



Australian Government

Department of Infrastructure and Transport

Bureau of Infrastructure, Transport and Regional Economics



BITRE Road Construction and Maintenance Price Index 2011 update

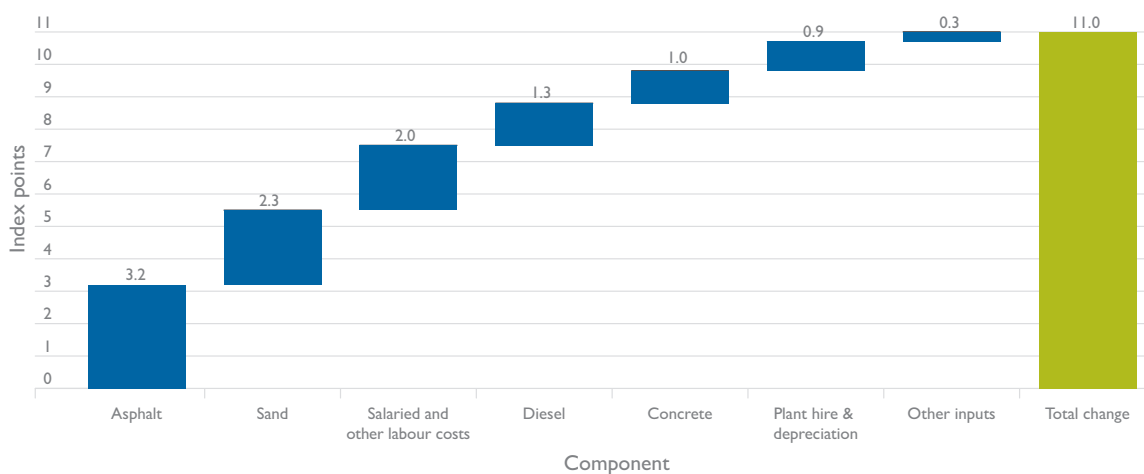
At a glance

- The road construction and maintenance input price index (RCMPI) is an input price index and measures price changes in the inputs used in road construction and maintenance in Australia. It does not measure changes in the prices at which road construction and maintenance products are sold.
- Overall the road construction and maintenance input price index is estimated to have risen by 11.0 points from 2009–10 to 2010–11 (Table 2).
- Table 1 and Figure 1 show how each of the inputs used in road construction and maintenance changed between 2009–10 and 2010–11 and how each contributed to the total change (11.0 points) in the value of the index.

T.1 The change in cost of road construction and maintenance inputs and their contribution to the BITRE index

Input	Per cent change in cost of input based on ABS producer price index	Points contributed to BITRE road construction and maintenance price index
Cost of asphalt	29.0	3.2
Cost of sand	15.9	2.3
Salaried and other labour costs	8.5	2.0
Cost of diesel	20.2	1.3
Cost of concrete	11.1	1.0
Cost of plant hire and depreciation	4.9	0.9
Cost of other inputs	3.3	0.3
Total	na	11.0

F.1 Decomposition of index change



Source: BITRE estimates

- The ABS roads and bridges index does take into account the selling prices and includes changes in profit margins by suppliers of road construction products. The differences in the scope of the ABS and RCMPI indexes, however, are small when compared, except for a short period ahead of the global financial crisis (Figure 2).

T.2 The BITRE road construction and maintenance input price index, and the ABS road and bridge construction index: 2011 update (1998-99 = 100)

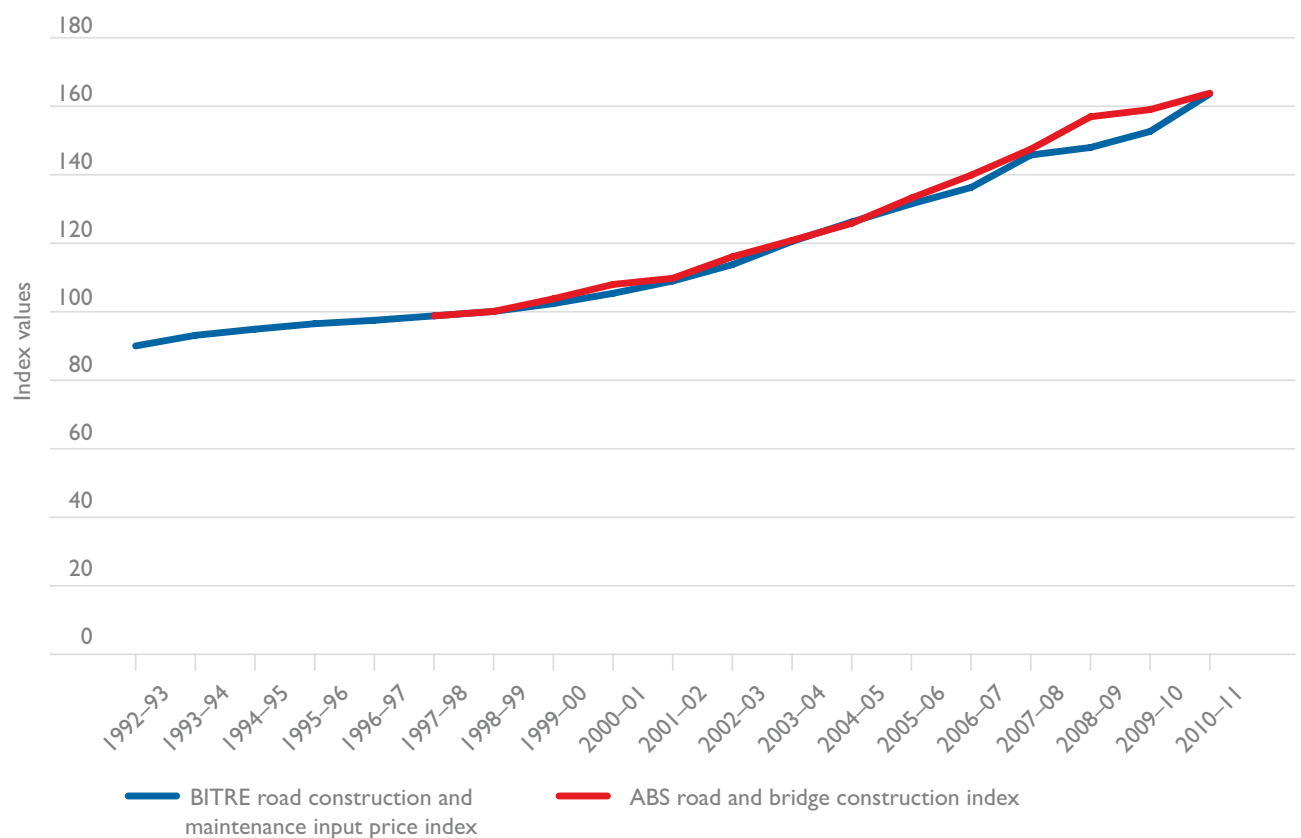
Year	BITRE Road construction and maintenance input price index	ABS road and bridge construction index
1992-93	89.9	
1993-94	93.0	
1994-95	94.8	
1995-96	96.4	
1996-97	97.4	
1997-98	98.7	98.7
1998-99	100.0	100.0
1999-00	102.3	103.7
2000-01	105.3	107.9
2001-02	108.9	109.7
2002-03	113.7	116.0
2003-04	120.5	120.8
2004-05	126.2	125.8
2005-06	131.5	133.2
2006-07	136.3	139.9
2007-08	145.8	147.5
2008-09	148.0	157.0
2009-10	152.7	159.1
2010-11	163.7	163.9

Note

- The BITRE RCMPI is an input price index constructed bottom-up from the changes in prices of the inputs used in road construction. The index does not include sub-contractor margins because it does not include the price of output.
- The ABS index is an output price index and reflects the road/ bridge builders' selling prices excluding GST and the value of land, but including sub-contractor margins.

Source: ABS (2011), BTCE (1997), Australian Petroleum Institute (2011)

F.2 BITRE road construction and maintenance input price index and the ABS road and bridge construction index: 2011 update (1998-99 = 100)



Source: ABS (2011), BTCE (1997), Australian Petroleum Institute (2011)

Explanatory notes

BITRE road construction and maintenance input price index is based on changes in seven inputs to road construction and maintenance. The update of the index takes into account the changes over time in the cost of:

- fuel (diesel) where data is obtained from the Australian Petroleum Institute;
- salaried and other labour which is approximated by Average Weekly Earnings (AWE) in all industries by adult males in full time employment reported by ABS;
- bitumen—from the ABS producer price index (PPI) for asphalt supplied and placed;
- concrete—approximated by the ABS producer price index (PPI) for concrete;
- quarry products (gravel and sands) —from the ABS producer price index for sands;
- plant hire or lease—from ABS Producer Price Index for Plant Hire or Leasing (ANZSIC 774); and
- other materials —from the ABS All Groups Producer Price Index.

The weights used in the index are from BTCE (1997).

A recent review of literature (Table 3) compared the weights of inputs in the RCMPI with weights of these inputs reported.

T.3 Weights used in RCMPI compared to weights of inputs from a literature review

Input	Weight in RCMPI	Weight in other literature Source		
	BTCE (1997)	ABS (2004)	IBEF (2009)	Kersey (2007)
Fuel	6.8	3.7	-	-
Plant hire or lease	19.6	1.1	22.0	-
Salaried and other labour	25.8	21.0	-	20 to 30
Bitumen/ asphalt	12.0	36.8	-	-
Concrete	9.7		-	-
Quarry products (gravel and sands)	15.3		-	-
Other materials	10.8	11.1	-	-
Contractors/ sub-contractors	0	26.3	-	-
Total	100.0	100.0	-	-

Note

- denotes not estimated in the source document.

In ABS (2004) the category 'contractor/ sub-contractor' is a composite element which includes labour, plant hire or lease, and the other inputs.

Abbreviations

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industry Classification
BTCE	Bureau of Transport and Communications Economics
IBEF	India Brand Equity Foundation

References

ABS 2004, *Private sector construction industry, Australia 2002–03*, ABS Catalogue No. 8772.0.

ABS 2011a, *Producer Price Indexes Australia* June 2011, ABS catalogue number 6427.0, <<http://abs.gov.au/Ausstats>>.

ABS 2011b, *Average Weekly Earnings, States and Australia*, ABS catalogue number 6302.0, <<http://www.abs.gov.au/AUSSTATS>> (May 2011).

Australian Petroleum Institute 2011, *Average Weekly Retail Prices for Diesel Fuel, Metropolitan region*, viewed July 2011 at <http://www.aip.com.au/pricing/retail/diesel/index.htm>.

Bureau of Transport and Communications Economics 1997, *BTCE road construction and maintenance price index*. Information paper 41, Australian Government Publishing Service, Canberra.

India Brand Equity Foundation 2009, *Construction equipment*, September 2009, <www.ibef.org>.

Kersey P 2007, *Overall cost of construction*, Mackinac Centre for Public Policy, Midland, Michigan.

© Commonwealth of Australia 2011

ISSN 1440-9593

ISBN 978-1-921769-51-1

OCTOBER 2011/INFRA 1213

This information sheet was compiled in BITRE's Infrastructure, Surface Transport and Road Safety Section. For further information on this publication please phone (02) 6274 7312 or email data.team@infrastructure.gov.au.

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written express permission. Requests and enquiries concerning reproduction rights should be addressed to the Head of Bureau, Bureau of Infrastructure, Transport and Regional Economics, GPO Box 501, Canberra ACT 2601.

This publication is available free of charge in electronic format when downloaded from our website <http://www.bitre.gov.au>.

An appropriate citation for this publication is:

Bureau of Transport, Infrastructure and Regional Economics [BITRE] 2011, *Road Construction and Maintenance Price Index, 2011 update*, Information Sheet 42, BITRE, Canberra.

Disclaimers

BITRE seeks to publish its work to the highest professional standards. However, it cannot accept responsibility for any consequence arising from the use of information herein. Readers should rely on their own skill and judgement in applying any information or analysis to particular issues or circumstances.