

CATALOGUE NO. 6412.0

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**PRICE INDEXES OF ARTICLES PRODUCED BY
MANUFACTURING INDUSTRY, AUSTRALIA
APRIL 1994**

MAIN FEATURES

ASIC Subdivision, Group	Change between —				
	March 1994		April 1993		
	and April 1994	%	and April 1994	%	
21	Food, beverages and tobacco	0.1	3.8		
24	Clothing and footwear	—	0.9		
275-276	Chemicals and chemical products	-0.1	-1.0		
277-278	Petroleum products	5.2	-14.4		
29	Basic metal products	-1.1	-0.3		
31	Fabricated metal products	—	-0.3		
32	Transport equipment	0.3	2.4		
33	Other machinery and equipment	—	—		
Manufacturing Division		0.3	1.0		

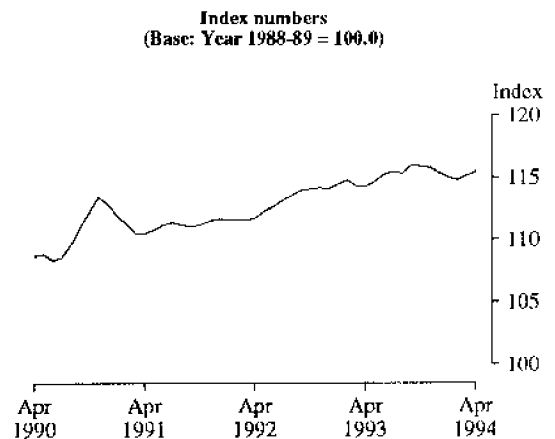
The Manufacturing Division index increased by 0.3 per cent in April 1994 (+0.3 index points).

The increase in April was largely due to higher prices for refined petroleum products (+5.6 per cent), reflecting higher world oil prices. Small price increases were also recorded for a wide range of other items.

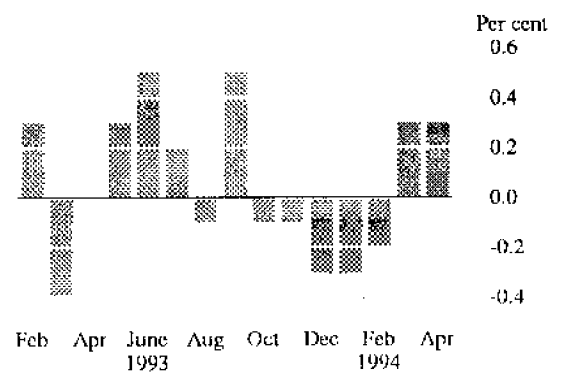
These increases were offset by small price decreases for about thirty per cent of the items in the index, with the main decreases being for base metals.

The Manufacturing Division index increased by 1.0 per cent between April 1993 and April 1994.

MANUFACTURING DIVISION



Percentage change from previous month



INQUIRIES

- for further information about statistics in this publication and the availability of related unpublished statistics contact Peter Cordy on Canberra (06) 252 5541 or any ABS State office.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.

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

**TABLE 1. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY
MANUFACTURING DIVISION**
(Base of Index: Year 1988-89 = 100.0)

Period	Index numbers	Percentage change	
		Change from corresponding month of previous year	Change from previous period
1990-91	111.2		4.4
1991-92	111.6		0.4
1992-93	114.3		2.4
<i>1992-93 —</i>			
February	114.8	2.9	0.3
March	114.3	2.4	-0.4
April	114.3	2.2	—
May	114.7	2.1	0.3
June	115.3	2.3	0.5
<i>1993-94 —</i>			
July	115.5	2.0	0.2
August	115.4	1.6	-0.1
September	116.0	1.8	0.5
October	115.9	1.6	-0.1
November	115.8	1.4	-0.1
December	115.4	1.1	-0.3
January	115.0	0.4	-0.3
February	114.8	—	-0.2
March p	115.2	0.8	0.3
April p	115.5	1.0	0.3

**TABLE 2. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY
CONTRIBUTION OF SELECTED SUBDIVISIONS AND GROUPS OF THE AUSTRALIAN
STANDARD INDUSTRY CLASSIFICATION (ASIC) TO MANUFACTURING DIVISION INDEX**
(Expressed in terms of total Manufacturing Division index points) (a)

Category	March 1994 p	April 1994 p	Change
Manufacturing Division	115.2	115.5	0.3
<i>Contribution to Manufacturing Division index (in index points) —</i>			
ASIC Subdivision or group			
21 Food, beverages and tobacco	29.01	29.03	0.02
23 Textiles	2.69	2.69	—
24 Clothing and footwear	5.33	5.34	0.01
25 Wood, wood products and furniture	6.71	6.75	0.04
26 Paper, paper products, printing and publishing	9.41	9.41	—
275-276 Basic chemicals and other chemical products	6.79	6.80	0.01
277-278 Petroleum and coal products	4.95	5.20	0.25
28 Non-metallic mineral products	6.08	6.13	0.05
29 Basic metal products	9.05	8.95	-0.10
31 Fabricated metal products	8.10	8.09	-0.01
32 Transport equipment	10.56	10.60	0.04
33 Other machinery and equipment	12.49	12.46	-0.03
34 Miscellaneous manufacturing	3.98	3.97	-0.01

(a) For an explanation of this table see paragraph 25 of the Explanatory Notes.

TABLE 3. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY
MANUFACTURING SUBDIVISION INDEXES
(Base of each index: Year 1988-89 = 100.0)

<i>Period</i>	<i>Food, beverages and tobacco (21)</i>	<i>Textiles (23)</i>	<i>Clothing and footwear (24)</i>	<i>Wood, wood products and furniture (25)</i>	<i>Paper, paper products, printing and publishing (26)</i>	<i>Basic chemicals and other chemical products (275-276)</i>
1990-91	109.5	103.4	112.0	112.7	111.0	109.3
1991-92	112.3	102.9	114.9	114.2	117.3	109.9
1992-93	116.2	101.8	116.1	116.5	119.9	111.1
<i>1992-93 —</i>						
February	117.3	102.5	116.3	116.4	120.4	111.6
March	116.8	102.1	116.3	117.4	120.2	111.5
April	116.5	100.7	116.4	117.7	120.3	111.1
May	116.8	100.6	116.4	118.8	120.5	111.0
June	118.5	101.5	116.5	118.9	120.5	110.5
<i>1993-94 —</i>						
July	119.5	100.7	117.0	119.7	120.7	110.3
August	120.2	101.8	116.9	120.5	120.9	110.3
September	121.6	102.1	117.2	120.9	121.5	110.7
October	120.6	102.1	116.6	121.3	121.8	110.3
November	120.6	102.1	116.9	121.6	122.1	110.5
December	120.4	101.9	117.1	122.0	122.1	110.2
January	120.3	101.8	116.9	122.6	122.0	110.5
February	119.7	101.8	117.2	123.5	122.1	110.5
March p	120.8	102.8	117.4	124.1	122.5	110.1
April p	120.9	102.8	117.4	124.6	122.5	110.0

TABLE 3. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY
MANUFACTURING SUBDIVISION INDEXES — *continued*
(Base of each index: Year 1988-89 = 100.0)

<i>Period</i>	<i>Petroleum and coal products (277-278)</i>	<i>Non-metallic mineral products (28)</i>	<i>Basic metal products (29)</i>	<i>Fabricated metal products (31)</i>	<i>Transport equipment (32)</i>	<i>Other machinery and equipment (33)</i>	<i>Miscellaneous manufacturing (34)</i>
1990-91	150.1	117.2	106.2	113.7	109.9	107.0	106.4
1991-92	134.3	119.3	99.9	114.3	112.7	107.0	107.8
1992-93	143.9	119.3	100.6	114.7	116.0	109.3	109.6
<i>1992-93 —</i>							
February	142.3	119.2	100.6	114.7	116.6	110.2	110.0
March	138.5	119.3	98.8	114.9	116.7	110.0	109.9
April	142.2	119.8	98.3	115.0	117.0	109.8	110.0
May	143.8	120.0	99.0	114.4	117.7	109.7	109.9
June	145.6	120.0	100.2	114.8	117.7	109.6	110.0
<i>1993-94 —</i>							
July	137.9	120.1	101.3	115.2	118.3	109.4	111.1
August	131.3	120.3	100.7	115.4	117.8	109.9	111.2
September	134.5	120.2	100.9	114.9	118.5	110.1	111.8
October	139.8	120.3	99.9	114.9	118.8	109.9	112.0
November	135.0	120.5	100.1	114.6	118.6	109.8	112.3
December	125.4	120.2	99.9	114.7	118.9	110.0	112.2
January	117.7	120.2	99.6	114.6	119.3	110.0	112.5
February	113.8	120.2	99.1	114.4	119.4	109.9	112.8
March p	115.7	120.6	99.1	114.7	119.4	109.8	112.8
April p	121.7	121.5	98.0	114.7	119.8	109.8	112.8

EXPLANATORY NOTES

Introduction

This publication contains a set of price indexes relating to articles produced by Australian manufacturing industry. Each index is presented on *reference base: Year 1988-89 = 100.0.*

2. Table 1 contains index numbers for articles produced by the Manufacturing Industry as a whole (Division C of the *Australian Standard Industrial Classification* (ASIC)).

3. Table 2 provides an analysis of the contributions which selected ASIC Subdivisions and Groups make to the total Manufacturing Division index (*see* paragraph 25.)

4. Table 3 contains index numbers for articles produced by 13 'sectors'. These 'sectors' are defined in terms of ASIC Subdivisions or combinations of ASIC groups.

5. The Appendix to the May 1990 issue and an Information Paper (6418.0) provide details of the composition and weighting of each index included in this publication.

Scope and composition

6. The indexes in this publication measure changes in prices of articles produced by establishments classified to the Manufacturing Division of the *Australian Standard Industrial Classification* (ASIC), 1983 edition. The data shown in Tables 1 and 3 relate to indexes constructed on a *net sector basis*; that is, each relates only to those articles which are produced in the defined 'sector' of Australian manufacturing industry for sale or transfer to other sectors or for export or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing (as materials, components, fuels, etc.) are excluded. Capital equipment produced is within the scope of the index even if sold or transferred to other manufacturing establishments in the sector.

7. This publication contains the following net sector price indexes:

- (a) a net index for the Manufacturing Division of ASIC
- (b) a net index for each of the subdivisions within the Manufacturing Division, except for subdivision 27 'Chemical, petroleum and coal products' where separate indexes are published for 'Basic chemicals and other chemical products' and 'Petroleum and coal products'.

8. The Manufacturing Division index represents price movements of goods which are produced by establishments in the Manufacturing Division, for sale or transfer to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Articles sold or transferred by establishments in the Manufacturing Division to other establishments in that division for further processing are outside the scope of this index. In other words, the pricing and weights for the Manufacturing Division index reflect sales and transfers of articles at the point of exit from the Manufacturing Division.

9. The net subdivision indexes for each of the subdivisions represent movements in prices of goods produced by establishments in the respective subdivisions, for sale or transfer to establishments in other subdivisions within manufacturing or to establishments outside the Manufacturing Division, for export, or for use as capital equipment. The pricing and weights for the net subdivision indexes reflect, in general, sales and transfers of articles at the point of exit from the respective subdivisions.

10. For ASIC subdivisions 21, 24, 25, 28, 31, 32 and 33, only a minor proportion of sales and transfers is to other manufacturing subdivisions. Therefore the relevant components of the Manufacturing Division index are regarded as providing valid indicators of price movement for these subdivisions. For ASIC subdivisions 23, 26, 27, 29 and 34, there is a significant proportion of sales to other subdivisions of manufacturing. To compile net indexes for these subdivisions, it has therefore been necessary to price additional items to represent transactions between these and other subdivisions, and also to establish weights appropriate to each subdivision (i.e. weights based on all articles produced by the subdivision for sale or transfer outside the subdivision).

Items and weights

11. These indexes are *fixed weights indexes*. The items included in these indexes were selected on the basis of values of articles produced in 1986-87, by establishments classified to the Manufacturing Division of ASIC in the Census of Manufacturing Establishments.

12. The selected items were allocated weights in accordance with estimated net sector production in 1986-87 valued at the relevant prices applying in the reference base year 1988-89. Many of the selected items carry not only the weight of directly priced articles but also the weight of unpriced articles whose prices are considered to move similarly to those of directly priced articles.

13. The selected items were combined for weighting and classification purposes using the structure of the ASIC. The items have been combined according to the ASIC classes and groups in which they are primarily produced. Percentage contributions of articles to the Manufacturing Division index were shown in the Appendix to the May 1990 issue of this publication. Percentage contributions of articles to each of the subdivision indexes are contained in an Information Paper (6418.0) which is available on request.

Prices

14. Most of the prices used in these indexes relate to the mid-point of the month. Prices are generally obtained from principal manufacturers of the goods concerned, but in some cases prices collected for other indexes are used (adjusted to the correct pricing basis as far as possible). Prices are manufacturers' selling prices, exclusive of excise and sales tax, and reflect the effects of subsidies and bounties paid to manufacturers.

15. The prices reflect industry selling practices. For example, if costs such as handling and distribution are included in the manufacturers' selling price this is the price used in the index. Where handling and distribution charges are paid separately by the purchaser the prices used exclude such charges.

16. As far as possible, actual transactions prices are used in this index — that is, the prices actually paid by buyers of manufacturers' products. The actual price paid for anything can, of course, be described in various ways. Instead of being described as a single price (as usually happens in retail shops) a price for a manufacturer's product may be described in terms of the components that make up the price — for instance 'list price less (particular types of) discount'. It is these net prices that buyers pay to sellers that the ABS aims to use in compiling this price index.

17. The ABS asks respondent businesses to report details of the discounts they offer so that actual transactions prices can be calculated. However, as manufacturers offer many different types of discounts to buyers (e.g. trade discounts, settlement discounts, quantity discounts, competitive discounts) the identification of the discounts and the way in which they are applied by manufacturers pose considerable problems for the ABS. To the extent that discounts are identified and measured, their effects are taken into account in calculating the index. However, because of the difficulties involved in obtaining full details of discounts, the effect of the discounts may sometimes be on a partly estimated basis. Sometimes new discounts, or changes in the way discounts are applied by

manufacturers, are identified only after index numbers for a particular period have been published. In such cases, or in any other case where it is discovered that incorrect prices have been used in compiling the indexes, revisions to index numbers will occur in subsequent issues of this publication.

18. Price series relate to goods of fixed specifications with the aim of incorporating in the index price changes for representative articles of constant quality. Consistent with this approach, prices in general relate to a standard representative set of transactions (in terms of quantity, delivery arrangements, destination, etc.) in order to avoid variations in price that are attributable solely to a changing mix of transactions over time.

19. The May 1977 and earlier issues of this publication contain detailed explanations of:

- (a) model pricing (a technique for measuring price change for unique or complex products);
- (b) methods used for introducing significantly changed specifications into the index.

Index numbers

20. Index numbers for financial years are simple averages of the relevant monthly index numbers.

21. Index numbers for the latest month and the previous month are preliminary and subject to revision. However, it may be necessary to revise index numbers, from time to time, for earlier periods where incorrect prices for those periods are detected later on. (Also see paragraph 17 above.)

Analysis of index changes

22. Care should be taken when interpreting month-to-month movements in the indexes as short-term movements do not necessarily indicate changes in trend.

23. Movements in indexes from one period to another can be expressed either as changes in 'index points' or percentage changes. The following example illustrates the method of calculating index points changes and percentage changes between any two periods:

Manufacturing Division index numbers —

April 1994	115.5 (see Table 1)
less April 1993	114.3 (see Table 1)
Change in index points	1.2

$$\text{Percentage change} = \frac{1.2}{114.3} \times 100 = 1.0$$

24. In this publication percentage changes are shown in respect of movements between:

- consecutive financial years
- corresponding months of consecutive years
- consecutive months.

25. Table 2 provides an analysis of the contribution which selected ASIC subdivisions and groups make to the Manufacturing Division index. For example, Petroleum and coal products contributed +5.20 index points to the All Groups index number of 115.5 for April 1994 and +0.25 index points to the net change of +0.3 index points.

Related publications

26. Users may also wish to refer to the following price index publications which are available on request:

Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0) — issued monthly

Price Index of Materials Used In Building Other Than House Building, Eight Capital Cities (6407.0) — issued monthly

Price Index of Materials Used in House Building Six State Capital Cities and Canberra (6408.0) — issued monthly

Price Indexes of Copper Materials, Australia (6410.0) — issued monthly.

27. Other ABS publications which may be of interest include:

Award Rates of Pay Indexes, Australia (6312.0) — issued monthly.

Average Weekly Earnings, States and Australia (6302.0) — issued quarterly.

Information Paper: Review of Price Indexes of Articles Produced by Manufacturing Industry, Australia (6418.0)

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

Catalogue and Publications Advice are available from any ABS office.

Unpublished statistics

29. As well as the statistics included in this and related publications, the ABS has a large range of other relevant unpublished data available. Inquiries should be directed to the contact in the Phone Inquiries box at the front of this publication.

Symbols and other usages

- p preliminary, series subject to revision
- r figure revised since previous issue
- nil or rounded to zero.

Electronic services

DISCOVERY. The ABS intends discontinuing its statistical information service on DISCOVERY. Please contact Peter Davidson (Phone (06) 252 6684) to discuss possible alternatives for acquiring statistics or if you wish to comment on this decision.

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