

PRICE INDEXES OF MATERIALS USED IN COAL MINING, AUSTRALIA, NOVEMBER 1988

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MAIN FEATURES

This publication introduces the Price Indexes of Materials Used in Coal Mining. The indexes are designed to provide a general measure of price change for materials used in the mining of coal in Australia.

Change between—

	Oct. 88	Nov. 87 and Nov. 88	Nov. 88
	%	%	
Total Open Cut	+0.2	+0.2	
Total Underground	+0.1	+8.8	

Notable price changes since July 1987 were:

September 1987

- Price falls for electricity in N.S.W. following the removal of the winter tariff surcharge.

January 1988

- Increased prices for steel roof supports and roof bolts.

May 1988

- Increased electricity prices in N.S.W. due to the introduction of the winter tariff surcharge.

August 1988

- Lower prices for distillate and lubricants.

EXPLANATORY NOTES

Introduction

The indexes have been compiled for each month from July 1987 and are presented on a reference base : Year 1987-88 = 100.0.

2. Index series are published which measure price movements in materials used in open cut and underground coal mining operations separately. The Appendix to this issue contains a more detailed description of the indexes.

Scope and Composition

3. For the purposes of these indexes, coal mining operations encompass the removal of overburden, the extraction, washing and preparation of the coal and its transportation to the rail head. Materials are defined to be those consumables and replacement parts normally used up in these activities. Items of capital equipment are not included within the scope of the indexes.

Items and weights

4. The index is a fixed weights index. Items were selected and allocated weights in accordance with the estimated average values of materials used in the operation of open cut and underground coal mines in the three years ended June 1987. The weighting pattern for the indexes is included in the Appendix to this issue.

Prices

5. Prices used relate to precise standards of each material. The aim of the index is to measure price changes for materials of constant quality.

6. The point of pricing is delivered on mine site or to the primary storage area for a group of mines. Prices are obtained from representative suppliers of materials used in coal mining and, in the main, prices are collected at the mid-point of the month to which the indexes relate.

7. As far as possible, actual transactions prices are used — that is the prices actually paid by coal mines to suppliers for materials delivered on mine sites. 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 mining material may be described in terms of the components that make up the price — for instance 'list price plus sales tax' 'suppliers price plus freight', 'basic price less (particular types of) discount', and so on. It is these net prices that buyers pay to sellers in exchange for materials that the ABS aims to use in compiling this index.

8. The ABS asks respondents to report details of the discounts they offer so that actual transactions prices can be calculated. However, as coal mining materials suppliers offer different types of discounts to buyers (for example, quantity discounts and competitive discounts), the identification of the discounts and the way in which they are applied by sellers pose considerable problems for the

ABS. To the extent that discounts are identified and can be measured their effects are taken into account in calculating the index.

9. Sometimes new discounts, or changes in the way discounts are applied by sellers, are identified only after index numbers for a 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.

10. Sales tax is included in the final price used for index calculation.

Index numbers

11. Index numbers for financial years are simple averages of monthly index numbers for each period. All index numbers for the latest month and the previous month are preliminary and subject to revision. However, it may be necessary from time to time to review index numbers for earlier periods if incorrect prices for those periods are detected later on.

12. The Open Cut and Underground indexes enable comparisons to be drawn between them as to the differences in degree of price movement from period to period. They do not measure differences in price levels between the two types of mining.

Percentage changes

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

Total Open Cut index number —	
November 1988	99.4
less October 1988	99.2
Change in index points	+0.2
Percentage change	$= \frac{+0.2}{99.2} \times 100$
	$= +0.2\%$

Interpretation

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. The weights of the indexes are based on the average usage of materials used by a number of selected representative mines in the three years to June 1987. Since the weights are based on an average materials usage from a range of coal mines with particular characteristics, the index is not necessarily representative of the price movements for materials used in any particular mine.

Related publications

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

Price Index of Materials Used in Building Other than House Building, Eight Capital Cities, (6407.0) — issued monthly

Price Indexes of Copper Materials, Australia (6410.0) — issued monthly

Price Indexes of Materials Used in Manufacturing Industries (6411.0) — issued monthly

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0) — issued monthly

Import Price Index, Australia (6414.0) — issued quarterly

17. 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

18. 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.

Unpublished Statistics

19. 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 the contact in the Phone Inquiries box at the front of this publication.

Symbols and other usages

- nil or rounded to zero
- n.a. not available
- p preliminary — figures subject to revision

Electronic services

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

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TABLE 1. PRICE INDEXES OF MATERIALS USED IN COAL MINING
(Base of each index : Year 1987-88 = 100.0)

Period	Open Cut	Underground
INDEX NUMBERS		
1987-88	100.0	100.0
1987-88—		
July	100.9	100.6
August	100.9	100.6
September	99.6	96.7
October	99.3	97.3
November	99.2	97.8
December	99.6	97.6
January	99.9	99.4
February	99.7	99.6
March	99.3	99.9
April	99.5	100.3
May	101.4	104.6
June	101.0	105.7
1988-89—		
July	100.5	105.5
August	99.1	105.9
September	99.0	106.1
October p	99.2	106.3
November p	99.4	106.4
PERCENTAGE CHANGES		
Change from corresponding month of previous year—		
1988-89—		
July	-0.4	+4.9
August	-1.8	+5.3
September	-0.6	+9.7
October p	-0.1	+9.2
November p	+0.2	+8.8
Change from previous month—		
1987-88—		
July	n.a.	n.a.
August	—	—
September	-1.3	-3.9
October	-0.3	+0.6
November	-0.1	+0.5
December	+0.4	-0.2
January	+0.3	+1.8
February	-0.2	+0.2
March	-0.4	+0.3
April	+0.2	+0.4
May	+1.9	+4.3
June	-0.4	+1.1
1988-89—		
July	-0.5	-0.2
August	-1.4	+0.4
September	-0.1	+0.2
October p	+0.2	+0.2
November p	+0.2	+0.1

APPENDIX

PRICE INDEXES OF MATERIALS USED IN COAL MINING —
AUSTRALIA (6415.0)

DESCRIPTION OF INDEXES

Introduction

The Price Indexes of Materials Used in Coal Mining are designed to provide a general measure of price change for materials used in the mining of coal in Australia.

2. These indexes measure changes in the prices of materials used in the mining of coal. The mining process includes: removal of overburden, extraction, washing and preparation of the coal and transportation to rail head. The materials covered in the indexes are those used in the ongoing operation of established mines.

3. For the purpose of these indexes, materials are defined as being consumables and those replacement parts that normally have a life span of twelve months (although for some more durable items this may extend up to three years). That is, it includes those items that are normally regarded as being consumed in the mining process.

4. In determining whether particular replacement parts were within the scope of the indexes, attention was paid to industry practice (i.e. whether the items are generally regarded as capital items) and to the cost and durability of the item. Replacement parts having a high cost and a long lifespan (e.g. dragline pinions and gears), are regarded as capital equipment and outside the scope of the indexes.

Items and weights

5. The weights of the indexes are based on the average usage of materials used by a number of selected representative mines in the three years to June 1987. Since the weights are based on an average materials usage from

a range of coal mines with particular characteristics, the index is not necessarily representative of the price movements for materials used in any particular mine.

Index numbers

6. The indexes have been compiled and published from July 1987 and are presented on a reference base : Year 1987-88 = 100.0. Financial year index numbers are simple averages of the monthly index numbers.

Relative Contribution to Indexes

7. The percentage contribution of various materials used for the indexes in 1987-88 are shown in tables A1 and A2.

8. The following additional information on certain materials is provided:

- (i) *Miscellaneous Materials — Open Cut and Underground.* This covers replacement conveyor belting, bearings, solvents and cleaners, and general hardware items.
- (ii) *Impact tips.* This includes shovel tips and teeth, and drill bits.
- (iii) *Roof bolts and resins.* This includes roof bolts, resins and their combinations, and bolt washers.
- (iv) *Steel roof supports.* Items covered are 'w-straps', 'top-hats', RSJ and mesh.

TABLE A1 PRICE INDEXES OF MATERIALS USED IN COAL MINING, COMPOSITION AND WEIGHTING - PERCENTAGE
CONTRIBUTION OF MATERIALS USED IN 1987-88
OPEN CUT MINING

Category, Group and Material	Percentage contribution of	
	Material to Group	Group and Material to Category
Total Open Cut		100.0
<i>Distillate and lubricants</i>	<i>100.0</i>	<i>20.3</i>
Distillate	83.3	16.9
Lubricants	16.7	3.4
<i>Explosives</i>	<i>100.0</i>	<i>17.3</i>
Wet explosives	44.5	7.7
Dry explosives	49.7	8.6
Accessories	5.8	1.0
<i>Mechanical spare parts</i>	<i>100.0</i>	<i>22.7</i>
Rubber tyred earth-moving equipment	70.9	16.1
Dragline and electric shovel parts	23.8	5.4
Impact tips	5.3	1.2
<i>Washplant compounds</i>	<i>100.0</i>	<i>6.2</i>
Magnetite	35.4	2.2
Flocculents & washplant reagents	32.3	2.0
Washplant screens	32.3	2.0
<i>Electricity — open cut</i>	<i>100.0</i>	<i>21.0</i>
Electricity	100.0	21.0
<i>Other materials — open cut</i>	<i>100.0</i>	<i>12.5</i>
Electrical parts	24.8	3.1
Tyres	31.2	3.9
Miscellaneous materials — open cut	44.0	5.5

TABLE A2 PRICE INDEXES OF MATERIALS USED IN COAL MINING, COMPOSITION AND WEIGHTING - PERCENTAGE
CONTRIBUTION OF MATERIALS USED IN 1987-88
UNDERGROUND MINING

Category, Group and Material	Percentage contribution of	
	Material to Group	Group and Material to Category
Total Underground		100.0
<i>Mine roof supports</i>	<i>100.0</i>	<i>27.3</i>
Roof bolts & resins	63.4	17.3
Roof timber and props	27.8	7.6
Steel roof supports	8.8	2.4
<i>Mechanical spare parts</i>	<i>100.0</i>	<i>20.8</i>
Continuous miners	67.3	14.0
Longwall spares	32.7	6.8
<i>Electrical materials</i>	<i>100.0</i>	<i>7.8</i>
Electrical cables	24.4	1.9
Other electrical parts	75.6	5.9
<i>Washplant materials</i>	<i>100.0</i>	<i>6.3</i>
Magnetite	38.1	2.4
Flocculents and washplant reagents	25.4	1.6
Washplant screens	36.5	2.3
<i>Electricity — underground</i>	<i>100.0</i>	<i>22.2</i>
Electricity	100.0	22.2
<i>Other materials — underground</i>	<i>100.0</i>	<i>15.6</i>
Hydraulic oils, lubricants and distillate	27.6	4.3
Miscellaneous materials — underground	72.4	11.3

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