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AER SP AusNet Draft Determination: Inflation Expectations

TransGrid



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1. Introduction

NERA Economic Consulting (NERA) has been engaged by TransGrid to consider the appropriateness of the 3% inflation rate estimate adopted by the Australian Energy Regulator (AER) in the SP AusNet Transmission Draft Determination 2008/09 to 2013/14 (Draft Determination).

TransGrid's question has been prompted by the AER's decision to use a range of inflation indicators as the basis for establishing inflation expectations, rather than utilising the inflation expectations inferred from the application of the Fisher equation to the ten year nominal and indexed government bond yields. The AER's decision to adopt an alternative approach to establishing inflation expectations stemmed from its acknowledgement that supply factors currently prevailing in the inflation-indexed government bond market give rise to a biased estimate of the ten year real risk free rate and in turn a biased estimate of inflation expectations. Recognising this bias, the AER accepted that the application of the Fisher equation may not produce the 'best estimates of expected inflation' as required by clause 6A.5.3(b)(1) of the National Electricity Rules (Rules).

As an alternative to the Fisher equation the AER developed an analytical framework which involved identifying the Reserve Bank of Australia's (RBA) inflation target band as the relevant bounds within which inflation could be expected to fall and further identifying inflation rates of 2%, 2.5% and 3% as the 'most sensible' options within the bounds established by the RBA's target band. Following a review of five forward looking inflation expectation indicators the AER concluded that an inflation rate at the upper bound of the RBA's target band was more appropriate than either 2% or 2.5%.

In our opinion the analytical framework developed by the AER for the purposes of identifying the 'best estimates of expected inflation' unnecessarily constrains the assessment of possible inflation forecasts to three point estimates that differ by 50 basis points. The artificial nature of this constraint coupled with the limited size of the sample of indicators relied upon by the AER and the questionable nature of the conclusions drawn about the relevance of some of these indicators will, in our opinion, result in the selection of an inflation rate that is inconsistent with the 'best estimate' requirement of clause 6A.5.3(b)(1) of the Rules.

This report sets out our specific concerns on each of these issues as well as presenting an alternative approach to identifying the 'best estimate of expected inflation' and an alternative estimate of the inflation rate that is expected to prevail over the next ten years. The remainder of this report is structured as follows:

- **§** Chapter 2 outlines our concerns with the analytical framework developed by the AER for the purposes of establishing the 'best' estimate of expected inflation and sets out our alternative approach to achieving the objective contained in 6A.5.3(b)(1) of the Rules;
- **§** Chapter 3 examines the composition and size of the inflation rate forecast sample set relied upon by the AER and sets out our alternative estimate of the inflation rate that is expected to prevail over the next ten years; and
- **§** Chapter 4 summarises our conclusions.

2. Analytical Framework Adopted by the AER

The analytical framework developed by the AER requires consideration to be given to:

- 1 the bounds within which expected inflation is likely to fall;
- 2 identifying those expected inflation rates within the bounds established in step 1 that represent the 'most sensible outcomes'; and
- 3 the extent to which current inflation indicators support the selection of a particular inflation rate identified in step 2.

Applying this framework the AER concluded that the RBA target inflation band formed the relevant bounds within which inflation was likely to fall and identified inflation rates of 2%, 2.5% and 3% as being the 'most sensible' outcome. Based on its analysis of five forward looking inflation expectation indicators with forecast horizons ranging from two to ten years, the AER concluded that an inflation rate at the upper end of the RBA's target band was more appropriate than an inflation rate of either 2% or 2.5%.

Our two principal concerns with the analytical framework developed by the AER relate to:

- **§** the unnecessary constraints imposed by steps 1 and 2 on the assessment of the 'best estimates of inflation expectations'; and
- **§** the apparent absence of any consideration given to the term over which inflation expectations should be measured.

These two issues are discussed in turn below.

2.1. Unnecessary Limitations Placed on the Analysis

In our opinion the analytical framework developed by the AER places an unnecessary constraint on the consideration required to ascertain the 'best' estimate of inflation expectations as required by clause 6A.5.3(b)(1) of the Rules. This constraint is imposed by the restriction of the analysis in step 1 to a range of 2% - 3% and a further restriction in step 2 to just three inflation rate alternatives, 2%, 2.5% and 3%. In imposing these constraints the AER has simply stated that expected inflation rates of 2%, 2.5% and 3% represent the 'most sensible outcomes' but has provided no compelling reason for this statement.

The statement that inflation rates that vary by up to 50 basis points represent the 'most sensible outcomes' is questionable given the AER and Australian Competition and Consumer Commission's (ACCC) own experience in this area. Table 2.1 sets out the electricity and gas regulatory decisions made by the AER and the ACCC over the last six years. The data in this table demonstrates there is no apparent tendency for inflation to be 2%, 2.5% or 3% and thus it is unclear why these estimates have been referred to as the 'most sensible outcomes'. While one might expect a less precise estimate to be derived when having recourse to independent forecasts (as opposed to the application of the Fisher equation), the extent of this difference is more likely to be in the range of one to five basis points rather than the 50 basis points assumed by the AER.

Decision	Date of Decision	Inflation Rate Estimate
Electricity		
Queensland	Nov-01	2.32%
Victoria	Dec-02	2.04%
South Australia	Dec-02	2.07%
Murraylink	Oct-03	2.07%
Tasmania	Dec-03	2.32%
New South Wales	Apr-05	2.49%
Directlink	Mar-06	2.97%
Queensland	Jun-07	3.15%
Gas		
Moomba to Adelaide Pipeline	Jul-02	2.21%
GasNet	Jan-03	2.16%
Amadeus Basin to Darwin Pipeline	Mar-03	2.19%
Moomba to Sydney Pipeline	Dec-03	2.19%
Roma to Brisbane Pipeline	Mar-07	3.21%
Dawson Valley Pipeline	Aug-07	3.19%

 Table 2.1:

 Inflation Estimates Adopted in AER and ACCC Gas and Electricity Decisions

The practical implications of this constraint can be seen in the following example. In this example it is assumed that the sample of inflation indicators includes four inflation forecasts of 2.6%, 2.7%, 2.7% and 2.95%. The average of this sample, 2.74%, under the AER's proposed framework would support the selection of an inflation rate of 2.5% which is 24 basis points below the average generated by the sample. If the 2.5% inflation rate as adopted, then the maximum allowable revenue required by a regulated transmission network owner with an asset base of \$2.18 billion would in the first year of the regulatory period be \$5.8 million¹ higher than would otherwise be estimated if the 2.74% estimate were utilised.

If another inflation rate forecast of 2.85% were added to the sample then the average inflation rate across the sample would increase to 2.76% which would support the selection of an inflation rate of 3%, 24 basis points higher than the average generated by the sample. In this case the adoption of a 3% inflation rate would result in maximum allowable revenue being \$5.8 million lower than would otherwise have been estimated if the inflation rate of 2.76% were utilised.

This example demonstrates that a two basis point variation in actual inflation indicators, which would otherwise translate to a \$0.5 million variation in revenue, could translate to a difference of \$12.2 million in maximum allowable revenue. This example clearly demonstrates the materiality of the constraint imposed by artificially limiting the consideration of the 'best estimates' to three point estimates that vary by 50 basis points. The

¹ This estimate has been derived using the AER's Post Tax Revenue Model Final Decision September 2007 and utilises all of the parameters in this model except the inflation rate. To simplify the analysis the change in maximum allowable revenue is presented for the first year of the regulatory period only.

example further demonstrates that limiting the consideration to 2%, 2.5% and 3% does not represent the 'most sensible' outcome.

In our opinion a better approach to ascertaining the 'best estimates of expected inflation', as required by clause 6A.5.3(b)(1) of the Rules, would involve:

- **§** developing a sample of inflation rate forecasts that is of a sufficient size and reflects the expectations for inflation for the impending ten years; and
- **§** estimating the descriptive statistics associated with this sample set including the mean, median, mode and standard deviation; and
- **§** using this statistical analysis to identify an inflation rate that is likely to reflect the 'best estimates of expected inflation'.

This alternative approach is consistent with the Australian Competition Tribunal's finding in *Application by GasNet Australia (Operations) Pty Ltd* [2003]. In this decision the Tribunal held that there was no single correct method of estimating inflation and that the Fisher equation has no inherent superiority over other methods.² The Tribunal's decision also contained the following relevant statement:³

A whole range of indicators can be used in practice to derive estimates of future inflation rates. This would normally involve taking a number of these estimates and determining an average value. Like the Fisher equation, this procedure is market based. It is no more or no less objective than the Fisher equation. Inflation forecasting is an inexact science (emphasis added)

2.2. Term of Inflation Rate Forecast

Another shortcoming of the analytical framework adopted by the AER is that it appears to have given no consideration to the term over which the inflation rate expectations should be measured (see Table 2.2).

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Forecast Source	Forecast Horizon				
RBA Statement on Monetary Policy	2 years				
BIS Shrapnel	6 years				
Econtech	9 years				
RBA Letter to the ACCC	10 years				
Commonwealth Treasury Letter to the ACCC	10 years				
Inflation Swap	10 years				

 Table 2.2:

 AER Inflation Rate Forecast Sample Set and Forecast Horizon

In keeping with the regulatory practice that has emerged in this area by virtue of the application of the Fisher equation, the inflation rate forecast horizon should match the term of the nominal government bond rate used in the calculation of the weighted average cost of

² Application by GasNet Australia (Operations) Pty Ltd [2003]

³ Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6 (23 December 2003), paragraph 59.

capital (WACC). This practice is consistent with the fundamental principle established by the Fisher equation which in effect states that the nominal bond rate encapsulates the market's expectations of the inflation that is expected to prevail over the life of the security in question.

While the Fisher equation is usually expressed without regard to the holding period of the security, it is generally accepted⁴ that the nominal bond rate encapsulates the market's expectations of the inflation that is expected to prevail over the life of the security in question. If holding periods were introduced into the equation then the Fisher equation would formulaically be expressed as:

expected inflation $_{t}^{n} = \{(1 + \text{nominal risk free rate}_{t}^{n}) \div (1 + \text{real risk free rate}_{t}^{n})\} - 1$

In this context 'n' represents the term of the underlying security and so a ten year nominal risk free rate at time 't' will be a function of the ten year real risk free rate at time 't' and the inflation that is expected to prevail over the ten year life of the bond with the expectations formed at time 't'. This is the regulatory practice that the AER has adopted until this decision and it has provided no reason for moving away from this practice. Accordingly, in our view the inflation rate selected by the AER should reflect the market's expectations of the inflation rate that is expected to prevail over the ten year forecast horizon.

⁴ See for instance, Chadha, J. and Dimsdale, N., *A Long View of Real Rates*, Oxford Review of Economic Policy, Vol. 15, No. 2, pg. 20 and Breedon, F. et al., *Long-Term Real Interest Rates: Evidence on the Global Capital Markets*, Vol. 15, No. 2, pg. 3.

3. Composition and Size of AER's Sample of Indicators

In addition to the issues outlined in the preceding chapter we also have a number concerns with the composition and size of the sample of indicators relied upon by the AER for the purposes of identifying the 'best estimates of expected inflation'. A summary of the sample of indicators referred to by the AER is set out in Table 3.1.

Table 3.1:										
AER Inflation Rate Forecast Sample Set										
Forecast Source	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
BIS Shrapnel ¹	3.0%	2.9%	2.3%	2.9%	3.2%	3.2%	n.a.	n.a.	n.a.	n.a.
Econtech ²	2.3%	2.9%	3.0%	2.5%	2.2%	2.3%	2.3%	2.0%	2.2%	n.a.
RBA Statement of Monetary Policy ³	3.0%	2.9%	n.a.							
RBA Letter to ACCC ⁴					2.5	5%				
Commonwealth Treasury ⁵	2.5%									
Inflation Swap					3.3	7%				
Courses										

Source:

1. BIS Shrapnel, Outlook for Wages to 2012-13: Electricity, Gas and Water Sector Australia and Victoria, March 2007, pg. 4.

2. Econtech., Labour costs growth forecasts, 4 July 2007, pg. 20.

3. RBA, Statement on Monetary Policy. 13 August 2007, pg. 63

4. RBA, Letter to Joe Dimasi, 9 August 2007, pg. 3.

5. Commonwealth Treasury, Letter to Joe Dimasi, 7 August 2007, pg. 5.

3.1. Composition of the Sample Set

Our key concerns with the sample set utilised by the AER relate to the regard given to the ten year inflation swap rate and the limited emphasis placed on the views expressed by the RBA and the Commonwealth Treasury. Each of these issues is discussed in turn below.

3.1.1. Inflation Swap Rate

The AER's decision to have regard to the inflation swap rate as an indicator of inflation expectations is in our opinion questionable given the nature of the market in which this security is traded. Although the market for inflation rate swaps has been operating since the mid-1990s we understand the market is relatively illiquid. It follows that the inflation swap rate may be distorted by specific demand and supply conditions rather than reflecting the market's expectations of inflation over the term of the security.

Another relevant factor to consider in this context is the extent to which the indexed government bond market is used by intermediaries in the inflation rate swap market to hedge their exposure. According to the RBA, the principal hedge instrument for intermediaries in the inflation rate swap market is the indexed bond and thus activity in the inflation swap market is inextricably linked to the size and liquidity of the inflation-indexed bond market.⁵ In view of these linkages one would expect that the supply issues currently responsible for the bias in the indexed government bond market which have would have broader implications

RBA, RBA Bulletin - August 2001, pg. 47.

for the inflation rate swap market and the inferred ten year inflation expectations encapsulated in the swap rates established within this market.

A final indicator of the questionable nature of the inflation swap rate can be seen when one compares the ten year inflation rate expectations reflected in the inflation rate swap rates with the expectations inferred from the difference between nominal and inflation indexed bonds which the AER has conceded may be biased. According to data in the AER's Draft Determination the inflation swap rate as at 6 August 2007 was 0.06% - 0.14% <u>higher</u> than the inflation rate estimated using a method that has been accepted as giving rise to upwardly biased inflation estimates given the current supply conditions prevailing in the inflation indexed bond market.

In view of the foregoing, in our opinion little if any weight should be placed on this indicator. It is worth noting in this context that the Allen Consulting Group has recently provided similar advice to the Essential Services Commission during the 2008-2012 Gas Access Arrangement Review as can be seen in the following quote:⁶

...while Australia has a developing market in inflation swaps, this market is not yet sufficiently developed to be able to reliably derive a forecast of inflation and, hence, there is no market instrument that would permit a forecast of inflation to be observed from market instruments.

3.1.2. RBA and Commonwealth Treasury Views

The second concern we have with the AER's analysis stems from its decision to downplay the views expressed by both the RBA and the Commonwealth Treasury about inflation expectations over the next ten years. These views were contained in letters sent in response to the Australian Competition and Consumer Commission's (ACCC) request for comment on the issues raised in NERA's report entitled "Bias in Indexed CGS Yields as a Proxy for the CAPM Risk Free Rate". In responding to the questions posed by the ACCC the RBA made the following relevant statement:⁷

Given inflation expectations have been firmly anchored by the Bank's inflationtarget regime for some time, a rough estimate of a real risk-free rate would be the nominal government bond yield less the centre of the inflation target band (ie the nominal yield less 2½ per cent).

The Commonwealth Treasury similarly concluded:⁸

We therefore recommend that the ACCC uses the mid-point of the RBA's target band for inflation (i.e.: 2.5% per annum) as the best estimate of inflation.

These two statements support the view that an inflation rate expectation toward the middle of the RBA's target band is more appropriate than one at the upper bound of the range.

⁶ ACG, Relative Bias in Yields of Indexed Commonwealth Government Securities When Used as a Proxy for the CAPM Risk Free Rate, pg. 6.

⁷ RBA, Letter to Joe Dimasi, 9 August 2007, pg. 3.

⁸ Commonwealth Treasury, Letter to Joe Dimasi, 7 August 2007, pg. 5.

While the AER has sought to discount the views expressed by both the RBA and the Commonwealth Treasury in our opinion they are directly relevant to the current consideration and are consistent with the success the RBA has had in constraining inflation toward the middle of the target band over the last ten years (see Table 3.2). Furthermore, their expectations are broadly consistent with the current consensus view of financial and economic forecasters as demonstrated in the following section.

initiation Rate Estimates December 1997 – September 2007								
	RBA Underlying Measures CPI All Groups							
	CPI ex	CPI ex Weighted Trimmed						
	Volatile Items	median	Mean	Total	Ex GST ⁹			
Median	2.4%	2.5%	2.6%	2.6%	2.6%			
Mean	2.6%	2.5%	2.5%	2.7%	2.4%			

	Table 3.2:		
Inflation Rate Estimates	December	1997 – Sep	tember 2007

Source: RBA, Table G01hist.xls

3.2. Limited Size of the Sample Set

The sample of inflation rate expectations relied upon by the AER was limited to just five indicators. In our opinion this sample set was unnecessarily limited given that the AER had access to another four independent forecasts prepared by professional economists at Access Economics, Westpac, the Commonwealth Bank and the OECD, which were set out in Table 2.2 of NERA's report entitled "Bias in Indexed CGS Yields as a Proxy for the CAPM Risk Free Rate". If these additional forecasts had been included in the sample set then the mean and median estimates set out in Table 3.1 would have been lower in each period.

Following the finalisation of NERA's earlier report a number of the inflation forecasts have been revised. We have therefore sought to update these forecasts while also collecting a larger sample of short and long term forecasts. These forecasts have, to the extent possible, been obtained from public sources. We have also purchased a subscription to the Consensus Economics' Asia Pacific Consensus Forecasts. Consensus Economics publishes a bi-annual survey of the long term inflation forecasts for Australia through to 2017. The survey involves 17 financial and economic forecasters with operations in Australia including, amongst others, the Commonwealth Bank, Westpac, ANZ, Macquarie Bank, National Australia Bank, Access Economics and BIS Shrapnel. In addition to reporting the individual expectations of the forecasters this publication also contains a 'consensus' forecast which represents the mean of the individual forecasts.

The latest results of this survey indicate that the mean inflation expectation of financial and economic forecasters over the impending ten years is 2.63%.¹⁰ While the average over ten years is slightly higher than the mid point of the inflation band, these forecasts demonstrate the confidence that the survey participants have in the ability of the RBA to constrain inflation toward the middle of the target range.

The table below sets out each of the additional inflation expectation forecasts that we have been able to collect.

⁹ The RBA has estimated that the GST resulted in a 3% increase in inflation over the four quarters extending from September 2000 to June 2001 (see page 3 of the August 2001 RBA Bulletin).

¹⁰ Consensus Economics, Asia Pacific Consensus Forecasts, October 2007.

			0100000	oumpio	000		
Forecaster	Date	2008	2009	2010	2011	2012	Average 2013-2017 [#]
RBA	Aug 2007	3.0%	2.9%	n.a.	n.a.	n.a.	$2.5\%^{**}$
Commonwealth Budget	May 2007	2.5%	2.5%	2.5%	2.5%	n.a.	$2.5\%^{**}$
Victorian Budget	May 2007	2.5%	2.5%	2.5%	2.5%	n.a.	n.a.
OECD	May 2007	2.7%	n.a.	n.a.	n.a.	n.a.	n.a.
Banks							
Consensus Economics*	Oct 2007	2.9%	2.7%	2.6%	2.5%	2.6%	2.6%
Commonwealth Bank*	Oct 2007	2.7%	n.a.	n.a.	n.a.	n.a.	n.a.
Merrill Lynch Australia*	Oct 2007	3.0%	n.a.	n.a.	n.a.	n.a.	n.a.
Macquarie Bank*	Oct 2007	2.8%	n.a.	n.a.	n.a.	n.a.	n.a.
HSBC Australia*	Oct 2007	2.9%	n.a.	n.a.	n.a.	n.a.	n.a.
UBS*	Oct 2007	2.4%	n.a.	n.a.	n.a.	n.a.	n.a.
Goldman Sachs JB Were*	Oct 2007	2.4%	n.a.	n.a.	n.a.	n.a.	n.a.
BT Funds Management*	Oct 2007	2.8%	n.a.	n.a.	n.a.	n.a.	n.a.
RBC Capital Markets*	Oct 2007	3.1%	n.a.	n.a.	n.a.	n.a.	n.a.
Nomura Australia*	Oct 2007	3.0%	n.a.	n.a.	n.a.	n.a.	n.a.
Global Insight*	Oct 2007	2.6%	n.a.	n.a.	n.a.	n.a.	n.a.
Centre of Policy Studies*	Oct 2007	2.7%	n.a.	n.a.	n.a.	n.a.	n.a.
Moody's Economics*	Oct 2007	2.8%	n.a.	n.a.	n.a.	n.a.	n.a.
Econ Intelligence Unit*	Oct 2007	2.9%	n.a.	n.a.	n.a.	n.a.	n.a.
NAB*	Oct 2007	2.0%	n.a.	n.a.	n.a.	n.a.	n.a.
Westpac*	Oct 2007	3.0%	n.a.	n.a.	n.a.	n.a.	n.a.
ANZ Economics	Sep/Oct 2007	3.0%*	2.7%	2.8%	n.a.	n.a.	n.a.
St George	Sep 2007	2.4%	2.3%	n.a.	n.a.	n.a.	n.a.
Other							
Access Economics	Jul 2007	2.5%	2.6%	2.0%	2.4%	2.8%	n.a.
BIS Shrapnel	Jul/Oct 2007	3.3%*	2.9%	2.3%	2.9%	3.2%	3.2%
Econtech	Jul 2007	2.3%	2.9%	3.0%	2.5%	2.2%	2.2%^

Table 3.3:				
Extended Inflation Forecast Sample Set				

A complete list of sources is set out in Appendix A. * This data has been obtained from the October 2007 Asia Pacific Consensus Forecasts. ** This data has been obtained from RBA, Letter to Joe Dimasi, 9 August 2007, pg. 3 and Commonwealth Treasury, Letter to Joe Dimasi, 7 August 2007, pg. 5. $^{\circ}$ Estimate based on average inflation forecast over the period 2013-2016 (2013/14 = 2.3%, 2014/15 = 2.0%, 2015/16 = 2.2%).

Using this extended sample set we have estimated a mean expected inflation rate for the period 2008-2017 of 2.57% and a median of 2.50%. These two estimates are 43-50 basis points lower than that assumed by the AER. These estimates clearly demonstrate that 'market' expectations for inflation over the impending ten year period are closer to 2.50% -2.57% than the 3% adopted by the AER.

Descriptive Statistics											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2008- 2017
Min	2.00%	2.30%	2.00%	2.40%	2.20%	2.30%	2.00%	2.20%	2.50%	2.50%	2.00%
Max	3.30%	2.90%	3.00%	2.90%	3.20%	3.20%	2.60%	2.60%	2.60%	2.60%	3.30%
Mode	3.00%	2.90%	2.50%	2.50%	n.a.	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Mean	2.73%	2.67%	2.53%	2.55%	2.70%	2.62%	2.40%	2.45%	2.53%	2.53%	2.57%
Median	2.80%	2.70%	2.50%	2.50%	2.70%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Table	3.4:
Descriptive	Statistics

4. Conclusion

In our opinion the analytical framework developed by the AER unnecessarily constrains the analysis required to identify the 'best estimates of expected inflation' and the selection of the 3% inflation rate forecast overstates the current market expectations surrounding inflation over the next ten years. Rather, if one were to identify the 'best estimate of expected inflation' as required by clause 6A.5.3(b), then in accordance with the information contained in Table 3.3 the 'best estimate' would range between 2.50% - 2.57%.

Appendix A. Inflation Rate Forecast Sources

Forecaster	Date	Source
RBA	Aug 2007	RBA, Statement of Monetary Policy, August 2007
Commonwealth Budget	May 2007	Commonwealth Government, 2007-08 Budget Papers, Fiscal Strategy and Budget Priorities, pg. 1-5.
Victorian Budget	May 2007	Victorian Government, 2007-08 Budget Papers, Economic Conditions and Outlook, pg. 16.
OECD	May 2007	OECD, Economic Outlook No. 81, May 2007
		http://www.oecd.org/dataoecd/5/47/2483871.xls
Banks		
Consensus Economics*	Oct 2007	Consensus Economics, Asia Pacific Consensus Forecasts, October 2007.
Commonwealth Bank	Oct 2007	ibid
Merrill Lynch Australia	Oct 2007	ibid
Macquarie Bank	Oct 2007	ibid
HSBC Australia	Oct 2007	ibid
UBS	Oct 2007	ibid
Goldman Sachs JB Were	Oct 2007	ibid
BT Funds Management	Oct 2007	ibid
RBC Capital Markets	Oct 2007	ibid
Nomura Australia	Oct 2007	ibid
Global Insight	Oct 2007	ibid
Centre of Policy Studies	Oct 2007	ibid
Moody's Economics	Oct 2007	ibid
Econ Intelligence Unit	Oct 2007	ibid
NAB	Oct 2007	ibid
Westpac	Oct 2007	ibid
ANZ Economics	Sep/Oct 2007	Consensus Economics, Asia Pacific Consensus Forecasts, October 2007 and ANZ, Economic Outlook, September 2007
St George	Sep 2007	St George, Monthly Economic Outlook, September 2007.
Other		
Access Economics	Jul 2007	Access Economics, Business Outlook, July 2007.
BIS Shrapnel	Jul/Oct 2007	Consensus Economics, Asia Pacific Consensus Forecasts, October 2007 and BIS Shrapnel Inflation Forecast Purchased in July 2007.

The following sources have been used to construct Table 3.3.



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