AUSTRALIAN BUREAU OF STATISTICS
Canberra

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STOCKS AND MANUFACTURERS' SALES, AUSTRALIA, JUNE QUARTER 1988

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NOTE 1. This publication incorporates a change in the base year of constant price estimates from 1979-80 to 1984-85. See paragraphs 19-21 of the explanatory notes for more details.

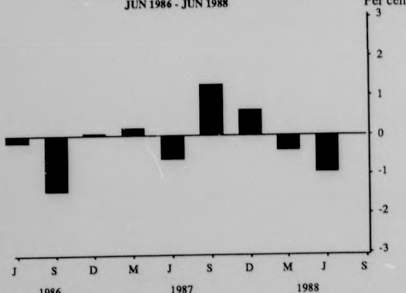
2. Included in this publication for the first time are long term expected manufacturers' sales data. See paragraphs 4-6 for further details.

MAIN FEATURES

Stocks

In seasonally adjusted constant price terms, stocks in the June quarter 1988 for all selected industries are estimated to have declined by 0.9% compared to the March quarter 1988. The revised March quarter estimate shows a 0.4% decline on the December quarter 1987.

PERCENT CHANGE IN TOTAL STOCKS ALL INDUSTRIES CONSTANT PRICE SEASONALLY ADJUSTED JUN 1986 - JUN 1988



In current price terms, stocks in all selected industries have increased by 8.1% since 30 June 1987. The industries showing the greatest increase in stocks were retail (+9.7%) and wholesale (+9.1%) with mining showing a decline (-4.5%) in stocks over the year.

Manufacturing Activity

— Actual Sales

In seasonally adjusted constant price turns, manufacturers' sales in the June quarter 1988 are estimated to have declined by 3.0%. The largest declines were in the paper and printing industry (-9.1%) and the textiles, clothing and footwear industry (-5.6%), with the transport equipment industry showing the only increase (+2.6%). Manufacturers' stocks declined by 1.1% when expressed in the same terms.

— Expected Sales for 1988-89

Manufacturers in the June quarter 1988 estimated that sales in 1988-89 would be $124,584m. This would represent an increase of 9.4% when compared to actual sales in 1987-88. The largest increases are expected in transport equipment (+18.0%), chemicals, petroleum and coal products (+11.2%) and food, beverages and tobacco (+11.0%). The least growth in sales is expected in paper and printing (+5.8%) and other manufacturing (+4.5%).

As this is the first time longer term expected sales data have been published no realisation ratios (actual sales divided by expected sales) can be provided. Consequently caution should be used in interpreting the data.

TABLE 1. PRIVATE ENTERPRISES IN SELECTED INDUSTRIES: STOCK LEVELS CLASSIFIED BY INDUSTRY (a)

Quarter	Book value of stocks: Mining (c)	Manu-facturing	Wholesale trade	Retail trade	Other	Total selected industries	Stocks at Average 1984-85 prices (b): Total selected industries
			ORIGINAL SERIES ($ million)				
1986-87-							
June (d)	r 2,134	18,276	r 12,635	r 11,045	407	r 44,496	r 37,378
1987-88-							
September	r 2,155	18,806	r 13,238	r 11,531	r 423	r 46,152	r 38,130
December	r 2,081	r 18,854	r 13,867	r 11,914	r 445	r 47,161	r 38,122
March	2,017	19,538	14,065	12,125	444	48,189	38,184
June p (d)	**2,038**	**19,750**	**13,781**	**12,114**	**435**	**48,119**	**37,581**
			SEASONALLY ADJUSTED SERIES ($ million)				
1986-87-							
June (d)	r 2,134	r 18,180	r 12,790	r 11,148	404	r 44,656	r 37,511
1987-88-							
September	r 2,155	r 18,684	r 13,332	r 11,371	r 434	r 45,976	r 37,990
December	r 2,081	r 19,063	r 13,776	r 11,935	r 432	r 47,288	r 38,230
March	2,017	19,560	13,890	12,161	451	48,079	38,087
June p (d)	**2,038**	**19,648**	**13,956**	**12,224**	**432**	**48,299**	**37,727**
			PERCENTAGE INCREASE IN STOCK LEVELS SEASONALLY ADJUSTED SERIES				
1986-87-							
June (d)	4.2	1.0	1.3	-1.8	-1.0	0.5	r -0.6
1987-88-							
September	r 1.0	r 2.8	r 4.2	r 2.0	r 7.4	r 3.0	r 1.3
December	r -3.4	r 2.0	r 3.3	r 5.0	r -0.5	r 2.9	r 0.6
March	-3.1	2.6	0.8	1.9	4.3	1.7	-0.4
June p (d)	**1.0**	**0.5**	**0.5**	**0.5**	**-4.0**	**0.5**	**-0.9**

(a) Refer to paragraphs 9 and 10 of the explanatory notes. (b) See paragraphs 22 and 23 of the explanatory notes. (c) The series for mining has not exhibited a seasonal pattern so no adjustment has been made to the original data. (d) See paragraphs 7 and 8 of the explanatory notes.

TABLE 2. PRIVATE ENTERPRISES IN SELECTED INDUSTRIES: COMPONENTS OF INCREASE IN STOCK LEVELS

Quarter	Increase in book value of stocks ($m)	Stock valuation adjustment (a) ($m)	Physical increase in stocks at current prices (a) ($m)	Physical increase in stocks at average 1984-85 prices (a) ($m)	Physical increase in stock levels at average 1984-85 prices, seasonally adjusted ($m)	(% change)
1986-87-						
June (b)	-24	r 526	r -550	r -446	r -229	r -0.6
1987-88-						
September	r 1,656	r 700	r 956	r 752	r 479	r 1.3
December	r 1,009	r 997	r 12	r -8	r 240	r 0.6
March	1,028	1,046	-18	62	-143	-0.4
June p (b)	**-70**	**874**	**-944**	**-603**	**-360**	**-0.9**

(a) See paragraphs 22 and 23 of the explanatory notes. (b) See paragraphs 7 and 8 of the explanatory notes.

TABLE 3. PRIVATE MANUFACTURING ENTERPRISES
BOOK VALUE OF STOCKS CLASSIFIED BY STAGE OF PROCESSING AND INDUSTRY (a)
AND TOTAL LEVEL OF STOCKS AT AVERAGE 1984-85 PRICES
($ million)

	Book value of stocks									Stocks at Average 1984-85 prices
Quarter	*Food, beverages and tobacco*	*Textiles, clothing and footwear*	*Paper and printing*	*Chemicals, petroleum and coal products*	*Basic metal products*	*Transport equipment*	*Fabricated metal products*	*Other manufacturing*	*Total manufacturing*	*Total manufacturing*
1986-87-										
June (b)										
Materials	r 1,179	r 581	534	r 752	1,009	752	r 1,248	r 1,052	r 7,106	n.a.
Work in progress	304	r 242	97	217	643	452	972	r 436	r 3,363	n.a.
Finished goods	r 1,362	r 638	284	r 1,203	680	677	1,505	1,458	r 7,807	n.a.
Total stocks	r 2,845	r 1,461	914	r 2,172	2,332	1,881	r 3,725	r 2,946	r18,276	r 15,585
1987-88-										
September										
Materials	r 1,122	r 548	556	r 757	1,110	700	r 1,207	r 1,085	r 7,085	n.a.
Work in progress	289	261	118	r 232	638	480	r 1,021	r 466	r 3,504	n.a.
Finished goods	r 1,419	r 723	300	r 1,245	716	750	1,572	r 1,492	r 8,217	n.a.
Total stocks	r 2,830	r 1,531	974	r 2,234	2,464	1,931	r 3,800	r 3,043	r 18,806	r 15,738
December										
Materials	r 1,121	r 612	r 571	r 843	1,109	r 645	r 1,257	r 1,060	r 7,218	n.a.
Work in progress	r 261	243	117	r 219	r 649	r 450	r 817	r 419	r 3,175	n.a.
Finished goods	r 1,444	r 691	r 303	r 1,323	r 805	r 727	r 1,598	r 1,568	8,460	n.a.
Total stocks	r 2,825	r 1,546	r 991	r 2,386	r 2,563	r 1,823	r 3,672	r 3,048	r 18,854	r 15,435
March										
Materials	1,131	599	600	856	1,091	674	1,307	1,135	7,392	n.a.
Work in progress	327	249	113	230	681	593	932	475	3,601	n.a.
Finished goods	1,568	681	309	1,394	785	724	1,548	1,535	8,545	n.a.
Total stocks	3,026	1,529	1,022	2,480	2,557	1,990	3,787	3,146	19,538	15,557
June p (b)										
Materials	**1,260**	**629**	**628**	**831**	**1,089**	**690**	**1,380**	**1,067**	**7,574**	**n.a.**
Work in progress	**328**	**258**	**112**	**244**	**720**	**644**	**886**	**493**	**3,685**	**n.a.**
Finished goods	**1,463**	**729**	**320**	**1,348**	**754**	**651**	**1,626**	**1,600**	**8,491**	**n.a.**
Total stocks	**3,052**	**1,616**	**1,059**	**2,424**	**2,563**	**1,984**	**3,892**	**3,160**	**19,750**	**15,466**

(a) Refer to paragraphs 9 and 10 of the explanatory notes. (b) See paragraphs 7 and 8 of the explanatory notes.

TABLE 4: PRIVATE MANUFACTURING ENTERPRISES' BOOK VALUE OF STOCKS, CLASSIFIED BY INDUSTRY (a) AND TOTAL LEVEL OF STOCKS AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED SERIES
($ million)

	Book value of stocks									Stocks at Average 1984-85 prices (c)
Quarter	*Food, beverages and tobacco*	*Textiles, clothing and footwear*	*Paper and printing (b)*	*Chemicals petroleum and coal products*	*Basic metal products (b)*	*Transport equipment*	*Fabricated metal products (b)*	*Other manu-facturing*	*Total manu-facturing*	*Total manufacturing*
1986-87-										
June (d)	r 2,786	r 1,417	914	r 2,245	2,332	1,880	r 3,725	r 2,881	r 18,180	r 15,505
1987-88-										
September	r 2,819	r 1,500	974	r 2,219	2,464	1,908	r 3,800	r 3,001	r 18,684	r 15,639
December	r 2,918	r 1,564	991	r 2,404	2,563	r 1,843	r 3,672	r 3,109	r 19,063	r 15,610
March	3,006	1,594	1,022	2,400	2,557	1,992	3,787	3,200	19,560	15,567
June p (d)	**2,989**	**1,567**	**1,059**	**2,507**	**2,563**	**1,982**	**3,892**	**3,090**	**19,648**	**15,391**

(a) Refer to paragraphs 9 and 10 of the explanatory notes. (b) These series contain insignificant seasonal patterns. (c) See paragraphs 22 and 23 of the explanatory notes. (d) See paragraphs 7 and 8 of the explanatory notes.

TABLE 5. PRIVATE MANUFACTURING ENTERPRISES COMPONENTS OF INCREASE IN STOCK LEVELS

Quarter	*Increase in book value of stocks ($m)*	*Stock valuation adjustment (a) ($m)*	*Physical increase in stocks at current prices (a) ($m)*	*Physical increase in stocks at average 1984-85 prices (a) ($m)*	*Physical increase in stock levels at average 1984-85 prices, seasonally adjusted ($m)*	*Physical increase in stock levels at average 1984-85 prices, seasonally adjusted (% change)*
1986-87-						
June (b)	308	r 298	r 10	r 25	r -71	r -0.5
1987-88-						
September	r 530	r 333	r 197	r 153	r 134	r 0.9
December	r 48	r 452	r -404	r -303	r -29	r -0.2
March	684	504	180	122	-43	-0.3
June p (b)	**212**	**395**	**-183**	**-91**	**-176**	**-1.1**

(a) See paragraphs 22 and 23 of the explanatory notes. (b) See paragraphs 7 and 8 of the explanatory notes.

TABLE 6. PRIVATE MANUFACTURING ENTERPRISES' EXPECTED SALES AND SALES CLASSIFIED BY INDUSTRY (a), ORIGINAL SERIES AND TOTAL MANUFACTURERS' SALES, ORIGINAL AND SEASONALLY ADJUSTED

($ million)

	Original series									*Seasonally adjusted series*
Quarter	*Food, beverages and tobacco*	*Textiles, clothing and footwear*	*Paper and printing*	*Chemicals petroleum and coal products*	*Basic metal products*	*Transport equipment*	*Fabricated metal products*	*Other manu-facturing*	*Total manu-facturing*	*Total manufacturing*
					SALES					
1986-87-										
June p (b)	r 5,384	r 1,654	1,828	r 2,655	2,757	2,503	r 4,716	r 4,594	r 26,091	r 25,984
1987-88-										
September	r 5,745	r 1,802	r 1,908	r 2,623	r 2,895	2,563	r 5,004	r 5,033	r 27,572	r 26,688
December	r 6,333	r 1,794	r 2,015	r 2,821	r 3,166	r 2,800	5,251	r 5,391	r 29,572	r 28,336
March	5,758	1,654	1,902	2,916	2,989	2,229	4,892	4,860	27,200	29,639
June (b)	5,954	1,804	1,852	3,063	3,392	2,929	5,334	5,232	29,560	29,423
TOTAL	**23,791**	**7,054**	**7,677**	**11,423**	**12,442**	**10,520**	**20,481**	**20,516**	**113,904**	**113,475**
					EXPECTED SALES (c)					
1988-89-										
6 Months ending										
31 Dec 1988	13,413	4,049	4,046	6,021	6,916	6,465	10,891	10,825	62,627	n.a
30 Jun 1989	13,029	3,674	4,080	6,676	6,860	5,952	11,060	10,625	61,957	n.a
TOTAL	**26,441**	**7,723**	**8,126**	**12,697**	**13,776**	**12,418**	**21,952**	**21,451**	**124,584**	n.a

(a) Refer to paragraphs 9 and 10 of the explanatory notes. (b) See paragraphs 7 and 8 of the explanatory notes. (c) See paragraph 3 of the explanatory notes.

TABLE 7. PRIVATE MANUFACTURING ENTERPRISES' SALES AT AVERAGE 1984-85 PRICES (a), SALES CLASSIFIED BY INDUSTRY (b)

($ million)

Quarter	*Food, beverages and tobacco*	*Textiles, clothing and footwear*	*Paper and printing*	*Chemicals petroleum and coal products*	*Basic metal products*	*Transport equipment*	*Fabricated metal products*	*Other manu-facturing*	*Total manufacturing*
				ORIGINAL SERIES (r)					
1986-87-									
June (c)	4,663	1,362	1,519	2,224	2,445	1,894	4,086	3,927	22,120
1987-88-									
September	4,892	1,451	1,559	2,160	2,466	1,894	4,290	4,206	22,918
December	5,328	1,409	1,622	2,253	2,579	2,027	4,449	4,426	24,093
March	4,725	1,263	1,507	2,281	2,342	1,590	4,056	3,911	21,675
June p (c)	**4,813**	**1,343**	**1,441**	**2,341**	**2,576**	**2,061**	**4,332**	**4,073**	**22,980**
				SEASONALLY ADJUSTED SERIES (r)					
1986-87-									
June (c)	4,742	1,357	1,530	2,167	2,358	1,786	4,099	4,003	22,042
1987-88-									
September	4,845	1,330	1,575	2,174	2,321	1,750	4,166	4,036	22,197
December	4,999	1,389	1,512	2,260	2,600	1,991	4,214	4,105	23,070
March	5,020	1,417	1,596	2,320	2,577	1,894	4,422	4,353	23,599
June p (c)	**4,896**	**1,338**	**1,451**	**2,281**	**2,485**	**1,943**	**4,346**	**4,152**	**22,892**

(a) See paragraphs 24 to 28 of the explanatory notes. (b) Refer to paragraphs 9 and 10 of the explanatory notes. (c) See paragraphs 7 and 8 of the explanatory notes.

TABLE 8. PRIVATE MANUFACTURING ENTERPRISES' STOCKS/SALES RATIOS CLASSIFIED BY INDUSTRY (a)

Quarter	*Stocks/sales ratio derived from current price series (b)*									*Stocks/sales ratios derived from average 1984-85 price series*	
										Original (c)	*Seasonally adjusted (d)*
	Food, beverages and tobacco	*Textiles, clothing and footwear*	*Paper and printing*	*Chemicals petroleum and coal products*	*Basic metal products*	*Transport equipment*	*Fabricated metal products*	*Other manu-facturing*	*Total manu-facturing*	*Total manufacturing*	*Total manufacturing*
1986-87-											
June (e)	0.53	r 0.88	0.50	r 0.82	0.85	0.75	0.79	0.64	0.70	r 0.70	r 0.70
1987-88-											
September	0.49	r 0.85	0.51	r 0.85	r 0.85	0.75	0.76	0.60	0.68	r 0.69	r 0.70
December	0.45	0.86	0.49	r 0.85	r 0.81	0.65	0.70	0.57	0.64	r 0.64	r 0.68
March	0.53	0.92	0.54	0.85	0.86	0.89	0.77	0.65	0.72	0.72	0.66
June p (e)	**0.51**	**0.90**	**0.57**	**0.79**	**0.76**	**0.68**	**0.73**	**0.60**	**0.67**	**0.67**	**0.67**

(a) Refer to paragraphs 9 and 10 of the explanatory notes. (b) Obtained by dividing book value of stocks from Table 3 by value of actual sales from Table 6. (c) Obtained by dividing value of stocks at average 1984-85 prices from Table 3 by value of sales at average 1984-85 prices from Table 7. (d) Obtained by dividing value of stocks at average 1984-85 prices from Table 4 by value of sales at average 1984-85 prices from Table 7. (e) See paragraphs 7 and 8 of explanatory notes.

TABLE 9. APPROXIMATE RELATIVE STANDARD ERRORS (a) OF STOCKS OWNED BY PRIVATE ENTERPRISES IN SELECTED INDUSTRIES (b)
(percentage)

	Mining	*Manufacturing*	*Wholesale trade*	*Retail trade*	*Other (c)*	*Total selected industries*
Total stocks	1.5	0.7	1.4	1.7	7.7	0.7
Quarter to quarter movement (d)	1.0	0.4	0.6	0.8	3.7	0.4

(a) See paragraphs 34 to 38 of the explanatory notes. (b) Refer to paragraphs 9 and 10 of explanatory notes. (c) Includes electricity and gas, restaurants, hotels and clubs. (d) Expressed as a percentage of total stocks.

TABLE 10. APPROXIMATE RELATIVE STANDARD ERRORS (a) OF PRIVATE MANUFACTURING ENTERPRISES' STOCK LEVELS CLASSIFIED BY STAGE OF PROCESSING, SALES AND EXPECTED SALES CLASSIFIED BY INDUSTRY (b)
(percentage)

	Food, beverages and tobacco	*Textiles, clothing and footwear*	*Paper and printing*	*Chemicals petroleum and coal products*	*Basic metal products*	*Transport equipment*	*Fabricated metal products*	*Other manu-facturing*	*Total manufacturing*
Materials	1.5	4.4	2.8	1.1	0.6	1.7	2.4	2.9	0.8
Work in progress	4.3	3.7	4.9	1.6	0.5	2.0	4.0	4.6	1.5
Finished goods	1.5	4.1	4.7	1.1	0.8	0.9	2.0	3.0	0.9
Total stocks	1.2	3.3	3.0	0.8	0.5	1.9	1.7	2.4	0.7
Sales	1.4	4.5	2.7	1.3	1.0	1.0	1.8	2.4	0.8

(a) See paragraphs 34 to 38 of the explanatory notes. (b) Refer to paragraphs 9 and 10 of explanatory notes.

EXPLANATORY NOTES

Introduction

1. This publication contains estimates of the book value of stocks owned by private enterprises in selected industries and estimates of sales and expected sales of goods manufactured by private manufacturing enterprises in Australia. In this issue preliminary estimates of stocks and sales are shown for the quarter ended 30 June 1988 together with final estimates for previous quarters from June 1987. Preliminary estimates of expected sales are shown for the six months ending 31 December 1988 and 30 June 1989.

2. The series contained in this publiction have been compiled from data collected in a quarterly survey of private enterprises. The survey is based on a stratified random sample of private enterprises recorded in the Australian Bureau of Statistics (ABS) central register of economic units. The figures obtained from the selected enterprises (supplemented by allowances for new enterprises not yet included in the sample framework) are used to calculate estimates of the book value of stocks owned by all enterprises in the private sector of the Australian economy within the industry scope of the survey, and the value of sales and expected sales of goods manufactured by all private enterprises in the manufacturing sector.

3. The estimates of expected sales relate to sales that enterprises expect to make during the 6 months ending 31 December 1988 and 30 June 1989. The expectations of sales by businesses may not necessarily correspond to the value of sales which actually occurs because, for example, of unexpected changes in market conditions.

Changes in this issue

4. Data presented for manufacturers' expected sales have changed because a new reporting cycle has been introduced.

5. Surveys are conducted in respect of each quarter and returns are completed in the 8 or 9 week period after the end of the quarter to which survey data relate (e.g. June quarter survey returns are completed during July and August). Full details of the reporting cycle are provided in the table below.

6. Manufacturers are requested to provide 3 basic figures for sales each survey:

(a) Actual sales made during the reference quarter;

(b) A short term expectation (E1); and

(c) A longer term expectation (E2).

This survey cycle facilitates the formation of sales estimates for the next financial year. As the series builds up over time, realisation ratios (actual sales divided by expected sales) will be calculated and published if necessary as an aid in interpreting the statistics. Since this is the first time the series has been published no realisation ratios can be provided. Consequently caution should be used when interpreting the data.

Sample revision

7. Each year for the framework and the sample are revised prior to the June quarter survey to ensure that they remain representative of the current population. In the course of this revision some of the enterprises from the sampled strata are rotated out of the sample and replaced by others in an effort to spread reporting workloads equitably. For reasons of comparability, information is collected from both the old and revised samples for the June quarter.

8. Estimates of level derived from a new sample may differ from estimates derived from the previous sample. These differences are due to a combination of various factors such as the effects of chance in the selection of a sample and the reclassification of some enterprises to different industries. In this issue estimates of level of stocks, manufacturers' sales and expected sales are published from the revised sample for the June quarter 1987. However, estimates of the movement for stocks and changes in the levels of sales up to June quarter 1987 are based on the old sample.

Manufacturers' Sales — Reporting Cycle

<table>
<tr><th></th><th colspan="9">Period to which reported data relates</th></tr>
<tr><th></th><th></th><th colspan="4">1988-89</th><th colspan="4">1989-90</th></tr>
<tr><th>Survey Quarter</th><th>June 88</th><th>Sep. 88</th><th>Dec. 88</th><th>Mar.89</th><th>June 89</th><th>Sep. 89</th><th>Dec. 89</th><th>Mar. 90</th><th>June 90</th></tr>
<tr><td>June 88</td><td>Actual</td><td colspan="2">E 1</td><td colspan="2">E 2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Sep. 88</td><td></td><td>Actual</td><td>E 1</td><td colspan="2">E 2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dec. 88</td><td></td><td></td><td>Actual</td><td colspan="2">E 1</td><td colspan="2">E 2</td><td></td><td></td></tr>
<tr><td>Mar. 89</td><td></td><td></td><td></td><td>Actual</td><td>E 1</td><td colspan="2">E 2</td><td></td><td></td></tr>
<tr><td>June 89</td><td></td><td></td><td></td><td></td><td>Actual</td><td colspan="2">E 1</td><td colspan="2">E 1</td></tr>
</table>

Scope of the survey

9. The survey aims, in principle, to measure the value of stocks owned by private enterprises generally. It also aims to measure the value of sales and expected sales of goods manufactured by private *manufacturing* enterprises. The industries in scope of the survey as defined in the Australian Standard Industrial Classification (ASIC), 1983 edition for which estimates are published in this publication are:

Publication Industry	*ASIC*
MINING	DIVISION B
MANUFACTURING	DIVISION C
Food, Beverages and Tobacco	Sub-division 21
Textiles,	}Sub-division 23
Clothing and Footwear	}Sub-division 24
Paper and Printing	Sub-division 26
Chemicals, Petroleum and Coal Products	Sub-division 27
Basic Metal Products	Sub-division 29
Transport Equipment	Sub-division 32
Fabricated Metal Products	}Sub-division 31
Other Machinery and Equipment	}Sub-division 33
Wood, Wood Products and Furniture	}Sub-division 25
Non-metallic Mineral Products	}Sub-division 28
Miscellaneous Manufacturing	}Sub-division 34
WHOLESALE TRADE	Sub-division 47
RETAIL TRADE	Sub-division 48
OTHER SELECTED INDUSTRIES	
Electricity and Gas	}Sub-division 36
Hotels, Restaurants and Clubs	}Sub-division 92
TOTAL SELECTED INDUSTRIES	Sub-division 11-36,47,48,92

(Note: Bracketed industries are combined for publication purposes.)

10. It is not worthwhile in practice to include all private industry in the survey, because of the insignificant stock holdings of the enterprises classified to some industries. Those industries in this category and therefore excluded from the scope of the survey are:

(a) Water, sewerage and drainage (ASIC Subdivision 37);

(b) Special trade construction (ASIC Subdivision 42);

(c) Transport and storage (ASIC Division G);

(d) Communication (ASIC Division H);

(e) Finance, property and business services (ASIC Division I);

(f) Community services (ASIC Division K); and

(g) Entertainment and recreational services, and personal services (ASIC Subdivisons 91 and 93).

11. in addition, because of the large numbers involved and other collection difficulties, it is not possible to include in the survey those enterprises classified to the agriculture, forestry, fishing or hunting industries (i.e. Division A of the ASIC).

12. Public sector enterprises (i.e. all departments, authorities and other organisations owned and/or controlled by Commonwealth, State and Local Governments) are outside the present scope of the survey. Primary producer marketing boards are classified as in the public sector and so are excluded.

Coverage in this publication

13. Those enterprises classified to the construction industry (Division E of the ASIC but excluding sub-division 42) are within the scope of the survey, but, because of current problems of maintaining coverage and other collection difficulties, the estimates for this industry are considered insufficiently reliable for publication at the level of detail shown in this publication and are thus excluded.

Statistical unit

14. In the main the statistical unit is the enterprise as recorded on the ABS central register of economic units.There are however, a small number of exceptions to this situation. These cases occur when:

(a) an enterprise has significant activities in more than one industry. A statistical unit has been created for each significant activity; and

(b) data for the enterprise are not available but data are available for the enterprise group (the parent enterprise and its subsidiary enterprises). Where possible a statistical unit has been created for each operating division of the enterprise group.

Classification by industry

15. In order to classify stocks and sales data by industry in these series, each enterprise listed on the ABS central register of economic units (and therefore each selected enterprise) is classified to the Australian Standard Industrial Classification (ASIC) industry in which it *mainly* operates.

16. All of the stocks, sales and expected sales of each selected *enterprise* are classified to the enteprise's industry even though it may have activities in other industries.

17. Where special statistical units have been created (refer paragraph 14 (a) and 14 (b)) each unit has been classified to the industry in which it mainly operates.

Description of terms

18. *Enterprise*. For statistical purposes, the concept of an enterprise is broadly that of a unit comprising all of the operations in Australia of a single operating legal entity (e.g. company, sole proprietor, partnership).

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

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

Materials etc. Includes materials, components, stores, supplies, fuels, containers, other packaging materials and spare parts for fixed tangible assets. Excludes materials, containers, etc., charged to fixed tangible assets accounts.

Work in progress. Includes processed or fabricated goods which will be further processed before sale by the enterprise.

Finished goods. Goods ready for sale by the enterprise, including goods purchased for resale without further processing and all other stocks. Includes newly completed development projects and buildings intended for sale. Newly completed buildings intended for rental or lease are excluded.

Estimates at constant prices

19. The base year of constant price estimates of stocks and manufacturers' sales contained in this issue has been changed to 1984-85. Over the past few years constant price estimates have been published on a 1979-80 base.

20. Periodic rebasing of constant price estimates is necessary to take account of changed price relativities and structural relationships in the economy. The choice of base year influences the movements in the constant price series, and the usefulness of such series is diminished if the relative price weights of the base year differ significantly from the price relationships in other periods included in this series. The more remote a base year is from the current period, the less likely that its relative prices will reflect the current situation.

21. A more detailed discussion of the need for rebasing constant price estimates and factors affecting the choice of base year are contained in the information paper *Change in Base Year of Constant Price Estimates from 1979-80 to 1984-85* (5227.0) released on 6 June 1988.

Valuation of stocks, stock valuation adjustment and increase in stocks at average 1984-85 prices

22. Enterprises are asked to report the book value of their stocks at the end of each quarter according to their normal practices of valuing stocks for balance sheet purposes. Increases in the book value of stocks between the beginning and end of a quarter will partly reflect changes in the physical quantities of all component stock items and partly reflect changes in prices at which the stocks are valued. In Table 2 (for the total of all selected industries) and Table 5 (for total manufacturing) a stock valuation adjustment (SVA) is deducted from the increase in book value of stocks to arrive at an estimate of the physical increase in stocks valued at average prices applicable during the quarter, i.e. increase in stocks at current prices.

23. In the calculation of the SVA the opening and closing book values for each of the stock categories are expressed at average 1984-85 prices by revaluation using composite price indexes. Closing book values, expressed at average 1984-85 prices, are shown in Table 1 (for the total of all selected industries) and Table 3 (for total manufacturing). The differences between the opening and closing constant price book value estimates for the total of all selected industries and for total manufacturing are the increases in stocks at average 1984-85 prices shown in Tables 2 and 5 respectively. For a more detailed explanation of the concepts and methods used in compiling the SVA see *Australian National Accounts : Concepts, Sources and Methods* (5216.0).

Sales of goods manufactured by private manufacturing enterprises at average 1984-85 prices

24. Estimates of sales at average 1984-85 prices by private manufacturing enterprises are subject to a number of limitations and qualifications as outlined below. Accordingly they should not be interpreted as precise quantitative measures.

25. The sales of an industry usually comprise a variety of commodities and *money value* is the only practicable measure by which these various commodities sold can be aggregated. Money value, as the unit of measurement, is itself subject to change as prices change. For certain kinds of comparison over time, it is useful to derive estimates of sales after the effects of changes in prices have been removed. These estimates are conventionally described as being 'at constant prices'. Although such measures vary with changes in the quantities of the component commodities they remain measures of sales in money terms expressed in prices of a specific year (in this publication, 1984-85).

26. In concept, the sales at constant prices of an industry may be thought of as being derived by expressing the value of every component commodity sold as the product of a price and a quantity, and by substituting for each current period price the corresponding price in 1984-85. Aggregates at constant prices are then obtained by summing constant price values for individual commodities. In this process, the quantities of the various commodities are combined by valuing them at their prices in 1984-85. The usefulness of the series is adversely affected if the relative prices of the various commodities differ significantly from their relative prices in 1984-85 within the periods included in the series. As prices do not necessarily move over time in the same proportions, or even in the same direction, the choice of the year in which the constant price estimates are expressed (*the base year*) will generally affect the trend of the constant price series.

27. Where relevant quantity data are not available, as is the case with the estimates of sales in this publication, constant price estimates are obtained by dividing the current price sales values at the most detailed industry level possible by composite price indexes. However these

price indexes are compiled using the assumption that the commodity composition of industry sales is fixed and therefore they are not strictly appropriate for revaluation purposes if the commodity composition of the industry sales changes over time.

28. The price indexes used to revalue current price sales by industry are derived form ASIC class fixed weighted price indexes of articles produced by manufacturing establishments (APMI price indexes). These indexes, which have a reference year 1968-69 equal to 100.0, are refeferenced to 1984-85 before being used to revalue the current price series. The APMI price indexes are assumed to represent the price movements of all commodities produced and sold by manufacturing *establishments* in each ASIC class. Since the current price sales figures relate to manufacturing *enterprises*, it is necessary to derive manufacturing enterprise-based price indexes for each industry. This is achieved by combining the relevant ASIC class establishment-based APMI price index according to the percentage contribution made by establishments classified to each manufacturing ASIC class to the turnover of enterprises in each industry. These percentage contributions were obtained from 1984-85 data relating to manufacturing establishments and enterprises.

Seasonal adjustment

29. Many series in this publiaction are affected to some extent by seasonal influences and it is useful to recognise and take account of this element of variation.

30. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics are in fact only estimates and should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics 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.Particular care should be taken in interpreting quarter to quarter movements in the adjusted figures in this publication, especially for detailed industry estimates.

31. At least once each year the seasonally adjusted series are reanalysed to take into account the latest available data. The most recent re-analysis takes into account data collected up to and including the June quarter 1987 survey. Seasonally adjusted data have been revised on the basis of this reanalysis. The revised estimates are included in this publication. The nature of the seasonal adjustment process is such that the magnitude of some revisions resulting from the reanalysis may be quite significant, especially for data for more recent quarters. For this reason, additional care should be exercised when interpeting movements in seasonally adjusted data for recent quarters.

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

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

Reliability of the estimates

34. Since estimates are based on information obtained from a sample drawn from units in the surveyed population, the estimates and the movements derived from them are subject to sampling variability; that is, they may differ from the figures that would have been produced if all units had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. 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 units had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure of sampling variability is the *relative standard error* which is obtained by expressing the standard error as a percentage of the estimate to which it refers. The relative standard error is a useful measure in that it provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer also to the size of the estimate. For the September quarter 1987 estimate of the level of stocks owned, which is $46,152 million, the relative standard error is approximately 0.7 per cent and therefore there are 2 chances in 3 that a complete collection would give an estimate in the range of $45,829 million to $46,475 million and there are 19 chances in 20 that the estimate (from a complete collection) would be in the range of $45,506 million to $46,798 million.

35. The sample estimates of the quarter to quarter movement in the value of stocks are also subject to sampling variability. The standard error of the estimate of movement is expressed as a percentage of the quarterly estimate of level, and is approximately 0.4 per cent for the total for all selected industries. For example, in seasonally adjusted constant price terms the increase in stocks between the June 1987 and September 1987 quarters was $479 million (1.3%). This means that there are 2 chances in 3 that the change would be an increase of between $373 million and $585 million (0.9% to 1.7%) and 19 chances in 20 that the change would be an increase of between $267 million and $691 million (0.5% to 2.1%).

36. Tables 9 and 10 present a summary of percentage standard errors for estimates of level and of movement.

37. The preliminary estimates contained in this publication are based on the first 70-75 per cent of returns received. The standard errors for these estimates have not been calculated but in general these can be taken to be about 30 per cent larger than the standard errors quoted above for the estimates obtained from the complete sample.

38. The imprecision due to sampling, which is measured by the standard error, is not of course the only type of inaccuracy to which the estimates are subject. Other

inaccuracies, referred to collectively as non-sampling error, may occur because of imperfections in reporting by enterprises, deficiencies in the central register of economic units from which the sample is selected, and deficiencies in the allowances made each quarter for the probable commencement of new enterprises since the sample was selected. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, efficient operating procedures, and appropriate methodology.

Comparison with other statistics published by the ABS

39. The data collected in the stocks survey are used in the compilation of estimates of increase in book value of non-farm stocks in the quarterly and annual national accounts. Stocks survey data are used to extrapolate annual national accounts benchmark information, obtained from the ABS's economic censuses and from income tax tabulations, for years in which the latter data are not available (e.g. for the most recent years) and to obtain quarterly national accounts dissections. (See *Australian National Accounts: Concepts, Sources and Methods* (5216.0)).

40. The statistics shown for the increase in the book value of stocks shown in this publication will differ from corresponding data for private non-farm stocks shown in the national accounts publications for the following reasons:

(a) The national accounts estimates incorporate data from other sources (including from the ABS's economic censuses) as well as information from the stocks survey (see paragraph 39 above).

(b) The national accounts estimates include estimates for the construction and transport industries.

41. The statistics shown in this publication will also differ from some of the statistics derived from the ABS's economic censuses for the following reasons:

(a) The statistics shown are derived from a sample survey and consequently are subject to sampling variability.

(b) These statistics relate to enterprise units whereas statistics in some other ABS publications (e.g. *Manufacturing Establishments, Details of Operations by Industry Class, Australia* (8203.0)) relate to establishments.

Related publications

42. Users may also wish to refer to the following publications:

Australian National Accounts : Concepts, Sources and Methods (5216.0)

Australian National Accounts : National Income and Expenditure (5206.0)—*issued quarterly* (Previously: *Quarterly Estimates of National Income and Expenditure, Australia*)

Quarterly Indexes of Manufacturing Production, Australia (8219.0)—issued quarterly

43. Current publications produced by the ABS are listed in the *Catalogue of Publications,* Australia (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Symbols and other usages

p	preliminary figure or series subject to revision
r	figure or series revised since previous issue
—	nil, or rounded to zero
n.a.	not available
ASIC	Australian Standard Industrial Classification, 1983 edition

44. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Electronic services

VIATEL.	Key *656# for selected current economic, social and demographic statistics.
AUSSTATS.	Thousands of up-to-date time series are available on this ABS on-line service through CSIRONET.
	For further information phone the AUSSTATS Help Desk on (062) 52 6017.
TELESTATS.	This service provides foreign trade statistics tailored to users' requirements.
	Further information is available on (062) 52 5404.

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