



# STOCKS, SELECTED INDUSTRY SALES AND EXPECTED SALES to December 1996 AUSTRALIA

EMBARGOED UNTIL 11:30AM MON 27 MAY 1996

## MARCH QTR KEY FIGURES

### TREND ESTIMATES \*

	Mar 95	Dec 95	Mar 96	% change Dec 95 to Mar 96	% change Mar 95 to Mar 96
	\$m	\$m	\$m		
Stocks held by					
Private businesses	57 719	59 815	60 323	0.8	4.5
Sales by					
Manufacturers	38 878	38 740	39 512	2.0	1.6
Wholesale trade	36 952	38 606	39 452	2.2	6.8

### SEASONALLY ADJUSTED \*

	Mar 95	Dec 95	Mar 96	% change Dec 95 to Mar 96	% change Mar 95 to Mar 96
	\$m	\$m	\$m		
Stocks held by					
Private businesses	57 702	59 801	60 241	0.7	4.4
Sales by					
Manufacturers	39 205	38 649	39 970	3.4	2.0
Wholesale trade	37 268	39 371	39 290	-0.2	5.4

\* At average 1989-90 prices.

## MARCH QTR KEY POINTS

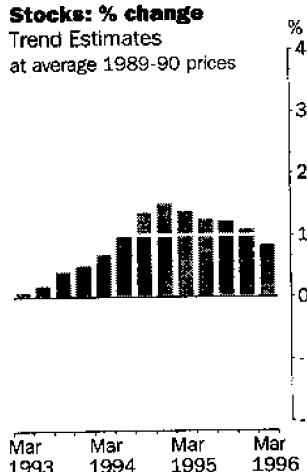
### TREND ESTIMATES

- The trend estimate (in constant price terms) for stocks held by private businesses shows an increase of 0.8% over the December quarter 1995, but the rate of increase is declining.
- Mining stocks increased by 2.9%, and Manufacturers' stocks by 1.6%. The largest increases for Manufacturers' stocks were in the wood and paper products industry (3.6%) and machinery and equipment industry (3.0%).
- Manufacturers' sales increased by 2.0% in the March quarter 1996, following an increase of 1.2% in December quarter and a decrease of 0.2% in September quarter. The largest increase was in machinery and equipment (4.2%).
- Wholesalers' sales increased by 2.2% in the March quarter 1996 following increases of 1.9% in December quarter and 1.2% in September quarter.

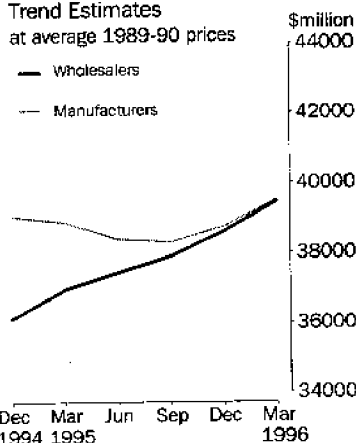
### EXPECTED SALES

- The fourth estimate for Manufacturers' sales (in current price terms) for 1995-96 is \$179,689m. If realised, this estimate will represent an increase of 4.1% 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 Stamolis on 02 268 4241, or any ABS Office.

# STOCKS & SELECTED INDUSTRY SALES NOTES

## FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
June 1996	26 August 1996
September 1996	25 November 1996
December 1996	14 March 1997

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## CHANGES IN THIS ISSUE

There are no changes in this issue.

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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 March 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%

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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 on page 21.

W. McLennan  
Australian Statistician

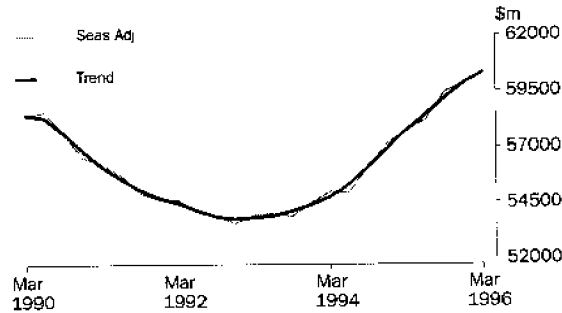
# STOCKS: Trend estimates—Constant prices<sup>1</sup>



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

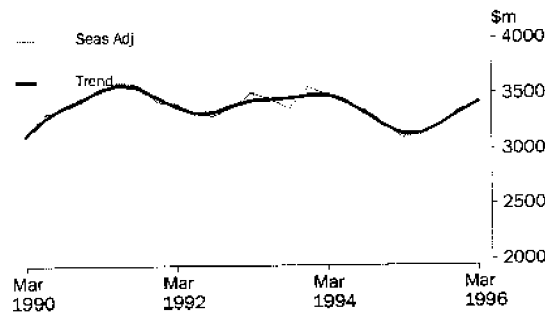
## ALL SELECTED INDUSTRIES

The trend estimates for stocks have been rising in all selected industries since December 1992, but the rate of increase has been declining for the last five quarters.



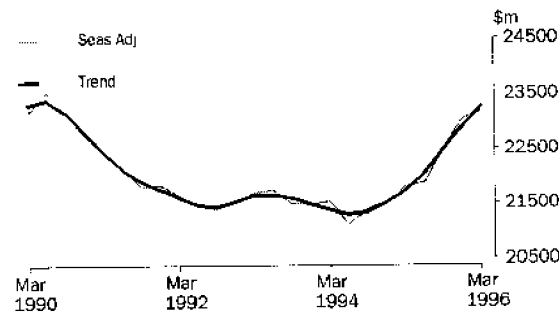
## MINING

The trend estimates for stocks held by the mining industry have been rising over the last three quarters.



## MANUFACTURING

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

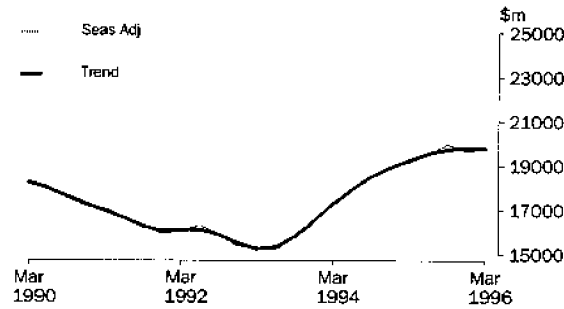


# STOCKS: Trend estimates—Constant prices<sup>1</sup>

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

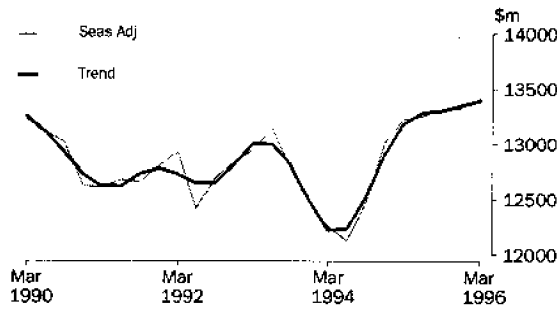
## WHOLESALE TRADE

The decreasing growth in Wholesale stocks experienced since 1994 has now become negative. In percentage terms, the movement between December quarter 1995 and March quarter 1996 is -0.1%.



## RETAIL TRADE

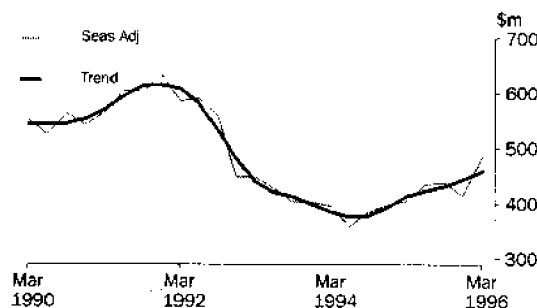
The trend estimates for Retail stocks have been increasing since June 1994.



## OTHER SELECTED INDUSTRIES

(Electricity and gas supply; accommodation, cafes and restaurants)

The growth in stocks held by Other Selected Industries has been strong since December 1994. In percentage terms, the movement between December quarter 1995 and March quarter 1996 is 3.5%.



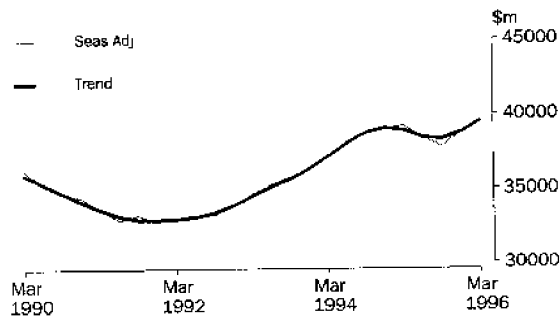
# SALES: Trend estimates—Constant prices<sup>1</sup>



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

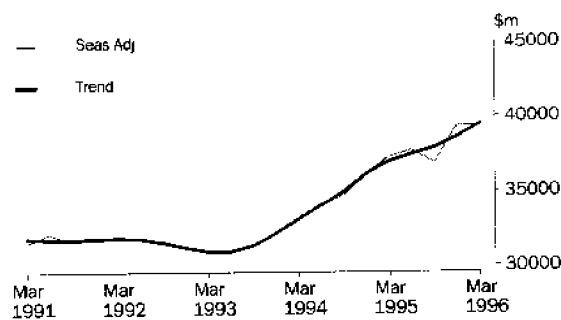
## MANUFACTURERS' SALES

Growth in Manufacturers' sales has risen to 2.0% for the March quarter 1996 after growth of 1.1% for the December quarter and 0.9% for the September quarter.



## WHOLESALE TRADE SALES

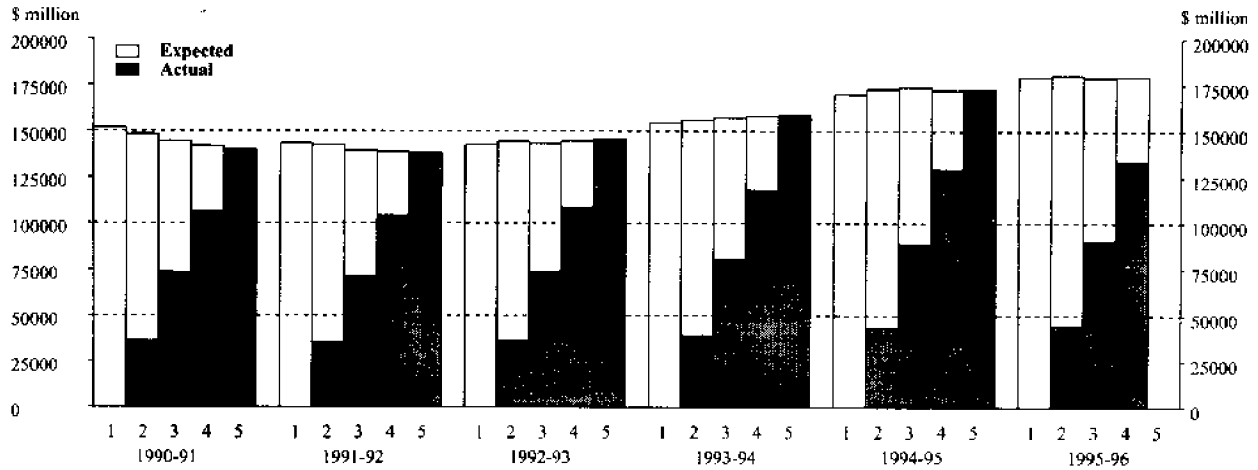
The trend estimates for Wholesalers' sales show increasing growth since December 1994. The the March quarter 1996 growth was 2.2%.



# 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	3 493	22 571	18 873	13 419	406	58 764
June 1995	3 345	24 834	20 873	14 991	508	64 551
<b>1993-94</b>						
March	3 653	22 887	19 124	13 739	454	59 856
June	3 493	22 571	18 873	13 419	406	58 764
<b>1994-95</b>						
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	3 345	24 834	20 873	14 991	508	64 551
<b>1995-96</b>						
September	3 557	25 308	21 602	15 685	507	66 659
December	3 696	25 662	21 471	15 907	536	67 274
March	3 815	26 077	21 661	15 676	570	67 799
SEASONALLY ADJUSTED						
June 1993	3 675	22 920	16 504	14 670	484	58 253
June 1994	3 574	22 436	19 199	13 754	415	59 378
June 1995	3 425	24 688	21 234	15 364	519	65 230
<b>1993-94</b>						
March	3 624	22 721	18 846	13 796	460	59 447
June	3 574	22 436	19 199	13 754	415	59 378
<b>1994-95</b>						
September	3 515	22 955	19 767	14 189	446	60 873
December	3 422	23 375	20 082	14 853	466	62 197
March	3 323	24 119	20 435	15 197	478	63 551
June	3 425	24 688	21 234	15 364	519	65 230
<b>1995-96</b>						
September	3 504	25 372	21 684	15 519	526	66 606
December	3 698	25 937	21 352	15 616	501	67 104
March	3 782	25 896	21 337	15 756	579	67 349
TREND ESTIMATES <sup>3</sup>						
June 1993	3 660	22 860	16 731	14 495	477	58 222
June 1994	3 587	22 620	19 289	13 855	437	59 788
June 1995	3 408	24 749	21 151	15 391	506	65 204
<b>1993-94</b>						
March	3 636	22 601	18 800	13 781	446	59 264
June	3 587	22 620	19 289	13 855	437	59 788
<b>1994-95</b>						
September	3 494	22 894	19 683	14 235	440	60 745
December	3 413	23 413	20 088	14 747	461	62 121
March	3 367	24 065	20 619	15 165	490	63 705
June	3 408	24 749	21 151	15 391	506	65 204
<b>1995-96</b>						
September	3 530	25 332	21 438	15 510	518	66 329
December	3 665	25 766	21 481	15 631	533	67 075
March	3 787	26 082	21 385	15 745	551	67 550

<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.

<sup>3</sup> Revised. See paragraph 34.

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>3</sup> \$m	Total selected industries <sup>3</sup> \$m
ORIGINAL						
June 1993	3 380	21 833	14 963	12 824	416	53 416
June 1994	3 338	21 236	17 614	11 831	350	54 369
June 1995	3 062	22 005	19 144	12 925	424	57 560
<b>1993-94</b>						
March	3 520	21 696	17 573	12 205	391	55 385
June	3 338	21 236	17 614	11 831	350	54 369
<b>1994-95</b>						
September	3 405	21 337	18 457	12 599	369	56 167
December	3 231	21 315	19 058	13 252	426	57 281
March	3 126	21 956	19 458	13 155	398	58 093
June	3 062	22 005	19 144	12 925	424	57 560
<b>1995-96</b>						
September	3 267	22 438	19 911	13 449	421	59 486
December	3 349	22 805	19 790	13 568	443	59 955
March	3 454	23 317	20 063	13 341	477	60 652
SEASONALLY ADJUSTED						
June 1993	3 457	21 740	15 225	13 144	427	53 994
June 1994	3 415	21 119	17 918	12 126	358	54 937
June 1995	3 135	21 884	19 475	13 247	433	58 173
<b>1993-94</b>						
March	3 492	21 545	17 318	12 256	397	55 007
June	3 415	21 119	17 918	12 126	358	54 937
<b>1994-95</b>						
September	3 355	21 387	18 530	12 465	382	56 118
December	3 232	21 533	18 946	13 015	397	57 123
March	3 100	21 811	19 169	13 218	404	57 702
June	3 135	21 884	19 475	13 247	433	58 173
<b>1995-96</b>						
September	3 218	22 490	19 987	13 307	437	59 439
December	3 351	23 037	19 680	13 319	414	59 801
March	3 424	23 161	19 762	13 409	484	60 241
TREND ESTIMATES <sup>4</sup>						
June 1993	3 454	21 658	15 360	12 998	420	53 890
June 1994	3 439	21 306	17 953	12 233	376	55 307
June 1995	3 138	22 042	19 555	13 283	422	58 440
<b>1993-94</b>						
March	3 492	21 377	17 291	12 225	385	54 770
June	3 439	21 306	17 953	12 233	376	55 307
<b>1994-95</b>						
September	3 330	21 351	18 497	12 513	377	56 069
December	3 220	21 511	18 895	12 902	392	56 920
March	3 138	21 734	19 247	13 186	413	57 719
June	3 138	22 042	19 555	13 283	422	58 440
<b>1995-96</b>						
September	3 225	22 470	19 740	13 301	430	59 166
December	3 331	22 897	19 804	13 341	442	59 815
March	3 427	23 255	19 792	13 391	457	60 323

<sup>1</sup> At average 1989-90 prices.<sup>2</sup> See paragraph 2, page 17.<sup>3</sup> In using the seasonally adjusted series extra care should be exercised because of the difficulties associated with reliably estimating its seasonal pattern.<sup>4</sup> Revised. See paragraph 34.



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>4</sup>
	%	%	%	%	%	%
ORIGINAL						
June 1993	3.8	1.9	-6.8	5.8	-27.0	0.0
June 1994	-1.2	-2.7	17.7	-7.7	-15.9	1.8
June 1995	-8.3	3.6	8.7	9.2	21.1	5.9
<b>1993-94</b>						
March	-1.1	2.0	5.2	-3.7	-9.3	1.4
June	-5.2	-2.1	0.2	-3.1	-10.5	-1.8
<b>1994-95</b>						
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	-2.0	0.2	-1.6	-1.7	6.5	-0.9
<b>1995-96</b>						
September	6.7	2.0	4.0	4.1	-0.7	3.3
December	2.5	1.6	-0.6	0.9	5.2	0.8
March	3.1	2.2	1.4	-1.7	7.7	1.2
SEASONALLY ADJUSTED						
June 1993	4.1	1.4	-6.8	5.8	-27.5	-0.2
June 1994	-1.2	-2.9	17.7	-7.7	-16.3	1.7
June 1995	-8.2	3.6	8.7	9.2	21.1	5.9
<b>1993-94</b>						
March	-1.9	0.3	4.4	-1.7	-1.7	0.9
June	-2.2	-2.0	3.5	-1.1	-9.8	-0.1
<b>1994-95</b>						
September	-1.8	1.3	3.4	2.8	6.9	2.2
December	-3.7	0.7	2.2	4.4	3.9	1.8
March	-4.1	1.3	1.2	1.6	1.6	1.0
June	1.1	0.3	1.6	0.2	7.3	0.8
<b>1995-96</b>						
September	2.7	2.8	2.6	0.5	0.9	2.2
December	4.1	2.4	-1.5	0.1	-5.3	0.6
March	2.2	0.5	0.4	0.7	17.0	0.7
TREND ESTIMATES <sup>4</sup>						
June 1993	3.8	0.8	-4.7	2.8	-27.8	-0.5
June 1994	-0.4	-1.6	16.9	-5.9	-10.4	2.6
June 1995	-8.8	3.5	8.9	8.6	12.3	5.7
<b>1993-94</b>						
March	0.2	-0.5	4.6	-2.1	-3.4	0.7
June	-1.5	-0.3	3.8	0.1	-2.3	1.0
<b>1994-95</b>						
September	-3.2	0.2	3.0	2.3	0.4	1.4
December	-3.3	0.8	2.1	3.1	4.0	1.5
March	-2.6	1.0	1.9	2.2	5.4	1.4
June	0.0	1.4	1.6	0.7	2.2	1.2
<b>1995-96</b>						
September	2.8	1.9	0.9	0.1	1.9	1.2
December	3.3	1.9	0.3	0.3	2.8	1.1
March	2.9	1.6	-0.1	0.4	3.5	0.8

<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.

<sup>4</sup> 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 <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	1 657	1 396	723	3 926	1 076	3 932	5 159	503	23 027
June 1994	4 896	1 580	1 417	690	3 846	1 126	3 619	4 870	529	22 571
June 1995	5 179	1 709	1 474	776	4 620	1 213	4 163	5 204	500	24 834
<b>1993-94</b>										
March	4 674	1 491	1 447	797	3 915	1 125	3 694	5 087	656	22 887
June	4 896	1 580	1 417	690	3 846	1 126	3 619	4 870	529	22 571
<b>1994-95</b>										
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	5 179	1 709	1 474	776	4 620	1 213	4 163	5 204	500	24 834
<b>1995-96</b>										
September	5 156	1 698	1 468	867	4 706	1 294	4 355	5 258	506	25 308
December	5 158	1 673	1 626	886	4 717	1 290	4 485	5 319	507	25 662
March	5 228	1 611	1 625	897	4 916	1 290	4 345	5 624	541	26 077
SEASONALLY ADJUSTED										
June 1993	4 568	1 604	1 384	732	3 941	1 064	3 967	5 153	508	22 920
June 1994	4 795	1 531	1 403	698	3 860	1 112	3 642	4 860	535	22 436
June 1995	5 068	1 657	1 459	785	4 638	1 199	4 183	5 192	506	24 688
<b>1993-94</b>										
March	4 607	1 521	1 420	794	3 906	1 133	3 662	5 043	636	22 721
June	4 795	1 531	1 403	698	3 860	1 112	3 642	4 860	535	22 436
<b>1994-95</b>										
September	4 979	1 587	1 348	702	4 050	1 103	3 699	4 938	548	22 955
December	4 963	1 652	1 366	712	4 101	1 115	3 887	5 058	519	23 375
March	4 963	1 756	1 422	709	4 334	1 177	4 055	5 195	509	24 119
June	5 068	1 657	1 459	785	4 638	1 199	4 183	5 192	506	24 688
<b>1995-96</b>										
September	5 252	1 697	1 476	856	4 666	1 284	4 379	5 248	512	25 372
December	5 243	1 696	1 668	892	4 752	1 307	4 474	5 391	513	25 937
March	5 163	1 642	1 593	892	4 902	1 298	4 312	5 572	522	25 896
TREND ESTIMATES <sup>2</sup>										
June 1993	4 533	1 598	1 389	735	4 040	1 064	3 929	5 049	522	22 860
June 1994	4 792	1 535	1 388	730	3 913	1 114	3 650	4 925	572	22 620
June 1995	5 095	1 705	1 459	784	4 551	1 219	4 223	5 206	507	24 749
<b>1993-94</b>										
March	4 667	1 522	1 415	752	3 898	1 130	3 676	4 945	596	22 601
June	4 792	1 535	1 388	730	3 913	1 114	3 650	4 925	572	22 620
<b>1994-95</b>										
September	4 914	1 595	1 368	702	3 990	1 108	3 723	4 956	538	22 894
December	4 968	1 662	1 375	699	4 150	1 124	3 869	5 049	518	23 413
March	5 005	1 700	1 402	731	4 361	1 164	4 041	5 150	512	24 065
June	5 095	1 705	1 459	784	4 551	1 219	4 223	5 206	507	24 749
<b>1995-96</b>										
September	5 187	1 690	1 525	842	4 686	1 266	4 344	5 281	510	25 332
December	5 225	1 676	1 589	884	4 782	1 297	4 402	5 397	515	25 766
March	5 220	1 666	1 642	906	4 866	1 318	4 408	5 536	520	26 082

<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> Revised. See paragraph 34.

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	677	3 777	994	3 968	4 759	482	21 833
June 1994	4 401	1 475	1 292	652	3 719	1 048	3 652	4 503	494	21 236
June 1995	4 364	1 504	1 252	677	4 135	1 091	3 880	4 649	453	22 005
<b>1993-94</b>										
March	4 265	1 407	1 321	740	3 809	1 055	3 800	4 688	611	21 696
June	4 401	1 475	1 292	652	3 719	1 048	3 652	4 503	494	21 236
<b>1994-95</b>										
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	4 364	1 504	1 252	677	4 135	1 091	3 880	4 649	453	22 005
<b>1995-96</b>										
September	4 366	1 509	1 217	699	4 252	1 163	4 069	4 707	456	22 438
December	4 378	1 488	1 347	711	4 296	1 162	4 188	4 779	456	22 805
March	4 475	1 442	1 371	725	4 476	1 165	4 103	5 070	490	23 317
SEASONALLY ADJUSTED										
June 1993	4 232	1 518	1 283	686	3 791	982	4 003	4 754	491	21 740
June 1994	4 310	1 429	1 279	660	3 733	1 035	3 675	4 494	505	21 119
June 1995	4 271	1 458	1 239	685	4 152	1 078	3 899	4 639	464	21 884
<b>1993-94</b>										
March	4 204	1 435	1 296	737	3 801	1 062	3 767	4 647	596	21 545
June	4 310	1 429	1 279	660	3 733	1 035	3 675	4 494	505	21 119
<b>1994-95</b>										
September	4 425	1 463	1 216	658	3 874	1 019	3 681	4 536	514	21 387
December	4 297	1 524	1 223	659	3 861	1 025	3 816	4 649	478	21 533
March	4 263	1 583	1 243	645	3 958	1 071	3 872	4 708	469	21 811
June	4 271	1 458	1 239	685	4 152	1 078	3 899	4 639	464	21 884
<b>1995-96</b>										
September	4 448	1 508	1 224	690	4 216	1 154	4 091	4 699	460	22 490
December	4 450	1 509	1 382	715	4 327	1 177	4 178	4 844	454	23 037
March	4 420	1 469	1 344	721	4 463	1 173	4 072	5 023	476	23 161
TREND ESTIMATES <sup>3</sup>										
June 1993	4 193	1 507	1 288	684	3 873	986	3 972	4 656	501	21 658
June 1994	4 313	1 435	1 263	685	3 789	1 038	3 699	4 546	538	21 306
June 1995	4 315	1 515	1 238	674	4 105	1 099	3 962	4 673	461	22 042
<b>1993-94</b>										
March	4 241	1 429	1 291	700	3 789	1 058	3 753	4 553	562	21 377
June	4 313	1 435	1 263	685	3 789	1 038	3 699	4 546	538	21 306
<b>1994-95</b>										
September	4 353	1 478	1 237	659	3 816	1 025	3 712	4 567	503	21 351
December	4 321	1 520	1 227	650	3 885	1 031	3 776	4 621	481	21 511
March	4 282	1 531	1 223	659	3 988	1 057	3 859	4 664	471	21 734
June	4 315	1 515	1 238	674	4 105	1 099	3 962	4 673	461	22 042
<b>1995-96</b>										
September	4 391	1 497	1 274	695	4 230	1 139	4 056	4 729	460	22 470
December	4 438	1 491	1 322	711	4 340	1 168	4 119	4 845	462	22 897
March	4 457	1 491	1 369	721	4 434	1 187	4 140	4 988	467	23 255

<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> Revised. See paragraph 34.

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 manu- facturing	Total manu- facturing
	%	%	%	%	%	%	%	%	%	%
ORIGINAL										
June 1993	5.9	2.2	-5.9	6.1	-2.0	-2.1	-0.8	8.4	-13.2	1.9
June 1994	2.0	-5.9	-0.2	-3.7	-1.5	5.4	-8.0	-5.4	2.5	-2.7
June 1995	-0.8	2.0	-3.1	3.8	11.2	4.1	6.2	3.2	-8.3	3.6
<b>1993-94</b>										
March	3.2	-1.1	4.8	7.2	0.3	0.1	-1.8	4.7	8.7	2.0
June	3.2	4.8	-2.2	-11.9	-2.4	-0.7	-3.9	-3.9	-19.1	-2.1
<b>1994-95</b>										
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	1.0	-3.2	-1.3	4.5	4.2	2.5	-0.6	-2.1	-6.0	0.2
<b>1995-96</b>										
September	0.0	0.3	-2.8	3.2	2.8	6.6	4.9	1.2	0.7	2.0
December	0.3	-1.4	10.7	1.7	1.0	-0.1	2.9	1.5	0.0	1.6
March	2.2	-3.1	1.8	2.0	4.2	0.3	-2.0	6.1	7.5	2.2
SEASONALLY ADJUSTED										
June 1993	5.8	-2.8	-5.9	6.2	-2.0	-2.1	-1.2	8.4	-12.8	1.4
June 1994	1.8	-5.8	-0.3	-3.8	-1.5	5.4	-8.2	-5.5	2.8	-2.9
June 1995	-0.9	2.0	-3.1	3.8	11.2	4.1	6.1	3.2	-8.1	3.6
<b>1993-94</b>										
March	0.1	-0.4	0.3	6.0	-0.5	-0.6	-2.4	2.4	6.0	0.3
June	2.5	-0.4	-1.3	-10.5	-1.8	-2.5	-2.5	-3.3	-15.3	-2.0
<b>1994-95</b>										
September	2.7	2.4	-4.9	-0.2	3.8	-1.6	0.2	1.0	1.8	1.3
December	-2.9	4.2	0.6	0.2	-0.4	0.6	3.7	2.5	-7.1	0.7
March	-0.8	3.8	1.7	-2.2	2.5	4.4	1.5	1.3	-1.8	1.3
June	0.2	-7.9	-0.3	6.2	4.9	0.7	0.7	-1.5	-1.1	0.3
<b>1995-96</b>										
September	4.2	3.4	-1.2	0.8	1.6	7.0	4.9	1.3	-0.7	2.8
December	0.1	0.1	12.9	3.6	2.6	2.0	2.1	3.1	-1.4	2.4
March	-0.7	-2.6	-2.8	0.8	3.1	-0.4	-2.5	3.7	4.9	0.5
TREND ESTIMATES <sup>3</sup>										
June 1993	3.9	-3.1	-6.7	7.2	0.3	0.2	-1.0	4.4	-9.6	0.8
June 1994	2.9	-4.7	-1.9	0.2	-2.2	5.3	-6.9	-2.4	7.4	-1.6
June 1995	0.0	5.6	-2.0	-1.5	8.3	5.9	7.1	2.8	-14.3	3.5
<b>1993-94</b>										
March	0.7	-1.3	-0.9	0.7	-0.1	0.2	-2.3	-0.8	1.2	-0.5
June	1.7	0.5	-2.1	-2.2	0.0	-1.9	-1.4	-0.2	-4.4	-0.3
<b>1994-95</b>										
September	0.9	3.0	-2.1	-3.8	0.7	-1.3	0.3	0.5	-6.4	0.2
December	-0.8	2.8	-0.8	-1.4	1.8	0.6	1.7	1.2	-4.4	0.8
March	-0.9	0.7	-0.3	1.5	2.6	2.6	2.2	0.9	-2.0	1.0
June	0.8	-1.0	1.3	2.3	2.9	3.9	2.7	0.2	-2.1	1.4
<b>1995-96</b>										
September	1.8	-1.2	2.9	3.0	3.1	3.6	2.4	1.2	-0.2	1.9
December	1.1	-0.4	3.8	2.4	2.6	2.6	1.6	2.4	0.5	1.9
March	0.4	0.0	3.6	1.4	2.2	1.7	0.5	3.0	1.2	1.6

<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> Revised. See paragraph 34.

## MANUFACTURERS' AND WHOLESALE TRADE SALES—Current prices

## MANUFACTURING.....

WHOLESALE  
TRADE

Period	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											
<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	38 932	8 435	10 091	8 389	23 687	9 193	26 724	29 505	4 203	159 160	142 784
June 1995	41 318	8 231	11 137	8 250	26 197	10 567	29 659	32 049	5 145	172 553	160 147
<b>1993-94</b>											
March	9 169	2 001	2 332	2 016	5 658	2 199	6 316	6 920	1 030	37 640	34 135
June	9 874	2 038	2 567	2 147	6 141	2 444	6 750	7 847	1 165	40 972	37 157
<b>1994-95</b>											
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	9 967	2 080	2 768	1 936	6 771	2 532	7 665	8 123	1 292	43 134	41 195
<b>1995-96</b>											
September	10 558	2 178	2 837	2 175	6 529	2 503	8 055	8 246	1 336	44 417	41 081
December	11 625	2 022	2 915	2 384	6 794	2 478	7 954	8 525	1 418	46 115	43 758
March	10 294	2 067	2 616	2 083	6 670	2 288	7 825	8 131	1 210	43 184	41 266

## 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	38 856	8 405	10 120	8 423	23 770	9 234	26 728	29 614	4 238	159 388	142 830
June 1995	41 356	8 258	11 161	8 227	26 182	10 562	29 669	32 155	5 171	172 742	160 316
<b>1993-94</b>											
March	9 724	2 113	2 502	2 158	5 946	2 352	6 701	7 539	1 125	40 160	35 815
June	10 130	2 055	2 661	2 237	6 134	2 498	6 679	7 773	1 216	41 383	37 698
<b>1994-95</b>											
September	10 304	2 052	2 698	2 162	6 305	2 618	7 139	7 867	1 229	42 374	38 666
December	10 427	2 015	2 711	2 078	6 488	2 699	7 364	7 911	1 250	42 942	39 333
March	10 409	2 098	2 881	1 975	6 629	2 658	7 574	8 320	1 344	43 888	40 538
June	10 217	2 093	2 872	2 012	6 760	2 587	7 593	8 056	1 348	43 538	41 779
<b>1995-96</b>											
September	10 433	2 082	2 660	2 150	6 435	2 422	7 887	7 852	1 271	43 194	40 700
December	10 828	1 972	2 775	2 185	6 639	2 384	7 857	8 189	1 284	44 112	41 791
March	10 850	2 183	2 780	2 197	6 898	2 412	8 176	8 806	1 318	45 620	42 865

TREND ESTIMATES<sup>1</sup>

<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	38 871	8 413	10 098	8 422	23 778	9 283	26 795	29 598	4 236	159 495	142 712
June 1995	41 392	8 248	11 106	8 278	26 057	10 520	29 621	32 071	5 161	172 454	159 835
<b>1993-94</b>											
March	9 803	2 082	2 553	2 156	5 976	2 355	6 704	7 566	1 111	40 306	36 116
June	10 072	2 061	2 618	2 203	6 124	2 498	6 817	7 733	1 193	41 319	37 394
<b>1994-95</b>											
September	10 308	2 045	2 691	2 163	6 305	2 617	7 066	7 878	1 239	42 313	38 555
December	10 397	2 047	2 779	2 069	6 506	2 681	7 341	8 044	1 281	43 145	39 665
March	10 345	2 078	2 824	2 010	6 624	2 658	7 547	8 108	1 317	43 512	40 541
June	10 342	2 077	2 813	2 036	6 622	2 563	7 668	8 040	1 323	43 484	41 074
<b>1995-96</b>											
September	10 483	2 062	2 767	2 112	6 604	2 464	7 800	8 049	1 303	43 644	41 389
December	10 699	2 066	2 744	2 177	6 660	2 403	7 952	8 250	1 291	44 242	41 832
March	10 918	2 099	2 754	2 220	6 778	2 371	8 118	8 601	1 295	45 154	42 455

<sup>1</sup> Revised. See paragraph 34.

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



MANUFACTURING.....

WHOLESALE  
TRADE

Period	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											
<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	34 635	7 930	9 082	7 128	22 559	8 243	26 531	26 841	3 845	146 794	131 051
June 1995	35 800	7 481	9 732	6 796	24 335	9 275	28 389	28 757	4 585	155 150	145 976
<b>1993-94</b>											
March	8 163	1 884	2 090	1 709	5 446	1 974	6 315	6 282	937	34 800	31 569
June	8 749	1 888	2 289	1 810	5 873	2 174	6 736	7 112	1 049	37 680	33 796
<b>1994-95</b>											
September	9 157	1 941	2 511	1 820	6 114	2 400	7 234	7 308	1 139	39 624	35 300
December	9 825	1 884	2 560	1 890	6 293	2 477	7 251	7 526	1 242	40 948	38 038
March	8 362	1 782	2 293	1 514	5 836	2 189	6 792	6 704	1 069	36 541	35 290
June	8 456	1 874	2 368	1 572	6 092	2 209	7 112	7 219	1 135	38 037	37 348
<b>1995-96</b>											
September	8 963	1 952	2 393	1 714	5 836	2 169	7 398	7 326	1 163	38 914	37 615
December	9 775	1 809	2 455	1 848	6 096	2 155	7 407	7 589	1 229	40 363	40 789
March	8 621	1 848	2 223	1 597	5 986	1 984	7 328	7 208	1 046	37 841	38 056
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	34 565	7 901	9 106	7 156	22 642	8 280	26 539	26 937	3 875	147 000	130 927
June 1995	35 815	7 505	9 746	6 775	24 315	9 270	28 389	28 847	4 606	155 268	145 827
<b>1993-94</b>											
March	8 657	1 990	2 242	1 829	5 723	2 111	6 700	6 844	1 024	37 121	33 228
June	8 976	1 904	2 373	1 886	5 866	2 222	6 665	7 045	1 095	38 032	34 136
<b>1994-95</b>											
September	9 096	1 877	2 394	1 800	6 010	2 313	7 047	7 105	1 107	38 748	34 715
December	9 124	1 837	2 394	1 717	6 108	2 371	7 136	7 135	1 122	38 943	36 123
March	8 927	1 905	2 502	1 624	6 115	2 329	7 162	7 447	1 193	39 205	37 268
June	8 668	1 886	2 457	1 634	6 081	2 257	7 045	7 160	1 184	38 372	37 721
<b>1995-96</b>											
September	8 857	1 866	2 244	1 694	5 752	2 099	7 244	6 976	1 106	37 839	36 871
December	9 105	1 764	2 337	1 693	5 957	2 073	7 316	7 290	1 113	38 649	39 371
March	9 087	1 951	2 362	1 684	6 191	2 092	7 657	7 807	1 139	39 970	39 290
TREND ESTIMATES <sup>2</sup>											
<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	34 632	7 911	9 090	7 154	22 646	8 322	26 633	26 924	3 875	147 186	130 795
June 1995	35 860	7 498	9 694	6 813	24 203	9 232	28 333	28 780	4 594	155 007	145 516
<b>1993-94</b>											
March	8 710	1 952	2 288	1 826	5 720	2 109	6 685	6 869	1 012	37 169	33 150
June	8 937	1 912	2 336	1 853	5 870	2 223	6 798	7 006	1 078	38 013	34 027
<b>1994-95</b>											
September	9 091	1 877	2 389	1 805	6 008	2 313	6 968	7 121	1 115	38 687	34 990
December	9 066	1 865	2 446	1 714	6 109	2 357	7 103	7 240	1 147	39 047	36 149
March	8 901	1 884	2 453	1 649	6 100	2 327	7 138	7 256	1 170	38 878	36 952
June	8 802	1 872	2 406	1 645	5 986	2 234	7 123	7 162	1 163	38 394	37 426
<b>1995-96</b>											
September	8 867	1 850	2 344	1 671	5 921	2 142	7 213	7 155	1 136	38 299	37 887
December	9 008	1 848	2 317	1 691	5 963	2 086	7 381	7 328	1 119	38 740	38 606
March	9 140	1 876	2 328	1 696	6 075	2 056	7 586	7 636	1 119	39 512	39 452

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

<sup>2</sup> Revised. See paragraph 34.

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>	38 932	8 435	10 091	8 389	23 687	9 193	26 724	29 505	4 203	159 160
<b>1994-95</b>	41 318	8 231	11 137	8 250	26 197	10 567	29 659	32 049	5 145	172 553
<b>1993-94</b>										
March	9 169	2 001	2 332	2 016	5 658	2 199	6 316	6 920	1 030	37 640
June	9 874	2 038	2 567	2 147	6 141	2 444	6 750	7 847	1 165	40 972
<b>1994-95</b>										
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	9 967	2 080	2 768	1 936	6 771	2 532	7 665	8 123	1 292	43 134
<b>1995-96</b>										
September	10 558	2 178	2 837	2 175	6 529	2 503	8 055	8 246	1 336	44 417
December	11 625	2 022	2 915	2 384	6 794	2 478	7 954	8 525	1 418	46 115
March	10 294	2 067	2 616	2 083	6 670	2 288	7 825	8 131	1 210	43 184
EXPECTED SALES (\$ million)										
<b>1995-96</b>										
3 mths to Jun	10 401	2 295	2 972	2 283	7 185	2 402	8 117	9 084	1 233	45 973
Total 1995-96 <sup>2</sup>	42 877	8 563	11 341	8 926	27 178	9 671	31 951	33 986	5 197	179 689
<b>1996-97</b>										
6 mths to Dec	23 066	4 552	5 880	4 747	13 923	4 993	16 753	18 231	2 602	94 747
REALISATION RATIOS: 3 MONTHS TO JUNE (Actual/Mar E1)										
<b>1991</b>	0.97	0.92	1.01	0.95	0.93	0.91	0.98	0.96	0.88	0.96
<b>1992</b>	0.99	0.99	0.94	1.06	0.96	1.00	1.03	0.98	1.11	0.99
<b>1993</b>	1.05	1.05	1.00	0.98	0.99	1.05	1.03	1.04	0.95	1.03
<b>1994</b>	1.06	1.08	1.01	1.04	1.04	1.07	1.00	0.98	1.07	1.03
<b>1995</b>	1.03	0.98	0.97	1.05	0.97	1.01	0.99	1.02	0.95	1.00
5 year average	1.02	1.00	0.99	1.02	0.98	1.01	1.00	1.00	0.99	1.00
REALISATION RATIOS: 6 MONTHS TO DECEMBER (Actual/Mar E2)										
<b>1991</b>	0.94	1.01	1.05	1.04	0.99	0.94	0.96	0.91	0.99	0.96
<b>1992</b>	1.04	1.03	0.98	1.14	0.97	1.07	1.01	1.02	1.16	1.02
<b>1993</b>	1.09	0.99	1.04	1.00	1.03	1.09	1.06	1.08	1.04	1.06
<b>1994</b>	1.06	0.96	1.09	1.04	1.09	1.19	1.10	1.01	1.11	1.07
<b>1995</b>	1.01	0.95	0.97	1.06	0.95	0.92	1.06	1.00	1.04	1.00
5 year average	1.03	0.99	1.03	1.05	1.01	1.04	1.04	1.00	1.07	1.02
REALISATION RATIOS: 12 MONTHS TO JUNE (Actual/sum of Sep, Dec and Mar actual, Mar E1)										
<b>1991</b>	0.99	0.98	1.00	0.99	0.98	0.98	0.99	0.99	0.97	0.99
<b>1992</b>	1.00	1.00	0.99	1.01	0.99	1.00	1.01	1.00	1.03	1.00
<b>1993</b>	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	0.99	1.01
<b>1994</b>	1.01	1.02	1.00	1.01	1.01	1.02	1.00	0.99	1.02	1.01
<b>1995</b>	1.01	0.99	0.99	1.01	0.99	1.00	1.00	1.01	0.99	1.00
5 year average	1.01	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00

<sup>1</sup> See paragraphs 22 to 25 of the Explanatory Notes.<sup>2</sup> Derived by adding actual sales for 9 months ending March 1995 and expected sales for 3 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 manufacturing	Total manufacturing	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	0.74	0.53	0.31	0.63	0.45	0.55	0.63	0.44	0.54	0.51
June 1995	0.50	0.79	0.51	0.39	0.69	0.46	0.55	0.64	0.38	0.57	0.51
<b>1993-94</b>											
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	0.74	0.53	0.31	0.63	0.45	0.55	0.63	0.44	0.54	0.51
<b>1994-95</b>											
September	0.48	0.77	0.50	0.32	0.64	0.42	0.52	0.63	0.45	0.54	0.51
December	0.48	0.82	0.50	0.34	0.63	0.41	0.53	0.64	0.42	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	0.50
June	0.50	0.79	0.51	0.39	0.69	0.46	0.55	0.64	0.38	0.57	0.51
<b>1995-96</b>											
September	0.50	0.81	0.55	0.40	0.73	0.53	0.56	0.67	0.40	0.59	0.53
December	0.47	0.80	0.60	0.41	0.71	0.55	0.56	0.66	0.40	0.58	0.51
March	0.48	0.75	0.57	0.41	0.71	0.54	0.53	0.63	0.40	0.57	0.50

<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 (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 (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. Revisions may be made to these estimates 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									
	1994-95			1995-96			1996-97			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	
June 1995	Actual	E1	E2							
September 1995		Actual	E1	E2						
December 1995			Actual	E1	E2					
March 1996				Actual	E1	E2				
June 1996					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. In this publication, estimates for each June are based on the new sample.

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 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.

**12** Improvements have 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

**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 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

**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.

DESCRIPTION OF TERMS  
(continued)

**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 (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

**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 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.

**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 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

**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 September quarter 1995 survey. Data for periods after September 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.

**32** 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.

**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
- r revised
- p preliminary figure or series subject to revision
- 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 BUSINESSES<sup>1</sup>.....

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 <sup>1</sup>	0.7	0.4	0.8	1.1	2.5	0.4

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

### MANUFACTURING.....

### WHOLESALE TRADE

Estimates of	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

<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 34 of Explanatory Notes).

### TREND REVISIONS

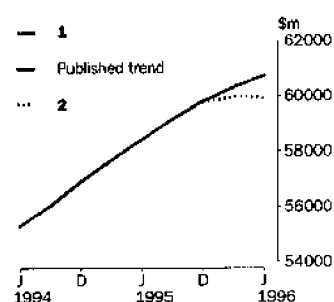
The examples in the tables below show two scenarios and the consequent revisions to previous trend estimates of stocks owned by private businesses and manufacturers' and wholesalers' sales.

**1** The June quarter seasonally adjusted estimate is higher than the March quarter estimate by the percentage shown.

**2** The June quarter seasonally adjusted estimate is lower than the March quarter estimate by the percentage shown.

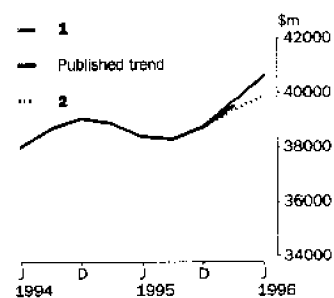
The percentages chosen are approximately the long term average movements, without regard to sign, in the seasonally adjusted series.

### STOCKS OWNED BY PRIVATE BUSINESSES



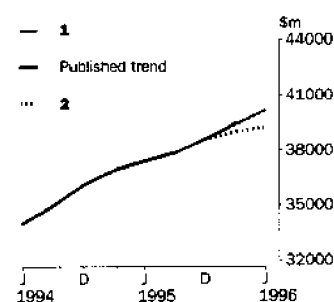
	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	<b>1</b> rises by 1.0 on Mar 1996		<b>2</b> falls by 1.0 on Mar 1996	
	\$m	% change	\$m	% change	\$m	% change
1995						
June	58 440	1.2	58 440	1.2	58 440	1.2
September	59 166	1.2	59 172	1.3	59 243	1.4
December	59 815	1.1	59 811	1.1	59 786	0.9
1996						
March	60 323	0.8	60 329	0.9	59 988	0.3
June	—	—	60 749	0.7	59 942	-0.1

### MANUFACTURERS' SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	<b>1</b> rises by 1.4 on Mar 1996		<b>2</b> falls by 1.4 on Mar 1996	
	\$m	% change	\$m	% change	\$m	% change
1995						
June	38 394	-1.2	38 394	-1.2	38 394	-1.2
September	38 299	-0.2	38 216	-0.5	38 282	-0.3
December	38 740	1.2	38 765	1.4	38 742	1.2
1996						
March	39 512	2.0	39 679	2.4	39 363	1.6
June	—	—	40 613	2.4	39 863	1.3

### WHOLESALE TRADE SALES



	TREND AS PUBLISHED		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	\$m	% change	<b>1</b> rises by 1.7 on Mar 1996		<b>2</b> falls by 1.7 on Mar 1996	
	\$m	% change	\$m	% change	\$m	% change
1995						
June	37 426	1.3	37 426	1.3	37 426	1.3
September	37 887	1.2	37 883	1.2	37 961	1.4
December	38 606	1.9	38 610	1.9	38 583	1.6
1996						
March	39 452	2.2	39 420	2.1	39 043	1.2
June	—	—	40 195	2.0	39 281	0.6





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