

**STOCKS, SELECTED INDUSTRY SALES**

**AND EXPECTED SALES to June 1996**

**A U S T R A L I A**

EMBARGOED UNTIL 11:30AM MON 27 NOVEMBER 1995

**SEPTEMBER QTR KEY FIGURES**

**TREND ESTIMATES \***

	Sep 94	Jun 95	Sep 95	% change Jun 95 to Sep 95	% change Sep 94 to Sep 95
	\$m	\$m	\$m		
Stocks held by					
Private businesses	56 295	59 372	60 285	1.5	7.1
Sales by					
Manufacturers	38 733	39 370	39 263	-0.3	1.4
Wholesale trade	35 996	39 297	39 685	1.0	10.2

**SEASONALLY ADJUSTED \***

	Sep 94	Jun 95	Sep 95	% change Jun 95 to Sep 95	% change Sep 94 to Sep 95
	\$m	\$m	\$m		
Stocks held by					
Private businesses	56 415	59 144	60 594	2.5	7.4
Sales by					
Manufacturers	38 903	39 271	39 214	-0.1	0.8
Wholesale trade	36 071	39 792	39 114	-1.7	8.4

\* At average 1989-90 prices.

**SEPTEMBER QTR KEY POINTS**

**TREND ESTIMATES**

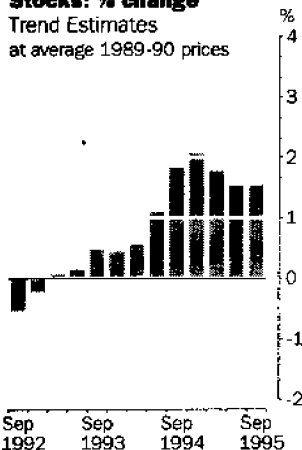
- The trend estimate (in constant price terms) for stocks held by private businesses shows an increase of 1.5% over the June quarter 1995. The increase in stocks has occurred in all industries but is strongest in Mining, Manufacturing and Wholesale trade. Mining stocks have now resumed a positive trend movement after five quarters of decline.
- Growth in Wholesalers' sales is easing, with an increase of 1% in the September quarter and 1.8% in the June quarter following increases of 2.9% in the March quarter and 4.2% in each of December and September 1994 quarters.
- Manufacturers' sales have eased slightly from a peak in the March quarter.

**TAKE CARE!**  
New sample introduced  
and seasonal reanalysis  
see page 2  
**CHANGES IN THIS ISSUE**

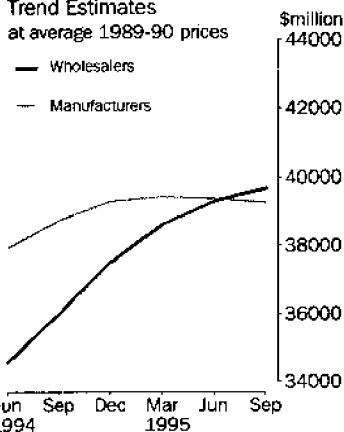
**EXPECTED SALES**

- The second estimate for Manufacturers' sales (in current price terms) for 1995-96 is \$185,776m. If realised, this estimate will represent an increase of 6.4% over 1994-95.

**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 Stamolios on 02 268 4241, or Kevin Squair on 06 252 5610.

# STOCKS & SELECTED INDUSTRY SALES NOTES

## FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
December 1995	18 March 1996
March 1996	27 May 1996

## CHANGES IN THIS ISSUE

The annual sample revision occurs in the June quarter. Information from the revised sample is used for the first time in this publication. Large revisions have been made to the Wholesale trade sales series. Refer to paragraphs 9-13 of the explanatory notes for more information.

The seasonally adjusted series in the publication have been revised to take account of the latest available data. The most recent reanalysis, incorporated in this issue, takes into account data collected up to and including the June quarter 1995 survey. Data for periods after June 1995 are seasonally adjusted on the basis of extrapolation of historical patterns. The nature of the seasonal adjustment process is such that the magnitude of some revisions to seasonal factors and hence to seasonally adjusted series may be quite significant, especially for more recent quarters. The trend estimates have also been revised in this publication. Refer to paragraphs 28-35 of the explanatory notes for more information.

## SAMPLING ERRORS

The estimates in this publication are based on a sample survey of businesses. Because data are not collected from all businesses, the published estimates 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	1.9%	0.4%
Total Stocks, manufacturing	1.1%	0.2%
Total Sales, manufacturing	0.9%	0.3%

## 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 on page 21.

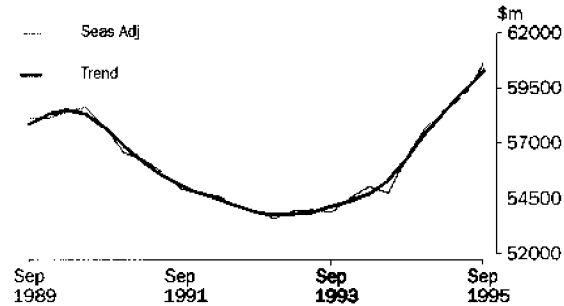
W. McLennan  
Australian Statistician

# STOCKS: Trend estimates—Constant prices<sup>1</sup>

<sup>1</sup>At average 1989-90 prices

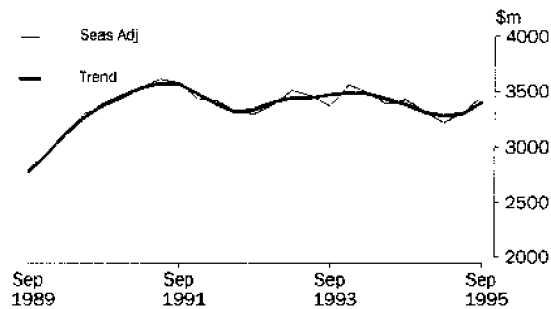
## ALL SELECTED INDUSTRIES

The trend estimates for Stocks in all industries have been increasing strongly for the last six quarters.



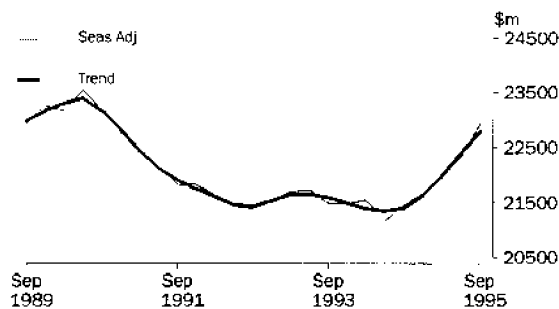
## MINING

The trend estimates for Mining are now showing rises for two successive quarters after five quarters of decline.



## MANUFACTURING

The trend estimates for Manufacturing stocks continue the rise which commenced in the September quarter 1994.

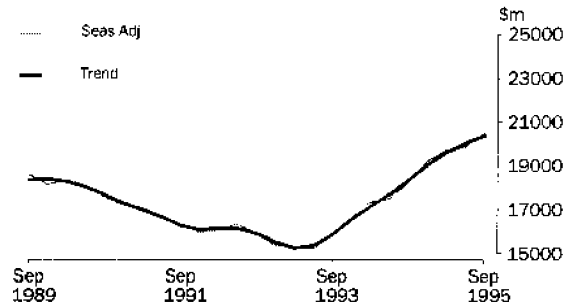


# STOCKS: Trend estimates—Constant prices<sup>1</sup>

<sup>1</sup>At average 1989–90 prices

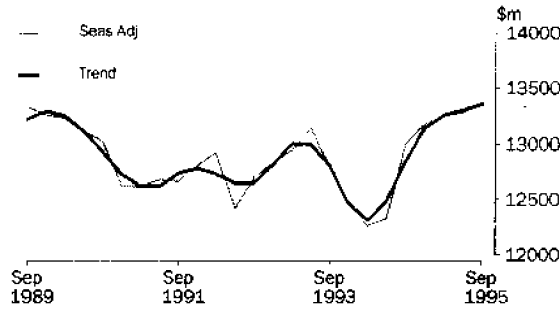
## WHOLESALE TRADE

While growth remains strong, the trend estimates for Wholesale stocks are showing a slowing in growth over recent quarters.



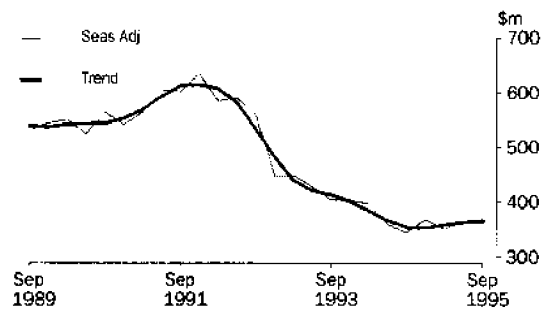
## RETAIL TRADE

The trend estimates continue to show a slowing in the rate of growth.



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

The long decline in trend estimates to the December 1994 quarter has ceased with rises recorded in the last three quarters.

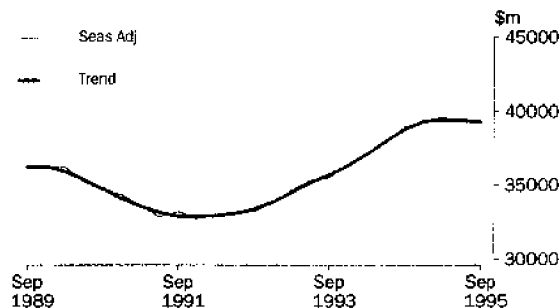


# SALES: Trend estimates—Constant prices<sup>1</sup>

<sup>1</sup> At average 1989-90 prices

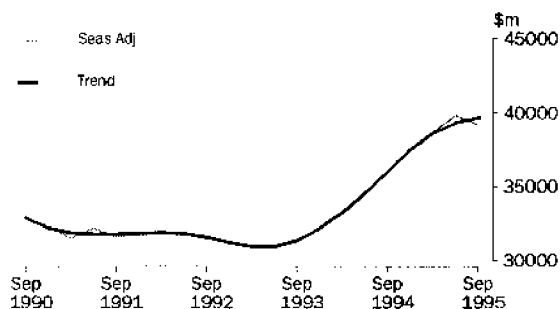
## MANUFACTURERS' SALES

The Manufacturers' sales trend estimates have fallen slightly from the peak in the March 1995 quarter.



## WHOLESALE TRADE SALES

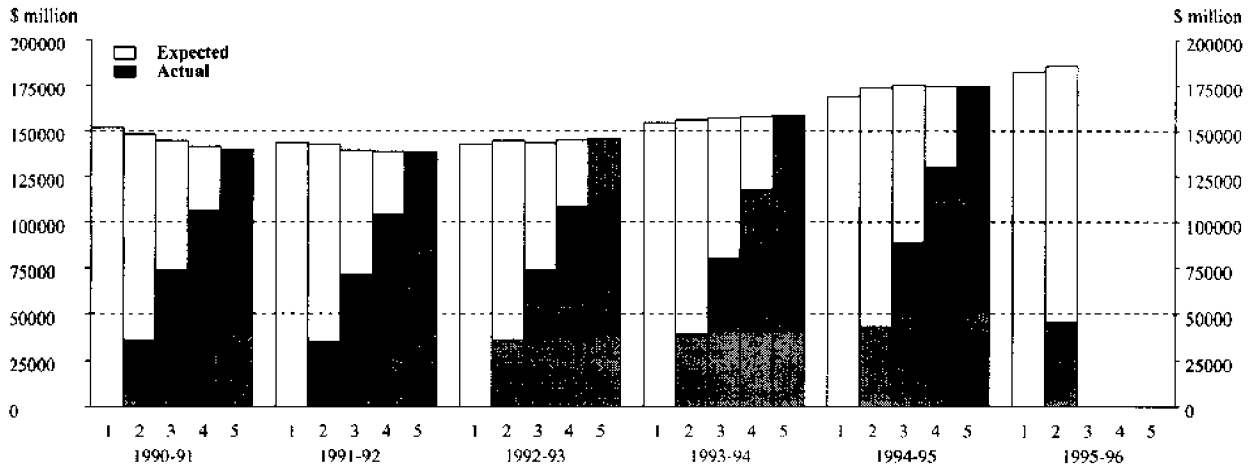
The trend estimates for Wholesalers' sales are showing a slowing in the growth rate following strong growth through 1994 and earlier quarters of 1995.



# 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 <sup>1</sup> \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries <sup>2</sup> \$m	Total selected industries <sup>2</sup> \$m
ORIGINAL						
June 1993	3 594	23 027	16 219	14 313	471	57 624
June 1994	3 464	22 626	18 821	13 629	409	58 949
June 1995	3 519	25 381	21 411	15 049	431	65 791
<b>1993-94</b>						
September	3 613	22 796	17 331	14 469	447	58 655
December	3 720	22 458	18 337	14 234	497	59 245
March	3 653	22 887	19 124	13 739	454	59 856
June	3 464	22 626	18 821	13 629	409	58 949
<b>1994-95</b>						
September	3 634	22 960	19 626	14 945	389	61 555
December	3 513	23 269	20 631	15 325	465	63 202
March	3 469	24 458	21 502	15 169	413	65 012
June	3 519	25 381	21 411	15 049	431	65 791
<b>1995-96</b>						
September	3 785	25 811	22 312	15 785	434	68 127
SEASONALLY ADJUSTED						
June 1993	3 675	22 919	16 504	14 670	484	58 252
June 1994	3 544	22 489	19 146	13 969	417	59 566
June 1995	3 603	25 225	21 781	15 424	440	66 473
<b>1993-94</b>						
September	3 561	22 840	17 404	14 311	461	58 577
December	3 721	22 696	18 219	13 991	465	59 091
March	3 624	22 721	18 846	13 796	460	59 447
June	3 544	22 489	19 146	13 969	417	59 566
<b>1994-95</b>						
September	3 580	23 021	19 703	14 785	403	61 494
December	3 514	23 524	20 510	15 050	435	63 034
March	3 440	24 289	21 183	15 242	419	64 572
June	3 603	25 225	21 781	15 424	440	66 473
<b>1995-96</b>						
September	3 729	25 870	22 397	15 618	450	68 064
TREND ESTIMATES						
June 1993	3 660	22 859	16 731	14 495	477	58 222
June 1994	3 592	22 660	19 230	14 128	427	60 037
June 1995	3 586	25 128	21 795	15 431	438	66 378
<b>1993-94</b>						
September	3 653	22 844	17 366	14 330	472	58 665
December	3 641	22 723	18 126	14 000	462	58 953
March	3 626	22 611	18 755	13 868	446	59 306
June	3 592	22 660	19 230	14 128	427	60 037
<b>1994-95</b>						
September	3 535	22 959	19 778	14 601	415	61 289
December	3 500	23 550	20 452	15 028	418	62 947
March	3 516	24 338	21 153	15 262	429	64 698
June	3 586	25 128	21 795	15 431	438	66 378
<b>1995-96</b>						
September	3 695	25 876	22 394	15 611	445	68 022

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

<sup>2</sup> See paragraph 2, page 17.

BOOK VALUE OF STOCKS OWNED, By Industry—Constant prices<sup>1</sup>

At end of	Mining <sup>2</sup> \$m	Manufacturing \$m	Wholesale trade \$m	Retail trade \$m	Other selected industries <sup>2</sup> \$m	Total selected industries <sup>3</sup> \$m
ORIGINAL						
June 1993	3 378	21 832	14 963	12 824	416	53 413
June 1994	3 307	21 288	17 186	12 023	352	54 156
June 1995	3 230	22 475	19 511	12 961	357	58 534
<b>1993-94</b>						
September	3 415	21 453	15 761	12 924	390	53 943
December	3 558	21 263	16 697	12 680	431	54 629
March	3 518	21 697	17 573	12 205	391	55 384
June	3 307	21 288	17 186	12 023	352	54 156
<b>1994-95</b>						
September	3 472	21 397	18 128	13 143	332	56 472
December	3 321	21 434	19 311	13 418	393	57 877
March	3 244	22 098	19 958	13 185	346	58 831
June	3 230	22 475	19 511	12 961	357	58 534
<b>1995-96</b>						
September	3 506	22 875	20 395	13 517	355	60 648
SEASONALLY ADJUSTED						
June 1993	3 455	21 733	15 225	13 144	427	53 985
June 1994	3 384	21 167	17 483	12 323	360	54 716
June 1995	3 307	22 341	19 848	13 284	365	59 144
<b>1993-94</b>						
September	3 365	21 492	15 827	12 783	402	53 871
December	3 559	21 483	16 589	12 464	403	54 498
March	3 490	21 547	17 318	12 256	397	55 007
June	3 384	21 167	17 483	12 323	360	54 716
<b>1994-95</b>						
September	3 421	21 448	18 199	13 003	344	56 415
December	3 322	21 661	19 198	13 178	367	57 726
March	3 217	21 950	19 662	13 248	351	58 428
June	3 307	22 341	19 848	13 284	365	59 144
<b>1995-96</b>						
September	3 454	22 925	20 472	13 374	368	60 594
TREND ESTIMATES						
June 1993	3 439	21 655	15 360	12 998	420	53 873
June 1994	3 430	21 343	17 662	12 480	367	55 283
June 1995	3 306	22 391	20 006	13 305	363	59 372
<b>1993-94</b>						
September	3 468	21 593	15 862	12 798	412	54 133
December	3 485	21 490	16 531	12 468	401	54 375
March	3 479	21 390	17 129	12 305	385	54 687
June	3 430	21 343	17 662	12 480	367	55 283
<b>1994-95</b>						
September	3 378	21 409	18 314	12 840	354	56 295
December	3 314	21 627	19 014	13 146	353	57 454
March	3 280	21 991	19 584	13 261	359	58 475
June	3 306	22 391	20 006	13 305	363	59 372
<b>1995-96</b>						
September	3 401	22 794	20 364	13 360	366	60 285

<sup>1</sup> At average 1989-90 prices.

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

<sup>3</sup> See paragraph 2, page 17.



PERCENTAGE CHANGES IN STOCKS OWNED, By Industry—Constant prices<sup>1</sup>

Year to/Quarter to	Mining <sup>2</sup> %	Manufacturing %	Wholesale trade %	Retail trade %	Other selected industries <sup>3</sup> %	Total selected industries <sup>3</sup> %
ORIGINAL						
June 1993	3.7	1.8	-6.8	5.8	-27.0	-0.1
June 1994	-2.1	-2.5	14.9	-6.2	-15.4	1.4
June 1995	-2.3	5.6	13.5	7.8	1.4	8.1
<b>1993-94</b>						
September	1.1	-1.7	5.3	0.8	-6.3	1.0
December	4.2	-0.9	5.9	-1.9	10.5	1.3
March	-1.1	2.0	5.2	-3.7	-9.3	1.4
June	-6.0	-1.9	-2.2	-1.5	-10.0	-2.2
<b>1994-95</b>						
September	5.0	0.5	5.5	9.3	-5.7	4.3
December	-4.3	0.2	6.5	2.1	18.4	2.5
March	-2.3	3.1	3.4	-1.7	-12.0	1.6
June	-0.4	1.7	-2.2	-1.7	3.2	-0.5
<b>1995-96</b>						
September	8.5	1.8	4.5	4.3	-0.6	3.6
SEASONALLY ADJUSTED						
June 1993	4.0	1.4	-6.8	5.8	-27.5	-0.2
June 1994	-2.1	-2.6	14.8	-6.2	-15.8	1.4
June 1995	-2.3	5.5	13.5	7.8	1.4	8.1
<b>1993-94</b>						
September	-2.6	-1.1	4.0	-2.7	-5.8	-0.2
December	5.8	0.0	4.8	-2.5	0.2	1.2
March	-1.9	0.3	4.4	-1.7	-1.7	0.9
June	-3.1	-1.8	1.0	0.6	-9.3	-0.5
<b>1994-95</b>						
September	1.1	1.3	4.1	5.5	-4.4	3.1
December	-2.9	1.0	5.5	1.3	6.8	2.3
March	-3.2	1.3	2.4	0.5	-4.4	1.2
June	2.8	1.8	0.9	0.3	3.9	1.2
<b>1995-96</b>						
September	4.4	2.6	3.1	0.7	1.0	2.5
TREND ESTIMATES						
June 1993	3.8	0.8	-4.7	2.8	-27.8	-0.5
June 1994	-0.3	-1.4	15.0	-4.0	-12.6	2.6
June 1995	-3.6	4.9	13.3	6.6	-1.1	7.4
<b>1993-94</b>						
September	0.8	-0.3	3.3	-1.5	-1.8	0.5
December	0.5	-0.5	4.2	-2.6	-2.7	0.4
March	-0.2	-0.5	3.6	-1.3	-4.0	0.6
June	-1.4	-0.2	3.1	1.4	-4.7	1.1
<b>1994-95</b>						
September	-1.5	0.3	3.7	2.9	-3.5	1.8
December	-1.9	1.0	3.8	2.4	-0.3	2.1
March	-1.0	1.7	3.0	0.9	1.6	1.8
June	0.8	1.8	2.2	0.3	1.1	1.5
<b>1995-96</b>						
September	2.9	1.8	1.8	0.4	0.8	1.5

<sup>1</sup> At average 1989-90 prices.

<sup>3</sup> See paragraph 2, page 17.

<sup>2</sup> 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—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 <sup>1</sup>	Machinery and equipment <sup>1</sup>	Other manu- facturing	Total manu- facturing
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1993	4 655	1 656	1 396	723	3 926	1 076	3 932	5 159	503	23 027
June 1994	4 828	1 558	1 412	697	3 801	1 119	3 607	4 991	610	22 626
June 1995	5 280	1 769	1 565	787	4 585	1 293	4 012	5 513	578	25 381
<b>1993-94</b>										
September	4 553	1 582	1 422	725	3 998	1 111	3 851	5 021	531	22 796
December	4 528	1 511	1 381	747	3 905	1 123	3 794	4 883	585	22 458
March	4 674	1 491	1 447	797	3 915	1 125	3 694	5 087	656	22 887
June	4 828	1 558	1 412	697	3 801	1 119	3 607	4 991	610	22 626
<b>1994-95</b>										
September	4 897	1 573	1 361	722	4 027	1 136	3 656	5 017	572	22 960
December	4 914	1 594	1 376	719	4 011	1 149	3 835	5 119	554	23 269
March	5 088	1 660	1 509	726	4 277	1 235	3 978	5 406	581	24 458
June	5 280	1 769	1 565	787	4 585	1 293	4 012	5 513	578	25 381
<b>1995-96</b>										
September	5 148	1 714	1 556	827	4 805	1 387	4 042	5 723	605	25 811
SEASONALLY ADJUSTED										
June 1993	4 568	1 603	1 384	732	3 941	1 064	3 967	5 153	508	22 919
June 1994	4 728	1 510	1 398	705	3 815	1 106	3 630	4 981	617	22 489
June 1995	5 167	1 715	1 549	796	4 603	1 278	4 032	5 501	585	25 225
<b>1993-94</b>										
September	4 640	1 582	1 427	714	3 967	1 102	3 863	5 007	536	22 840
December	4 605	1 530	1 416	752	3 929	1 138	3 787	4 947	591	22 696
March	4 607	1 521	1 420	794	3 906	1 133	3 662	5 043	636	22 721
June	4 728	1 510	1 398	705	3 815	1 106	3 630	4 981	617	22 489
<b>1994-95</b>										
September	4 989	1 572	1 367	713	3 994	1 128	3 673	5 006	578	23 021
December	4 996	1 616	1 412	724	4 039	1 164	3 826	5 188	560	23 524
March	5 022	1 692	1 480	722	4 265	1 243	3 947	5 357	561	24 289
June	5 167	1 715	1 549	796	4 603	1 278	4 032	5 501	585	25 225
<b>1995-96</b>										
September	5 245	1 713	1 565	817	4 765	1 377	4 064	5 713	612	25 870
TREND ESTIMATES										
June 1993	4 533	1 598	1 389	735	4 040	1 064	3 929	5 049	522	22 859
June 1994	4 766	1 524	1 391	736	3 879	1 117	3 640	4 993	614	22 660
June 1995	5 144	1 708	1 533	780	4 542	1 296	4 020	5 522	585	25 128
<b>1993-94</b>										
September	4 607	1 573	1 412	738	3 954	1 103	3 879	5 035	544	22 844
December	4 613	1 539	1 423	751	3 907	1 127	3 771	5 004	588	22 723
March	4 646	1 517	1 412	754	3 885	1 127	3 674	4 977	620	22 611
June	4 766	1 524	1 391	736	3 879	1 117	3 640	4 993	614	22 660
<b>1994-95</b>										
September	4 906	1 565	1 386	712	3 934	1 129	3 693	5 049	585	22 959
December	5 004	1 625	1 416	714	4 077	1 169	3 813	5 168	563	23 550
March	5 067	1 676	1 476	744	4 300	1 230	3 931	5 345	567	24 338
June	5 144	1 708	1 533	780	4 542	1 296	4 020	5 522	585	25 128
<b>1995-96</b>										
September	5 238	1 729	1 578	815	4 783	1 361	4 082	5 686	605	25 876

<sup>1</sup> 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—Constant prices<sup>1</sup>

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 <sup>2</sup>	Machinery and equipment <sup>2</sup>	Other manu- facturing	Total manu- facturing
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL										
June 1993	4 313	1 568	1 295	676	3 777	994	3 968	4 759	482	21 832
June 1994	4 340	1 451	1 290	660	3 674	1 042	3 643	4 618	570	21 288
June 1995	4 453	1 556	1 326	686	4 110	1 167	3 743	4 910	524	22 475
<b>1993-94</b>										
September	4 146	1 477	1 305	670	3 844	1 035	3 877	4 588	511	21 453
December	4 131	1 422	1 260	690	3 797	1 054	3 869	4 478	562	21 263
March	4 265	1 407	1 321	740	3 809	1 055	3 800	4 689	611	21 697
June	4 340	1 451	1 290	660	3 674	1 042	3 643	4 618	570	21 288
<b>1994-95</b>										
September	4 355	1 450	1 226	676	3 849	1 051	3 640	4 612	538	21 397
December	4 253	1 469	1 228	666	3 773	1 058	3 769	4 701	517	21 434
March	4 367	1 496	1 316	659	3 903	1 128	3 803	4 896	530	22 098
June	4 453	1 556	1 326	686	4 110	1 167	3 743	4 910	524	22 475
<b>1995-96</b>										
September	4 368	1 522	1 294	675	4 332	1 254	3 777	5 107	546	22 875
SEASONALLY ADJUSTED										
June 1993	4 232	1 518	1 283	685	3 791	982	4 003	4 754	485	21 733
June 1994	4 250	1 406	1 277	668	3 688	1 029	3 666	4 608	574	21 167
June 1995	4 358	1 508	1 312	694	4 127	1 153	3 761	4 899	528	22 341
<b>1993-94</b>										
September	4 225	1 477	1 310	660	3 815	1 027	3 889	4 576	515	21 492
December	4 201	1 440	1 292	695	3 821	1 068	3 861	4 537	567	21 483
March	4 204	1 435	1 296	737	3 801	1 062	3 767	4 648	596	21 547
June	4 250	1 406	1 277	668	3 688	1 029	3 666	4 608	574	21 167
<b>1994-95</b>										
September	4 437	1 449	1 232	667	3 818	1 043	3 657	4 602	543	21 448
December	4 324	1 489	1 260	670	3 799	1 072	3 761	4 764	522	21 661
March	4 310	1 525	1 290	656	3 893	1 135	3 773	4 852	516	21 950
June	4 358	1 508	1 312	694	4 127	1 153	3 761	4 899	528	22 341
<b>1995-96</b>										
September	4 450	1 521	1 301	667	4 296	1 245	3 797	5 098	551	22 925
TREND ESTIMATES										
June 1993	4 193	1 507	1 288	683	3 873	986	3 972	4 656	499	21 655
June 1994	4 291	1 423	1 267	691	3 754	1 042	3 691	4 611	575	21 343
June 1995	4 364	1 518	1 303	675	4 100	1 174	3 780	4 947	530	22 391
<b>1993-94</b>										
September	4 222	1 479	1 297	683	3 817	1 028	3 929	4 616	522	21 593
December	4 206	1 447	1 301	695	3 792	1 055	3 843	4 591	561	21 490
March	4 223	1 423	1 289	703	3 776	1 055	3 752	4 584	584	21 390
June	4 291	1 423	1 267	691	3 754	1 042	3 691	4 611	575	21 343
<b>1994-95</b>										
September	4 346	1 449	1 252	668	3 759	1 046	3 685	4 655	547	21 409
December	4 350	1 485	1 260	663	3 816	1 075	3 726	4 728	524	21 627
March	4 341	1 510	1 284	671	3 940	1 123	3 764	4 838	521	21 991
June	4 364	1 518	1 303	675	4 100	1 174	3 780	4 947	530	22 391
<b>1995-96</b>										
September	4 419	1 521	1 312	677	4 268	1 224	3 785	5 045	543	22 794

<sup>1</sup> At average 1989-90 prices.

<sup>2</sup> 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—Constant prices<sup>1</sup>

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 <sup>2</sup>	Machinery and equipment <sup>2</sup>	Other manufacturing	Total manufacturing
	%	%	%	%	%	%	%	%	%	%
ORIGINAL										
June 1993	5.9	2.2	-5.9	6.0	-2.0	-2.1	-0.8	8.4	-13.2	1.8
June 1994	0.6	-7.5	-0.4	-2.4	-2.7	4.8	-8.2	-3.0	18.3	-2.5
June 1995	2.6	7.2	2.8	3.9	11.9	12.0	2.7	6.3	-8.1	5.6
<b>1993-94</b>										
September	-3.9	-5.8	0.8	-0.9	1.8	4.1	-2.3	-3.6	6.0	-1.7
December	-0.4	-3.7	-3.4	3.0	-1.2	1.8	-0.2	-2.4	10.0	-0.9
March	3.2	-1.1	4.8	7.2	0.3	0.1	-1.8	4.7	8.7	2.0
June	1.8	3.1	-2.3	-10.8	-3.5	-1.2	-4.1	-1.5	-6.7	-1.9
<b>1994-95</b>										
September	0.3	-0.1	-5.0	2.4	4.8	0.9	-0.1	-0.1	-5.6	0.5
December	-2.3	1.3	0.2	-1.5	-2.0	0.7	3.5	1.9	-3.9	0.2
March	2.7	1.8	7.2	-1.1	3.4	6.6	0.9	4.1	2.5	3.1
June	2.0	4.0	0.8	4.1	5.3	3.5	-1.6	0.3	-1.1	1.7
<b>1995-96</b>										
September	-1.9	-2.2	-2.4	-1.6	5.4	7.5	0.9	4.0	4.2	1.8
SEASONALLY ADJUSTED										
June 1993	5.8	-2.8	-5.9	6.0	-2.0	-2.1	-1.2	8.4	-12.9	1.4
June 1994	0.4	-7.4	-0.5	-2.5	-2.7	4.8	-8.4	-3.1	18.4	-2.6
June 1995	2.5	7.3	2.8	3.9	11.9	12.0	2.6	6.3	-8.0	5.5
<b>1993-94</b>										
September	-0.2	-2.7	2.0	-3.6	0.6	4.6	-2.9	-3.7	6.1	-1.1
December	-0.6	-2.5	-1.3	5.3	0.1	4.1	-0.7	-0.8	10.3	0.0
March	0.1	-0.4	0.3	6.0	-0.5	-0.6	-2.4	2.4	5.1	0.3
June	1.1	-2.0	-1.5	-9.4	-3.0	-3.1	-2.7	-0.9	-3.7	-1.8
<b>1994-95</b>										
September	4.4	3.1	-3.5	-0.1	3.5	1.3	-0.2	-0.1	-5.5	1.3
December	-2.6	2.7	2.2	0.5	-0.5	2.8	2.8	3.5	-3.8	1.0
March	-0.3	2.4	2.4	-2.2	2.5	5.9	0.3	1.8	-1.1	1.3
June	1.1	-1.1	1.7	5.9	6.0	1.6	-0.3	1.0	2.3	1.8
<b>1995-96</b>										
September	2.1	0.8	-0.9	-3.9	4.1	7.9	1.0	4.1	4.3	2.6
TREND ESTIMATES										
June 1993	3.9	-3.1	-6.7	7.0	0.3	0.2	-1.0	4.4	-9.7	0.8
June 1994	2.3	-5.6	-1.7	1.2	-3.1	5.6	-7.1	-1.0	15.2	-1.4
June 1995	1.7	6.7	2.9	-2.3	9.2	12.7	2.4	7.3	-7.8	4.9
<b>1993-94</b>										
September	0.7	-1.8	0.7	0.1	-1.4	4.2	-1.1	-0.8	4.6	-0.3
December	-0.4	-2.2	0.3	1.8	-0.6	2.6	-2.2	-0.6	7.4	-0.5
March	0.4	-1.6	-0.9	1.0	-0.4	0.0	-2.3	-0.1	4.2	-0.5
June	1.6	0.0	-1.8	-1.7	-0.6	-1.3	-1.6	0.6	-1.6	-0.2
<b>1994-95</b>										
September	1.3	1.8	-1.1	-3.2	0.1	0.4	-0.2	1.0	-4.9	0.3
December	0.1	2.5	0.6	-0.9	1.5	2.7	1.1	1.6	-4.2	1.0
March	-0.2	1.6	1.9	1.2	3.3	4.4	1.0	2.3	-0.5	1.7
June	0.5	0.6	1.5	0.6	4.0	4.6	0.4	2.3	1.7	1.8
<b>1995-96</b>										
September	1.3	0.2	0.7	0.3	4.1	4.2	0.1	2.0	2.5	1.8

<sup>1</sup> At average 1989-90 prices.

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

MANUFACTURERS' AND WHOLESALE TRADE SALES—Current prices

MANUFACTURING.....

WHOLESALE  
TRADE

Period	Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu- facturing	Total wholesale
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m

ORIGINAL

<b>Year to</b>											
June 1993	35 369	8 722	9 541	7 581	22 239	7 998	25 282	25 529	3 703	145 964	134 824
June 1994	38 770	8 437	10 073	8 403	23 649	9 162	26 680	29 524	4 172	158 870	142 699
June 1995	42 082	8 437	11 068	9 200	25 562	10 969	29 161	33 158	5 018	174 653	164 232
<b>1993-94</b>											
September	9 634	2 297	2 554	1 967	5 809	2 198	6 763	7 127	931	39 280	34 703
December	10 256	2 100	2 638	2 259	6 078	2 352	6 896	7 611	1 077	41 268	36 789
March	9 169	2 001	2 332	2 016	5 658	2 199	6 316	6 920	1 030	37 640	34 135
June	9 712	2 040	2 549	2 161	6 102	2 413	6 705	7 866	1 134	40 682	37 073
<b>1994-95</b>											
September	10 410	2 122	2 821	2 322	6 319	2 763	7 294	8 214	1 259	43 523	39 772
December	11 368	2 078	2 889	2 493	6 543	2 903	7 392	8 572	1 369	45 608	42 300
March	9 943	1 983	2 609	2 107	6 122	2 604	7 004	7 820	1 152	41 344	39 401
June	10 361	2 254	2 749	2 278	6 577	2 699	7 470	8 552	1 238	44 179	42 758
<b>1995-96</b>											
September	10 847	2 258	2 812	2 573	6 634	2 834	7 948	8 804	1 370	46 080	43 282

SEASONALLY ADJUSTED

<b>Year to</b>											
June 1993	35 401	8 738	9 549	7 574	22 216	7 991	25 357	25 628	3 705	146 159	135 030
June 1994	38 690	8 407	10 102	8 438	23 731	9 203	26 684	29 632	4 205	159 092	142 744
June 1995	42 133	8 466	11 089	9 189	25 543	10 970	29 165	33 282	5 037	174 874	164 415
<b>1993-94</b>											
September	9 421	2 168	2 449	1 974	5 812	2 145	6 598	6 939	903	38 410	34 358
December	9 582	2 068	2 508	2 054	5 877	2 239	6 751	7 362	994	39 436	34 959
March	9 724	2 113	2 502	2 158	5 946	2 352	6 701	7 539	1 125	40 160	35 815
June	9 963	2 057	2 642	2 252	6 095	2 466	6 635	7 792	1 183	41 086	37 612
<b>1994-95</b>											
September	10 340	2 052	2 690	2 296	6 212	2 662	7 106	7 986	1 224	42 567	39 466
December	10 558	2 026	2 701	2 265	6 351	2 779	7 275	8 126	1 236	43 316	40 171
March	10 615	2 120	2 847	2 260	6 415	2 771	7 385	8 687	1 285	44 385	41 415
June	10 621	2 268	2 852	2 369	6 566	2 757	7 400	8 482	1 291	44 606	43 364
<b>1995-96</b>											
September	10 718	2 159	2 637	2 544	6 538	2 743	7 783	8 383	1 303	44 808	42 880

TREND ESTIMATES

<b>Year to</b>											
June 1993	35 436	8 732	9 551	7 558	22 176	7 972	25 429	25 612	3 691	146 157	135 076
June 1994	38 752	8 413	10 085	8 455	23 736	9 267	26 766	29 625	4 215	159 313	142 834
June 1995	42 086	8 424	11 027	9 223	25 508	10 934	29 131	33 231	5 038	174 602	163 783
<b>1993-94</b>											
September	9 418	2 157	2 441	1 994	5 805	2 187	6 608	7 011	930	38 552	34 219
December	9 576	2 113	2 486	2 061	5 878	2 240	6 668	7 282	1 003	39 307	34 936
March	9 748	2 082	2 548	2 157	5 967	2 343	6 695	7 565	1 102	40 208	36 088
June	10 010	2 061	2 610	2 242	6 086	2 496	6 795	7 766	1 180	41 246	37 591
<b>1994-95</b>											
September	10 301	2 040	2 678	2 274	6 213	2 646	7 013	7 992	1 223	42 381	39 064
December	10 519	2 064	2 761	2 268	6 339	2 750	7 231	8 270	1 250	43 453	40 463
March	10 610	2 131	2 799	2 299	6 438	2 774	7 377	8 453	1 273	44 155	41 623
June	10 656	2 189	2 788	2 383	6 517	2 763	7 510	8 515	1 293	44 612	42 632
<b>1995-96</b>											
September	10 696	2 222	2 733	2 496	6 573	2 745	7 677	8 491	1 308	44 941	43 488



MANUFACTURERS' AND WHOLESALE TRADE SALES—Constant prices<sup>1</sup>

MANUFACTURING.....											WHOLESALE TRADE
period	Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu- facturing	Total wholesale
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ORIGINAL											
<b>Year to</b>											
June 1993	32 622	8 376	8 864	6 626	20 771	7 239	25 063	23 745	3 441	136 747	124 370
June 1994	34 491	7 932	9 066	7 140	22 522	8 216	26 486	26 858	3 816	146 527	131 384
June 1995	36 455	7 667	9 671	7 577	23 747	9 629	27 919	29 749	4 473	156 887	152 127
<b>1993-94</b>											
September	8 584	2 175	2 325	1 688	5 491	1 982	6 648	6 517	865	36 275	31 823
December	9 139	1 983	2 378	1 921	5 749	2 113	6 832	6 930	994	38 039	33 863
March	8 163	1 884	2 090	1 709	5 446	1 974	6 315	6 282	937	34 800	31 569
June	8 605	1 890	2 273	1 822	5 836	2 147	6 691	7 129	1 020	37 413	34 129
<b>1994-95</b>											
September	9 188	1 941	2 503	1 933	6 024	2 441	7 201	7 417	1 134	39 782	36 678
December	9 949	1 895	2 550	2 061	6 159	2 551	7 163	7 731	1 228	41 287	39 426
March	8 528	1 801	2 266	1 732	5 647	2 282	6 623	7 000	1 023	36 902	36 624
June	8 790	2 030	2 352	1 851	5 917	2 355	6 932	7 601	1 088	38 916	39 399
<b>1995-96</b>											
September	9 208	2 023	2 372	2 028	5 929	2 456	7 300	7 822	1 193	40 331	39 904
SEASONALLY ADJUSTED											
<b>Year to</b>											
June 1993	32 644	8 391	8 869	6 619	20 749	7 232	25 138	23 831	3 443	136 916	124 749
June 1994	34 417	7 903	9 090	7 168	22 605	8 252	26 494	26 954	3 845	146 728	131 264
June 1995	36 480	7 693	9 683	7 566	23 723	9 628	27 914	29 855	4 488	157 032	151 981
<b>1993-94</b>											
September	8 394	2 053	2 230	1 694	5 494	1 935	6 485	6 346	839	35 470	31 313
December	8 539	1 953	2 261	1 747	5 559	2 011	6 688	6 703	917	36 378	32 250
March	8 657	1 990	2 242	1 829	5 723	2 111	6 700	6 844	1 024	37 121	33 228
June	8 828	1 906	2 356	1 899	5 829	2 195	6 621	7 061	1 064	37 759	34 473
<b>1994-95</b>											
September	9 126	1 877	2 386	1 911	5 921	2 352	7 014	7 211	1 102	38 903	36 071
December	9 240	1 848	2 384	1 872	5 978	2 442	7 049	7 329	1 109	39 250	37 441
March	9 104	1 925	2 473	1 858	5 917	2 428	6 984	7 776	1 142	39 607	38 677
June	9 010	2 043	2 440	1 924	5 907	2 406	6 867	7 539	1 135	39 271	39 792
<b>1995-96</b>											
September	9 099	1 934	2 225	2 005	5 843	2 377	7 148	7 448	1 135	39 214	39 114
TREND ESTIMATES											
<b>Year to</b>											
June 1993	32 635	8 378	8 866	6 604	20 737	7 217	25 193	23 821	3 430	136 880	124 735
June 1994	34 526	7 912	9 077	7 181	22 605	8 308	26 603	26 948	3 855	147 015	131 348
June 1995	36 459	7 658	9 628	7 585	23 705	9 596	27 892	29 821	4 486	156 830	151 424
<b>1993-94</b>											
September	8 452	2 050	2 222	1 712	5 473	1 972	6 538	6 410	863	35 693	31 372
December	8 531	1 998	2 244	1 757	5 589	2 015	6 615	6 632	923	36 302	32 166
March	8 662	1 952	2 283	1 827	5 712	2 099	6 675	6 869	1 003	37 080	33 250
June	8 882	1 912	2 328	1 886	5 832	2 222	6 775	7 036	1 066	37 940	34 559
<b>1994-95</b>											
September	9 084	1 872	2 378	1 897	5 921	2 339	6 917	7 224	1 100	38 733	35 996
December	9 171	1 881	2 430	1 879	5 953	2 418	6 999	7 444	1 119	39 294	37 515
March	9 131	1 932	2 432	1 885	5 934	2 430	6 991	7 568	1 131	39 434	38 617
June	9 072	1 973	2 388	1 925	5 896	2 409	6 985	7 585	1 137	39 370	39 297
<b>1995-96</b>											
September	9 041	1 992	2 307	1 982	5 855	2 382	7 033	7 531	1 139	39 263	39 685

<sup>1</sup> At average 1989-90 prices.

# MANUFACTURERS' ACTUAL AND EXPECTED SALES WITH REALISATION RATIOS<sup>1</sup>

Period	Food, beverage and tobacco	Textiles, clothing footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and assoc. products	Non- metallic mineral product	Metal product	Machinery and equipment	Other manu- facturing	Total manu- facturing
ACTUAL SALES (\$ million)										
<b>1992-93</b>	35 369	8 722	9 541	7 581	22 239	7 998	25 282	25 529	3 703	145 964
<b>1993-94</b>	38 770	8 437	10 073	8 403	23 649	9 162	26 680	29 524	4 172	158 870
<b>1994-95</b>	42 082	8 437	11 068	9 200	25 562	10 969	29 161	33 158	5 018	174 653
<b>1993-94</b>										
September	9 634	2 297	2 554	1 967	5 809	2 198	6 763	7 127	931	39 280
December	10 256	2 100	2 638	2 259	6 078	2 352	6 896	7 611	1 077	41 268
March	9 169	2 001	2 332	2 016	5 658	2 199	6 316	6 920	1 030	37 640
June	9 712	2 040	2 549	2 161	6 102	2 413	6 705	7 866	1 134	40 882
<b>1994-95</b>										
September	10 410	2 122	2 821	2 322	6 319	2 763	7 294	8 214	1 259	43 523
December	11 368	2 078	2 889	2 493	6 543	2 903	7 392	8 572	1 369	45 608
March	9 943	1 983	2 609	2 107	6 122	2 604	7 004	7 820	1 152	41 344
June	10 361	2 254	2 749	2 278	6 577	2 699	7 470	8 552	1 238	44 179
<b>1995-96</b>										
September	10 847	2 258	2 812	2 573	6 634	2 834	7 948	8 804	1 370	46 080
EXPECTED SALES (\$ million)										
<b>1995-96</b>										
3 mths to Dec	12 198	2 386	2 875	2 746	6 874	3 018	7 952	9 186	1 514	48 749
6 mths to Jun	21 091	4 635	5 605	4 671	13 626	5 509	15 552	17 503	2 754	90 946
Total 1995-96 <sup>2</sup>	44 135	9 280	11 292	9 991	27 134	11 362	31 452	35 493	5 638	185 776
REALISATION RATIOS: 3 MONTHS TO DECEMBER (Actual/Sep E1)										
<b>1990</b>	0.98	1.01	0.92	0.97	0.97	0.99	0.99	0.95	0.89	0.97
<b>1991</b>	0.98	1.02	0.98	1.07	0.99	0.98	0.99	0.94	1.09	0.99
<b>1992</b>	1.01	0.99	1.05	1.03	0.97	1.02	0.99	1.01	1.01	1.00
<b>1993</b>	1.01	0.91	1.03	1.01	1.02	1.11	1.03	1.05	1.11	1.02
<b>1994</b>	1.01	1.01	1.02	1.01	1.01	1.10	1.03	1.00	1.07	1.02
5 year average	1.00	0.99	1.00	1.02	0.99	1.04	1.01	0.99	1.03	1.00
REALISATION RATIOS: 6 MONTHS TO JUNE (Actual/Sep E2)										
<b>1991</b>	0.97	0.94	0.89	0.95	0.91	0.86	0.93	0.85	0.72	0.91
<b>1992</b>	0.97	1.02	0.91	1.03	0.94	0.91	0.98	0.87	0.98	0.95
<b>1993</b>	1.02	0.99	1.01	1.03	1.00	1.08	1.01	1.04	0.99	1.02
<b>1994</b>	1.03	0.93	0.99	1.03	1.01	1.10	1.00	1.04	1.19	1.02
<b>1995</b>	0.98	1.01	0.97	0.96	1.00	1.05	1.05	0.99	0.99	1.00
5 year average	1.00	0.98	0.95	1.00	0.97	1.00	0.99	0.96	0.97	0.98
REALISATION RATIOS: 12 MONTHS TO JUNE (Actual/sum of Sep actual, Sep E1 and Sep E2)										
<b>1991</b>	1.00	0.93	0.90	0.95	0.95	1.01	1.06	0.96	1.05	0.98
<b>1992</b>	0.94	0.95	1.02	0.93	0.96	0.94	1.01	0.94	0.93	0.96
<b>1993</b>	0.93	0.97	0.95	0.92	0.95	0.94	0.95	0.89	1.00	0.93
<b>1994</b>	0.91	1.01	0.90	0.90	0.93	0.88	0.94	0.88	0.84	0.91
<b>1995</b>	0.95	0.91	0.98	0.92	0.94	0.97	0.93	0.93	0.89	0.94
5 year average	0.95	0.95	0.95	0.92	0.94	0.95	0.98	0.92	0.94	0.95

<sup>1</sup> See paragraphs 23 to 26 of the Explanatory Notes.

<sup>2</sup> Derived by adding actual sales for 3 months ending September 1995 and expected sales for 3 months ending December 1995 and expected sales for 6 months ending June 1996.

MANUFACTURING AND WHOLESALE TRADE STOCKS/SALES RATIO—Current prices<sup>1</sup>

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 manu- facturing	Total manu- facturing	Total wholesale
June 1993	0.49	0.72	0.58	0.37	0.69	0.49	0.62	0.77	0.56	0.61	0.49
June 1994	0.47	0.73	0.53	0.31	0.63	0.45	0.55	0.64	0.52	0.55	0.51
June 1995	0.49	0.76	0.54	0.34	0.70	0.46	0.54	0.65	0.45	0.57	0.50
<b>1993-94</b>											
September	0.49	0.73	0.58	0.36	0.68	0.51	0.59	0.72	0.59	0.59	0.51
December	0.48	0.74	0.56	0.37	0.67	0.51	0.56	0.67	0.59	0.58	0.52
March	0.47	0.72	0.57	0.37	0.66	0.48	0.55	0.67	0.56	0.57	0.53
June	0.47	0.73	0.53	0.31	0.63	0.45	0.55	0.64	0.52	0.55	0.51
<b>1994-95</b>											
September	0.48	0.77	0.51	0.31	0.64	0.42	0.52	0.63	0.47	0.54	0.50
December	0.47	0.80	0.52	0.32	0.64	0.42	0.53	0.64	0.45	0.54	0.51
March	0.47	0.80	0.52	0.32	0.66	0.45	0.53	0.62	0.44	0.55	0.51
June	0.49	0.76	0.54	0.34	0.70	0.46	0.54	0.65	0.45	0.57	0.50
<b>1995-96</b>											
September	0.49	0.79	0.59	0.32	0.73	0.50	0.52	0.68	0.47	0.58	0.52

<sup>1</sup> Seasonally adjusted series.



# EXPLANATORY NOTES

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## 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 (45–47)

- Basic materials (45)

- Machinery and motor vehicles (46)

- Personal and household goods (47)

- Retail Trade (51–53 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 (57)

- 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. 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									
	Jun 94	Sep 94	Dec 94	Mar 95	Jun 95	Sep 95	Dec 95	Mar 96	Jun 96	
June 1994	Actual	E1	E2							
September 1994		Actual	E1	E2						
December 1994			Actual	E1	E2					
March 1995				Actual	E1	E2				
June 1995					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** Each year prior to the June quarter survey, the survey's population framework and the sample are revised to ensure that they remain representative of the survey population. With this revision some of the business units from the sampled sector are rotated out of the sample and replaced by others to spread the reporting workload equitably. As a check on comparability, information is collected from both the old and revised samples for the June quarter.



SAMPLE REVISION (continued)

**10** Estimates derived from the new sample may differ from estimates derived from the old sample. These differences are due to several factors including changes in the composition of the population and sample, reclassification of some statistical units to different industries and revisions to provisions in the old sample estimate for new businesses commencing during the year. Differences are usually apportioned back to provide a consistent series over time.

**11** In this publication revisions to 1994-95 and earlier periods have been made to Wholesale sales and Stocks as a result of updated sample information.

**12** In the 12 month period between successive frames and survey samples there are many businesses which cease operating and many which are newly established. Such changes in the business population need to be reflected in the survey to ensure that the estimates produced are representative of the changing nature of the business population over the course of the year. The ABS produces an estimate of the contribution expected from new businesses each quarter, with allowances being made for the number of businesses in the sample which ceased trading during the quarter.

**13** Improvements have recently been introduced to the methodology for estimating the growth in the business population by using direct counts each quarter of new businesses added, or in the process of being added, to the ABS business register. Changes have been made to the annual sample revision procedures, taking account of new methodologies.

STATISTICAL UNIT

**14** This survey uses the management unit as the statistical unit. The management unit is the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts are maintained. In nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it. Prior to 1989, the survey was on a different business unit basis. Further details are available on request.

CLASSIFICATION BY INDUSTRY

**15** 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).

**16** Users are referred to a detailed analysis of ANZSIC/ASIC and ASIC/ANZSIC concordances contained in the joint ABS, Statistics New Zealand publication: *Australian & New Zealand Standard Industrial Classification, 1993, ANZSIC*, ABS Cat. No. 1292.0 and Statistics New Zealand Cat. No. 19.005.0092.

**17** 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.

**18** 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

**19** *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.

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



DESCRIPTION OF TERMS

(continued)

**21** *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

**22** The level and changes in the level of stocks and sales valued at constant prices (1989-90) 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

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

**24** Realisation ratios provide an important tool in understanding and interpreting expectations statistics for future periods. The application of realisation ratios enables the adjustment of expectations data for known under (or over) realisation patterns in the past and hence provides a valid basis for comparison with other expectations data and actual sales estimates. For example, if one wished to predict actual sales for 1995-96 based on the June 1995 survey results and compare these with 1994-95 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.

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

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

RELIABILITY OF THE ESTIMATES

**27** Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error. Sampling error is explained and quantified on pages 24 and 25.

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

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

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

SEASONAL ADJUSTMENT

**28** The quarterly stocks and sales series in this publication are affected to some extent by seasonal influences and it is useful to recognise and take account of this element of variation.

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

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

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

**32** At least once each year the seasonally adjusted series are revised to take account of the latest available data. The most recent reanalysis takes into account data up to and including the June quarter 1995 survey. Data for periods after 1995 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. For this reason, care should be exercised when interpreting movements in seasonally adjusted data for recent quarters. Because of the changes to the sample and some consequent adjustments, these series have been re-analysed this quarter.

**33** The seasonally adjusted figures necessarily reflect the sampling and other errors to which the original figures are subject. Particular care should be taken in interpreting quarter to quarter movements in the adjusted series in the publication.

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

TREND ESTIMATES

**35** The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. The 7-term Henderson average (like all Henderson averages) is symmetric, but as the end of a time series is approached, asymmetric forms of the average are applied. Unlike the weights of the standard 7-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series.

While the asymmetric weights enable trend estimates for recent quarters to be produced, it does result in revisions to the estimates for the most recent three quarters as additional observations become available. There may also be revisions because of changes in the original data and as a result of the re-estimation of the seasonal factors. For further information, see *A Guide to Interpreting Time Series — Monitoring 'Trend' An Overview* (1348.0) or contact the Assistant Director, Time Series Analysis.

COMPARISON WITH OTHER ABS STATISTICS

**36** The data collected in the Survey of Stocks and Sales are used to compile estimates of the increase in book value of non-farm stocks in the quarterly and annual national accounts. For further details see *Australian National Accounts: Concepts, Sources and Methods* (5216.0).



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

RELATED PUBLICATIONS

- 38** Users may also wish to refer to the following publications:
- *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)

**39** 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

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

SYMBOLS AND OTHER USAGES

- n.p. not available for publication
- r revised
- p preliminary figure or series subject to revision
- ANZSIC *Australian and New Zealand Standard Industrial Classification* (1292.0) 1993 edition
- .. not applicable
- n.y.a. not yet available

## STANDARD ERRORS

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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 1.1%. This relative standard error is then used to interpret the level estimate of \$21,000m. For instance, the relative standard error of 1.1% indicates that:

- There are approximately two chances in three that the real value falls within the range \$20,769m to \$21,231m ( $\$21,000\text{m} \pm 1.1\% \times \$21,000\text{m}$ )
- There are approximately nineteen chances in twenty that the real value falls within the range \$20,538m to \$21,462m ( $\$21,000\text{m} \pm 2 \times 1.1\% \times \$21,000\text{m}$ )

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 0.2%. This relative standard error is then used to interpret the published movement estimate of +\$300m. For instance the relative standard error of 0.2% indicates that:

- There are approximately two chances in three that the real movement over the two quarters falls within the range \$256m to \$344m ( $\$300\text{m} \pm 0.2\% \times \$22,100\text{m}$ )
- There are approximately nineteen chances in twenty that the real value falls within the range \$212m to \$388m ( $\$300\text{m} \pm 2 \times 0.2\% \times \$22,100\text{m}$ ).

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<sup>1</sup>

Estimates of	Mining	Manu- facturing	Whole- sale trade	Retail trade	Other	Total selected industries
	%	%	%	%	%	%
Total stocks	5.3	1.1	7.0	8.9	4.8	1.9
Quarter to Quarter movement <sup>1</sup>	1.1	0.2	1.5	1.8	2.3	0.4

## STOCKS AND SALES, PRIVATE MANUFACTURING AND WHOLESALE TRADE BUSINESSES

### MANUFACTURING

### WHOLESALE TRADE

Estimates 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	Machinery and equipment	Other manu- facturing	Total manu- facturing	Total
	%	%	%	%	%	%	%	%	%	%	%
Total stocks- Level	3.1	7.1	2.7	4.0	2.4	2.5	1.0	2.7	5.8	1.1	7.0
Movement	0.8	0.9	0.6	0.9	0.4	0.4	0.3	0.7	1.6	0.2	1.5
Total sales- Level	1.9	5.9	2.7	3.8	2.1	2.8	1.3	2.2	4.6	0.9	2.8
Movement	0.7	2.0	0.7	1.1	0.5	0.6	0.4	0.9	2.1	0.3	0.8

<sup>1</sup> 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 35 of Explanatory Notes).

### TREND REVISIONS

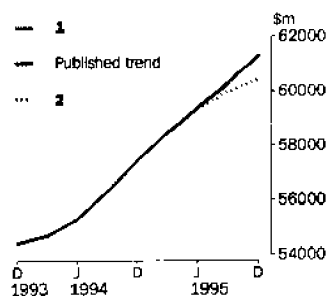
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of stocks owned by private businesses and manufacturers' and wholesalers' sales.

**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.

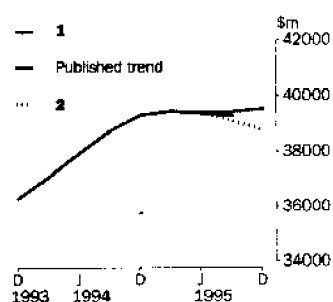
The percentages chosen are approximately the long term average movements, without regard to sign, in the seasonally adjusted series.

### STOCKS OWNED BY PRIVATE BUSINESSES



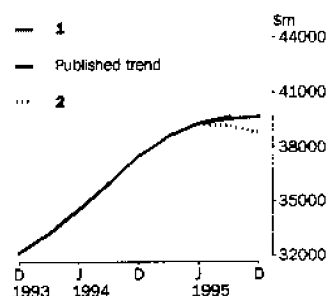
	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		\$m	% change	<b>1</b> rises by 1.0% on Sep 1995 \$m % change	<b>2</b> falls by 1.0% on Sep 1995 \$m % change	
1994						
December	57 454	2.1	57 445	2.1	57 445	2.1
1995						
March	58 475	1.8	58 497	1.8	58 568	2.0
June	59 372	1.5	59 381	1.5	59 356	1.3
September	60 285	1.5	60 337	1.6	59 994	1.1
December	—	—	61 265	1.5	60 452	0.8

### MANUFACTURERS' SALES



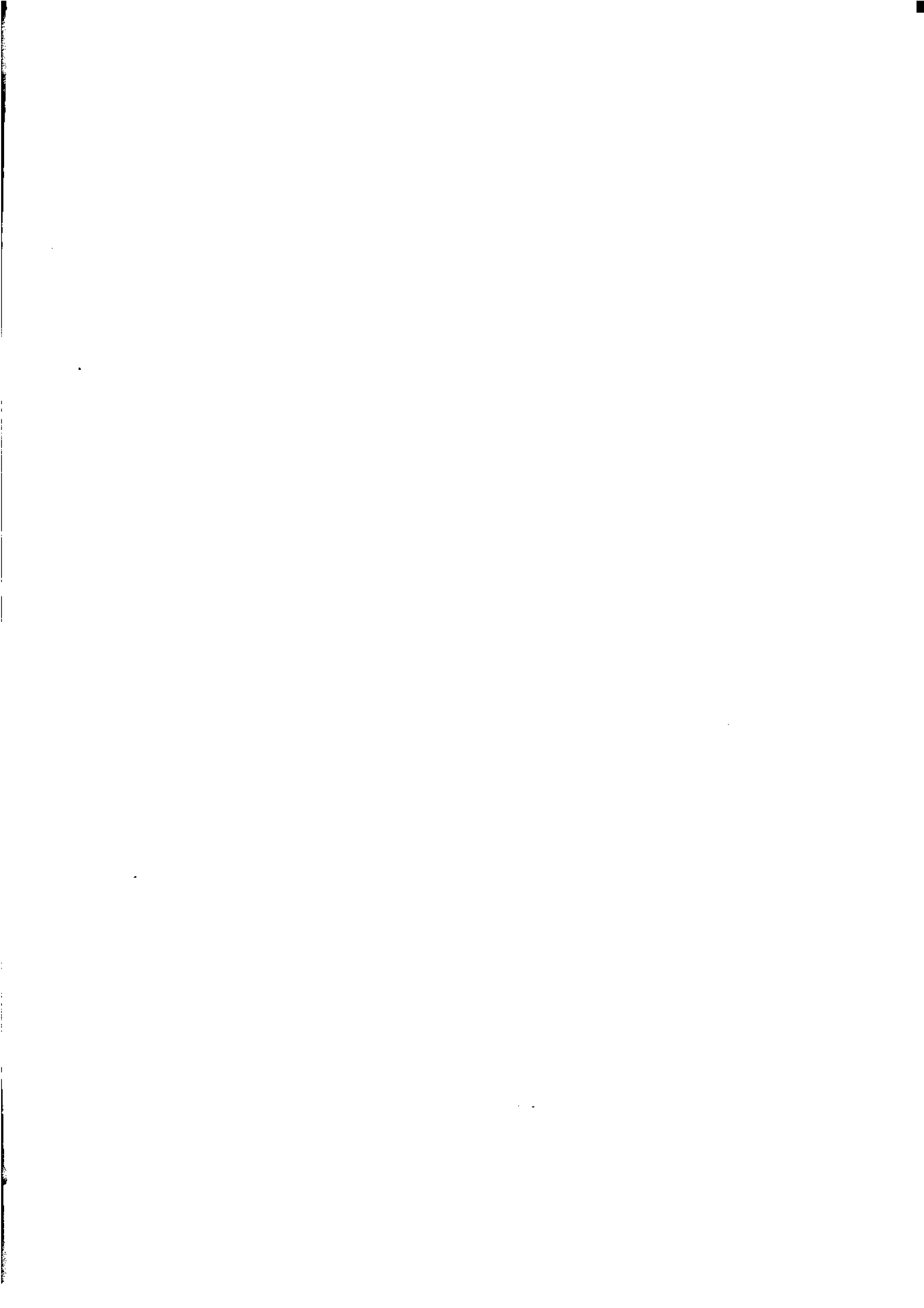
	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		\$m	% change	<b>1</b> rises by 1.4% on Sep 1995 \$m % change	<b>2</b> falls by 1.4% on Sep 1995 \$m % change	
1994						
December	39 294	1.4	39 294	1.4	39 294	1.4
1995						
March	39 434	0.4	39 439	0.4	39 503	0.5
June	39 370	-0.2	39 376	-0.2	39 354	-0.4
September	39 263	-0.3	39 409	0.1	39 099	-0.6
December	—	—	39 521	0.3	38 770	-0.8

### WHOLESALE TRADE SALES



	TREND AS PUBLISHED	WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:				
		\$m	% change	<b>1</b> rises by 1.7% on Sep 1995 \$m % change	<b>2</b> falls by 1.7% on Sep 1995 \$m % change	
1994						
December	37 515	4.2	37 515	4.2	37 515	4.2
1995						
March	38 617	2.9	38 696	3.2	38 774	3.4
June	39 297	1.8	39 282	1.5	39 254	1.2
September	39 685	1.0	39 553	0.7	39 177	-0.2
December	—	—	39 682	0.3	38 791	-1.0





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ISSN 1323-2614

RRP \$13.00