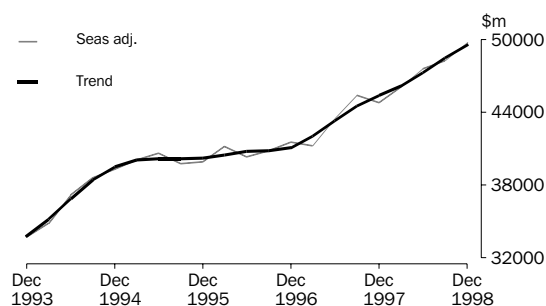
MANUFACTURERS' SALES

Since December quarter 1997, Manufacturers' sales have increased by \$1,953m (4.0%). The industries contributing most to this increase have been Machinery and equipment \$835m (8.7%), Non-metallic mineral product \$327m (14.1%), Metal product \$303m (4.2%) and Petroleum, coal and chemical product \$270m (3.0%).



WHOLESALE TRADE SALES

Since March quarter 1997, quarterly growth rates for Wholesale sales have been between 1.6% and 3.1%.

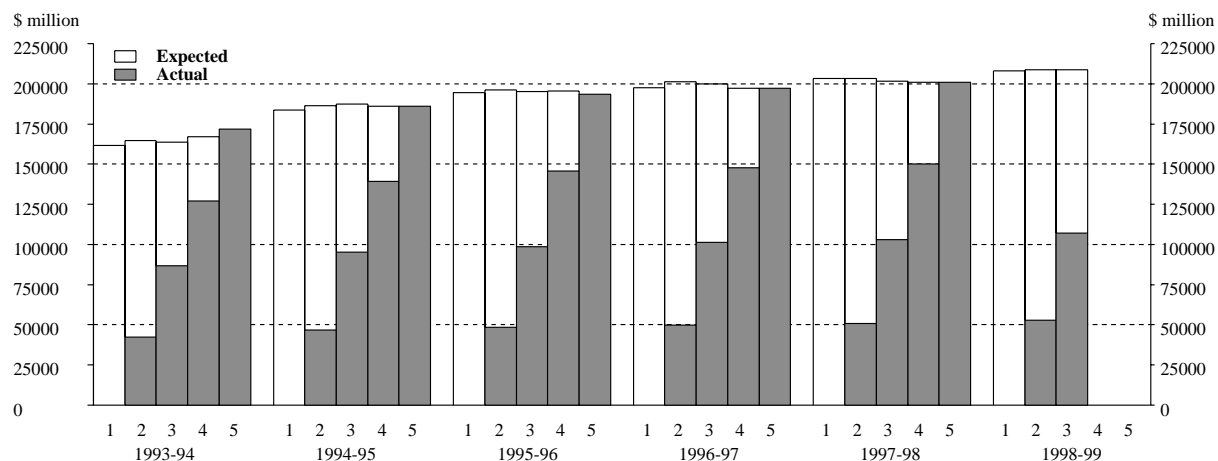


(a) Reference year for chain volume measures is 1996–1997.

MANUFACTURERS' ACTUAL AND EXPECTED SALES—Current prices

SALES

The graph below shows the 5 estimates collected for each financial year:



EXPLANATION OF TIMING OF ESTIMATES used in construction of graph above

COMPOSITION OF ESTIMATE.....

Estimate	Based on data reported at:	Data on actual sales	Data on short term expected sales	Data on long term expected sales
1	Jul-Aug at beginning of period	Nil	6 months	6 months
2	Oct-Nov, 3-4 months into period	3 months	3 months	6 months
3	Jan-Feb, 6-7 months into period	6 months	6 months	Nil
4	Apr-May, 9-10 months into period	9 months	3 months	Nil
5	Jul-Aug at end of period	12 months	Nil	Nil

BOOK VALUE OF STOCKS OWNED, By Industry—Current prices

	<i>Mining</i>	<i>Manufacturing</i>	<i>Wholesale trade</i>	<i>Retail trade</i>	<i>Other selected industries(a)</i>	<i>Total selected industries</i>
At end of	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL						
June 1996	4 004	28 431	21 293	16 146	495	70 369
June 1997	4 499	27 893	21 173	17 076	701	71 342
June 1998	4 484	29 039	23 662	16 610	834	74 630
1996–1997						
December	4 502	28 162	21 385	17 472	685	72 207
March	4 433	28 484	21 211	17 016	617	71 762
June	4 499	27 893	21 173	17 076	701	71 342
1997–1998						
September	4 441	27 415	22 371	17 245	677	72 149
December	4 278	27 378	23 218	16 987	873	72 733
March	4 461	28 628	23 322	17 087	854	74 352
June	4 484	29 039	23 662	16 610	834	74 630
1998–1999						
September	4 305	29 823	24 746	17 013	906	76 794
December	4 077	29 454	24 842	17 789	1 063	77 225
SEASONALLY ADJUSTED						
June 1996	4 073	28 333	21 591	16 512	515	71 024
June 1997	4 576	27 778	21 469	17 473	730	72 027
June 1998	4 560	28 915	23 994	17 001	870	75 339
1996–1997						
December	4 480	28 535	21 259	17 224	640	72 139
March	4 422	28 158	21 157	17 034	628	71 398
June	4 576	27 778	21 469	17 473	730	72 027
1997–1998						
September	4 402	27 479	22 245	17 084	687	71 897
December	4 256	27 760	23 085	16 749	815	72 665
March	4 451	28 291	23 271	17 097	869	73 979
June	4 560	28 915	23 994	17 001	870	75 339
1998–1999						
September	4 268	29 897	24 600	16 854	919	76 538
December	4 055	29 866	24 702	17 542	992	77 158
TREND ESTIMATES						
June 1996	4 082	28 487	21 400	16 691	547	71 207
June 1997	4 481	27 765	21 590	17 231	685	71 752
June 1998	4 427	28 997	23 968	16 981	889	75 262
1996–1997						
December	4 422	28 490	21 224	17 072	632	71 840
March	4 504	28 150	21 214	17 259	660	71 788
June	4 481	27 765	21 590	17 231	685	71 752
1997–1998						
September	4 400	27 591	22 215	17 094	736	72 037
December	4 382	27 754	22 876	16 984	796	72 792
March	4 428	28 303	23 468	16 903	847	73 948
June	4 427	28 997	23 968	16 981	889	75 262
1998–1999						
September	4 306	29 598	24 436	17 112	927	76 380
December	4 109	30 073	24 872	17 285	970	77 308

(a) See paragraph 2 of the Explanatory Notes.

BOOK VALUE OF STOCKS OWNED, By Industry—Chain volume measures(a)

	<i>Mining</i>	<i>Manufacturing</i>	<i>Wholesale trade</i>	<i>Retail trade</i>	<i>Other selected industries(b)</i>	<i>Total selected industries</i>
At end of	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL						
June 1996	4 047	28 391	20 946	16 221	497	70 124
June 1997	4 471	27 788	21 404	17 001	690	71 354
June 1998	4 411	28 603	23 236	16 288	810	73 348
1996–1997						
December	4 484	28 280	21 480	17 478	685	72 398
March	4 400	28 554	21 395	16 964	616	71 935
June	4 471	27 788	21 404	17 001	690	71 354
1997–1998						
September	4 386	27 187	22 489	17 165	665	71 891
December	4 163	26 876	23 049	16 835	856	71 779
March	4 369	28 230	23 107	16 885	825	73 415
June	4 411	28 603	23 236	16 288	810	73 348
1998–1999						
September	4 263	29 182	23 935	16 641	866	74 887
December	4 070	29 012	24 288	17 357	1 013	75 740
SEASONALLY ADJUSTED						
June 1996	4 117	28 293	21 239	16 589	517	70 777
June 1997	4 547	27 675	21 703	17 396	719	72 040
June 1998	4 486	28 482	23 562	16 671	844	74 045
1996–1997						
December	4 462	28 648	21 354	17 230	640	72 335
March	4 389	28 227	21 341	16 982	627	71 573
June	4 547	27 675	21 703	17 396	719	72 040
1997–1998						
September	4 347	27 248	22 362	17 005	674	71 636
December	4 141	27 251	22 917	16 600	799	71 708
March	4 359	27 900	23 057	16 895	840	73 050
June	4 486	28 482	23 562	16 671	844	74 045
1998–1999						
September	4 226	29 251	23 793	16 486	878	74 634
December	4 048	29 418	24 151	17 116	945	75 678
TREND ESTIMATES						
June 1996	4 106	28 360	21 031	16 789	550	70 845
June 1997	4 439	27 672	21 788	17 162	678	71 740
June 1998	4 354	28 506	23 493	16 677	858	73 885
1996–1997						
December	4 420	28 580	21 320	17 066	631	72 023
March	4 480	28 211	21 419	17 219	656	71 987
June	4 439	27 672	21 788	17 162	678	71 740
1997–1998						
September	4 334	27 315	22 301	16 999	723	71 673
December	4 290	27 363	22 803	16 840	778	72 074
March	4 331	27 845	23 182	16 682	823	72 863
June	4 354	28 506	23 493	16 677	858	73 885
1998–1999						
September	4 265	29 080	23 820	16 739	888	74 791
December	4 097	29 537	24 157	16 852	925	75 599

(a) Reference year for chain volume measures is 1996–1997.

(b) See paragraph 2 of the Explanatory Notes.

PERCENTAGE CHANGES IN STOCKS OWNED, By Industry—Chain volume measures(a)

Year to/Quarter to	Mining	Manufacturing	Wholesale trade	Retail trade	Other selected industries(b)	Total selected industries
%	%	%	%	%	%	%
ORIGINAL						
June 1996	16.1	8.1	2.4	-1.2	-11.3	4.3
June 1997	10.5	-2.1	2.2	4.8	38.7	1.8
June 1998	-1.3	2.9	8.6	-4.2	17.4	2.8
1996-1997						
December	3.3	-1.2	0.6	2.5	12.5	0.6
March	-1.9	1.0	-0.4	-2.9	-9.9	-0.6
June	1.6	-2.7	0.0	0.2	11.9	-0.8
1997-1998						
September	-1.9	-2.2	5.1	1.0	-3.6	0.8
December	-5.1	-1.1	2.5	-1.9	28.7	-0.2
March	5.0	5.0	0.3	0.3	-3.6	2.3
June	1.0	1.3	0.6	-3.5	-1.9	-0.1
1998-1999						
September	-3.4	2.0	3.0	2.2	7.0	2.1
December	-4.5	-0.6	1.5	4.3	17.0	1.1
SEASONALLY ADJUSTED						
June 1996	16.0	8.1	2.4	-1.2	-11.3	4.3
June 1997	10.5	-2.2	2.2	4.9	39.0	1.8
June 1998	-1.4	2.9	8.6	-4.2	17.5	2.8
1996-1997						
December	3.8	-0.1	0.5	1.9	3.6	0.8
March	-1.6	-1.5	-0.1	-1.4	-2.0	-1.1
June	3.6	-2.0	1.7	2.4	14.7	0.7
1997-1998						
September	-4.4	-1.5	3.0	-2.2	-6.2	-0.6
December	-4.7	0.0	2.5	-2.4	18.5	0.1
March	5.3	2.4	0.6	1.8	5.1	1.9
June	2.9	2.1	2.2	-1.3	0.6	1.4
1998-1999						
September	-5.8	2.7	1.0	-1.1	3.9	0.8
December	-4.2	0.6	1.5	3.8	7.7	1.4
TREND ESTIMATES						
June 1996	14.8	7.9	1.6	0.0	-1.5	4.3
June 1997	8.1	-2.4	3.6	2.2	23.1	1.3
June 1998	-1.9	3.0	7.8	-2.8	26.6	3.0
1996-1997						
December	2.9	-0.1	0.3	1.1	6.7	0.5
March	1.4	-1.3	0.5	0.9	4.0	0.0
June	-0.9	-1.9	1.7	-0.3	3.3	-0.3
1997-1998						
September	-2.4	-1.3	2.4	-0.9	6.7	-0.1
December	-1.0	0.2	2.2	-0.9	7.6	0.6
March	1.0	1.8	1.7	-0.9	5.8	1.1
June	0.5	2.4	1.3	0.0	4.3	1.4
1998-1999						
September	-2.0	2.0	1.4	0.4	3.5	1.2
December	-3.8	1.6	1.4	0.7	4.1	1.1

(a) Reference year for chain volume measures is 1996-1997.

(b) See paragraph 2 of the Explanatory Notes.

BOOK VALUE OF STOCKS OWNED, By Manufacturing industries—Current prices

	<i>Food, beverage and tobacco</i>	<i>Textiles, clothing, footwear and leather(a)</i>	<i>Wood and paper products</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc. products</i>	<i>Non- metallic mineral product</i>	<i>Metal product</i>	<i>Machinery and equipment</i>	<i>Other manu- facturing</i>	<i>Total manu- facturing</i>
At end of	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1996	5 755	1 672	1 727	921	5 821	1 246	4 525	6 093	671	28 431
June 1997	5 911	1 744	1 866	811	5 594	1 330	4 128	5 894	614	27 893
June 1998	6 491	1 757	1 937	882	5 486	1 138	4 328	6 300	721	29 039
1996–1997										
December	5 355	1 703	1 693	840	5 820	1 297	4 691	6 139	623	28 162
March	5 628	1 742	1 746	822	5 898	1 341	4 473	6 294	539	28 484
June	5 911	1 744	1 866	811	5 594	1 330	4 128	5 894	614	27 893
1997–1998										
September	5 764	1 766	1 919	835	5 497	1 283	4 084	5 619	648	27 415
December	5 718	1 748	1 889	906	5 535	1 192	4 063	5 683	645	27 378
March	6 151	1 646	1 917	934	5 537	1 188	4 275	6 242	737	28 628
June	6 491	1 757	1 937	882	5 486	1 138	4 328	6 300	721	29 039
1998–1999										
September	6 257	1 888	1 947	954	5 754	1 257	4 464	6 514	790	29 823
December	6 199	1 806	1 856	950	5 593	1 269	4 549	6 396	836	29 454
SEASONALLY ADJUSTED										
June 1996	5 582	1 667	1 699	923	5 830	1 230	4 594	6 140	669	28 333
June 1997	5 730	1 741	1 836	813	5 592	1 313	4 200	5 944	611	27 778
June 1998	6 290	1 754	1 904	884	5 478	1 123	4 408	6 356	716	28 915
1996–1997										
December	5 516	1 712	1 723	842	5 900	1 322	4 667	6 215	639	28 535
March	5 596	1 734	1 721	826	5 839	1 340	4 448	6 129	525	28 158
June	5 730	1 741	1 836	813	5 592	1 313	4 200	5 944	611	27 778
1997–1998										
September	5 807	1 770	1 948	828	5 483	1 278	4 057	5 657	652	27 479
December	5 895	1 756	1 919	909	5 610	1 215	4 043	5 751	662	27 760
March	6 115	1 638	1 892	939	5 479	1 186	4 249	6 075	718	28 291
June	6 290	1 754	1 904	884	5 478	1 123	4 408	6 356	716	28 915
1998–1999										
September	6 303	1 891	1 977	945	5 744	1 251	4 431	6 561	795	29 897
December	6 394	1 814	1 885	953	5 668	1 295	4 528	6 472	858	29 866
TREND ESTIMATES										
June 1996	5 513	1 674	1 703	916	5 835	1 364	4 650	6 181	650	28 487
June 1997	5 699	1 758	1 840	817	5 644	1 312	4 212	5 887	596	27 765
June 1998	6 238	1 758	1 919	921	5 562	1 179	4 361	6 320	740	28 997
1996–1997										
December	5 549	1 690	1 700	850	5 872	1 330	4 647	6 258	594	28 490
March	5 604	1 728	1 755	820	5 778	1 328	4 451	6 107	579	28 150
June	5 699	1 758	1 840	817	5 644	1 312	4 212	5 887	596	27 765
1997–1998										
September	5 805	1 752	1 906	849	5 549	1 274	4 073	5 747	636	27 591
December	5 941	1 718	1 922	889	5 504	1 216	4 092	5 796	676	27 754
March	6 101	1 713	1 915	914	5 515	1 171	4 221	6 051	700	28 303
June	6 238	1 758	1 919	921	5 562	1 179	4 361	6 320	740	28 997
1998–1999										
September	6 332	1 819	1 927	931	5 634	1 223	4 458	6 483	791	29 598
December	6 395	1 873	1 924	947	5 719	1 282	4 525	6 569	838	30 073

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

BOOK VALUE OF STOCKS OWNED, By Manufacturing industries—Chain volume measures(a)

At end of	Food, beverage and tobacco	Textiles, clothing, footwear and leather(b)	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
\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1996	5 764	1 673	1 719	899	5 832	1 245	4 508	6 077	672	28 391
June 1997	5 843	1 729	1 867	827	5 681	1 318	4 055	5 856	611	27 788
June 1998	6 280	1 741	1 894	866	5 677	1 122	4 195	6 117	711	28 603
1996–1997										
December	5 387	1 721	1 699	839	5 742	1 304	4 781	6 176	624	28 280
March	5 621	1 748	1 743	836	5 930	1 341	4 486	6 308	540	28 554
June	5 843	1 729	1 867	827	5 681	1 318	4 055	5 856	611	27 788
1997–1998										
September	5 656	1 746	1 919	857	5 554	1 278	3 971	5 563	642	27 187
December	5 523	1 717	1 883	924	5 498	1 186	3 924	5 583	639	26 876
March	5 982	1 620	1 896	938	5 656	1 179	4 144	6 086	729	28 230
June	6 280	1 741	1 894	866	5 677	1 122	4 195	6 117	711	28 603
1998–1999										
September	6 030	1 866	1 875	910	5 910	1 234	4 301	6 301	755	29 182
December	6 032	1 779	1 779	894	5 842	1 246	4 438	6 206	797	29 012
SEASONALLY ADJUSTED										
June 1996	5 591	1 667	1 691	901	5 841	1 228	4 576	6 124	670	28 293
June 1997	5 664	1 726	1 836	829	5 679	1 301	4 126	5 906	608	27 675
June 1998	6 086	1 738	1 863	867	5 670	1 108	4 273	6 172	706	28 482
1996–1997										
December	5 549	1 729	1 729	841	5 821	1 329	4 756	6 252	639	28 648
March	5 590	1 740	1 718	841	5 870	1 339	4 462	6 143	527	28 227
June	5 664	1 726	1 836	829	5 679	1 301	4 126	5 906	608	27 675
1997–1998										
September	5 700	1 750	1 948	849	5 540	1 273	3 945	5 600	644	27 248
December	5 694	1 725	1 913	926	5 572	1 210	3 905	5 650	655	27 251
March	5 947	1 611	1 870	943	5 597	1 176	4 119	5 923	712	27 900
June	6 086	1 738	1 863	867	5 670	1 108	4 273	6 172	706	28 482
1998–1999										
September	6 074	1 870	1 904	902	5 900	1 228	4 269	6 347	758	29 251
December	6 222	1 787	1 806	896	5 920	1 271	4 418	6 280	818	29 418
TREND ESTIMATES										
June 1996	5 531	1 673	1 680	887	5 827	1 310	4 631	6 168	649	28 360
June 1997	5 638	1 749	1 840	835	5 692	1 305	4 156	5 864	594	27 672
June 1998	6 035	1 736	1 875	903	5 714	1 163	4 219	6 137	724	28 506
1996–1997										
December	5 565	1 701	1 707	854	5 849	1 326	4 699	6 281	595	28 580
March	5 597	1 732	1 757	832	5 797	1 335	4 465	6 116	579	28 211
June	5 638	1 749	1 840	835	5 692	1 305	4 156	5 864	594	27 672
1997–1998										
September	5 682	1 729	1 905	870	5 589	1 267	3 960	5 684	631	27 315
December	5 775	1 691	1 915	906	5 545	1 209	3 960	5 692	671	27 363
March	5 907	1 688	1 893	917	5 602	1 162	4 082	5 902	692	27 845
June	6 035	1 736	1 875	903	5 714	1 163	4 219	6 137	724	28 506
1998–1999										
September	6 129	1 798	1 862	891	5 834	1 202	4 320	6 282	762	29 080
December	6 195	1 849	1 841	889	5 949	1 257	4 394	6 361	795	29 537

(a) Reference year for chain volume measures is 1996–1997.

(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 MANUFACTURERS' STOCKS—Chain volume measures(a)

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
	%	%	%	%	%	%	%	%	%	%
ORIGINAL										
June 1996	9.9	-5.4	15.8	4.9	6.0	-1.2	7.7	13.9	9.1	8.1
June 1997	1.4	3.4	8.6	-8.0	-2.6	5.9	-10.0	-3.6	-9.0	-2.1
June 1998	7.5	0.7	1.5	4.6	-0.1	-14.9	3.5	4.5	16.3	2.9
1996-1997										
December	-2.0	5.1	2.8	-5.9	-1.9	-3.0	-0.9	-2.2	3.9	-1.2
March	4.3	1.6	2.6	-0.4	3.3	2.9	-6.2	2.1	-13.5	1.0
June	3.9	-1.1	7.1	-1.1	-4.2	-1.7	-9.6	-7.2	13.2	-2.7
1997-1998										
September	-3.2	1.0	2.8	3.6	-2.2	-3.0	-2.1	-5.0	5.0	-2.2
December	-2.4	-1.6	-1.9	7.9	-1.0	-7.2	-1.2	0.4	-0.5	-1.1
March	8.3	-5.7	0.7	1.5	2.9	-0.6	5.6	9.0	14.1	5.0
June	5.0	7.5	-0.1	-7.7	0.4	-4.9	1.2	0.5	-2.5	1.3
1998-1999										
September	-4.0	7.2	-1.0	5.2	4.1	10.0	2.5	3.0	6.2	2.0
December	0.0	-4.7	-5.1	-1.8	-1.2	1.0	3.2	-1.5	5.5	-0.6
SEASONALLY ADJUSTED										
June 1996	9.6	-5.4	15.7	4.8	5.8	-1.1	8.0	13.9	8.8	8.1
June 1997	1.3	3.5	8.6	-8.1	-2.8	5.9	-9.8	-3.6	-9.2	-2.2
June 1998	7.4	0.7	1.5	4.6	-0.2	-14.9	3.6	4.5	16.1	2.9
1996-1997										
December	0.1	5.3	3.2	-4.8	-0.2	-0.7	-0.9	-1.6	6.0	-0.1
March	0.7	0.6	-0.6	0.0	0.8	0.8	-6.2	-1.8	-17.5	-1.5
June	1.3	-0.8	6.9	-1.4	-3.3	-2.8	-7.5	-3.9	15.3	-2.0
1997-1998										
September	0.6	1.4	6.1	2.4	-2.4	-2.2	-4.4	-5.2	5.9	-1.5
December	-0.1	-1.4	-1.8	9.2	0.6	-4.9	-1.0	0.9	1.6	0.0
March	4.4	-6.6	-2.2	1.8	0.4	-2.7	5.5	4.8	8.8	2.4
June	2.3	7.9	-0.4	-8.0	1.3	-5.8	3.7	4.2	-0.8	2.1
1998-1999										
September	-0.2	7.6	2.2	4.0	4.1	10.9	-0.1	2.8	7.2	2.7
December	2.4	-4.4	-5.2	-0.6	0.4	3.5	3.5	-1.1	7.9	0.6
TREND ESTIMATES										
June 1996	7.2	-6.6	13.8	5.1	7.3	2.9	8.4	13.9	4.2	7.9
June 1997	1.9	4.5	9.5	-5.9	-2.3	-0.3	-10.3	-4.9	-8.5	-2.4
June 1998	7.0	-0.7	1.9	8.2	0.4	-10.9	1.5	4.7	21.9	3.0
1996-1997										
December	0.0	1.4	1.2	-2.5	-0.1	1.5	-1.0	0.3	-5.3	-0.1
March	0.6	1.8	2.9	-2.7	-0.9	0.7	-5.0	-2.6	-2.6	-1.3
June	0.7	0.9	4.7	0.3	-1.8	-2.2	-6.9	-4.1	2.5	-1.9
1997-1998										
September	0.8	-1.1	3.5	4.2	-1.8	-2.9	-4.7	-3.1	6.2	-1.3
December	1.6	-2.2	0.6	4.1	-0.8	-4.6	0.0	0.1	6.3	0.2
March	2.3	-0.1	-1.2	1.3	1.0	-3.9	3.1	3.7	3.3	1.8
June	2.2	2.8	-1.0	-1.5	2.0	0.1	3.4	4.0	4.6	2.4
1998-1999										
September	1.6	3.6	-0.7	-1.3	2.1	3.4	2.4	2.4	5.2	2.0
December	1.1	2.8	-1.1	-0.3	2.0	4.6	1.7	1.3	4.3	1.6

(a) Reference year for chain volume measures is 1996-1997.

MANUFACTURERS' AND WHOLESALE TRADE SALES—Current prices

MANUFACTURING.....											WHOLESALE TRADE
Period	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
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL											
Year to											
June 1996	42 875	8 796	12 323	9 596	34 436	10 114	32 767	36 361	6 225	193 494	167 187
June 1997	43 749	9 128	13 150	9 623	34 630	9 718	31 930	38 732	6 508	197 168	167 061
June 1998	46 432	8 897	13 768	11 071	36 019	9 425	29 674	38 832	6 838	200 955	184 702
1996–1997											
December	12 261	2 297	3 424	2 521	8 914	2 495	8 301	9 727	1 628	51 568	43 690
March	10 010	2 236	3 180	2 273	8 345	2 299	7 379	9 135	1 483	46 340	39 057
June	10 423	2 350	3 280	2 432	8 999	2 464	7 872	9 979	1 598	49 398	43 055
1997–1998											
September	11 727	2 283	3 439	2 655	8 948	2 445	7 626	10 043	1 776	50 943	44 995
December	12 691	2 277	3 555	2 986	9 002	2 372	7 471	9 886	1 826	52 066	47 538
March	10 807	2 143	3 129	2 668	8 762	2 294	6 969	8 937	1 521	47 229	44 030
June	11 207	2 194	3 646	2 762	9 307	2 315	7 607	9 966	1 714	50 717	48 140
1998–1999											
September	12 198	2 504	3 678	2 747	9 014	2 665	7 818	10 383	1 709	52 714	49 042
December	12 916	2 412	3 652	2 732	9 213	2 830	7 722	10 881	2 046	54 405	51 988
SEASONALLY ADJUSTED											
Year to											
June 1996	42 845	8 771	12 296	9 561	34 417	10 118	32 710	36 314	6 172	193 203	166 817
June 1997	43 792	9 130	13 162	9 640	34 632	9 705	31 928	38 757	6 524	197 270	167 102
June 1998	46 411	8 903	13 773	11 119	36 030	9 440	29 689	38 832	6 842	201 038	184 829
1996–1997											
December	11 184	2 270	3 259	2 353	8 855	2 409	8 104	9 507	1 504	49 446	41 597
March	10 795	2 346	3 380	2 424	8 671	2 416	7 770	9 744	1 656	49 202	41 219
June	10 873	2 351	3 347	2 507	8 805	2 492	7 897	9 897	1 637	49 807	43 177
1997–1998											
September	11 482	2 210	3 350	2 636	8 879	2 396	7 423	9 748	1 699	49 824	44 866
December	11 628	2 268	3 383	2 729	8 894	2 258	7 296	9 682	1 688	49 825	45 261
March	11 597	2 229	3 321	2 909	9 154	2 444	7 336	9 512	1 699	50 201	46 447
June	11 704	2 195	3 719	2 845	9 103	2 342	7 634	9 889	1 756	51 188	48 256
1998–1999											
September	12 003	2 444	3 587	2 668	8 890	2 573	7 609	10 074	1 633	51 481	48 920
December	11 700	2 347	3 476	2 546	9 258	2 761	7 541	10 669	1 907	52 206	49 499
TREND ESTIMATES											
Year to											
June 1996	43 036	8 775	12 311	9 520	34 287	10 104	32 792	36 330	6 243	193 399	167 107
June 1997	43 780	9 083	13 168	9 668	34 802	9 685	31 745	38 711	6 470	197 112	167 353
June 1998	46 328	9 007	13 723	11 066	35 945	9 511	29 755	38 880	6 792	201 003	184 493
1996–1997											
December	10 920	2 265	3 271	2 367	8 637	2 405	8 023	9 617	1 611	49 118	41 189
March	10 957	2 325	3 335	2 418	8 732	2 441	7 926	9 733	1 619	49 487	41 868
June	11 045	2 317	3 366	2 510	8 805	2 432	7 715	9 813	1 647	49 649	43 057
1997–1998											
September	11 317	2 275	3 343	2 633	8 854	2 390	7 488	9 764	1 683	49 747	44 357
December	11 563	2 225	3 361	2 770	8 986	2 344	7 354	9 650	1 701	49 954	45 569
March	11 691	2 228	3 463	2 852	9 045	2 343	7 388	9 629	1 700	50 339	46 695
June	11 757	2 279	3 556	2 811	9 059	2 434	7 525	9 837	1 708	50 963	47 872
1998–1999											
September	11 821	2 338	3 587	2 698	9 073	2 565	7 595	10 170	1 749	51 595	48 903
December	11 848	2 394	3 567	2 553	9 107	2 704	7 612	10 555	1 811	52 191	49 680

MANUFACTURERS' AND WHOLESALE TRADE SALES—Chain volume measures(a)

MANUFACTURING.....											WHOLESALE TRADE
Period	<i>Food, beverage and tobacco</i>	<i>Textiles, clothing, footwear and leather</i>	<i>Wood and paper products</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc. products</i>	<i>Non- metallic mineral product</i>	<i>Metal product</i>	<i>Machinery and equipment</i>	<i>Other manu- facturing</i>	<i>Total manu- facturing</i>	<i>Total wholesale</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL											
Year to											
June 1996	43 402	8 874	11 951	9 866	34 247	10 225	32 166	36 460	6 313	193 471	161 149
June 1997	43 749	9 128	13 150	9 623	34 630	9 718	31 930	38 732	6 508	197 168	167 061
June 1998	45 294	8 862	13 793	10 910	36 378	9 297	28 888	38 494	6 839	198 755	183 760
1996–1997											
December	12 272	2 303	3 427	2 521	8 891	2 502	8 387	9 751	1 622	51 669	43 602
March	9 996	2 234	3 167	2 269	8 308	2 298	7 373	9 124	1 483	46 256	39 065
June	10 353	2 338	3 288	2 424	9 051	2 443	7 768	9 977	1 598	49 241	43 523
1997–1998											
September	11 573	2 262	3 452	2 627	9 044	2 420	7 419	10 012	1 770	50 581	45 385
December	12 379	2 259	3 586	2 960	9 033	2 346	7 282	9 820	1 828	51 493	47 025
March	10 504	2 139	3 138	2 618	8 872	2 260	6 781	8 844	1 526	46 681	43 669
June	10 838	2 201	3 617	2 705	9 429	2 272	7 406	9 817	1 716	49 999	47 680
1998–1999											
September	11 711	2 508	3 636	2 625	9 220	2 608	7 567	10 223	1 685	51 783	48 273
December	12 482	2 404	3 614	2 609	9 434	2 772	7 622	10 764	2 018	53 718	52 255
SEASONALLY ADJUSTED											
Year to											
June 1996	43 402	8 874	11 951	9 866	34 247	10 225	32 166	36 460	6 313	193 471	161 149
June 1997	43 749	9 128	13 150	9 623	34 630	9 718	31 930	38 732	6 508	197 168	167 061
June 1998	45 294	8 862	13 793	10 910	36 378	9 297	28 888	38 494	6 839	198 755	183 760
1996–1997											
December	11 183	2 276	3 259	2 350	8 832	2 420	8 191	9 524	1 495	49 535	41 519
March	10 768	2 342	3 361	2 414	8 633	2 419	7 763	9 724	1 648	49 071	41 239
June	10 792	2 337	3 351	2 490	8 856	2 474	7 789	9 887	1 629	49 602	43 464
1997–1998											
September	11 331	2 188	3 361	2 598	8 973	2 371	7 219	9 715	1 689	49 445	45 376
December	11 348	2 249	3 412	2 694	8 922	2 230	7 107	9 619	1 687	49 268	44 766
March	11 283	2 224	3 331	2 842	9 265	2 403	7 134	9 415	1 704	49 602	46 057
June	11 331	2 201	3 689	2 775	9 219	2 293	7 429	9 745	1 759	50 440	47 561
1998–1999											
September	11 537	2 447	3 547	2 539	9 090	2 512	7 361	9 922	1 611	50 567	48 266
December	11 321	2 338	3 440	2 421	9 475	2 699	7 439	10 558	1 882	51 572	49 739
TREND ESTIMATES											
Year to											
June 1996	43 543	8 877	11 968	9 829	34 125	10 215	32 267	36 475	6 383	193 651	161 591
June 1997	43 750	9 082	13 159	9 653	34 801	9 699	31 724	38 678	6 454	197 001	167 284
June 1998	45 198	8 966	13 743	10 849	36 301	9 366	28 952	38 546	6 784	198 703	183 349
1996–1997											
December	10 939	2 270	3 271	2 368	8 619	2 415	8 075	9 613	1 607	49 179	41 075
March	10 924	2 320	3 328	2 406	8 729	2 440	7 919	9 729	1 610	49 407	42 041
June	10 957	2 302	3 366	2 490	8 835	2 418	7 613	9 796	1 637	49 414	43 337
1997–1998											
September	11 151	2 255	3 358	2 603	8 914	2 366	7 311	9 729	1 677	49 362	44 531
December	11 313	2 209	3 381	2 728	9 058	2 313	7 153	9 586	1 700	49 442	45 413
March	11 361	2 222	3 467	2 792	9 135	2 303	7 175	9 524	1 703	49 682	46 145
June	11 373	2 280	3 537	2 726	9 193	2 384	7 313	9 706	1 705	50 217	47 260
1998–1999											
September	11 408	2 339	3 551	2 587	9 256	2 507	7 400	10 031	1 734	50 813	48 499
December	11 421	2 391	3 522	2 418	9 328	2 640	7 456	10 421	1 785	51 395	49 578

(a) Reference year for chain volume measures is 1996–1997.

MANUFACTURERS' ACTUAL AND EXPECTED SALES WITH REALISATION RATIOS(a)

Period	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
ACTUAL SALES (\$ million)										
1995-1996	42 875	8 796	12 323	9 596	34 436	10 114	32 767	36 361	6 225	193 494
1996-1997	43 749	9 128	13 150	9 623	34 630	9 718	31 930	38 732	6 508	197 168
1997-1998	46 432	8 897	13 768	11 071	36 019	9 425	29 674	38 832	6 838	200 955
1996-1997										
December	12 261	2 297	3 424	2 521	8 914	2 495	8 301	9 727	1 628	51 568
March	10 010	2 236	3 180	2 273	8 345	2 299	7 379	9 135	1 483	46 340
June	10 423	2 350	3 280	2 432	8 999	2 464	7 872	9 979	1 598	49 398
1997-1998										
September	11 727	2 283	3 439	2 655	8 948	2 445	7 626	10 043	1 776	50 943
December	12 691	2 277	3 555	2 986	9 002	2 372	7 471	9 886	1 826	52 066
March	10 807	2 143	3 129	2 668	8 762	2 294	6 969	8 937	1 521	47 229
June	11 207	2 194	3 646	2 762	9 307	2 315	7 607	9 966	1 714	50 717
1998-1999										
September	12 198	2 504	3 678	2 747	9 014	2 665	7 818	10 383	1 709	52 714
December	12 916	2 412	3 652	2 732	9 213	2 830	7 722	10 881	2 046	54 405
EXPECTED SALES (\$ million)										
1998-1999										
6 mths to Jun	23 209	4 628	6 446	5 077	18 457	5 006	14 490	20 677	3 648	101 637
Total 1998-1999(b)	48 323	9 544	13 776	10 556	36 684	10 501	30 030	41 941	7 403	208 756
1999-2000										
6 mths to Dec	25 930	4 905	7 018	5 569	19 103	5 082	15 106	21 826	4 129	108 668
REALISATION RATIOS: 6 MONTHS TO JUNE (Actual/Dec E1)										
1994	1.08	1.11	1.05	1.14	1.26	1.12	1.04	1.04	1.35	1.11
1995	0.99	0.97	0.99	0.91	0.99	0.94	1.04	0.96	1.04	0.99
1996	0.98	0.89	0.96	0.98	1.00	0.99	0.97	1.02	0.94	0.98
1997	0.94	0.97	0.98	1.01	0.98	1.02	0.93	1.01	1.03	0.97
1998	0.98	0.92	1.03	0.94	0.99	1.02	0.97	1.02	1.06	0.99
5 year average	0.99	0.97	1.00	0.99	1.05	1.02	0.99	1.01	1.08	1.01
REALISATION RATIOS: 6 MONTHS TO DECEMBER (Actual/Dec E2)										
1994	1.09	0.97	1.05	1.09	1.29	1.18	1.04	1.10	1.01	1.11
1995	1.10	0.99	1.14	1.14	1.31	1.29	1.14	1.06	1.43	1.15
1996	1.00	0.98	1.02	0.98	0.97	0.89	1.08	1.01	1.08	1.01
1997	1.00	0.96	1.03	0.96	0.96	0.97	0.98	1.04	1.04	1.00
1998	0.99	0.98	1.02	1.11	0.99	0.97	0.92	0.99	1.15	0.99
5 year average	1.04	0.98	1.05	1.06	1.11	1.06	1.03	1.04	1.14	1.05
REALISATION RATIOS: 12 MONTHS TO JUNE (Actual/sum of Sep actual, Dec actual and Dec E1)										
1994	1.04	1.05	1.02	1.06	1.12	1.06	1.02	1.02	1.16	1.05
1995	1.00	0.99	1.00	0.95	1.00	0.97	1.02	0.98	1.02	0.99
1996	0.99	0.94	0.98	0.99	1.00	1.00	0.98	1.01	0.97	0.99
1997	0.97	0.99	0.99	1.00	0.99	1.01	0.97	1.01	1.01	0.99
1998	0.99	0.96	1.02	0.97	1.00	1.01	0.99	1.01	1.03	1.00
5 year average	1.00	0.99	1.00	1.00	1.02	1.01	0.99	1.01	1.04	1.00

(a) See paragraphs 23 to 26 of the Explanatory Notes.

(b) Derived by adding actual and expected sales. See paragraphs 6 to 9 of the Explanatory Notes.

MANUFACTURING AND WHOLESALE TRADE STOCKS/SALES RATIO—Current prices(a)

	MANUFACTURING.....										WHOLESALE TRADE
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
June 1996	0.54	0.79	0.54	0.38	0.66	0.50	0.58	0.65	0.44	0.59	0.52
June 1997	0.53	0.74	0.55	0.32	0.64	0.53	0.53	0.60	0.37	0.56	0.50
June 1998	0.54	0.80	0.51	0.31	0.60	0.48	0.58	0.64	0.41	0.56	0.50
1996–1997											
December	0.49	0.75	0.53	0.36	0.67	0.55	0.58	0.65	0.42	0.58	0.51
March	0.52	0.74	0.51	0.34	0.67	0.55	0.57	0.63	0.32	0.57	0.51
June	0.53	0.74	0.55	0.32	0.64	0.53	0.53	0.60	0.37	0.56	0.50
1997–1998											
September	0.51	0.80	0.58	0.31	0.62	0.53	0.55	0.58	0.38	0.55	0.50
December	0.51	0.77	0.57	0.33	0.63	0.54	0.55	0.59	0.39	0.56	0.51
March	0.53	0.73	0.57	0.32	0.60	0.49	0.58	0.64	0.42	0.56	0.50
June	0.54	0.80	0.51	0.31	0.60	0.48	0.58	0.64	0.41	0.56	0.50
1998–1999											
September	0.53	0.77	0.55	0.35	0.65	0.49	0.58	0.65	0.49	0.58	0.50
December	0.55	0.77	0.54	0.37	0.61	0.47	0.60	0.61	0.45	0.57	0.50

(a) Seasonally adjusted series.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains estimates of the book value of stocks owned by private businesses, estimates of sales by wholesalers and sales and expected sales of goods manufactured or assembled by manufacturers in Australia. The series have been compiled from data collected by the Australian Bureau of Statistics (ABS) in its quarterly Survey of Stocks and Sales.

SCOPE AND COVERAGE

2 The scope of the survey:

- includes the following industries (Australian and New Zealand Standard Industrial Classification 1993 [ANZSIC] Divisions and Subdivisions):

- Mining (Division B)

- Manufacturing (Division C)

- Food, beverages and tobacco (21)

- Textiles, clothing, footwear and leather (22)

- Wood and paper products (23)

- Printing, publishing and recorded media (24)

- Petroleum, coal, chemical and associated products (25)

- Non-metallic mineral products (26)

- Metal products (27)

- Machinery and equipment (28)

- Other manufacturing (29)

- Wholesale Trade (Division F)

- Basic materials (45)

- Machinery and motor vehicles (46)

- Personal and household goods (47)

- Retail Trade (Division G excluding 5322, 5323 and 5329)

- Food (51)

- Personal and household goods (52)

- Motor vehicle retailing and services (53 excluding 5322, 5323 and 5329)

- Other Selected Industries

- Electricity and gas supply (36)

- Accommodation, cafes and restaurants (Division H)

- excludes the following industries:

- Agriculture, forestry and fishing

- Water supply, sewerage and drainage services

- Construction

- Transport and storage

- Communication services

- Finance and insurance

- Property and business services

- Government administration and defence

- Education, health and community services

- Cultural and recreational services

- Personal and other services

- in addition the scope excludes public sector business units (i.e. all departments, authorities and other organisations owned and/or controlled by Commonwealth, State and Local Governments). Primary producer marketing boards are classified as public sector and are also excluded.

EXPLANATORY NOTES

SURVEY METHODOLOGY

3 The survey is conducted by mail on a quarterly basis. It is based on a stratified random sample of approximately 7,500 private businesses selected from the ABS register of businesses. The sample is stratified by industry and number of employees. All business units with over 250 employees, and other statistically significant units, such as many joint venture partners, are included. The figures obtained from these businesses are also supplemented by adjustments for new businesses not yet included in the sample framework.

4 Respondents are asked to provide data on the same basis as their own management accounts. Where a selected business unit does not respond in a given survey, an estimate is substituted. Revisions may be made to these estimate adjustments if data are provided subsequently from those businesses. Aggregates are calculated from original data using the 'number raised' estimation technique. Data are edited at both individual unit level and at aggregate level.

5 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 3.9% to the current quarter's estimate of reported stocks and 3.6% to reported sales. These adjustments were introduced in the June quarter 1997 publication and have been made back to the June quarter 1984. For further information see the June quarter 1997 publication or an Information Paper—*Improvements to ABS Economic Statistics 1997* (Cat. no. 1357.0) issued on 22 August 1997.

TIMING AND CONSTRUCTION OF SURVEY CYCLE

6 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.

7 In addition to data on stocks, manufacturers and wholesalers are requested to provide sales figures for actual sales made during the reference quarter. Manufacturers are also requested to provide expected sales for future periods:

- a short term expectation (E1); and
- a longer term expectation (E2).

8 Full details of the reporting cycle are shown in the table below.

	Period to which reported data relates									
	1997–1998			1998–1999			1999–2000			
Survey quarter	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	
June 1998	Actual	E1	E2							
September 1998		Actual	E1	E2						
December 1998			Actual	E1	E2					
March 1999				Actual	E1	E2				
June 1999					Actual	E1	E2			

EXPLANATORY NOTES

TIMING AND CONSTRUCTION OF SURVEY CYCLE *continued*

9 For the manufacturing industry this survey cycle produces estimates of sales and expected sales for the next 9 or 12 months. Realisation ratios (actual sales divided by expected sales) are published in this issue as an aid in interpreting expectation statistics. Since realisation ratios tend to vary according to factors such as the stage of the economic cycle, caution should be used when interpreting the data on expected sales and realisation ratios.

SAMPLE REVISION

10 Prior to the June quarter 1996 survey, the survey frames and samples were revised annually to ensure that they remained representative of the survey population. Adjustments were made to the survey estimates each quarter to reflect changes in the size of the survey frame throughout the year. From the June quarter 1996 survey, the survey frames and samples are being revised each quarter. The aim is to further improve the quality of the survey estimates by selecting a sample which will be more representative of the business population. The timing of sample selection will now be consistent with other ABS surveys. This will lead to greater consistency when comparing data across these surveys.

11 With these revisions to the sample, some of the business units are rotated out of the survey and are replaced by others to spread the reporting workload equitably. The rate of rotation under quarterly sample selection is slightly higher than one quarter of the previous annual rate of rotation.

12 When frames and samples were updated annually some data would be revised as a consequence. No data revisions of this nature will be needed given quarterly updates to frames and samples. Data may be revised however on the basis of further processing.

STATISTICAL UNIT

13 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 defined where separate and comprehensive accounts are compiled for it. Prior to 1989, the survey was on a different business unit basis. Further details are available on request.

CLASSIFICATION BY INDUSTRY

14 The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both countries for the production and analysis of industry statistics. It replaces the Australian Standard Industrial Classification (ASIC) and the New Zealand Standard Industrial Classification (NZSIC).

15 For more information, users are referred to *Australian & New Zealand Standard Industrial Classification, 1993*, ANZSIC, ABS (Cat. no. 1292.0) and Statistics New Zealand (Cat. no. 19.005.0092).

16 In order to classify stocks and sales data by industry, each statistical unit (as defined above) is classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry in which it *mainly* operates.

17 All of the stocks, sales and expected sales of each statistical unit are classified to that unit's industry even though it may have activities in other industries.

DESCRIPTION OF TERMS

18 *Manufacturers' Sales*. All sales of goods manufactured by the business unit or manufactured for it on commission. Excludes commission earned by the business for manufacturing work done on customers' materials and sales of goods not manufactured (e.g. merchanted goods) by the business.

EXPLANATORY NOTES

DESCRIPTION OF TERMS *continued*

19 *Wholesale trade Sales.* All sales of goods by businesses classified to the Wholesale Trade Industry.

20 *Stocks.* All stocks of materials etc., work in progress and finished goods owned by the business, whether held at locations of the business or elsewhere.

CHAIN VOLUME MEASURES

21 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 1996–1997). Chain volume measures were introduced in September quarter 1998, replacing constant price estimates. Chain volume measures can be thought of as current price values re-expressed in (i.e. based on) the prices of the previous year and linked together to form continuous time series. Each year's quarter-to-quarter growth rates in the chain volume series are based on the prices of the previous 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 1999 issue of this publication, the chain volume measures for 1998–1999 will have 1997–1998 (the previous financial year) as their base year rather than 1996–1997, and the reference year will be 1997–1998. A change in reference year changes levels but not growth rates.

22 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 stocks and sales this means that the original chain volume estimates for industry groups will not add to total stocks and sales for Australia. However, by using the latest base year as the reference year, non-additivity does not exist for the quarters following the reference year and 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).

DERIVATION AND USEFULNESS OF REALISATION RATIOS

23 Once the actual level of manufacturers' sales is known, it is useful to investigate the relationship between it and each of the previous expected estimates. The resultant realisation ratios (subsequent actual sales divided by expected sales) then indicate how the value of actual sales compared with the value of expected sales at the various times of reporting. Realisation ratios can also be formed separately for 3 or 6 month expectations as well as the 12 month estimates or combinations of estimates containing at least some expectation components (e.g. 6 months actual and 6 months expected sales).

24 Realisation ratios provide an important tool in understanding and interpreting expectations statistics for future periods. The application of realisation ratios enables the adjustment of expectations data for known under (or over) realisation patterns in the past and hence provides a valid basis for comparison with other expectations data and actual sales estimates. For example, if one wished to predict actual sales for 1998–1999 based on the June 1998 survey results and compare these with 1997–1998 actual sales, it is necessary to apply relevant realisation factors to the expectation to put both estimates on the same basis. Once this has been done the predictions can be validly compared with each other and with previously derived estimates of actual sales for earlier years.

EXPLANATORY NOTES

DERIVATION AND USEFULNESS OF REALISATION RATIOS

25 There are many ways in which realisation ratios can be applied to make predictions of sales for a future period. For instance, the adjusted estimates could be derived using realisation ratios which are the average of the latest available five observations or any of the five could be used. Realisation ratios are provided in table 9 on page 15.

26 In using realisation ratios to adjust expectations data, attention should be paid to the range of values that has occurred in the past. A wide range of values is indicative of volatility in the realisation patterns and hence greater caution should be exercised in the application of realisation ratios. This is particularly the case with the twelve months expectations collected in the December and June surveys.

RELIABILITY OF THE ESTIMATES

27 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error. Sampling error is explained and quantified on pages 23 and 24.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. The major errors of concern and which may affect the data are:

- misreporting of data by respondents; and
- deficiencies in the register of economic units, particularly in respect of small units.

Every effort is made to minimise the non-sampling error by careful design of questionnaires, efficient operating procedures, and appropriate methodology.

SEASONAL ADJUSTMENT

28 The quarterly stocks 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 may be carried out by various methods and the results may vary slightly depending on the procedure adopted. Accordingly, seasonally adjusted statistics are only indicative and should not be regarded as in any way definitive. In interpreting seasonally adjusted data it is important therefore to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject.

30 Seasonal adjustment is a means of reassessing the estimated effects of normal seasonal variations for the series so that the effects of other influences can be more clearly recognised.

31 In the seasonal adjustment of the series, account has been taken of both normal seasonal factors and 'trading' day effects (arising from the varying length of each quarter) and the varying numbers of Sundays, Mondays, Tuesdays etc. in the quarter. Seasonal adjustment does not remove from the series the effect of irregular or non-seasonal influences (e.g. change in interest rates).

32 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 1998 survey. Data for periods after March 1998 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. Care should be exercised when interpreting quarter to quarter movements in the seasonally adjusted series in the publication, particularly for recent quarters.

EXPLANATORY NOTES

SEASONAL ADJUSTMENT

continued

33 It should be noted that the seasonally adjusted figures necessarily reflect the sampling and other errors to which the original figures are subject.

34 Details of the seasonal adjustment methods used for stocks and sales, together with selected measures of variability for these series are available on request.

TREND ESTIMATES

35 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 *A Guide to Interpreting Time Series—Monitoring 'Trend' An Overview* (Cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis.

COMPARISON WITH OTHER ABS STATISTICS

36 The data collected in the Survey of Stocks and Sales are used to compile estimates of the increase in book value of non-farm stocks in the quarterly and annual national accounts. For further details see *Australian National Accounts: Concepts, Sources and Methods* (Cat. no. 5216.0).

37 The statistics shown for the movement in the book value of stocks in this publication will differ from corresponding data for private non-farm stocks shown in the national accounts publications because the national accounts estimates include estimates for the construction and transport industries.

RELATED PUBLICATIONS

38 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)
- *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)
- *State Estimates of Private New Capital Expenditure* (Cat. no. 5646.0)

39 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.

UNPUBLISHED DATA

40 In addition to the data contained in this and related publications, more detailed industry information may be made available on request. Data are available at the ANZSIC Group (i.e. 3 digit) level for stocks and manufacturers' sales.

SYMBOLS AND OTHER USAGES

ANZSIC *Australian and New Zealand Standard Industrial Classification* (Cat. no. 1292.0) 1993 edition

STANDARD ERRORS

The estimates in this publication are based on information gained from a sample survey. Because the entire population of businesses is not surveyed, the published estimates are subject to sampling error and this can be quantified in a number of ways. A common measure is *standard error*. In this publication standard errors are presented as a percentage of the estimate to which they apply (i.e. *relative standard error*). In the case of the relative standard errors of movement, they are expressed as a percentage of the estimate of the data level for the earlier period.

There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all businesses had been included in the survey, and there are about nineteen chances in twenty that the difference will be less than two standard errors. Put another way, this means that we can be 67% confident that the 'true' figure is within plus or minus one standard error of the sample estimate and 95% confident that the 'true' figure is within two standard errors of the sample estimate. Tables of relative standard errors are presented on the next page and examples of their application are given below.

LEVEL ESTIMATES

To illustrate, let us say the published level estimate for manufacturers' stocks is \$21,000m. The relative standard error for this case, obtained from the table on the next page, is 1.4%. This relative standard error is then used to interpret the level estimate of \$21,000m. For instance, the relative standard error of 1.4% indicates that:

- There are approximately two chances in three that the real value falls within the range \$20,706m to \$21,294m ($\$21,000\text{m} \pm 1.4\% \times \$21,000\text{m}$)
- There are approximately nineteen chances in twenty that the real value falls within the range \$20,412m to \$21,588m ($\$21,000\text{m} \pm 2 \times 1.4\% \times \$21,000\text{m}$)

The real value in this case is the result we would obtain if the total population had been enumerated.

The following tables show the relative standard errors for this quarter's level estimates.

MOVEMENT ESTIMATES

The following example illustrates how to use the standard error to interpret a movement estimate. Suppose that for one quarter the published level estimate for manufacturers' stocks in Australia is \$22,100m; the next quarter the published level estimate is \$22,400m. The relative standard error for the movement estimates, obtained from the next page, is 0.4%. This relative standard error is then used to interpret the published movement estimate of +\$300m. For instance the relative standard error of 0.4% indicates that:

- There are approximately two chances in three that the real movement over the two quarters falls within the range \$12m to \$388m ($\$300\text{m} \pm 0.4\% \times \$22,100\text{m}$)
- There are approximately nineteen chances in twenty that the real value falls within the range \$123m to \$477m ($\$300\text{m} \pm 2 \times 0.4\% \times \$22,100\text{m}$).

The following tables show the relative standard errors for this quarter's movement estimates.

STANDARD ERRORS *continued*

APPROXIMATE RELATIVE STANDARD ERRORS

STOCKS OWNED BY PRIVATE BUSINESSES(a).....

	<i>Mining</i>	<i>Manu- facturing</i>	<i>Whole- sale trade</i>	<i>Retail trade</i>	<i>Other</i>	<i>Total selected industries</i>
Estimates of	%	%	%	%	%	%
Total stocks	2.4	1.4	6.3	3.6	11.5	2.3
Quarter to quarter movement(a)	0.7	0.4	0.8	1.1	2.5	0.4

STOCKS AND SALES, PRIVATE MANUFACTURING AND WHOLESALE TRADE BUSINESSES

MANUFACTURING.....

WHOLESALE TRADE

	<i>Food, beverage and tobacco</i>	<i>Textiles, clothing, footwear and leather</i>	<i>Wood and paper products</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc. products</i>	<i>Non- metallic mineral product</i>	<i>Metal product</i>	<i>Machinery and equipment</i>	<i>Other manu- facturing</i>	<i>Total manu- facturing</i>	<i>Total</i>
Estimates of	%	%	%	%	%	%	%	%	%	%	%
Total stocks– Level	3.0	4.6	5.2	10.3	3.0	6.5	1.4	4.4	8.1	1.4	6.3
Movement	0.7	1.6	1.4	2.3	0.9	2.8	0.5	1.4	2.6	0.4	0.8
Total sales– Level	2.1	5.7	4.2	12.8	2.8	7.0	1.5	4.0	7.5	1.4	7.7
Movement	0.8	2.2	1.5	3.3	1.0	3.3	0.6	1.3	2.9	0.5	0.9

(a) Expressed as a percentage of total.

WHAT IF...? REVISIONS TO TREND ESTIMATES

EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

TREND REVISIONS

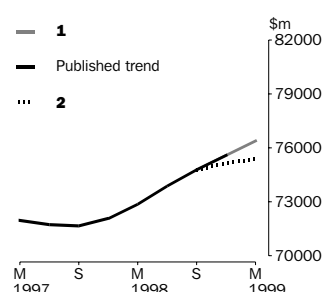
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of stocks owned by private businesses and manufacturers' and wholesalers' sales.

1 The March quarter seasonally adjusted estimate of chain volume measures is higher than the December quarter estimate by the percentage shown.

2 The March quarter seasonally adjusted estimate of chain volume measures is lower than the December quarter estimate by the percentage shown.

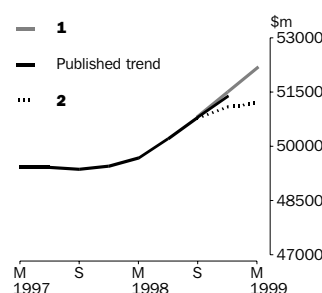
The percentages chosen are the long term average movements, without regard to sign, in the seasonally adjusted series.

STOCKS OWNED BY PRIVATE BUSINESSES



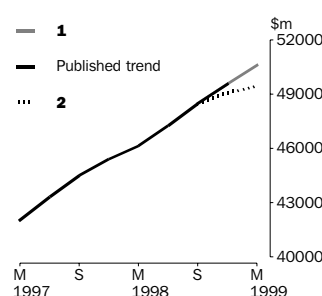
	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.0 on Dec 1998 \$m % change	2 falls by 1.0 on Dec 1998 \$m % change		
1998						
March	72 863	1.1	72 863	1.1	72 863	1.1
June	73 885	1.4	73 885	1.4	73 974	1.5
September	74 791	1.2	74 791	1.2	74 760	1.1
December	75 599	1.1	75 605	1.1	75 178	0.6
1999						
March	—	—	76 388	1.0	75 374	0.3

MANUFACTURERS' SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.4 on Dec 1998 \$m % change	2 falls by 1.4 on Dec 1998 \$m % change		
1998						
March	49 682	0.5	49 682	0.5	49 682	0.5
June	50 217	1.1	50 178	1.0	50 263	1.2
September	50 813	1.2	50 822	1.3	50 792	1.1
December	51 395	1.1	51 502	1.3	51 094	0.6
1999						
March	—	—	52 177	1.3	51 209	0.2

WHOLESALE TRADE SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.7 on Dec 1998 \$m % change	2 falls by 1.7 on Dec 1998 \$m % change		
1998						
March	46 145	1.6	46 145	1.6	46 145	1.6
June	47 260	2.4	47 241	2.4	47 340	2.6
September	48 499	2.6	48 491	2.6	48 458	2.4
December	49 578	2.2	49 578	2.2	49 101	1.3
1999						
March	—	—	50 618	2.1	49 462	0.7

SELF-HELP ACCESS TO STATISTICS

DIAL-A-STATISTIC For current and historical Consumer Price Index data, call 1902 981 074.
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.
These calls cost 75c per minute.

INTERNET www.abs.gov.au

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.

WHY NOT SUBSCRIBE?

PHONE +61 1300 366 323

FAX +61 3 9615 7848

CONSULTANCY SERVICES

ABS offers consultancy services on a user pays basis to help you access published and unpublished data. Data that are already published and can be provided within 5 minutes is free of charge. Statistical methodological services are also available. Please contact:

<i>City</i>	<i>By phone</i>	<i>By fax</i>
Canberra	02 6252 6627	02 6207 0282
Sydney	02 9268 4611	02 9268 4668
Melbourne	03 9615 7755	03 9615 7798
Brisbane	07 3222 6351	07 3222 6283
Perth	08 9360 5140	08 9360 5955
Adelaide	08 8237 7400	08 8237 7566
Hobart	03 6222 5800	03 6222 5995
Darwin	08 8943 2111	08 8981 1218



2562900012982
ISSN 1328-973X

RRP \$17.00

POST Client Services, ABS, PO Box 10, Belconnen, ACT 2616

EMAIL client.services@abs.gov.au