



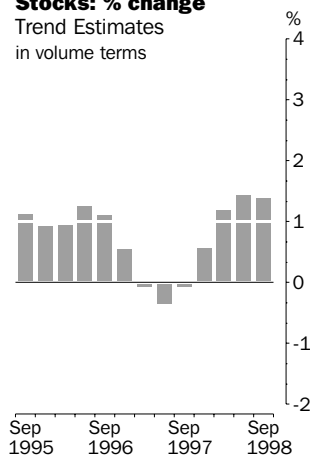
STOCKS AND SALES, SELECTED INDUSTRIES

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) MON 30 NOV 1998

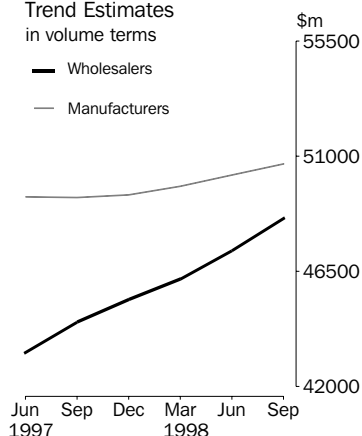
Stocks: % change

Trend Estimates
in volume terms



Sales

Trend Estimates
in volume terms



■ 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.

SEPTEMBER QTR KEY FIGURES

TREND ESTIMATES (a)

	Sep 97	Jun 98	Sep 98	Jun 98 to Sep 98	Sep 97 to Sep 98
	\$m	\$m	\$m	% change	% change
Stocks held by					
Private businesses	71 698	74 012	75 043	1.4	4.7
Sales by					
Manufacturers	49 372	50 269	50 709	0.9	2.7
Wholesale trade	44 529	47 322	48 592	2.7	9.1

SEASONALLY ADJUSTED (a)

	Sep 97	Jun 98	Sep 98	Jun 98 to Sep 98	Sep 97 to Sep 98
	\$m	\$m	\$m	% change	% change
Stocks held by					
Private businesses	71 636	74 045	74 985	1.3	4.7
Sales by					
Manufacturers	49 442	50 436	50 616	0.4	2.4
Wholesale trade	45 376	47 561	48 550	2.1	7.0

(a) In volume terms.

SEPTEMBER QTR KEY POINTS

TREND ESTIMATES

- The trend estimate (in volume terms) of stocks held by private businesses has increased by \$1,031m (1.4%) since June 1998. Rates of growth have been steady over the last three quarters, between 1.2% and 1.4% per quarter.
- This growth has been mainly driven by increases in stocks held by Wholesalers and Manufacturers. Growth rates for Wholesale trade have been between 1.7% and 2.4% per quarter for the last six quarters.
- Stock levels for Manufacturing have increased by 6.7% since September 1997. The largest increases have been in Machinery and equipment and Food, beverage and tobacco.
- This is the sixth quarter of falling stock levels for Retail trade. Retail stocks have fallen by 3.8% (\$660m) since March 1997.

SALES

- Trend estimates for Manufacturers' sales increased by 0.9% and Wholesale trade sales increased by 2.7% from June quarter 1998.
- The second estimate (in current price terms) of Manufacturers' expected sales for 1998-99 is \$209,328m.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)
December 1998
March 1999

RELEASE DATE
01 March 1999
31 May 1999

CHANGES TO THIS ISSUE

As foreshadowed last issue, constant price data have been replaced with chain volume measures. For further information refer to paragraph 21 of the Explanatory Notes or the information paper *Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0).

In addition, an improvement has been made to the deflators used to derive the volume measures for Wholesalers' stocks and sales. This has led to an increase in growth rates over recent periods.

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 25–26.

REVISIONS TO TREND

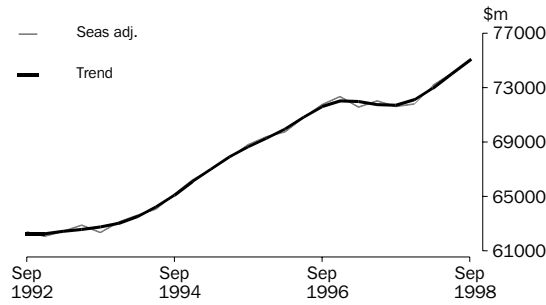
Readers should exercise care in the interpretation of the trend data as the data for the last three quarters in particular are likely to be revised with the addition of subsequent quarters' data. For further information and examples showing the sensitivity of trend data, refer to Trend Estimates in paragraph 47 of the Explanatory Notes.

W. McLennan
Australian Statistician

STOCKS: Trend estimates—Chain volume measures(a)

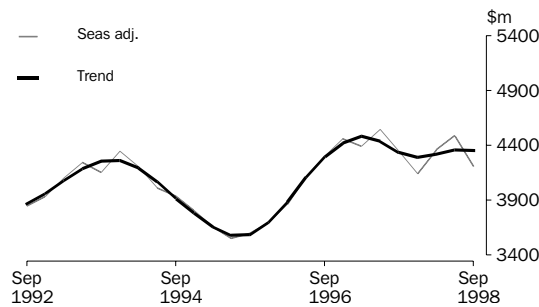
ALL SELECTED INDUSTRIES

The current trend estimate of stocks held by private businesses is \$75,043m, an increase of \$3,345m (4.7%), since September 1997. In comparison, stock levels were relatively stable for the four quarters prior to September 1997.



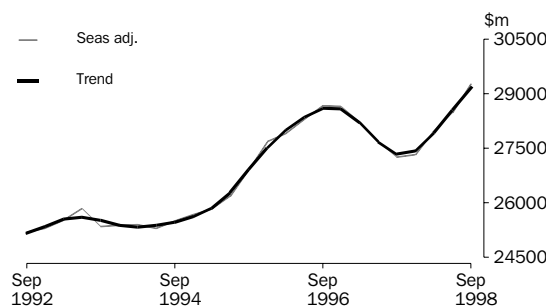
MINING

Trend estimates for stocks held by the Mining industry have been relatively stable for the past five quarters.



MANUFACTURING

Since September 1997, Manufacturers' stocks have increased by \$1,827m (6.7%). Contributing most to this increase have been Machinery and equipment \$757m (13.3%), Food, beverage and tobacco \$448m (7.9%), Metal product \$342m (8.6%) and Petroleum, coal and chemical \$242m (4.3%).

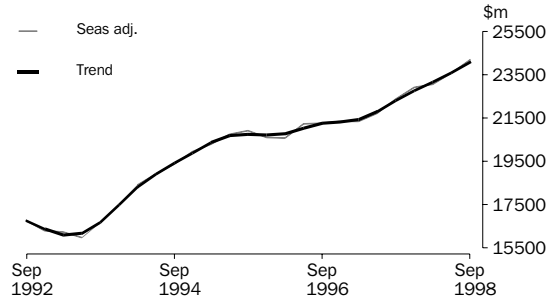


(a) Reference year for chain volume measures is 1996–97.

STOCKS: Trend estimates—Chain volume measures(a)

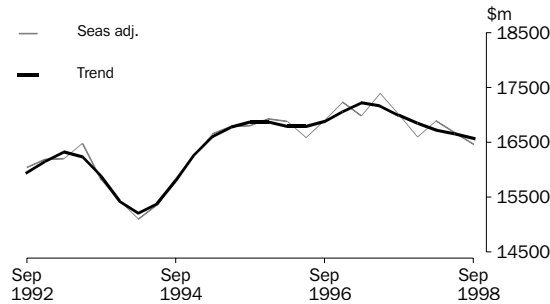
WHOLESALE TRADE

The current trend estimate of stocks held by Wholesale trade is \$24,082m. Growth rates have been between 1.7% and 2.4% per quarter, since March 1997. Since then, stock levels have increased by \$2,663m (12.4%).



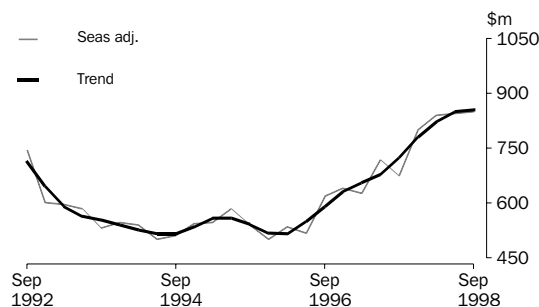
RETAIL TRADE

Stock levels held by Retail trade have been falling since March 1997. The current estimate of \$16,559m is \$660m (3.8%) lower than the estimate for March 1997.



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

Growth rates for stocks held by Other Selected industries have been falling over the past three quarters, from 7.8% in December 1997 to 0.5% this quarter. The current trend estimate is \$854m.

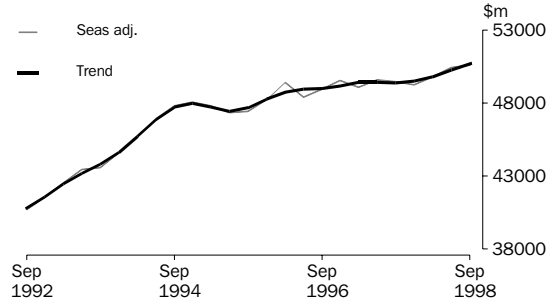


(a) Reference year for chain volume measures is 1996–97.

SALES: Trend estimates—Chain volume measures(a)

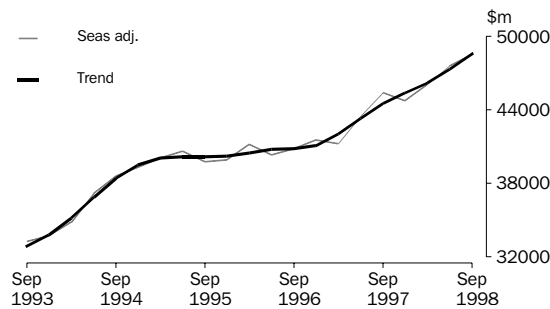
MANUFACTURERS' SALES

Since September quarter 1997, trend estimates for Manufacturers' sales have increased by \$1,337m (2.7%) to \$50,709m. Over this period, the major contributors to the increase have been Food, beverage and tobacco \$395m (3.5%), Petroleum, coal and chemical \$378m (4.2%) and Wood and paper product \$300m (8.9%).



WHOLESALE TRADE SALES

Trend estimates for Wholesale trade sales have been growing at rates between 1.8% and 3.1% per quarter over the past seven quarters. The current estimate of \$48,592m is \$4,063m (9.1%) higher than for September quarter 1997.

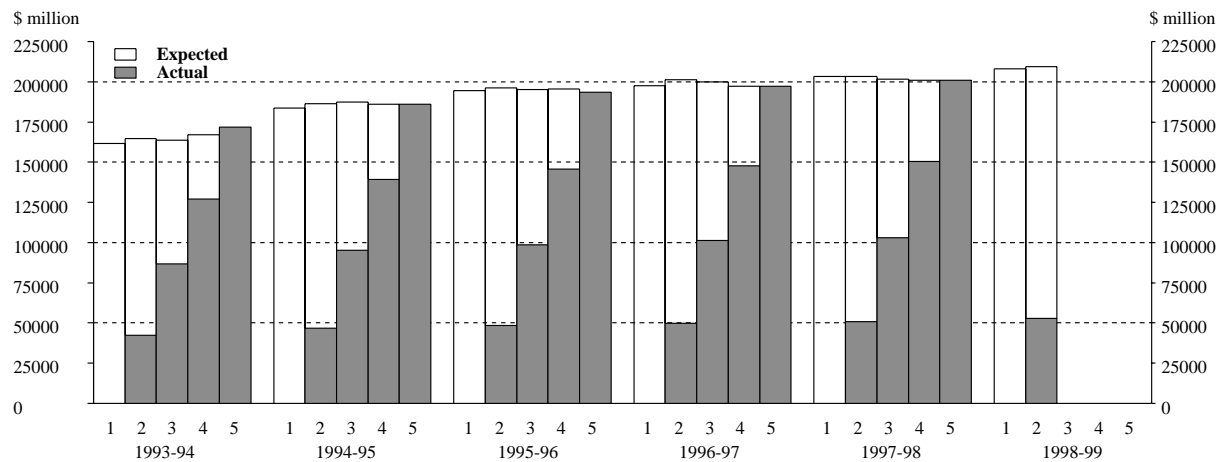


(a) Reference year for chain volume measures is 1996–97.

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

At end of	Mining \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries(a) \$m	Total selected industries \$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
1996-97						
September	4 307	28 584	21 439	17 015	609	71 953
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
1997-98						
September	4 441	27 415	22 371	17 245	677	72 149
December	4 278	27 446	23 219	16 985	873	72 801
March	4 461	28 724	23 321	17 087	854	74 448
June	4 484	29 039	23 662	16 610	834	74 630
1998-99						
September	4 289	29 837	25 080	16 989	874	77 069
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
1996-97						
September	4 266	28 633	21 331	16 857	618	71 705
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
1997-98						
September	4 402	27 479	22 245	17 084	687	71 897
December	4 256	27 831	23 087	16 747	815	72 735
March	4 451	28 387	23 270	17 097	869	74 074
June	4 560	28 915	23 994	17 001	870	75 339
1998-99						
September	4 252	29 913	24 931	16 830	886	76 812
TREND ESTIMATES						
June 1996	4 082	28 487	21 400	16 691	547	71 207
June 1997	4 481	27 764	21 590	17 231	685	71 751
June 1998	4 429	29 040	24 070	16 961	880	75 379
1996-97						
September	4 274	28 584	21 358	16 838	590	71 644
December	4 422	28 490	21 224	17 072	632	71 840
March	4 504	28 146	21 214	17 259	660	71 783
June	4 481	27 764	21 590	17 231	685	71 751
1997-98						
September	4 400	27 617	22 216	17 094	736	72 063
December	4 383	27 810	22 857	16 985	798	72 833
March	4 411	28 363	23 445	16 949	848	74 016
June	4 429	29 040	24 070	16 961	880	75 379
1998-99						
September	4 398	29 724	24 753	16 936	889	76 700

(a) See paragraph 2 of the Explanatory Notes.

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

At end of	Mining \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries(b) \$m	Total selected industries \$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
1996-97						
September	4 341	28 627	21 357	17 059	609	71 994
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
1997-98						
September	4 386	27 187	22 489	17 165	665	71 891
December	4 163	26 942	23 051	16 833	856	71 845
March	4 369	28 323	23 106	16 885	825	73 508
June	4 411	28 603	23 236	16 288	810	73 348
1998-99						
September	4 247	29 193	24 344	16 617	837	75 240
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
1996-97						
September	4 300	28 672	21 249	16 901	618	71 749
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
1997-98						
September	4 347	27 248	22 362	17 005	674	71 636
December	4 141	27 319	22 919	16 598	799	71 775
March	4 359	27 993	23 056	16 895	840	73 141
June	4 486	28 482	23 562	16 671	844	74 045
1998-99						
September	4 211	29 263	24 200	16 462	849	74 985
TREND ESTIMATES						
June 1996	4 106	28 360	21 031	16 789	550	70 845
June 1997	4 439	27 671	21 788	17 161	678	71 739
June 1998	4 355	28 543	23 608	16 657	849	74 012
1996-97						
September	4 295	28 600	21 254	16 879	591	71 630
December	4 420	28 580	21 320	17 066	631	72 023
March	4 480	28 207	21 419	17 219	656	71 983
June	4 439	27 671	21 788	17 161	678	71 739
1997-98						
September	4 334	27 341	22 302	16 999	723	71 698
December	4 291	27 418	22 779	16 841	779	72 108
March	4 318	27 917	23 181	16 727	823	72 966
June	4 355	28 543	23 608	16 657	849	74 012
1998-99						
September	4 351	29 168	24 082	16 559	854	75 043

(a) Reference year for chain volume measures is 1996-97.

(b) See paragraph 2 of the Explanatory Notes.

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

Year to/Quarter to	<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>
	%	%	%	%	%	%
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
1996-97						
September	7.3	0.8	2.0	5.2	22.4	2.7
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
1997-98						
September	-1.9	-2.2	5.1	1.0	-3.6	0.8
December	-5.1	-0.9	2.5	-1.9	28.7	-0.1
March	5.0	5.1	0.2	0.3	-3.6	2.3
June	1.0	1.0	0.6	-3.5	-1.9	-0.2
1998-99						
September	-3.7	2.1	4.8	2.0	3.4	2.6
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
1996-97						
September	4.4	1.3	0.0	1.9	19.5	1.4
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
1997-98						
September	-4.4	-1.5	3.0	-2.2	-6.2	-0.6
December	-4.7	0.3	2.5	-2.4	18.5	0.2
March	5.3	2.5	0.6	1.8	5.1	1.9
June	2.9	1.7	2.2	-1.3	0.6	1.2
1998-99						
September	-6.1	2.7	2.7	-1.3	0.5	1.3
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	3.2	8.4	-2.9	25.4	3.2
1996-97						
September	4.6	0.8	1.1	0.5	7.4	1.1
December	2.9	-0.1	0.3	1.1	6.7	0.5
March	1.4	-1.3	0.5	0.9	4.0	-0.1
June	-0.9	-1.9	1.7	-0.3	3.3	-0.3
1997-98						
September	-2.4	-1.2	2.4	-0.9	6.7	-0.1
December	-1.0	0.3	2.1	-0.9	7.8	0.6
March	0.6	1.8	1.8	-0.7	5.6	1.2
June	0.9	2.2	1.8	-0.4	3.2	1.4
1998-99						
September	-0.1	2.2	2.0	-0.6	0.5	1.4

(a) Reference year for chain volume measures is 1996-97.

(b) See paragraph 2 of the Explanatory Notes.

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

At end of	Food, beverage and tobacco	Textiles, clothing, footwear and leather(a)	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
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
1996-97										
September	5 489	1 632	1 646	897	5 866	1 336	4 805	6 314	599	28 584
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
1997-98										
September	5 764	1 766	1 919	835	5 497	1 283	4 084	5 619	648	27 415
December	5 787	1 748	1 889	906	5 535	1 192	4 063	5 683	645	27 446
March	6 248	1 646	1 917	934	5 537	1 188	4 275	6 242	737	28 724
June	6 491	1 757	1 937	882	5 486	1 138	4 328	6 300	721	29 039
1998-99										
September	6 297	1 778	1 944	941	5 748	1 259	4 433	6 638	800	29 837
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
1996-97										
September	5 533	1 637	1 669	889	5 842	1 330	4 779	6 350	603	28 633
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
1997-98										
September	5 807	1 770	1 948	828	5 483	1 278	4 057	5 657	652	27 479
December	5 966	1 756	1 919	909	5 610	1 215	4 043	5 751	662	27 831
March	6 212	1 638	1 892	939	5 479	1 186	4 249	6 075	718	28 387
June	6 290	1 754	1 904	884	5 478	1 123	4 408	6 356	716	28 915
1998-99										
September	6 343	1 782	1 974	932	5 738	1 253	4 400	6 686	805	29 913
TREND ESTIMATES										
June 1996	5 513	1 674	1 703	916	5 835	1 364	4 650	6 181	650	28 487
June 1997	5 698	1 758	1 840	817	5 644	1 312	4 212	5 887	596	27 764
June 1998	6 284	1 727	1 919	918	5 560	1 177	4 353	6 361	742	29 040
1996-97										
September	5 544	1 668	1 683	885	5 882	1 341	4 706	6 248	628	28 584
December	5 549	1 690	1 700	850	5 872	1 330	4 647	6 258	594	28 490
March	5 599	1 728	1 755	820	5 778	1 328	4 451	6 107	579	28 146
June	5 698	1 758	1 840	817	5 644	1 312	4 212	5 887	596	27 764
1997-98										
September	5 831	1 752	1 906	849	5 549	1 274	4 073	5 747	636	27 617
December	5 996	1 724	1 922	890	5 504	1 216	4 094	5 788	676	27 810
March	6 157	1 711	1 910	913	5 518	1 180	4 224	6 046	704	28 363
June	6 284	1 727	1 919	918	5 560	1 177	4 353	6 361	742	29 040
1998-99										
September	6 375	1 764	1 948	916	5 630	1 199	4 454	6 660	779	29 724

(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
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
1996-97										
September	5 498	1 637	1 652	892	5 855	1 344	4 824	6 318	601	28 627
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
1997-98										
September	5 656	1 746	1 919	857	5 554	1 278	3 971	5 563	642	27 187
December	5 589	1 717	1 883	924	5 498	1 186	3 924	5 583	639	26 942
March	6 076	1 620	1 896	937	5 656	1 179	4 144	6 086	729	28 323
June	6 280	1 741	1 894	866	5 677	1 122	4 195	6 117	711	28 603
1998-99										
September	6 068	1 759	1 872	898	5 904	1 235	4 271	6 422	765	29 193
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
1996-97										
September	5 542	1 642	1 676	884	5 831	1 337	4 799	6 354	603	28 672
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
1997-98										
September	5 699	1 750	1 948	849	5 540	1 273	3 945	5 600	644	27 248
December	5 762	1 725	1 913	926	5 572	1 210	3 905	5 650	655	27 319
March	6 041	1 611	1 870	942	5 597	1 176	4 119	5 923	712	27 993
June	6 086	1 738	1 863	867	5 670	1 108	4 273	6 172	706	28 482
1998-99										
September	6 112	1 762	1 902	889	5 894	1 229	4 239	6 468	767	29 263
TREND ESTIMATES										
June 1996	5 531	1 673	1 680	887	5 827	1 310	4 631	6 168	649	28 360
June 1997	5 637	1 749	1 840	835	5 692	1 305	4 156	5 864	594	27 671
June 1998	6 078	1 706	1 875	900	5 711	1 161	4 210	6 176	725	28 543
1996-97										
September	5 565	1 677	1 687	876	5 852	1 306	4 744	6 260	629	28 600
December	5 565	1 701	1 707	854	5 849	1 326	4 699	6 281	595	28 580
March	5 593	1 732	1 757	832	5 797	1 335	4 465	6 116	579	28 207
June	5 637	1 749	1 840	835	5 692	1 305	4 156	5 864	594	27 671
1997-98										
September	5 707	1 729	1 905	870	5 589	1 267	3 960	5 684	631	27 341
December	5 828	1 697	1 915	906	5 546	1 209	3 962	5 684	670	27 418
March	5 966	1 686	1 888	915	5 608	1 170	4 089	5 901	696	27 917
June	6 078	1 706	1 875	900	5 711	1 161	4 210	6 176	725	28 543
1998-99										
September	6 155	1 747	1 881	877	5 831	1 177	4 302	6 441	750	29 168

(a) Reference year for chain volume measures is 1996-97.

(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	8.2	0.7	1.5	4.6	-0.1	-14.9	3.5	4.5	16.3	3.1
1996-97										
September	-4.6	-2.2	-3.9	-0.7	0.4	7.9	7.0	4.0	-10.5	0.8
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
1997-98										
September	-4.0	1.0	2.8	3.6	-2.2	-3.0	-2.1	-5.0	5.0	-2.3
December	0.2	-1.6	-1.9	7.9	-1.0	-7.2	-1.2	0.4	-0.5	-0.6
March	8.8	-5.7	0.7	1.4	2.9	-0.6	5.6	9.0	14.1	5.1
June	3.4	7.5	-0.1	-7.7	0.4	-4.9	1.2	0.5	-2.5	1.0
1998-99										
September	-3.7	1.0	-1.2	3.7	4.0	10.1	1.8	5.0	7.6	2.0
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	8.2	0.7	1.5	4.6	-0.2	-14.9	3.6	4.5	16.1	3.1
1996-97										
September	-0.9	-1.5	-0.9	-1.9	-0.2	8.9	4.9	3.8	-10.0	1.3
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
1997-98										
September	-0.2	1.4	6.1	2.4	-2.4	-2.2	-4.4	-5.2	5.9	-1.7
December	2.6	-1.4	-1.8	9.2	0.6	-4.9	-1.0	0.9	1.6	0.6
March	4.9	-6.6	-2.2	1.7	0.4	-2.7	5.5	4.8	8.8	2.5
June	0.8	7.9	-0.4	-8.0	1.3	-5.8	3.7	4.2	-0.8	1.8
1998-99										
September	0.1	1.4	2.1	2.6	4.0	11.0	-0.8	4.8	8.6	2.7
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	1.6	4.5	9.5	-5.9	-2.3	-0.3	-10.3	-4.9	-8.5	-2.5
June 1998	8.8	-2.4	1.9	7.8	0.3	-11.1	1.3	5.3	22.1	3.3
1996-97										
September	0.6	0.3	0.4	-1.2	0.4	-0.3	2.4	1.5	-3.2	0.8
December	0.0	1.4	1.2	-2.5	-0.1	1.5	-1.0	0.3	-5.3	-0.1
March	0.4	1.8	2.9	-2.7	-0.9	0.7	-5.0	-2.6	-2.6	-1.3
June	0.6	0.9	4.7	0.4	-1.8	-2.2	-6.9	-4.1	2.5	-1.9
1997-98										
September	1.3	-1.1	3.5	4.2	-1.8	-2.9	-4.7	-3.1	6.2	-1.2
December	2.5	-1.8	0.6	4.1	-0.8	-4.6	0.1	0.0	6.2	0.4
March	2.7	-0.6	-1.4	1.0	1.1	-3.2	3.2	3.8	3.9	1.9
June	1.9	1.2	-0.7	-1.6	1.8	-0.8	3.0	4.7	4.3	2.3
1998-99										
September	1.1	2.4	0.3	-2.5	2.1	1.4	2.2	4.3	3.4	2.2

(a) Reference year for chain volume measures is 1996-97.

MANUFACTURERS' AND WHOLESALE TRADE SALES—Current prices

Period	MANUFACTURING.....										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	Other manufacturing	Total manufacturing	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	46 616	8 897	13 768	11 070	36 019	9 425	29 675	38 832	6 838	201 141	184 695
1996-97											
September	11 055	2 246	3 266	2 396	8 371	2 461	8 378	9 891	1 799	49 863	41 259
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
1997-98											
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	7 472	9 886	1 826	52 067	47 533
March	10 992	2 143	3 129	2 667	8 762	2 294	6 970	8 937	1 521	47 414	44 028
June	11 207	2 194	3 646	2 762	9 307	2 315	7 607	9 966	1 714	50 717	48 140
1998-99											
September	12 329	2 362	3 745	2 702	9 171	2 661	7 749	10 366	1 679	52 762	49 296
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	46 609	8 903	13 773	11 118	36 030	9 440	29 690	38 832	6 842	201 237	184 823
1996-97											
September	10 939	2 163	3 176	2 356	8 300	2 389	8 156	9 608	1 727	48 815	41 110
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
1997-98											
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	49 826	45 257
March	11 795	2 229	3 321	2 908	9 154	2 444	7 337	9 512	1 699	50 399	46 445
June	11 704	2 195	3 719	2 845	9 103	2 342	7 634	9 889	1 756	51 188	48 256
1998-99											
September	12 132	2 306	3 652	2 624	9 045	2 569	7 542	10 058	1 604	51 532	49 173
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	43 768	9 083	13 168	9 668	34 802	9 685	31 745	38 711	6 470	197 100	167 353
June 1998	46 545	8 976	13 732	11 040	35 988	9 523	29 747	38 908	6 792	201 248	184 525
1996-97											
September	10 856	2 176	3 195	2 373	8 628	2 408	8 081	9 548	1 592	48 858	41 239
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	7 925	9 733	1 619	49 487	41 868
June	11 034	2 317	3 366	2 510	8 805	2 432	7 715	9 813	1 647	49 638	43 057
1997-98											
September	11 329	2 275	3 343	2 633	8 854	2 390	7 488	9 764	1 683	49 759	44 356
December	11 614	2 233	3 357	2 772	8 977	2 344	7 358	9 651	1 702	50 009	45 552
March	11 745	2 227	3 453	2 831	9 059	2 360	7 392	9 673	1 712	50 451	46 666
June	11 857	2 241	3 579	2 804	9 099	2 428	7 509	9 819	1 695	51 030	47 951
1998-99											
September	12 010	2 259	3 703	2 720	9 103	2 516	7 609	10 011	1 663	51 620	49 250

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

Period	MANUFACTURING.....										WHOLESALE TRADE
	Food, beverage and tobacco	Textiles, clothing, 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	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	45 473	8 862	13 793	10 909	36 378	9 297	28 890	38 494	6 839	198 935	183 753
1996-97											
September	11 128	2 253	3 269	2 408	8 380	2 476	8 403	9 880	1 805	50 002	40 871
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
1997-98											
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	7 283	9 820	1 828	51 494	47 021
March	10 684	2 139	3 138	2 617	8 872	2 260	6 782	8 844	1 526	46 861	43 667
June	10 838	2 201	3 617	2 705	9 429	2 272	7 406	9 817	1 716	49 999	47 680
1998-99											
September	11 837	2 367	3 702	2 582	9 381	2 604	7 500	10 207	1 655	51 834	48 558
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	45 473	8 862	13 793	10 909	36 378	9 297	28 890	38 494	6 839	198 935	183 753
1996-97											
September	11 007	2 173	3 179	2 368	8 309	2 406	8 187	9 597	1 735	48 961	40 839
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	10 791	2 337	3 351	2 490	8 856	2 474	7 789	9 887	1 629	49 601	43 464
1997-98											
September	11 329	2 188	3 361	2 598	8 973	2 371	7 219	9 715	1 689	49 442	45 376
December	11 345	2 249	3 412	2 694	8 922	2 230	7 108	9 619	1 687	49 266	44 762
March	11 472	2 224	3 331	2 841	9 265	2 403	7 135	9 415	1 704	49 791	46 054
June	11 327	2 201	3 689	2 775	9 219	2 293	7 429	9 745	1 759	50 436	47 561
1998-99											
September	11 657	2 309	3 610	2 497	9 248	2 509	7 296	9 907	1 583	50 616	48 550
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	43 739	9 082	13 159	9 653	34 801	9 699	31 724	38 678	6 454	196 989	167 284
June 1998	45 402	8 934	13 751	10 824	36 346	9 378	28 951	38 577	6 784	198 946	183 437
1996-97											
September	10 930	2 190	3 193	2 390	8 618	2 425	8 117	9 540	1 599	49 001	40 831
December	10 940	2 270	3 271	2 368	8 619	2 415	8 075	9 613	1 607	49 180	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	10 945	2 302	3 366	2 490	8 835	2 418	7 613	9 796	1 637	49 401	43 336
1997-98											
September	11 160	2 255	3 358	2 602	8 914	2 366	7 311	9 729	1 677	49 372	44 529
December	11 360	2 217	3 377	2 730	9 049	2 313	7 158	9 587	1 702	49 492	45 394
March	11 418	2 220	3 457	2 772	9 150	2 321	7 188	9 573	1 713	49 812	46 191
June	11 464	2 242	3 559	2 719	9 233	2 378	7 294	9 687	1 692	50 269	47 322
1998-99											
September	11 555	2 266	3 658	2 604	9 292	2 456	7 373	9 851	1 651	50 709	48 592

(a) Reference year for chain volume measures is 1996-97.

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

Period	Food, beverage and tobacco	Textiles, clothing 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)										
1995-96	42 875	8 796	12 323	9 596	34 436	10 114	32 767	36 361	6 225	193 494
1996-97	43 749	9 128	13 150	9 623	34 630	9 718	31 930	38 732	6 508	197 168
1997-98	46 616	8 897	13 768	11 070	36 019	9 425	29 675	38 832	6 838	201 141
1996-97										
September	11 055	2 246	3 266	2 396	8 371	2 461	8 378	9 891	1 799	49 863
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
1997-98										
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	7 472	9 886	1 826	52 067
March	10 992	2 143	3 129	2 667	8 762	2 294	6 970	8 937	1 521	47 414
June	11 207	2 194	3 646	2 762	9 307	2 315	7 607	9 966	1 714	50 717
1998-99										
September	12 329	2 362	3 745	2 702	9 171	2 661	7 749	10 366	1 679	52 762
EXPECTED SALES (\$ million)										
1998-99										
3 mths to Dec	13 090	2 138	3 896	2 813	9 474	2 577	7 825	10 242	1 726	53 780
6 mths to Jun	23 335	4 263	7 384	5 262	18 746	4 919	15 390	20 130	3 358	102 785
Total 1998-99(b)	48 753	8 763	15 024	10 776	37 390	10 157	30 964	40 738	6 762	209 328
REALISATION RATIOS: 3 MONTHS TO DECEMBER (Actual/Sep E1)										
1994	1.01	0.91	1.03	1.01	1.27	1.11	1.03	1.05	1.11	1.06
1995	1.01	1.00	1.02	1.00	1.01	1.12	1.03	1.00	1.06	1.02
1996	0.97	0.89	1.01	1.02	1.01	0.99	1.00	1.02	1.01	1.00
1997	1.02	1.12	1.05	1.01	0.98	1.02	0.96	0.94	1.04	0.99
1998	1.01	1.00	1.01	1.10	0.98	0.97	0.97	0.96	1.10	0.99
5 year average	1.00	0.98	1.02	1.03	1.05	1.04	1.00	1.00	1.07	1.01
REALISATION RATIOS: 6 MONTHS TO JUNE (Actual/Sep E2)										
1994	1.04	0.94	0.99	0.95	1.25	1.12	0.99	1.02	1.20	1.05
1995	0.96	0.97	0.98	0.88	1.01	1.02	1.07	0.96	1.04	0.99
1996	0.97	0.84	0.97	0.98	0.99	0.92	0.95	1.06	0.87	0.97
1997	0.95	1.03	1.01	0.97	0.97	1.05	0.92	0.93	1.02	0.96
1998	0.98	0.92	1.03	0.99	0.99	0.95	0.99	0.96	0.99	0.98
5 year average	0.98	0.94	0.99	0.95	1.04	1.01	0.98	0.98	1.02	0.99
REALISATION RATIOS: 12 MONTHS TO JUNE (Actual/sum of Sep actual, Sep E1 and Sep E2)										
1994	1.02	0.95	1.00	0.98	1.18	1.09	1.00	1.02	1.13	1.04
1995	0.98	0.98	1.00	0.94	1.00	1.04	1.04	0.98	1.03	1.00
1996	0.98	0.89	0.99	1.00	1.00	0.96	0.98	1.03	0.94	0.99
1997	0.98	1.04	1.02	0.99	0.98	1.03	0.95	0.95	1.02	0.98
1998	0.99	0.96	1.02	1.02	0.99	0.97	0.99	0.97	1.02	0.99
5 year average	0.99	0.97	1.00	0.99	1.03	1.02	0.99	0.99	1.03	1.00

(a) See paragraphs 30 to 33 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)

Year to/Quarter to	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 wholesale</i>
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
1996-97											
September	0.51	0.76	0.53	0.38	0.70	0.56	0.59	0.66	0.35	0.59	0.52
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
1997-98											
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
1998-99											
September	0.52	0.77	0.54	0.36	0.63	0.49	0.58	0.66	0.50	0.58	0.51

(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.

Survey quarter	Period to which reported data relates									
	1997-1998			1998-1999			1999-2000			
	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 (1292.0) and Statistics New Zealand (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.

INTRODUCTION OF CHAIN VOLUME MEASURES

21 Constant price estimates have been replaced with chain volume measures from September quarter 1998. This change is being made to all other ABS volume series. The reason for the change and some of the properties of chain volume measures are described below.

22 Both constant price estimates and chain volume measures have the objective of removing price influences from stocks and sales movements. Each method achieves this objective in different ways and so the differences between the constant price estimates and chain volume measures varies considerably from statistic to statistic. The impact largely depends on the extent of differences in growth rates between the prices and volumes of the components of particular series.

23 Chain volume measures have been introduced because they provide a better measure of growth in volume than the previously used constant price estimates. To understand this it is necessary to briefly explain how constant price estimates are derived.

24 While current price estimates of stocks and sales reflect both price and volume changes, constant price estimates eliminate the direct effect of price changes and therefore only reflect volume changes. This is achieved by replacing the unit price of each type of good in the current period with the corresponding unit price in the chosen base year. The base year unit prices used to derive constant price estimates are effectively the weights used to combine quantities of different goods.

25 The prices of different goods tend to grow at different rates—some at dramatically different rates. For example, the prices of computer equipment are estimated to have declined by about 75% between 1989–90 and June quarter 1998, while the prices of most other goods have increased. Thus, over time, the relative prices of some goods change appreciably.

26 Changes in relative prices adversely affect the usefulness of constant price estimates, particularly for periods distant from the base year, and consequently the base year used to derive constant price estimates needs to be changed from time to time. It has been ABS practice to change the base year every five years, but it has been found that better estimates of growth in volume can be obtained by rebasing every year and linking the resulting indexes to form annually reweighted chain volume measures.

27 The chain volume measures appearing in this publication are annually reweighted chain Laspeyres indexes referenced to the current price values in a chosen reference year (currently 1996–97). They 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. They are formed in a multi-stage process of which the major steps are described in Section 15 of the information paper *Introduction of Chain Volume Measures in the Australian National Accounts* (5248.0).

EXPLANATORY NOTES

INTRODUCTION OF CHAIN VOLUME MEASURES *continued*

28 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 or sales for Australia. However, in order to minimise the impact of this property, the ABS is using the latest base year as the reference year. By adopting this approach, non-additivity does not exist for the quarters following the reference year (currently 1996–97) and is relatively small for the quarters in the reference year and the quarters immediately preceding it.

29 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 (i.e. for the 1998–99 financial year) which are based upon the 1996–97 financial year. With each release of the June quarter issue of this publication, the reference year will be advanced one year. This means that from June next year, chain volume measures for 1998–99 will have 1997–98 (the previous financial year) as their base year rather than 1996–97. Some revision to recent growth rates can be expected because of the introduction of a more recent base year and, if they occur, revisions to the current price estimates underlying the chain volume measures. In addition, 1997–98 will become the reference year for the entire chain volume series. A change in reference year changes levels but not growth rates.

DERIVATION AND USEFULNESS OF REALISATION RATIOS

30 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).

31 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 1998–99 based on the June 1998 survey results and compare these with 1997–98 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.

32 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.

33 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.

EXPLANATORY NOTES

RELIABILITY OF THE ESTIMATES

34 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 25 and 26.

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.

NEW BUSINESS INVESTIGATION

35 The ABS Business Register should ideally record all employing businesses as soon as they commence operations. However, the ability to achieve this is limited by the time it takes to obtain and process information from the ATO and other sources and the requirement to extract survey frames prior to the end of the reference period to which they relate. Adjustments to survey estimates are made to account for this. These are discussed in paragraph 5.

36 This method of adjustment assumes that the level of stocks and sales of those units not yet on the Business Register at the time of selection is of similar extent and nature to those already represented in the survey. Because it could be reasonably expected that economic characteristics of new businesses could vary from that of established businesses, the ABS conducted the Survey of Business Performance to establish the nature and extent of any bias in the methodology used for estimating the contribution of missing businesses. The population source for the survey was the new ATO Group Employer registrations that were not on the survey frame for the March 1997 quarter, due to the timing problems explained above.

37 The survey, which was conducted over two quarters in December quarter 1996 and March quarter 1997, found that only an estimated 36% of newly registered businesses were truly new, with remaining businesses equally divided between existing businesses that had expanded and begun to employ staff and existing businesses that had been purchased or taken over by other businesses. However, the proportion of truly new businesses was not constant over all the ANZSIC divisions. As the following table demonstrates, the rate of occurrence of truly new businesses was relatively low in Retail trade and Accommodation, cafes and restaurants with the low rate of truly new businesses in both cases being offset by the relatively high percentage of purchased businesses. These results indicate a relatively strong connection between certain activities and the particular location of businesses in these industries.

NEWLY REGISTERED BUSINESSES

<i>Industry Division</i>	<i>New businesses</i>	<i>Purchased businesses</i>	<i>Previously non-employing businesses</i>
	%	%	%
Mining	54	27	19
Manufacturing	36	38	26
Wholesale	41	32	27
Retail	23	55	22
Accommodation, cafes and restaurants	20	68	12

Source: ABS Survey of Business Performance

EXPLANATORY NOTES

NEW BUSINESS INVESTIGATION *continued*

38 With the exception of Mining and Accommodation, cafes and restaurants, the proportion of new businesses where the registrant had previously operated as a non-employed business did not vary noticeably across industries. Wholesale reported the highest rate of businesses which had previously operated as non-employed businesses (27%), while Accommodation, cafes and restaurants had the lowest rate (12%).

39 Given the high proportion of businesses already operating among new registrants, it is not surprising that the pattern of stocks and sales among these businesses was found to be very similar to businesses included in the Survey of Stocks and Sales. In other words, the Survey of Businesses Performance found no evidence to support any variation to the method employed for estimating missing businesses outlined in paragraph 5.

SEASONAL ADJUSTMENT

40 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.

41 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.

42 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.

43 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).

44 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.

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

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

EXPLANATORY NOTES

TREND ESTIMATES

47 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* (1348.0) or contact the Assistant Director, Time Series Analysis.

COMPARISON WITH OTHER ABS STATISTICS

48 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* (5216.0).

49 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

50 Users may also wish to refer to the following publications:

- *Australian Business Expectations* (5250.0)
- *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
- *Australian National Accounts: National Income, Expenditure and Product* 5206.0
- *Business Operations and Industry Performance, Australia* (8140.0).
- *Company Profits, Australia* (5651.0)
- *Introduction of Chain Volume Measures in the Australian National Accounts* (5248.0)
- *Manufacturing Production, Australia* (8301.0)
- *Private New Capital Expenditure and Expected Expenditure, Australia* (5625.0)
- *State Estimates of Private New Capital Expenditure* (5646.0)

51 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues on Tuesdays and Fridays a *Release Advice* (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

52 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* (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 \$212m 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).....

Estimates of	<i>Mining</i>	<i>Manu- facturing</i>	<i>Whole- sale trade</i>	<i>Retail trade</i>	<i>Other</i>	<i>Total selected industries</i>
	%	%	%	%	%	%
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

Estimates of	<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>
	%	%	%	%	%	%	%	%	%	%	%
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

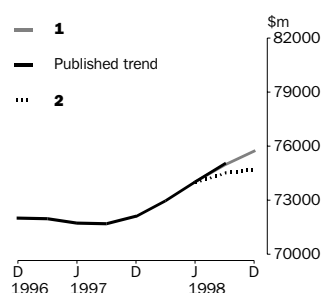
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of stocks owned by private businesses and manufacturers' and wholesalers' sales.

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

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

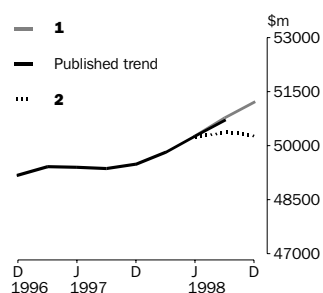
The percentages chosen are the long term average movements, without regard to sign, in the seasonally adjusted series.

STOCKS OWNED BY PRIVATE BUSINESSES



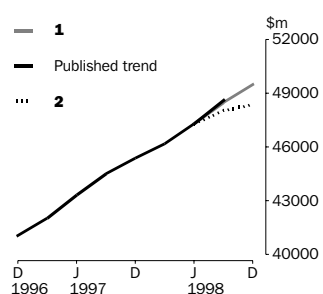
	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.0 on Sep 1998 \$m	% change	2 falls by 1.0 on Sep 1998 \$m	% change
1997						
December	72 108	0.6	72 108	0.6	72 108	0.6
1998						
March	72 966	1.2	72 938	1.2	73 026	1.3
June	74 012	1.4	74 015	1.5	73 984	1.3
September	75 043	1.4	74 955	1.3	74 531	0.7
December	—	—	75 734	1.0	74 729	0.3

MANUFACTURERS' SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.4 on Sep 1998 \$m	% change	2 falls by 1.4 on Sep 1998 \$m	% change
1997						
December	49 492	0.2	49 492	0.2	49 492	0.2
1998						
March	49 812	0.6	49 775	0.6	49 858	0.7
June	50 269	0.9	50 278	1.0	50 249	0.8
September	50 709	0.9	50 775	1.0	50 374	0.2
December	—	—	51 218	0.9	50 268	-0.2

WHOLESALE TRADE SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	1 rises by 1.7 on Sep 1998 \$m	% change	2 falls by 1.7 on Sep 1998 \$m	% change
1997						
December	45 394	1.9	45 394	1.9	45 394	1.9
1998						
March	46 191	1.8	46 181	1.7	46 278	1.9
June	47 322	2.4	47 324	2.5	47 291	2.2
September	48 592	2.7	48 510	2.5	48 044	1.6
December	—	—	49 506	2.1	48 377	0.7

SELF-HELP ACCESS TO STATISTICS

PHONE Call 1900 986 400 for the latest statistics on CPI, Labour Force, Earnings, National Accounts, Balance of Payments and other topics (call cost is 75c per minute).

INTERNET <http://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 03 9615 7848

CONTACTING THE ABS

ABS provides a range of services, including: a telephone inquiry service; information consultancy tailored to your needs; survey, sample and questionnaire design; survey evaluation and methodological reviews; and statistical training.

<i>INQUIRIES</i>	<i>By phone</i>	<i>By fax</i>
Canberra	02 6252 6627	02 6253 1404
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 7100	08 8237 7566
Hobart	03 6222 5800	03 6222 5995
Darwin	08 8943 2111	08 8981 1218

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

EMAIL client.services@abs.gov.au



2562900009982

ISSN 1328-973X

Recommended retail price \$17.00

© Commonwealth of Australia 1998

Produced by the Australian Bureau of Statistics