



PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY AUSTRALIA, NOVEMBER 1986

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MAIN FEATURES

The All Manufacturing Industry Index rose by 0.7% in November 1986. The main price increases were for refined petroleum products, motor vehicles and meat. The main price decrease was for raw sugar.

The All Manufacturing Industry Index rose by 6.6% between November 1985 and November 1986.

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). 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 *net* index for the Manufacturing Division of ASIC.
- a *net* index for each of the twelve subdivisions within the Manufacturing Division.

In addition, indexes are published for three special groupings which are components of particular *net* subdivision indexes (see paragraphs 6 and 7).

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 twelve 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 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 21-22, 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).

Special groupings

6. Indexes for three special groupings are shown in Table 3. One grouping relates to 'Food, beverages and tobacco, excluding meat and abattoir by-products, and raw sugar'. Some items included in the 'Food, beverages and tobacco' Subdivision index are subject to considerable short term fluctuations which do not necessarily indicate changes in trend and this special grouping is published in order to exclude some of the more uneven price movements which frequently occur in this subdivision.

7. The other two special groupings, 'Appliances and electrical equipment' and 'Industrial machinery and equipment etc' were published following requests for a dissection of the 'Other industrial machinery and equipment and household appliances' Subdivision index.

Items and weights

8. The items included in these indexes were selected on the basis of values of articles produced in 1971-72, by establishments classified to the Manufacturing Division of ASIC in the Census of Manufacturing Establishments.

9. 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 1971-72 valued at the relevant prices applying in the *reference base year 1968-69*. 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.

10. 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 June 1976 (initial) issue of this publication. Percentage contributions of articles to each of the *subdivision index aggregates* may be obtained on request.

Prices

11. 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 in connection with 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.

12. 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.

13. 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 for materials that the ABS aims to use in compiling this price index.

14. 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.

15. 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.

16. 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

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

18. 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 14 above).

Percentage changes

19. The following example illustrates the method of calculating percentage changes:

All Manufacturing Industry Index

July 1986	439.5 (See Table 2)
less June 1986	435.0 (See Table 2)
Change in index points	+4.5

$$\text{Percentage change} = \frac{+4.5}{435.0} \times 100 = +1.0\%$$

Interpretation

20. Care should be exercised when interpreting month-to-month movements in the indexes as short term movements do not necessarily indicate changes in trends.

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, Six State Capital Cities and Darwin (6407.0)—issued monthly

Price Index of Materials Used in House Building, Six State Capital Cities (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

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

Symbols and other usages

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

Electronic services

24. VIATEL. Key *656# for selected current economic, social and demographic statistics.

AUSSTATS. Thousands of up-to-date time series are available on this ABS on-line service through CSIRONET.

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

PERCENTAGE CHANGES													
Period	All Manufacturing Industry Index(c)	Net subdivision indexes(b)										Other industrial machinery and equipment and household appliances(d)	Miscellaneous manufacturing products (34)
		Food, beverages and tobacco (21-22)	Textiles (23)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products and printing (26)	Chemical, petroleum and coal products (27)	Glass, clay and other non- metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	Transport equipment (32)		
Change from previous year—													
1983-84	+6.3	+8.3	+6.7	+5.4	+7.2	+5.9	+3.3	+5.7	+5.8	+6.1	+7.0	+5.5	+9.2
1984-85	+5.7	+6.0	+5.5	+5.7	+8.5	+6.9	+5.3	+6.2	+4.2	+5.2	+5.5	+4.7	+5.6
1985-86	+6.3	+5.9	+7.9	+7.0	+7.3	+6.8	+4.0	+4.8	+4.0	+5.8	+10.2	+7.0	+7.4
Change from corresponding month of previous year—													
1985-86—													
September	+6.9	+5.8	+8.4	+6.0	+7.2	+5.8	+11.9	+4.6	+5.6	+4.3	+8.0	+5.8	+6.4
October	+6.7	+5.5	+8.4	+5.9	+6.1	+5.7	+11.0	+4.2	+6.0	+4.6	+8.1	+6.1	+6.5
November	+7.2	+6.2	+8.2	+6.1	+6.9	+5.8	+10.5	+5.0	+6.4	+5.2	+9.5	+6.6	+7.1
December	+7.5	+6.7	+8.4	+6.2	+6.9	+6.2	+10.2	+5.1	+6.7	+5.3	+11.4	+6.9	+7.3
January	+8.1	+7.3	+8.4	+6.3	+7.7	+7.0	+10.5	+5.4	+5.8	+6.6	+12.3	+8.2	+7.3
February	+7.9	+6.4	+8.5	+8.1	+7.4	+8.3	+11.2	+5.3	+3.8	+7.0	+11.7	+8.7	+8.3
March	+6.4	+5.7	+8.6	+8.3	+7.5	+8.4	+1.1	+4.5	+2.1	+7.1	+12.5	+8.9	+8.8
April	+4.6	+5.0	+8.0	+8.3	+7.8	+7.9	-9.0	+4.8	+0.3	+6.5	+11.5	+8.0	+8.9
May	+3.4	+4.6	+7.1	+8.6	+7.9	+7.7	-14.9	+4.4	-0.7	+6.5	+11.6	+6.9	+7.7
June	+3.4	+5.5	+6.6	+8.6	+6.9	+7.7	-16.8	+4.4	+1.0	+6.8	+11.6	+6.6	+8.6
1986-87—													
July	+4.0	+6.6	+6.6	+8.5	+7.1	+7.8	-17.5	+4.0	+3.2	+6.8	+11.6	+7.6	+8.7
August	+4.4	+7.3	+6.7	+8.7	+7.2	+7.9	-18.4	+4.4	+5.4	+6.9	+14.1	+7.4	+9.2
September	+5.5	+7.8	+7.5	+8.8	+7.8	+8.4	-14.5	+4.9	+6.4	+6.7	+14.5	+8.2	+10.0
October p	+6.4	+8.0	+9.6	+9.1	+9.0	+9.6	-11.8	+5.8	+6.5	+6.4	+15.6	+8.9	+10.6
November p	+6.6	+7.9	+10.2	+8.7	+8.3	+9.6	-9.9	+5.0	+6.2	+6.4	+16.2	+9.1	+10.1
Change from previous month—													
1985-86—													
September	+0.1	+0.5	+1.0	+0.4	—	+0.4	-0.9	+0.1	-0.3	+0.4	+0.6	—	+0.6
October	+0.1	+0.4	+0.5	+0.1	+0.3	+0.4	-1.1	—	—	+0.5	+0.8	+0.4	+0.3
November	+0.5	+0.7	—	+0.4	+0.9	+0.4	-0.2	+0.9	+0.1	+0.5	+1.0	+0.5	+0.8
December	+0.6	+0.7	+0.7	+0.2	+0.3	+0.8	+0.3	+0.3	+0.5	+0.4	+2.0	+0.7	+0.2
January	+0.8	+0.5	+0.2	+0.5	+1.0	+1.2	+1.2	+0.6	-0.5	+1.5	+1.3	+1.5	+0.4
February	+0.6	+0.1	+1.0	+3.0	+0.3	+1.4	+1.0	+0.2	—	+0.5	+0.1	+0.7	+1.3
March	-0.6	—	+0.6	+0.3	+0.7	+0.5	-7.2	+0.4	-0.2	+0.2	+0.8	+0.5	+1.0
April	-0.6	+0.5	+0.3	+0.2	+0.9	+0.1	-9.1	+0.6	+0.1	+0.3	+1.0	+0.4	+1.0
May	+0.1	+0.2	+0.6	+0.5	+0.5	+0.6	-2.5	+0.1	+0.4	+0.3	+1.1	+0.5	+0.2
June	+0.6	+1.3	+0.1	+0.3	+0.4	+0.3	-0.5	+0.3	+1.8	+0.6	+0.4	+0.2	+1.2
1986-87—													
July	+1.0	+1.1	+0.5	+1.4	+0.6	+1.0	-0.1	+0.3	+1.9	+0.7	+1.4	+1.2	+0.5
August	+1.0	+1.0	+1.1	+1.2	+1.0	+0.5	-0.6	+0.5	+1.5	+0.6	+2.8	+0.5	+1.2
September	+1.1	+1.1	+1.7	+0.5	+0.6	+0.9	+0.6	+0.6	+0.6	+0.2	+1.0	+0.8	+1.4
October p	+1.0	+0.5	+2.4	+0.3	+1.3	+1.4	+2.1	+0.9	—	+0.2	+1.7	+1.1	+0.9
November p	+0.7	+0.6	+0.5	+0.1	+0.3	+0.4	+2.0	+0.1	-0.2	+0.6	+1.5	+0.7	+0.4

For footnotes see Table 2.

TABLE 2. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Base of each index : Year 1968-69 = 100.0)

Period	All Manufacturing Industry Index(c)	Net subdivision indexes(b)										Other industrial machinery and equipment and household appliances(d)	Miscellaneous manufacturing products
		Food, beverages and tobacco (21-22)	Textiles (23)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products and printing (26)	Chemical, petroleum and coal products (27)	Glass, clay and other non-metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	Transport equipment (32)		
1983-84	382.8	355.5	305.8	333.2	455.4	413.6	456.8	404.0	365.5	480.1	358.9	372.6	342.1
1984-85	404.8	377.0	322.6	352.1	494.3	442.2	480.8	429.2	381.0	505.3	378.7	390.2	361.4
1985-86	430.3	399.1	348.2	376.7	530.4	472.4	499.9	449.8	396.4	534.4	417.5	417.6	388.1
1985-86—													
September	425.5	392.8	343.3	369.1	519.1	461.2	524.0	443.3	394.8	523.3	402.1	407.6	379.5
October	426.1	394.2	344.9	369.3	520.4	462.9	518.4	443.4	394.8	525.8	405.4	409.4	380.7
November	428.4	396.8	344.8	370.8	525.3	464.8	517.4	447.5	395.1	528.5	409.5	411.6	383.9
December	431.1	399.6	347.3	371.7	527.1	468.3	519.1	448.7	397.1	530.8	417.5	414.4	384.7
January	434.4	401.6	348.0	373.4	532.4	473.9	525.1	451.4	395.1	539.0	422.9	420.5	386.2
February	437.1	402.2	351.4	384.6	534.2	480.5	530.6	452.5	395.1	541.8	423.5	423.6	391.3
March	434.4	402.2	353.4	385.7	537.9	482.7	492.3	454.1	394.4	543.1	426.9	425.6	395.3
April	431.8	404.3	354.5	386.4	542.6	483.4	447.6	456.7	394.9	544.8	431.1	427.1	399.2
May	432.3	405.0	356.7	388.3	545.3	486.5	436.5	457.1	396.4	546.7	435.9	429.2	400.0
June	435.0	410.3	357.1	389.3	547.3	488.2	434.1	458.6	403.7	549.9	437.5	430.1	404.9
1986-87—													
July	439.5	415.0	358.9	394.7	550.7	493.2	433.7	460.0	411.5	553.8	443.5	435.4	407.1
August	443.8	419.1	362.9	399.6	556.4	495.7	431.0	462.2	417.6	557.2	456.0	437.7	412.0
September	448.9	423.6	369.0	401.7	559.7	500.1	448.2	465.1	420.1	558.1	460.6	441.0	417.6
October p	453.3	425.7	378.0	402.9	567.0	507.3	457.4	469.3	420.3	559.3	468.5	445.8	421.2
November p	456.6	428.2	379.8	403.2	568.9	509.3	466.4	469.8	419.6	562.4	475.7	448.9	422.7

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division see Australian Standard Industrial Classification (ASIC), Preliminary Edition, 1969. (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. (d) For a dissection of this index, see Table 3.

TABLE 3. PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY—SPECIAL GROUPINGS(a)

Period	Food, beverages and tobacco, excluding meat and abattoir by-products, and raw sugar	Other industrial machinery and equipment and household appliances (33)	
		Appliances and electrical equipment (332)	Industrial machinery and equipment, etc.(b) (331 and 333)
INDEX NUMBERS (Base of each index: Year 1968-69 = 100.0)			
1983-84	368.5	304.9	458.6
1984-85	389.5	321.7	477.1
1985-86	414.0	345.2	509.5
1985-86—			
September	406.9	338.1	495.9
October	407.5	339.2	498.5
November	408.8	340.1	502.4
December	410.6	341.9	506.4
January	413.3	345.6	515.7
February	416.7	349.1	518.3
March	420.0	350.8	520.6
April	424.2	352.7	521.6
May	425.2	355.0	523.4
June	426.9	356.4	523.5
1986-87—			
July	429.1	363.5	526.7
August	430.9	366.8	527.7
September	433.9	369.5	531.7
October p	435.0	374.3	536.6
November p	437.5	377.9	539.0
PERCENTAGE CHANGES			
Change from previous year—			
1983-84	+7.9	+5.9	+5.2
1984-85	+5.7	+5.5	+4.0
1985-86	+6.3	+7.3	+6.8
Change from corresponding month of previous year—			
1985-86—			
September	+6.0	+6.6	+5.2
October	+5.6	+6.9	+5.4
November	+5.7	+7.1	+6.2
December	+6.0	+7.2	+6.6
January	+6.7	+8.1	+8.3
February	+6.5	+9.0	+8.5
March	+6.7	+9.1	+8.7
April	+7.2	+7.9	+8.1
May	+6.8	+6.6	+7.2
June	+6.6	+6.5	+6.7
1986-87—			
July	+6.8	+8.4	+6.9
August	+6.3	+8.4	+6.6
September	+6.6	+9.3	+7.2
October p	+6.7	+10.3	+7.6
November p	+7.0	+11.1	+7.3
Change from previous month—			
1985-86—			
September	+0.4	-0.1	+0.1
October	+0.1	+0.3	+0.5
November	+0.3	+0.3	+0.8
December	+0.4	+0.5	+0.8
January	+0.7	+1.1	+1.8
February	+0.8	+1.0	+0.5
March	+0.8	+0.5	+0.4
April	+1.0	+0.5	+0.2
May	+0.2	+0.7	+0.3
June	+0.4	+0.4	—
1986-87—			
July	+0.5	+2.0	+0.6
August	+0.4	+0.9	+0.2
September	+0.7	+0.7	+0.8
October p	+0.3	+1.3	+0.9
November p	+0.6	+1.0	+0.4

(a) ASIC two digit subdivision and three digit group codes are shown in brackets. (b) Includes photographic, professional and scientific equipment.