

PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY DECEMBER 1977

INQUIRIES

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SUMMARY OF MOVEMENTS

	Percentage change between —		
	3 mths ended Sept. 77 and Nov. 77	3 mths ended Dec. 76 and Dec. 77	Dec. 77
All groups	+1.6	-0.5	+9.2
Imported materials	-0.1	+0.2	+9.4
Home produced materials	+2.5	-0.9	+9.1

The All Groups and Home produced materials indexes increased between November and December 1977, mainly as a result of higher prices for cattle and calves, sheep and lambs.

The index for Food, live animals and tobacco rose by 4.3% during this period.

EXPLANATORY NOTES

Introduction

The price index contained in this bulletin relates to an important input (namely materials and fuels), to manufacturing industry. It does not reflect changes in other important costs such as labour and capital inputs to manufacturing, and taxes incurred during manufacturing.

Scope and composition

2. The composition of the index presented in this publication is based on materials used by establishments classified to Division C, Manufacturing, of the Australian Standard Industrial Classification (ASIC). The index is on a *net basis*; that is, it relates only to those materials which are used by establishments within the Manufacturing Division in Australia and which have been produced by establishments outside that Division. Such outside establishments are either Australian establishments classified to other Divisions of Australian industry (e.g. Mining or Agriculture) or are overseas producers (including overseas manufacturing establishments).

3. Materials purchased by establishments classified to the Manufacturing Division of ASIC from other establishments in that Division are outside the scope of the index, but the same materials when purchased from overseas are included. In other words, the pricing and weights for the index reflect usage of materials at the point of entry to the Manufacturing Division.

Items and weights

4. The index is a *fixed weights index*. The items included in the index were selected on the basis of values of materials used, 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, and in 1971-72 import statistics.

5. The selected items were allocated weights in accordance with estimated manufacturing usage in the year 1971-72. Many of the selected items carry not only the weight of directly priced materials but also the weight of unpriced materials whose prices are considered to move similarly to those of directly priced materials.

6. The percentage contributions for each of the index items are based on estimated usage in 1971-72, valued at the relevant prices applying in the *reference base year 1968-69*. Percentage contributions (as at the reference base year) were published in the April 1975 issue of this bulletin and are also available from the ABS on request.

Classifications

7. The selected items have been combined into broad *index groups* using two different approaches. Table 2 presents index numbers for groups based on the Australian Standard Industrial Classification (ASIC). These groups have been formed by allocating each of the index items to an *industry of origin* (e.g. home produced agriculture; or imported manufacturing). Table 2 also shows index numbers for 'total imported materials' and 'total home produced materials'. Table 3 presents index numbers for groups based on the United Nations Standard International Trade Classification (SITC (R) 1961). This has the effect of combining like commodities within broad *commodity groups* (e.g. food, live animals and tobacco).

8. Table 1 shows percentage changes for index groups based on SITC, and for 'total imported materials' and 'total home produced materials'.

Special grouping

9. Prices of the materials included in this index are affected by many different influences and a significant proportion fluctuate considerably in price. This is particularly the case in the *Food, live animals and tobacco* group where the series is significantly affected by fluctuating prices for live animals and sugar cane. A special grouping 'Food and tobacco, excluding live animals and sugar cane' is presented in table 3 in order to indicate the general trend in prices for food and tobacco.

Prices

10. Prices used in the index are mainly monthly average prices. Prices of home-produced items are generally obtained from principal users (manufacturers) but in some cases from major suppliers (producers or wholesalers). Prices of imported items are obtained from suppliers (importers) and users (manufacturers).

11. In concept, pricing for the index is at the point at which the materials physically enter the manufacturing sector. Therefore, as far as possible, prices are on a *delivered into store* basis.

12. Price series relate to *goods of fixed specifications* with the aim of incorporating in the index price changes for representative materials of *constant quality*.

13. In general, prices recorded in the index for a given month refer to materials delivered to manufacturers in that month.

14. The treatment of the following topics is explained in the September 1977 and previous issues of this bulletin:

- prices of transferred goods
- seasonal items

Index numbers

15. All index numbers for the current month and the previous month are preliminary and subject to revision. Figures for earlier months are generally not revised for changes which have a minor effect at the All Groups level. Index numbers for financial years are simple averages of monthly index numbers.

Percentage changes

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

All Groups index number -

December 1977	195.6 (See Table 2)
less November 1977	192.5 (See Table 2)
Change in index points	+3.1

$$\text{Percentage change} = \frac{+3.1}{192.5} \times 100 = +1.6\%$$

Related publications

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

- *Price Indexes of Articles Produced by Manufacturing Industry* (6412.0)
- *Price Index of Materials Used in Building Other than House Building* (6407.0)
- *Price Index of Materials Used in House Building* (6408.0)
- *Price Index of Electrical Installation Materials* (6409.0)
- *Price Indexes of Metallic Materials* (6410.0)

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

- *Wage Rates Indexes, Preliminary* (6311.0)
- *Wage Rates and Earnings* (6312.0)
- *Average Weekly Earnings* (6302.0)
- *Catalogue of Publications 1977* (1101.0)

Symbols used

- p - preliminary, subject to revision
- r - revised

TABLE 1. PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY (a)
PERCENTAGE CHANGES

Value weight (%) (d)	Manufactured materials (imported) (b)			Other materials (imported and home produced) (c)			All groups	Special groupings		
	Chemicals 6.67%	Metal manufactures, components for transport equipment and machinery 5.21%	Other manufactured materials (b) 5.76%	Food, live animals and tobacco 45.87%	Crude materials (excl. fuels) 20.66%	Electricity, gas and fuels 15.83%		Total imported materials 27.16%	Total home produced materials 72.84%	Food and tobacco excl. live animals and sugar cane
	%	%	%	%	%	%	%	%	%	%
Change from previous year -										
1974-75	+47.4	+25.4	+29.5	- 9.3	+ 6.1	+42.2	+ 7.7	+42.8	- 4.4	+14.8
1975-76	+ 5.3	+20.8	+ 7.9	+ 0.1	+ 9.2	+27.6	+ 9.3	+11.8	+ 7.9	+ 9.0
1976-77	+ 7.3	+17.8	+10.8	+16.9	+17.5	+11.3	+14.9	+14.9	+14.9	+10.5
Change from corresponding month of previous year -										
1976-77										
November	+ 3.0	+12.3	+ 4.7	+10.8	+13.8	+ 3.7	+ 9.0	+ 7.1	+ 9.9	+ 8.9
December	+13.5	+21.2	+ 9.5	+11.3	+22.8	+ 7.7	+13.4	+15.2	+12.5	+ 7.1
January	+ 9.2	+20.6	+14.3	+12.7	+22.5	+ 8.8	+14.1	+16.5	+12.9	+ 9.3
February	+ 9.6	+21.3	+15.7	+15.5	+22.2	+12.8	+16.3	+19.9	+14.4	+12.0
March	+11.3	+22.1	+16.4	+20.7	+21.1	+12.6	+18.1	+20.9	+16.6	+13.8
April	+10.6	+21.9	+15.9	+26.1	+16.7	+12.5	+19.1	+20.2	+18.6	+13.2
May	+11.3	+21.6	+16.0	+24.4	+13.5	+12.6	+17.9	+20.1	+16.7	+13.4
June	+10.9	+22.1	+15.9	+22.2	+ 9.3	+11.6	+15.9	+19.7	+13.9	+13.4
1977-78										
July	+10.9	+21.6	+17.4	+18.6	+ 5.8	+11.5	+13.8	+19.7	+10.9	+12.6
August	+10.7	+22.0	+18.2	+10.7	+ 6.6	+17.4	+12.2	+19.7	+ 8.5	+11.3
September	+11.3	+21.9	+18.7	+ 6.4	+ 9.7	+22.0	+12.3	+19.6	+ 8.6	+ 9.1
October	+11.2	+23.8	+18.7	+ 4.4	+ 9.3	+21.8	+11.5	+19.3	+ 7.6	+10.5
November p	+11.4	+23.6	+18.5	+ 7.0	+ 8.6	+21.4	+12.4	+18.6	+ 9.2	+10.8
December p	+ 3.0	+14.1	+13.6	+ 9.9	+ 1.2	+15.3	+ 9.2	+ 9.4	+ 9.1	+ 9.2
Change from previous month -										
1976-77										
November	- 0.1	+ 1.2	- 0.1	- 4.7	- 0.7	+ 0.1	- 1.9	+ 0.5	- 3.2	+ 0.2
December	+ 9.0	+ 8.8	+ 4.9	+ 1.5	+ 7.6	+ 4.7	+ 4.6	+ 8.2	+ 2.7	+ 2.0
January	- 0.4	+ 4.5	+ 4.6	+ 3.3	+ 0.6	+ 2.3	+ 2.4	+ 2.8	+ 2.1	+ 1.2
February	+ 0.8	+ 1.4	+ 1.2	+ 2.0	+ 1.0	+ 4.2	+ 2.1	+ 3.3	+ 1.5	+ 2.8
March	+ 1.2	+ 1.1	+ 1.5	+ 4.1	+ 0.9	- 0.4	+ 1.9	+ 1.3	+ 2.1	+ 2.6
April	- 0.6	+ 0.3	+ 0.3	+ 2.5	+ 0.4	+ 0.2	+ 1.1	+ 0.2	+ 1.7	+ 0.7
May	+ 0.7	+ 0.7	+ 0.5	- 0.2	- 0.2	+ 0.4	+ 0.1	+ 0.4	- 0.1	+ 0.6
June	+ 0.2	+ 1.2	+ 0.3	+ 2.1	- 2.1	- 0.4	+ 0.4	+ 0.4	+ 0.4	+ 0.7
1977-78										
July	+ 0.1	+ 0.7	+ 2.0	+ 0.5	- 0.4	- 0.1	+ 0.3	..	+ 0.5	- 1.1
August	+ 0.5	+ 0.6	+ 1.2	- 1.5	- 0.3	+ 4.8	+ 0.5	+ 0.6	+ 0.3	+ 0.3
September	+ 0.1	+ 0.9	+ 0.7	- 2.2	+ 1.4	+ 3.8	+ 0.5	+ 0.2	+ 0.6	- 1.2
October	- 0.5	+ 0.5	+ 0.5	- 2.8	+ 1.0	+ 0.4	+ 0.7	- 0.1	+ 1.1	+ 0.6
November p	+ 0.1	+ 1.1	- 0.3	- 2.4	+ 1.3	- 0.2	+ 1.2	- 0.1	+ 1.7	+ 0.5
December p	+ 0.8	+ 0.4	+ 0.5	+ 4.3	- 0.3	- 0.6	+ 1.6	- 0.1	+ 2.5	+ 0.5

For footnotes see Table 3.

TABLE 2.
PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY (a)
GROUP INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION
(Base of each index : Year 1968-69 = 100.0)

Value weight (%) (d)	Imported materials				Home produced materials				All groups	
	Agriculture 1.92%	Mining 4.17%	Manufacturing 21.07%	Total imported materials 27.16%	Agriculture 47.04%	Forestry and fishing 1.12%	Mining 18.92%	Electricity 5.76%	Total home produced materials 72.84%	100%
1974-75	149.3	357.8	149.5	181.5	132.2	187.8	129.0	124.6	131.6	145.1
1975-76	166.5	423.6	162.6	202.9	132.3	213.7	163.3	137.9	142.0	158.6
1976-77	258.6	479.5	182.1	233.2	152.5	245.2	189.1	148.8	163.1	182.2
1976-77										
November	224.3	434.8	171.2	215.4	143.6	241.0	181.3	142.7	154.8	171.3
December	245.9	478.9	183.2	233.1	146.2	245.6	190.9	142.1	159.0	179.1
January	258.2	490.5	188.3	239.7	150.4	246.5	191.0	150.5	162.4	183.4
February	276.7	524.1	190.3	247.7	152.8	250.5	191.4	159.2	164.8	187.3
March	306.1	522.4	192.2	250.9	157.5	249.5	193.5	158.0	168.3	190.8
April	310.0	523.2	192.3	251.5	161.2	257.0	196.3	153.0	171.1	192.9
May	321.4	521.0	193.2	252.6	160.3	258.4	196.3	156.9	170.9	193.1
June	331.6	521.4	193.7	253.7	163.2	262.6	192.2	153.9	171.5	193.5
1977-78										
July	314.8	519.8	195.4	253.7	164.6	265.1	191.3	155.0	172.3	194.4
August	319.9	521.8	196.7	255.3	161.6	262.6	201.6	153.8	172.9	195.3
September	306.8	525.6	197.9	255.9	159.0	257.0	212.2	153.7	173.9	196.2
October	302.8	521.5	198.8	255.7	154.9	258.7	213.8	157.8	172.0	194.8
November p	311.4	517.0	198.5	255.4	150.8	269.2	212.1	158.0	169.1	192.5
December p	305.4	515.9	198.9	255.1	157.3	274.1	213.2	154.1	173.4	195.6

For footnotes see Table 3.

TABLE 3.
PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY (a)
GROUP INDEX NUMBERS BASED ON STANDARD INTERNATIONAL TRADE CLASSIFICATION
(Base of each index : Year 1968-69 = 100.0)

	<i>Manufactured materials (imported) (b)</i>			<i>Other materials (imported and home produced) (c)</i>			<i>All groups</i>	<i>Special grouping</i>
	<i>Chemicals</i> 6.67%	<i>Metal manufactures, components for transport equipment and machinery</i> 5.21%	<i>Other manufactured materials (b)</i> 5.76%	<i>Food, live animals and tobacco</i> 45.87%	<i>Crude materials (excl. fuels)</i> 20.66%	<i>Electricity, gas and fuels</i> 15.83%	100%	<i>Food and tobacco excl. live animals and sugar cane</i>
<i>Value weight (%) (d)</i>								
1974-75	141.9	148.7	137.4	132.4	149.3	179.5	145.1	142.7
1975-76	149.4	179.6	148.4	132.5	163.0	229.0	158.6	155.6
1976-77	160.3	211.6	164.5	154.9	191.5	254.8	182.2	172.0
1976-77								
November	151.3	194.8	154.6	144.9	181.4	241.2	171.3	165.5
December	164.9	211.9	162.1	147.1	195.1	252.5	179.1	168.8
January	164.3	221.4	169.5	152.0	196.3	258.2	183.4	170.9
February	165.6	224.5	171.6	155.1	198.2	269.0	187.3	175.7
March	167.6	226.9	174.2	161.4	199.9	268.0	190.8	180.2
April	166.6	227.5	174.7	165.5	200.7	268.6	192.9	181.4
May	167.7	229.0	175.5	165.2	200.3	269.7	193.1	182.5
June	168.1	231.7	176.0	168.7	196.1	268.7	193.9	183.7
1977-78								
July	168.2	233.4	179.5	169.5	195.4	268.8	194.4	181.6
August	169.0	234.8	181.6	166.9	194.8	281.6	195.3	182.2
September	169.2	237.0	182.8	163.3	197.6	292.4	196.2	181.4
October	168.4	238.1	183.7	158.8	r199.6	293.6	r194.8	182.5
November p	168.6	240.8	183.2	155.0	r197.0	292.9	r192.5	183.4
December p	169.9	241.8	184.1	161.6	197.5	291.2	195.6	184.4

(a) The index is on a net basis, and relates in concept only to materials that enter Australian manufacturing industry from other sectors of the Australian economy or from overseas. See paragraphs 2 and 3.

(b) Excluding the manufactured imported crude materials listed in footnote (c).

(c) Includes imported fuel oil and the following manufactured imported crude materials : Synthetic rubber, hardwood, softwood, woodpulp, synthetic fibre, vegetable oils.

(d) Composition and weighting pattern as at reference base year: see paragraphs 2 and 6.