

CATALOGUE 8125.0

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**QUARTERLY INDEXES OF INDUSTRIAL PRODUCTION, AUSTRALIA
SEPTEMBER QUARTER 1995**

MAIN FEATURES

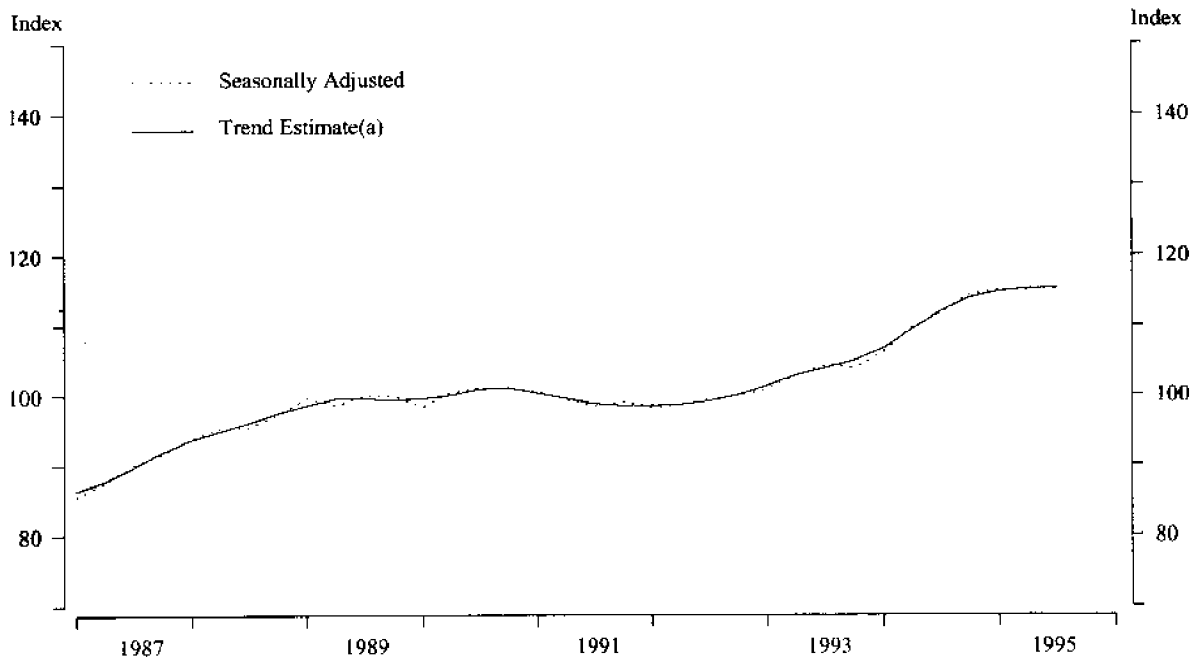
NOTE: *This issue shows minor revisions to previously published data. For further information see paragraph 2 of the Explanatory Notes.* NEXT ISSUE: 12 MARCH 1996

Growth of 0.5 per cent in the trend estimate for September quarter 1995 continues the pattern of steady growth in the index of industrial production. September quarter 1995 was the third consecutive quarter showing similar growth rates. These three quarters followed ten quarters of strong growth. The sequence of trend estimate increases in industrial production now extends to sixteen consecutive quarters and September quarter 1995 represents a record high level for the trend series. September quarter 1995 industrial production is 2.7 per cent higher than September quarter 1994.

In the September quarter 1995, the manufacturing production trend estimate grew by 0.8 per cent, but this was partly offset by falls in the trend estimates for the mining industry (down 0.1%) and for the electricity, gas and water utilities industry (down 0.2%).

In seasonally adjusted terms falls of 0.1 per cent in mining industry production and 0.8 per cent in electricity, gas and water utilities industry production were countered by a rise of 1.1 per cent for manufacturing, to give an overall 0.7 per cent growth for the industrial production index in September quarter 1995.

**INDEX OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES
(BASE: 1989-90 = 100.0)**



(a) See paragraphs 22 to 24 of the Explanatory Notes. Trend estimates for the most recent periods are provisional and could change when data for further quarters are available.

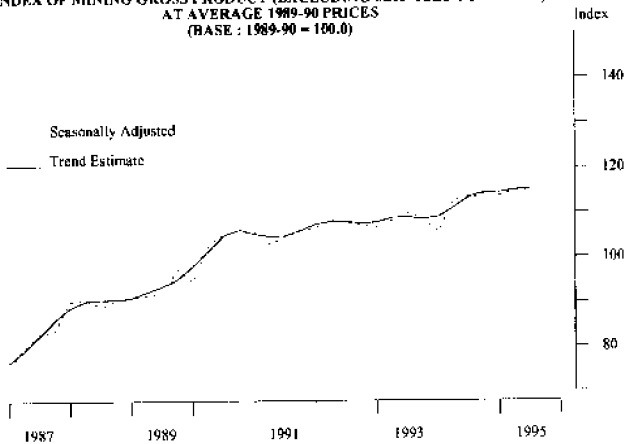
INQUIRIES

- For information about statistics in this publication and the availability of related unpublished statistics, contact Mr Harvey Bissett on Canberra (06) 252 5639 or any ABS State Office.
- For information about other ABS statistics and services please contact Information Services on Canberra (06) 252 6627, 252 5402, 252 6007 or any ABS State Office.

SUMMARY OF FINDINGS

*Components of the industrial production index**(i) Mining*

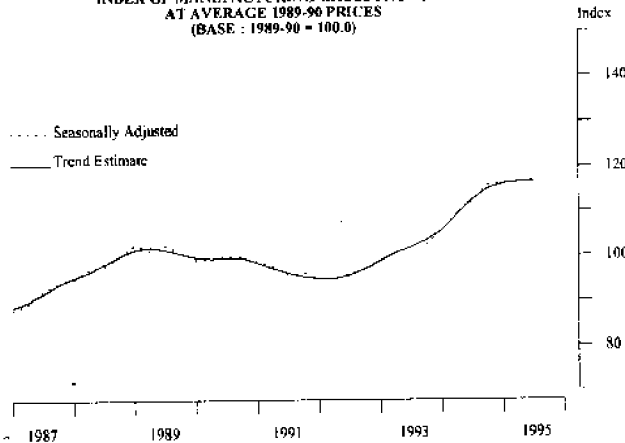
INDEX OF MINING GROSS PRODUCT (EXCLUDING SERVICES TO MINING)
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



The fall of 0.1 per cent in the September quarter 1995 trend estimate for the index of mining industry production followed seven successive quarters of growth. The trend estimate for September Quarter 1995 is 0.8 per cent higher than for September Quarter 1994 and 6.0 per cent higher than for September Quarter 1993.

(ii) Manufacturing

INDEX OF MANUFACTURING GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



The trend estimate for the index of manufacturing production has grown for fourteen successive quarters. Growth (up 0.8%) in the September quarter 1995 made it the fourth consecutive quarter of steady growth which followed ten quarters of strong growth. September quarter 1995 growth took the estimate to a record high level, 3.7 per cent above the estimate for the September quarter 1994 and over 15 per cent above the estimate for September quarter 1993.

Seven of the nine manufacturing subdivisions showed trend growth in September quarter 1995 with five of these achieving record high level trend estimates. Largest rises in the trend estimates were for Printing, publishing and recorded media (up 2.2%) and Textiles, clothing, footwear and leather manufacturing (up 1.4%). The largest fall was for Wood and paper products manufacturing (down 1.6%),

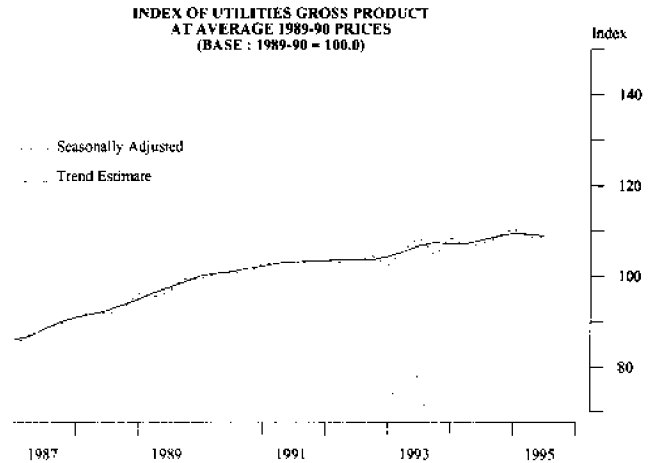
while Non-metallic mineral products manufacturing fell by 0.9 per cent. Food, beverages and tobacco manufacturing was the only industry to record a fall (down 0.6%) from September quarter 1994.

Recent movements in the estimates of trend for each manufacturing subdivision are summarized below —

- *Food, beverages and tobacco manufacturing.* September quarter 1995 saw a rise of 0.9 per cent in the trend series for this industry, following two successive falls from the record high level reached in December quarter 1994. Production in September quarter 1995 is 0.6 per cent lower than in September quarter 1994.
- *Textiles, clothing, footwear and leather manufacturing.* September quarter 1995 saw a rise of 1.4 per cent in the trend series for this industry, the fourth successive rise from the record low level in September quarter 1994. This industry shows the largest growth from September Quarter 1994 (up 10.6%).
- *Wood and paper products manufacturing.* A 1.6 per cent fall in the September quarter 1995 in the trend series for this industry is the second successive fall. These falls followed six quarters of growth. Despite the falls, production in September quarter 1995 is 0.9 per cent higher than in September quarter 1994.
- *Printing, publishing and recorded media.* September quarter 1995 growth of 2.2 per cent in the trend series was the largest growth for the manufacturing industries. This growth has brought the series to a record high level 3.9 per cent higher than September quarter 1994.
- *Petroleum, coal, chemical and associated product manufacturing.* September quarter 1995 saw a rise of 0.8 per cent in the trend series extending the sequence of growth to twelve successive quarters and bringing production to a record high level 6.3 per cent higher than September quarter 1994.
- *Non-metallic mineral products manufacturing.* A 0.9 per cent fall in the September quarter 1995 in the trend series for this industry is the second successive fall from the record level of March quarter 1995. These falls followed fourteen quarters of growth. Production in September quarter 1995 is 3.1 per cent higher than in September quarter 1994.
- *Metal products manufacturing.* September quarter 1995 saw a 0.9 per cent rise in the trend series for this industry to reach a record high level. Production in September quarter 1995 is 1.3 per cent higher than in September quarter 1994.

- *Machinery and equipment manufacturing.* September quarter 1995 growth of 0.9 per cent in the trend series for this industry has brought the series to a record high level. Production in September quarter 1995 is 7.0 per cent higher than in September quarter 1994.
- *Other manufacturing.* September quarter 1995 growth of 0.6 per cent in the trend series for this industry is the ninth successive rise. This has brought the series to a record high level at 6.7 per cent higher than in September quarter 1994.

(iii) *Electricity, gas and water utilities*



September quarter 1995 saw a fall of 0.2 per cent in the trend series for electricity, gas and water utility industries, the second successive fall from the record high level reached in December quarter 1994.

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

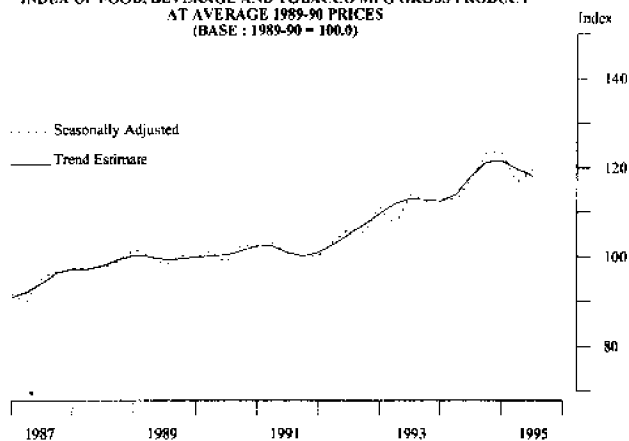
TABLE 1. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES — SEASONALLY ADJUSTED AND TREND ESTIMATES
Index numbers (Base : 1989-90 = 100.0)

	Quarters ended													
	1991-92			1992-93			1993-94			1994-95			1995-96	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
	<i>Seasonally adjusted</i>													
Mining (excluding services to mining)	107.5	106.9	106.5	107.8	109.1	108.6	105.1	111.6	112.0	113.4	113.0	115.2	114.1	114.0
Manufacturing	96.3	97.1	99.3	101.0	102.0	102.6	106.0	109.6	112.3	115.7	116.7	116.8	118.5	119.8
Electricity, gas and water	103.4	104.4	102.3	105.6	108.7	105.2	108.9	107.3	107.8	109.4	111.2	109.2	110.7	109.8
Total industrial production	99.4	99.9	101.1	102.9	104.3	104.1	106.3	109.7	111.6	114.4	115.2	115.4	116.5	117.3
	<i>Trend estimates</i>													
Mining (excluding services to mining)	107.7	107.3	107.4	108.3	108.5	108.1	108.4	110.2	112.3	113.7	114.1	114.6	114.7	114.6
Manufacturing	95.9	97.4	99.4	100.9	102.0	103.5	106.1	109.4	112.6	114.9	116.4	117.2	118.2	119.2
Electricity, gas and water	103.6	103.4	104.3	105.5	107.0	107.7	107.7	107.8	108.7	109.5	110.4	110.5	110.3	110.1
Total industrial production	99.1	100.1	101.5	102.9	103.9	105.0	106.7	109.3	112.0	113.9	115.1	115.8	116.4	117.0

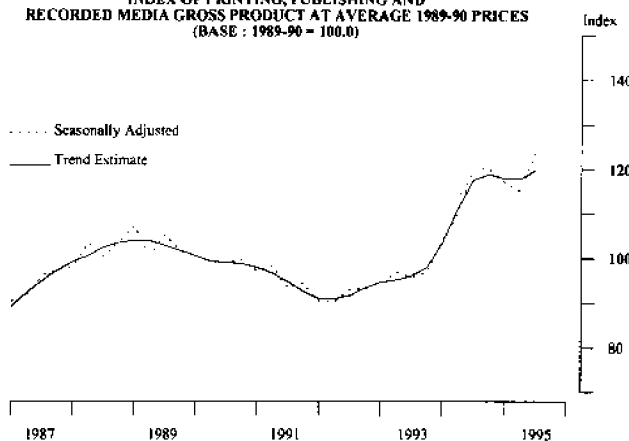
TABLE 2. PERCENTAGE CHANGES IN INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES — SEASONALLY ADJUSTED AND TREND ESTIMATES

	Change from preceding quarter													
	1992-93			1993-94			1994-95			1995-96			1994 to 1995	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Sept.
	<i>Seasonally adjusted</i>													
Mining (excluding services to mining)	-0.6	-0.4	1.2	1.2	0.5	3.2	6.2	0.4	1.2	0.4	1.9	1.0	-0.1	0.5
Manufacturing	0.8	2.3	1.7	1.0	0.6	3.3	3.4	2.5	3.0	0.9	0.1	1.5	1.1	3.5
Electricity, gas and water	1.0	2.0	3.2	2.9	-3.2	3.5	-1.5	0.5	1.5	1.6	1.8	1.4	-0.8	0.4
Total industrial production	0.5	1.2	1.8	1.4	-0.2	2.1	3.2	1.7	2.5	0.7	0.2	1.0	0.7	2.5
	<i>Trend estimates</i>													
Mining (excluding services to mining)	-0.4	0.1	0.8	0.2	-0.4	0.3	1.7	1.9	1.2	0.4	0.4	0.1	0.1	0.8
Manufacturing	1.6	2.1	1.5	1.1	1.5	2.5	3.1	2.9	2.0	1.3	0.7	0.9	0.8	3.7
Electricity, gas and water	-0.2	0.9	1.2	1.4	0.7	—	0.1	0.8	0.7	0.8	0.1	-0.2	-0.2	0.5
Total industrial production	1.0	1.4	1.4	1.0	1.1	1.6	2.4	2.5	1.7	1.1	0.6	0.5	0.5	2.7

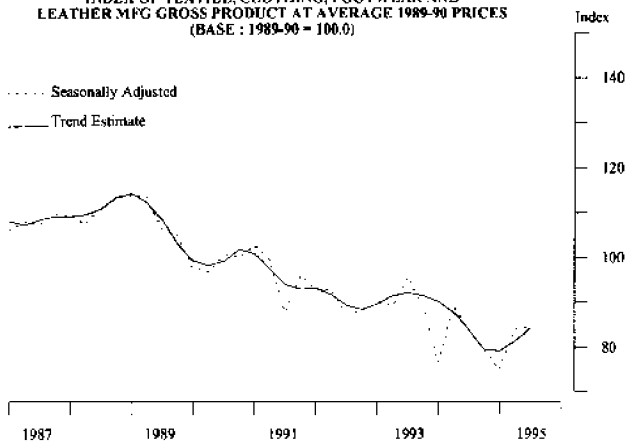
INDEX OF FOOD, BEVERAGE AND TOBACCO MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



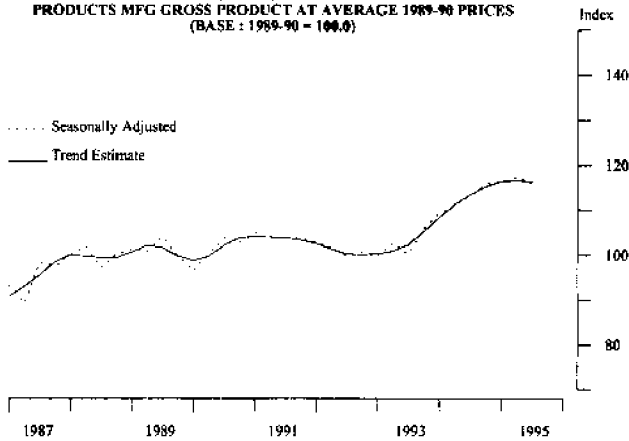
INDEX OF PRINTING, PUBLISHING AND RECORDED MEDIA GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



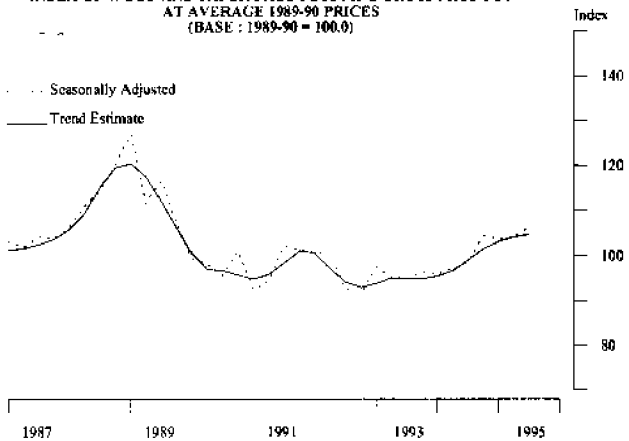
INDEX OF TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



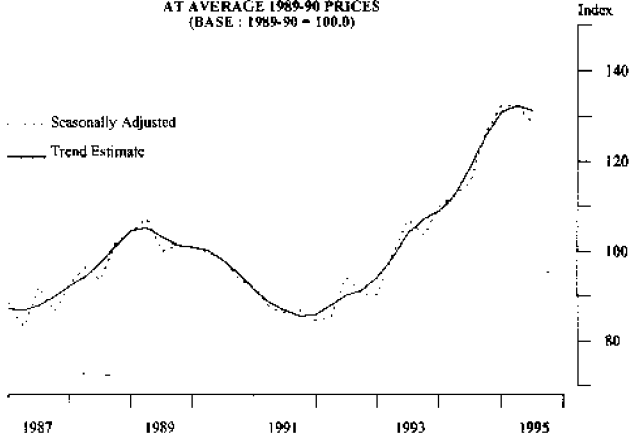
INDEX OF PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



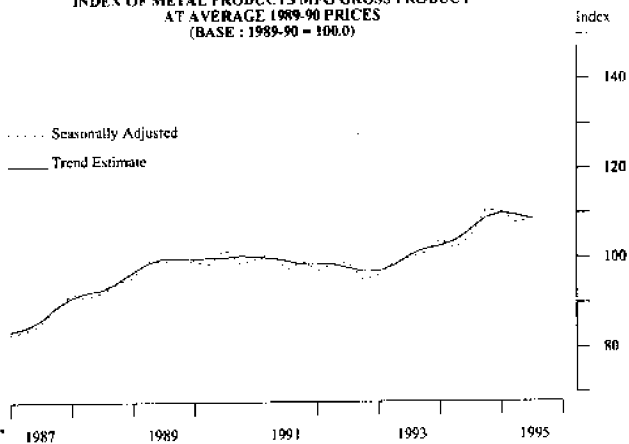
INDEX OF WOOD AND PAPER PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



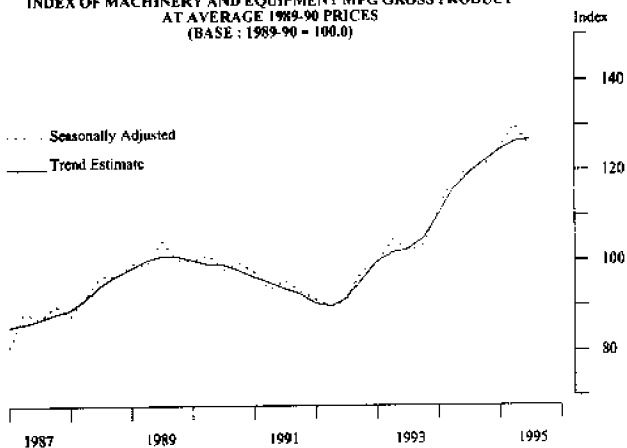
INDEX OF NON-METALLIC MINERAL PRODUCTS MFG GROSS PRODUCT AT AVERAGE 1989-90 PRICES (BASE : 1989-90 = 100.0)



INDEX OF METAL PRODUCTS MFG GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



INDEX OF MACHINERY AND EQUIPMENT MFG GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)



INDEX OF OTHER MANUFACTURING GROSS PRODUCT
AT AVERAGE 1989-90 PRICES
(BASE : 1989-90 = 100.0)

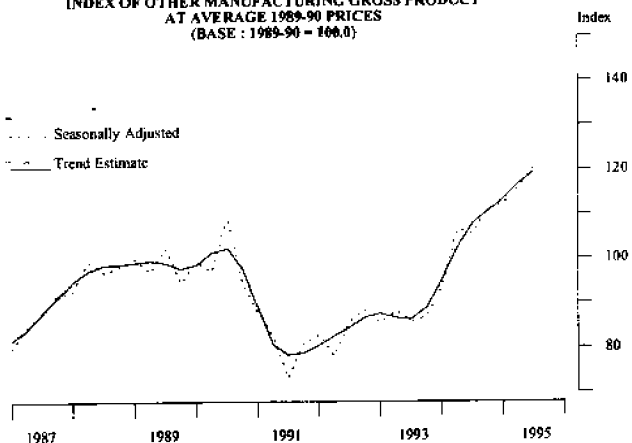


TABLE 3. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED
Index numbers (Base : 1989-90 = 100.0)

ANZSIC Sub-Divn.	Industry	Quarters ended													
		1991-92			1992-93			1993-94			1994-95			1995-96	
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
21	Food, beverages and tobacco mfg	106.1	105.4	111.5	107.1	113.9	113.2	113.9	113.4	118.1	124.2	124.1	117.6	120.1	123.4
22	Textile, clothing, footwear and leather mfg	87.4	88.3	90.4	89.9	95.4	88.6	96.5	89.0	83.8	79.2	76.8	83.6	90.9	84.1
23	Wood and paper products mfg	92.6	91.8	97.5	95.0	96.4	96.4	96.0	97.2	98.5	104.3	103.5	104.2	109.0	99.3
24	Printing, publishing and recorded media mfg	93.0	93.3	94.5	96.9	95.7	96.8	103.9	110.1	120.1	118.6	117.0	114.8	123.0	122.7
25	Petroleum, coal, chemical & assoc. products mfg	99.6	100.7	99.9	102.8	105.8	105.8	109.2	111.0	113.3	116.3	116.5	117.6	124.9	120.6
26	Non-metallic mineral products mfg	94.1	90.6	90.6	99.7	106.9	103.4	109.8	112.5	115.0	126.5	132.2	132.3	128.4	129.8
27	Metal products mfg	99.1	95.1	96.7	99.1	101.2	101.2	104.1	102.2	104.5	109.9	110.2	107.5	107.2	111.8
28	Machinery and equipment mfg	91.3	97.9	99.5	104.8	102.0	103.4	111.0	118.7	120.0	121.0	124.8	130.4	127.4	132.1
29	Other manufacturing	85.8	88.5	86.1	89.1	85.4	86.9	93.2	106.2	105.3	111.1	112.1	117.2	117.0	117.5
	Total manufacturing	96.3	97.1	99.3	101.0	102.0	102.6	106.0	109.6	112.3	115.7	116.7	116.8	118.5	119.8

TABLE 4. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES, BY SUBDIVISION — SEASONALLY ADJUSTED

ANZSIC Sub-Divn.	Industry	Change from preceding quarter													
		1992-93			1993-94			1994-95			1995-96			Sept. Qtr 1994 to Sept. Qtr 1995	
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June		Sept.
21	Food, beverages and tobacco mfg	-0.7	5.8	-3.9	6.3	-0.6	0.6	-0.4	4.1	5.2	-0.1	-5.2	2.1	2.7	0.6
22	Textile, clothing, footwear and leather mfg	1.0	2.4	-0.6	6.1	-7.1	-13.7	16.3	-5.8	-5.5	3.0	8.9	8.7	-7.5	6.2
23	Wood and paper products mfg	0.9	6.2	-2.6	-0.2	1.7	-0.4	1.2	1.3	5.9	-0.8	0.7	4.6	8.9	-4.8
24	Printing, publishing and recorded media mfg	0.3	1.3	2.5	-1.2	1.1	7.3	6.0	9.1	-1.2	-1.3	-1.9	7.1	-0.2	3.5
25	Petroleum, coal, chemical & assoc. products mfg	1.1	-0.8	2.9	-2.6	5.7	3.2	1.6	2.1	2.6	0.2	0.9	6.2	-3.4	3.7
26	Non-metallic mineral products mfg	-3.7	—	10.0	7.2	-3.3	6.2	2.5	2.2	10.0	4.5	0.1	2.9	1.1	2.6
27	Metal products mfg	-4.0	1.7	2.5	1.0	1.1	2.9	1.8	2.3	5.2	0.3	-2.5	-0.3	4.3	1.7
28	Machinery and equipment mfg	7.2	1.6	5.3	-2.7	1.4	7.4	6.9	1.1	0.8	3.1	4.5	-2.3	3.7	9.2
29	Other manufacturing	3.1	-2.7	3.5	-4.2	1.8	7.2	13.9	-0.8	5.5	0.9	4.5	-0.2	0.4	5.8
	Total manufacturing	0.8	2.3	1.7	1.0	0.6	3.3	3.4	2.5	3.0	0.9	0.1	1.5	1.1	3.5

TABLE 5. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES, BY SUBDIVISION — TREND ESTIMATES
Index numbers (Base : 1989-90 = 100.0)

ANZSIC Sub- Divn.	Industry	Quarters ended													
		1991-92			1992-93			1993-94			1994-95			1995-96	
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
21	Food, beverages and tobacco mfg	105.1	107.3	109.8	112.0	113.3	113.2	114.8	118.8	122.0	122.1	120.5	120.2	121.3	
22	Textile, clothing, footwear and leather mfg	89.3	88.5	90.0	91.8	92.2	91.4	87.6	83.8	79.5	79.8	83.6	86.7	87.9	
23	Wood and paper products mfg	94.1	93.0	93.8	95.0	94.9	95.4	96.6	99.1	101.4	103.8	104.6	104.0	102.3	
24	Printing, publishing and recorded media mfg	91.6	93.4	94.8	95.2	95.8	97.9	103.4	111.1	117.0	117.2	117.6	120.1	122.8	
25	Petroleum, coal, chemical & assoc products mfg	100.1	100.1	100.4	100.9	102.3	105.0	108.3	113.6	115.0	117.1	119.3	121.3	122.3	
26	Non-metallic mineral products mfg	90.1	91.6	94.3	98.9	104.0	107.1	108.8	118.4	125.6	131.1	131.9	130.7	129.5	
27	Metal products mfg	97.8	97.0	97.2	98.6	100.6	102.0	103.8	106.1	108.6	109.5	108.9	109.0	110.0	
28	Machinery and equipment mfg	91.9	96.0	100.0	101.8	102.3	104.9	110.2	116.1	119.4	124.4	127.1	129.1	130.3	
29	Other manufacturing	84.6	87.2	88.4	87.2	86.3	88.8	94.9	102.4	107.7	113.6	116.1	117.5	118.2	
	Total manufacturing	95.9	97.4	99.4	100.9	102.0	103.5	106.1	109.4	112.6	114.9	116.4	117.2	118.2	

TABLE 6. PERCENTAGE CHANGES IN INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES
BY SUBDIVISION — TREND ESTIMATES

ANZSIC Sub- Divn.	Industry	Change from preceding quarter													
		1992-93			1993-94			1994-95			1995-96			Sept. Qtr 1994	
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Sept. Qtr 1995
21	Food, beverages and tobacco mfg	2.1	2.3	2.0	1.2	-0.1	—	1.4	3.5	2.7	0.1	-1.3	-0.2	0.9	-0.6
22	Textile, clothing, footwear and leather mfg	-0.9	1.7	2.0	0.4	-0.9	-1.4	-2.8	-4.3	-5.1	0.4	4.8	3.7	1.4	10.6
23	Wood and paper products mfg	-1.2	0.9	1.3	-0.1	0.5	1.3	2.6	2.6	2.3	2.4	0.8	-0.6	1.6	0.9
24	Printing, publishing and recorded media mfg	2.0	1.5	0.4	0.6	2.2	5.6	7.4	5.3	1.0	-0.8	0.3	2.1	2.2	3.9
25	Petroleum, coal, chemical & assoc products mfg	—	0.3	0.5	1.4	2.6	3.1	2.9	2.0	1.2	1.8	1.9	1.7	0.8	6.3
26	Non-metallic mineral products mfg	1.7	2.9	4.9	5.2	3.0	1.6	3.2	5.4	6.1	4.4	0.6	-0.9	-0.9	3.1
27	Metal products mfg	-0.8	0.2	1.4	2.0	1.4	0.8	1.0	2.2	2.4	0.8	-0.5	0.1	0.9	1.3
28	Machinery and equipment mfg	4.5	4.2	1.8	0.5	2.5	5.1	5.4	2.8	2.0	2.1	2.2	1.6	0.9	7.0
29	Other manufacturing	3.1	1.4	-1.4	-1.0	2.9	6.9	7.9	5.2	2.9	2.5	2.2	1.2	0.6	6.7
	Total manufacturing	1.6	2.1	1.5	1.1	1.5	2.5	3.1	2.9	2.0	1.3	0.7	0.9	0.8	3.7

TABLE 7. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY INDUSTRY — ORIGINAL

Index numbers (Base : 1989-90 = 100.0)

	<i>Mining excluding Services to mining</i>	<i>Manufacturing</i>	<i>Electricity, gas and water</i>	<i>Total</i>
1977-78	57.8	78.5	57.9	71.7
1978-79	59.3	81.7	61.0	74.6
1979-80	58.1	85.3	65.2	77.4
1980-81	59.1	87.0	68.1	79.2
1981-82	58.7	89.2	71.7	81.1
1982-83	60.9	81.8	73.7	76.8
1983-84	65.4	83.1	76.8	79.0
1984-85	73.9	87.3	81.6	84.0
1985-86	82.6	87.8	84.7	86.4
1986-87	78.4	90.2	86.6	87.5
1987-88	88.5	96.2	90.9	94.0
1988-89	91.6	101.7	95.2	98.9
1989-90	100.0	100.0	100.0	100.0
1990-91	104.7	98.1	102.1	99.9
1991-92	106.9	95.7	103.3	98.8
1992-93	107.6	99.8	105.2	102.0
1993-94	109.4	107.5	107.2	107.8
1994-95	113.9	116.9	110.1	115.3
1979-80 — Sept.	62.7	87.6	66.8	80.1
Dec.	62.0	89.0	64.1	80.4
Mar.	53.6	80.3	64.5	73.1
June	53.9	84.2	65.4	75.9
1980-81 — Sept.	60.1	87.8	69.6	80.1
Dec.	59.0	91.9	67.5	82.4
Mar.	59.3	81.2	66.6	75.1
June	58.1	87.1	68.8	79.2
1981-82 — Sept.	56.6	91.6	73.7	82.6
Dec.	60.3	93.9	69.3	84.2
Mar.	55.4	82.1	70.3	75.5
June	62.3	89.0	73.6	81.9
1982-83 — Sept.	60.8	90.1	77.0	82.8
Dec.	62.3	83.6	73.1	78.2
Mar.	57.9	72.5	71.3	69.6
June	62.6	81.2	73.6	76.7
1983-84 — Sept.	64.5	83.8	78.0	79.5
Dec.	64.1	85.9	75.3	80.4
Mar.	64.8	78.3	75.7	75.5
June	68.2	84.3	78.4	80.5
1984-85 — Sept.	72.9	90.3	83.8	86.2
Dec.	72.6	88.8	80.6	84.7
Mar.	70.8	80.8	80.4	78.9
June	79.1	89.5	81.6	86.4
1985-86 — Sept.	90.1	90.9	86.8	90.1
Dec.	84.5	92.9	81.9	89.8
Mar.	81.0	80.8	84.4	81.3
June	74.7	86.5	85.9	84.3
1986-87 — Sept.	77.5	92.3	89.1	89.2
Dec.	77.4	92.9	83.7	88.7
Mar.	77.6	83.5	85.9	82.8
June	80.8	92.1	87.5	89.4
1987-88 — Sept.	86.6	96.6	92.7	94.2
Dec.	92.2	99.9	90.0	97.1
Mar.	88.1	91.0	90.5	90.4
June	86.9	97.4	90.5	94.5
1988-89 — Sept.	93.7	102.6	95.9	100.0
Dec.	93.0	107.6	95.5	103.1
Mar.	88.8	95.0	93.8	93.7
June	90.8	101.8	95.6	98.9
1989-90 — Sept.	101.0	103.2	102.8	102.7
Dec.	95.8	103.8	98.8	101.7
Mar.	99.4	93.8	98.9	95.6
June	103.8	99.2	99.5	100.0
1990-91 — Sept.	109.3	102.3	104.2	103.9
Dec.	106.5	103.1	102.2	103.6
Mar.	99.2	92.3	101.2	94.8
June	103.9	94.9	101.0	97.4
1991-92 — Sept.	109.9	98.5	106.9	101.8
Dec.	106.8	99.1	102.9	101.1
Mar.	103.8	90.1	101.5	94.3
June	107.2	95.1	101.9	98.3
1992-93 — Sept.	111.2	99.1	108.3	102.7
Dec.	106.5	103.8	101.3	103.9
Mar.	103.7	95.7	104.1	98.3
June	109.2	100.7	107.0	103.1
1993-94 — Sept.	113.0	104.7	109.3	106.9
Dec.	104.8	110.8	107.8	109.2
Mar.	107.4	103.7	105.7	104.7
June	112.3	110.9	106.2	110.4
1994-95 — Sept.	118.0	118.0	113.6	117.4
Dec.	112.4	122.1	110.1	118.6
Mar.	110.9	110.5	107.5	110.1
June	114.4	116.9	109.1	115.3
1995-96 — Sept.	118.7	122.1	114.2	120.3

TABLE 8. INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY INDUSTRY — SEASONALLY ADJUSTED AND TREND ESTIMATES

Index numbers (Base : 1989-90 = 100.0)

		<i>Seasonally adjusted</i>				<i>Trend estimates</i>			
		<i>Mining excluding Services to mining</i>	<i>Manufacturing</i>	<i>Electricity, gas and water</i>	<i>Total</i>	<i>Mining excluding Services to mining</i>	<i>Manufacturing</i>	<i>Electricity, gas and water</i>	<i>Total</i>
1979-80	Sept.	61.6	85.3	64.1	77.9	61.3	84.6	64.2	77.4
	Dec.	60.7	84.7	65.1	77.5	59.4	85.4	65.2	77.7
	Mar.	55.6	86.7	65.9	78.0	56.9	85.4	65.8	77.4
	June	54.1	84.7	65.9	76.4	55.8	85.3	66.4	77.2
1980-81	Sept.	58.8	85.2	66.8	77.7	57.2	85.8	67.2	77.9
	Dec.	57.9	87.7	68.4	79.5	59.5	86.7	67.9	79.0
	Mar.	61.5	87.8	68.2	80.2	59.8	87.5	68.7	79.8
	June	58.5	87.5	69.0	79.5	58.7	88.0	69.4	80.0
1981-82	Sept.	55.3	88.6	70.5	79.9	57.4	88.5	70.1	80.2
	Dec.	59.2	89.8	70.4	81.4	57.7	89.2	71.3	80.9
	Mar.	57.4	89.0	72.3	80.8	59.4	89.7	72.5	81.7
	June	62.8	89.2	73.9	82.2	60.7	88.6	73.7	81.3
1982-83	Sept.	59.3	87.0	74.0	80.1	60.8	85.3	74.2	79.3
	Dec.	61.0	80.2	74.0	75.8	60.7	81.6	73.9	76.7
	Mar.	60.0	78.4	73.0	74.3	61.3	79.5	73.7	75.3
	June	63.2	81.3	73.8	76.9	62.2	79.8	74.0	75.7
1983-84	Sept.	63.0	81.0	75.0	76.9	63.0	81.4	75.1	77.1
	Dec.	62.7	82.6	76.3	78.0	64.4	82.7	76.3	78.4
	Mar.	67.0	84.7	77.5	80.4	66.5	83.9	77.7	79.8
	June	69.1	84.3	78.7	80.7	69.0	84.9	79.0	81.2
1984-85	Sept.	70.2	88.0	80.5	83.7	69.4	86.2	81.0	82.4
	Dec.	71.2	84.6	81.7	81.8	71.5	86.3	81.5	82.9
	Mar.	72.9	87.0	82.0	83.7	75.6	87.1	82.1	84.3
	June	81.4	89.9	82.1	87.2	80.8	88.4	82.5	86.2
1985-86	Sept.	86.9	88.6	83.5	87.5	84.8	89.0	83.0	87.4
	Dec.	82.8	88.5	83.0	86.7	85.0	88.0	84.2	86.9
	Mar.	83.4	87.0	85.7	86.1	81.8	87.3	85.5	86.1
	June	76.8	86.9	86.7	85.1	77.9	87.7	86.2	85.7
1986-87	Sept.	74.8	90.0	86.0	86.7	75.8	88.3	86.1	85.7
	Dec.	75.9	88.5	84.8	85.6	76.6	89.1	86.0	86.4
	Mar.	79.8	89.8	87.2	87.6	79.3	90.3	86.8	87.8
	June	83.1	92.7	88.4	90.3	82.6	92.0	88.4	89.8
1987-88	Sept.	83.6	94.3	89.5	91.7	86.0	94.1	89.9	92.0
	Dec.	90.4	95.3	91.0	93.8	88.9	95.6	91.0	93.7
	Mar.	90.7	97.5	92.0	95.4	90.4	96.8	91.6	94.9
	June	89.0	98.1	91.7	95.5	90.6	98.5	92.4	96.2
1988-89	Sept.	90.5	100.2	92.6	97.3	90.6	100.3	93.6	97.5
	Dec.	91.3	102.7	96.3	99.7	91.1	101.6	94.9	98.7
	Mar.	91.6	101.4	95.4	98.7	92.4	102.2	96.3	99.6
	June	92.6	102.7	96.8	100.0	93.6	101.7	97.4	99.6
1989-90	Sept.	97.5	100.7	99.3	99.9	95.3	100.7	98.7	99.4
	Dec.	94.4	99.4	99.4	98.5	98.2	99.9	100.0	99.6
	Mar.	102.9	99.8	100.5	100.5	101.7	99.6	100.5	100.1
	June	105.2	100.1	100.9	101.2	104.9	99.9	100.9	100.9
1990-91	Sept.	105.3	100.0	100.6	101.1	106.1	99.7	101.6	101.1
	Dec.	105.5	98.8	102.8	100.6	105.1	98.7	102.2	100.4
	Mar.	102.9	97.7	102.6	99.4	104.5	97.5	102.8	99.5
	June	104.7	95.9	102.6	98.5	104.7	96.4	103.1	98.9
1991-92	Sept.	105.7	96.4	103.3	99.1	105.8	95.6	103.3	98.6
	Dec.	106.4	95.0	103.5	98.3	107.1	95.2	103.4	98.5
	Mar.	107.9	95.2	103.0	98.7	107.7	95.2	103.6	98.7
	June	107.5	96.3	103.4	99.4	107.7	95.9	103.6	99.1
1992-93	Sept.	106.9	97.1	104.4	99.9	107.3	97.4	103.4	100.1
	Dec.	106.5	99.3	102.3	101.1	107.4	99.4	104.3	101.5
	Mar.	107.8	101.0	105.6	102.9	108.3	100.9	105.5	102.9
	June	109.1	102.0	108.7	104.3	108.5	102.0	107.0	103.9
1993-94	Sept.	108.6	102.6	105.2	104.1	108.1	103.5	107.7	105.0
	Dec.	105.1	106.0	108.9	106.3	108.4	106.1	107.7	106.7
	Mar.	111.6	109.6	107.3	109.7	110.2	109.4	107.8	109.3
	June	112.0	112.3	107.8	111.6	112.3	112.6	108.7	112.0
1994-95	Sept.	113.4	115.7	109.4	114.4	113.7	114.9	109.5	113.9
	Dec.	113.0	116.7	111.2	115.2	114.1	116.4	110.4	115.1
	Mar.	115.2	116.8	109.2	115.4	114.6	117.2	110.5	115.8
	June	114.1	118.5	110.7	116.5	114.7	118.2	110.3	116.4
1995-96	Sept.	114.0	119.8	109.8	117.3	114.6	119.2	110.1	117.0

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — ORIGINAL

Index numbers (Base: 1989-90 = 100.0)

	<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc products mfg</i>
1977-78	85.2	89.5	90.0	65.7	77.2
1978-79	86.0	94.9	93.2	69.4	82.2
1979-80	86.7	97.0	96.0	74.9	84.2
1980-81	87.7	98.2	98.3	77.2	84.9
1981-82	88.1	98.7	99.3	79.8	88.4
1982-83	87.8	92.0	90.3	75.6	83.5
1983-84	87.1	97.5	93.2	79.6	85.9
1984-85	87.9	102.4	98.5	87.4	89.4
1985-86	86.6	108.4	106.1	87.7	89.3
1986-87	91.8	107.9	102.5	90.7	92.5
1987-88	97.1	109.4	108.6	99.5	99.1
1988-89	99.8	111.5	118.9	104.1	101.5
1989-90	100.0	100.0	100.0	100.0	100.0
1990-91	102.3	97.5	97.4	97.0	103.7
1991-92	102.5	92.1	98.7	92.0	101.8
1992-93	109.5	90.9	94.6	95.1	100.8
1993-94	114.6	84.2	96.9	107.5	109.8
1994-95	121.6	82.4	105.1	118.4	118.8
1979-80 — Sept.	86.9	99.1	100.0	77.4	84.0
Dec.	90.5	103.2	96.3	76.9	90.6
Mar.	84.2	88.8	90.3	71.3	79.5
June	85.2	96.8	97.3	74.0	82.6
1980-81 — Sept.	88.2	103.4	103.2	78.8	85.1
Dec.	97.5	102.4	101.8	79.8	87.5
Mar.	84.9	85.8	88.7	72.9	80.5
June	80.3	101.1	99.4	77.4	86.5
1981-82 — Sept.	85.7	108.7	105.0	81.6	89.8
Dec.	95.1	101.1	104.4	82.9	94.0
Mar.	84.7	87.2	89.6	74.0	81.2
June	87.0	97.8	98.1	80.5	88.5
1982-83 — Sept.	90.0	103.2	95.0	77.9	88.8
Dec.	94.1	91.0	92.5	78.6	85.6
Mar.	83.9	79.4	79.5	69.9	76.2
June	83.2	94.4	94.0	75.9	83.5
1983-84 — Sept.	84.5	100.7	92.1	78.3	85.3
Dec.	91.9	95.3	98.4	82.2	89.9
Mar.	84.7	88.9	86.8	74.9	87.7
June	87.5	104.9	95.4	82.8	80.7
1984-85 — Sept.	88.8	113.8	105.2	89.5	88.9
Dec.	90.7	102.2	102.9	86.3	87.5
Mar.	83.6	87.6	87.5	81.9	87.5
June	88.6	106.1	98.5	91.9	93.5
1985-86 — Sept.	85.3	110.1	109.7	94.5	91.3
Dec.	91.2	109.0	112.2	95.6	92.6
Mar.	82.8	97.0	98.8	76.4	85.8
June	86.9	117.7	103.7	84.2	87.5
1986-87 — Sept.	89.5	116.4	104.7	86.6	89.4
Dec.	98.7	110.0	108.6	97.4	95.0
Mar.	86.8	95.4	93.7	84.3	86.4
June	92.8	109.6	102.9	94.7	99.2
1987-88 — Sept.	95.9	116.1	107.3	98.7	97.5
Dec.	104.0	113.4	112.1	105.5	102.2
Mar.	94.4	95.7	102.2	95.3	98.4
June	94.2	112.5	112.9	98.5	98.1
1988-89 — Sept.	98.7	119.4	123.9	105.5	100.3
Dec.	108.5	118.1	133.4	114.9	103.4
Mar.	97.7	102.1	103.5	93.3	97.3
June	94.2	106.5	114.8	102.7	105.1
1989-90 — Sept.	100.0	110.8	110.6	103.7	100.3
Dec.	106.3	101.3	104.3	107.2	98.2
Mar.	99.0	88.1	91.6	92.8	96.5
June	94.7	99.8	93.6	96.3	104.9
1990-91 — Sept.	102.9	105.4	104.4	101.9	103.5
Dec.	108.7	106.5	97.0	103.4	106.7
Mar.	100.8	91.5	89.0	92.4	99.7
June	96.6	86.7	99.2	90.5	104.7
1991-92 — Sept.	99.9	100.5	104.7	96.6	104.9
Dec.	106.5	96.1	105.9	96.2	104.3
Mar.	101.4	85.9	94.8	85.1	98.1
June	102.0	86.2	89.2	90.1	100.1
1992-93 — Sept.	105.1	92.1	95.1	95.4	102.1
Dec.	118.5	94.0	102.5	100.4	101.6
Mar.	104.5	83.7	90.2	91.8	99.3
June	109.9	93.8	90.7	92.7	100.3
1993-94 — Sept.	112.7	92.1	100.0	98.8	107.6
Dec.	121.2	79.5	101.1	110.6	111.1
Mar.	110.5	83.0	92.4	104.3	107.2
June	114.2	82.2	94.0	116.4	113.3
1994-95 — Sept.	123.5	82.2	108.2	120.8	118.5
Dec.	132.2	80.0	109.3	124.6	118.5
Mar.	114.5	78.1	99.1	108.8	113.6
June	116.2	89.3	103.9	119.2	124.8
1995-96 — Sept.	122.7	87.5	103.0	124.9	122.9

TABLE 9. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — ORIGINAL — continued
Index numbers (Base : 1989-90 = 100.0)

	<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1977-78	78.5	70.3	81.9	70.9	78.5
1978-79	80.6	74.8	84.3	74.7	81.7
1979-80	85.9	80.5	88.9	77.3	85.3
1980-81	88.1	84.2	89.9	79.5	87.0
1981-82	90.1	85.6	94.4	81.4	89.2
1982-83	77.6	73.7	83.6	72.7	81.8
1983-84	78.0	77.1	80.8	76.8	83.1
1984-85	84.3	81.2	86.5	79.6	87.3
1985-86	92.0	81.0	85.1	78.9	87.8
1986-87	87.6	84.3	87.0	83.2	90.2
1987-88	91.9	91.3	91.8	95.2	96.2
1988-89	103.1	97.3	99.9	99.5	101.7
1989-90	100.0	100.0	100.0	100.0	100.0
1990-91	89.9	99.3	96.8	84.9	98.1
1991-92	87.6	98.5	91.5	81.9	95.7
1992-93	96.7	97.6	100.9	87.2	99.8
1993-94	110.0	102.9	113.1	97.4	107.5
1994-95	129.7	108.6	125.8	114.2	116.9
1979-80 — Sept.	90.0	82.6	93.4	81.4	87.6
Dec.	84.8	81.6	95.6	77.5	89.0
Mar.	77.6	80.3	79.6	71.8	80.3
June	91.4	77.6	87.2	78.5	84.2
1980-81 — Sept.	89.3	81.4	91.1	84.1	87.8
Dec.	92.8	88.2	93.7	83.4	91.9
Mar.	84.8	81.2	80.3	69.9	81.2
June	85.6	86.0	94.6	80.6	87.1
1981-82 — Sept.	89.3	89.9	98.1	86.6	91.6
Dec.	98.4	88.3	98.3	86.6	93.9
Mar.	83.8	80.1	83.8	73.1	82.1
June	89.0	83.9	97.4	79.2	89.0
1982-83 — Sept.	82.9	82.7	101.6	79.2	90.1
Dec.	82.5	70.9	84.7	74.3	83.6
Mar.	64.8	64.6	68.7	62.3	72.5
June	80.0	76.5	79.5	75.3	81.2
1983-84 — Sept.	84.1	78.2	84.5	76.0	83.8
Dec.	80.0	77.2	84.2	81.7	85.9
Mar.	73.7	72.1	71.6	72.1	78.3
June	74.2	80.9	82.7	77.5	84.3
1984-85 — Sept.	85.5	83.3	89.8	89.8	90.3
Dec.	85.2	83.4	87.8	85.8	88.8
Mar.	77.8	74.3	79.2	71.2	80.8
June	88.7	84.0	89.5	71.7	89.5
1985-86 — Sept.	97.7	87.0	89.0	79.9	90.9
Dec.	95.4	85.3	92.0	85.1	92.9
Mar.	84.9	73.9	77.2	70.1	80.8
June	90.1	77.9	82.2	80.3	86.5
1986-87 — Sept.	90.1	88.2	95.3	83.8	92.3
Dec.	92.9	86.4	83.9	86.3	92.9
Mar.	78.3	77.8	80.9	76.0	83.5
June	89.1	85.0	88.1	86.7	92.1
1987-88 — Sept.	89.3	92.7	93.9	94.7	96.6
Dec.	97.1	95.1	91.0	101.2	99.9
Mar.	91.4	85.2	84.0	88.5	91.0
June	90.0	92.0	98.2	96.3	97.4
1988-89 — Sept.	105.5	98.3	100.2	100.3	102.6
Dec.	109.1	98.6	102.9	110.0	107.6
Mar.	101.9	93.4	90.2	85.6	95.0
June	95.9	98.7	106.3	102.1	101.8
1989-90 — Sept.	105.5	103.6	104.1	96.6	103.2
Dec.	105.1	101.3	103.5	109.7	103.8
Mar.	94.7	93.3	92.3	85.4	93.8
June	94.6	101.8	100.0	108.3	99.2
1990-91 — Sept.	98.0	101.6	103.0	96.9	102.3
Dec.	95.3	101.7	101.0	97.7	103.1
Mar.	83.1	96.4	85.5	73.1	92.3
June	83.4	97.4	97.5	71.8	94.9
1991-92 — Sept.	90.5	101.8	95.9	83.4	98.5
Dec.	87.4	99.2	94.9	91.9	99.1
Mar.	80.6	94.1	82.4	69.6	90.1
June	92.1	98.9	92.7	82.8	95.1
1992-93 — Sept.	94.3	97.3	100.6	92.1	99.1
Dec.	93.6	98.6	103.4	95.0	103.8
Mar.	94.0	94.7	96.3	80.2	95.7
June	105.0	100.0	103.5	81.5	100.7
1993-94 — Sept.	107.4	103.4	106.1	91.1	104.7
Dec.	113.4	106.2	115.5	102.4	110.8
Mar.	106.0	97.7	109.2	95.8	103.7
June	113.3	104.3	121.7	100.2	110.9
1994-95 — Sept.	131.4	112.2	124.0	116.7	118.0
Dec.	136.3	112.5	130.0	123.1	122.1
Mar.	124.6	102.9	120.0	106.0	110.5
June	126.5	107.0	129.1	111.0	116.9
1995-96 — Sept.	134.7	114.1	135.3	123.6	122.1

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — SEASONALLY ADJUSTED

		Index numbers (Base : 1989-90 = 100.0)				
		<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc. products mfg</i>
1979-80	Sept.	87.3	92.2	95.5	74.7	81.3
	Dec.	84.1	100.8	91.9	73.8	87.2
	Mar.	87.0	99.5	100.5	76.3	85.2
	June	88.7	96.4	97.1	74.7	82.7
1980-81	Sept.	88.6	95.8	98.5	76.3	82.8
	Dec.	90.5	100.5	97.4	76.6	84.1
	Mar.	87.9	96.5	98.6	78.0	86.1
	June	83.5	100.1	99.0	77.7	86.5
1981-82	Sept.	86.1	100.3	100.1	79.3	87.5
	Dec.	88.4	99.8	100.0	79.6	90.6
	Mar.	87.8	98.6	99.4	79.3	86.4
	June	90.1	96.2	98.1	80.6	88.4
1982-83	Sept.	90.4	95.2	90.5	76.2	86.8
	Dec.	87.7	90.2	88.6	75.2	82.7
	Mar.	87.0	90.2	88.1	75.0	80.6
	June	85.8	92.0	93.9	75.7	83.7
1983-84	Sept.	84.9	93.0	88.1	77.1	83.5
	Dec.	85.9	94.7	94.1	78.2	86.9
	Mar.	87.7	101.2	95.9	80.6	92.3
	June	90.1	101.8	95.5	82.7	80.8
1984-85	Sept.	89.7	107.6	101.3	88.0	88.7
	Dec.	84.8	98.6	97.5	80.0	85.7
	Mar.	87.3	100.1	95.5	89.7	90.1
	June	90.3	103.3	99.7	92.7	93.0
1985-86	Sept.	86.2	104.1	105.8	93.0	91.1
	Dec.	85.2	105.2	106.3	88.6	90.7
	Mar.	86.3	110.5	107.8	83.5	88.4
	June	88.9	114.9	104.9	85.1	86.9
1986-87	Sept.	90.3	110.0	101.2	85.2	89.2
	Dec.	91.8	106.2	103.0	90.3	93.0
	Mar.	90.1	108.0	101.9	91.8	89.1
	June	95.4	107.6	104.1	95.9	98.3
1987-88	Sept.	96.5	109.8	103.8	97.1	97.4
	Dec.	97.3	109.5	106.4	98.0	100.0
	Mar.	97.4	107.5	110.8	103.3	101.8
	June	97.5	111.4	114.2	100.2	97.0
1988-89	Sept.	99.0	113.0	120.1	103.6	100.1
	Dec.	101.7	114.0	126.9	107.1	101.3
	Mar.	100.2	113.4	111.5	100.4	100.7
	June	98.1	106.3	116.5	105.1	103.9
1989-90	Sept.	100.1	104.9	107.1	101.5	99.9
	Dec.	99.8	97.7	99.3	100.3	96.4
	Mar.	101.3	96.8	98.1	99.1	100.0
	June	98.8	100.6	95.6	99.1	103.7
1990-91	Sept.	103.0	100.1	101.1	99.5	102.7
	Dec.	102.2	102.7	92.4	97.0	104.9
	Mar.	103.0	99.5	94.5	98.2	103.3
	June	100.8	87.7	102.2	93.3	103.8
1991-92	Sept.	100.1	95.9	101.2	94.4	103.8
	Dec.	100.2	92.5	100.8	90.4	102.6
	Mar.	103.7	92.8	100.4	90.1	101.6
	June	106.1	87.4	92.6	93.0	99.6
1992-93	Sept.	105.4	88.3	91.8	93.3	100.7
	Dec.	111.5	90.4	97.5	94.5	99.9
	Mar.	107.1	89.9	95.0	96.9	102.8
	June	113.9	95.4	94.8	95.7	100.1
1993-94	Sept.	113.2	88.6	96.4	96.8	105.8
	Dec.	113.9	76.5	96.0	103.9	109.2
	Mar.	113.4	89.0	97.2	110.1	111.0
	June	118.1	83.8	98.5	120.1	113.3
1994-95	Sept.	124.2	79.2	104.3	118.6	116.3
	Dec.	124.1	76.8	103.5	117.0	116.5
	Mar.	117.6	83.6	104.2	114.8	117.6
	June	120.1	90.9	109.0	123.0	124.9
1995-96	Sept.	123.4	84.1	99.3	122.7	120.6

TABLE 10. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — SEASONALLY ADJUSTED *continued*
Index numbers (Base : 1989-90 = 100.0)

	<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1979-80 — Sept.	88.1	80.9	89.9	76.2	85.3
Dec.	81.0	78.3	90.3	73.1	84.7
Mar.	83.4	85.3	89.6	80.9	86.7
June	91.3	78.4	86.1	78.8	84.7
1980-81 — Sept.	87.4	79.5	87.4	79.1	85.2
Dec.	89.0	84.8	88.7	78.8	87.7
Mar.	90.9	86.5	90.5	78.8	87.8
June	85.4	86.5	93.4	80.9	87.5
1981-82 — Sept.	87.2	87.7	93.5	81.6	88.6
Dec.	94.5	84.9	93.5	81.9	89.8
Mar.	90.0	84.9	94.5	81.9	89.0
June	88.9	84.2	96.1	79.9	89.2
1982-83 — Sept.	81.0	80.2	96.7	74.9	87.0
Dec.	79.4	68.3	81.0	70.3	80.2
Mar.	69.7	69.6	77.3	69.6	78.4
June	79.8	76.7	78.2	75.9	81.3
1983-84 — Sept.	82.2	75.6	80.4	71.8	81.0
Dec.	76.7	74.5	80.9	77.4	82.6
Mar.	78.9	78.0	80.2	80.6	84.7
June	74.3	81.1	81.5	78.1	84.3
1984-85 — Sept.	82.9	79.8	86.1	85.5	88.0
Dec.	80.9	80.2	84.7	80.3	84.6
Mar.	83.3	80.7	86.5	78.6	87.0
June	90.6	84.5	88.9	73.3	89.9
1985-86 — Sept.	94.8	83.4	85.3	76.2	88.6
Dec.	90.7	82.1	88.8	79.4	88.5
Mar.	90.6	80.1	84.5	77.5	87.0
June	92.4	78.5	81.5	81.7	86.9
1986-87 — Sept.	87.4	84.6	91.5	80.6	90.0
Dec.	88.3	81.4	81.0	79.9	88.5
Mar.	83.0	84.0	88.6	84.8	89.8
June	92.0	85.6	87.0	87.5	92.7
1987-88 — Sept.	86.4	89.1	90.3	91.9	94.3
Dec.	92.4	92.2	87.9	92.9	95.3
Mar.	96.3	91.4	92.2	99.4	97.5
June	93.4	92.6	96.8	96.8	98.1
1988-89 — Sept.	101.8	94.6	96.5	98.1	100.2
Dec.	104.1	96.0	99.5	100.0	102.7
Mar.	107.0	99.5	99.1	96.9	101.4
June	99.9	99.1	104.5	102.4	102.7
1989-90 — Sept.	101.4	100.1	100.3	94.5	100.7
Dec.	100.8	99.1	100.1	99.2	99.4
Mar.	99.6	98.6	101.5	96.9	99.8
June	98.2	102.1	98.1	109.4	100.1
1990-91 — Sept.	93.8	98.7	99.6	94.5	100.0
Dec.	91.9	99.7	97.6	88.1	98.8
Mar.	87.5	101.4	93.6	82.7	97.7
June	86.0	97.5	95.7	73.2	95.9
1991-92 — Sept.	86.8	99.3	93.1	80.9	96.4
Dec.	84.6	97.3	91.5	83.0	95.0
Mar.	85.3	98.6	89.9	78.1	95.2
June	94.1	99.1	91.3	85.8	96.3
1992-93 — Sept.	90.6	95.1	97.9	88.5	97.1
Dec.	90.6	96.7	99.5	86.1	99.3
Mar.	99.7	99.1	104.8	89.1	101.0
June	106.9	100.1	102.0	85.4	102.0
1993-94 — Sept.	103.4	101.2	103.4	86.9	102.6
Dec.	109.8	104.1	111.0	93.2	106.0
Mar.	112.5	102.2	118.7	106.2	109.6
June	115.0	104.5	120.0	105.3	112.3
1994-95 — Sept.	126.5	109.9	121.0	111.1	115.7
Dec.	132.2	110.2	124.8	112.1	116.7
Mar.	132.3	107.5	130.4	117.2	116.8
June	128.4	107.2	127.4	117.0	118.5
1995-96 — Sept.	129.8	111.8	132.1	117.5	119.8

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — TREND ESTIMATES

		Index numbers (Base: 1989-90 = 100.0)				
		<i>Food, beverages and tobacco mfg</i>	<i>Textile, clothing footwear and leather mfg</i>	<i>Wood and paper products mfg</i>	<i>Printing, publishing and recorded media</i>	<i>Petroleum, coal, chemical and assoc products mfg</i>
1979-80	Sept.	85.6	97.0	93.1	73.8	83.8
	Dec.	85.7	98.2	94.6	74.7	84.9
	Mar.	86.5	98.6	96.5	75.1	84.8
	June	88.0	98.1	97.5	75.4	83.6
1980-81	Sept.	89.5	97.3	97.5	75.9	82.9
	Dec.	89.1	97.9	97.0	76.6	84.0
	Mar.	87.1	99.0	97.7	77.4	85.3
	June	85.6	99.6	98.4	78.2	86.9
1981-82	Sept.	85.6	100.2	99.2	78.7	88.0
	Dec.	87.2	100.0	99.6	79.5	88.5
	Mar.	88.8	98.7	98.5	79.8	88.4
	June	89.6	96.8	95.6	78.7	87.5
1982-83	Sept.	89.5	94.0	91.1	77.0	85.6
	Dec.	88.4	91.7	88.6	75.2	83.3
	Mar.	86.8	90.7	88.5	74.8	81.7
	June	85.5	91.3	89.6	75.5	82.1
1983-84	Sept.	85.2	93.4	90.8	76.7	85.1
	Dec.	86.0	96.4	92.4	78.2	87.0
	Mar.	87.9	99.8	94.3	80.7	87.4
	June	88.9	102.0	95.4	82.7	87.2
1984-85	Sept.	87.3	104.0	98.7	83.9	87.2
	Dec.	87.1	101.9	97.0	85.1	88.0
	Mar.	87.4	101.1	96.9	88.0	89.7
	June	87.7	102.0	99.2	91.6	91.4
1985-86	Sept.	87.0	104.2	103.4	91.9	91.8
	Dec.	85.8	107.1	106.3	88.4	90.1
	Mar.	86.3	110.8	105.9	85.0	88.2
	June	88.5	112.5	104.0	84.1	88.1
1986-87	Sept.	90.0	110.9	101.9	85.9	88.9
	Dec.	90.8	108.3	101.3	89.1	90.6
	Mar.	92.1	107.4	101.7	92.3	92.8
	June	94.2	108.5	102.5	94.8	95.4
1987-88	Sept.	96.2	109.2	103.6	97.1	98.4
	Dec.	97.2	109.2	105.9	99.1	100.0
	Mar.	97.2	109.6	109.3	100.4	99.6
	June	98.0	111.0	115.1	102.3	99.4
1988-89	Sept.	99.4	113.4	119.4	103.4	99.4
	Dec.	100.2	114.2	120.3	103.9	100.6
	Mar.	100.0	112.3	117.4	103.8	102.1
	June	99.3	108.4	111.8	102.7	101.5
1989-90	Sept.	99.4	103.2	106.0	101.6	99.7
	Dec.	99.9	99.4	100.4	100.4	98.6
	Mar.	100.2	98.2	96.9	99.2	99.6
	June	100.6	99.2	96.6	98.9	102.1
1990-91	Sept.	101.7	101.9	95.7	98.6	103.7
	Dec.	102.5	100.9	94.7	97.8	103.9
	Mar.	102.2	97.4	95.8	96.5	103.8
	June	100.8	93.9	98.4	94.7	103.7
1991-92	Sept.	100.1	92.8	101.1	92.6	103.3
	Dec.	101.0	93.0	100.6	91.0	102.5
	Mar.	102.8	91.7	97.0	90.8	101.2
	June	105.1	89.3	94.1	91.6	100.1
1992-93	Sept.	107.3	88.5	93.0	93.4	100.1
	Dec.	109.8	90.0	93.8	94.8	100.4
	Mar.	112.0	91.8	95.0	95.2	100.9
	June	113.3	92.2	94.9	95.8	102.3
1993-94	Sept.	113.2	91.4	94.9	97.9	105.0
	Dec.	113.2	90.1	95.4	103.4	108.3
	Mar.	114.8	87.6	96.6	111.1	111.4
	June	118.8	83.8	99.1	117.0	113.6
1994-95	Sept.	122.0	79.5	101.4	118.2	115.0
	Dec.	122.1	79.8	103.8	117.2	117.1
	Mar.	120.5	83.6	104.6	117.6	119.3
	June	120.2	86.7	104.0	120.1	121.3
1995-96	Sept.	121.3	87.9	102.3	122.8	122.3

TABLE 11. INDEXES OF MANUFACTURING GROSS PRODUCT AT AVERAGE 1989-90 PRICES,
BY SUBDIVISION — TREND ESTIMATES—continued
Index numbers (Base : 1989-90 = 100.0)

	<i>Non-metallic mineral products mfg</i>	<i>Metal products mfg</i>	<i>Machinery and equipment mfg</i>	<i>Other mfg</i>	<i>Total mfg</i>
1979-80 — Sept.	84.4	80.0	89.3	75.0	84.6
Dec.	84.1	81.4	89.6	76.5	85.4
Mar.	85.7	81.3	88.3	78.3	85.4
June	87.7	80.7	86.9	79.5	85.3
1980-81 — Sept.	89.8	81.4	86.7	79.5	85.8
Dec.	89.8	83.5	88.2	78.9	86.7
Mar.	88.4	86.5	90.4	79.7	87.5
June	88.2	87.4	92.1	80.7	88.0
1981-82 — Sept.	89.4	87.0	93.0	81.8	88.5
Dec.	91.5	86.5	93.4	82.6	89.2
Mar.	91.5	86.2	95.1	81.8	89.7
June	88.2	83.6	95.5	79.4	88.6
1982-83 — Sept.	82.3	77.8	91.4	74.9	85.3
Dec.	77.1	72.4	84.0	71.8	81.6
Mar.	75.5	71.3	78.2	71.2	79.5
June	77.5	73.6	77.3	72.5	79.8
1983-84 — Sept.	79.9	75.7	79.2	74.9	81.4
Dec.	79.8	76.5	80.0	77.0	82.7
Mar.	77.2	78.0	80.5	78.9	83.9
June	75.8	80.5	81.2	80.2	84.9
1984-85 — Sept.	81.3	79.7	84.7	84.6	86.2
Dec.	82.5	80.7	85.4	81.2	86.3
Mar.	85.4	82.1	86.1	77.8	87.1
June	89.9	83.5	86.9	75.7	88.4
1985-86 — Sept.	92.7	83.8	87.2	76.2	89.0
Dec.	92.9	82.0	85.6	77.9	88.0
Mar.	91.6	80.5	84.8	79.8	87.3
June	90.8	80.9	84.6	80.2	87.7
1986-87 — Sept.	88.9	82.5	84.9	80.7	88.3
Dec.	87.2	83.9	85.5	81.7	89.1
Mar.	86.8	84.7	86.2	84.3	90.3
June	87.8	86.4	87.1	87.8	92.0
1987-88 — Sept.	89.9	89.2	88.3	91.5	94.1
Dec.	92.2	91.3	89.3	94.9	95.6
Mar.	94.2	92.4	91.8	97.1	96.8
June	97.3	93.1	94.7	98.5	98.5
1988-89 — Sept.	101.1	94.7	96.8	98.7	100.3
Dec.	104.4	97.0	98.5	99.1	101.6
Mar.	105.0	98.9	100.3	99.5	102.2
June	103.0	100.0	101.2	98.9	101.7
1989-90 — Sept.	101.3	99.9	101.1	97.6	100.7
Dec.	100.8	99.8	100.3	98.7	99.9
Mar.	100.1	100.1	99.4	101.4	99.6
June	97.8	100.2	99.2	102.3	99.9
1990-91 — Sept.	94.9	100.5	98.0	97.6	99.7
Dec.	91.3	100.3	96.5	88.9	98.7
Mar.	88.5	100.0	95.1	80.8	97.5
June	86.8	99.5	93.8	78.3	96.4
1991-92 — Sept.	85.4	98.6	92.6	78.8	95.6
Dec.	85.8	98.6	90.7	80.5	95.2
Mar.	87.9	98.7	90.0	82.7	95.2
June	90.1	97.8	91.9	84.6	95.9
1992-93 — Sept.	91.6	97.0	96.0	87.2	97.4
Dec.	94.3	97.2	100.0	88.4	99.4
Mar.	98.9	98.6	101.8	87.2	100.9
June	104.0	100.6	102.3	86.3	102.0
1993-94 — Sept.	107.1	102.0	104.9	88.8	103.5
Dec.	108.8	102.8	110.2	94.9	106.1
Mar.	112.3	103.8	116.1	102.4	109.4
June	118.4	106.1	119.4	107.7	112.6
1994-95 — Sept.	125.6	108.6	121.8	110.8	114.9
Dec.	131.1	109.5	124.4	113.6	116.4
Mar.	131.9	108.9	127.1	116.1	117.2
June	130.7	109.0	129.1	117.5	118.2
1995-96 — Sept.	129.5	110.0	130.3	118.2	119.2

EXPLANATORY NOTES

Introduction

This publication presents in index number form, quarterly estimates of gross product at constant prices (average 1989-90 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. New annual benchmarks have been introduced for 1993-94 for the mining and water utilities industries. In addition, earlier year's annual benchmarks for these industries have been revised.

3. Recent quarterly estimates have also been affected by the availability of more complete survey data.

Scope of the estimates

4. The scope of the industrial sector referred to in this publication is defined to include all *establishments* classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) Division B (Mining), excluding ANZSIC subdivision 15 (Services to mining); 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 establishment.

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

	1989-90 Weight %
<i>Mining (excluding services to mining)</i>	18.0
<i>Manufacturing</i>	67.5
Food, beverages and tobacco	13.7
Textiles, clothing, footwear, leather	3.7
Wood, and paper products	3.5
Printing, publishing, recorded media	6.4
Petroleum, coal, chemicals etc	6.5
Non-metallic mineral products	3.4
Metal products	11.4
Machinery and equipment	15.6
Other manufacturing	3.3
<i>Electricity, gas and water</i>	14.5
Total Industrial sector	100.0

5. 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.

6. 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

7. The estimates are derived using the *gross output* method whereby base year (1989-90) 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

8. 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 : National Income and Expenditure* (5204.0)) 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)*

9. Quarterly constant price output estimates are derived for major ANZSIC classes by quantity revaluation (i.e. quantities produced each quarter multiplied by associated base year (1989-90) average prices). Estimates of quantities produced are obtained from data contained in *Quarterly Mineral Statistics* (Australian Bureau of Agriculture and Resource Economics) and *Mining Production, Australia* (8405.0). Constant price estimates of value added are derived by the gross output method (see paragraph 6) for each ANZSIC 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*

10. 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.

11. 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)*).

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

13. 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 9 manufacturing ANZSIC subdivisions and then benchmarked to corresponding annual estimates of gross product at market prices (based on manufacturing census data).

(iii) *Electricity*

14. 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*

15. 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*

16. 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 1989-90 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

17. 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 preceding quarters of each year, and incorporated in the estimates included in this

publication. For more information on the sample revision, refer to *Stocks, Selected Industry Sales and Expected Sales, Australia (5629.0)*.

Reliability of estimates

18. 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.

19. 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

20. 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.

21. 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

22. 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.

23. 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.)

24. Users may wish to refer to the ABS Information Papers *A Guide to Interpreting Time Series — Monitoring Trends, An Overview* (1348.0) for more information on smoothing seasonally adjusted time series data.

Related publications

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

Australian National Accounts : National Income, Expenditure and Product (5204.0) — issued annually

Australian National Accounts : National Income, Expenditure and Product (5206.0) — issued quarterly

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

Manufacturing Industry, Australia (8221.0) — issued annually

Mining Industry, Australia (8402.0) — issued annually

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

Manufacturing Production, Australia (8301.0) — issued monthly

Stocks, Selected Industry Sales and Expected Sales, Australia (5629.0) — issued quarterly

The Australian Mining Industry (8414.0) — issued annually

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

Symbols and other usages

— nil or rounded to zero

ANZSIC Australian and New Zealand Standard Industrial Classification

ASIC Australian Standard Industrial Classification, 1983 edition

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Australian Statistician

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