

**PRICE INDEXES OF MATERIALS USED
IN MANUFACTURING INDUSTRIES AUSTRALIA**

EMBARGOED UNTIL 11:30AM TUES 19 MARCH 1996

JANUARY KEY FIGURES

	<i>% change Dec 95 to Jan 96</i>	<i>% change Jan 95 to Jan 96</i>
Manufacturing Division	1.4	6.1
Imported materials	0.6	10.2
Home produced materials	1.8	3.7

JANUARY KEY POINTS

MANUFACTURING DIVISION INDEX

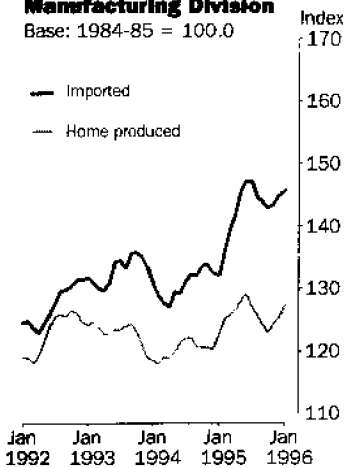
- Higher prices for home produced materials accounted for 84 per cent of the increase in the Manufacturing division index.
- Price increases for crude petroleum was the major contributor to the rise.
- The overall increase was partly offset by price decreases for cattle, copper and nickel. A strengthening in the value of the Australian dollar against major trading currencies also caused the price of some imported materials to fall.

MAJOR MOVEMENTS

- Prices of locally sourced and imported crude petroleum rose due to higher world prices.
- Sheep and lamb prices increased due to sustained demand.
- Cattle prices fell due to lower demand.
- Copper and nickel prices decreased due to lower world prices.

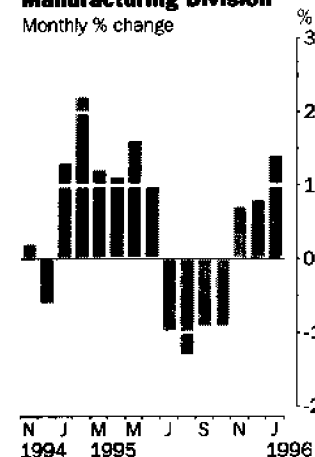
Manufacturing Division

Base: 1984-85 = 100.0



Manufacturing Division

Monthly % change



INQUIRIES

- For further information about these and related statistics, contact Mark Dickson on 06 252 5541, or any ABS Office.

PRICE INDEX NOTES

FORTHCOMING ISSUES

<i>ISSUE</i>	<i>RELEASE DATE</i>
February 1996	18 April 1996
March 1996	15 May 1996
April 1996	18 June 1996

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CHANGES IN THIS ISSUE

There are no changes in this issue.

.....

W. McLennan
Australian Statistician



MANUFACTURING DIVISION INDEX¹

SOURCE OF MATERIALS.....

<i>Period</i>	<i>Manufacturing Division</i>	<i>Imported materials</i>	<i>Home produced materials</i>
1992-93	126.6	130.6	124.6
1993-94	124.6	131.7	120.9
1994-95	128.1	136.5	123.7
1994			
November	125.3	134.0	120.6
December	124.5	132.6	120.3
1995			
January	126.1	132.1	122.9
February	128.9	136.0	125.1
March	130.5	139.4	125.8
April	131.9	141.9	126.6
May	134.0	145.5	128.0
June	135.4	147.1	129.2
July	134.0	147.1	127.1
August	132.3	144.7	125.7
September	131.1	143.9	124.3
October	129.9	142.8	123.1
November	130.8	143.4	124.2
December	131.9	144.8	125.2
1996			
January	133.8	145.6	127.5

¹ Base of each index: 1984-85 = 100.0

MANUFACTURING DIVISION INDEX, Percentage changes

SOURCE OF MATERIALS.....

<i>Period</i>	<i>Manufacturing Division</i>	<i>Imported materials</i>	<i>Home produced materials</i>
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PERCENTAGE CHANGE (from previous year)

1992-93	4.9	5.9	4.4
1993-94	-1.6	0.8	-3.0
1994-95	2.8	3.6	2.3

PERCENTAGE CHANGE (from corresponding month of previous year)

1994			
November	-0.6	-0.9	-0.4
December	0.4	-0.7	1.1
1995			
January	2.8	1.1	3.8
February	5.9	5.6	6.0
March	7.0	9.2	5.7
April	8.4	11.7	6.5
May	8.8	12.4	6.8
June	9.2	13.9	6.5
July	7.1	12.2	4.3
August	5.3	9.5	2.9
September	5.2	8.9	3.0
October	3.8	6.9	2.1
November	4.4	7.0	3.0
December	5.9	9.2	4.1
1996			
January	6.1	10.2	3.7

PERCENTAGE CHANGE (from previous month)

1994			
November	0.2	0.3	0.0
December	-0.6	-1.0	-0.2
1995			
January	1.3	-0.4	2.2
February	2.2	3.0	1.8
March	1.2	2.5	0.6
April	1.1	1.8	0.6
May	1.6	2.5	1.1
June	1.0	1.1	0.9
July	-1.0	0.0	1.6
August	-1.3	-1.6	-1.1
September	-0.9	-0.6	1.1
October	-0.9	-0.8	-1.0
November	0.7	0.4	0.9
December	0.8	1.0	0.8
1996			
January	1.4	0.6	1.8

MANUFACTURING DIVISION INDEX, Contribution of Categories of Materials¹

Category	December 1995	January 1996	Change
Manufacturing Division	131.9	133.8	1.9
IMPORTED MATERIALS: Contribution to Manufacturing Division Index (index points)			
All imported materials	50.01	50.29	0.28
Crude petroleum and condensates	4.00	4.33	0.33
Textile fibres, yarns and fabrics	6.28	6.24	-0.04
Pulp, paper and materials made of paper	4.12	4.09	-0.03
Chemicals and chemical based materials	11.19	11.27	0.08
Basic iron and steel	2.94	2.94	0.00
Components for machinery and equipment	10.72	10.64	-0.08
Other imported materials	10.76	10.78	0.02
HOME PRODUCED MATERIALS: Contribution to Manufacturing Division Index (index points)			
All home produced materials	81.96	83.46	1.50
Live animals	17.81	17.69	-0.12
Other agricultural materials	18.82	18.96	0.14
Hardwood and softwood logs	1.94	1.95	0.01
Fish, prawns and lobsters	1.52	1.54	0.02
Metal ores and concentrates	10.83	10.70	-0.13
Coal, crude petroleum and gas	19.73	21.33	1.60
Electricity	5.91	5.93	0.02
Other home produced materials	5.40	5.36	-0.04

¹ For an explanation of this table see paragraph 16 of the Explanatory Notes

MANUFACTURING DIVISION INDEX, Selected Categories of Imported Materials¹

Period	Agricultural materials	Crude petroleum and condensates	Mining materials	Textile fibres, yarns and fabrics	Pulp, paper and materials made of paper	Chemicals and chemical based materials	Basic iron and steel	Components for machinery and equipment	Manufactured materials	All imported materials
1992-93	89.6	67.2	72.5	148.7	125.1	165.4	125.6	162.7	150.2	130.6
1993-94	92.7	57.2	63.1	152.6	121.8	162.9	123.3	178.4	154.4	131.7
1994-95	128.1	59.6	65.4	159.6	124.5	174.9	125.0	177.6	158.5	136.5
1994										
November	132.9	56.5	62.4	159.8	122.6	170.8	124.3	175.6	155.8	134.0
December	133.7	55.9	61.6	157.7	121.9	168.3	123.4	172.5	154.1	132.6
1995										
January	128.9	55.1	61.0	152.9	123.2	167.4	123.6	171.3	153.8	132.1
February	134.7	58.5	64.8	156.4	125.0	175.5	126.0	174.2	157.7	136.0
March	143.7	61.3	67.3	160.8	126.9	181.6	126.6	178.5	161.1	139.4
April	144.5	61.3	67.3	162.6	128.6	187.9	126.7	182.5	164.4	141.9
May	143.5	65.4	71.1	166.8	130.8	192.4	127.4	187.3	168.2	145.5
June	146.3	65.1	70.6	168.0	136.9	196.4	128.0	188.2	170.4	147.1
July	137.8	60.5	66.7	166.9	144.9	200.2	128.3	188.7	171.9	147.1
August	131.6	57.1	63.5	165.0	151.3	198.0	127.5	184.6	169.9	144.7
September	125.2	57.6	64.8	165.3	156.4	199.1	126.6	178.9	168.8	143.9
October	120.4	56.6	63.9	164.2	156.8	194.5	133.6	176.8	167.8	142.8
November	123.4	56.8	64.2	164.2	158.9	195.7	134.3	175.8	168.4	143.4
December	124.2	60.3	67.1	166.1	158.9	197.3	135.4	176.0	169.4	144.8
1996										
January	121.4	65.2	71.4	165.2	158.1	198.7	135.4	174.7	169.3	145.6

¹ Base of each index: 1984-85 = 100.0

MANUFACTURING DIVISION INDEX, Selected Categories of Home Produced Materials¹

<i>Period</i>	<i>Live animals</i>	<i>Other agricultural materials</i>	<i>Hardwood and softwood logs</i>	<i>Fish, prawns and lobsters</i>	<i>Agricultural, forestry and fishing materials</i>	<i>Metal ores and concentrates</i>	<i>Coal, crude petroleum and gas</i>	<i>Mining materials</i>	<i>Electricity</i>	<i>All home produced materials</i>
1992-93	129.5	135.3	155.3	198.9	135.2	141.6	99.3	113.6	133.2	124.6
1993-94	139.9	136.0	154.4	250.6	141.9	130.5	85.2	100.4	132.8	120.9
1994-95	130.2	157.0	155.3	259.4	146.8	141.8	83.3	102.2	130.7	123.7
1994										
November	123.4	157.8	154.7	263.8	144.0	139.5	78.8	98.7	129.8	120.6
December	126.4	156.9	154.5	248.6	144.6	141.9	76.1	97.2	131.1	120.3
1995										
January	125.0	158.9	156.0	247.2	144.8	146.3	81.9	102.3	131.4	122.9
February	129.7	161.1	157.5	236.5	147.8	145.5	84.7	104.1	131.8	125.1
March	131.3	161.1	156.2	242.1	148.7	144.8	85.9	104.7	131.6	125.8
April	128.7	165.9	157.0	239.4	149.5	145.5	87.2	105.8	131.4	126.6
May	130.9	168.2	155.9	248.6	151.8	144.6	88.7	106.6	131.3	128.0
June	138.5	167.3	155.8	264.2	155.5	148.1	86.7	106.0	130.9	129.2
July	137.7	160.9	158.4	267.9	152.5	151.2	83.5	104.0	133.5	127.1
August	135.0	159.6	158.9	267.3	150.7	149.8	82.4	102.9	132.2	125.7
September	130.4	160.5	157.8	263.1	148.7	149.0	80.9	101.7	133.1	124.3
October	128.7	157.0	157.9	261.1	146.2	148.8	80.2	101.1	133.5	123.1
November	132.0	158.4	159.4	218.1	147.3	148.3	82.2	102.4	133.3	124.2
December	133.7	154.8	159.3	197.4	146.0	149.2	86.1	105.3	134.9	125.2
1996										
January	132.8	155.9	160.2	199.9	146.1	147.4	93.1	109.8	135.3	127.5

¹ Base of each index: 1984-85 = 100.0

MANUFACTURING SUBDIVISION INDEXES¹

<i>Period</i>	<i>Food, beverages and tobacco (21)</i>	<i>Textiles (23)</i>	<i>Clothing (244-245)</i>	<i>Footwear (246)</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>
1992-93	134.3	128.2	151.3	142.9	153.9	138.0	137.0
1993-94	138.7	130.7	150.8	147.2	161.5	135.4	134.1
1994-95	143.0	149.8	153.0	157.4	158.5	139.6	139.8
1994							
November	141.0	149.6	151.9	155.5	157.5	137.2	136.6
December	141.2	148.4	150.8	156.8	157.1	138.0	136.9
1995							
January	141.4	146.3	149.7	157.2	158.1	139.1	137.1
February	144.1	150.8	151.9	158.0	159.7	140.4	140.9
March	145.2	154.1	154.0	159.9	160.6	141.9	143.4
April	146.1	155.8	155.0	159.4	160.6	144.6	146.3
May	148.2	157.5	157.1	161.7	161.3	145.7	147.4
June	151.2	157.4	159.1	161.6	162.1	149.2	148.9
July	148.5	156.5	158.6	161.7	163.2	154.2	150.6
August	147.4	152.3	157.6	161.6	163.6	157.2	148.9
September	146.0	152.7	156.8	159.6	163.9	160.2	149.1
October	144.4	148.3	156.3	160.1	163.4	160.0	148.5
November	145.2	146.3	156.0	160.0	164.0	161.1	148.7
December	143.8	147.5	157.0	159.9	164.3	161.3	149.1
1996							
January	143.7	146.1	156.6	160.8	164.7	160.8	149.2

¹ Base of each index: 1984-85 = 100.0

MANUFACTURING SUBDIVISION INDEXES¹ *continued*

<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>
1992-93	88.2	149.0	135.5	146.3	154.1	143.1	131.5
1993-94	73.8	140.3	125.4	146.0	164.0	144.3	133.2
1994-95	72.6	146.1	134.6	151.3	165.6	149.6	144.0
1994							
November	68.2	144.5	130.0	149.6	164.0	148.0	140.4
December	65.7	146.9	133.1	150.4	162.4	148.7	143.6
1995							
January	70.4	147.0	137.3	151.3	162.2	150.5	145.5
February	73.6	146.7	138.5	154.0	164.4	150.6	147.0
March	75.2	147.9	138.6	154.3	166.9	151.5	149.4
April	76.3	148.0	140.9	154.1	169.5	153.1	150.7
May	78.5	147.9	140.5	155.1	172.1	153.7	151.5
June	76.5	148.2	142.8	154.8	172.5	154.1	150.3
July	72.6	144.6	145.4	155.5	172.6	155.0	150.6
August	70.8	144.4	143.9	155.1	170.4	153.9	147.5
September	69.7	144.3	143.6	155.5	166.8	153.3	146.2
October	68.8	144.3	143.6	158.1	165.0	153.0	143.6
November	70.6	144.5	143.2	159.0	164.1	153.0	147.9
December	74.7	144.7	144.5	159.5	164.8	153.5	145.4
1996							
January	81.7	144.6	144.1	159.0	163.5	152.0	145.0

¹ Base of each index: 1984-85 = 100.0

MANUFACTURING SUBDIVISION INDEX, Selected Metallic Materials¹

USED IN THE FABRICATED METAL PRODUCTS INDUSTRY.....

<i>Period</i>	<i>Iron and Steel</i>	<i>Aluminium</i>	<i>Copper and brass</i>	<i>Zinc</i>
1992-93	145.4	135.8	180.0	155.0
1993-94	147.1	130.8	168.6	138.7
1994-95	148.7	144.3	205.0	137.9
1994				
November	148.3	135.2	203.3	138.2
December	148.2	137.0	209.8	142.1
1995				
January	148.4	141.7	211.0	138.1
February	149.2	157.7	213.5	142.8
March	149.3	160.7	211.8	137.6
April	149.3	155.7	217.1	136.3
May	149.8	161.3	213.1	140.1
June	149.9	156.4	218.1	139.6
July	150.0	158.3	223.8	138.5
August	150.2	155.8	219.2	139.1
September	150.7	158.4	216.2	142.0
October	155.1	156.8	214.3	135.6
November	156.7	155.2	214.7	135.6
December	157.4	155.5	218.4	140.5
1996				
January	157.4	154.2	213.1	140.4

¹ Base of each index: 1984-85 = 100.0

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents index numbers that are based on materials (including fuels) used by establishments classified to designated 'sectors' of Australian manufacturing industry — the Price Indexes of Materials Used in Manufacturing Industries. They are calculated on the reference base 1984–85 = 100.0.

2 Index numbers for the current month and the previous month are preliminary and subject to revision.

SCOPE

3 The indexes are on a 'net sector' basis; that is, each relates only to those materials which are used in the defined 'sector' of Australian manufacturing industry and which have been produced by establishments outside that 'sector'. These establishments are either Australian manufacturing establishments classified to other manufacturing 'sectors' or to other divisions of Australian industry (eg 'Agriculture, forestry, fishing and hunting' or 'Mining') or are overseas producers (including overseas manufacturing establishments).

CLASSIFICATION

4 The Manufacturing Division index measures changes in prices of materials (including fuels) used by establishments classified to Australian Standard Industrial Classification (ASIC) Division C, Manufacturing, which have been purchased or transferred in from establishments outside the Manufacturing Division. It excludes semi-processed materials which have been produced by establishments within the Manufacturing Division and sold or transferred to other establishments within the Manufacturing Division. The index reflects purchases of materials at the point of entry to the Manufacturing Division.

5 The indexes for ASIC Subdivisions and the indexes for ASIC Groups and measure changes in prices of materials (including fuels) used by establishments classified to each defined ASIC manufacturing 'sector' which have been purchased or transferred in from establishments outside that 'sector'. These exclude semi-processed materials which have been produced by establishments within the specific 'sector' and sold or transferred to establishments in the same 'sector'. The pricing and weights for these net 'sector' indexes therefore reflect purchases and transfers in at the point of entry to the respective ASIC Subdivision, or ASIC Group or Group combination.

ITEMS AND WEIGHTS

6 The indexes are fixed weights indexes. The items included in the indexes were selected on the basis of values of materials used in 1977–78. The selected items were allocated weights in accordance with the estimated value of manufacturing usage in 1977–78 except for the following:

- Fuels (e.g. crude petroleum, natural gas and electricity), which were allocated weights on the basis of estimated usage in 1982–83;
- Cereal grains, which were allocated weights based on estimated manufacturing usage in 1977–78 and 1978–79; and
- Live animals, which were allocated weights based on the average value of slaughterings in 1981–82, 1982–83 and 1983–84.

7 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.

ITEMS AND WEIGHTS (continued)

8 For the Manufacturing Division index, individual materials have been grouped into two broad categories: Imported materials and Home produced materials. Within each of these categories materials have been grouped on the basis of ASIC industry of origin (i.e. the industry in which, in accordance with the classification rules of ASIC, the materials are primarily produced in Australia or the industry in which the materials would be classified had the material been produced in Australia). Percentage contributions, in 1984-85, of individual materials to the relevant commodity groups and to the Manufacturing Division as a whole were shown in Table A1 in the Appendix to the December 1985 issue of this publication.

9 Percentage contributions, in 1984-85, of each material to each 'sector' index were shown in Table A2 in the Appendix to the December 1985 issue of this publication.

PRICE MEASUREMENT

10 For those materials subject to significant price variation throughout the month (e.g. agricultural materials, and metal ores and concentrates) average monthly prices are used in compiling these indexes. Other materials are priced at the mid point in the month. Prices of home produced materials are generally obtained from manufacturers who use the material but in some cases prices are obtained from suppliers (producers or wholesalers). Prices of imported materials are generally obtained from importers.

11 In concept, pricing for these indexes is at the point at which the material physically enters the defined manufacturing 'sector'. Therefore, as far as possible prices are on a 'delivered into store' basis.

Transferred Goods

Transfers which do not take place on the open market present problems for the measurement of price change. An example is where a vertically integrated enterprise extracts a mineral (mining activity) and also processes it (manufacturing activity). Since the material is transferred from one part of the enterprise to another there is usually no transaction price. In such instances various methods of imputing changes in market prices have been adopted. Depending on circumstances and the availability of data, these methods include using changes in opportunity cost (based, for example, on the price of the material in an established market) or changes in the cost (based on expenses actually incurred in obtaining the material). Imputations of this kind enter partly into price series for materials such as nickel concentrates, silver-lead concentrates and zinc concentrates.

Seasonal Materials

In the case of some seasonal materials such as fruit and vegetables, where deliveries do not occur over the whole year, the previous season's prices are repeated for the months outside the selling season until the subsequent season's prices become operative.

Estimated Prices

For items such as sugar cane, where prices are only determined annually, the final prices are sometimes not known until the relevant season or contract period has been at least partly completed. Estimates of the current season or contract period price are used in index calculations until the final price becomes available. Incorporation of such final prices may involve lengthy revisions to index numbers.

PRICE MEASUREMENT (continued)

Electricity The index numbers for electricity published in Table 4 are based on prices paid for electricity used by a representative sample of manufacturing establishments. Both 'tariff' prices and special contract prices are included in the calculations.

INDEX NUMBERS

12 Index numbers for financial years are simple averages of monthly index numbers.

REVISIONS

13 Index numbers for the current month and the previous month are preliminary and subject to revision. From time to time index numbers for earlier months may also be revised. This will occur whenever the ABS obtains more complete information or discovers that incorrect prices have been used.

ANALYSIS OF INDEX CHANGES

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

15 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:

Manufacturing Division index numbers —

January 1996 133.8 (see Table 1)

less January 1995 126.1 (see Table 1)

Change in index points 7.7

Percentage change $\frac{7.7}{126.1} \times 100 = 6.1$

16 Table 3 provides an analysis of the contributions which selected categories of materials make to the total Manufacturing Division index. For example, Live animals contributed 17.69 index points to the total Manufacturing Division index number of 133.8 for January 1996 and -0.12 index points to the net change of 1.9 index points. A further explanation is provided in the Appendix to the February 1988 issue of this publication.

FURTHER INFORMATION

17 The December 1985 issue of this publication contains a more detailed description of the indexes and their relationship with previous indexes.

18 Further information on the indexes is presented in the publication *Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods* (6419.0).

RELATED PUBLICATIONS

19 Users may also wish to refer to the following publications which are available from ABS Bookshops:

- *Price Index of Materials Used in Coal Mining, Australia* (6415.0)
- *Price Index of Copper Materials, Australia* (6410.0)
- *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (6412.0)
- *Price Index of Materials Used in Building Other than House Building, Six State Capital Cities* (6407.0)
- *Price Index of Materials Used in House Building, Six State Capital Cities* (6408.0)
- *Import Price Index, Australia* (6414.0)
- *Export Price Index, Australia* (6405.0)



RELATED PUBLICATIONS (continued) **20** 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 *Release Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

UNPUBLISHED STATISTICS **21** As well as the statistics included in this and related publications, the ABS may have other relevant unpublished data available. Inquiries should be made to Mark Dickson on 06 252 5541 or to any ABS office.

SYMBOLS AND OTHER USAGES ASIC Australian Standard Industrial Classification
r figure or series revised since previous issue





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