

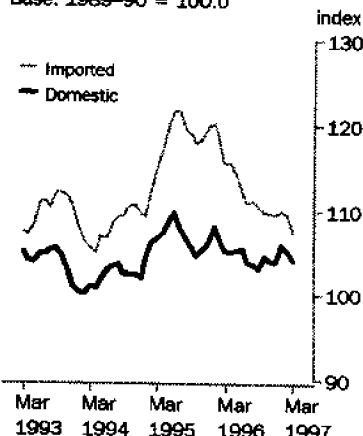
# PRICE INDEXES OF MATERIALS USED IN MANUFACTURING INDUSTRIES

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) THURS 15 MAY 1997

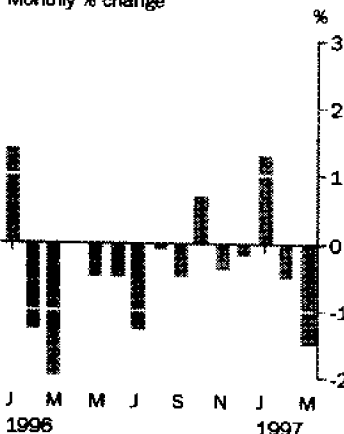
## Manufacturing Division

Base: 1989-90 = 100.0



## Manufacturing Division

Monthly % change



## MARCH KEY FIGURES

	% change Feb 97 to Mar 97	% change Mar 96 to Mar 97
Manufacturing Division	-1.5	-3.3
Imported materials	-1.8	-7.0
Domestic materials	-1.2	-1.0

## MARCH KEY POINTS

### MANUFACTURING DIVISION INDEX

- Continuing price falls for locally produced crude oil were the main contributors to the fall in the index.
- The fall in the index was however partly offset by price rises in metal ores.

### MAJOR MOVEMENTS

- Lower world prices continued to constrain prices for locally produced crude oil.
- Prices for imported chemicals also continued to fall.
- Prices for imported inputs into the Automotive industry decreased.
- Offsetting the overall price fall were price increases for metal ores.
- Other offsetting price rises included those for cattle, sheep and lambs due to seasonal factors and better world market conditions.

## INQUIRIES

- For further information about these and related statistics, contact Wohoro Ndohho on 06 252 6424, or any ABS Office.

## NOTES

### FORTHCOMING ISSUES

#### ISSUE

#### RELEASE DATE

April 1997

16 June 1997

May 1997

15 July 1997

June 1997

15 August 1997

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### CHANGES IN THIS ISSUE

There are no changes in this issue.

\*\*\*\*\*

W. McLennan

Australian Statistician



## MANUFACTURING DIVISION INDEX (a)

<i>Period</i>	<i>Manufacturing Division</i>	<i>Imported Materials</i>	<i>Domestic Materials</i>
<b>1993-94</b>	104.7	108.8	102.5
<b>1994-95</b>	107.6	112.7	104.9
<b>1995-96</b>	110.0	117.6	105.9
<b>1996</b>			
January	112.4	120.2	108.1
February	110.9	118.6	106.8
March	108.7	115.5	105.1
April	108.7	115.6	104.9
May	108.2	114.0	105.1
June	107.7	112.0	105.5
July	106.3	110.9	103.7
August	106.2	111.1	103.5
September	105.7	110.3	103.2
October	106.4	109.7	104.6
November	106.0	109.7	104.0
December	105.8	109.3	103.9
<b>1997</b>			
January	107.2	109.8	105.9
February	106.7	109.4	105.3
March	105.1	107.4	104.0

(a) Base of each index 1989-90 = 100.0

## MANUFACTURING DIVISION INDEX, Percentage Changes

Period                      Manufacturing Division                      Imported Materials                      Domestic Materials

## PERCENTAGE CHANGE (from previous year)

<b>1993-94</b>	-1.6	0.9	-3.0
<b>1994-95</b>	2.8	3.6	2.3
<b>1995-96</b>	2.2	4.3	1.0

## PERCENTAGE CHANGE (from corresponding month of previous year)

**1996**

January	6.0	10.2	3.7
February	2.4	5.6	0.7
March	-0.9	0.3	-1.5
April	-1.9	-1.4	-2.3
May	-3.9	-5.1	-3.2
June	-5.4	-7.8	-3.7
July	-5.6	-8.7	-3.8
August	-4.5	-7.0	-2.9
September	-4.1	-7.2	-2.1
October	-2.6	-7.0	0.2
November	-3.5	-7.3	-1.2
December	-4.5	-8.6	-2.2

**1997**

January	-4.6	-8.7	-2.0
February	-3.8	-7.8	-1.4
March	-3.3	-7.0	-1.0

## PERCENTAGE CHANGE (from previous month)

**1996**

January	1.4	0.5	1.8
February	-1.3	-1.3	-1.2
March	-2.0	-2.6	-1.6
April	0.0	0.1	-0.2
May	-0.5	-1.4	0.2
June	-0.5	-1.8	0.4
July	-1.3	-1.0	-1.7
August	-0.1	0.2	-0.2
September	-0.5	-0.7	-0.3
October	0.7	-0.5	1.4
November	-0.4	0.0	-0.6
December	-0.2	-0.4	-0.1

**1997**

January	1.3	0.5	1.9
February	-0.5	-0.4	-0.6
March	-1.5	-1.8	-1.2

# MANUFACTURING DIVISION INDEX, Contribution of Materials by ANZSIC Industry of Origin (a)

Industry of Origin	February 1997	March 1997	Change
<b>Manufacturing Division</b>	<b>106.7</b>	<b>105.1</b>	<b>-1.6</b>
<b>Agriculture</b>	<b>27.56</b>	<b>27.61</b>	<b>0.05</b>
Horticulture and fruit growing	2.33	2.32	-0.01
Grain, sheep and beef cattle farming	13.58	13.88	0.30
Dairy cattle farming	5.33	5.27	-0.06
Poultry farming	1.64	1.63	-0.01
Other livestock farming	1.84	1.77	-0.07
Other crop growing	2.83	2.71	-0.12
<b>Forestry and logging</b>	<b>1.44</b>	<b>1.48</b>	<b>0.04</b>
<b>Coal mining</b>	<b>0.89</b>	<b>0.89</b>	<b>0.00</b>
<b>Oil and gas extraction</b>	<b>15.12</b>	<b>13.68</b>	<b>-1.44</b>
<b>Metal ore mining</b>	<b>8.64</b>	<b>8.91</b>	<b>0.27</b>
<b>Other mining</b>	<b>4.43</b>	<b>4.42</b>	<b>-0.01</b>
Construction material mining	2.65	2.65	0.00
Other mining	1.79	1.77	-0.02
<b>Textile, clothing, footwear and leather manufacturing</b>	<b>5.61</b>	<b>5.56</b>	<b>-0.05</b>
Textile, fibre, yarn and woven fabric manufacturing	4.97	4.93	-0.04
Knitting mills	0.28	0.28	0.00
Leather and leather product manufacturing	0.35	0.35	0.00
<b>Wood and paper product manufacturing</b>	<b>4.60</b>	<b>4.57</b>	<b>-0.03</b>
Log sawmilling and timber dressing	1.12	1.10	-0.02
Other wood product manufacturing	0.37	0.37	0.00
Paper and paper product manufacturing	3.12	3.11	-0.01
<b>Petroleum, coal, chemical and associated product manufacturing</b>	<b>10.54</b>	<b>10.34</b>	<b>-0.20</b>
Basic chemical manufacturing	5.90	5.79	-0.11
Other chemical product manufacturing	1.53	1.46	-0.07
Rubber product manufacturing	1.14	1.14	0.00
Plastic product manufacturing	1.98	1.97	-0.01
<b>Non-metallic mineral product manufacturing</b>	<b>0.73</b>	<b>0.72</b>	<b>-0.01</b>
Glass and glass product manufacturing	0.73	0.72	-0.01
<b>Metal product manufacturing</b>	<b>5.38</b>	<b>5.35</b>	<b>-0.03</b>
Iron and steel manufacturing	3.38	3.38	0.00
Non-ferrous basic metal product manufacturing	0.59	0.60	0.01
Fabricated metal product manufacturing	1.41	1.38	-0.03
<b>Machinery and equipment manufacturing</b>	<b>10.52</b>	<b>10.33</b>	<b>-0.19</b>
Motor vehicle and part manufacturing	4.75	4.68	-0.07
Other transport equipment	0.25	0.25	0.00
Photographic and scientific equipment manufacturing	0.95	0.94	-0.01
Electronic equipment manufacturing	1.71	1.67	-0.04
Electrical equipment and appliance manufacturing	1.27	1.26	-0.01
Industrial machinery and equipment manufacturing	1.58	1.54	-0.04
<b>Electricity and gas supply</b>	<b>11.23</b>	<b>11.25</b>	<b>0.02</b>
Electricity supply	4.62	4.65	0.03
Gas supply	6.61	6.61	0.00

(a) For an explanation of this table see paragraph 19 of the Explanatory Notes.

# MANUFACTURING ANZSIC SUBDIVISION AND GROUP INDEXES (a)

Period	Food, beverages and tobacco (21)	Textiles and textile products (221,222)	Knitting mills and clothing (223,224)	Footwear (225)	Leather and leather products (226)	Sawmilling and timber products (231,232)	Paper and paper products (233)	Printing and publishing (24)	Petroleum and coal products (251,252)
<b>1993-94</b>	107.7	89.9	107.7	102.4	99.6	115.3	89.7	102.7	101.9
<b>1994-95</b>	111.0	103.0	109.2	109.5	101.9	111.3	95.8	101.1	100.2
<b>1995-96</b>	111.7	100.9	111.4	111.7	95.1	114.0	108.3	114.1	103.5
<b>1996</b>									
January	111.6	100.5	111.9	111.8	96.6	114.7	112.5	114.9	112.7
February	110.6	100.3	111.1	111.3	95.6	114.2	112.1	115.3	109.1
March	107.8	98.9	110.9	111.7	92.8	114.0	105.5	114.9	110.3
April	108.9	97.2	110.2	112.4	93.5	113.4	105.0	114.0	108.7
May	110.4	95.9	109.9	112.4	93.9	112.4	102.4	112.5	106.1
June	111.8	96.3	109.8	111.6	91.3	112.6	98.1	113.1	105.4
July	108.5	95.0	108.3	111.7	93.3	112.6	98.5	110.0	107.2
August	107.8	94.6	107.5	111.7	95.3	113.2	98.6	109.2	108.6
September	106.9	92.6	105.8	112.2	96.7	113.2	97.7	108.2	111.9
October	105.5	92.3	105.4	112.6	96.6	113.1	97.2	106.9	123.8
November	104.7	91.8	105.2	110.2	95.5	113.4	98.6	106.8	123.7
December	104.4	91.6	105.0	110.1	95.7	113.1	97.6	106.4	124.0
<b>1997</b>									
January	104.3	92.3	105.4	110.2	94.9	112.9	97.1	104.8	132.2
February	105.3	93.0	105.6	110.4	96.9	113.8	96.3	104.7	126.9
March	105.5	92.1	105.2	109.8	95.1	113.5	95.8	104.5	115.9

(a) Base of each index 1989-90 = 100.0



# MANUFACTURING ANZSIC SUBDIVISION AND GROUP INDEXES (a) continued

Period	Chemicals (253,254)	Rubber and plastics (255,256)	Non-metallic mineral products (26)	Basic metal products (271-273)	Fabricated metal products (274-276)	Transport equipment and parts (281,282)	Electronic equipment and other machinery (283-286)	Other manufacturing (29)
<b>1993-94</b>	103.5	106.9	109.8	87.6	100.8	115.0	102.7	111.5
<b>1994-95</b>	107.8	118.8	114.3	94.0	104.4	116.2	106.4	112.3
<b>1995-96</b>	113.8	122.0	113.6	99.4	108.7	115.1	107.8	112.9
<b>1996</b>								
January	115.1	121.1	113.1	100.7	109.7	114.7	108.2	113.3
February	113.8	120.3	114.2	99.8	109.5	114.5	107.3	112.6
March	111.0	117.4	114.3	98.7	109.2	113.3	106.8	112.6
April	112.2	117.9	114.6	97.8	108.8	112.4	105.9	112.0
May	111.7	118.1	114.7	97.0	108.8	111.9	105.1	111.7
June	111.8	116.8	114.5	95.1	108.3	110.3	103.9	110.9
July	111.8	115.7	114.4	93.5	107.6	110.0	103.3	110.6
August	112.1	115.4	113.6	93.8	107.2	110.2	103.4	110.6
September	111.8	114.7	112.8	92.4	105.4	110.6	102.6	110.1
October	111.4	114.2	112.7	91.6	104.7	109.8	102.3	110.2
November	110.1	113.4	112.4	91.8	104.8	109.9	102.1	110.3
December	110.1	113.0	112.5	91.8	105.1	109.7	102.4	110.5
<b>1997</b>								
January	110.9	113.5	112.5	92.7	105.7	109.7	102.5	110.9
February	110.8	113.6	113.7	92.8	106.1	110.3	102.7	111.3
March	110.0	112.1	113.0	94.2	106.8	109.6	102.5	111.3

(a) Base of each index 1989-90 = 100.0

# INDEXES OF METALLIC MATERIALS USED IN THE FABRICATED METAL PRODUCTS INDUSTRY (a)

Period	Iron & Steel	Aluminium	Copper & Brass	Zinc
<b>1993-94</b>	104.4	85.6	98.1	77.2
<b>1994-95</b>	105.5	94.5	119.3	76.8
<b>1995-96</b>	110.1	100.8	123.3	77.1
<b>1996</b>				
January	111.6	100.9	124.0	78.2
February	111.6	100.7	120.8	78.1
March	111.6	100.1	119.7	77.8
April	111.4	98.6	118.1	77.4
May	111.3	97.6	119.3	76.1
June	111.2	96.0	116.7	75.3
July	111.2	95.5	112.1	74.7
August	111.1	93.4	111.2	73.9
September	110.5	91.1	110.8	74.6
October	110.5	88.9	109.4	73.6
November	110.4	88.7	110.2	73.6
December	110.5	88.4	114.5	76.2
<b>1997</b>				
January	110.6	89.0	114.5	75.4
February	110.6	89.1	118.3	76.7
March	111.7	90.5	117.7	88.1

(a) Base of each index 1989-90 = 100.0



## EXPLANATORY NOTES

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### INTRODUCTION

**1** This publication presents index numbers that are based on materials used by establishments classified to designated 'sectors' of Australian manufacturing industry — the Price Indexes of Materials Used in Manufacturing Industries (MUMI). They are calculated on the reference base 1989-90 = 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 and Fishing' or 'Mining') or are overseas producers (including overseas manufacturing establishments).

### CLASSIFICATION

**4** The Manufacturing Division index measures changes in the prices of materials used by establishments classified to Australian and New Zealand Standard Industrial Classification (ANZSIC) 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 ANZSIC Subdivisions and Groups measure changes in prices of materials used by establishments classified to each defined ANZSIC 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 ANZSIC Subdivision or Groups.

**6** The coverage of the ANZSIC Subdivision and Group price indexes shown in Table 4 of this publication is as follows:-

- Food, beverages and tobacco — ANZSIC Subdivision 21 Food, Beverage and Tobacco Manufacturing;
- Textiles and textile products — ANZSIC Group 221 Textile, Fibre, Yarn and Woven Fabric Manufacturing and Group 222 Textile Product Manufacturing;
- Knitting mills and clothing — ANZSIC Group 223 Knitting Mills and Group 224 Clothing Manufacturing;
- Footwear — ANZSIC Group 225 Footwear Manufacturing;
- Leather and leather products — ANZSIC Group 226 Leather and Leather Product Manufacturing;
- Sawmilling and timber products — ANZSIC Group 231 Log Sawmilling and Timber Dressing and Group 232 Other Wood Product Manufacturing;
- Paper and paper products — ANZSIC Group 233 Paper and Paper Product Manufacturing;
- Printing and publishing — ANZSIC Subdivision 24 Printing, Publishing and Recorded Media;

## EXPLANATORY NOTES

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### CLASSIFICATION (continued)

- Petroleum and coal products — ANZSIC Group 251 Petroleum Refining and Group 252 Petroleum and Coal Product Manufacturing n.e.c.;
- Chemicals — ANZSIC Group 253 Basic Chemical Manufacturing and Group 254 Other Chemical Product Manufacturing;
- Rubber and plastics — ANZSIC Group 255 Rubber Product Manufacturing and Group 256 Plastic Product Manufacturing;
- Non-metallic mineral products — ANZSIC Subdivision 26 Non-Metallic Mineral Product Manufacturing;
- Basic metal products — ANZSIC Group 271 Iron and Steel Manufacturing; Group 272 Basic Non-Ferrous Metal Manufacturing and Group 273 Non-Ferrous Basic Metal Product Manufacturing;
- Fabricated metal products — ANZSIC Group 274 Structural Metal Product Manufacturing; Group 275 Sheet Metal Product Manufacturing and Group 276 Fabricated Metal Product Manufacturing;
- Transport equipment and parts — ANZSIC Group 281 Motor Vehicle and Part Manufacturing and Group 282 Other Transport Equipment Manufacturing;
- Electronic equipment and other machinery — ANZSIC Group 283 Photographic and Scientific Equipment Manufacturing; Group 284 Electronic Equipment Manufacturing; Group 285 Electrical Equipment and Appliance Manufacturing and Group 286 Industrial Machinery and Equipment Manufacturing;
- Other manufacturing — ANZSIC Subdivision 29 Other Manufacturing.

### ITEMS AND WEIGHTS

**7** The indexes are fixed weights indexes. The items included in the indexes were selected on the basis of the values of materials used in 1989-90. The selected items were allocated weights in accordance with the estimated value of manufacturing usage.

**8** 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.

**9** Materials have been grouped on the basis of ANZSIC industry of origin (i.e. the industry in which, in accordance with the classification rules of ANZSIC, the materials are primarily produced in Australia or the industry in which the materials would be classified had the materials been produced in Australia). Percentage contributions, in 1989-90, of individual materials to the Manufacturing Division as a whole and to the ANZSIC Subdivision and Group indexes are shown in Appendix A of the July 1996 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 domestically produced materials are priced at the mid point of the month. Prices of these materials are generally obtained from suppliers (producers and wholesalers). Prices of imported materials are generally obtained from importers and relate to shipments arriving in Australia in the month.

**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.

## EXPLANATORY NOTES

**12** 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 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, for example, enter partly into price series for ores used in the manufacture of metal concentrates.

**13** 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.

**14** For some items, 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.

### INDEX NUMBERS

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

### REVISIONS

**16** Index numbers for the current month and for the previous month are preliminary and subject to revisions. 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

**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 as either 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 —

March 1997	105.1	(see Table 1)
March 1996	108.7	(see Table 1)
Change in index points	-3.60	
Percentage change	$\frac{-3.60}{108.7} \times 100 =$	-3.3

**19** Table 3 provides an analysis of the contributions materials (classified by ANZSIC industry of origin) make to the total Manufacturing Division index. For example, Grain sheep and beef cattle farming contributed 13.88 index points to the total Manufacturing division index number of 105.1 for March 1997 and 0.30 index points to the net change of -1.60 index points.

### FURTHER INFORMATION

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

## EXPLANATORY NOTES

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### RELATED PUBLICATIONS

**21** 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 Index 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)*

**22** 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

**23** 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 Wohoro Ndooho on 06 252 6424 or to any ABS office.

### SYMBOLS AND OTHER USAGES

ANZSIC Australian and New Zealand Standard Industrial Classification  
r figure or series revised since previous issue.







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