

INQUIRIES

If you want to know more about these statistics —

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PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY
JUNE 1977

Note. Graphs showing percentage movements are shown on page 4.

EXPLANATORY NOTES

SUMMARY OF MOVEMENTS

Percentage change between —

Index	3 months ended		
	May 77 and June 77	3 months ended Mar. 77 and June 76	June 76 and June 77
All Manufacturing Industry	+0.4	+2.1	+ 9.9
Selected sub-division indexes			
Food, beverages and tobacco	+0.5	+2.4	+12.2
Clothing and footwear	+0.5	+1.9	+ 9.6
Wood, wood products and furniture	+0.5	+2.1	+ 9.6
Glass, clay and other non-metallic mineral products	+0.6	+1.1	+ 6.7
Fabricated metal products	+1.0	+1.9	+ 8.8
Transport equipment	+0.8	+2.0	+ 8.2
Other industrial machinery and equipment and household appliances	+0.6	+2.4	+10.0

Scope and composition

The composition of the indexes presented in this publication is based on articles produced by establishments classified to Division C, Manufacturing, of the Australian Standard Industrial Classification (ASIC). The indexes shown in Tables 1 and 2 are 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 includes a *net* index for the Manufacturing Division of ASIC and *net* indexes for selected sub-divisions, (described in paragraphs 3 and 4) together with indexes for three special groupings which are components of particular *net* sub-division indexes (see paragraphs 6 and 7).

3. The *All Manufacturing industry Index* represents price movements of goods which are produced by establishments in Division C, Manufacturing, for sale or transfer to establishments outside Manufacturing Division or for use as capital equipment. Articles sold or transferred by establishments in 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 Manufacturing Division*.

MAIN FEATURES

Between May 1977 and June 1977 the All Manufacturing Industry Index increased by 0.4%. This increase was mainly attributable to higher prices for fabricated metal products, motor vehicles, industrial machinery and a range of food products.

The All Manufacturing Industry index increased by 9.9% between June 1976 and June 1977.

4. Indexes are also shown for *selected sub-divisions within the Manufacturing Division*. For the selected sub-divisions, only a minor proportion of sales and transfers is to other Manufacturing sub-divisions. Therefore the relevant components of the All Manufacturing Industry Index are considered representative of the purpose of compiling net indexes for these sub-divisions. These indexes reflect movements in prices of articles produced primarily by the respective sub-divisions for sale or transfer outside the Manufacturing Division or to other sub-divisions within Manufacturing or for use as capital equipment.

5. In each of the remaining sub-divisions there is a significant proportion of sales to other sub-divisions. To compile net indexes for these sub-divisions it is necessary to establish weights appropriate to each sub-division and to price some additional items. As this work is completed the scope of the publication will be expanded progressively to include indexes on a net basis for all 12 sub-divisions of Manufacturing. Articles produced in these remaining sub-divisions and sold outside Manufacturing Division are, of course, already included in the index for All Manufacturing Industry.

Special Groupings

6. Indexes for three special groupings are shown in Table 3. One grouping, which was included in Table 2 in previous issues, relates to 'Food, beverages and tobacco, excluding meat and abattoir by-products, and raw sugar'. Some items included in the Food, beverages and tobacco Sub-division 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 isolate some of the more uneven price movements which frequently occur in this Sub-division.

7. The two additional special groupings, 'Appliances and electrical equipment' and 'Industrial machinery and equipment etc.' are published for the first time in this table. These indexes have been prepared following a number of requests for a dissection of the Other industrial machinery and equipment and household appliances Sub-division index.

Method of calculation

8. The indexes are *fixed weights* indexes and are calculated by the method known as the *weighted arithmetic mean of price relatives*.

Derivation of items and weights

9. 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. The selection was made from data reported in the 1971-72 Census of Manufacturing Establishments.

10. 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.

Weighting patterns and classifications

11. The selected items were combined for weighting and classification purposes using the structure of the Australian Standard Industrial Classification (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 initial issue of this publication. Percentage contributions of articles to each of the *selected sub-division index aggregates* may be obtained on application to the ABS.

Prices

12. Most of the prices used in these indexes relate to the mid-point of the month. Prices are generally obtained, by way of mailed questionnaires, 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.

13. The prices reflect industry selling practices. For example, if costs such as handling and distribution are included in the manufacturer's 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.

14. 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 discounts, delivery arrangements, destination, etc) in order to avoid variations in price that are attributable solely to a changing mix of transactions over time.

15. The following matters are discussed in previous issues of this publication:

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

treatment of discounts.

Index numbers

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

17. All index numbers for the current month and the previous month are preliminary and subject to revision. Figures for earlier months will generally not be revised where the changes would have a minor effect.

Percentage changes

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

All Manufacturing Industry Index

Index number as at May 1977 205.2 (see Table 2)

Index number as at April 1977 204.3 (see Table 2)

Percentage change = $\frac{205.2 - 204.3}{204.3} \times 100 = 0.4\%$

Interpretation

19. Prices of the articles included in these indexes are affected by many different influences. Changes in index numbers for individual months should not be interpreted in isolation and without reference to changes over longer periods.

Related publications

20. Users may also wish to refer to the following price indexes which are available on request:

Price Index of Materials used in Manufacturing Industry (Reference No. 9.13)

Price Index of Materials Used in Building Other than House Building (Reference No. 9.6)

Price Index of Materials Used in House Building (Reference No. 9.9)

Price Index of Electrical Installation Materials (Reference No. 9.5)

Price Indexes of Metallic Materials (Reference No. 9.10)

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

Wage Rates Indexes, Preliminary (Reference No. 6.37)

Wage Rates and Earnings (Reference No. 6.16)

Average Weekly Earnings (Reference No. 6.18)

22. All publications produced by the ABS are listed in *Publications of the Australian Bureau of Statistics* (Reference No. 1.8) which is available free of charge from any ABS office.

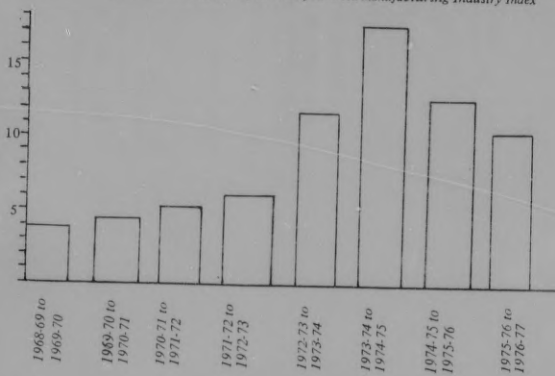
Symbols used

p - preliminary, subject to revision
r - revised

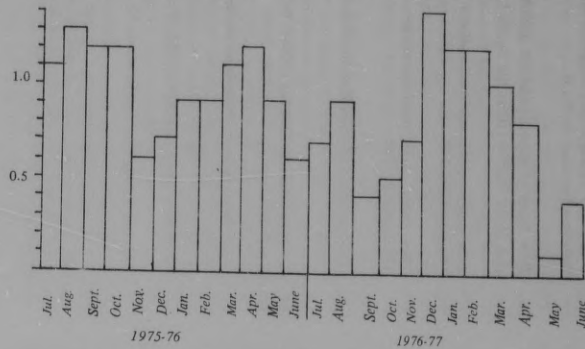
R. J. CAMERON
Australian Statistician

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY

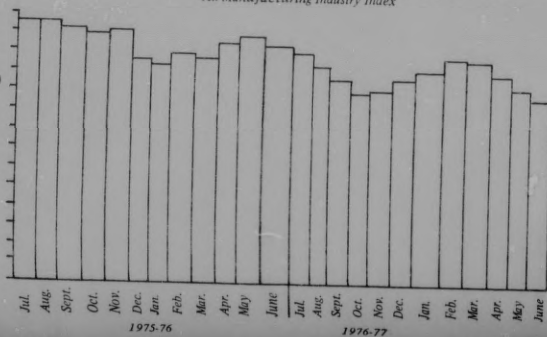
% change
Percentage change from previous year - All Manufacturing Industry Index



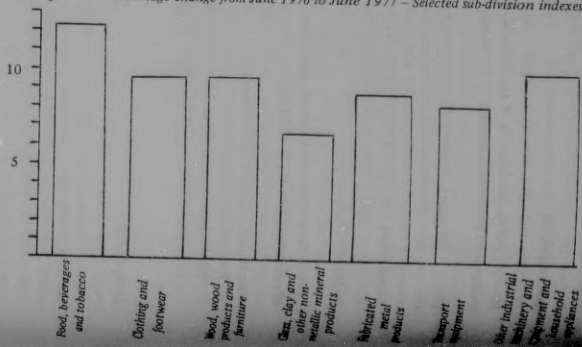
% change
Percentage change from previous month - All Manufacturing Industry Index



% change
Percentage change from corresponding month of previous year - All Manufacturing Industry Index



% change
Percentage change from June 1976 to June 1977 - Selected sub-division indexes



1975-76

1976-77

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

	Selected net sub-division indexes (b)							
	All Manufacturing Industry Index (c)	Food, beverages and tobacco (21-22)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Glass, clay and other non- metallic mineral products (28)	Fabricated metal products (31)	Transport equipment (32)	Other industrial machinery and household appliances (d) (33)
<i>Percentage change from previous year -</i>								
1974-75	+17.5	+7.1	+18.0	+27.7	+22.1	+28.7	+21.1	+20.0
1975-76	+12.5	+6.9	+14.8	+15.7	+15.7	+18.5	+16.3	+12.8
1976-77p	+10.7	+10.2	+12.4	+12.2	+10.5	+12.8	+10.9	+11.3
<i>Percentage change from previous month -</i>								
1975-76								
May	+0.9	-0.4	+1.2	+2.2	+2.0	+1.0	+0.9	+1.8
June	+0.6	-0.1	+0.7	+0.5	+0.9	+1.1	+1.9	+0.7
1976-77								
July	+0.7	+1.6	+1.0	+0.9	+0.4	+0.6	+0.5	+0.7
August	+0.9	+1.3	+3.0	..	+0.5	+0.5	+0.4	+0.9
September	+0.4	+0.7	+0.5	..	+0.6	+0.5	+1.1	+0.5
October	+0.5	+0.5	+0.1	+1.1	+0.7	+1.3	+0.5	+0.1
November	+0.7	+0.1	+0.4	+1.7	+1.0	+1.0	+0.2	+0.4
December	+1.4	+1.9	..	+0.5	+0.2	+1.0	+1.2	+0.9
January	+1.2	+1.2	+0.4	+1.4	+0.6	+0.3	+0.5	+2.0
February	+1.2	+1.6	+1.6	+1.2	+1.4	+0.8	+0.4	+1.3
March	+1.0	+1.4	+1.0	+0.2	+0.2	+0.6	+1.5	+0.9
April	+0.8	+0.8	+0.4	+0.8	+0.8	+0.8	+0.5	+0.9
May p	+0.1	..	+0.3	+1.0	..	+0.2	+0.2	+0.2
June p	+0.4	+0.5	+0.5	+0.5	+0.6	+1.0	+0.8	+0.6
<i>Percentage change from corresponding month of previous year -</i>								
1975-76								
May	+12.8	+9.4	+15.5	+15.7	+14.3	+19.9	+15.6	+13.9
June	+12.3	+8.5	+15.4	+14.5	+14.0	+19.6	+15.1	+12.5
1976-77								
July	+11.8	+9.2	+13.8	+14.4	+13.2	+18.5	+13.9	+12.3
August	+11.3	+9.4	+15.6	+13.6	+12.4	+16.3	+12.1	+12.2
September	+10.5	+9.9	+14.5	+12.9	+12.7	+14.8	+13.0	+11.8
October	+9.8	+9.1	+14.1	+13.2	+12.3	+13.6	+11.5	+10.9
November	+9.9	+8.1	+14.2	+13.5	+11.6	+13.3	+11.0	+10.4
December	+10.7	+9.5	+13.4	+11.7	+11.4	+13.9	+11.3	+10.0
January	+11.0	+9.6	+11.6	+12.8	+10.3	+13.5	+10.6	+11.5
February	+11.4	+10.1	+11.2	+13.2	+10.9	+13.1	+10.3	+12.5
March	+11.3	+11.4	+10.7	+12.1	+9.8	+10.3	+11.0	+12.2
April	+10.9	+11.1	+10.9	+10.9	+9.2	+9.9	+10.1	+11.8
May p	+10.1	+11.5	+9.9	+9.6	+7.1	+9.0	+9.3	+10.1
June p	+9.9	+12.2	+9.6	+9.6	+6.7	+8.8	+8.2	+10.0

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) (c)

All Manufacturing Industry Index (c)		Selected net sub-division indexes (b)						
		Food, beverages and tobacco (21-22)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Class, clay and other non-metallic mineral products (28)	Fabricated metal products (31)	Transport equipment (32)	Other industrial machinery and equipment and household appliances (d) (33)
1974-75	158.1	153.0	161.3	190.0	158.3	183.2	151.2	158.9
1975-76	177.8	163.5	185.2	219.9	183.2	217.1	175.8	179.2
1976-77p	196.9	180.1	208.1	246.8	202.5	244.9	195.0	199.4
1975-76								
May	185.6	168.1	194.7	234.1	193.2	231.1	183.6	188.2
June	186.8	168.0	196.0	235.2	195.0	233.7	187.0	189.6
1976-77								
July	188.1	170.7	198.0	237.2	195.8	235.2	188.0	191.0
August	189.7	173.0	204.0	237.3	196.8	236.4	188.7	192.8
September	190.5	174.2	205.0	237.4	198.0	237.5	190.8	193.7
October	191.5	175.1	205.3	240.0	199.4	240.5	191.8	193.9
November	192.9	175.3	206.2	244.0	201.3	243.0	192.2	194.6
December	195.6	178.6	206.2	245.2	201.8	245.4	194.6	196.4
January	198.0	180.7	207.1	248.7	203.0	246.1	195.6	200.3
February	200.4	183.6	210.5	251.6	205.9	248.0	196.3	203.0
March	202.4	186.1	212.5	252.0	206.3	249.5	199.3	204.9
April	204.0	187.5	213.3	254.0	206.9	251.4	200.2	206.8
May p	204.3	187.5	213.9	256.6	206.9	251.8	200.6	207.2
June p	205.2	188.5	214.9	257.8	208.1	254.3	202.3	208.5

(a) For a full description of Division C, 'Manufacturing' and the selected sub-divisions see Australian Standard Industrial Classification (ASIC), Preliminary Edition, 1969. (b) Indexes for the remaining sub-divisions of Manufacturing Division are in process of development. The indexes are on a 'net sub-division' basis; see paragraphs 1 and 4. ASIC sub-division codes are shown in brackets at the head of the columns. (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 (Division C) for sale or transfer outside the Division; see paragraphs 1 and 3. (d) For a dissection of this index, see Table 3. (e) Figures are shown to one decimal place to avoid distortions that would occur in rounding the index numbers to the nearest whole number.

