Australian Bureau of Statistics

CATALOGUE 8125.0
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QUARTERLY INDEXES OF INDUSTRIAL PRODUCTION, AUSTRALIA SEPTEMBER QUARTER 1992

MAIN FEATURES

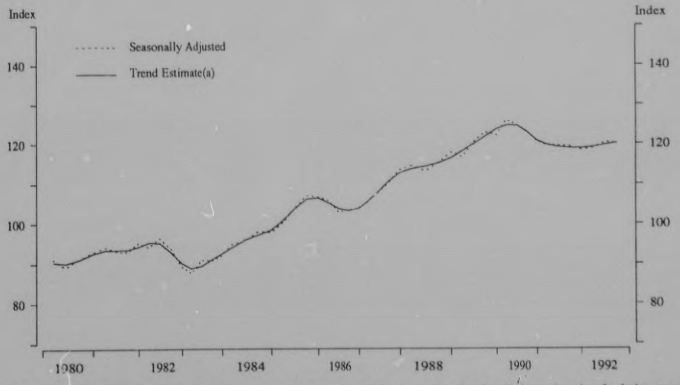
NOTE: *This issue incorporates revisions to historical estimates, see Explanatory Notes, paragraph 2.*

Preliminary estimates for the September quarter 1992 show that the trend in the index of industrial production is rising very slowly. The trend has grown in each of the last three quarters following seven quarters of decline.

Trend estimates for the component series all show growth. The mining sector is showing moderate growth. The 0.9 per cent increase in trend between June and September quarters 1992 was the sixth consecutive quarterly increase. Trends in production in the manufacturing and utilities sectors are each showing very weak growth to the September quarter 1992.

While the industrial production index is still trending upwards, the seasonally adjusted estimate fell slightly between June and September 1992 quarters by 0.3 per cent. A rise of 0.9 per cent in the utilities sector was more than offset by falls of 1.0 per cent and 0.3 per cent in the mining and manufacturing sectors respectively.

INDEX OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES
(BASE: 1984-85 = 100.0)



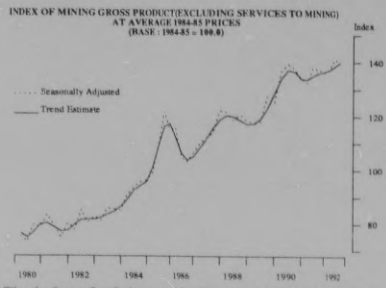
(a) See paragraph 21 to 23 of the Explanatory Notes. Trend estimates for the most recent periods are provisional and could change when data for further quarters are available.

INQUIRIES

- *for information about statistics* in this publication and the availability of related unpublished statistics, contact Mr Mal Lawrie on Canberra (06) 252 7421 or any ABS State office.
- for information *about other ABS statistics and services* please refer to the back page of this publication

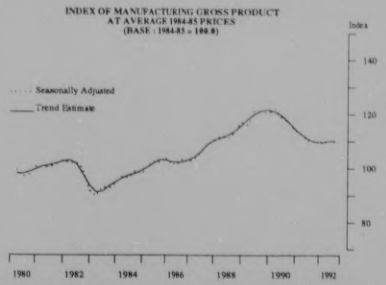
Components of the industrial production index

(i) Mining



The index of mining production (excluding services to mining) fell by 1.0 per cent (seasonally adjusted) in the September quarter 1992 after rises (of 0.7% and 2.8% respectively) in the March and June quarters. The trend estimate has now been rising over the last six quarters, and stands 2.9 per cent above the September quarter 1991 estimate.

(ii) Manufacturing

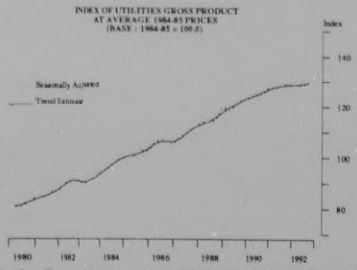


In the September quarter 1992 the seasonally adjusted index of manufacturing production recorded a slight fall of 0.3 per cent, following slight rises (of 0.2% and 0.5% respectively) in the March and June quarters. Revised data resulting from sample revisions (see Explanatory Notes, paragraph 16) show a generally weaker situation than did data previously published. The trend in manufacturing production is now showing three quarters of very weak growth, suggesting a turning point in the December quarter 1991 ending an eight quarter downturn. However, trend data for the most recent periods are provisional and could change when data for further quarters are available.

Four subdivisions have shown consistent trend growth over recent quarters. They are Transport equipment, Non-metallic mineral products, Chemical, petroleum and coal products, and Food, beverages and tobacco. A consistant fall in trend production over recent quarters can be seen for Fabricated metal products, Paper, printing and publishing, and Miscellaneous manufacturing. Of the remaining subdivisions, Textiles is showing early signs of decline following six quarters of strong growth, while the trend in Clothing and footwear and Wood, wood products and furniture output is declining to September quarter 1992 following short periods of growth. Basic metal products has remained fairly flat, and Other machinery and equipment has grown in the last two quarters following consistent decline in trend production over the previous four years.

In seasonally adjusted terms, the index recorded falls in seven of the twelve manufacturing subdivisions in the September quarter 1992. The largest percentage falls were for Textiles (down 11.7%), Clothing and footwear (down 9.6%), and Non-metallic mineral products (down 7.3%). The most significant rises were recorded for Other machinery and equipment (up 10.4%), Miscellaneous manufacturing (up 10.2%), and Transport equipment (up 7.0%).

(iii) Electricity, gas and water



In the September quarter 1992 the production index for electricity, gas and water rose moderately (by 0.9%). The trend in electricity, gas and water gross product has shown continuous growth since 1982-83, although the trend growth has slowed noticeably over the last five quarters.

NOTE: Explanatory Notes are published at the back of this publication.

TABLE 1. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES — SEASONALLY ADJUSTED AND TREND ESTIMATES

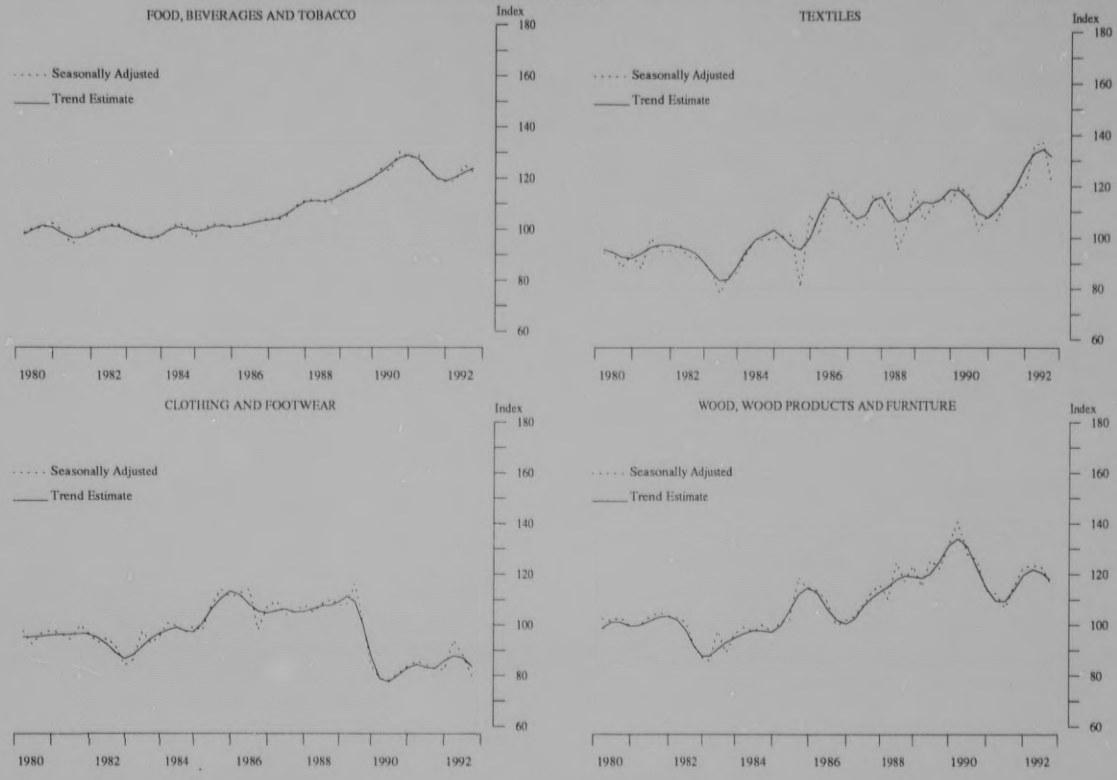
Index numbers (Base : 1984-85 = 100.0)

	Quarters ended													
	1988-89	*1989-90*				*1990-91*				*1991-92*				*1992-93*
	June	*Sept.*	*Dec.*	*Mar.*	*June*	*Sept.*	*Dec.*	*Mar.*	*June*	*Sept.*	*Dec.*	*Mar.*	*June.*	*Sept.*
	Seasonally adjusted													
Mining (excluding services to mining)	117.7	127.2	125.0	136.7	139.2	137.3	133.7	132.4	138.0	137.2	136.3	137.2	141.1	139.7
Manufacturing	121.2	120.8	120.4	121.8	118.4	116.8	113.7	112.5	110.2	110.0	109.3	109.5	110.1	109.8
Electricity, gas and water	120.1	122.6	122.5	124.0	124.8	124.8	127.2	127.5	127.5	128.6	128.5	128.3	128.4	129.5
Total industrial production	**120.2**	**122.7**	**121.8**	**125.8**	**124.3**	**122.8**	**120.4**	**119.3**	**119.2**	**119.1**	**118.3**	**118.7**	**126.0**	**119.7**
	Trend estimates													
Mining (excluding services to mining)	118.8	122.8	128.4	133.9	137.0	136.3	133.7	133.5	134.9	135.9	136.3	137.1	138.5	139.8
Manufacturing	119.9	121.2	121.6	120.8	119.2	116.8	114.3	112.3	110.8	109.9	109.6	109.8	110.9	110.2
Electricity, gas and water	120.5	121.7	123.1	123.8	124.5	125.6	126.6	127.4	128.0	128.2	128.4	128.5	128.7	129.1
Total industrial production	**119.7**	**121.6**	**123.4**	**124.4**	**124.3**	**122.7**	**120.6**	**119.5**	**119.0**	**118.7**	**118.6**	**118.9**	**119.4**	**119.9**

TABLE 2. PERCENTAGE CHANGES IN INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES — SEASONALLY ADJUSTED AND TREND ESTIMATES

	Change from preceding quarter												*Sept. Qtr 1991 to*	
	1989-90				*1990-91*				*1991-92*				*1992-93*	*Sept. Qtr 1992*
	Sept.	*Dec.*	*Mar.*	*June*	*Sept.*	*Dec.*	*Mar.*	*June*	*Sept.*	*Dec.*	*Mar.*	*June*	*Sept.*	
	Seasonally adjusted													
Mining (excluding services to mining)	8.1	–1.7	9.4	1.8	–1.4	–2.6	–1.0	4.2	–0.6	–0.7	0.7	2.8	–1.0	1.8
Manufacturing	–0.3	–0.3	1.2	–2.8	–1.4	–2.7	–1.1	–2.0	–0.2	–0.6	0.2	0.5	–0.3	–0.2
Electricity, gas and water	2.1	–0.1	1.2	0.6	—	1.9	0.2	—	0.9	–0.1	–0.2	0.1	0.9	0.7
Total industrial production	**2.1**	**–0.7**	**3.3**	**–1.2**	**–1.2**	**–2.0**	**–0.9**	**–0.1**	**–0.1**	**–0.7**	**0.3**	**1.1**	**–0.3**	**0.5**
	Trend estimates													
Mining (excluding services to mining)	3.4	4.6	4.3	2.3	–0.5	–1.9	–0.1	1.0	0.7	0.3	0.6	1.0	0.9	2.9
Manufacturing	1.1	0.3	–0.7	–1.3	–2.0	–2.1	–1.7	–1.3	–0.8	–0.3	0.2	0.2	0.2	0.3
Electricity, gas and water	1.0	1.2	0.6	0.6	0.9	0.8	0.6	0.5	0.2	0.2	0.1	0.2	0.3	0.7
Total industrial production	**1.6**	**1.5**	**0.3**	**–0.1**	**–1.3**	**–1.7**	**–0.9**	**–0.4**	**–0.3**	**–0.1**	**0.3**	**0.4**	**0.4**	**1.0**

INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES
(BASE: 1984-85 = 100.0)



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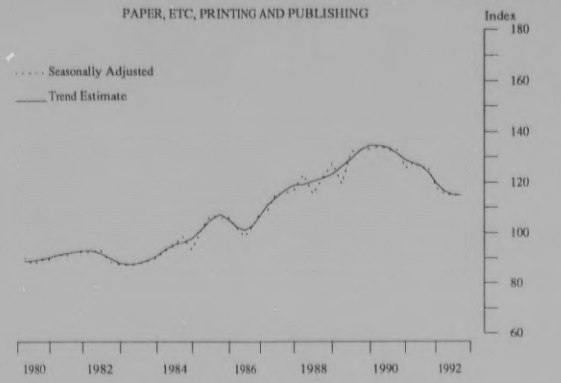
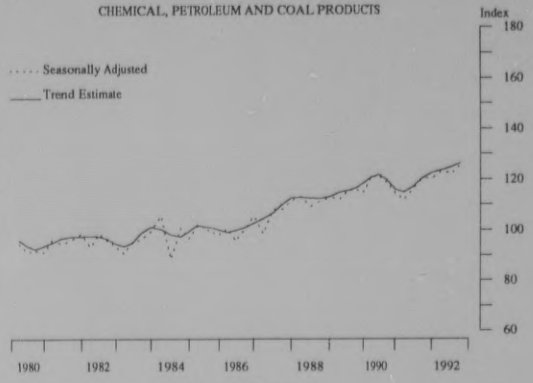
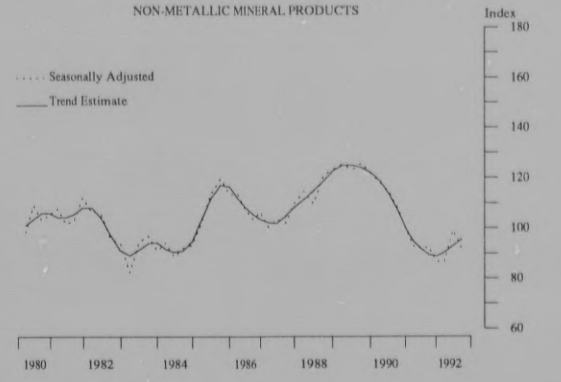
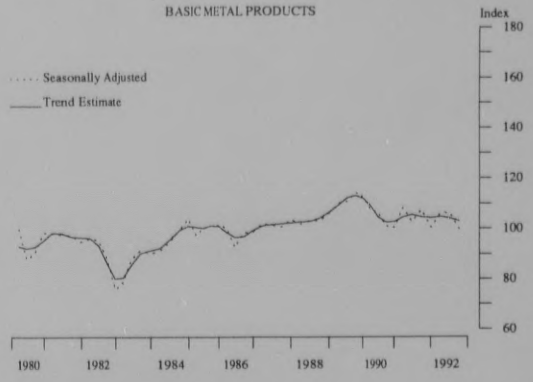
(BASE: 1984-85 = 100.0)









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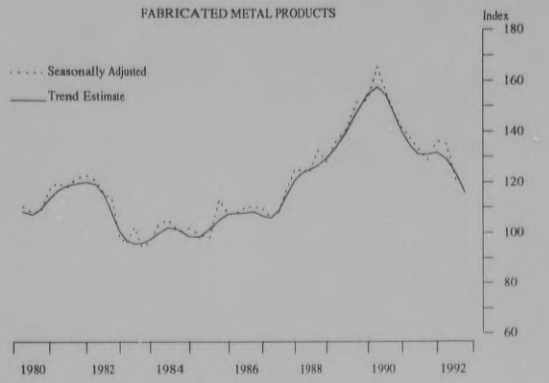

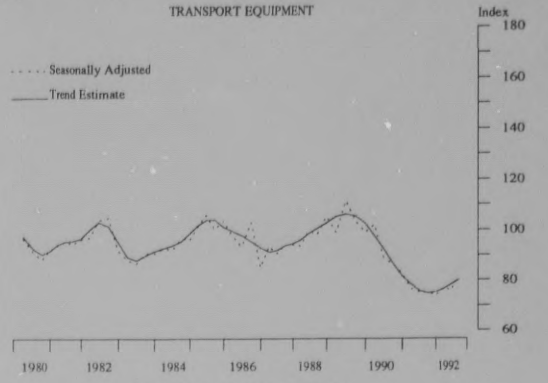

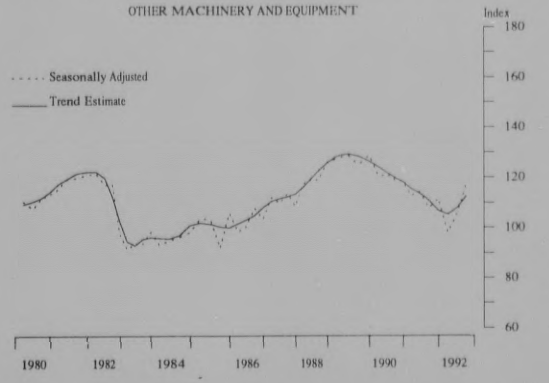

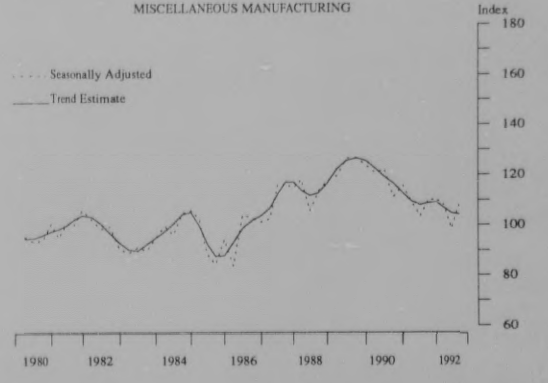

TABLE 3. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED

Index numbers (Base : 1984-85 = 100.0)

ASIC Sub-Divn.	Industry	Quarters ended													
		1988-89	1989-90				1990-91				1991-92				1992-93
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
21	Food, beverages and tobacco	116.5	117.8	119.5	123.3	122.5	129.7	127.4	128.4	122.8	119.3	118.2	118.8	124.5	122.0
23	Textiles	111.8	115.2	113.7	119.9	116.1	102.4	109.0	106.6	116.6	119.4	119.4	135.5	137.4	121.3
24	Clothing and footwear	115.9	100.9	83.7	78.6	77.8	80.6	83.4	85.4	84.0	82.3	82.0	93.6	87.9	79.5
25	Wood, wood products and furniture	125.0	121.7	131.0	140.8	127.4	123.2	113.1	112.1	106.4	115.1	122.3	122.9	122.3	116.5
26	Paper, etc, printing and publishing	131.9	132.5	133.1	133.9	132.4	132.5	125.4	127.4	125.7	125.3	117.5	115.3	114.7	114.9
27	Chemical, petroleum and coal products	115.4	115.4	114.7	120.6	120.9	118.3	114.2	111.6	116.0	120.1	120.1	122.9	121.7	125.3
28	Non-metallic mineral products	122.8	125.4	121.2	117.4	113.7	107.4	99.4	92.4	91.7	91.9	86.3	86.5	98.7	91.5
29	Basic metal products	110.4	113.7	111.9	107.1	105.8	100.6	100.1	107.8	102.3	106.9	100.1	105.8	105.6	99.4
31	Fabricated metal products	140.7	151.6	152.4	165.5	155.7	147.4	141.7	137.5	133.4	128.6	136.1	135.1	120.8	118.0
32	Transport equipment	111.5	103.4	98.9	102.1	88.9	86.3	82.6	76.5	75.2	74.9	73.9	76.9	76.0	81.3
33	Other machinery and equipment	128.5	124.6	128.3	120.0	120.7	118.5	117.9	112.4	113.9	107.3	111.2	97.6	105.6	116.6
34	Miscellaneous manufacturing	126.2	126.4	123.4	120.3	122.0	110.7	115.4	108.6	103.1	109.7	109.7	107.5	98.0	108.0
Total manufacturing		**121.2**	**120.8**	**120.4**	**121.8**	**118.4**	**116.8**	**113.7**	**112.5**	**110.2**	**110.0**	**109.3**	**109.5**	**110.1**	**109.8**

TABLE 4. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED

ASIC Sub-Divn.	Industry	Change from preceding quarter													Sept. Qtr 1991 to Sept. Qtr 1992
		1989-90				1990-91				1991-92				1992-93	
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	
21	Food, beverages and tobacco	1.1	1.4	3.2	-0.6	5.9	-1.8	0.8	-4.4	-2.9	-0.9	0.5	4.8	-2.0	2.3
23	Textiles	3.0	-1.3	5.5	-3.2	-11.8	6.4	-2.2	9.4	2.4	—	13.5	1.4	-11.7	1.6
24	Clothing and footwear	-12.9	-17.0	-6.1	-1.0	3.6	3.5	2.4	-1.6	-2.0	-0.4	14.1	-6.1	-9.6	-3.4
25	Wood, wood products and furniture	-2.6	7.6	7.5	-9.5	-1.7	-9.7	-0.9	-5.1	8.2	6.3	0.5	-0.5	-4.7	1.2
26	Paper, etc, printing and publishing	0.5	0.5	0.6	-1.1	0.1	-5.4	1.6	-1.3	-0.3	-6.2	-1.9	-0.5	0.2	-8.3
27	Chemical, petroleum and coal products	—	-0.6	5.1	0.2	-2.2	-3.5	-2.3	3.9	3.5	—	2.3	-1.0	3.0	4.3
28	Non-metallic mineral products	2.1	-3.3	-3.1	-3.2	-5.5	-7.4	-7.0	-0.8	0.2	-6.1	0.2	14.1	-7.3	-0.4
29	Basic metal products	3.0	-1.6	-4.3	-1.2	-4.9	-0.5	7.7	-5.1	4.5	-6.4	5.7	-0.2	-5.9	-7.0
31	Fabricated metal products	7.7	0.5	8.6	-5.9	-5.3	-3.9	-3.0	-3.0	-3.6	5.8	-0.7	-10.6	-2.3	-8.2
32	Transport equipment	-7.3	-4.4	3.2	-12.9	-2.9	-4.3	-7.4	-1.7	-0.4	-1.3	4.1	-1.2	7.0	8.5
33	Other machinery and equipment	-3.0	3.0	-6.5	0.6	-1.8	-0.5	-4.7	1.3	-5.8	3.6	-12.2	8.2	10.4	8.7
34	Miscellaneous manufacturing	0.2	-2.4	-2.5	1.4	-9.3	4.2	-5.9	-5.1	6.4	—	-2.0	-8.8	10.2	-1.5
Total manufacturing		**-0.3**	**-0.3**	**1.2**	**-2.8**	**-1.4**	**-2.7**	**-1.1**	**-2.0**	**-0.2**	**-0.6**	**0.2**	**0.5**	**-0.3**	**-0.2**

TABLE 5. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — TREND ESTIMATES

Index numbers (Base : 1984-85 = 100.0)

ASIC Sub-Divn.	Industry	Quarters ended												
		1988-89	1989-90				1990-91				1991-92				1992-93
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June.	Sept.	Dec.	Mar.	June.	Sept.
21	Food, beverages and tobacco	116.2	117.9	119.8	122.1	124.3	127.4	128.4	126.9	123.2	119.7	118.5	120.0	121.9	123.5
23	Textiles	113.3	114.8	118.6	118.1	114.8	109.5	107.6	110.9	115.2	120.0	127.3	132.5	134.0	131.1
24	Clothing and footwear	108.8	99.9	87.2	78.5	77.4	79.9	82.7	84.2	83.0	82.7	85.6	87.5	86.7	83.3
25	Wood, wood products and furniture	119.9	124.6	130.7	133.5	130.3	122.2	114.1	109.2	109.0	115.8	119.3	121.4	120.1	117.5
26	Paper, etc, printing and publishing	129.1	132.6	134.3	134.1	133.3	131.0	128.5	127.3	126.3	123.7	119.4	116.4	115.0	114.8
27	Chemical, petroleum and coal products	115.3	116.4	118.3	120.4	121.4	119.2	115.6	114.7	116.8	120.1	122.3	123.2	124.4	125.9
28	Non-metallic mineral products	124.6	123.7	121.6	118.1	112.9	106.6	99.4	94.2	91.4	89.1	88.4	90.0	92.6	95.1
29	Basic metal products	111.8	112.6	111.5	108.5	104.2	102.2	102.3	104.1	105.1	104.1	103.9	104.3	103.7	102.6
31	Fabricated metal products	139.6	147.7	154.6	157.5	154.3	147.1	139.9	134.7	131.1	131.0	131.7	129.1	123.2	115.8
32	Transport equipment	106.3	105.5	102.6	97.6	92.6	86.7	81.6	78.3	75.6	74.8	75.2	76.3	78.2	80.1
33	Other machinery and equipment	128.9	128.0	126.0	123.6	121.4	119.4	117.9	115.1	113.3	110.5	106.4	104.9	107.6	112.1
34	Miscellaneous manufacturing	125.4	126.2	125.2	122.2	119.0	116.2	112.4	109.0	107.7	108.5	108.7	106.4	104.3	103.8
Total manufacturing		**119.9**	**121.2**	**121.6**	**120.8**	**119.2**	**116.8**	**114.3**	**112.3**	**110.8**	**109.9**	**109.6**	**109.8**	**110.0**	**110.2**

TABLE 6. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES BY SUBDIVISION — TREND ESTIMATES

ASIC Sub-Divn.	Industry	Change from preceding quarter													Sept. Qtr 1991 to Sept. Qtr 1992
		1989-90				1990-91				1991-92				1992-93	
		Sept	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar	June	Sept.	
21	Food, beverages and tobacco	1.5	1.6	1.9	2.2	2.1	0.8	-1.2	-2.9	-2.8	-1.0	1.3	1.6	1.3	3.2
23	Textiles	1.3	3.3	-0.4	-2.8	-4.6	-1.7	3.1	3.9	4.2	6.1	4.1	1.1	-2.2	9.2
24	Clothing and footwear	-8.2	-12.7	-10.0	-1.4	3.2	3.5	1.8	-1.4	-0.4	3.5	2.2	-0.9	-3.9	0.7
25	Wood, wood products and furniture	3.9	4.9	2.1	-2.4	-6.2	-6.6	-4.3	-0.2	4.4	4.8	1.8	-1.1	-2.2	3.3
26	Paper, etc, printing and publishing	2.7	1.3	-0.1	-0.6	-1.7	-1.9	-0.9	-0.8	-2.1	-3.5	-2.5	-1.2	-0.2	-7.2
27	Chemical, petroleum and coal products	1.0	1.6	1.8	0.8	-1.8	-3.0	-0.8	1.8	2.8	1.8	0.7	1.0	1.2	4.8
28	Non-metallic mineral products	-0.7	-1.7	-2.9	-4.4	-5.6	-6.8	-5.2	-3.0	-2.5	-0.8	1.8	2.9	2.7	6.7
29	Basic metal products	0.7	-1.0	-2.7	-4.0	-1.9	0.1	1.8	1.0	-1.0	-0.2	0.4	-0.6	-1.1	-1.4
31	Fabricated metal products	5.8	4.7	1.9	-2.0	-4.7	-4.9	-3.7	-2.7	-0.1	0.5	-2.0	-4.6	-6.0	-11.6
32	Transport equipment	-0.8	-2.7	-4.9	-5.1	-6.4	-5.9	-4.0	-3.4	-1.1	0.5	1.5	2.5	2.4	7.1
33	Other machinery and equipment	-0.7	-1.6	-1.9	-1.8	-1.6	-1.3	-2.4	-1.6	-2.5	-3.7	-1.4	2.6	4.2	1.4
34	Miscellaneous manufacturing	0.6	-0.8	-2.4	-2.6	-2.4	-3.3	-3.0	-1.2	0.7	0.2	-2.1	-2.0	-0.5	-4.3
Total manufacturing		**1.1**	**0.3**	**-0.7**	**-1.3**	**-2.0**	**-2.1**	**-1.7**	**-1.3**	**-0.8**	**-0.3**	**0.2**	**0.2**	**0.2**	**0.3**

HISTORICAL TABLES

TABLE 7. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY INDUSTRY — ORIGINAL

Index numbers (Base : 1984-85 = 100.0)

	Mining excluding Services to mining	*Manufacturing*	*Electricity, gas and water*	*Total*
1976-77	76.3	90.3	70.1	84.3
1977-78	78.3	89.9	71.0	84.7
1978-79	80.3	93.6	74.8	88.0
1979-80	78.6	97.6	80.0	90.7
1980-81	80.1	99.6	83.5	92.8
1981-82	79.4	102.1	88.0	94.7
1982-83	82.4	93.7	90.4	90.5
1983-84	88.5	95.1	94.2	93.4
1984-85	100.0	100.0	100.0	100.0
1985-86	114.4	102.4	104.4	105.6
1986-87	107.7	103.8	107.1	105.2
1987-88	118.9	110.3	112.7	112.7
1988-89	118.5	116.9	118.2	117.4
1989-90	132.0	120.3	123.5	123.6
1990-91	135.5	114.1	126.8	121.0
1991-92	138.0	110.6	128.4	119.6
1976-77 — Sept.	79.7	91.5	71.7	86.1
Dec.	73.0	95.6	69.5	86.8
Mar.	74.9	83.7	68.9	79.6
June	77.7	90.4	70.3	84.7
1977-78 — Sept.	81.4	92.0	73.5	87.1
Dec.	77.7	93.8	70.6	86.9
Mar.	75.2	82.9	68.4	79.2
June	78.7	90.9	71.6	85.5
1978-79 — Sept.	81.2	94.0	76.1	88.6
Dec.	80.8	97.9	72.2	90.5
Mar.	77.1	87.8	74.6	83.5
June	81.9	94.8	76.3	89.3
1979-80 — Sept.	84.9	100.3	82.0	94.2
Dec.	83.9	101.9	78.6	94.5
Mar.	72.5	92.0	79.2	85.6
June	73.0	96.4	80.2	88.6
1980-81 — Sept.	81.3	100.6	85.3	93.9
Dec.	79.9	105.3	82.8	96.2
Mar.	80.3	93.0	81.6	88.4
June	78.7	99.7	84.3	92.6
1981-82 — Sept.	76.6	104.9	90.3	96.1
Dec.	81.6	107.6	85.1	98.3
Mar.	75.0	94.0	86.2	88.4
June	84.4	102.0	90.2	96.2
1982-83 — Sept.	82.3	103.1	94.5	96.9
Dec.	84.3	95.8	89.7	92.2
Mar.	78.5	83.0	87.4	82.4
June	84.8	93.0	90.2	90.6
1983-84 — Sept.	87.3	96.0	95.6	93.8
Dec.	86.7	98.4	92.2	94.7
Mar.	87.7	89.7	92.7	89.6
June	92.4	96.5	96.0	95.4
1984-85 — Sept.	97.9	102.3	102.6	101.3
Dec.	98.3	101.9	98.6	100.6
Mar.	96.1	93.3	98.7	94.7
June	107.7	102.4	100.1	103.4
1985-86 — Sept.	124.5	105.6	106.7	110.4
Dec.	117.7	108.2	100.8	109.6
Mar.	112.3	94.6	104.1	100.2
June	103.0	101.2	106.1	102.3
1986-87 — Sept.	106.0	106.3	110.3	106.7
Dec.	108.3	106.8	103.7	106.8
Mar.	106.9	96.6	106.2	100.3
June	109.7	105.4	108.4	106.9
1987-88 — Sept.	117.0	111.6	114.9	113.3
Dec.	124.2	114.8	111.3	116.7
Mar.	118.3	105.2	112.1	109.3
June	116.1	109.7	112.3	111.6
1988-89 — Sept.	124.1	116.1	119.1	118.5
Dec.	120.0	122.2	118.5	121.2
Mar.	114.6	109.3	116.6	111.5
June	115.2	119.8	118.6	118.5
1989-90 — Sept.	131.0	123.6	127.1	125.9
Dec.	127.3	125.6	121.6	125.5
Mar.	133.6	114.8	121.9	120.4
June	136.2	117.2	123.2	122.6
1990-91 — Sept.	141.4	119.8	129.2	126.3
Dec.	136.2	119.6	126.5	124.6
Mar.	129.3	107.3	125.7	115.0
June	134.9	109.7	125.6	117.9
1991-92 — Sept.	141.3	113.3	132.9	122.7
Dec.	138.9	115.1	127.8	122.5
Mar.	134.0	104.4	126.2	114.4
June	138.0	109.6	126.7	118.8
1992-93 — Sept.	143.9	113.0	134.1	123.3

TABLE 8. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY INDUSTRY — SEASONALLY ADJUSTED AND TREND ESTIMATES

Index numbers (Base : 1984-85 = 100.0)

	Seasonally adjusted				*Trend estimates*			
	Mining excluding Services to mining	*Manufacturing*	*Electricity, gas and water*	*Total*	*Mining excluding Services to mining*	*Manufacturing*	*Electricity, gas and water*	*Total*
1976-77 — Sept.	78.5	89.3	69.3	84.1	74.8	89.2	69.2	83.1
Dec.	71.5	90.7	70.4	83.4	74.7	90.5	70.0	84.0
Mar.	77.4	90.2	70.0	84.5	75.8	90.8	70.4	84.5
June	77.8	90.9	70.8	85.2	77.3	90.6	70.7	84.8
1977-78 — Sept.	80.1	89.7	70.7	85.0	78.0	89.8	70.8	84.5
Dec.	76.0	89.0	71.5	83.6	77.2	89.5	70.8	84.1
Mar.	77.9	89.2	70.1	84.0	77.3	89.8	71.0	84.4
June	78.7	91.5	72.0	85.9	78.0	90.9	71.6	85.3
1978-79 — Sept.	79.9	91.6	72.8	86.4	78.8	92.1	72.6	86.3
Dec.	79.1	92.9	73.4	87.0	79.0	93.2	74.1	87.3
Mar.	79.9	94.6	76.2	88.6	79.9	94.5	75.5	88.5
June	82.0	95.4	76.9	89.8	81.6	95.9	77.1	90.0
1979-80 — Sept.	83.3	97.6	78.6	91.7	82.2	97.1	78.6	91.1
Dec.	82.1	96.9	79.8	91.1	79.7	98.0	79.8	91.1
Mar.	75.2	99.3	80.9	91.0	76.3	98.0	80.5	90.4
June	73.2	96.9	80.8	89.1	74.8	97.9	81.2	90.1
1980-81 — Sept.	79.5	97.5	82.0	91.1	76.7	98.5	82.2	91.0
Dec.	78.4	100.6	83.9	92.9	79.7	99.5	83.2	92.5
Mar.	83.2	100.5	83.7	94.1	80.1	100.5	84.1	93.4
June	79.1	100.1	84.7	93.0	78.6	101.0	84.9	93.4
1981-82 — Sept.	74.8	101.4	86.5	93.0	77.0	101.6	85.8	93.5
Dec.	80.1	102.8	86.4	95.2	77.4	102.4	87.1	94.3
Mar.	77.7	101.8	88.6	94.2	79.6	102.9	88.7	95.3
June	85.0	102.1	90.7	96.4	81.3	101.6	90.1	95.2
1982-83 — Sept.	80.3	99.6	90.8	93.7	81.4	97.9	90.8	92.9
Dec.	82.5	91.7	90.8	89.3	81.4	93.6	90.5	90.2
Mar.	81.1	89.7	89.5	87.6	82.1	91.2	90.1	88.8
June	85.6	93.0	90.6	90.9	83.4	91.5	90.6	89.4
1983-84 — Sept.	85.2	92.7	91.9	90.8	84.4	93.4	91.8	91.0
Dec.	84.9	94.5	93.6	92.0	86.2	94.9	93.4	92.5
Mar.	90.6	96.9	95.0	95.1	89.1	96.3	95.0	94.3
June	93.4	96.4	96.5	95.7	92.4	97.4	96.7	96.1
1984-85 — Sept.	95.5	99.0	98.6	98.1	94.2	98.1	98.5	97.2
Dec.	96.2	98.0	100.1	97.8	95.7	99.2	99.7	98.4
Mar.	99.1	100.7	100.6	100.3	101.0	100.6	100.6	100.7
June	109.2	102.3	100.7	103.8	109.1	102.1	101.1	103.7
1985-86 — Sept.	121.3	102.2	102.7	107.0	116.0	103.1	101.9	106.2
Dec.	115.2	104.0	102.3	106.6	117.0	103.0	103.4	106.5
Mar.	115.6	101.8	105.7	105.7	112.1	102.5	105.3	105.2
June	104.7	101.4	107.1	102.9	106.2	102.2	106.3	103.7
1986-87 — Sept.	103.2	103.1	106.3	103.5	103.7	102.3	106.3	103.2
Dec.	106.1	102.5	105.1	103.7	104.9	103.0	106.2	103.8
Mar.	109.8	103.6	107.8	105.6	108.1	104.1	107.3	105.5
June	111.8	105.8	109.6	107.8	111.3	106.0	109.2	107.7
1987-88 — Sept.	113.7	108.5	110.8	110.1	115.2	108.5	111.1	110.5
Dec.	121.9	110.1	112.7	113.3	118.5	110.3	112.5	112.6
Mar.	121.3	111.8	113.9	114.4	120.1	111.1	113.3	113.6
June	118.5	110.8	113.7	113.1	119.7	112.1	114.4	114.2
1988-89 — Sept.	120.5	113.0	115.0	115.1	118.3	113.5	115.9	115.0
Dec.	117.9	117.0	119.6	117.6	117.0	115.7	117.7	116.3
Mar.	117.3	115.9	118.4	116.6	117.1	118.1	119.4	118.0
June	117.7	121.2	120.1	120.2	118.8	119.9	120.5	119.7
1989-90 — Sept.	127.2	120.8	122.6	122.7	122.8	121.2	121.7	121.6
Dec.	125.0	120.4	122.5	121.8	128.4	121.6	123.1	123.4
Mar.	136.7	121.8	124.0	125.8	133.9	120.8	123.8	124.4
June	139.2	118.4	124.8	124.3	137.0	119.2	124.5	124.3
1990-91 — Sept.	137.3	116.8	124.8	122.8	136.3	116.8	125.6	122.7
Dec.	133.7	113.7	127.2	120.7	133.7	114.3	126.6	120.6
Mar.	132.4	112.5	127.5	119.3	133.5	112.3	127.4	119.5
June	138.0	110.2	127.5	119.2	134.9	110.8	128.0	119.0
1991-92 — Sept.	137.2	110.0	128.6	119.1	135.9	109.9	128.2	118.7
Dec.	136.3	109.3	128.5	118.3	136.3	109.6	128.4	118.6
Mar.	137.2	109.5	128.3	118.7	137.1	109.8	128.5	118.9
June	141.1	110.1	128.4	120.0	138.5	110.0	128.7	119.4
1992-93 — Sept.	139.7	109.8	129.5	119.7	139.8	110.2	129.1	119.9

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — ORIGINAL

Index numbers (Base : 1984-85 = 100.0)

	Food, beverages and tobacco	*Textiles*	*Clothing and footwear*	*Wood, wood products and furniture*	*Paper, etc, printing and publishing*	*Chemicals, petroleum and coal products*	*Non-metallic mineral products*
1976-77	92.4	87.4	87.3	94.9	76.7	83.7	96.4
1977-78	95.8	85.0	86.9	91.5	78.7	86.9	93.0
1978-79	97.2	90.8	91.7	94.7	82.9	91.5	95.5
1979-80	98.1	92.9	94.4	97.8	88.4	93.9	101.8
1980-81	99.2	92.4	96.3	101.3	90.6	93.6	104.4
1981-82	99.6	94.4	96.0	102.9	93.0	96.8	106.7
1982-83	99.2	87.0	89.7	90.8	88.1	94.0	91.9
1983-84	98.9	90.8	96.6	95.4	91.9	97.5	92.5
1984-85	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1985-86	101.5	102.1	112.5	113.8	103.2	98.4	113.4
1986-87	104.2	108.5	104.1	103.1	108.6	103.0	103.3
1987-88	110.4	109.8	106.3	115.7	117.6	110.5	108.9
1988-89	114.1	110.3	110.2	120.0	125.2	112.9	123.2
1989-90	120.8	116.4	86.0	130.0	133.1	117.9	120.0
1990-91	127.1	109.1	83.3	114.6	128.0	115.1	98.3
1991-92	120.1	128.1	86.2	120.5	118.5	121.2	91.1
1976-77 — Sept.	90.3	89.1	96.8	101.1	76.3	79.4	105.6
Dec.	98.1	96.2	96.3	102.5	80.9	86.4	103.5
Mar.	89.2	77.3	77.3	85.8	72.2	81.1	86.2
June	92.0	87.7	78.8	90.3	77.4	87.8	90.1
1977-78 — Sept.	95.5	89.6	93.4	93.9	82.0	85.2	93.2
Dec.	102.1	89.6	84.4	97.7	82.8	88.6	100.9
Mar.	93.2	74.4	78.5	77.8	72.6	83.9	86.2
June	92.5	86.3	91.5	96.7	77.4	90.1	91.5
1978-79 — Sept.	96.0	97.6	92.9	100.7	82.3	94.3	94.1
Dec.	105.4	90.5	92.6	102.5	85.7	92.9	96.9
Mar.	94.7	84.8	84.7	83.6	78.1	86.1	93.7
June	92.8	90.0	96.8	92.1	85.5	92.6	97.2
1979-80 — Sept.	98.2	93.4	97.7	102.3	91.4	90.5	106.6
Dec.	102.4	99.1	100.2	96.7	90.7	102.1	100.5
Mar.	95.2	83.4	87.8	91.1	84.0	90.2	91.8
June	96.4	95.7	92.0	101.1	87.4	92.9	108.5
1980-81 — Sept.	99.8	92.4	105.6	108.7	92.4	92.9	105.9
Dec.	110.2	97.6	99.4	105.3	93.7	94.2	109.9
Mar.	96.0	77.7	86.4	88.6	85.6	91.4	100.5
June	90.8	101.9	94.0	102.7	90.9	96.1	101.4
1981-82 — Sept.	96.8	99.1	109.8	110.8	95.1	97.4	105.6
Dec.	107.5	97.2	97.4	108.9	96.7	101.1	116.4
Mar.	95.8	85.8	82.7	91.3	86.2	88.7	99.3
June	98.2	95.7	94.3	100.5	93.8	100.1	105.6
1982-83 — Sept.	101.6	97.6	101.1	97.3	90.8	97.0	98.4
Dec.	106.3	91.9	84.4	91.9	91.6	95.8	97.7
Mar.	94.7	75.8	76.5	76.4	81.4	86.8	76.8
June	94.1	82.5	96.8	97.5	88.5	96.5	94.8
1983-84 — Sept.	95.8	90.5	102.2	94.3	90.6	97.4	99.3
Dec.	104.3	85.8	96.0	102.3	95.0	101.3	94.6
Mar.	96.1	80.6	89.2	88.0	86.5	102.0	87.6
June	99.3	106.2	99.1	96.9	95.3	89.5	88.7
1984-85 — Sept.	100.4	107.6	107.0	105.5	100.0	101.5	94.4
Dec.	103.4	97.2	99.9	102.9	99.0	98.0	97.2
Mar.	97.1	85.8	86.7	89.8	94.0	99.0	94.4
June	99.1	109.5	106.4	101.9	106.9	101.4	114.1
1985-86 — Sept.	100.8	87.7	125.3	124.8	106.9	99.5	123.0
Dec.	107.4	105.7	112.4	120.8	113.0	99.5	118.3
Mar.	98.5	85.8	100.2	100.7	94.8	99.0	104.7
June	99.5	129.4	112.1	108.9	98.2	95.7	107.7
1986-87 — Sept.	102.2	126.1	108.1	105.1	103.9	100.2	106.6
Dec.	111.8	102.8	109.5	108.3	115.1	106.6	110.6
Mar.	100.3	88.6	97.7	92.3	101.6	97.6	92.3
June	102.3	116.6	101.1	106.7	113.9	107.6	103.8
1987-88 — Sept.	107.9	124.6	116.0	119.2	117.7	108.2	105.2
Dec.	119.1	107.6	110.7	122.6	124.4	112.5	114.3
Mar.	109.8	100.9	93.7	98.5	115.0	111.7	110.6
June	104.9	106.2	104.7	122.4	113.1	109.7	105.4
1988-89 — Sept.	109.4	109.0	121.1	123.6	124.4	111.3	124.6
Dec.	123.1	115.6	111.5	130.5	135.2	113.5	128.9
Mar.	113.1	91.5	96.8	103.1	112.4	110.2	120.9
June	110.6	125.1	111.5	123.0	128.8	116.4	118.5
1989-90 — Sept.	116.5	119.4	111.8	128.6	136.2	115.5	129.6
Dec.	128.1	112.3	87.2	139.5	140.9	115.1	127.2
Mar.	122.3	103.3	70.6	126.6	126.5	118.2	113.1
June	116.1	130.3	74.5	125.2	128.8	122.8	109.9
1990-91 — Sept.	128.3	104.7	89.5	132.3	136.6	118.5	111.0
Dec.	136.4	108.5	86.9	120.6	132.6	114.4	104.7
Mar.	127.4	91.9	76.5	101.1	120.5	109.4	89.0
June	116.4	131.3	80.5	104.3	122.1	118.2	88.5
1991-92 — Sept.	118.0	120.9	91.2	121.8	129.4	120.3	95.1
Dec.	126.5	119.4	85.5	130.1	124.1	120.1	90.8
Mar.	117.9	117.1	83.8	111.0	109.2	120.4	83.3
June	118.0	155.0	84.4	119.2	111.3	124.1	95.3
1992-93 — Sept.	120.6	122.3	88.1	123.4	118.8	125.4	94.6

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — ORIGINAL—*continued*

Index numbers (Base : 1984-85 = 100.0)

	Basic metal products	*Fabricated metal products*	*Transport equipment*	*Other machinery and equipment*	*Miscellaneous manufacturing*	*Total manufacturing*
1976-77	78.5	100.1	94.2	104.3	86.3	90.3
1977-78	78.4	98.9	88.2	100.7	85.8	89.9
1978-79	83.6	105.1	89.7	104.8	92.8	93.6
1979-80	91.2	111.0	97.6	107.9	94.0	97.6
1980-81	95.5	115.8	92.4	114.7	96.9	99.6
1981-82	95.5	120.1	96.0	119.7	101.1	102.1
1982-83	82.6	102.6	93.2	100.2	92.0	93.7
1983-84	91.6	99.8	91.6	94.9	94.4	95.1
1984-85	100.0	100.0	100.0	100.0	100.0	100.0
1985-86	98.5	109.6	99.0	98.9	91.2	102.4
1986-87	99.7	108.6	93.3	107.9	105.2	103.8
1987-88	101.9	122.6	95.6	114.3	113.0	110.3
1988-89	107.0	134.3	103.9	125.1	118.5	116.9
1989-90	109.6	156.1	98.2	123.7	122.7	120.3
1990-91	102.5	140.3	80.4	115.9	109.3	114.1
1991-92	104.5	130.1	75.4	105.7	106.0	110.6
1976-77 — Sept.	79.7	97.7	95.5	112.1	84.4	91.5
Dec.	81.1	103.4	99.2	111.7	92.4	95.6
Mar.	73.1	93.2	82.2	96.8	77.2	83.7
June	80.2	106.2	99.9	97.0	91.4	90.4
1977-78 — Sept.	79.0	101.9	88.7	104.7	97.9	92.0
Dec.	78.3	101.1	90.4	110.4	84.0	93.8
Mar.	76.9	90.5	80.6	85.1	73.8	82.9
June	79.4	102.2	93.1	102.5	87.4	90.9
1978-79 — Sept.	80.9	105.6	91.1	103.7	96.5	94.0
Dec.	84.7	110.7	89.7	113.2	96.2	97.9
Mar.	82.3	96.6	79.6	95.2	84.8	87.5
June	86.4	107.3	98.4	107.1	93.7	94.8
1979-80 — Sept.	92.1	116.6	104.2	111.7	101.3	100.3
Dec.	89.8	117.7	107.1	114.3	98.8	101.9
Mar.	95.2	102.0	84.0	99.5	85.5	92.0
June	87.7	107.8	95.2	106.2	90.5	96.4
1980-81 — Sept.	92.8	111.5	93.1	116.5	99.4	100.6
Dec.	99.4	122.9	95.7	119.9	105.3	105.3
Mar.	92.6	110.7	81.1	103.8	85.9	93.0
June	97.4	118.0	99.7	118.4	97.1	99.7
1981-82 — Sept.	100.8	124.7	100.4	125.6	104.9	104.9
Dec.	95.7	128.6	99.5	127.0	111.7	107.6
Mar.	90.0	111.5	83.7	109.6	93.3	94.0
June	95.3	115.7	108.5	116.7	94.6	102.0
1982-83 — Sept.	92.2	116.3	112.2	122.7	103.9	103.1
Dec.	76.6	102.8	94.4	101.6	95.4	95.8
Mar.	73.3	88.6	75.9	82.8	81.6	83.0
June	88.4	102.8	90.4	93.6	87.1	93.0
1983-84 — Sept.	95.7	97.4	97.3	98.4	93.5	96.0
Dec.	90.8	101.2	92.8	101.5	100.1	98.4
Mar.	84.6	94.9	80.3	84.9	91.8	89.7
June	95.3	105.9	96.1	94.8	92.2	96.5
1984-85 — Sept.	104.1	103.4	103.4	101.3	108.7	102.3
Dec.	104.9	107.0	98.2	100.5	111.5	101.9
Mar.	90.4	91.0	88.1	95.7	94.6	93.3
June	100.6	98.6	110.2	102.5	85.2	102.4
1985-86 — Sept.	105.1	116.5	107.0	96.9	87.1	105.6
Dec.	103.0	112.9	106.4	107.0	99.4	108.2
Mar.	93.2	98.9	85.0	92.3	76.8	94.6
June	92.8	110.3	97.6	99.5	101.5	101.2
1986-87 — Sept.	101.6	113.7	109.1	113.3	105.8	106.3
Dec.	100.7	115.6	87.9	104.1	107.2	106.8
Mar.	95.2	97.4	81.3	106.1	93.7	96.6
June	101.3	107.9	95.0	108.2	114.0	105.4
1987-88 — Sept.	103.3	121.3	98.6	118.9	118.9	111.6
Dec.	105.7	130.8	97.3	109.0	121.8	114.8
Mar.	95.5	115.1	82.0	111.9	106.8	105.2
June	103.1	123.3	104.5	117.3	104.5	109.7
1988-89 — Sept.	105.2	137.5	102.7	123.9	115.3	116.1
Dec.	108.8	133.7	109.0	127.6	125.6	122.2
Mar.	103.5	125.8	86.7	121.6	107.7	109.3
June	110.6	140.1	117.1	127.4	125.2	119.8
1989-90 — Sept.	116.3	157.1	107.6	129.0	128.8	123.6
Dec.	115.0	158.5	102.2	131.0	132.8	125.6
May	101.3	153.8	89.8	114.7	108.5	114.8
June	106.0	155.1	93.4	120.1	120.8	117.2
1990-91 — Sept.	102.9	152.7	89.7	121.9	113.0	119.8
Dec.	102.8	147.0	85.2	121.2	124.4	119.6
Mar.	101.9	128.0	67.6	107.1	97.7	107.3
June	102.4	133.0	79.0	113.5	102.2	109.7
1991-92 — Sept.	109.3	133.0	77.9	110.0	111.7	113.3
Dec.	102.8	141.1	76.0	114.6	118.5	115.1
Mar.	100.1	126.0	68.1	92.7	96.7	104.4
June	105.6	120.5	79.7	105.4	97.1	109.6
1992-93 — Sept.	101.7	121.9	84.4	119.3	110.0	113.0

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED

Index numbers (Base : 1984-85 = 100.0)

	Food, beverages and tobacco	*Textiles*	*Clothing and footwear*	*Wood, wood products and furniture*	*Paper, etc, printing and publishing*	*Chemicals, petroleum and coal products*	*Non-metallic mineral products*
1976-77 — Sept.	90.7	85.3	91.6	95.8	73.7	79.4	102.7
Dec.	91.3	90.5	92.7	96.6	76.9	83.7	98.7
Mar.	92.1	96.3	85.4	96.2	77.7	85.0	91.9
June	95.5	87.7	78.4	90.5	78.3	86.7	90.8
1977-78 — Sept.	96.0	85.8	88.2	88.9	79.1	85.0	90.8
Dec.	95.0	84.4	81.5	92.2	78.8	85.9	96.1
Mar.	96.2	83.4	86.5	87.5	78.0	87.8	91.9
June	96.2	85.8	91.3	96.8	78.3	89.0	91.9
1978-79 — Sept.	96.5	93.8	86.8	95.4	79.3	94.0	91.9
Dec.	97.9	85.3	89.6	96.8	81.7	90.2	92.4
Mar.	97.7	95.3	93.6	93.8	83.8	90.2	100.1
June	96.5	89.1	97.0	92.0	86.2	91.5	97.5
1979-80 — Sept.	98.8	89.6	90.5	96.8	88.3	89.9	103.9
Dec.	95.0	93.8	97.8	91.5	86.6	99.3	95.9
Mar.	98.5	93.8	97.5	102.4	90.2	94.8	98.0
June	100.2	94.3	92.2	101.2	87.8	91.7	108.8
1980-81 — Sept.	100.3	88.2	96.7	102.8	89.4	92.1	102.9
Dec.	102.3	93.4	97.8	99.6	89.6	91.5	105.3
Mar.	99.4	87.7	96.4	99.4	91.7	96.2	107.4
June	94.2	99.5	94.2	102.8	90.9	94.8	101.5
1981-82 — Sept.	97.3	94.3	99.8	104.8	92.5	96.4	102.7
Dec.	99.9	94.3	96.1	103.2	92.6	98.6	111.8
Mar.	99.3	97.2	92.7	102.6	92.4	93.4	106.2
June	101.6	92.4	94.4	100.8	93.6	98.6	105.5
1982-83 — Sept.	102.0	91.9	91.1	91.8	88.7	95.9	95.4
Dec.	98.1	90.5	83.7	87.1	87.5	93.7	93.8
Mar.	98.3	86.7	86.0	85.9	87.4	90.8	82.1
June	97.0	78.2	97.0	97.6	88.0	95.4	94.5
1983-84 — Sept.	96.2	84.4	92.2	89.1	89.0	96.4	96.6
Dec.	97.5	86.3	95.3	96.6	90.2	99.6	90.8
Mar.	99.7	93.4	100.4	99.0	93.0	105.7	94.0
June	102.2	99.1	99.2	97.0	94.9	88.6	88.4
1984-85 — Sept.	100.9	99.1	96.7	100.0	98.6	100.8	91.7
Dec.	96.8	99.5	98.9	97.0	93.4	96.7	93.1
Mar.	100.6	100.5	97.3	101.2	101.0	101.4	101.8
June	101.8	100.9	107.1	101.8	106.9	101.1	113.5
1985-86 — Sept.	101.5	80.6	113.6	118.5	105.6	99.0	119.3
Dec.	100.5	109.0	110.5	113.7	106.1	98.3	113.2
Mar.	101.9	100.9	112.2	113.3	101.8	100.5	113.2
June	102.3	118.0	113.6	109.1	98.6	95.8	107.1
1986-87 — Sept.	103.0	116.1	97.8	99.8	102.5	100.1	103.2
Dec.	104.5	106.6	106.8	101.8	107.8	105.4	106.0
Mar.	103.6	104.3	109.1	103.4	108.9	98.5	100.1
June	105.3	105.2	103.5	107.6	115.2	107.9	102.9
1987-88 — Sept.	109.0	116.6	105.1	112.9	115.7	108.0	101.5
Dec.	111.2	110.9	107.4	115.3	116.6	111.4	109.5
Mar.	111.2	118.5	104.6	109.9	122.8	113.0	114.2
June	110.4	95.3	108.0	124.1	115.1	109.2	109.2
1988-89 — Sept.	110.6	103.3	109.7	116.9	121.6	111.3	120.5
Dec.	114.8	118.5	107.4	122.9	127.2	112.6	123.0
Mar.	114.3	106.6	108.0	114.7	119.3	111.9	125.1
June	116.5	111.8	115.9	125.0	131.9	115.4	122.8
1989-90 — Sept.	117.8	115.2	100.9	121.7	132.5	115.4	125.4
Dec.	119.5	113.7	83.7	131.0	133.1	114.7	121.2
Mar.	123.3	119.9	78.6	140.8	133.9	120.6	117.4
June	122.5	116.1	77.8	127.4	132.4	120.9	113.7
1990-91 — Sept.	129.7	102.4	80.6	125.2	132.5	118.3	107.4
Dec.	127.4	109.0	83.4	113.1	125.4	114.2	99.4
Mar.	128.4	106.6	85.4	112.1	127.4	111.6	92.4
June	122.8	116.6	84.0	106.4	125.7	116.0	91.7
1991-92 — Sept.	119.3	119.4	82.3	115.1	125.3	120.1	91.9
Dec.	118.2	119.4	82.0	122.3	117.5	120.1	86.3
Mar.	118.8	135.5	93.6	122.9	115.3	122.9	86.5
June	124.5	137.4	87.9	122.3	114.7	121.7	98.7
1992-93 — Sept.	122.0	121.3	79.5	116.5	114.9	125.3	91.5

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED—*continued*

Index numbers (Base : 1984-85 = 100.0)

	Basic metal products	*Fabricated metal products*	*Transport equipment*	*Other machinery and equipment*	*Miscellaneous manufacturing*	*Total manufacturing*
1976-77 — Sept.	78.9	95.5	92.3	108.2	78.9	89.3
Dec.	79.1	98.3	95.2	103.7	88.9	90.7
Mar.	76.0	101.2	93.4	105.9	87.2	90.2
June	80.3	105.8	95.7	99.0	91.8	90.9
1977-78 — Sept.	78.0	99.5	85.6	100.8	91.6	89.7
Dec.	76.3	96.0	86.7	102.7	80.8	89.0
Mar.	80.1	98.3	91.7	93.7	83.1	89.2
June	79.6	101.9	89.2	104.4	88.0	91.5
1978-79 — Sept.	79.7	103.3	87.7	99.7	90.6	91.6
Dec.	82.8	105.1	86.0	105.5	92.3	92.9
Mar.	85.9	104.7	91.1	105.1	95.0	94.6
June	86.6	107.3	94.2	108.7	95.0	95.4
1979-80 — Sept.	90.1	113.8	99.8	107.1	95.4	97.6
Dec.	88.1	112.0	102.8	107.0	94.2	96.9
Mar.	99.8	110.4	96.7	110.1	95.0	99.3
June	87.8	107.9	91.2	107.2	92.5	96.9
1980-81 — Sept.	89.9	108.6	88.4	111.4	94.2	97.5
Dec.	98.0	117.1	92.2	113.0	100.1	100.4
Mar.	97.8	119.8	93.9	115.0	94.6	100.5
June	97.3	118.0	95.5	119.0	100.1	100.1
1981-82 — Sept.	97.0	121.5	94.5	119.6	99.7	101.4
Dec.	94.6	122.9	96.3	120.7	105.6	102.8
Mar.	95.9	120.7	97.3	121.3	101.8	101.8
June	94.8	115.4	103.9	116.6	98.2	102.1
1982-83 — Sept.	88.2	113.2	104.9	116.7	99.0	99.6
Dec.	75.9	98.3	91.9	97.2	90.1	91.7
Mar.	78.7	96.1	88.2	91.4	88.4	89.7
June	87.7	102.3	86.7	93.4	90.8	93.0
1983-84 — Sept.	91.2	94.7	90.7	93.4	89.3	92.7
Dec.	89.9	96.7	90.7	98.0	94.4	94.5
Mar.	91.1	103.3	92.9	92.9	99.3	96.9
June	94.5	105.3	92.3	94.7	95.7	96.4
1984-85 — Sept.	99.4	100.5	96.5	96.0	104.3	99.0
Dec.	103.5	102.0	96.0	98.0	105.4	98.0
Mar.	97.1	99.4	101.6	103.2	102.2	100.7
June	99.9	98.1	105.9	102.8	88.0	102.3
1985-86 — Sept.	100.8	113.1	100.3	91.6	84.0	102.2
Dec.	101.1	107.3	103.6	105.6	94.0	104.0
Mar.	99.8	108.1	97.8	98.0	83.4	101.8
June	92.4	110.3	93.4	100.2	103.9	101.4
1986-87 — Sept.	98.1	110.1	103.1	107.3	102.4	103.1
Dec.	98.4	109.8	85.2	103.1	101.0	102.5
Mar.	101.6	106.2	93.4	111.6	102.4	103.6
June	101.0	108.2	90.7	109.3	115.8	105.8
1987-88 — Sept.	100.4	117.1	94.0	113.1	115.8	108.5
Dec.	103.1	124.7	94.2	108.1	114.3	110.1
Mar.	101.5	125.0	93.8	116.9	117.7	111.8
June	103.0	124.0	99.6	118.5	105.4	110.8
1988-89 — Sept.	102.6	132.7	98.4	118.7	112.8	113.0
Dec.	105.9	128.1	105.4	125.7	117.3	117.0
Mar.	109.6	135.9	98.9	127.0	119.2	115.9
June	110.4	140.7	111.5	128.5	126.2	121.2
1989-90 — Sept.	113.7	151.6	103.4	124.6	126.4	120.8
Dec.	111.9	152.4	98.9	128.3	123.4	120.4
Mar.	107.1	165.5	102.1	120.0	120.3	121.8
June	105.8	155.7	88.9	120.7	122.0	118.4
1990-91 — Sept.	100.6	147.4	86.3	118.5	110.7	116.8
Dec.	100.1	141.7	82.6	117.9	115.4	113.7
Mar.	107.8	137.5	76.5	112.4	108.6	112.5
June	102.3	133.4	75.2	113.9	103.1	110.2
1991-92 — Sept.	106.9	128.6	74.9	107.3	109.7	110.0
Dec.	100.1	136.1	73.9	111.2	109.7	109.3
Mar.	105.8	135.1	76.9	97.6	107.5	109.5
June	105.6	120.8	76.0	105.6	98.0	110.1
1992-93 — Sept.	99.4	118.0	81.3	116.6	108.0	109.8

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — TREND ESTIMATES

Index numbers (Base : 1984-85 = 100.0)

	Food, beverages and tobacco	*Textiles*	*Clothing and footwear*	*Wood, wood products and furniture*	*Paper, etc, printing and publishing*	*Chemicals, petroleum and coal products*	*Non-metallic mineral products*
1976-77 — Sept.	90.2	88.4	93.4	96.2	74.8	81.3	102.2
Dec.	91.3	88.8	89.2	95.4	76.5	83.9	97.7
Mar.	92.9	88.8	85.3	93.4	77.9	86.0	93.3
June	94.6	88.4	82.7	91.3	78.9	86.7	91.2
1977-78 — Sept.	95.5	86.4	82.2	88.9	79.1	86.7	91.9
Dec.	95.8	85.0	84.4	88.9	79.0	87.0	93.3
Mar.	95.8	86.0	86.4	90.7	78.5	88.6	93.0
June	96.2	87.9	87.5	93.2	78.7	91.2	91.6
1978-79 — Sept.	96.9	90.3	88.6	95.2	79.8	92.5	91.9
Dec.	97.2	92.2	90.3	95.0	81.8	92.5	94.2
Mar.	97.6	91.7	92.3	93.6	84.3	91.3	97.5
June	97.4	91.7	93.7	92.7	86.4	91.6	100.1
1979-80 — Sept.	96.9	92.7	94.5	92.9	87.8	94.3	99.4
Dec.	97.0	93.6	95.1	95.2	88.6	96.2	98.9
Mar.	97.9	95.1	95.1	98.4	88.9	96.2	100.8
June	99.6	94.1	95.1	100.9	89.1	94.0	103.3
1980-81 — Sept.	101.3	92.2	95.4	100.9	89.6	92.7	105.7
Dec.	100.8	91.7	95.9	99.4	90.3	93.9	105.7
Mar.	98.5	93.6	96.2	99.8	91.3	95.3	104.0
June	96.8	96.0	96.2	101.3	91.9	97.0	104.0
1981-82 — Sept.	96.8	97.0	96.5	102.9	92.5	97.6	105.2
Dec.	98.5	97.0	95.9	103.3	93.0	97.6	107.8
Mar.	100.5	96.0	94.5	101.7	93.2	97.7	107.8
June	101.2	95.1	92.0	97.8	92.1	97.6	103.8
1982-83 — Sept.	101.0	93.6	88.6	91.7	90.1	96.5	96.8
Dec.	99.8	90.3	86.4	87.7	88.1	94.7	90.7
Mar.	98.0	86.4	87.8	87.9	87.6	93.7	88.8
June	96.8	83.1	91.2	90.5	88.2	94.9	91.2
1983-84 — Sept.	96.6	83.6	94.2	93.1	89.3	98.9	93.7
Dec.	97.7	88.4	96.2	94.8	90.8	101.2	94.0
Mar.	99.9	94.6	97.6	96.6	93.4	100.3	91.4
June	100.9	98.9	98.7	97.8	95.4	98.2	90.2
1984-85 — Sept.	100.1	100.8	97.3	97.6	96.2	97.4	90.7
Dec.	99.2	102.8	96.8	97.2	97.7	99.5	94.4
Mar.	99.7	99.9	100.1	99.8	101.1	101.8	103.1
June	101.0	96.5	105.8	105.5	105.1	101.3	111.7
1985-86 — Sept.	101.4	95.1	110.0	111.8	107.2	101.0	116.7
Dec.	101.1	99.9	112.8	114.5	105.2	100.0	116.0
Mar.	101.4	109.0	111.4	112.2	102.1	99.1	111.5
June	102.3	115.7	107.7	106.3	101.1	99.8	107.8
1986-87 — Sept.	103.2	114.8	104.9	101.9	102.7	101.0	105.0
Dec.	103.6	110.4	104.3	100.5	106.7	102.6	103.1
Mar.	104.3	107.1	105.2	102.5	111.0	104.4	101.9
June	106.0	108.5	105.8	107.4	113.9	106.5	101.5
1987-88 — Sept.	108.5	114.3	104.6	110.4	116.7	109.9	104.3
Dec.	110.6	115.7	104.9	112.8	118.6	112.5	108.0
Mar.	110.9	110.4	106.0	114.7	118.9	112.6	111.0
June	110.8	106.1	107.2	117.5	120.2	112.3	114.3
1988-89 — Sept.	111.6	107.1	107.4	118.9	121.4	112.2	118.3
Dec.	113.3	110.4	108.8	118.7	123.1	112.9	122.5
Mar.	115.0	113.8	110.8	118.1	126.1	114.6	124.6
June	116.2	113.3	108.8	119.9	129.1	115.3	124.6
1989-90 — Sept.	117.9	114.8	99.9	124.6	132.6	116.4	123.7
Dec.	119.8	118.6	87.2	130.7	134.3	118.3	121.6
Mar.	122.1	118.1	78.5	133.5	134.1	120.4	118.1
June	124.8	114.8	77.4	130.3	133.3	121.4	112.9
1990-91 — Sept.	127.4	109.5	79.9	122.2	131.0	119.2	106.6
Dec.	128.4	107.6	82.7	114.1	128.5	115.6	99.4
Mar.	126.9	110.9	84.2	109.2	127.3	114.7	94.2
June	123.2	115.2	83.0	109.0	126.3	116.8	91.4
1991-92 — Sept.	119.7	120.0	82.7	113.8	123.7	120.1	89.1
Dec.	118.5	127.3	85.6	119.3	119.4	122.3	88.4
Mar.	120.0	132.5	87.5	121.4	116.4	123.2	90.0
June	121.9	134.0	86.7	120.1	115.0	124.4	92.6
1992-93 — Sept.	123.5	131.1	83.3	117.5	114.8	125.9	95.1

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, BY SUBDIVISION — TREND ESTIMATES—*continued*

Index numbers (Base : 1984-85 = 100.0)

	Basic metal products	*Fabricated metal products*	*Transport equipment*	*Other machinery and equipment*	*Miscellaneous manufacturing*	*Total manufacturing*
1976-77 — Sept.	78.7	94.0	93.7	108.2	82.1	89.2
Dec.	78.4	97.4	95.0	106.4	86.1	90.5
Mar.	78.4	100.3	94.8	104.0	89.8	90.8
June	78.3	101.2	92.4	102.7	91.3	90.6
1977-78 — Sept.	78.1	98.9	89.5	101.2	88.5	89.8
Dec.	78.3	96.5	88.6	100.2	85.3	89.5
Mar.	78.6	96.8	89.5	100.1	84.2	89.8
June	79.6	99.7	89.9	100.9	87.0	90.9
1978-79 — Sept.	80.9	102.0	88.2	102.9	90.8	92.1
Dec.	82.7	102.8	88.0	105.3	93.4	93.2
Mar.	85.5	104.3	90.8	106.9	94.9	94.5
June	87.1	107.2	95.8	108.2	95.7	95.9
1979-80 — Sept.	89.5	110.0	100.3	108.6	95.7	97.1
Dec.	92.2	110.6	101.1	108.9	95.1	98.0
Mar.	92.8	108.4	97.5	109.1	94.2	98.0
June	92.0	107.1	92.6	110.1	94.5	97.9
1980-81 — Sept.	92.6	109.4	90.4	111.5	95.7	98.5
Dec.	95.0	113.5	91.8	113.8	97.2	99.5
Mar.	98.1	116.7	94.2	116.8	98.1	100.5
June	97.9	118.6	95.5	119.0	99.4	101.0
1981-82 — Sept.	96.6	119.6	95.7	121.2	101.9	101.6
Dec.	96.2	120.1	96.7	121.8	103.6	102.4
Mar.	96.0	119.2	100.3	121.9	103.0	102.9
June	93.0	114.9	103.2	119.4	100.4	101.6
1982-83 — Sept.	86.2	107.5	101.6	111.8	96.4	97.9
Dec.	80.1	100.8	95.3	101.9	92.5	93.6
Mar.	80.3	96.9	89.4	94.2	89.8	91.2
June	85.5	95.7	87.9	92.8	89.3	91.5
1983-84 — Sept.	89.9	96.0	89.9	95.1	91.9	93.4
Dec.	91.0	97.4	91.6	96.0	94.5	94.9
Mar.	91.9	100.0	92.9	95.6	97.2	96.3
June	95.4	102.1	93.9	95.3	100.2	97.4
1984-85 — Sept.	99.2	101.4	95.5	96.7	103.8	98.1
Dec.	100.7	98.6	98.7	100.6	104.7	99.2
Mar.	100.2	98.5	101.9	101.6	99.4	100.6
June	99.9	101.5	103.9	101.1	92.1	102.1
1985-86 — Sept.	100.8	105.2	104.1	100.0	87.2	103.1
Dec.	100.6	107.7	101.2	99.7	87.6	103.0
Mar.	98.2	107.8	99.6	101.3	92.8	102.5
June	96.3	108.0	97.9	102.8	98.5	102.2
1986-87 — Sept.	96.6	108.4	95.4	104.6	161.5	102.3
Dec.	99.0	106.9	93.0	107.7	103.6	103.0
Mar.	100.8	106.0	91.3	110.1	106.4	104.1
June	101.3	108.7	92.0	111.2	112.2	106.0
1987-88 — Sept.	101.6	115.0	93.8	111.9	116.8	108.5
Dec.	101.9	120.6	94.5	113.0	116.6	110.3
Mar.	102.3	123.6	96.0	115.6	113.4	111.1
June	102.5	125.0	98.6	118.8	111.5	112.1
1988-89 — Sept.	103.7	126.7	100.6	122.3	112.4	113.5
Dec.	106.1	129.3	102.8	125.4	116.8	115.7
Mar.	109.0	133.6	105.4	128.0	122.0	118.1
June	111.8	139.6	106.3	128.9	125.4	119.9
1989-90 — Sept.	112.6	147.7	105.5	128.0	126.2	121.2
Dec.	111.5	154.6	102.6	126.0	125.2	121.6
Mar.	108.5	157.5	97.6	123.6	122.2	120.8
June	104.2	154.3	92.6	121.4	119.0	119.2
1990-91 — Sept.	102.2	147.1	86.7	119.4	116.2	116.8
Dec.	102.3	139.9	81.6	117.9	112.4	114.3
Mar.	104.1	134.7	78.3	115.1	109.0	112.3
June	105.1	131.1	75.6	113.3	107.7	110.8
1991-92 — Sept.	104.1	131.0	74.8	110.5	108.5	109.9
Dec.	103.9	131.7	75.2	106.4	108.7	109.6
Mar.	104.3	129.1	76.3	104.9	106.4	109.8
June	103.7	123.2	78.2	107.6	104.3	110.0
1992-93 — Sept.	102.6	115.8	80.1	112.1	103.8	110.2

EXPLANATORY NOTES

Introduction

This publication presents in index number form, quarterly estimates of gross product at constant prices (average 1984-85 prices) for the non-farm, goods producing sector which, for brevity, is termed the 'industrial sector' (see paragraph 3). Also presented are indexes for component industries, including individual manufacturing subdivisions.

Changes in this issue

2. Historical data contained in this issue have been substantially revised from those published previously. Data for manufacturers' sales adjusted for changes in stocks, which are the basis of the indexes for the manufacturing sector, have been revised as a result of sample revision (see paragraph 16).

Scope of the estimates

3. The scope of the industrial sector referred to in this publication is defined to include all *establishments* classified to the Australian Standard Industrial Classification (ASIC) Division B (Mining), excluding ASIC subdivision 16 (Services to mining n.e.c.); Division C (Manufacturing); and Division D (Electricity, gas and water). The base year weights used in constructing the indexes in this publication have been derived from establishment data. However, the quarterly indicator series used for manufacturing are based on data relating to *business units* which may cover more than one establishments.

The table below sets out the base year weights associated with the major components of the industrial sector, and each manufacturing subdivision.

	1984-85 Weight %	
Mining (excluding services to mining)		24.0
Manufacturing		63.3
Food, beverages and tobacco	12.8	
Textiles	1.5	
Clothing and footwear	2.6	
Wood, wood products and furniture	3.7	
Paper, etc, printing and publishing	6.8	
Chemicals, petroleum and coal products	4.9	
Non-metallic mineral products	3.1	
Basic metal products	6.7	
Fabricated metal products	4.7	
Transport equipment	6.3	
Other machinery and equipment	6.8	
Miscellaneous manufacturing	3.5	
Electricity, gas and water		12.7
Total Industrial sector		**100.0**

4. The use of Manufacturers' sales and stocks data means that the manufacturing indexes have three important limitations as measures of manufacturing production:

(a) changes in quarterly production by manufacturing establishments of non-manufacturing businesses are not reflected in the indexes;

(b) changes in a part of the quarterly production of non-manufacturing establishments of manufacturing businesses are reflected in the indexes; and

(c) changes in quarterly production by government bodies such as shipyards and railway workshops are not reflected in the indexes.

5. The scope of the data used in the manufacturing indicator series also differs slightly from the general definition of manufacturing gross product. The stocks estimates used include finished goods bought in, but not manufactured, by a business. As far as can be assessed this has not had a significant influence on the estimates.

Derivation of the estimates of gross product

6. The estimates are derived using the *gross output* method whereby base year (1984-85) estimates of gross product are extrapolated by constant price estimates of gross output. All the quarterly indexes contained in this publication have been *benchmarked*, where possible, to annual estimates (see paragraph 7 below). For further details on the derivation of constant price gross product for individual industries refer to Chapter 18 in *Australian National Accounts : Concepts, Sources and Methods* (5216.0).

Benchmarking

7. Deriving quarterly estimates presents special problems in that it is often difficult to adhere strictly to the definitions and concepts used in annual estimates. Frequently, it is not possible to use the same data sources as used for annual estimates, and alternative quarterly data sources are generally much less detailed. For example, annual estimates of gross product for the Mining industry (as published in *Australian National Accounts : Gross Product, Employment and Hours Worked* (5211.0)) are compiled (using the double deflation method) from detailed output and input data from the annual census of mining establishments. On the other hand, the quarterly series draw on the quantities of minerals mined (gross output), reported in surveys of mining establishments. In such cases, where the quarterly estimates are inferior to the annual, the quarterly estimates are adjusted to agree with the annual estimates in such a way that preserves, as far as practical, the movements of the quarterly series. This is commonly referred to as *benchmarking*.

Data sources for quarterly output series

(i) Mining (excluding services to mining)

8. Quarterly constant price output estimates are derived for major ASIC classes by quantity revaluation (i.e. quantities produced each quarter multiplied by associated base year (1984-85) average prices). Estimates of quantities produced are obtained from data contained in *Quarterly Mineral Statistics* (Australian Bureau of Agriculture and Resource Economics) and *Mineral Production, Australia* (8405.0). Constant price estimates of value added are derived by the gross output method (see paragraph 6) for each ASIC class. Total quarterly estimates of value added are then benchmarked (see paragraph 7) to annual gross product estimates obtained from the mining census.

(ii) Manufacturing

9. Quarterly constant price estimates of gross output for 22 manufacturing industry groups (excluding petroleum) are derived by summing constant price estimates of manufacturers' sales of manufactured goods, other operating revenue (where significant) and changes in the level of stocks of finished goods and work-in-progress.

10. Constant price estimates of all components of manufacturing output are derived by price deflation, i.e. current price components (obtained from the quarterly Survey of Stocks and Manufacturers' Sales) are derived by fixed weighted producer price indexes (published in *Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)*).

11. Quarterly petroleum production estimates are based on quarterly data published in *Major Energy Statistics* (released by the Department of Primary Industries and Energy).

12. Quarterly constant price estimates of output are used to derive constant price estimates of gross product at factor cost by the gross output method. The latter estimates are aggregated to 12 manufacturing ASIC subdivisions and then benchmarked to corresponding annual estimates of gross product at market prices (based on manufacturing census data).

(iii) Electricity

13. Quarterly quantities of electricity produced, as published in *Production of Energy Products, Australia* (8368.0), are benchmarked to annual gross product estimates based on the quantity of electricity sold (published by the Electricity Supply Association of Australia in *The Electricity Industry of Australia*).

(iv) Gas

14. Quarterly quantities of gas available through mains, are published in *Production of Energy Products, Australia* (8368.0), are benchmarked to gross product estimates derived from ABS economic census data relating to the performance of the gas production and distribution industry.

(v) Water and sewerage

15. Quarterly constant price output estimates are derived by quantity revaluation, i.e. quantities of water sold (to final consumers and for irrigation) and sewerage connections, are multiplied by average 1984-85 prices for each type of service. The quantity data are supplied by a selection of state and local government authorities. Quarterly output estimates are then benchmarked to annual constant price gross product estimates.

Sample revision

16. Each year the sample used for the survey of stocks and manufacturers' sales is revised. Differences between the old and revised samples have in general been apportioned back over the preceeding quarters of each year, and incorporated in the estimates included in this publication. For more information on the sample revision, refer to *Stocks and Manufacturers' Sales, Australia* (5629.0).

Reliability of estimates

17. Because the measures used in the derivation of the manufacturing indexes are based on a sample survey, the indexes themselves are subject to sampling variability. In terms of original estimates the standard errors in percentage terms approximate the errors reported in *Stocks and Manufacturers' Sales, Australia* (5629.0). However, for constant price estimates the standard errors may be up to 10 per cent higher than those for the corresponding current price estimates because of the sampling variability contained in the prices data used to deflate the current price estimates. Seasonally adjusting the estimates has an insignificant effect on standard errors.

18. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and errors made in collecting and processing data. Inaccuracies of this kind are known as non-sampling errors and may occur in any collection, whether it be a sample or a full count. In addition to the non-sampling errors which may occur in current prices estimates, there may be non-sampling errors introduced by the process of compiling constant price estimates. These further errors may arise from the introduction of additional data and from the assumptions and approximations which are necessary in compiling constant price estimates. Every effort is made to minimise non-sampling errors by careful design of forms, editing of data and efficient operating procedures.

Seasonal adjustment

19. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognized. Seasonal adjustment procedures do *not* aim to remove the irregular or non-seasonal influences which may be present in any particular quarter, such as the effect of a major industrial dispute or major plant breakdowns. Irregular factors of this nature can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

20. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important to note the methods by which they have been derived and the limitations to which the methods used are subject. Details of the various seasonal adjustment methods used are available on request.

Trend estimates

21. The seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. There are a number of ways of accomplishing this, depending on the intended uses of the smoothed series. If importance is attached to measuring the underlying change in the most recent periods, moving averages employing appropriate weighting patterns should be adopted; the choice of averaging technique will determine the degree of smoothness of the derived series. For example, a 9-term moving average will even out more of

the short term fluctuation in a series (and therefore appear 'smoother') than will a 5-term moving average. However, the longer the term of the moving average the longer the series affected by revisions resulting from more recent data becoming available. Such smoothed seasonally adjusted estimates are referred to as 'trend estimates' in this publication.

22. Trend estimates included in this issue are derived using a 7-term Henderson moving average. (The weights of the 7-term average are available upon request.) As a moving average approaches the end of a time series and begins to run out of observations, asymmetric averages have been used. Unlike the asymmetric weights of the standard 7-term Henderson moving averages, the weights employed here have been tailored to suit the particular characteristics of individual manufacturing subdivisions.)

23. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend'* (1316.0) and *Time Series Decomposition — An Overview* (1317.0) for more detailed information on smoothing seasonally adjusted time series data.

Related publications

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

Australian National Accounts : Gross Product, Employment and Hours Worked, 1988-89 (5211.0) — issued annually

Australian National Accounts : Gross Product, Employment and Hours Worked (5222.0) — issued quarterly

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

Constant Price Estimates of Manufacturing Production, Australia, 1988-89 (8211.0) — issued annually

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0) — issued monthly

Production Bulletins (8357.0 to 8363.0, 8367.0 to 8369.0) — issued monthly

Production Statistics, Australia, Preliminary (8301.0) — issued monthly

Stocks and Manufacturers' Sales, Australia (5629.0) — issued quarterly

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Symbols and other usages

—	nil or rounded to zero
ASIC	Australian Standard Industrial Classification, 1983 edition

RICHARD MADDEN
Acting Australian Statistician

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