

STOCKS, SELECTED INDUSTRY SALES

AND EXPECTED SALES to June 1997

AUSTRALIA

EMBARGOED UNTIL 11:30AM MON 2 DECEMBER 1996

SEPTEMBER QTR KEY FIGURES

TREND ESTIMATES*

	Sep 95	Jun 96	Sep 96	% change Jun 96 to Sep 96	% change Sep 95 to Sep 96
	\$m	\$m	\$m		
Stocks held by					
Private businesses	58 664	60 778	61 749	1.6	5.3
Sales by					
Manufacturers	38 218	39 810	40 029	0.6	4.7
Wholesale trade	37 890	39 084	39 278	0.5	3.7

SEASONALLY ADJUSTED*

	Sep 95	Jun 96	Sep 96	% change Jun 96 to Sep 96	% change Sep 95 to Sep 96
	\$m	\$m	\$m		
Stocks held by					
Private businesses	58 712	60 635	62 042	2.3	5.7
Sales by					
Manufacturers	37 567	39 309	40 251	2.4	7.1
Wholesale trade	37 119	38 912	39 429	1.3	6.2

* At average 1989-90 prices.

SEPTEMBER QTR KEY POINTS

STOCKS

- The trend estimate (in constant price terms) for stocks held by private businesses increased by 1.6% over the June quarter, to \$61,749m.
- Trend estimates for Manufacturers' and Retailers' stocks both increased by 1.5% over the previous quarter. Wholesalers' stocks increased by 1.0% and Mining stocks by 5.1%.

SALES

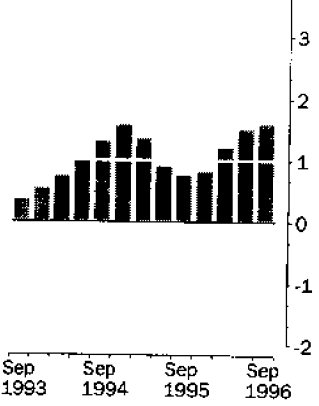
- Trend estimates (in constant price terms) for Manufacturers' sales increased by 0.6% over the June quarter, to \$40,029m.
- Wholesale sales grew by 0.5% this quarter to \$39,278m, continuing the trend of steady growth in this series from June quarter 1993.

EXPECTED SALES

- The second estimate for Manufacturers' Sales (in current price terms) for 1996-97 is \$189,505m. This is 3.7% higher than the first estimate for 1996-97 and 2.0% higher than the corresponding estimate for 1995-96 published last year.

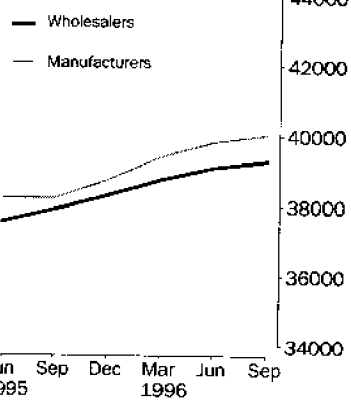
Stocks: % change

Trend Estimates
at average 1989-90 prices



Sales

Trend Estimates
at average 1989-90 prices



INQUIRIES

- For further information about these and related statistics, contact John Stamilis on 02 9268 4241, or any ABS Office.

STOCKS & SELECTED INDUSTRY SALES NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)

RELEASE DATE

December 1996

03 March 1997

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CHANGES IN THIS ISSUE

The survey sample has been revised in the September quarter. Refer to paragraphs 9 to 12 of the explanatory notes for more information. In future, the survey sample will be revised quarterly.

At least once each year, the seasonally adjusted series in the publication are revised to take account of the latest available data. The most recent reanalysis takes into account data collected up to and including the June quarter 1996 survey. Data for periods after June 1996 are seasonally adjusted on the basis of extrapolation of historical patterns. Because many of these series are subject to a large degree of irregularity, seasonal factors and hence seasonally adjusted series are subject to substantial revision when they are reanalysed. Hence additional care should be exercised when interpreting movements in seasonally adjusted data, particularly for more recent quarters where the factors are most subject to revision.

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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 and movements derived from them are subject to sampling variability. Relative standard errors give a measure of this variability and therefore indicate the degree of confidence that can be attached to the data. They are more fully discussed and presented on pages 23 and 24.

Relative standard errors for some major September quarter data items are given below. There is 67% confidence that the actual value would be within one standard error of the sample estimate, and 95% confidence that it lies within two standard errors.

	<i>RELATIVE STANDARD ERRORS</i>	
	<i>level</i>	<i>quarter to quarter movement</i>
Total Stocks, total selected industries	2.3%	0.4%
Total Stocks, manufacturing	1.4%	0.4%
Total Sales, manufacturing	1.4%	0.5%
Total Sales, wholesale	7.7%	0.9%

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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 34.

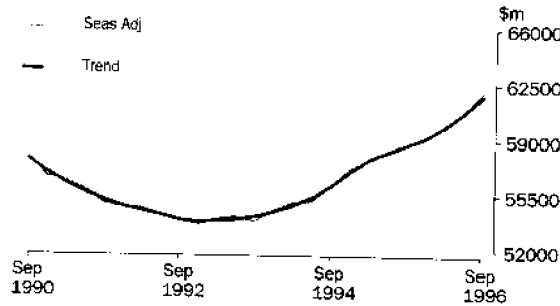
W. McLennan
Australian Statistician

STOCKS: Trend estimates—Constant prices¹

¹ At average 1989-90 prices

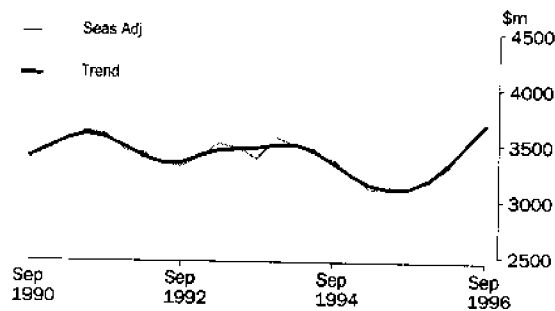
ALL SELECTED INDUSTRIES

The trend estimates for stocks held by private businesses in all selected industries have been rising from March 1993. The rate of growth has increased over the past three quarters (1.2% in March quarter, 1.5% in June quarter, and 1.6% in September quarter).



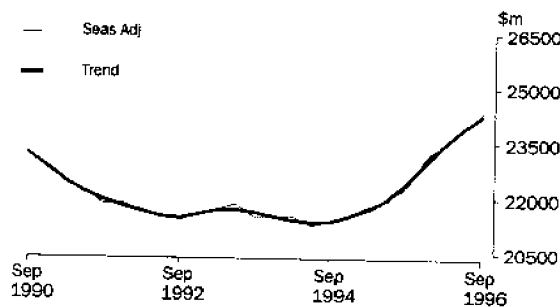
MINING

The trend estimates for stocks held by the mining industry have risen over the last five quarters, to \$3,677m for the current quarter. Rates of growth over the last three quarters have been strong (4.4% for March quarter, 5.4% for June quarter and 5.1% for September quarter). This period of increasing stocks follows five quarters of decreasing stocks from June quarter 1994 to June quarter 1995.



MANUFACTURING

For the ninth successive quarter, trend estimates for Manufacturers' stocks have increased. The strongest growth has been in machinery and equipment (4.7% in September quarter). Over the last three quarters, the rate of growth of Manufacturers' stocks has been decreasing (2.3% for March quarter, 1.9% for June quarter and 1.5% for September quarter).

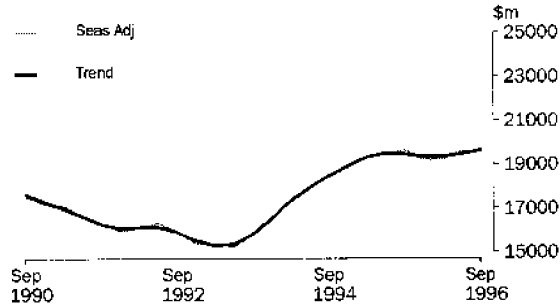


STOCKS: Trend estimates—Constant prices¹

¹At average 1989–90 prices

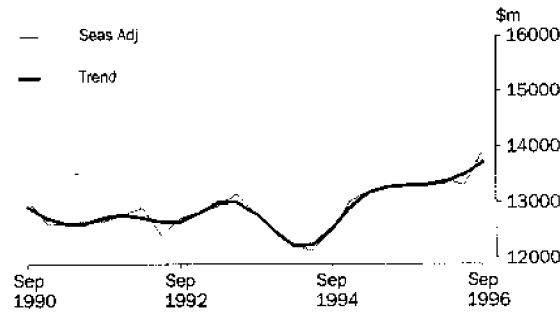
WHOLESALE TRADE

Wholesalers' stocks have been relatively constant with an increase of 1.0% in September quarter.



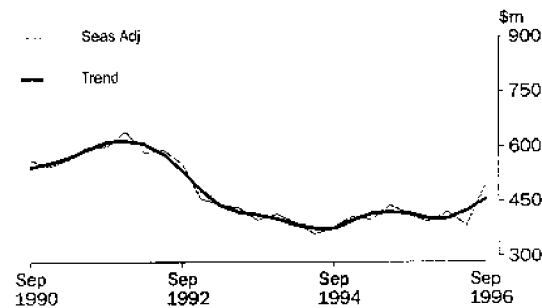
RETAIL TRADE

Trend estimates for Retail stocks have been increasing over the last three quarters (0.5% for March quarter, 1.1% for June quarter and 1.5% for September quarter).



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

The growth in stocks held by Other Selected Industries has been strong over the last two quarters (5.7% for June quarter and 7.4% for September quarter).



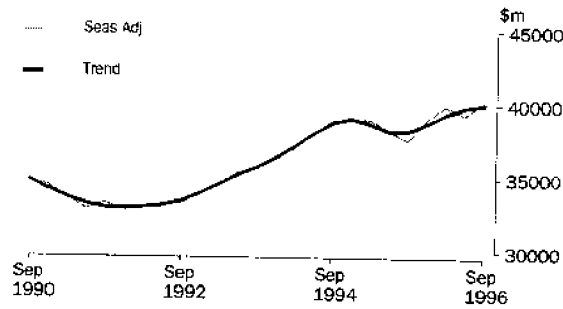
SALES: Trend estimates—Constant prices¹

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¹At average 1989–90 prices

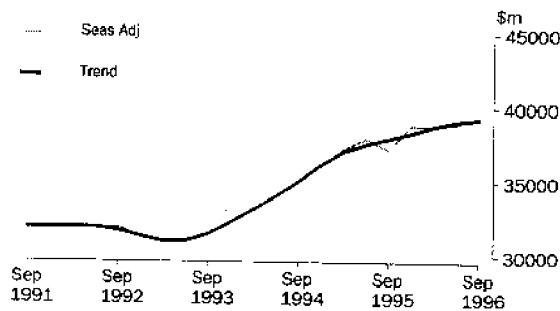
MANUFACTURERS' SALES

The September quarter trend estimate for Manufacturers' sales is \$40,029m. The latest trend estimates have been increasing over the past year (from September quarter 1995), but with the rate of growth decreasing over the last two quarters (1.0% for June quarter and 0.6% for September quarter).



WHOLESALE TRADE SALES

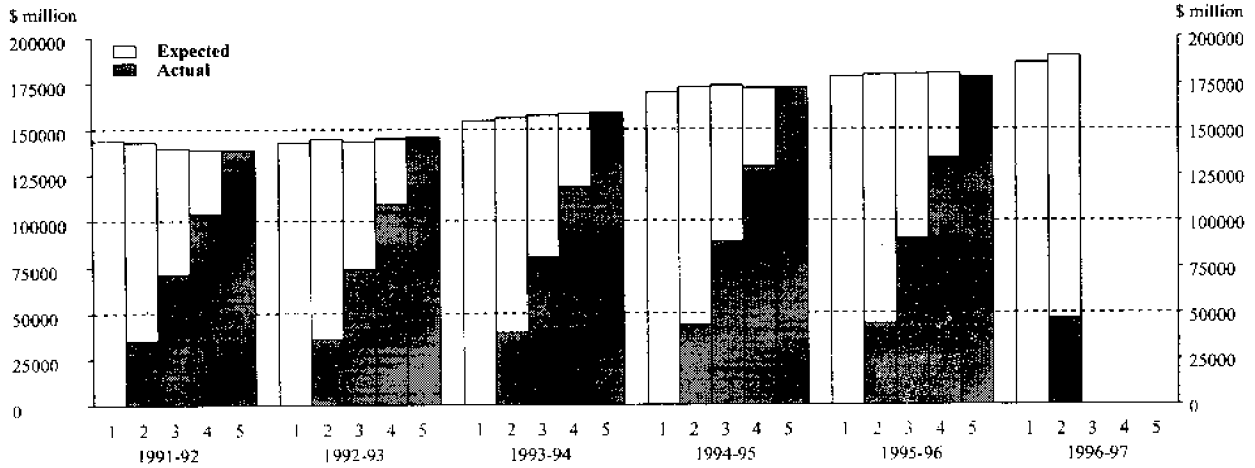
The September quarter trend estimate for Wholesale sales is \$39,278m. This is 0.5% higher than the trend estimate for the June quarter and continues the increase in Wholesale sales from June quarter 1993, although the rate of increase has been flattening.



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 ¹ \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries ² \$m	Total selected industries ² \$m
ORIGINAL						
June 1994	3 493	22 571	18 873	13 419	406	58 764
June 1995	3 321	24 725	20 847	14 992	510	64 395
June 1996	3 734	26 456	20 805	15 383	456	66 834
1994-95						
September	3 568	22 893	19 690	14 342	431	60 925
December	3 421	23 127	20 200	15 124	498	62 371
March	3 351	24 286	20 743	15 124	471	63 974
June	3 321	24 725	20 847	14 992	510	64 395
1995-96						
September	3 417	25 127	21 425	15 601	489	66 058
December	3 516	25 730	21 074	15 920	498	66 739
March	3 673	26 515	20 954	15 694	507	67 342
June	3 734	26 456	20 805	15 383	456	66 834
1996-97						
September	4 083	26 970	21 070	16 568	596	69 286
SEASONALLY ADJUSTED						
June 1994	3 578	22 563	19 199	13 759	419	59 518
June 1995	3 407	24 739	21 197	15 376	524	65 243
June 1996	3 830	26 480	21 154	15 780	469	67 713
1994-95						
September	3 522	22 906	19 648	14 223	438	60 738
December	3 417	23 346	20 094	14 842	477	62 177
March	3 315	24 051	20 558	15 161	471	63 557
June	3 407	24 739	21 197	15 376	524	65 243
1995-96						
September	3 374	25 124	21 371	15 473	498	65 840
December	3 508	25 972	20 966	15 618	477	66 542
March	3 636	26 254	20 773	15 733	507	66 903
June	3 830	26 480	21 154	15 780	469	67 713
1996-97						
September	4 032	26 963	21 013	16 434	607	69 048
TREND ESTIMATES ³						
June 1994	3 588	22 645	19 280	13 859	436	59 808
June 1995	3 357	24 659	21 098	15 371	502	64 987
June 1996	3 831	26 582	20 980	15 955	518	67 866
1994-95						
September	3 496	22 894	19 651	14 243	439	60 724
December	3 418	23 395	20 105	14 748	463	62 129
March	3 361	24 016	20 660	15 149	491	63 677
June	3 357	24 659	21 098	15 371	502	64 987
1995-96						
September	3 406	25 288	21 206	15 503	501	65 904
December	3 500	25 818	21 074	15 584	487	66 462
March	3 651	26 233	20 958	15 724	489	67 054
June	3 831	26 582	20 980	15 955	518	67 866
1996-97						
September	4 006	26 870	21 066	16 242	560	68 745

¹ In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

² See paragraph 2, page 17.

³ Revised. See paragraph 34.

BOOK VALUE OF STOCKS OWNED, By Industry—Constant prices¹

At end of	Mining ² \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries ³ \$m	Total selected industries ³ \$m
ORIGINAL						
June 1994	3 338	21 236	17 615	11 831	350	54 370
June 1995	3 040	21 906	19 106	12 926	426	57 404
June 1996	3 426	23 812	19 259	12 974	372	59 843
1994-95						
September	3 405	21 337	18 457	12 599	369	56 167
December	3 231	21 315	19 058	13 252	425	57 281
March	3 126	21 956	19 458	13 155	398	58 093
June	3 040	21 906	19 106	12 926	426	57 404
1995-96						
September	3 140	22 290	19 689	13 384	405	58 908
December	3 186	22 854	19 280	13 588	409	59 317
March	3 323	23 710	19 365	13 365	418	60 181
June	3 426	23 812	19 259	12 974	372	59 843
1996-97						
September	3 743	24 348	19 648	14 031	487	62 257
SEASONALLY ADJUSTED						
June 1994	3 419	21 237	17 919	12 131	361	55 067
June 1995	3 119	21 931	19 427	13 257	438	58 171
June 1996	3 515	23 848	19 581	13 308	382	60 635
1994-95						
September	3 361	21 343	18 418	12 495	375	55 992
December	3 228	21 509	18 958	13 005	407	57 106
March	3 093	21 746	19 285	13 188	398	57 709
June	3 119	21 931	19 427	13 257	438	58 171
1995-96						
September	3 100	22 285	19 640	13 275	412	58 712
December	3 179	23 060	19 181	13 330	392	59 142
March	3 290	23 476	19 198	13 398	418	59 780
June	3 515	23 848	19 581	13 308	382	60 635
1996-97						
September	3 696	24 338	19 595	13 917	496	62 042
TREND ESTIMATES ⁴						
June 1994	3 441	21 329	17 944	12 236	375	55 325
June 1995	3 091	21 966	19 478	13 268	419	58 222
June 1996	3 498	23 902	19 444	13 510	424	60 778
1994-95						
September	3 333	21 352	18 469	12 520	377	56 051
December	3 225	21 494	18 913	12 902	395	56 928
March	3 132	21 691	19 287	13 172	414	57 697
June	3 091	21 966	19 478	13 268	419	58 222
1995-96						
September	3 108	22 401	19 439	13 302	415	58 664
December	3 179	22 937	19 328	13 302	401	59 147
March	3 320	23 458	19 323	13 363	401	59 866
June	3 498	23 902	19 444	13 510	424	60 778
1996-97						
September	3 677	24 266	19 631	13 719	456	61 749

¹ At average 1989-90 prices.

² See paragraph 2, page 17.

³ In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

⁴ Revised. See paragraph 34.

PERCENTAGE CHANGES IN STOCKS OWNED, By Industry—Constant prices¹

Year to/Quarter to	Mining ² %	Manufacturing %	Wholesale trade %	Retail trade %	Other selected industries ³ %	Total selected industries ³ %
ORIGINAL						
June 1994	-1.2	-2.7	17.7	-7.7	-15.9	1.8
June 1995	-8.9	3.2	8.5	9.3	21.7	5.6
June 1996	12.7	8.7	0.8	0.4	-12.7	4.2
1994-95						
September	2.0	0.5	4.8	6.5	5.4	3.3
December	-5.1	-0.1	3.3	5.2	15.2	2.0
March	-3.2	3.0	2.1	-0.7	-6.4	1.4
June	-2.8	-0.2	-1.8	-1.7	7.0	-1.2
1995-96						
September	3.3	1.8	3.1	3.5	-4.9	2.6
December	1.5	2.5	-2.1	1.5	1.0	0.7
March	4.3	3.7	0.4	-1.6	2.2	1.5
June	3.1	0.4	-0.5	-2.9	-11.0	-0.6
1996-97						
September	9.3	2.3	2.0	8.1	30.9	4.0
SEASONALLY ADJUSTED						
June 1994	-1.1	-2.7	17.7	-7.7	-16.1	1.8
June 1995	-8.8	3.3	8.4	9.3	21.4	5.6
June 1996	12.7	8.7	0.8	0.4	-12.7	4.2
1994-95						
September	-1.7	0.5	2.8	3.0	3.9	1.7
December	-4.0	0.8	2.9	4.1	8.4	2.0
March	-4.2	1.1	1.7	1.4	-2.1	1.1
June	0.8	0.9	0.7	0.5	10.0	0.8
1995-96						
September	-0.6	1.6	1.1	0.1	-5.9	0.9
December	2.5	3.5	-2.3	0.4	-5.0	0.7
March	3.5	1.8	0.1	0.5	6.7	1.1
June	6.8	1.6	2.0	-0.7	-8.5	1.4
1996-97						
September	5.2	2.1	0.1	4.6	29.7	2.3
TREND ESTIMATES ⁴						
June 1994	-0.4	-1.6	16.9	-5.9	-10.4	2.6
June 1995	-10.2	3.0	8.5	8.4	11.7	5.2
June 1996	13.2	8.8	-0.2	1.8	1.2	4.4
1994-95						
September	-3.1	0.1	2.9	2.3	0.3	1.3
December	-3.3	0.7	2.4	3.0	4.8	1.6
March	-2.9	0.9	2.0	2.1	5.0	1.4
June	-1.3	1.3	1.0	0.7	1.1	0.9
1995-96						
September	0.5	2.0	-0.2	0.3	-0.9	0.8
December	2.3	2.4	-0.6	0.0	-3.4	0.8
March	4.4	2.3	0.0	0.5	0.1	1.2
June	5.4	1.9	0.6	1.1	5.7	1.5
1996-97						
September	5.1	1.5	1.0	1.5	7.4	1.6

¹ At average 1989-90 prices.

² See paragraph 2, page 17.

³ In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

⁴ Revised. See paragraph 34.

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

At end of	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 ¹	Machinery and equipment ²	Other manu- facturing	Total manu- facturing
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1994	4 896	1 580	1 417	690	3 846	1 126	3 619	4 870	529	22 571
June 1995	5 153	1 700	1 468	776	4 610	1 213	4 148	5 153	503	24 725
June 1996	5 665	1 564	1 631	788	4 878	1 292	4 254	5 813	571	26 456
1994-95										
September	4 887	1 588	1 342	712	4 083	1 111	3 683	4 948	542	22 893
December	4 882	1 630	1 332	707	4 073	1 101	3 896	4 991	513	23 127
March	5 028	1 723	1 450	713	4 345	1 169	4 087	5 242	527	24 286
June	5 153	1 700	1 468	776	4 610	1 213	4 148	5 153	503	24 725
1995-96										
September	5 061	1 727	1 477	821	4 692	1 273	4 325	5 250	502	25 127
December	5 105	1 760	1 660	868	4 718	1 299	4 393	5 410	518	25 730
March	5 321	1 670	1 658	843	4 985	1 333	4 384	5 778	544	26 515
June	5 665	1 564	1 631	788	4 878	1 292	4 254	5 813	571	26 456
1996-97										
September	5 446	1 544	1 554	758	5 042	1 435	4 385	6 292	514	26 970
SEASONALLY ADJUSTED										
June 1994	4 795	1 545	1 409	698	3 890	1 119	3 655	4 915	537	22 563
June 1995	5 041	1 670	1 460	783	4 671	1 209	4 186	5 207	510	24 739
June 1996	5 538	1 539	1 622	795	4 947	1 290	4 294	5 877	578	26 480
1994-95										
September	4 949	1 587	1 347	703	4 038	1 099	3 695	4 941	547	22 906
December	4 970	1 643	1 364	706	4 103	1 116	3 875	5 054	515	23 346
March	4 990	1 746	1 418	716	4 309	1 171	4 056	5 132	512	24 051
June	5 041	1 670	1 460	783	4 671	1 209	4 186	5 207	510	24 739
1995-96										
September	5 118	1 724	1 482	812	4 636	1 257	4 343	5 244	508	25 124
December	5 198	1 773	1 700	864	4 756	1 318	4 365	5 478	520	25 972
March	5 288	1 690	1 622	847	4 939	1 333	4 353	5 652	529	26 254
June	5 538	1 539	1 622	795	4 947	1 290	4 294	5 877	578	26 480
1996-97										
September	5 503	1 540	1 560	751	4 980	1 417	4 405	6 286	521	26 963
TREND ESTIMATES ²										
June 1994	4 789	1 539	1 389	730	3 919	1 115	3 654	4 937	573	22 645
June 1995	5 045	1 716	1 460	773	4 547	1 212	4 205	5 193	508	24 659
June 1996	5 453	1 590	1 616	802	4 956	1 342	4 345	5 931	547	26 582
1994-95										
September	4 908	1 595	1 368	701	3 990	1 107	3 722	4 965	538	22 894
December	4 975	1 655	1 373	700	4 146	1 124	3 866	5 037	518	23 395
March	5 004	1 693	1 398	730	4 356	1 162	4 042	5 119	512	24 016
June	5 045	1 716	1 460	773	4 547	1 212	4 205	5 193	508	24 659
1995-96										
September	5 105	1 737	1 543	823	4 693	1 267	4 318	5 293	509	25 288
December	5 206	1 730	1 619	851	4 794	1 299	4 356	5 441	522	25 818
March	5 332	1 674	1 641	837	4 880	1 319	4 348	5 666	539	26 233
June	5 453	1 590	1 616	802	4 956	1 342	4 345	5 931	547	26 582
1996-97										
September	5 554	1 507	1 565	760	5 001	1 374	4 360	6 203	546	26 870

¹ In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

² Revised. See paragraph 34.

BOOK VALUE OF STOCKS OWNED, By Manufacturing industries—Constant prices¹

At end of	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 ²	Machinery and equipment ²	Other manu- facturing	Total manu- facturing
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1994	4 401	1 475	1 292	652	3 719	1 048	3 652	4 503	494	21 236
June 1995	4 341	1 496	1 246	677	4 127	1 091	3 868	4 604	456	21 906
June 1996	4 840	1 412	1 445	664	4 458	1 162	4 081	5 227	523	23 812
1994-95										
September	4 343	1 464	1 210	667	3 906	1 027	3 664	4 546	510	21 337
December	4 227	1 504	1 192	655	3 834	1 012	3 825	4 587	479	21 315
March	4 319	1 553	1 268	648	3 968	1 064	3 903	4 751	482	21 956
June	4 341	1 496	1 246	677	4 127	1 091	3 868	4 604	456	21 906
1995-96										
September	4 290	1 536	1 224	661	4 239	1 143	4 043	4 702	452	22 290
December	4 330	1 566	1 375	698	4 296	1 169	4 097	4 856	467	22 854
March	4 552	1 502	1 400	681	4 542	1 201	4 141	5 199	492	23 710
June	4 840	1 412	1 445	664	4 458	1 162	4 081	5 227	523	23 812
1996-97										
September	4 640	1 383	1 390	652	4 603	1 302	4 231	5 677	470	24 348
SEASONALLY ADJUSTED										
June 1994	4 310	1 443	1 285	659	3 762	1 042	3 689	4 544	505	21 237
June 1995	4 247	1 469	1 239	683	4 182	1 088	3 904	4 653	467	21 931
June 1996	4 731	1 389	1 437	670	4 521	1 161	4 119	5 284	536	23 848
1994-95										
September	4 398	1 463	1 215	658	3 863	1 016	3 677	4 539	514	21 343
December	4 303	1 516	1 221	654	3 862	1 026	3 804	4 644	478	21 509
March	4 286	1 573	1 240	651	3 935	1 066	3 874	4 652	469	21 746
June	4 247	1 469	1 239	683	4 182	1 088	3 904	4 653	467	21 931
1995-96										
September	4 338	1 533	1 229	654	4 188	1 129	4 060	4 697	456	22 285
December	4 409	1 578	1 409	695	4 330	1 186	4 071	4 917	465	23 060
March	4 524	1 520	1 369	685	4 501	1 201	4 112	5 086	478	23 476
June	4 731	1 389	1 437	670	4 521	1 161	4 119	5 284	536	23 848
1996-97										
September	4 689	1 380	1 396	646	4 546	1 285	4 250	5 672	475	24 338
TREND ESTIMATES ³										
June 1994	4 311	1 439	1 265	685	3 794	1 039	3 702	4 556	538	21 329
June 1995	4 273	1 525	1 239	666	4 101	1 093	3 946	4 662	461	21 966
June 1996	4 657	1 430	1 413	670	4 526	1 211	4 154	5 340	501	23 902
1994-95										
September	4 348	1 478	1 237	658	3 816	1 024	3 711	4 575	503	21 352
December	4 326	1 514	1 225	651	3 882	1 031	3 774	4 610	481	21 494
March	4 281	1 524	1 220	659	3 984	1 056	3 861	4 637	471	21 691
June	4 273	1 525	1 239	666	4 101	1 093	3 946	4 662	461	21 966
1995-96										
September	4 319	1 538	1 282	675	4 231	1 138	4 021	4 737	458	22 401
December	4 422	1 542	1 347	683	4 351	1 168	4 074	4 879	470	22 937
March	4 549	1 502	1 395	681	4 450	1 188	4 111	5 094	489	23 458
June	4 657	1 430	1 413	670	4 526	1 211	4 154	5 340	501	23 902
1996-97										
September	4 736	1 360	1 409	653	4 564	1 241	4 208	5 592	502	24 266

¹ At average 1989-90 prices.

² In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

³ Revised. See paragraph 34.



PERCENTAGE CHANGES IN MANUFACTURERS' STOCKS—Constant prices¹

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 ²	Machinery and equipment ²	Other manufacturing	Total manufacturing
	%	%	%	%	%	%	%	%	%	%
ORIGINAL										
June 1994	2.0	-5.9	-0.2	-3.7	-1.5	5.4	-8.0	-5.4	2.5	-2.7
June 1995	-1.4	1.4	-3.6	3.8	11.0	4.1	5.9	2.2	-7.7	3.2
June 1996	11.5	-5.6	16.0	-1.9	8.0	6.5	5.5	13.5	14.7	8.7
1994-95										
September	-1.3	-0.7	-6.3	2.3	5.0	-2.0	0.3	1.0	3.2	0.5
December	-2.7	2.7	-1.5	-1.8	-1.8	-1.5	4.4	0.9	-6.1	-0.1
March	2.2	3.3	6.4	-1.1	3.5	5.1	2.0	3.6	0.6	3.0
June	0.5	-3.7	-1.7	4.5	4.0	2.5	-0.9	-3.1	-5.4	-0.2
1995-96										
September	-1.2	2.7	-1.8	-2.4	2.7	4.8	4.5	2.1	-0.9	1.8
December	0.9	2.0	12.3	5.6	1.3	2.3	1.3	3.3	3.3	2.5
March	5.1	-4.1	1.8	-2.4	5.7	2.7	1.1	7.1	5.4	3.7
June	6.3	-6.0	3.2	-2.5	-1.8	-3.2	-1.4	0.5	6.3	0.4
1996-97										
September	-4.1	-2.1	-3.8	-1.8	3.3	12.0	3.7	8.6	-10.1	2.3
SEASONALLY ADJUSTED										
June 1994	1.9	-5.5	-0.2	-3.7	-1.3	5.8	-8.1	-5.3	2.8	-2.7
June 1995	-1.5	1.8	-3.5	3.7	11.2	4.4	5.8	2.4	-7.5	3.3
June 1996	11.4	-5.4	15.9	-1.9	8.1	6.7	5.5	13.6	14.8	8.7
1994-95										
September	2.1	1.4	-5.5	-0.1	2.7	-2.5	-0.3	-0.1	1.8	0.5
December	-2.2	3.6	0.5	-0.6	0.0	1.0	3.5	2.3	-7.1	0.8
March	-0.4	3.8	1.6	-0.5	1.9	3.9	1.8	0.2	-1.8	1.1
June	-0.9	-6.6	-0.1	5.0	6.3	2.1	0.8	0.0	-0.5	0.9
1995-96										
September	2.2	4.4	-0.9	-4.3	0.2	3.8	4.0	0.9	-2.2	1.6
December	1.6	2.9	14.6	6.3	3.4	5.0	0.3	4.7	1.9	3.5
March	2.6	-3.7	-2.8	-1.6	3.9	1.3	1.0	3.4	2.8	1.8
June	4.6	-8.6	4.9	-2.1	0.5	-3.4	0.2	3.9	12.1	1.6
1996-97										
September	-0.9	-0.7	-2.9	-3.6	0.6	10.7	3.2	7.3	-11.4	2.1
TREND ESTIMATES ³										
June 1994	2.9	-4.7	-1.9	0.2	-2.1	5.3	-6.8	-2.3	7.4	-1.6
June 1995	-0.9	6.0	-2.0	-2.9	8.1	5.2	6.6	2.3	-14.2	3.0
June 1996	9.0	-6.2	14.0	0.6	10.4	10.8	5.3	14.6	8.6	8.8
1994-95										
September	0.9	2.8	-2.1	-3.9	0.6	-1.4	0.2	0.4	-6.5	0.1
December	-0.5	2.4	-1.0	-1.1	1.7	0.7	1.7	0.7	-4.3	0.7
March	-1.0	0.7	-0.4	1.2	2.6	2.4	2.3	0.6	-2.1	0.9
June	-0.2	0.0	1.6	1.0	2.9	3.5	2.2	0.5	-2.0	1.3
1995-96										
September	1.1	0.9	3.4	1.5	3.2	4.1	1.9	1.6	-0.7	2.0
December	2.4	0.2	5.0	1.2	2.8	2.6	1.3	3.0	2.6	2.4
March	2.9	-2.6	3.6	-0.3	2.3	1.7	0.9	4.4	4.0	2.3
June	2.4	-4.8	1.3	-1.6	1.7	2.0	1.1	4.8	2.5	1.9
1996-97										
September	1.7	-4.9	-0.3	-2.6	0.9	2.5	1.3	4.7	0.3	1.5

¹ At average 1989-90 prices.

² In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.

³ Revised. See paragraph 34.

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 manufacturing	Total manufacturing	Total wholesale
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL											
Year to											
June 1994	38 932	8 435	10 091	8 389	23 687	9 193	26 724	29 505	4 203	159 160	142 784
June 1995	41 283	8 239	11 128	8 246	26 144	10 504	29 657	31 998	5 139	172 338	160 129
June 1996	41 722	8 110	11 491	8 726	26 848	9 850	31 399	34 979	4 932	178 057	167 392
1994-95											
September	10 374	2 122	2 830	2 186	6 414	2 717	7 328	8 092	1 264	43 327	38 966
December	11 227	2 066	2 900	2 287	6 685	2 819	7 483	8 345	1 385	45 197	41 418
March	9 750	1 962	2 640	1 841	6 327	2 498	7 183	7 490	1 204	40 895	38 567
June	9 932	2 089	2 759	1 931	6 718	2 469	7 663	8 072	1 286	42 919	41 177
1995-96											
September	10 322	2 173	2 853	2 053	6 444	2 420	7 981	8 403	1 294	43 942	41 235
December	11 415	2 067	2 991	2 600	6 768	2 451	8 137	8 709	1 379	46 519	43 650
March	10 136	1 938	2 774	2 066	6 603	2 590	7 732	8 433	1 076	43 347	40 782
June	9 849	1 931	2 873	2 007	7 032	2 389	7 549	9 435	1 184	44 249	41 724
1996-97											
September	11 091	2 068	3 006	2 111	6 719	2 567	8 142	9 588	1 262	46 553	42 189
SEASONALLY ADJUSTED											
Year to											
June 1994	38 864	8 404	10 116	8 425	23 760	9 228	26 738	29 595	4 229	159 360	142 818
June 1995	41 328	8 266	11 148	8 223	26 122	10 495	29 677	32 083	5 157	172 500	160 292
June 1996	41 616	8 081	11 446	8 676	26 807	9 868	31 412	34 839	4 882	177 628	167 195
1994-95											
September	10 324	2 047	2 719	2 157	6 337	2 633	7 117	7 922	1 245	42 502	38 706
December	10 394	2 035	2 707	2 077	6 501	2 711	7 346	7 948	1 258	42 976	39 421
March	10 386	2 074	2 872	1 976	6 620	2 644	7 530	8 214	1 341	43 659	40 482
June	10 224	2 110	2 850	2 013	6 664	2 507	7 685	7 999	1 314	43 364	41 683
1995-96											
September	10 220	2 072	2 698	2 025	6 392	2 359	7 784	8 068	1 249	42 868	40 885
December	10 591	2 038	2 843	2 381	6 626	2 368	8 010	8 404	1 258	44 519	41 789
March	10 658	2 020	2 940	2 180	6 822	2 715	8 031	9 009	1 168	45 543	42 313
June	10 147	1 950	2 964	2 090	6 967	2 427	7 587	9 357	1 208	44 699	42 208
1996-97											
September	11 104	1 960	2 877	2 102	6 675	2 477	7 885	9 393	1 239	45 710	41 322
TREND ESTIMATES ¹											
Year to											
June 1994	38 875	8 412	10 097	8 423	23 775	9 280	26 796	29 587	4 232	159 476	142 701
June 1995	41 311	8 259	11 091	8 241	25 998	10 431	29 603	32 043	5 149	172 125	159 893
June 1996	41 888	8 103	11 469	8 695	26 800	9 916	31 520	34 788	4 910	178 089	167 321
1994-95											
September	10 314	2 046	2 696	2 163	6 317	2 626	7 061	7 900	1 243	42 365	38 573
December	10 398	2 050	2 777	2 075	6 514	2 686	7 331	8 032	1 287	43 148	39 680
March	10 329	2 074	2 812	1 991	6 598	2 632	7 530	8 062	1 311	43 340	40 533
June	10 271	2 089	2 805	2 013	6 569	2 488	7 681	8 048	1 309	43 272	41 107
1995-96											
September	10 360	2 080	2 793	2 125	6 539	2 418	7 858	8 142	1 273	43 588	41 453
December	10 436	2 045	2 833	2 219	6 635	2 456	7 941	8 468	1 225	44 258	41 800
March	10 500	2 005	2 905	2 209	6 779	2 517	7 901	8 913	1 206	44 935	42 043
June	10 592	1 973	2 937	2 142	6 847	2 525	7 820	9 265	1 206	45 308	42 024
1996-97											
September	10 749	1 949	2 924	2 055	6 819	2 491	7 747	9 518	1 217	45 469	41 686

¹ Revised. See paragraph 34.

MANUFACTURERS' AND WHOLESALE TRADE SALES—Constant prices¹

Period	MANUFACTURING.....										WHOLESALE TRADE
	Food, beverage and tobacco	Textiles, clothing, footwear and leather products	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 1994	34 635	7 930	9 082	7 128	22 559	8 243	26 531	26 841	3 845	146 794	131 051
June 1995	35 770	7 488	9 724	6 793	24 287	9 221	28 387	28 712	4 580	154 962	146 285
June 1996	35 165	7 255	9 793	6 751	24 088	8 543	29 268	31 008	4 268	156 139	154 122
1994-95											
September	9 157	1 941	2 511	1 820	6 114	2 400	7 234	7 308	1 139	39 624	35 301
December	9 825	1 884	2 560	1 890	6 293	2 477	7 251	7 526	1 242	40 948	38 039
March	8 362	1 782	2 293	1 514	5 836	2 189	6 792	6 704	1 069	36 541	35 290
June	8 426	1 881	2 360	1 569	6 044	2 155	7 110	7 174	1 130	37 849	37 655
1995-96											
September	8 763	1 947	2 406	1 618	5 760	2 097	7 330	7 466	1 126	38 513	37 588
December	9 598	1 850	2 519	2 016	6 074	2 132	7 577	7 753	1 195	40 714	40 211
March	8 489	1 732	2 356	1 583	5 926	2 246	7 241	7 475	930	37 978	37 646
June	8 315	1 726	2 512	1 534	6 328	2 068	7 120	8 314	1 017	38 934	38 677
1996-97											
September	9 292	1 840	2 644	1 596	6 084	2 217	7 756	8 502	1 081	41 012	39 442
SEASONALLY ADJUSTED											
Year to											
June 1994	34 573	7 900	9 102	7 158	22 632	8 275	26 549	26 921	3 867	146 975	130 889
June 1995	35 790	7 512	9 735	6 772	24 262	9 213	28 394	28 784	4 595	155 057	146 102
June 1996	35 074	7 230	9 759	6 710	24 052	8 558	29 285	30 882	4 224	155 774	153 557
1994-95											
September	9 113	1 873	2 413	1 796	6 040	2 326	7 025	7 155	1 122	38 862	34 953
December	9 096	1 855	2 390	1 716	6 120	2 382	7 118	7 168	1 128	38 973	36 099
March	8 907	1 884	2 495	1 625	6 107	2 317	7 120	7 352	1 191	38 998	37 146
June	8 674	1 900	2 438	1 635	5 995	2 188	7 130	7 109	1 155	38 223	37 904
1995-96											
September	8 677	1 857	2 275	1 596	5 714	2 044	7 149	7 169	1 087	37 567	37 119
December	8 905	1 824	2 394	1 846	5 947	2 059	7 459	7 481	1 090	39 005	38 785
March	8 926	1 806	2 497	1 670	6 122	2 355	7 521	7 986	1 009	39 892	38 741
June	8 567	1 743	2 592	1 598	6 269	2 100	7 157	8 246	1 038	39 309	38 912
1996-97											
September	9 303	1 743	2 530	1 589	6 045	2 139	7 511	8 329	1 061	40 251	39 429
TREND ESTIMATES ²											
Year to											
June 1994	34 635	7 910	9 088	7 154	22 643	8 319	26 634	26 914	3 871	147 168	130 783
June 1995	35 791	7 508	9 681	6 784	24 151	9 155	28 314	28 755	4 584	154 723	145 739
June 1996	35 263	7 248	9 779	6 731	24 048	8 603	29 402	30 850	4 249	156 172	154 009
1994-95											
September	9 096	1 878	2 394	1 804	6 019	2 321	6 964	7 141	1 118	38 734	35 031
December	9 066	1 867	2 444	1 719	6 117	2 361	7 093	7 230	1 152	39 050	36 170
March	8 887	1 880	2 443	1 635	6 076	2 304	7 122	7 215	1 164	38 727	37 017
June	8 741	1 882	2 399	1 626	5 940	2 170	7 135	7 169	1 150	38 213	37 521
1995-96											
September	8 753	1 865	2 359	1 680	5 855	2 102	7 256	7 239	1 110	38 218	37 890
December	8 787	1 829	2 390	1 722	5 936	2 132	7 366	7 519	1 062	38 743	38 297
March	8 826	1 792	2 481	1 697	6 087	2 183	7 396	7 897	1 041	39 401	38 738
June	8 897	1 761	2 549	1 632	6 168	2 186	7 383	8 195	1 037	39 810	39 084
1996-97											
September	9 023	1 736	2 574	1 560	6 160	2 151	7 369	8 413	1 043	40 029	39 278

¹ At average 1989-90 prices.² Revised. See paragraph 34.

MANUFACTURERS' ACTUAL AND EXPECTED SALES WITH REALISATION RATIOS¹

Period	Food, beverage and tobacco	Textiles, clothing and 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)										
1993-94	38 932	8 435	10 091	8 389	23 687	9 193	26 724	29 505	4 203	159 160
1994-95	41 283	8 239	11 128	8 246	26 144	10 504	29 657	31 998	5 139	172 338
1995-96	41 722	8 110	11 491	8 726	26 848	9 850	31 399	34 979	4 932	178 05
1994-95										
September	10 374	2 122	2 830	2 186	6 414	2 717	7 328	8 092	1 264	43 327
December	11 227	2 066	2 900	2 287	6 685	2 819	7 483	8 345	1 385	45 197
March	9 750	1 962	2 640	1 841	6 327	2 498	7 183	7 490	1 204	40 895
June	9 932	2 089	2 759	1 931	6 718	2 469	7 663	8 072	1 286	42 919
1995-96										
September	10 322	2 173	2 853	2 053	6 444	2 420	7 981	8 403	1 294	43 942
December	11 415	2 067	2 991	2 600	6 768	2 451	8 137	8 709	1 379	46 519
March	10 136	1 938	2 774	2 066	6 603	2 590	7 732	8 433	1 076	43 347
June	9 849	1 931	2 873	2 007	7 032	2 389	7 549	9 435	1 184	44 249
1996-97										
September	11 091	2 068	3 006	2 111	6 719	2 567	8 142	9 588	1 262	46 553
EXPECTED SALES (\$ million)										
1996-97										
3 mths to Dec	12 044	1 833	3 032	2 441	7 037	2 541	8 446	10 165	1 325	48 865
6 mths to Jun	21 159	3 851	5 939	4 817	14 212	4 771	16 449	20 375	2 514	94 086
Total 1996-97 ²	44 294	7 752	11 977	9 369	27 969	9 878	33 037	40 127	5 102	189 505
REALISATION RATIOS: 3 MONTHS TO DECEMBER (Actual/Sep E1)										
1991	0.98	1.02	0.98	1.07	0.99	0.98	0.99	0.94	1.09	0.99
1992	1.01	0.99	1.05	1.03	0.97	1.02	0.99	1.01	1.01	1.00
1993	1.01	0.91	1.03	1.01	1.02	1.11	1.03	1.05	1.11	1.02
1994	1.00	1.00	1.02	1.00	1.01	1.12	1.03	1.00	1.06	1.02
1995	0.98	0.89	1.02	1.06	1.03	0.95	1.01	1.01	1.04	1.00
5 year average	1.00	0.96	1.02	1.03	1.00	1.04	1.01	1.00	1.06	1.01
REALISATION RATIOS: 6 MONTHS TO JUNE (Actual/Sep E2)										
1992	0.97	1.02	0.91	1.03	0.94	0.91	0.98	0.87	0.98	0.95
1993	1.02	0.99	1.01	1.03	1.00	1.08	1.01	1.04	0.99	1.02
1994	1.04	0.93	0.99	1.02	1.02	1.11	1.00	1.04	1.21	1.03
1995	0.95	0.96	0.97	0.86	1.01	1.01	1.07	0.95	1.03	0.98
1996	0.99	0.85	0.98	0.88	1.01	1.03	0.94	1.08	0.90	0.99
5 year average	1.00	0.95	0.97	0.97	0.99	1.03	1.00	1.00	1.02	0.99
REALISATION RATIOS: 12 MONTHS TO JUNE (Actual/sum of Sep actual, Sep E1 and Sep E2)										
1992	0.94	0.95	1.02	0.93	0.96	0.94	1.01	0.94	0.93	0.96
1993	0.93	0.97	0.95	0.92	0.95	0.94	0.95	0.89	1.00	0.93
1994	0.92	1.00	0.90	0.95	0.91	0.91	0.94	0.90	0.84	0.92
1995	0.98	0.91	0.96	0.90	0.98	1.07	0.92	0.95	1.00	0.96
1996	0.94	1.05	0.96	0.93	0.96	1.00	0.95	0.87	0.97	0.94
5 year average	0.94	0.98	0.96	0.93	0.95	0.97	0.95	0.91	0.95	0.94

¹ See paragraphs 22 to 25 of the Explanatory Notes.

² Derived by adding actual sales for 3 months ending September 1996 and expected sales for 9 months ending June 1997.

MANUFACTURING AND WHOLESALE TRADE STOCKS/SALES RATIO—Current prices¹

Year to/Quarter to	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
June 1994	0.47	0.75	0.53	0.31	0.64	0.45	0.54	0.63	0.45	0.55	0.51
June 1995	0.49	0.79	0.51	0.39	0.70	0.48	0.54	0.65	0.39	0.57	0.51
June 1996	0.55	0.79	0.55	0.38	0.71	0.53	0.57	0.63	0.48	0.59	0.50
1994-95											
September	0.48	0.78	0.50	0.33	0.64	0.42	0.52	0.62	0.44	0.54	0.51
December	0.48	0.81	0.50	0.34	0.63	0.41	0.53	0.64	0.41	0.54	0.51
March	0.48	0.84	0.49	0.36	0.65	0.44	0.54	0.62	0.38	0.55	0.51
June	0.49	0.79	0.51	0.39	0.70	0.48	0.54	0.65	0.39	0.57	0.51
1995-96											
September	0.50	0.83	0.55	0.40	0.73	0.53	0.56	0.65	0.41	0.59	0.52
December	0.49	0.87	0.60	0.36	0.72	0.56	0.55	0.65	0.41	0.58	0.50
March	0.50	0.84	0.55	0.39	0.72	0.49	0.54	0.63	0.45	0.58	0.49
June	0.55	0.79	0.55	0.38	0.71	0.53	0.57	0.63	0.48	0.59	0.50
1996-97											
September	0.50	0.79	0.54	0.36	0.75	0.57	0.56	0.67	0.42	0.59	0.51

¹ Seasonally adjusted series.

EXPLANATORY NOTES

.....

INTRODUCTION

1 This publication contains estimates of the book value of stocks owned by private employing business units, 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.

SURVEY METHODOLOGY

3 The survey is conducted by mail on a quarterly basis. It is based on a stratified random sample of approximately 8,000 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.

TIMING AND CONSTRUCTION OF SURVEY CYCLE

5 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.

6 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).

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

Survey quarter	Period to which reported data relates									
	1995-96			1996-97			1997-98			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	
June 1996	Actual	E1	E2							
September 1996		Actual	E1	E2						
December 1996			Actual	E1	E2					
March 1997				Actual	E1	E2				
June 1997					Actual	E1	E2			

8 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

9 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.

10 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.

11 Prior to June quarter 1996, survey frames and samples were updated annually. As a consequence, some data would be revised. 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.

12 In the period between sample selection, there are changes to the survey frame. For example, businesses cease operating and businesses are newly established. The ABS produces an estimate of the contribution expected from new businesses each quarter, while allowance is made for the number of businesses in the sample which ceased trading during the quarter. The methodology for estimating change in the business population uses direct counts each quarter of new businesses added, or in the process of being added, to the ABS business register. The introduction of quarterly sample selection reduces the size of the adjustments needed to account for new and ceased businesses for most quarters.

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.

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.

CONSTANT PRICES

21 The level and changes in the level of stocks and sales valued at constant prices (average 1989-90 prices) are obtained by dividing the current price values (in the case of stocks these are book values), at the most detailed industry level possible, by fixed weighted price indexes. These price indexes are compiled by combining, in fixed proportions, a wide range of price data. The composition and weighting of the indexes have been determined by estimates of the commodity composition of the value of sales or stocks owned by firms in those industries in 1989-90. A measure of the change in stocks at average 1989-90 prices is calculated by taking the difference between opening and closing stocks at constant prices.

DERIVATION AND USEFULNESS OF REALISATION RATIOS

22 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).

23 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 1996-97 based on the June 1996 survey results and compare these with 1995-96 expenditure, 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.

24 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.

25 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 month expectations collected in the December and June surveys.



.....

RELIABILITY OF THE ESTIMATES

26 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 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

27 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.

28 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.

29 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.

30 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 (eg change in interest rates).

31 At least once each year the seasonally adjusted series are revised to take account of the latest available data. The most recent reanalysis takes into account data up to and including the June quarter 1996 survey. Data for periods after June 1996 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.

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

33 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

34 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

35 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).

36 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

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

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

38 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

39 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

n.p. not available for publication
ANZSIC *Australian and New Zealand Standard Industrial Classification* (1292.0)
1993 edition
n.a. not applicable
n.y.a. not yet available

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 BUSINESSES¹

Estimates of	Mining	Manu- facturing	Whole- sale trade	Retail trade	Other	Total selected industries
	%	%	%	%	%	%
Total stocks	2.4	1.4	6.3	3.6	11.5	2.3
Quarter to Quarter movement ¹	0.7	0.4	0.8	1.1	2.5	0.4

STOCKS AND SALES, PRIVATE MANUFACTURING AND WHOLESALE TRADE BUSINESSES

Estimates of	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 manu- facturing	Total manu- facturing	Total
	%	%	%	%	%	%	%	%	%	%	%
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

¹ Expressed as a percentage of total.

WHAT IF...? REVISIONS TO TREND ESTIMATES

EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

Each time new seasonally adjusted estimates become available, trend estimates are revised (see paragraph 34 of Explanatory Notes).

TREND REVISIONS

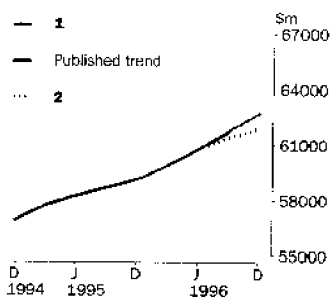
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of stocks owned by private businesses and manufacturers' and wholesalers' sales.

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

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

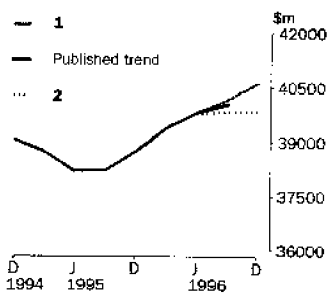
The percentages chosen are approximately the long term average movements, without regard to sign, in the seasonally adjusted series.

STOCKS OWNED BY PRIVATE BUSINESSES



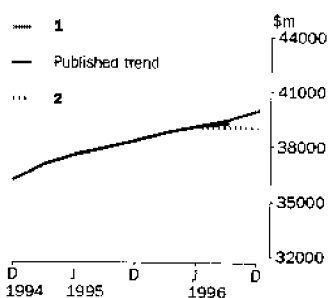
	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		1 rises by 1.0 on Sep 1996		2 falls by 1.0 on Sep 1996		
	\$m	% change	\$m	% change	\$m	% change
1995						
December 1995	59 147	0.8	59 147	0.8	59 147	0.8
1996						
March	59 866	1.2	59 839	1.2	59 912	1.3
June	60 778	1.5	60 783	1.6	60 757	1.4
September	61 749	1.6	61 797	1.7	61 446	1.1
December	—	—	62 742	1.5	61 910	0.8

MANUFACTURERS' SALES



	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		1 rises by 1.4 on Sep 1996		2 falls by 1.4 on Sep 1996		
	\$m	% change	\$m	% change	\$m	% change
1995						
December 1995	38 743	1.4	38 743	1.4	38 743	1.4
1996						
March	39 401	1.7	39 389	1.7	39 455	1.8
June	39 810	1.0	39 809	1.1	39 786	0.8
September	40 029	0.6	40 170	0.9	39 851	0.2
December	—	—	40 622	1.1	39 867	0.0

WHOLESALE TRADE SALES



	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		1 rises by 1.7 on Sep 1996		2 falls by 1.7 on Sep 1996		
	\$m	% change	\$m	% change	\$m	% change
1995						
December 1995	38 297	1.1	38 297	1.1	38 297	1.1
1996						
March	38 738	1.2	38 719	1.1	38 797	1.3
June	39 084	0.9	39 086	0.9	39 060	0.7
September	39 278	0.5	39 453	0.9	39 074	0.0
December	—	—	39 979	1.3	39 063	0.0







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