



# Australian Bureau of Statistics

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## PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY, AUSTRALIA DECEMBER 1992

### MAIN FEATURES

	Change between		% Nov. 92 Dec. 92	% Dec. 91 Dec. 92
	Nov. 92 and Dec. 92	Dec. 91 and Dec. 92		
All manufacturing industry			%	%
Selected subdivisions			-0.1	+2.1
21 Food, beverages & tobacco	—			+3.6
24 Clothing & footwear	+0.3			+1.0
275, 276 Chemicals and chemical products	+0.4			+1.4
277, 278 Petroleum products	-3.5			+2.7
29 Basic metal products	-0.6			+0.7
31 Fabricated metal products	—			+0.9
32 Transport equipment	+0.3			+2.1
33 Other machinery and equipment	+0.6			+2.4

The All Manufacturing Industry Index fell by 0.1 per cent (-0.1 index points) in December 1992.

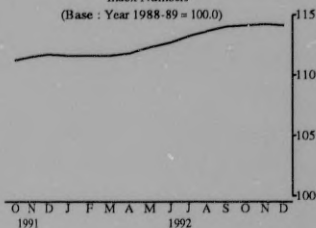
The decrease in the index in December was mainly due to small decreases in prices for a range of items. The only individual decrease of significance was for refined petroleum products (-3.6%).

The decreases were partly offset by small price increases for about one third of the items in the index.

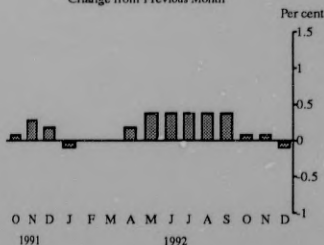
The All Manufacturing Industry Index rose by 2.1 per cent between December 1991 and December 1992.

### ALL MANUFACTURING INDUSTRY INDEX

Index Numbers  
(Base: Year 1988-89 = 100.0)



### 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\* for further information about statistics in this publication and the availability of related unpublished statistics contact Peter Cordy on Canberra (06) 252 5541 or any ABS State office.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 6007, 252 6627, 252 5402 or any ABS State office.

NOTE: Explanatory Notes are published on page 5 of this publication.

TABLE 1. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)  
PERCENTAGE CHANGES

Period	Net subdivision indexes(b)													
	All Manufacturing Industry Index(c)	Food, beverages and tobacco (21)	Textiles (23)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products, printing and publishing (26)	Chemicals and chemical products (275+276)	Petroleum products (277+278)	Non-metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	Transport equipment (32)	Other machinery and equipment (33)	Miscellaneous manufacturing (34)
						Change from previous year —								
1989-90	+6.5	+6.9	+3.2	+7.3	+7.6	+4.3	+4.4	+18.4	+8.7	+5.6	+7.9	+5.6	+4.2	+3.7
1990-91	+4.4	+2.4	+0.2	+4.4	+4.7	+6.4	+4.7	+26.8	+7.8	+0.6	+5.4	+4.1	+2.7	+2.6
1991-92	+0.4	+2.6	-0.5	+2.6	+1.3	+5.7	+0.5	-10.5	+1.8	-5.9	+0.5	+2.5	—	+1.3
						Changes from corresponding month of previous year —								
1991-92—														
October	-1.0	+2.1	-1.9	+3.7	+1.5	+7.3	+2.7	-27.3	+4.0	-8.7	+1.1	+2.5	+0.6	+2.1
November	-1.8	+1.8	-2.1	+4.1	+0.9	+6.2	+2.2	-30.2	+2.8	-9.5	+0.4	+2.4	—	+1.7
December	-1.0	+2.4	-0.8	+3.4	+0.7	+4.3	+1.0	-21.5	+2.0	-8.0	-0.5	+2.5	-0.4	+1.7
January	-0.3	+3.4	-0.1	+3.0	-0.9	+4.7	-1.1	-16.8	+0.8	-6.0	-0.3	+2.6	-0.7	+1.5
February	+0.3	+3.3	-0.6	+1.9	+1.1	+4.8	-1.5	-9.5	—	-4.7	+0.1	+1.9	-0.7	+1.1
March	+1.0	+3.3	+0.3	+1.6	+0.9	+5.2	-2.1	+0.4	-0.3	-4.2	+0.4	+2.0	-0.5	+0.7
April	+1.2	+3.6	+3.6	+1.4	+1.1	+4.7	-1.9	+2.7	-0.8	-4.6	+0.3	+1.3	-0.5	+1.0
May	+1.4	+3.6	+0.5	+1.4	+0.9	+4.6	-1.1	+5.4	-1.1	-3.6	-0.1	+2.6	-0.8	+0.9
June	+1.3	+2.6	-0.7	+1.2	+1.2	+4.3	-0.5	+5.1	-1.4	-2.4	-0.1	+3.2	-0.3	+0.4
1992-93—														
July	+1.6	+2.5	-0.7	+1.6	+1.3	+3.0	+0.3	+6.6	-1.1	-0.9	+0.4	+1.9	+0.7	+0.9
August	+2.2	+3.2	-1.1	+1.7	+1.6	+2.7	+0.8	+8.6	-0.9	+1.1	+0.6	+2.6	+1.1	+1.6
September	+2.6	+3.5	-0.5	+1.1	+1.9	+2.3	+0.7	+9.4	-0.8	+3.0	+0.4	+3.1	+1.6	+1.9
October	+2.6	+3.6	+0.2	+0.9	+1.9	+2.0	+1.2	+8.4	-1.2	+2.8	+0.1	+2.9	+1.7	+1.6
November p	+2.4	+4.2	+0.3	+0.9	+1.8	+1.9	+1.0	+6.9	-0.6	+1.4	+0.6	+2.2	+1.7	+2.0
December p	+2.1	+3.6	-0.8	+1.0	+1.7	+2.2	+1.4	+2.7	+0.3	+0.7	+0.9	+2.1	+2.4	+1.9
						Change from previous month —								
1991-92—														
October	+0.1	—	-0.6	+0.3	—	+0.3	+0.1	+2.1	—	-0.4	+0.1	+0.3	+0.1	+0.2
November	+0.3	+0.3	-0.2	—	+0.3	—	+0.2	+1.1	-0.3	+0.2	+0.4	+0.4	—	—
December	+0.2	+0.6	+1.0	+0.2	+0.2	-0.3	—	+0.4	-0.2	+0.1	-0.3	+0.4	-0.2	+0.1
January	-0.1	+0.4	+0.8	+0.1	+0.2	-0.2	-0.4	-1.8	-0.4	+0.1	+0.3	+0.3	-0.2	+0.3
February	—	+0.3	+0.1	—	+0.5	+0.3	+0.1	-2.4	-0.1	-0.3	+0.2	-0.5	+0.1	+0.3
March	—	+0.1	+0.2	+0.1	—	+0.4	—	-3.9	-0.2	+0.1	+0.2	+0.3	+0.1	+0.2
April	+0.2	+0.4	-0.1	-0.1	+0.3	—	—	+1.3	-0.1	-0.4	+0.6	-0.1	+0.1	+0.1
May	+0.4	-0.1	-0.9	—	+0.2	+0.5	+0.5	+5.9	-0.3	+0.4	-0.1	+0.7	-0.1	+0.1
June	+0.4	—	+0.2	-0.1	+0.1	+0.1	+0.3	+4.6	-0.3	+0.8	+0.1	+0.5	+0.1	-0.6
1992-93—														
July	+0.4	+0.2	-0.1	+0.5	—	-0.1	+0.3	+2.8	+0.2	+1.2	+0.1	—	+0.4	+0.4
August	+0.4	+0.7	-0.2	+0.2	+0.2	+0.1	—	+0.5	+0.7	+0.1	-0.1	+0.5	+0.7	+0.4
September	+0.4	+0.6	-0.7	-0.1	—	+1.1	-0.3	-0.6	+0.3	+0.5	-0.3	+0.4	+0.4	+0.6
October	+0.1	+0.1	+0.1	+0.1	-0.1	+0.1	+0.5	-0.1	-0.3	-0.6	-0.2	+0.1	+0.2	-0.1
November p	+0.1	+0.9	-0.1	—	+0.3	-0.2	—	-0.3	+0.3	-1.2	+0.1	-0.3	—	+0.5
December p	-0.1	—	-0.1	+0.3	—	+0.1	+0.4	-3.5	+0.1	-0.6	—	+0.3	+0.6	-0.1

For footnotes see Table 2.

TABLE 2. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)  
(Base of each index : Year 1988-89 = 100.0)

Period	Net subdivision indexes(b)													
	All Manufacturing Industry Index(c)	Food, beverages and tobacco (21)	Textiles (23)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products, printing and publishing (26)	Chemicals and chemical products (275+276)	Petroleum products (277+278)	Non-metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	Transport equipment (32)	Other machinery and equipment (33)	Miscellaneous manufacturing (34)
1989-90	106.5	106.9	103.2	107.3	107.6	104.3	104.4	118.4	108.7	105.6	107.9	105.6	104.2	103.7
1990-91	111.2	109.5	103.4	112.0	112.7	111.0	109.3	150.1	117.2	106.2	113.7	109.9	107.0	106.4
1991-92	111.6	112.3	102.9	114.9	114.2	117.3	109.9	134.3	119.3	99.9	114.3	112.7	107.0	107.8
1991-92—														
October	111.2	111.3	101.7	114.9	113.3	117.6	109.8	135.3	120.2	99.3	114.3	112.1	107.1	107.5
November	111.5	111.6	101.5	114.9	113.6	117.6	110.0	136.8	119.8	99.5	113.8	112.5	107.1	107.5
December	111.7	112.3	102.5	115.1	113.8	117.3	110.0	137.4	119.6	99.6	113.5	112.9	106.9	107.6
January	111.6	112.7	103.3	115.2	114.0	117.1	109.6	134.9	119.1	99.7	113.8	113.2	106.7	107.9
February	111.6	113.0	103.4	115.2	114.6	117.4	109.7	131.6	119.0	99.4	114.0	112.6	106.8	108.2
March	111.6	113.1	103.6	115.3	114.6	117.9	109.7	126.5	118.8	99.5	114.2	112.9	107.1	108.2
April	111.8	113.6	103.5	115.2	115.0	117.9	109.7	128.1	118.7	99.1	114.9	112.8	107.2	108.4
May	112.3	113.5	102.6	115.2	115.2	118.5	110.2	135.7	118.4	99.5	114.8	113.6	107.1	108.5
June	112.7	113.5	102.8	115.1	115.3	118.6	110.5	141.9	118.1	100.3	114.9	114.2	107.2	107.8
1992-93—														
July	113.2	113.7	102.7	115.7	115.3	118.5	110.8	145.9	118.3	101.5	115.0	114.2	107.6	108.2
August	113.6	114.5	102.5	115.9	115.5	118.6	110.8	145.9	118.9	102.2	114.9	114.8	108.3	108.6
September	114.0	115.2	101.8	115.8	115.5	119.9	110.5	145.0	119.2	102.7	114.6	115.3	108.7	109.3
October	114.1	115.3	101.9	115.9	115.4	120.0	111.1	146.6	118.8	102.1	114.4	115.4	108.9	109.2
November p	114.2	116.3	101.8	115.9	115.7	119.8	111.1	146.2	119.1	100.9	114.5	115.0	108.9	109.7
December p	114.1	116.3	101.7	116.2	115.7	119.9	111.5	141.1	119.2	100.3	114.5	115.3	109.5	109.6

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division see Australian Standard Industrial Classification (ASIC), 1983 edition. (b) These indexes are on a 'net subdivision' basis, see paragraphs 1, 4 and 5. (c) This index is on a net division basis and relates in concept only to articles which are produced in the Manufacturing Division of ASIC for sale or transfer outside the Division; see paragraphs 1 and 3.

TABLE 3. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)  
POINTS CONTRIBUTION TO ALL MANUFACTURING INDUSTRY INDEX

<i>Code and Description</i>	<i>November 1992 p</i>	<i>December 1992 p</i>	<i>Change</i>
ALL MANUFACTURING INDUSTRY	114.2	114.1	-0.1
ASIC			
21 Food, beverages and tobacco	27.91	27.92	+0.01
23 Textiles	2.65	2.64	-0.01
24 Clothing and footwear	5.27	5.28	+0.01
25 Wood, wood products and furniture	6.26	6.27	+0.01
26 Paper, paper products, printing and publishing	9.17	9.19	+0.02
275+276 Chemicals and chemical products	6.82	6.85	+0.03
277+278 Petroleum products	6.25	6.03	-0.22
28 Non-metallic mineral products	5.96	5.96	—
29 Basic metal products	9.33	9.25	-0.08
31 Fabricated metal products	8.00	8.03	+0.03
32 Transport equipments	10.17	10.20	+0.03
33 Other machinery and equipment	12.46	12.54	+0.08
34 Miscellaneous manufacturing	3.90	3.90	—

(a) For an explanation of this table see paragraph 20 of the Explanatory Notes.

## EXPLANATORY NOTES

**Scope and composition**

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 2 relate to indexes on a *net sector basis*; that is, they relate in concept only to those articles which are produced in defined 'sectors' 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.

2. This publication contains the following 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 'Chemicals and chemical products' and 'Petroleum products'.

3. The *All Manufacturing Industry 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 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 *All Manufacturing Industry Index* reflect sales and transfers of articles *at the point of exit from the Manufacturing Division*.

4. 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 other subdivisions within manufacturing or to establishments outside the Manufacturing Division or 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*.

5. 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 *All Manufacturing Industry 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**

6. 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.

7. The indexes are *fixed weights indexes*. The selected items were allocated weights in accordance with estimated *net* sector production (see paragraph 3) in the year 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.

8. 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 *All Manufacturing Industry Index aggregate* were shown in the Appendix to the May 1990 issue of this publication. Percentage contributions of articles to each of the *subdivision index aggregates* are contained in an Information Paper (ABS Cat. 6418.0) available upon request.

**Prices**

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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

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

16. Index numbers for the current month and the previous month are preliminary. However, from time to time, index numbers for earlier months may be revised (see paragraph 12 above).

#### Analysis of index changes

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

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

#### All Manufacturing Industry Index

December 1992	114.1 (see table 2)
less December 1991	111.7 (see table 2)
Change in index points	+2.4

$$\text{Percentage change} = \frac{+2.4}{111.7} \times 100 = 2.1\%$$

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

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

20. Table 3 provides an analysis of the contribution which selected ASIC groupings make to the All Manufacturing Industry Index. For example, Petroleum products contributed 6.03 index points to the All Manufacturing Industry Index of 114.1 for December 1992, and -0.22 index points to the net change in that month of -0.1 index points.

#### Related publications

21. 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.

22. 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)

23. 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

24. 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.

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