ACCESS ECONOMICS

Forecast growth in labour costs: March 2010 report

16 March 2010

Report by Access Economics Pty Limited for the

Australian Energy Regulator

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Executive Summary

The Australian Energy Regulator (AER) commissioned Access Economics to provide forecasts for labour costs growth for the Electricity, Gas, Water and Waste services[1] (utilities) industry to 2017-18 for New South Wales, Victoria, Queensland, South Australia, the ACT and Australia.

Specifically, AER requested:

- a comparative analysis of forecast labour costs for the utilities industry nationally and across States;
- a comparative analysis of forecast labour costs for the utilities industry with other comparable industries (that is, mining, construction and manufacturing);
- a comparison of the forecasts of general and industry-specific labour cost growth nationally and across States; and
- a discussion of how market conditions are expected to affect the labour forecasts.

That initial report was delivered on 16 September 2009.

This report forms an update to that initial report, taking into account newly available information.

Short term forecast performance

At the time of the initial (September 2009) report prepared for AER, the June quarter Labour Price Index (LPI) data (ABS Cat. No. 6345.0) were the latest available. The September and December quarter data LPI data have subsequently been released. The intervening period also saw a rebasing to a new base year (as happens every year, but meaning that it is easier to compare percentage changes from the old report and this update rather than levels).

The numbers of particular interest are those for overall wage growth in Australia, those in the utilities, construction, mining and manufacturing sectors, as well as those in each of the States and Territories.

In terms of growth across the second half of 2009 (September and December quarters), actual Australia LPI for the six month period grew by 1.28%, some 0.48 percentage points slower than our forecast of 1.76% across this period, which was included in our initial report.

The matching difference for the mining sector was actual growth of 1.18%, which was 0.55 percentage points below our forecast. For the construction sector, actual growth was 1.18%, 0.75 percentage points less than our forecast. The gap was a little greater in the manufacturing sector, where growth over the second half of 2009 is currently estimated at

[1] Industries in the report are as defined by the Australian Bureau of Statistics (ABS) in the new Australian and New Zealand Standard Industry Classification 2006 (ANZSIC06). The new *Electricity, Gas, Water and Waste services* sector differs in composition slightly to the old ANZSIC93 industry (which was *Electricity, Gas and Water services*). Much of the addition to this industry comes from components of the ANZSIC93 industry *Personal and Other Services*. A full concordance across all industries appears in Appendix F.

1.09%, which is 1.02 percentage points below our forecast for the six month period in the initial report.

In the utilities sector itself half yearly growth is currently estimated at 2.47%, some 0.55 percentage points above our forecast in the initial report of 1.92% for the second half of 2009.

Overall, our forecasts for wages growth across the second half of 2009 were too high[2]. We were broadly correct that wages growth would ease over the second half of the year – that is, we expected the September quarter growth to be consistently higher than that in the December quarter, which matched what actually occurred.

The only industry where this general rule did not hold was in utilities, where our forecasts were below the actual results. The key reason for this result is the upward revision to historical estimates of utilities sector growth – partly due to the revision in the price basis for utilities, but also due to the implementation of the new ABS industry structures[3].

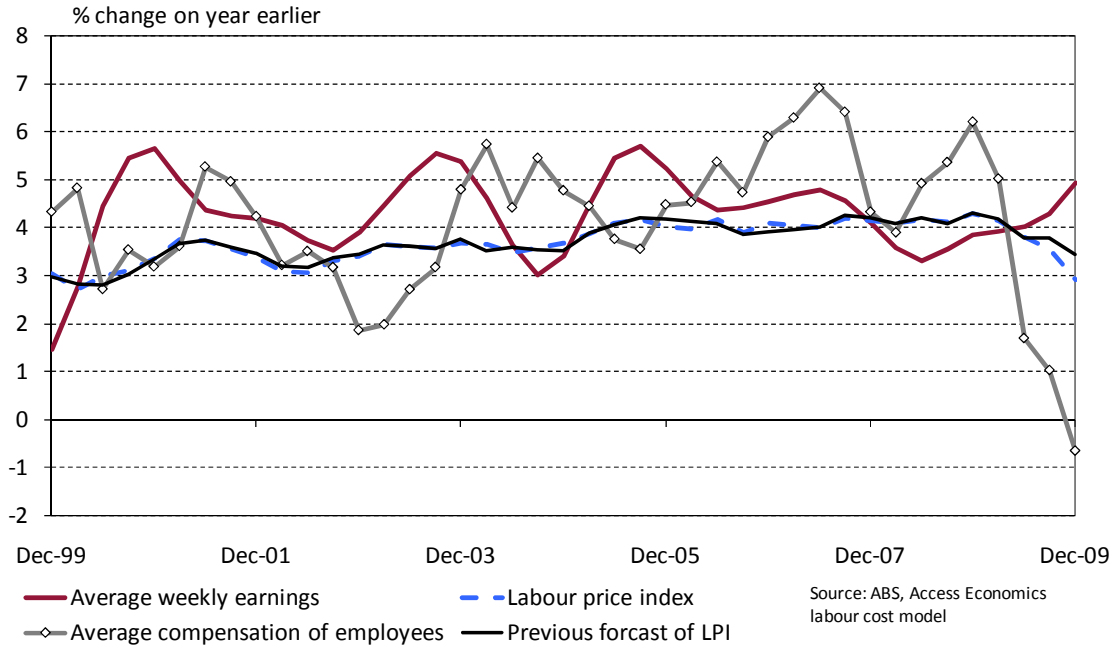
There was also a consistent difference at the State level between short term wage growth forecasts and actual performance, with all States recording slower growth than forecast over the second half of 2009. Queensland saw wages rise by 1.68%, which was 0.16 percentage points below the forecast rate. Growth in the ACT was 1.88% over the six months, 0.37 percentage points lower than our forecast, and New South Wales recorded a rise of 1.38% (0.38 percentage points below our expectations). Victoria's wage growth of 1.49% (0.64 percentage points under our expectations) and South Australia's rise of 1.29% (0.93 percentage points less than anticipated) reflected surprisingly weak growth in the September quarter for both (and a continuation of that trend in South Australia into the December quarter).

Those gaps may seem somewhat large. However, a better indication of how wages have developed in recent months is shown in the chart below. **The three key measures of labour cost growth produced by the ABS are now showing notably different results over the year to December 2009.**

[2] It should be noted that the official figures are rounded to one decimal place, and that affects the published rate of growth. As the base year of the LPI has changed between the two reports, the rounding effects (which are most relevant for the September quarter results) will be slightly different between them.

[3] The previous report used derived estimates of output and LPI for the new industry structure. The publication of official estimates for the new structure saw the slightly expanded utilities sector having consistently grown more rapidly in history than we previously estimated. The upward revision to growth in the utilities sector therefore aligns with the underlying methodology of our model – which would expect that a faster growing industry would see faster growth in wages.

Chart i: Labour cost growth, various measures



As Chart i shows, growth in wages measured by the key Labour Price Index continued to ease across the second half of 2009, a trend that matched our underlying thinking. The slowdown was, however, somewhat faster than anticipated, dropping measured LPI growth across the twelve months to its lowest rate since the start of the last decade.

The chart also illustrates some exceedingly large (and unprecedented) deviations in other measures of wages that the ABS produces. The ABS' measure of growth in average weekly earnings (AWE) accelerated sharply across 2009, not merely moving sharply against the trends seen in the LPI but rising to its fastest rate of increase since 2005.

In contrast, the final measure shown, average non-farm compensation of non-farm employees shows a notable decline in the year to December 2009, having slumped sharply from a 6% rise in the previous year. This is the lowest rate of growth seen in this particular measure of wages in a series that stretches back to the early 1970s. Partly this reflects a reduction in average hours worked per employee, though even using average compensation per hour worked does little to change the broad result.

These deviations are even more difficult to reconcile given that all three measures showed very similar rates of wage growth in the year to March 2009, just nine months ago.

The broader macro outlook

In the five and a half months since the initial report was finalised there have been considerable new developments affecting the global and Australian economies, and therefore the outlook for wage growth at the national and sectoral level.

The following discussion goes on to draw out some of those developments.

In brief, **world recovery is proceeding a little faster than expected five and a half months ago**, with particular strength in emerging economies such as China. That firmer world backdrop and, in particular, the strong growth evident in developing Asia is a handy fillip to Australia's 7short term economic prospects.

Developments within Australia have also been broadly positive. Retail sales growth has improved over the past few months, shaking off the post-stimulus let down in spending. While the pace of housing construction is yet to lift, strong gains have been seen in housing approvals.

Most importantly, it now appears increasingly likely that Australian unemployment has peaked comfortably below where it had been feared it may reach. **The national unemployment rate has now fallen to 5.3%, with nearly 200,000 new jobs created over the five months to January 2010 – a far stronger performance than had been expected**. Not only that, but the economic recovery appears to be widely appreciated. There is a much stronger feeling of job security, with consumer expectations of unemployment falling away.

The additional strength expected to be evident in the Australian economy has an echo in expected Australian inflation. Although the difference (both for the subsequently released September and December quarter data and for the forecast period) is not expected to be very large, it is an additional factor boosting the wage outlook since the preparation of the initial report.

The better than expected outcome on unemployment and the slightly firmer tone to price inflation are expected to change wage dynamics through the course of 2010 and into 2011.

Although the change is not a large one**, the difference worth noting in this report versus the initial report is that the short term forecast of continuing weakness in wage gains gives way a little sooner and a little more to faster growth in wages into the recovery**.

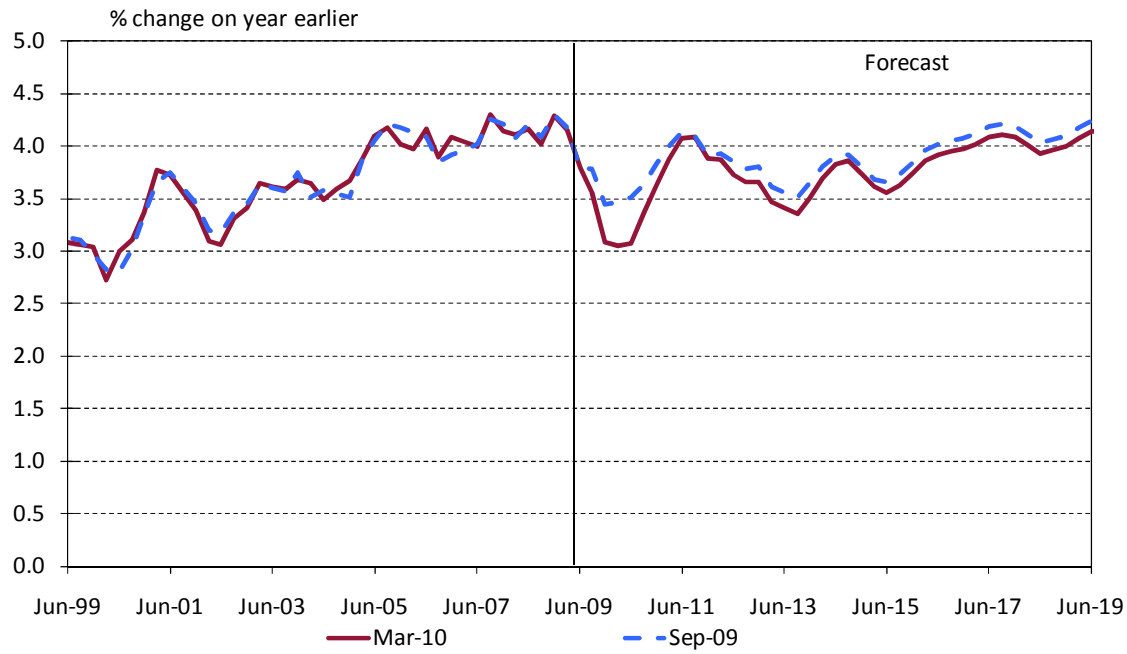
Those gains are more evident in mining and in construction, where cyclical prospects have improved relatively more than is true in either the utilities or manufacturing.

The updated outlook for labour costs

Chart ii shows our previous and current forecasts for growth in the national Labour Price Index. The forecasts now include actual LPI data to December 2009 as well as information from the December quarter 2009 national accounts, which provide estimates of output nationally, by industry and by State[4].

[4] For States, the ABS only produces quarterly estimates of State Final Demand (SFD) and international merchandise trade. Some additional components of output, net international service trade, interstate trade and changes in stocks at the State level, are estimated by Access Economics to create a full State quarterly output measure.

Chart ii: Changes to the forecast LPI (all industries)



The Labour Price Index (LPI) grew by just 2.9% over the year to December 2009, with this weakness in response to the earlier period of higher unemployment and – more likely – the fear that unemployment could well have jumped rather higher than it has done. On this wage measure, this is the slowest rate of growth since 2002.

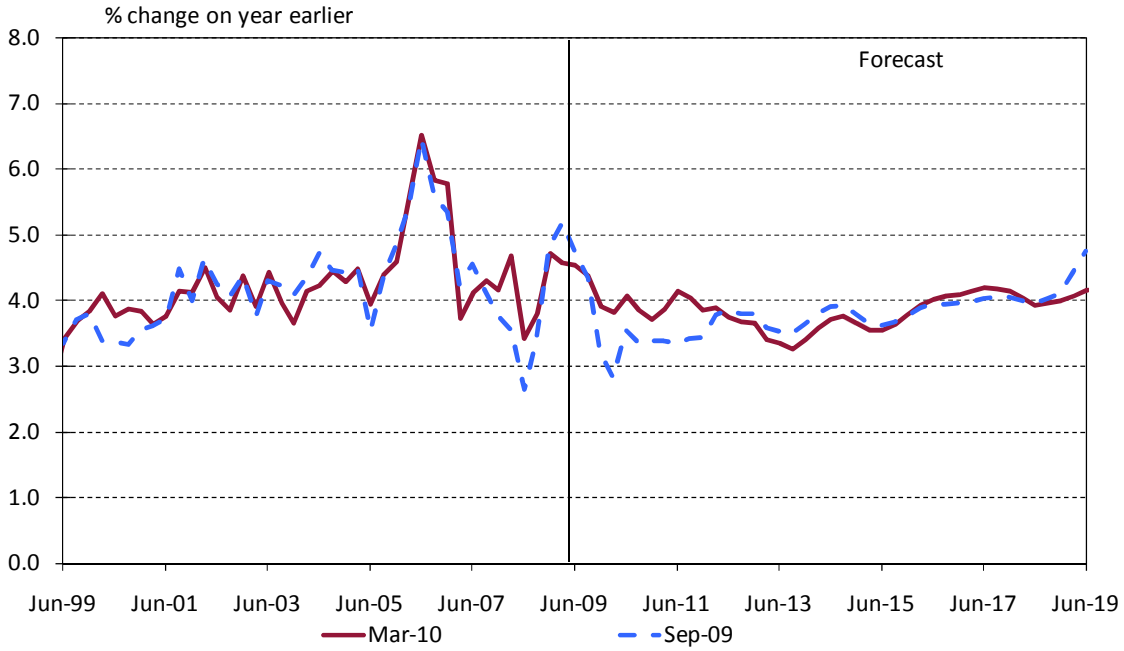
As Access Economics has stressed for a while, the composition of wage growth (during both the boom and the recent downturn) has been tightly linked to sectoral and regional cycles. The slowest wage gains in Australia have been in the hard hit finance sector, with similarly slow gains in the likes of recreation and in manufacturing. And while wage growth in mining and construction has not been as slow, it has been much slower than equivalent gains during the boom.

As Chart ii suggests, our view is that the timing of wage movements is in line with our earlier expectations, but we need to acknowledge that the current easing in growth has been greater than we anticipated. This is primarily due to the very weak growth in manufacturing wages (reflecting the very severe short-term slump in sector output and employment) as well as some underperformance in mining wages over the second half of 2009.

Utilities wage growth

Chart iii shows current and previous projections for growth in the utilities sector LPI.

Chart iii: Changes to the forecast utilities sector LPI



Changes to the overall rate of wages growth in the utilities sector have been affected by a number of different factors, including:

- The release of actual historical LPI figures for the utilities sector, rather than the derived estimates used in the previous report. The official figures are less volatile that those used in the last report, crucially in the first half of 2009, where actual wages growth was less rapid than had been estimated.
- The publication of actual LPI figures for the second half of 2009. Wage growth appears to have held up more in utilities than across all sectors (with weak manufacturing wages bringing down the latter). This is a significant factor in the difference in growth rates in the year to December 2009.
- A better than expected output growth performance from the utilities sector, with sharp upward revisions to the ABS' measure of past economic growth driving an improvement in its longer term outlook. This has seen the longer term rise in the LPI in this sector improve from slightly below the average across all sectors to slightly above.

Utilities wage growth at the State level

Chart iv compares out short term forecasts for the utilities sector LPI by State from the previous report with the actual results recorded. In each case the two sets of data for June quarter 2009 (J), September quarter 2009 (S) and December quarter 2009 (D) are shown with the starting value set to 100.0. This allows a comparison of short term movements.

As the chart shows, our forecasts for the growth in the utilities sector LPI measures for New South Wales and Victoria were too low. The Queensland data suggests our forecasts were slightly too high, while the measure for South Australia and the ACT were very close to what eventuated. However, these latter States do not have official measures of utilities sector LPI

measures released by the ABS, only AWE equivalents. As noted in Appendix E, these AWE measures are used to estimate LPI equivalents.

Chart iv: State utilities LPI forecast for June, September and December 2009[5]

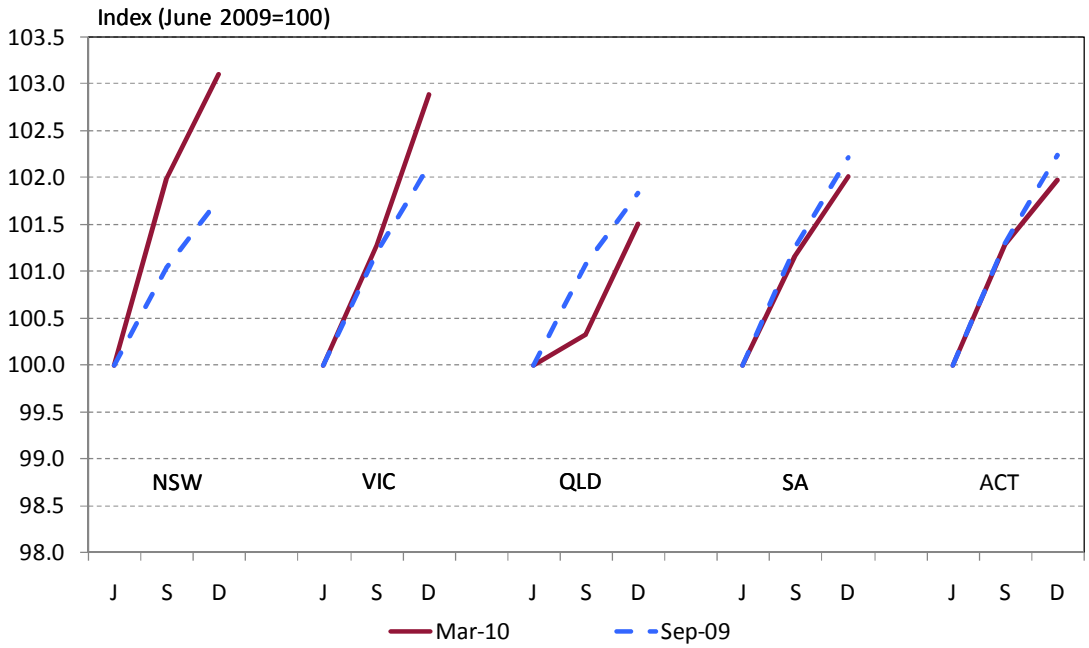


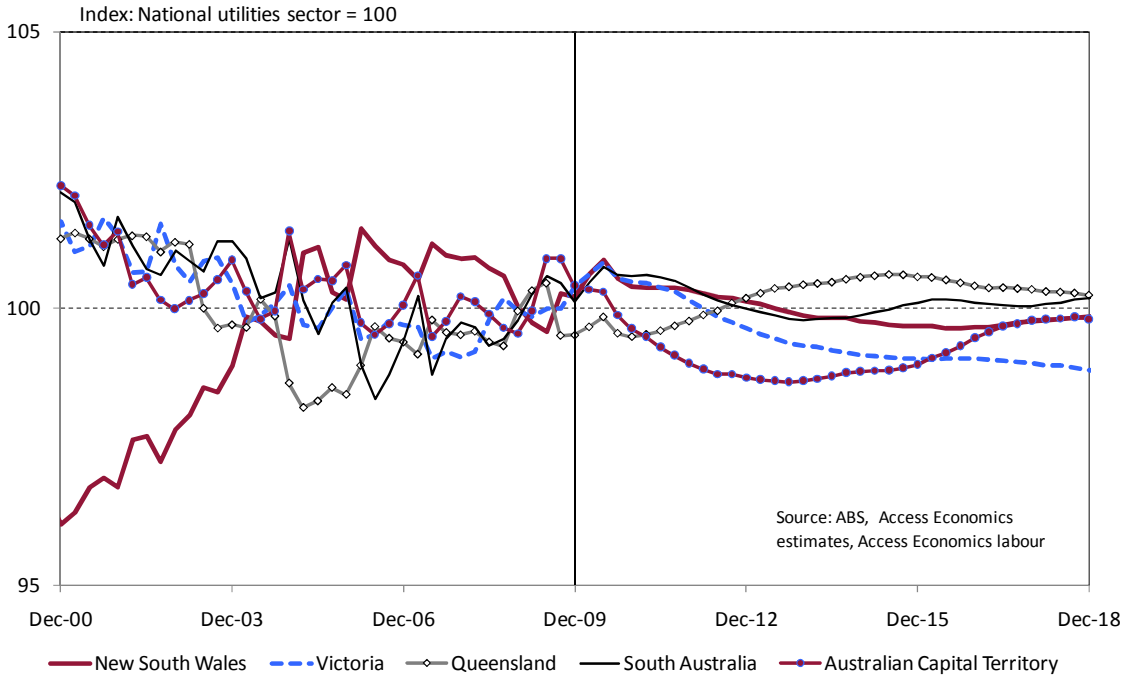
Chart v shows the relative utilities LPI movements that are expected in the forecast period[6]. Compared with the previous report, the largest change is in the outlook for the ACT utilities sector. Previously, the ACT utilities LPI moved ahead of the national average across the first half of the decade before easing back. However, with the relative downgrading of the overall ACT economic outlook, this is no longer apparent. The likely loss of significant GST revenues by the ACT Government, and related decrease in general revenue in the local economy has also contributed to this change.

Other movements are driven either by short-term wage movements (for example, the poor results estimated for Queensland in the most recent data lowers the profile for the State on this measure in the forecast period), or by the improvement in the outlook for Western Australia (not shown here) which has seen their wage outlook improve, and hence the relative outlook for the States shown here has eased as a result.

[5] All series have been rebased to 100.0 in June 2009 for this chart. The levels in the actual data will differ from this value.

[6] A key point to note with this chart is the effect of the change in base year, which now means all States (both in absolute terms and relative to the overall utilities average) are indexed to 100.0 in 2008-09 (rather than 2003-04). This means the NSW results, which previously rose well above 100 in relative terms in the period from 2003-04 to 2008-09, now end at this level (and are consequently lower in the past).

Chart v: Relative movements in utilities sector LPI by State



Access Economics
16 March 2010

Table i: Summary table of results in real terms – financial year basis

Financial year changes in real national industry sector Labour Prices

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
National LPI	0.9	1.0	0.8	0.9	1.0	1.5	1.7	1.2	1.2	1.4
Utilities sector LPI	1.2	1.9	1.0	0.9	1.0	1.4	1.6	1.3	1.3	1.5
Mining sector LPI	2.4	1.1	1.0	1.4	1.5	2.0	2.1	1.6	1.6	1.8
Construction sector LPI	1.4	1.2	1.1	1.2	1.0	1.9	2.3	1.5	1.1	1.6
Manufacturing sector LPI	0.5	0.5	1.6	1.3	1.4	1.7	1.8	1.4	1.4	1.5

Financial year changes in real utilities sector Labour Prices

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Australian utilities sector LPI	1.2	1.9	1.0	0.9	1.0	1.4	1.6	1.3	1.3	1.5
NSW utilities sector LPI	0.4	2.3	0.9	0.8	0.8	1.2	1.5	1.2	1.3	1.6
VIC utilities sector LPI	2.3	2.4	0.7	1.3	0.7	1.4	1.8	1.4	1.4	1.3
QLD utilities sector LPI	1.1	1.1	1.0	0.9	1.3	1.5	1.6	1.3	1.2	1.5
SA utilities sector LPI	1.7	2.3	1.2	0.3	0.5	1.2	1.6	1.5	1.3	1.5
ACT utilities sector LPI	1.0	2.2	0.0	0.3	0.7	1.4	1.7	1.5	1.8	1.8

Table ii: Summary table of results in real terms – calendar year basis

Calendar year changes in real national industry sector Labour Prices

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National LPI	1.8	0.7	0.8	0.9	1.1	1.9	1.3	1.2	1.4	1.4
Utilities sector LPI	2.5	1.2	0.8	0.9	1.0	1.8	1.3	1.3	1.4	1.4
Mining sector LPI	2.4	0.6	1.2	1.5	1.6	2.3	1.7	1.6	1.7	1.7
Construction sector LPI	2.2	0.8	1.2	1.1	1.3	2.4	1.8	1.2	1.3	1.8
Manufacturing sector LPI	0.9	1.1	1.4	1.4	1.4	2.0	1.5	1.4	1.5	1.5

Calendar year changes in real utilities sector Labour Prices

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian utilities sector LPI	2.5	1.2	0.8	0.9	1.0	1.8	1.3	1.3	1.4	1.4
NSW utilities sector LPI	1.9	1.8	0.6	0.8	0.8	1.6	1.2	1.3	1.5	1.5
VIC utilities sector LPI	3.1	1.3	1.1	1.0	0.9	1.9	1.5	1.4	1.3	1.3
QLD utilities sector LPI	2.3	1.0	0.6	1.2	1.3	1.8	1.3	1.2	1.4	1.4
SA utilities sector LPI	3.3	1.6	0.5	0.4	0.7	1.6	1.4	1.4	1.4	1.6
ACT utilities sector LPI	2.9	0.7	0.0	0.5	0.9	1.9	1.4	1.7	1.9	1.6

1 Background

The Australian Energy Regulator (AER) commissioned Access Economics to provide forecasts for labour costs growth for the Electricity, Gas, Water and Waste services[7] (utilities) industry to 2017-18 for New South Wales, Victoria, Queensland, South Australia, the ACT and Australia in September 2009. This report provides an update to these forecasts.

Access Economics' update report includes:

- **Changes to the national economic outlook**, covering the broad economy, wages and prices (see Chapter 2).
- **Projections of State economies**, (see Chapter 3), covering changes since the previous report as well as wage movements for New South Wales, Victoria, Queensland, South Australia and the ACT.
- **The outlook for the utilities sector**, looking first at changes to the industry outlook, the changes to sectoral wage projections, and then an overview of the latest national industry projections (see Chapter 4).
- **The outlook for competitor sectors**, covering mining, construction, manufacturing and examining changes the economic outlook for each, as well as the updated projections – see Chapter 5).
- The report then provides **updated detailed forecasts at the State level of wage growth in the utilities and competitor industries** (see Chapter 6).
- **The Appendices** cover regional wage and price variations, as well as an outline of the methodology used in the Access Economics macro model and the Access Economics wage model, a discussion of different wage measures, and a discussion of data sources and derivation. A table of changes to historical data is also included along with concordances between the old and new industry structures.

[7] Industries in the report are as defined by the Australian Bureau of Statistics (ABS) in the new Australian and New Zealand Standard Industry Classification 2006 (ANZSIC06). The new *Electricity, Gas, Water and Waste services* sector differs in composition slightly to the old ANZSIC93 industry (which was *Electricity, Gas and Water services*). Much of the addition to this industry comes from components of the ANZSIC93 industry *Personal and Other Services*. A full concordance across all industries appears in Appendix F.

2 Changes to the economic outlook

Global economic recovery is underway, and Australia's recovery is outpacing it, suggesting that 2010 will see improving rates of economic growth, and hence also some unwinding of the emergency policy supports put in place through the period of crisis.

A global double dip seems increasingly unlikely, but there are still key risks, including the potential for weakness in US commercial property values and Eastern Europe's economies. Moreover, recoveries from financial crises tend to be weaker than average anyway:

- output growth in the first year of recovery is typically half that of a 'usual' recovery;
- recovery can take twice as long as 'usual' to return activity to previous peaks; and
- output levels remain permanently lower due to a higher cost of capital and permanent losses in the stock of business capital (factories, mines, computers and the like).

That said, and despite fears to the contrary among many analysts due to the rapid build up of public sector deficits and debt, global inflation appears likely to remain restrained in 2010 (and arguably beyond), while credit spreads in global financial markets continue to return to more normal levels.

Global growth is lifting, with increased business and consumer confidence underwriting a recovery in global trade and a swing in the inventory cycle, with consumers now more willing to spend than they were through 2008-09, and with public sector capital expenditure spending rising.

Access Economics' central forecast is that the world economy will see its recovery strengthen in 2010 as improving confidence and reduced tensions in credit markets combine with still low interest rates and continuing generous government spending to underwrite improving output growth. However, banking systems were severely damaged through the crisis and remain undercapitalised, governments are under pressure to wind back their stimulus measures, central banks are under pressure to begin to exit from their emergency measures and unwind expansionary interest rates, and families are under pressure to start to save more.

Significant risks to the global economy lie ahead. Commercial property in the US remains unstable, so US banks may yet face further losses in the first half of 2010. The outlook for Eastern Europe has improved, but still has a long recovery ahead, and costly loan losses may hurt Western Europe's banks (and hence its economy). That suggests the euphoria of initial recovery may give way through 2010 to the recognition that the global economy isn't about to experience the usual pace of recovery seen in the wake of recessions past.

Table 2.1: Changes in key economic forecasts – financial year basis

Changes in economic forecasts (financial year)

Annual % change (unless noted)	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
GDP										
Sep-09	1.0	1.9	3.2	3.4	3.3	3.8	3.2	2.3	2.6	3.3
Mar-10	1.3	1.8	2.8	3.5	3.4	3.8	3.2	2.4	2.7	3.4
Difference	0.3	-0.1	-0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Consumer Price Index (CPI)										
Sep-09	3.1	1.9	3.0	3.0	2.5	2.0	2.0	2.5	2.8	2.5
Mar-10	3.1	2.1	2.9	3.0	2.5	2.0	2.0	2.5	2.8	2.5
Difference	0.0	0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Labour Price Index (LPI)										
Sep-09	4.1	3.5	3.9	3.9	3.7	3.7	3.8	3.9	4.1	4.1
Mar-10	4.1	3.2	3.7	3.9	3.5	3.6	3.7	3.8	4.0	4.0
Difference	0.0	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Average weekly earnings (AWE)										
Sep-09	3.9	3.3	4.0	4.4	4.1	3.8	3.7	3.6	3.7	3.7
Mar-10	3.8	4.0	3.8	4.4	4.0	3.7	3.6	3.4	3.6	3.6
Difference	0.0	0.7	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Average weekly ordinary time earnings (AWOTE)										
Sep-09	5.5	4.0	4.1	4.6	4.9	4.1	4.0	4.1	4.3	4.2
Mar-10	5.5	4.0	3.7	4.5	4.8	4.2	4.0	4.0	4.2	4.1
Difference	0.0	0.1	-0.4	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1
Unit Labour Costs										
Sep-09	4.6	0.1	2.6	3.0	2.3	1.9	2.3	2.9	2.7	2.3
Mar-10	4.5	0.6	3.4	3.1	2.1	1.8	1.4	2.0	1.7	1.5
Difference	-0.1	0.5	0.8	0.1	-0.3	-0.1	-0.9	-0.9	-1.0	-0.7
Employment										
Sep-09	1.1	0.5	1.8	2.0	1.8	1.9	1.7	1.3	1.3	1.8
Mar-10	1.1	1.2	2.3	2.2	1.8	1.9	1.8	1.5	1.2	1.8
Difference	0.0	0.7	0.5	0.1	0.0	0.0	0.1	0.2	-0.1	0.0
Unemployment rate (%)										
Sep-09	4.9	6.4	6.7	6.6	6.1	5.6	5.2	5.2	5.2	5.1
Mar-10	4.9	5.4	5.5	5.3	5.3	5.2	4.9	4.8	4.8	4.6
Difference	0.0	-1.0	-1.3	-1.2	-0.8	-0.4	-0.2	-0.3	-0.5	-0.5

Table 2.2: Deviations in key economic forecasts – calendar year basis

Changes in economic forecasts (calendar year)										
Annual % change (unless noted)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP										
Sep-09	0.9	2.7	3.4	3.2	3.6	3.6	2.7	2.3	3.0	3.4
Mar-10	1.3	2.0	3.5	3.3	3.7	3.7	2.7	2.4	3.1	3.6
Difference	0.4	-0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Consumer Price Index (CPI)										
Sep-09	1.7	2.5	3.2	2.8	2.3	1.9	2.3	2.7	2.7	2.5
Mar-10	1.8	2.6	3.1	2.8	2.3	1.9	2.3	2.7	2.7	2.5
Difference	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Labour Price Index (LPI)										
Sep-09	3.8	3.6	4.0	3.8	3.6	3.9	3.7	4.0	4.2	4.1
Mar-10	3.6	3.3	4.0	3.7	3.4	3.8	3.6	3.9	4.1	4.0
Difference	-0.2	-0.3	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Average weekly earnings (AWE)										
Sep-09	3.5	3.6	4.3	4.4	3.9	3.8	3.6	3.6	3.8	3.7
Mar-10	3.9	3.7	4.3	4.3	3.7	3.8	3.5	3.5	3.6	3.6
Difference	0.4	0.2	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Average weekly ordinary time earnings (AWOTE)										
Sep-09	5.2	3.6	4.5	4.7	4.5	4.1	4.0	4.2	4.3	4.1
Mar-10	5.3	3.3	4.3	4.7	4.5	4.2	3.9	4.1	4.2	4.0
Difference	0.1	-0.3	-0.2	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Unit Labour Costs										
Sep-09	0.5	2.0	3.0	2.8	1.9	2.1	2.6	2.9	2.5	2.2
Mar-10	0.6	3.1	3.2	2.7	1.6	1.8	1.4	2.0	1.6	1.5
Difference	0.1	1.1	0.3	-0.1	-0.3	-0.3	-1.2	-0.9	-0.9	-0.7
Employment										
Sep-09	0.3	1.3	2.0	1.9	1.8	1.9	1.5	1.2	1.6	2.0
Mar-10	0.3	2.5	2.1	2.0	1.7	2.0	1.7	1.3	1.5	2.1
Difference	0.0	1.2	0.1	0.1	-0.1	0.1	0.2	0.1	-0.1	0.1
Unemployment rate (%)										
Sep-09	5.9	6.7	6.7	6.4	5.9	5.3	5.1	5.2	5.2	5.0
Mar-10	5.6	5.3	5.4	5.3	5.3	5.1	4.8	4.8	4.7	4.5
Difference	-0.3	-1.3	-1.3	-1.1	-0.6	-0.3	-0.3	-0.4	-0.5	-0.5

2.1 The Australian outlook

Australia had a smaller slowdown than most developed economies. This was partly due to its financially healthy banking system, relatively rapid population growth, strong momentum in engineering and commercial construction, and high demand for exports from China. It was also in part because Australia had a larger stimulus than most. Interest rate cuts were early and large, as was Federal Government spending. In combination, the Federal fiscal stimulus and the Reserve Bank's interest rate cuts gave the average family a temporary 10% boost to their disposable incomes – about half coming via one-off Federal payments and half from lower interest rates.

While 2010 and 2011 will see an improving economy, the withdrawal of stimulus will limit the extent of that improvement, meaning that Australia's economy will show a solid recovery, but that it may not reach the heights of recovery that were seen in the early 1990s and the early 1980s.

Access Economics' macroeconomic forecasts have not been substantially revised since the last report for AER, and are shown in Table 2.1. Some of the modest changes are highlighted below:

- GDP growth was stronger than expected in 2008-09, with the result that the forecasted 'recovery' will not be as strong as we had thought in September. GDP growth has been revised down 0.1% in 2009-10 and 0.4% in 2010-11.
- Employment gains have been very large with nearly 200,000 new jobs created over the five months to January 2010. That has helped to produce stronger employment growth projections and a lower unemployment rate projection in the short term.
- Inflation has been revised higher by 0.3% in 2009-10. The economy continues to pick up pace, with the unemployment rate having already reached its peak for this cycle.

Our latest economic projections are shown in Table 2.3 (for financial results) and Table 2.4 (for calendar year results).

Table 2.3: Key economic forecasts – financial year basis

Financial year changes in key Economic variables

Annual % change (unless noted)	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Consumption										
Private sector	1.9	1.7	1.1	2.5	2.4	2.5	1.8	1.7	2.0	2.2
Public sector	2.8	3.1	1.3	2.1	1.7	1.9	1.6	1.4	1.5	1.4
Private sector investment										
Non-business housing	-1.9	5.7	14.2	-2.2	2.0	9.9	5.6	-5.1	1.0	10.9
Non-business real estate	-15.6	17.8	14.2	-1.9	2.0	9.4	5.3	-4.4	1.1	10.0
Non-residential building	0.4	-17.0	-1.4	-2.2	-0.4	4.5	4.8	4.7	5.1	6.8
Engineering construction	17.7	-1.4	-0.2	5.4	4.8	5.3	2.1	1.6	2.0	3.7
Machinery and equipment	4.8	-2.7	-1.0	2.0	2.6	5.0	3.2	2.9	3.3	5.1
IP and livestock	7.0	-0.5	-2.6	2.0	2.6	5.0	3.2	2.9	3.3	5.1
Public investment										
General Government	4.0	11.6	0.2	2.0	1.9	2.0	2.0	1.8	1.6	1.6
Public enterprises	24.1	11.6	12.1	5.6	2.6	4.5	2.9	2.5	2.3	4.0
Domestic final demand	2.7	1.7	1.9	2.0	2.3	3.4	2.3	1.3	2.1	3.3
Private sector	2.3	0.8	1.9	1.9	2.4	3.7	2.5	1.3	2.2	3.7
Public sector	4.4	5.0	2.0	2.4	1.9	2.2	1.8	1.6	1.6	1.7
Gross national expenditure	1.8	2.3	1.8	2.2	2.4	3.3	2.5	1.3	2.0	3.3
Interntional trade										
Exports	0.1	0.6	8.5	11.9	11.4	12.3	8.4	7.1	5.3	8.0
Imports	-2.8	6.3	9.2	4.8	6.6	9.9	5.5	2.9	3.0	8.0
Net (% additon to growth)	2.9	-3.3	0.7	1.3	0.6	0.3	1.0	0.9	0.3	0.2
Total output (GDP)	1.3	1.8	2.8	3.5	3.4	3.8	3.2	2.4	2.7	3.4
Non farm GDP	1.0	1.6	2.9	3.6	3.4	3.8	3.2	2.4	2.7	3.4
Employment	1.1	1.2	2.3	2.2	1.8	1.9	1.8	1.5	1.2	1.8
Unemployment rate (%)	4.9	5.4	5.5	5.3	5.3	5.2	4.9	4.8	4.8	4.6

Table 2.4: Key economic forecasts – calendar year basis

Calendar year changes in key Economic variables										
Annual % change (unless noted)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Consumption										
Private sector	2.2	0.4	2.4	2.4	2.5	2.3	1.5	2.0	2.1	2.2
Public sector	2.9	1.7	2.0	1.9	1.8	1.9	1.3	1.4	1.5	1.3
Private sector investment										
Non-business housing	-4.4	15.5	5.6	-3.0	7.2	10.1	-0.6	-5.9	9.2	9.9
Non-business real estate	5.0	17.7	5.1	-2.6	6.8	9.5	-0.4	-5.1	8.4	9.2
Non-residential building	-13.3	-7.0	-2.7	-1.7	2.2	5.4	4.2	5.1	5.7	7.0
Engineering construction	11.3	-7.6	6.0	4.9	5.4	4.0	1.2	2.0	2.7	3.9
Machinery and equipment	-3.2	-3.3	2.0	2.0	4.1	4.6	2.4	3.3	4.0	5.2
IP and livestock	5.9	-6.8	2.0	2.0	4.1	4.6	2.4	3.3	4.0	5.2
Public investment										
General Government	1.0	4.0	3.0	1.8	2.0	2.0	2.0	1.7	1.6	1.6
Public enterprises	15.7	14.8	8.1	3.5	3.3	4.3	2.2	2.6	2.9	4.1
Domestic final demand	1.6	1.1	2.6	1.8	3.0	3.2	1.5	1.5	2.8	3.2
Private sector	1.0	0.5	2.6	1.8	3.3	3.6	1.5	1.4	3.2	3.6
Public sector	3.5	3.1	2.7	2.0	2.0	2.2	1.5	1.6	1.6	1.6
Gross national expenditure	1.0	1.5	2.6	2.0	3.0	3.3	1.6	1.4	2.9	3.3
Interntional trade										
Exports	0.5	3.4	10.5	12.1	12.0	10.8	7.3	5.9	6.6	8.1
Imports	-7.7	14.4	5.2	5.5	8.7	9.0	3.1	2.4	6.0	7.5
Net (% additon to growth)	-0.5	-0.6	1.3	0.9	0.5	0.5	1.0	0.7	0.1	0.5
Total output (GDP)	1.3	2.0	3.5	3.3	3.7	3.7	2.7	2.4	3.1	3.6
Non farm GDP	1.2	2.0	3.6	3.4	3.7	3.7	2.7	2.4	3.1	3.6
Employment	0.3	2.5	2.1	2.0	1.7	2.0	1.7	1.3	1.5	2.1
Unemployment rate (%)	5.6	5.3	5.4	5.3	5.3	5.1	4.8	4.8	4.7	4.5

2.2 The outlook for wages

The Labour Price Index (LPI) grew by just 2.9% over the year to December 2009, with this weakness in response to the earlier period of higher unemployment and – more likely – the fear that unemployment could well have jumped rather higher than it has done. On this wage measure, this is the slowest rate of growth since 2002.

As Access Economics has stressed for a while, the composition of wage growth (during both the boom and the recent downturn) has been tightly linked to sectoral and regional cycles. The slowest wage gains in Australia have been in the hard hit finance sector, with similarly slow gains in the likes of recreation and in manufacturing. And while wage growth in mining and construction has not been as slow, it has been much slower than equivalent gains during the boom.

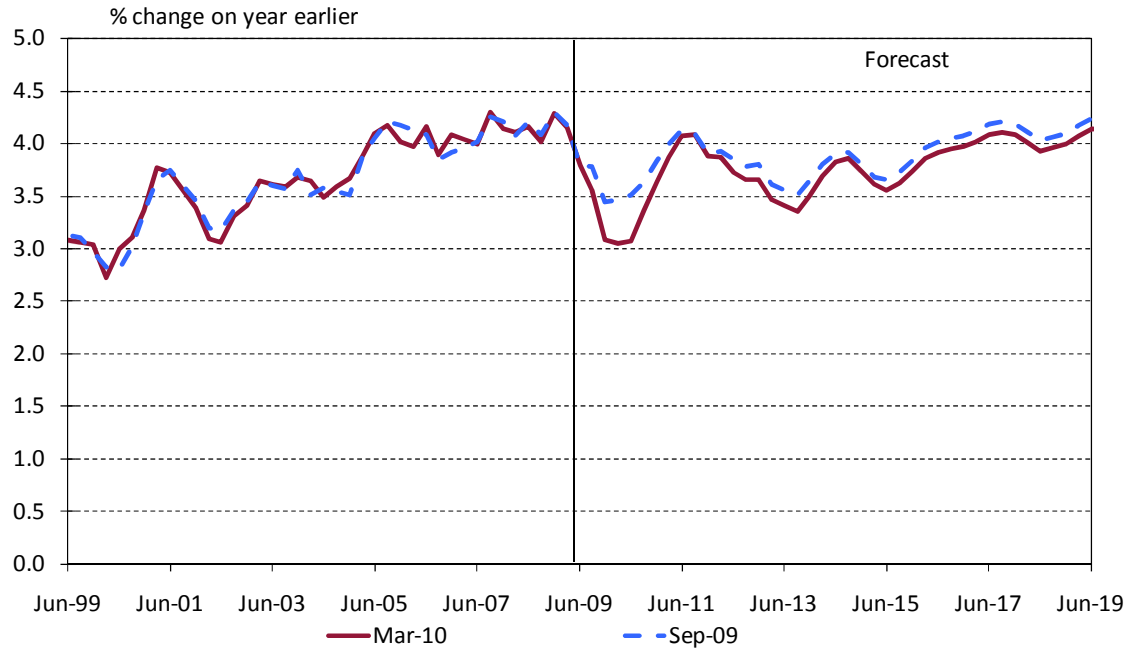
Just as it was true that wages in finance, mining and manufacturing moved with the cycle, it is also true that public sector wage growth has not. The latter has averaged 4.4% over the past year, while private sector wage growth has only averaged 3.3%. The fastest public sector gains have been seen in WA, NSW and the NT. Enterprise bargains also show a continuing degree of strength in public sector wage settlements – though not to the same degree highlighted in the LPI data.

Other broad measures of wages have told a different story of late:

- The ABS' measure of growth in average weekly earnings (AWE) accelerated sharply across 2009, not merely moving sharply against the trends seen in the LPI but rising to its fastest rate of increase since 2005.
- In contrast, average compensation of non-farm employees shows a notable decline in the year to December 2009, having slumped sharply from a 6% rise in the previous year. This is the lowest rate of growth seen in this particular measure of wages in a series that stretches back to the early 1970s. Partly this reflects a reduction in average hours worked per employee, though even using average compensation per hour worked does little to change the broad result.

Overall, Access Economics has revised down slightly its forecasts of the LPI across the forecast period. LPI is now expected to be 0.4% lower in 2009-10, and then averaging 0.1% lower across the rest of the forecast period. These revisions have been made due to slower growth in the LPI over the past six months (moving from 3.7% growth over the year to June 2009 to 2.9% in the year to December 2009). The change in our projection is shown in Chart 2.1. Note that the changes in historical growth rates are caused by the change in the price basis. Because the published ABS figures for the LPI are rounded to one decimal price, the change to a new price basis will see slightly different effects from rounding in history (both in terms of the level of the index, but also in terms of the growth rates over time). These effects will cancel out over the longer term.

Chart 2.1: Changes to the LPI forecast (all industries)



While short term LPI growth is lower than previously projected, Access Economics still projects a rebound in the cost of labour through the course of 2010 and into 2011, as the conditions which led to the fall off in labour costs are reversed. Although we don't foresee a rapid return to skill shortages, workers and unions are now less worried, and so will look for some catch-up for their recent moderation. In addition the initial surge in labour productivity into the recovery (as the existing workforce – including some hoarded labour – is used more intensively into the upswing) will taper off through 2010. The result, as is true of many other things, will

be a 'return to normal' as the impact of the crisis fades. That will turn labour costs from a factor keeping overall inflation down to a factor adding to it by the latter part of 2010.

The issue of specific industry skills shortages became a particular concern late in the last economic upswing. The problems (which were most obvious in demands for mining industry workers in remote Queensland and Western Australian operations) saw workers lured across from other sectors towards the rapidly rising pay packets available in mining. Initially the competitor industries of utilities, construction and manufacturing were affected, but eventually workers from almost all sectors could be found moving to work in mining (including former teachers and nurses). Increasing importation of foreign skilled workers under a variety of migration schemes also complemented these new employees.

While many of the pressures reversed sharply after the GFC hit, the revival in economic growth and commodity prices has been tipped by some to see the problems re-emerge rapidly.

These forecasts do tend to lean in that direction. Where the earlier projections saw the key industries of the report (utilities and its competitors) tend to see wages move at rates very close to the national average, these forecasts see some sustained relative upward pressure on mining wages from late 2010 onwards. There is a similar trend in construction, although as is typical in that sector there are strong cyclical factors as well.

That has implications for other sectors, although in the case of the utilities and manufacturing sectors the trends due to competitor sector wages tend to act as an offset to the lower growth in sectoral productivity and the decline in forecast output as a share of the national economy that are expected to limit wage growth.

Overall, each of these four sectors are expected to see their wages grow more rapidly (relative to overall wages) than in the previous report.

In summary, our view is that the likelihood of wage growth in some sectors being lifted by developing skills shortages has risen since the previous report. However, these problems will likely be more obvious in 2011 and beyond rather than in 2010 itself.

2.3 The outlook for the CPI

Underlying inflation is still above the top of the RBA's target band for inflation, and that's not a very comfortable spot from which to start the current upswing in the business cycle. Underlying inflation will ease from here because inflation lags the economy, and the latter has only just begun its upswing, so further falls in underlying inflation in the next six months are likely. However underlying inflation will be on the rise from mid-2010 onwards, with part of that rebound due to a matching rebound in demand pressures.

Inflation responds to the strength of spending, but it does so with a lag. That means the big fall in the pace of spending through 2009 will help cut inflationary pressures through 2010. Yet this basic rule has a couple of caveats. First, Australia's housing shortage has been an inflation problem for a while, and features regularly in Reserve Bank comments on the looming constraints facing the current cycle. It does so as Australia has too little supply balancing greater demand - a mix which has been pushing up rents for some time now. Although rental growth is off the peak of 9% it hit during 2008, it remains a notable domestic factor driving up overall inflation rates. Moreover, although rental growth may moderate a little from here, it will still stay comfortably above overall inflation for a while further yet, as population growth is

very strong, housing construction is yet to pick up, and most State capitals have rental vacancy rates of 2% or less (with Perth, Melbourne and Brisbane closer to 3%). It may therefore be 2011-12 before rent rises start to ease back notably.

More broadly, while spare capacity does mean that the immediate outlook for inflation is improving, there are a several domestic-driven demand pressures on inflation (such as health, education and electricity costs) which remain evident. Even rising interest rates will add price pressures of their own. That suggests a reversal in polarity is not that far off in time, with demand pressures starting to push inflation up rather than down from some time in 2010.

Inflation rates have therefore been revised 0.3% higher in 2009-10, before a slight revision of -0.1% in 2010-11. Inflation forecasts remain unchanged after this time.

Current projections for key national wage and price variables on a financial year and calendar year basis are shown in Table 2.5 and Table 2.6 respectively.

Table 2.5: National wage and prices forecasts – financial year basis

Financial year changes in national wage and prices variables

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Consumer price index (CPI)	3.1	2.1	2.9	3.0	2.5	2.0	2.0	2.5	2.8	2.5
Labour price index (LPI)										
Nominal	4.1	3.2	3.7	3.9	3.5	3.6	3.7	3.8	4.0	4.0
Real	0.9	1.0	0.8	0.9	1.0	1.5	1.7	1.2	1.2	1.4
Average weekly earnings (AWE)										
Nominal	3.8	4.0	3.8	4.4	4.0	3.7	3.6	3.4	3.6	3.6
Real	0.7	1.8	0.9	1.4	1.4	1.6	1.6	0.9	0.8	1.0
Average weekly ordinary time earnings (AWOTE)										
Nominal	5.5	4.0	3.7	4.5	4.8	4.2	4.0	4.0	4.2	4.1
Real	2.3	1.9	0.8	1.5	2.2	2.1	2.0	1.5	1.4	1.5
Unit labour costs										
Nominal	4.5	0.6	3.4	3.1	2.1	1.8	1.4	2.0	1.7	1.5
Real	1.3	-1.5	0.6	0.1	-0.4	-0.2	-0.6	-0.5	-1.1	-1.0

Table 2.6: National wage and prices forecasts – calendar year basis

Calendar year changes in national wage and prices variables

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Consumer price index (CPI)	1.8	2.6	3.1	2.8	2.3	1.9	2.3	2.7	2.7	2.5
Labour price index (LPI)										
Nominal	3.6	3.3	4.0	3.7	3.4	3.8	3.6	3.9	4.1	4.0
Real	1.8	0.7	0.8	0.9	1.1	1.9	1.3	1.2	1.4	1.4
Average weekly earnings (AWE)										
Nominal	3.9	3.7	4.3	4.3	3.7	3.8	3.5	3.5	3.6	3.6
Real	2.0	1.1	1.1	1.5	1.4	1.8	1.1	0.8	1.0	1.0
Average weekly ordinary time earnings (AWOTE)										
Nominal	5.3	3.3	4.3	4.7	4.5	4.2	3.9	4.1	4.2	4.0
Real	3.4	0.6	1.2	1.8	2.2	2.2	1.6	1.4	1.5	1.4
Unit labour costs										
Nominal	0.6	3.1	3.2	2.7	1.6	1.8	1.4	2.0	1.6	1.5
Real	-1.2	0.5	0.1	-0.1	-0.6	-0.1	-0.8	-0.7	-1.0	-1.0

3 State economic outlooks and wage projections

3.1 Technical changes since the last report

The revisions to our forecasts over the past six month are, in the main, driven by the changing economic climate. However, State economic results are also affected by a number of technical changes to historical variables that should be borne in mind.

- The new projections use a later base year for their measure of prices. That is, the last set of economic growth values (both history and forecast) were based on 2006-07 dollars as the price base, while the latest values use 2007-08 dollars. This often has significant impacts for some State shares of economic importance – and larger States can see their historic share of the national economy rise or fall by as much as 2%. While these changes can have an impact of economic growth rates, the key impact is on relative output levels in history. For this reason, comparing State shares of economic output across the two periods would be misleading. We do, however, compare forecasts of State shares of population.
- Unlike the national economic accounts, State accounts do not produce a full output figure on a quarterly basis, only in annual terms. The components that are not released each quarter, notably estimates of interstate trade, are often revised significantly each year. This can change historic growth rates, particularly for the smaller States and Territories.
- LPI measures have been rebased to 2008-09, rather than 2003-04. This changes relative levels, but has only very minor changes on historical growth rates due to the impacts of rounding.

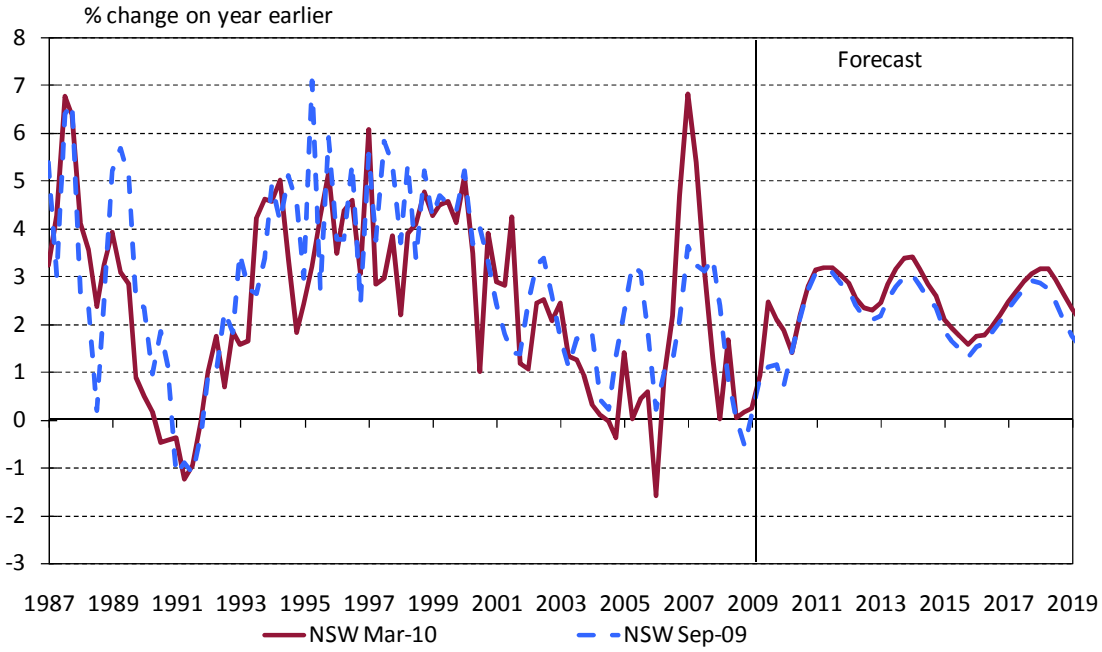
In general, these impacts are not particularly significant – and the State economic growth charts included below show that the key changes will be in the last few years of the forecast period.

3.2 New South Wales

3.2.1 Changes to the outlook

Chart 3.1 shows that output growth in the New South Wales economy has already started to improve. Access Economics is projecting a solid recovery over the medium term, with the forecasts shown generally in line with those presented in the previous report. The release of State Accounts data (in December 2009) showed slightly lower growth in 2009 than had been previously forecast. In relative terms, Access Economics' forecasts for New South Wales output growth have improved compared with the previous report. The State's share of the national economy is still expected to decline, though the forecast is slightly higher over the next five years than was previously expected.

Chart 3.1: New South Wales output forecast change



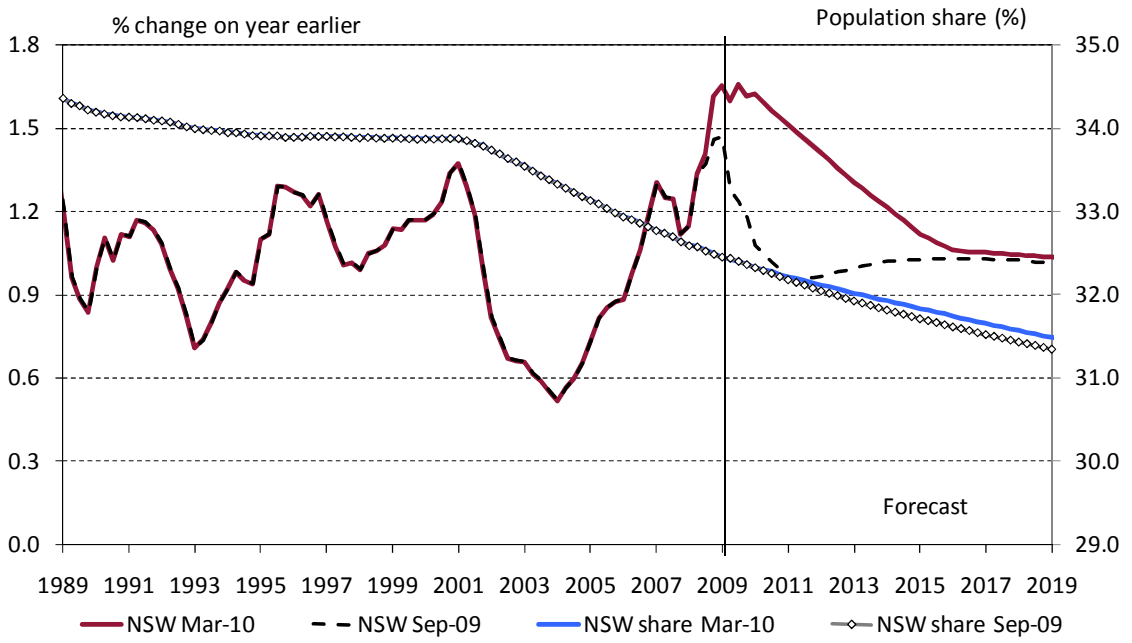
Source: ABS, Access Economics' macroeconomic model

New South Wales' share of the national population has been declining since 2001. Chart 3.2 shows that Access Economics expects the share to continue to fall away going forward. That forecast reflects a number of factors, including relatively better job prospects in other States and relatively higher house prices in New South Wales.

Chart 3.2 shows that the rate of population growth for New South Wales has been revised sharply higher, particularly in the short term. The reason for this revision was a record number of migrants to Australia through, despite the Federal Government announcing cuts to the migration program. (The announce cuts had influenced the short term projections, but despite the announced cuts, net migration has continued to lift). Access Economics has consequently revised its international migration parameters in the short term. This has a relatively strong positive impact on New South Wales' population, lifting their expected share of national population slightly higher than previous forecast (although the share continues to decline, it is less rapid than the last forecasts).

These forecasts show New South Wales' share of the Australian population falling below 32% by 2013-14. In contrast, Access Economics expects the population shares of Queensland and Western Australia to improve notably.

Chart 3.2: New South Wales population forecast change



Source: ABS, Access Economics' macroeconomic model

3.2.2 Current LPI projections

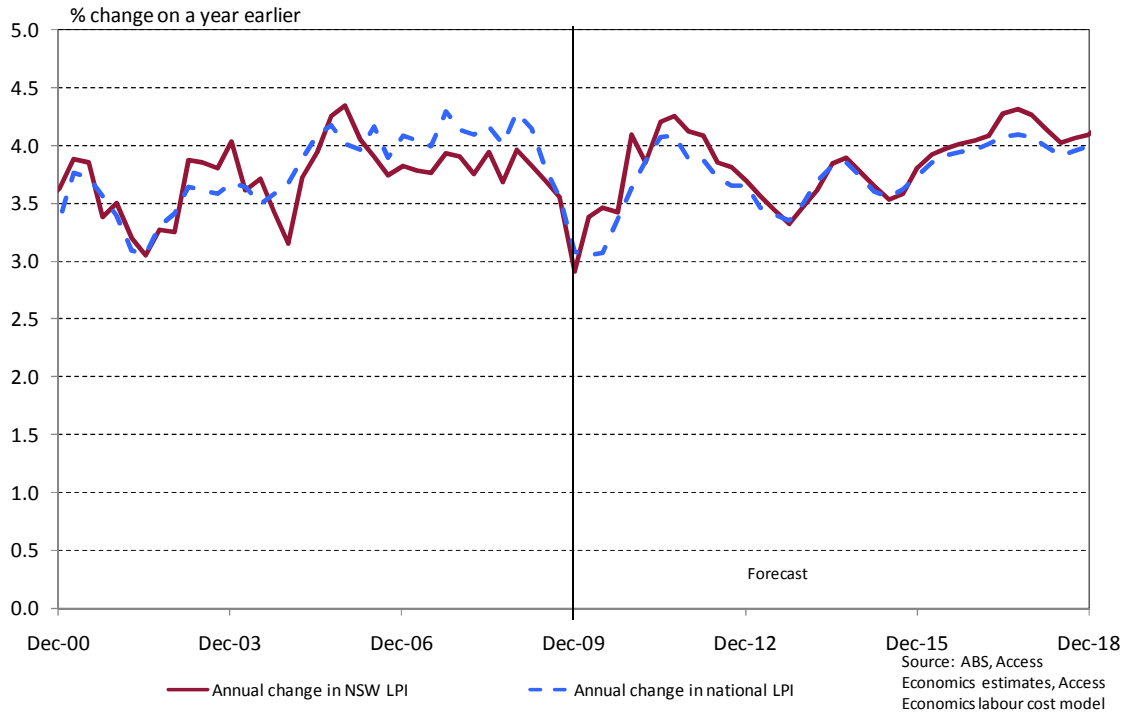
As detailed above, New South Wales has experienced a painful decade in terms of relative economic performance. As a result, labour cost (LPI) growth in the State has been mostly lagging the national average since 2003.

That relative economic underperformance is anticipated to continue over the next 12 months. However from mid-2010 New South Wales' economy may recover relatively quickly – as the tonic of lower interest rates eventually has its effect on the State and we see a big lift in housing construction, as well as recovery from the financial services sector. Labour cost growth in the State is therefore expected to outpace the national average from late 2010 onwards as a result.

Chart 3.3 shows that Access Economics is projecting general labour cost growth in New South Wales to lift notably through 2011 in particular. However, it won't just be a relative recovery in the NSW economy driving faster wage growth in NSW. It will also be a degree of catch up to the weakness in wage gains evident over the past six years – wage gains in other States have been faster, and (other things equal) that will add to the pace of growth in wages in the State as well.

Year-to growth rates in the labour price index are projected to peak at close to 4.5% in NSW in mid-2011; earlier and higher than the peak in national labour cost growth in the cycle. Beyond 2012, Access Economics expects NSW labour costs to grow broadly in line with the national average.

Chart 3.3: New South Wales general labour cost growth

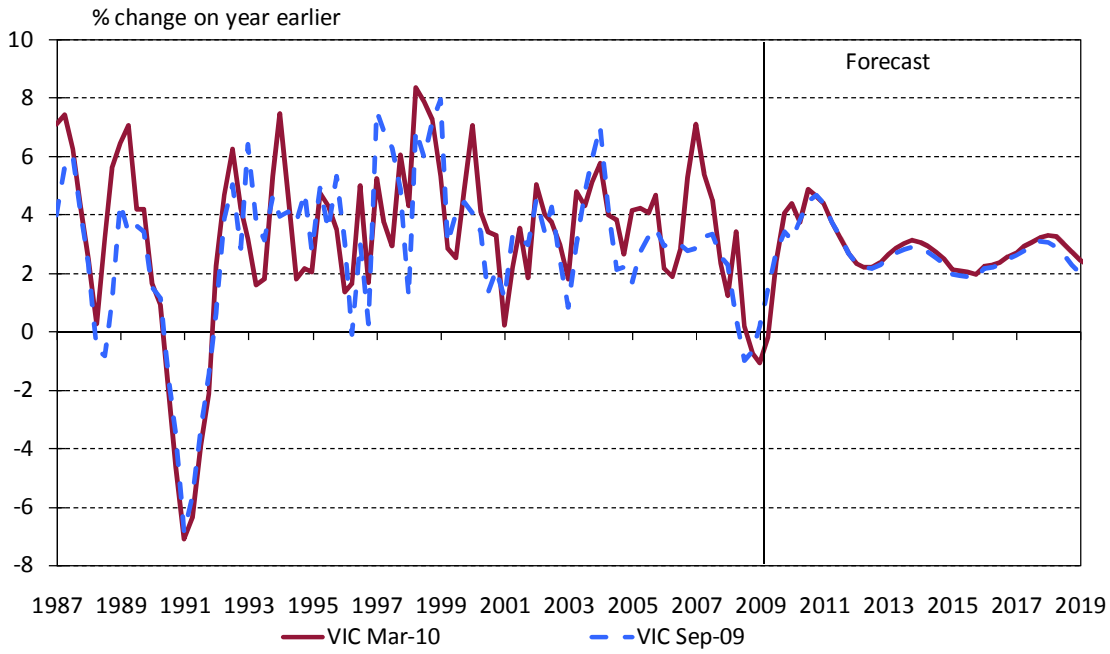


3.3 Victoria

3.3.1 Changes to the outlook

Chart 3.4 shows that, like NSW, Victoria is emerging from the slow growth seen over 2009. The downturn was enough to shift Victoria's growth from being above the national average in 2007 to below it through much of 2009. The news going forward is good for the State however – in particular, families have shown a greater willingness to spend than elsewhere, providing a firmer tone to retail and consumer demand. And the State's high population gains mean that Victoria's housing construction sector, despite being relatively healthier than that seen in almost any other State, is seeing its demand pick up ahead of its national equivalent. Victoria is even getting more visitors from the rest of the world at a time when NSW is getting less, while the State's business and property services workers are seeing signs of an upswing after a very quiet period during the downturn.

Chart 3.4: Victorian output forecast change

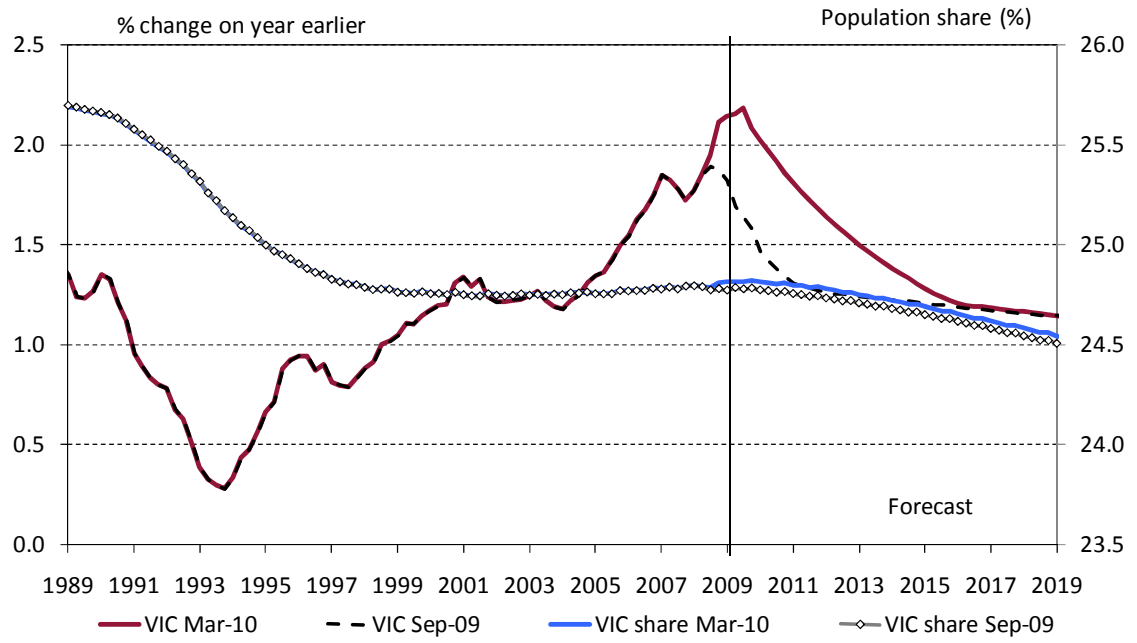


Source: ABS, Access Economics' macroeconomic model

Therefore, 2010 looks like the recovery year for Victoria, although some sectors are still likely to struggle. The States large manufacturing sector continues to fight against the high exchange rate, and climbing interest rates. However, beyond 2010, Victoria looks like holding onto its share of Australian population and output (as seen in Chart 3.5).

Access Economics has regularly described Australia's population growth as being an unsung hero of its defence against this downturn, and that is true in particularly for Victoria. The State underperformed national population growth for most of the time since the early 1970s, and it is only recent years which saw Victoria draw level and then draw ahead of national gains. That boost has provided a very firm underpinning for a State when it needed it most. In turn, that helps to explain why Victoria's retail spending growth is in line with the national average, and why its unemployment rate has edged below the national average for the first time in several years. Indeed, the recent upswing in job gains in the State is very heartening, and it points to the potential for the State's recovery to solidify through 2010 and 2011.

Chart 3.5: Victorian population forecast change



Source: ABS, Access Economics' macroeconomic model

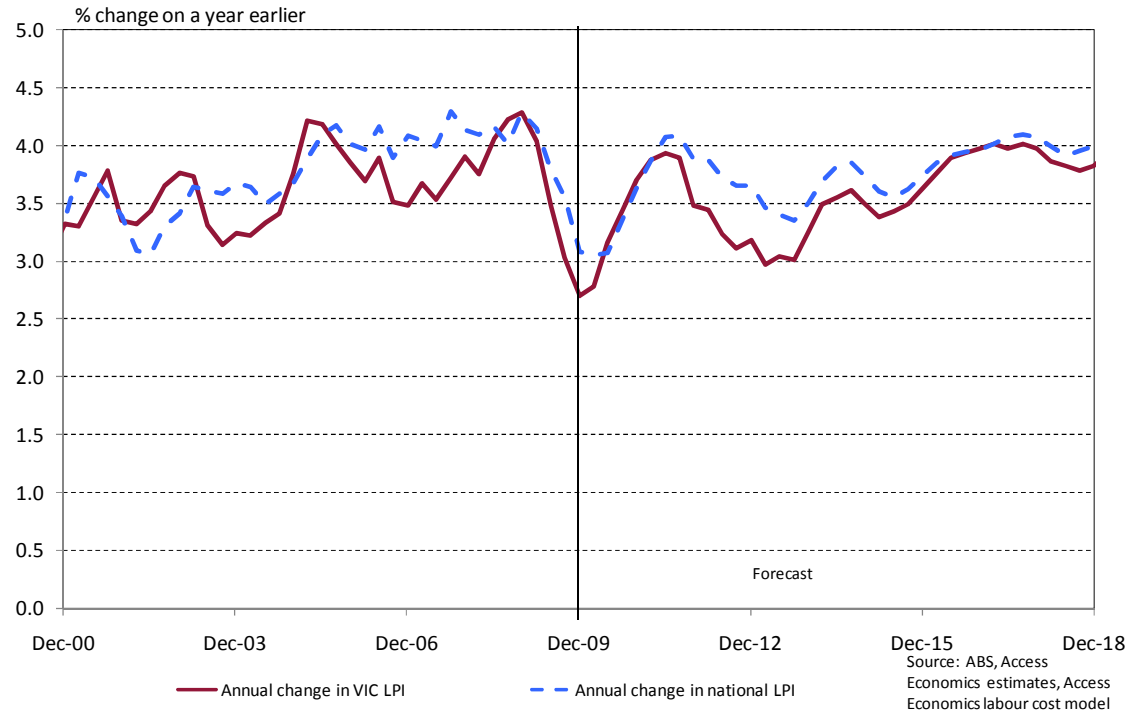
3.3.2 Current LPI projections

As is true of New South Wales, the Victorian economy was not a major beneficiary of the commodity boom. However, unlike its northern neighbour, Victoria managed to broadly maintain its share of the national economy over the past decade – a considerable feat given the strong gains achieved in the likes of Western Australia and Queensland.

Consistent with that performance, the strength in the Victorian economy has meant that general labour cost growth has largely kept pace with the national average in recent years.

Indeed, Chart 3.6 shows that growth in the Victorian labour price index was slightly above the national average in the latter half of 2008 – albeit marginally so.

Chart 3.6: Victoria general labour cost growth



Source: ABS, Access Economics' macroeconomic model

During 2009, growth in Victorian labour costs has fallen away relatively quickly, with the year to December quarter 2009 recording LPI growth of just 2.7% (compared with 4.3% a year earlier), weighed down by developments in the manufacturing sector in particular. The June quarter saw the lowest individual quarterly growth rate (wages grew 0.5% in the June quarter, and risen to 0.7% and then 0.8% in the two subsequent quarters)

Although Access Economics expects quarterly growth rates for the Victorian LPI to continue to lift from that June quarter low, overall LPI growth in the State may not accelerate more markedly until 2010-11.

That recovery in labour cost growth corresponds with a projected recovery in State output, as shown Chart 3.4. General labour cost growth is projected to peak in early-2011 at around 4%. Further ahead, the unwinding of that phase of strong growth may see labour cost growth in Victoria lag the national average over the subsequent few years.

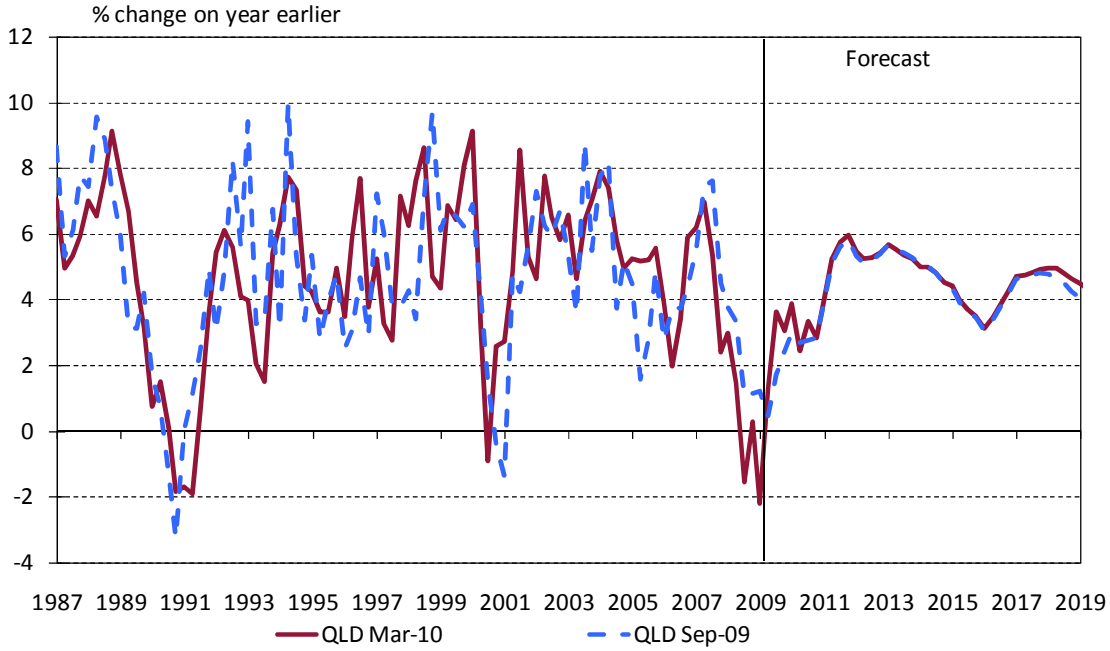
3.4 Queensland

3.4.1 Changes to the outlook

Queensland's economy has long been a standout among the States. However, the global financial crisis has left the Sunshine State lagging the nation on many economic indicators. Part of that lag is because the pace of housing construction in the State was hit hard and late in this business cycle. Inflation-adjusted spending on building new homes and renovating old ones was cut by a quarter in the last year alone. Partly that is because Brisbane rental vacancy rates had begun to climb again through 2009. But partly it is because the nation's banks shunned developers, who have always had a firmer foothold in the Sunshine State than

elsewhere. Indeed that has not only pressured the pace of housing construction, but has been an even bigger problem in commercial construction generally.

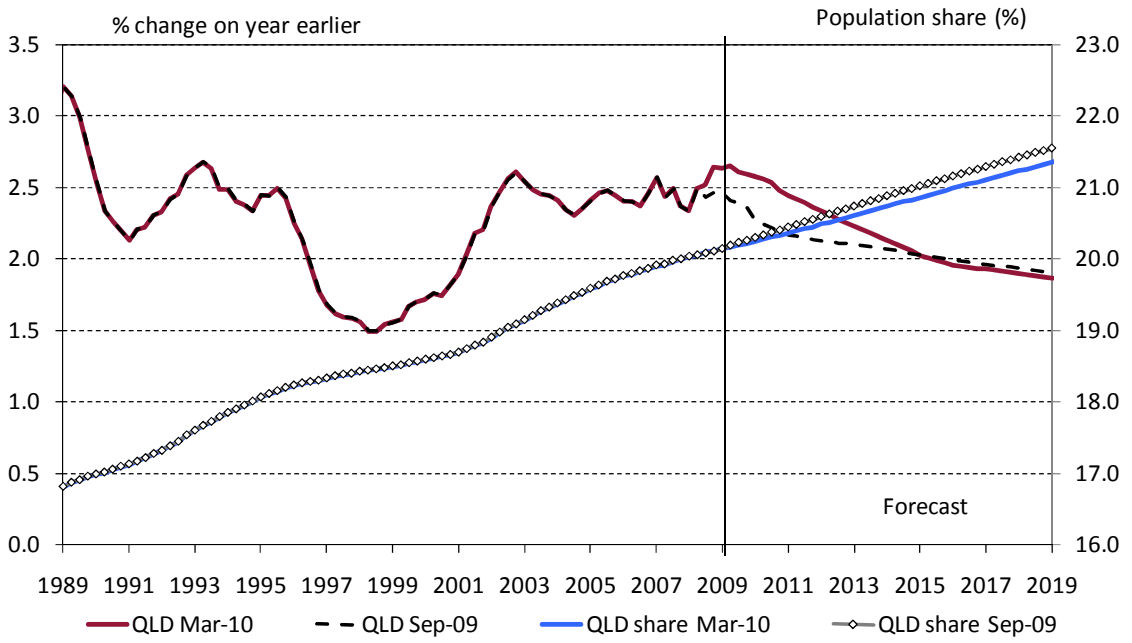
Chart 3.7: Queensland output forecast change



Source: ABS, Access Economics' macroeconomic model

Rising interest rates have muted retail spending, while the higher $A has resulted in weak international tourism figures. However, there are also short term positives for the State, including strong population growth (see Chart 3.8), and increasing investment by the State Government in much needed infrastructure.

Chart 3.8: Queensland population forecast change



Source: ABS, Access Economics' macroeconomic model

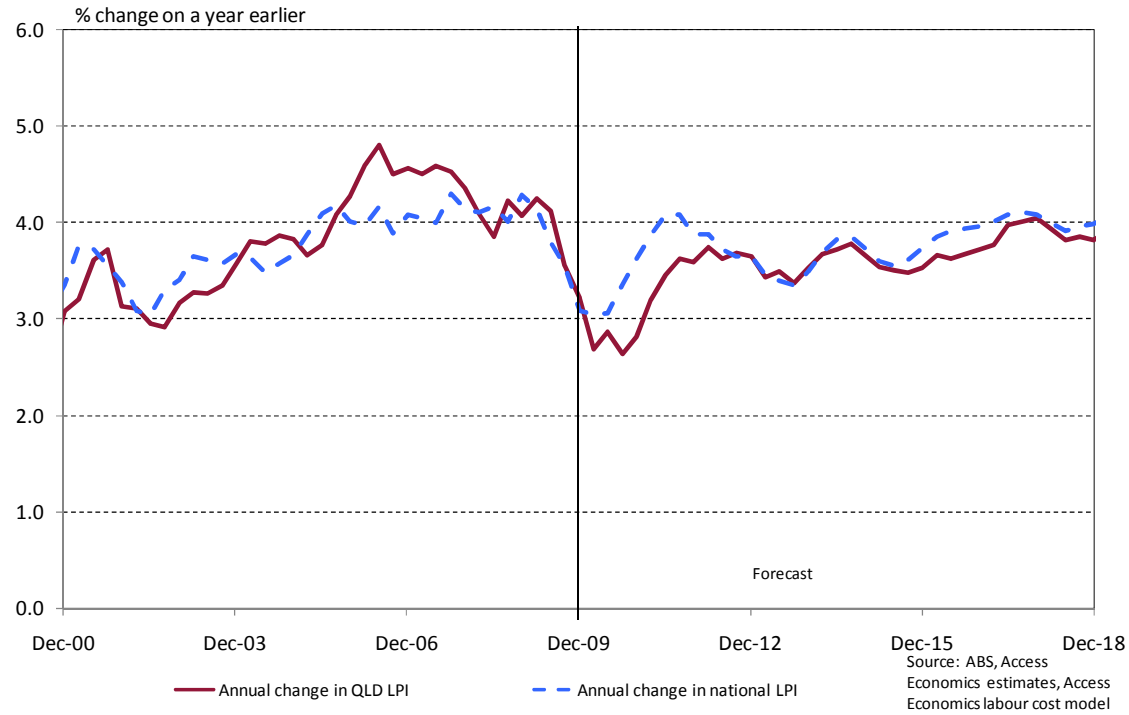
The longer term will also prove good to the State, as the pace of China's current growth and the likelihood that other emerging economies will continue to grow in coming years - meaning that Queensland will once more go back to carving out a bigger share of Australia's economy over time. However, with the State's unemployment having moved above the national rate for the first time in several years, it may not be in 2010 when that reversion to the norm will be evident. Better times relative to the rest of Australia may be more of a 2011 story than a 2010 story

3.4.2 Current LPI projections

The Queensland economy has been a key driver of national economic growth over the past decade. As a result, labour cost growth in the State has generally been above that seen nationally.

Queensland's exposure to the global commodity boom has been of considerable benefit over recent years. However, the past year has seen a cyclical shift which has hit harder in Queensland than in Australia as a whole, with the State's mining and tourism sectors suffering slowdown. Those developments have already pegged labour cost growth in the State back to the national average in recent quarters, as seen in Chart 3.9.

Chart 3.9: Queensland general labour cost growth



Source: ABS, Access Economics' macroeconomic model

Economic growth in Queensland is projected to be notably slower over the next 18 months compared to what has been achieved since 2002, with the focus of the slowdown shifting as the State suffers an anticipated short term fall in engineering and commercial construction activity.

Access Economics expects that reduction in output growth to have implications for labour cost growth in the State. Chart 3.9 shows that – consequent on that slowdown in State output growth relative to Australian growth – Access Economics projects labour cost growth to slow to below 3% in Queensland over the next year. Labour costs in Queensland are then expected to grow broadly in line with the projected national average from mid-2011.

3.5 South Australia

3.5.1 Changes to the outlook

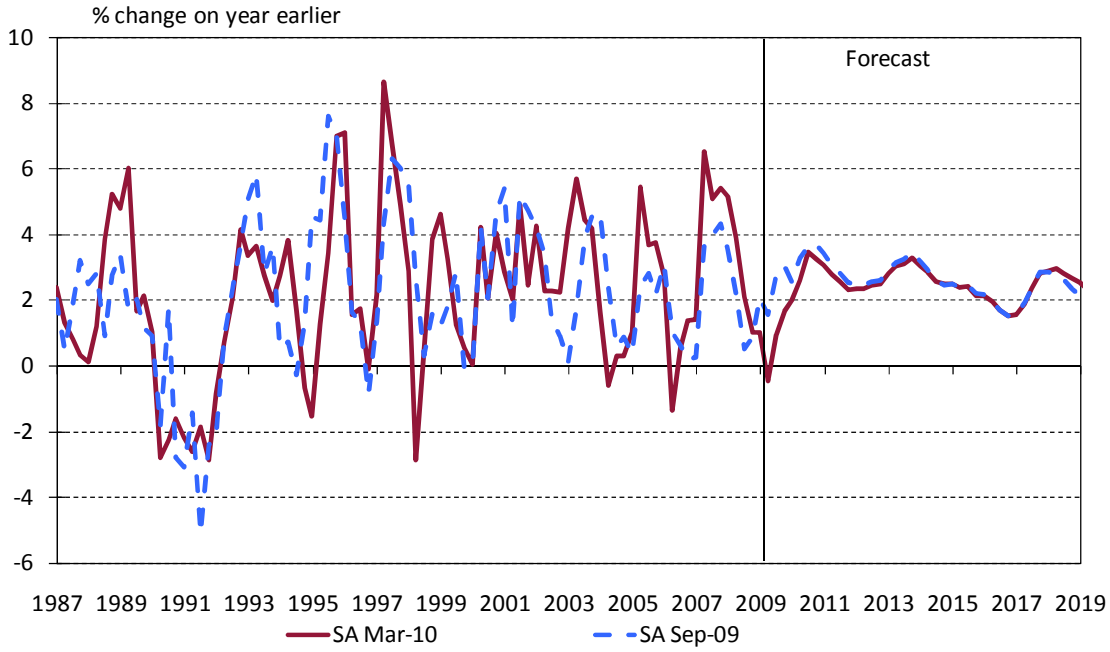
South Australia may well be a world class producer of minerals one day, however in the short term, its economy will continue to rely on the outlook for manufacturing. The news on that front is not good for the State – the reliance of SA's economy on cars and wine in particular is giving it grief. The fall off in the pace of car production in 2009 was unhappily high, with national production dropping from 325,000 cars to 225,000 cars. That is the lowest level of production in Australia in half a century, which throws into question the required critical mass for car making and auto part manufacturing in Australia. Australian car production is recovering along with the wider economy, but is doing so after a much bigger downturn.

Added to this is the glut in wine production, which has been building for a number of years, is hitting home just as the $A is riding above US90 cents. The resultant pincer on the profits of

grape growers and downstream wine manufacturing is very sharp. Prices are taking a beating, which is unsustainable in the longer term.

While some of the States manufacturers (notable the Defence manufacturing sector) have weathered the crisis relatively well, the downturn in the automotive and wine sectors has resulted in a notable decrease of full time employment in the State, and stagnant output growth across 2009 (see Chart 3.10).

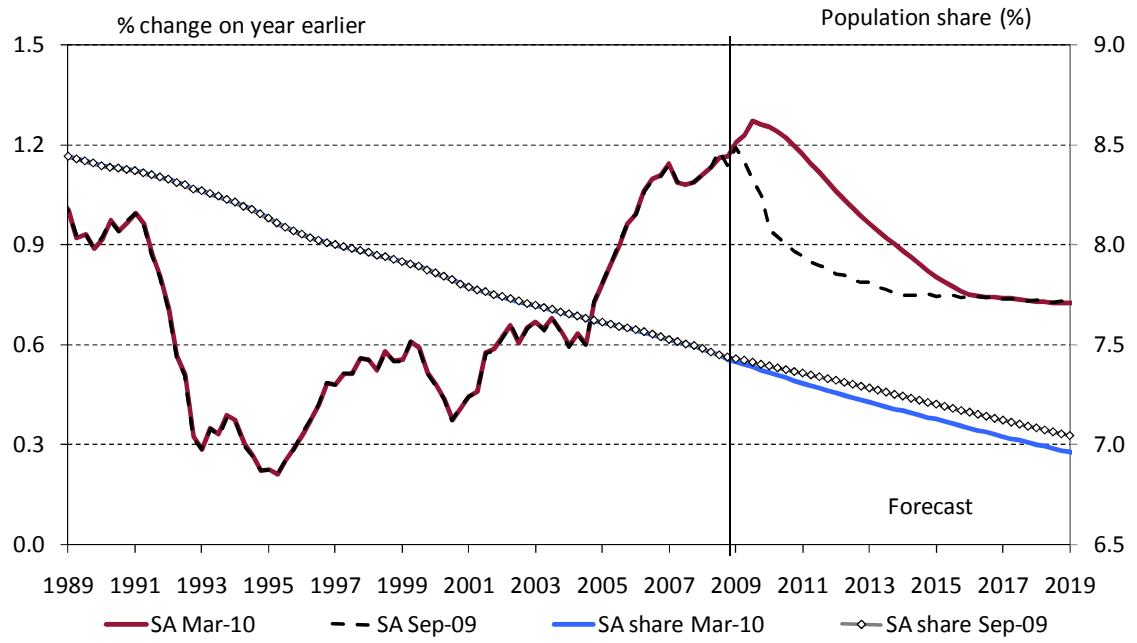
Chart 3.10: South Australian output forecast change



Source: ABS, Access Economics' macroeconomic model

However there is some good news for the State in these forecasts – Chart 3.11 shows that population growth is the best it has been in well over two decades, while upstream developments in the foreign student market point to further solid population growth in the short term amid continuing good gains in the numbers of international students studying in South Australia.

Chart 3.11: South Australian population forecast change



Source: ABS, Access Economics' macroeconomic model

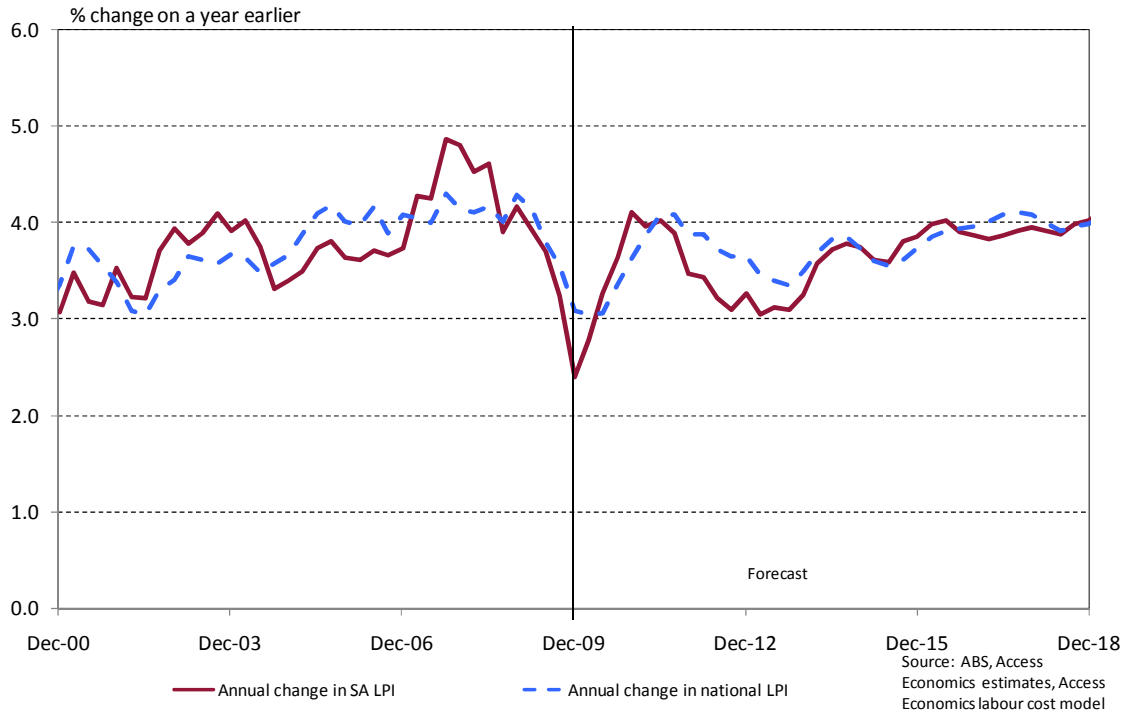
3.5.2 Current LPI projections

South Australia has typically grown more slowly than Australia as a whole, held back by its slow growing manufacturing base, as well as by its slow growing (and ageing) population.

That said, the State's economy did not grow as fast as Australia during the long economic expansion since the early 1990s, and equally has not been as affected by the slowdown as other States. For example, South Australia's economy has relatively small mining and financial sectors, and hence has missed some of the negatives of the recent past.

Aided by that, the South Australian economy is expected to record a solid recovery through 2010, helping the State carve out a larger share of the national economy – a break from the usual pattern.

Chart 3.12: South Australia general labour cost growth



Source: ABS, Access Economics' macroeconomic model

While the State has been less affected by slowdown than is Australia as a whole, Chart 3.12 shows that hasn't been reflected in wages growth, which has slipped below the national average due to the slow growth in manufacturing wages (and the loss of some higher paid manufacturing jobs within the sector).

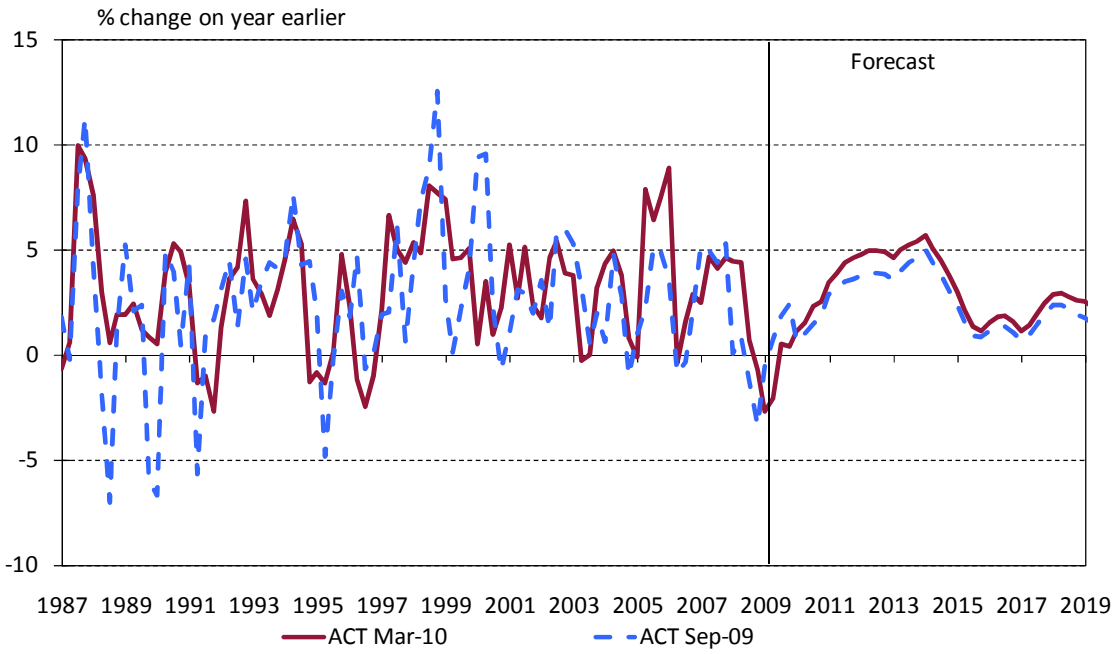
Like Victoria, labour cost growth in South Australia is projected to peak in mid-2011 at close to 4% before easing slightly as manufacturing struggles further. Eventually the combination of competitive pressures (and the decline in the importance of manufacturing as it weakens) sees wages growth move back towards the national average.

3.6 Australian Capital Territory

3.6.1 Changes to the outlook

The ACT is as good a place as any to be during a downturn. The Federal Government increased hiring, which staunched the earlier falls in ACT jobs and started to drive some decent job gains. That has allowed the unemployment rate to level off, remaining at enviably low levels. And whereas private sector wage growth has slowed, public sector hasn't. So with jobs now growing and wage gains solid, that provides a firmer floor to ACT incomes than in much of the rest of Australia. In turn retail spending growth has been good, while the Federal Government school stimulus plan has also been rolled out earlier than elsewhere in the country. However, as Chart 3.13 shows, the slowdown in commercial construction cost Canberra in recent times. The pace of office building and the construction and refurbishment of retail shopping space was notable at its peak in late 2006 and early 2007, but it simply travelled too fast in recent years to be sustained, and the result has been a slowdown since.

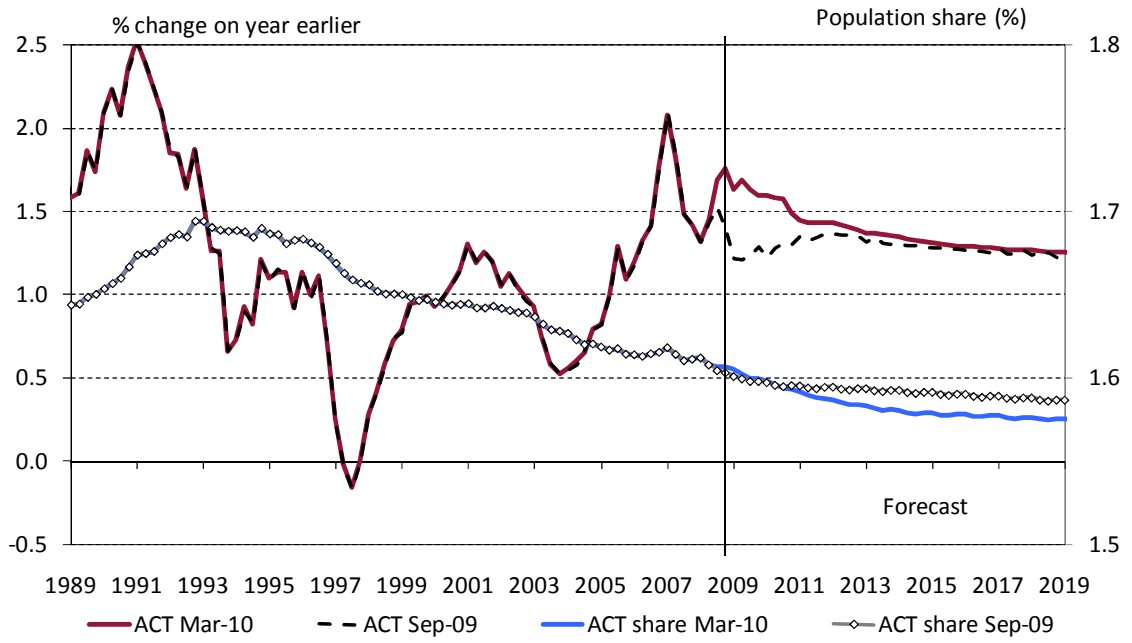
Chart 3.13: Australian Capital Territory output forecast change



Source: ABS, Access Economics' macroeconomic model

The ACT's recovery is projected to be modest compared with those seen elsewhere. There may be a debate about whether Federal cost restraint begins before or after the next election. Yet there isn't a debate about the need for restraint in the nation's fiscal finances. Hence it is hard to expect anything other than that – sometime in the first half of this decade – the pace of growth in Canberra will be affected by that period of restraint. That explains Access Economics' caution on the medium term outlook for the ACT population seen in Chart 3.14, which has been revised lower as a share of the national population growth since the report in September.

Chart 3.14: Australian Capital Territory population forecast change

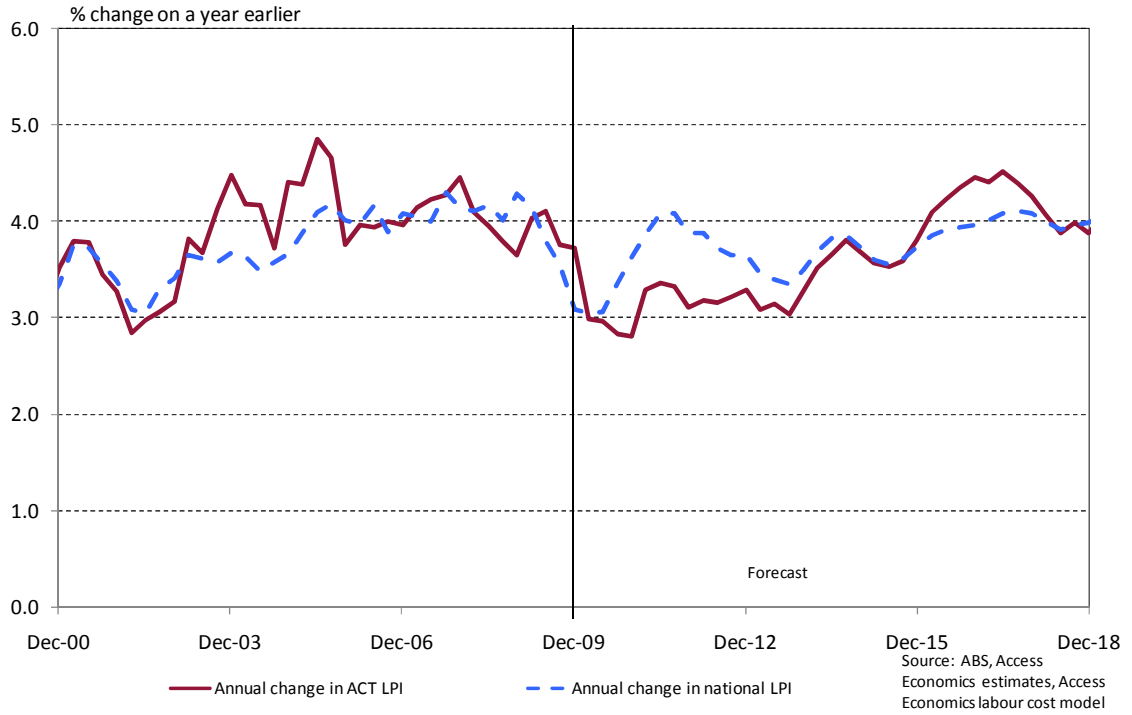


Source: ABS, Access Economics' macroeconomic model

3.6.2 Current LPI projections

The ACT's economy benefited from strong growth in Federal Government spending in recent years. In particular, the past three years saw a notable increase in office construction, adding some 30% to the available office space in Canberra.

Chart 3.15: Australian Capital Territory general labour cost growth



Source: ABS, Access Economics' macroeconomic model

However, as that burst of commercial construction has slowed, so too has the ACT's economy. Yet that slowdown has not translated into an equivalent slowdown in overall LPI growth in the Territory. In part that is because swings in the business cycle tend to have a more muted impact on wage outcomes in the ACT than in much of the rest of Australia: general labour cost growth in the ACT tends to be reasonably steady given that a large proportion of the workforce are employed in the Federal public service.

Even so, the size of the economic downturn currently underway in the ACT – see Chart 3.13 – will have an effect on labour cost growth, with the 2009-10 Federal Budget indicating a continued desire to keep Federal labour costs under control.

Chart 3.15 shows that Access Economics expects general labour cost growth in the ACT to fall below the national average in the short term. Labour cost growth may fall to as low as 3% in the ACT during 2009-10. Longer term budgetary constraints may well limit growth for some time, although wages should begin to grow in line with that seen in the broader Australian economy in the longer term.

3.7 General labour cost growth across States

Table 3.1 provides a summary of State LPI forecasts to 2017-18 in real and nominal terms, with Table 3.2 covering calendar year forecasts to 2018.

Table 3.1: State LPI forecasts – financial year basis

Financial year changes in nominal State LPI forecasts

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
NSW	3.8	3.3	3.9	4.1	3.6	3.6	3.7	3.8	4.1	4.2
VIC	4.0	2.9	3.7	3.5	3.1	3.3	3.5	3.7	4.0	3.9
QLD	4.2	3.1	3.0	3.6	3.6	3.6	3.6	3.6	3.8	4.0
SA	3.9	2.9	3.9	3.5	3.1	3.4	3.7	3.9	3.9	3.9
ACT	3.9	3.4	3.1	3.2	3.2	3.4	3.6	3.9	4.4	4.2

Financial year changes in real State LPI forecasts

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
NSW	0.7	1.1	1.0	1.1	1.1	1.5	1.7	1.3	1.3	1.6
VIC	1.2	0.8	0.6	1.4	0.8	1.6	1.8	1.3	1.2	1.2
QLD	0.4	0.5	0.2	0.4	0.9	1.4	1.5	1.0	1.0	1.4
SA	0.7	0.8	1.1	0.2	0.5	1.2	1.5	1.4	1.1	1.4
ACT	0.5	1.0	0.1	0.2	0.6	1.3	1.6	1.4	1.7	1.6

Table 3.2: State LPI forecasts – calendar year basis

Calendar year changes in nominal State LPI forecasts

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NSW	3.5	3.6	4.1	3.9	3.4	3.8	3.6	4.0	4.2	4.1
VIC	3.3	3.3	3.8	3.2	3.1	3.5	3.5	3.9	4.0	3.8
QLD	3.8	2.8	3.5	3.7	3.5	3.7	3.5	3.7	4.0	3.9
SA	3.3	3.5	3.8	3.3	3.1	3.7	3.7	3.9	3.9	4.0
ACT	3.9	2.9	3.3	3.2	3.1	3.7	3.6	4.3	4.4	4.0

Calendar year changes in real State LPI forecasts

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NSW	1.6	0.9	1.0	1.1	1.2	1.9	1.3	1.3	1.5	1.5
VIC	1.8	0.1	1.2	1.0	1.0	2.0	1.4	1.3	1.2	1.3
QLD	1.3	0.2	0.1	0.7	1.1	1.7	1.1	1.0	1.3	1.3
SA	1.4	1.0	0.5	0.3	0.8	1.7	1.3	1.3	1.3	1.5
ACT	1.7	0.3	0.1	0.4	0.8	1.7	1.3	1.6	1.7	1.5

4 The utilities sector

4.1 Technical changes since the last report

The revisions to our forecasts over the past six month are, in the main, driven by the changing economic climate. However, industry-level output history and results are also affected by a number of technical changes to historical variables that should be borne in mind.

- As with the State numbers, the new industry projections use a later base year for their measure of prices. That is, the last set of economic growth values (both history and forecast) were based on 2006-07.
- Since the last report the ABS has changed its industry structure from the old ANZSIC 1993 structure to the new ANZSIC 2006 structure. The last report used our own estimates of the impact of this change, including derived estimates for industry output, and industry LPIs based on a concordance of industries published by the ABS and derived based on industry employment levels (the latter have been available on the new industry structure for around two years). All historic output and LPI data at the industry level is now released on the new basis. Some of the changes, both in history and in the forecast period, are due to differences between our derived industry output and LPI estimates and the new estimates released by the ABS.
- LPI measures have been rebased to 2008-09, rather than 2003-04. This change relative levels, but has only very minor changes on historical growth rates due to the impacts of rounding.

These changes affect both the utilities sector discussed in this chapter, as well as the competitor industries discussed in Chapter 5.

4.2 Utilities sector projections

4.2.1 Changes to the outlook

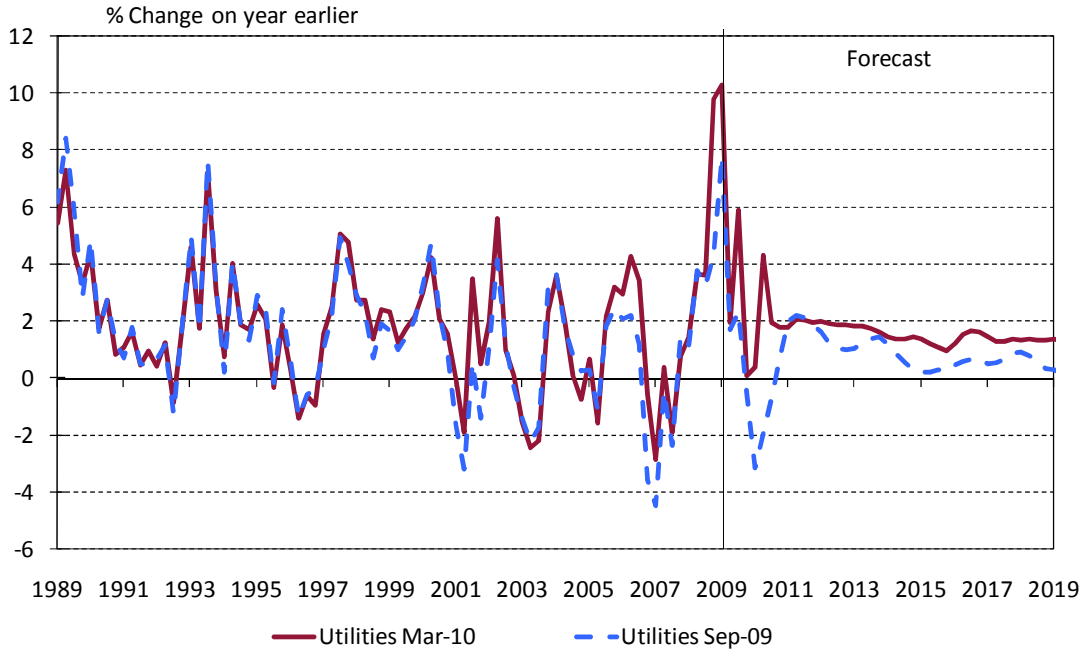
Uncertainty over climate change policies continues to create problems for providers in the utilities sector. There is still no timetable for implementation of an emissions trading scheme and a million matters of detail could trip up the best laid plans of many. The end result is that the sector's search for certainty in its investment decisions continues to hang over future investment in Australian utilities supply.

Meantime, the lack of investment in new plants is already starting to generate big increases in energy costs not merely in the likes of NSW, but around much of Australia, and looks likely to be an impediment to growth in the medium term. That said, with electricity demand already looking strong, with industrial demand soon to start rising again, and with the utilities sector a traditional beneficiary of any upswing in housing starts (which generate demand from new customers), a solid short term sectoral recovery awaits.

Chart 4.1 shows that there have been some revisions to the utilities output forecast since the September 2009 report. Output from the newly classified electricity, gas, water and waste services sector was much higher than anticipated by Access Economics, reaching over 10% in 2009 (the September report had suggested 8% growth) and growth rates have been generally above earlier estimates since the middle of the last decade. We still see a short term dip from

the recent very strong growth. A recovery should emerge in 2010, with growth close to 2% expected over much of the forecast period.

Chart 4.1: Utilities output forecast change



Source: ABS, Access Economics' macroeconomic model

4.2.2 Current LPI projections

While official economic growth rates in this sector were consistently higher, the LPI data has turned out to be slightly less volatile than previously estimated over the period. As Chart 4.2 shows, rather than growth rates leaping from a low under 3% in 2008 to a peak above 5% in 2009, the ABS estimates for utilities LPI growth moved from around 3½% to 4½% across this period. The more moderate 'peak' in 2009 partially explains the upgrading in projections noted for 2010 (as there is less reason for growth to ease in response).

Beyond the short term, LPI growth rates are expected to be more stable and slightly higher than the previous forecasts until around 2012, reflecting the stronger output growth in the sector. Beyond that, a combination of declines in relative productivity and diminished 'competitor' wage pressures (as relative LPI in the utilities sector remains more stable than our earlier projection – see Chart 4.3), means forecast LPI growth moves more in line with the overall national LPI rate.

Chart 4.2: Changes in the forecast for utilities LPI growth

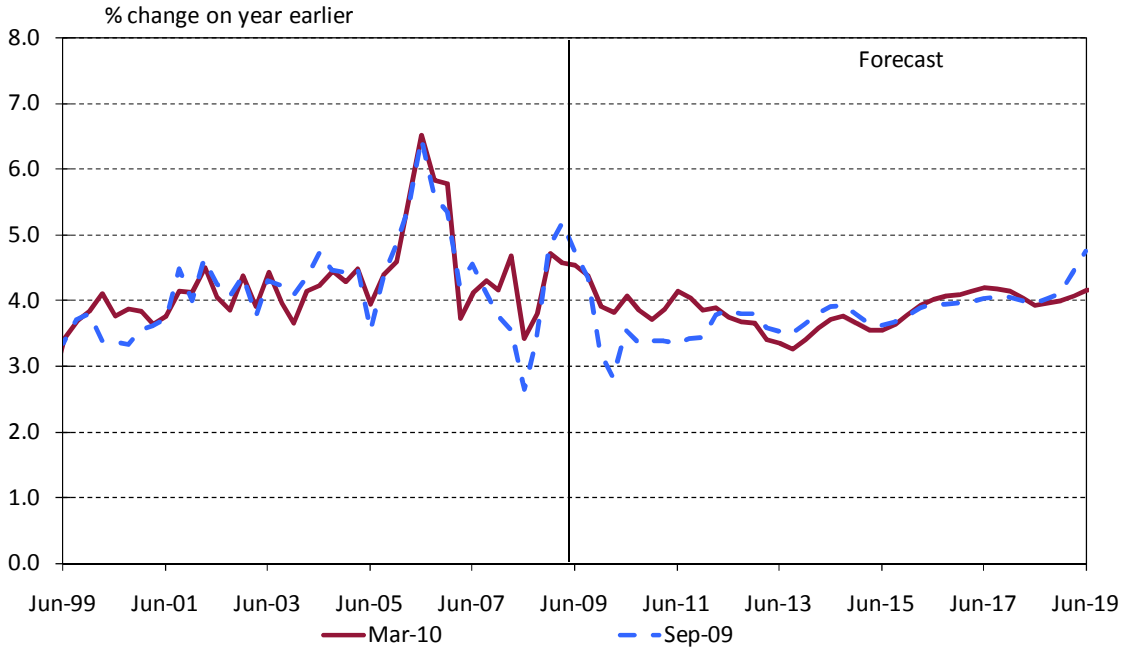
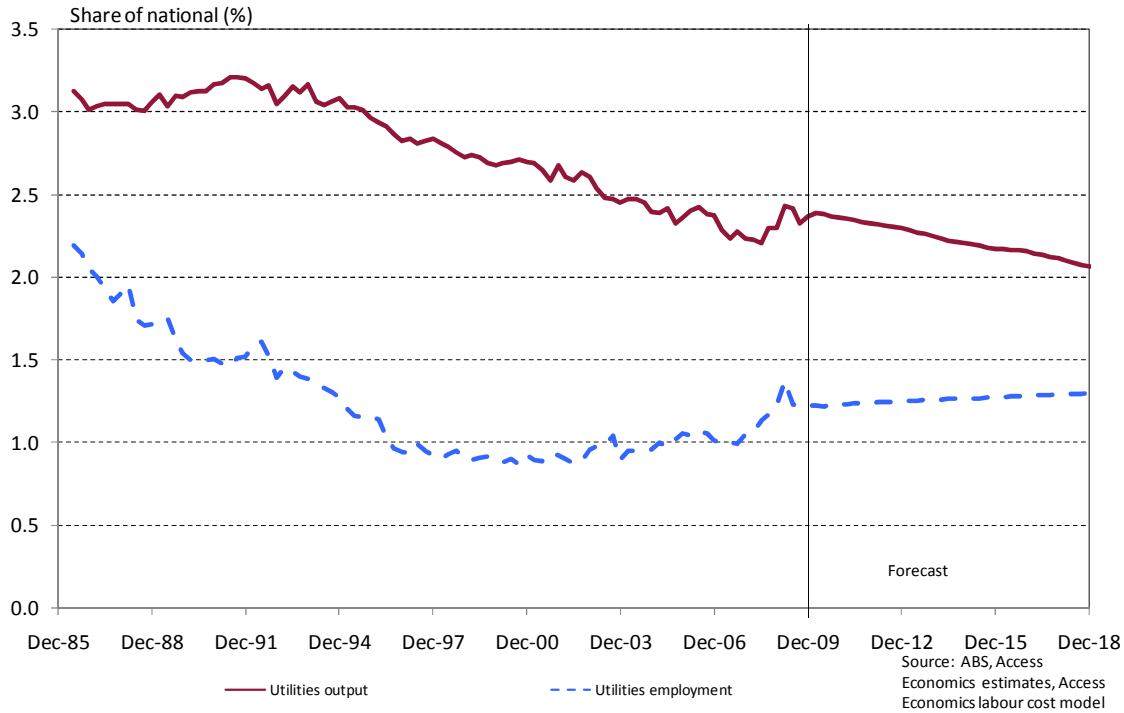


Chart 4.3: Utilities output and employment as a share of national equivalents

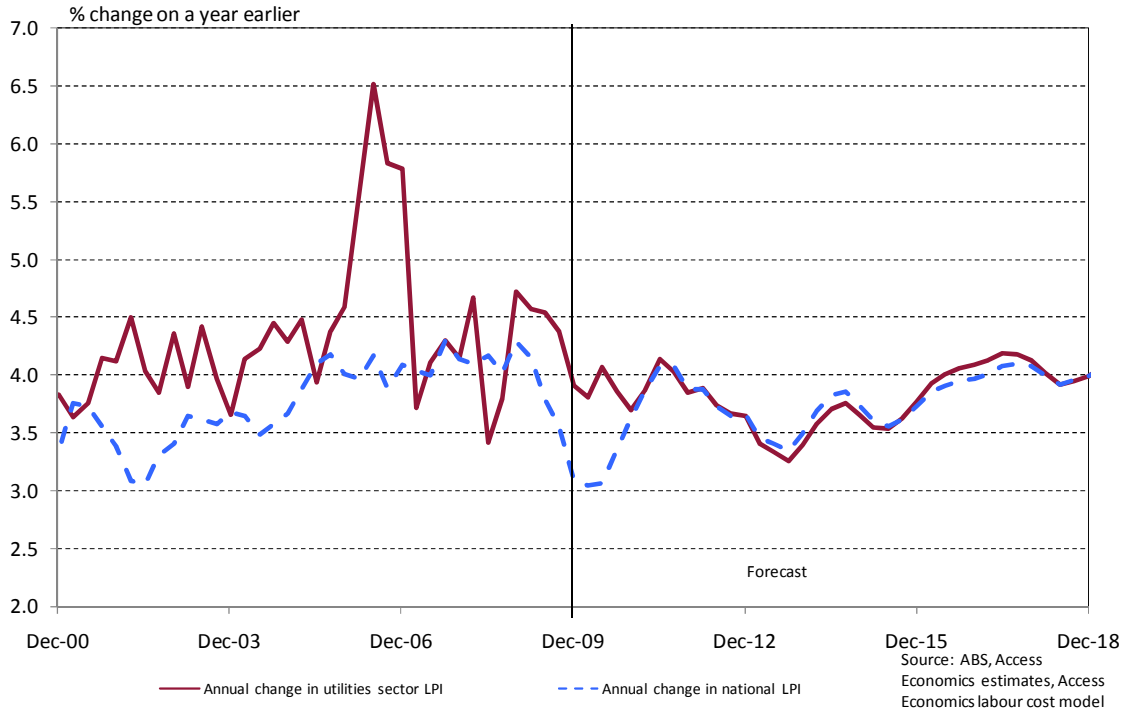


Forecast utilities productivity (relative to the national average) declines in line with the historical pattern (although in absolute terms the sector remains one of the highest in terms of output per employee). One reason for both the past and future trend in the series has been a structural change in the industry due to stronger output growth in the components of the utilities sector with relatively lower levels of productivity. These components include more labour-intensive industries such as waste recycling and some alternative energy sectors, rather

than the more capital-intensive sectors such as gas and electricity generation. As Chart 4.3 suggests, the fall in productivity reflects employment growth in line with the national average (a stable share into the future), but more moderate output growth (a declining share, continuing the longer term trends).

Past movements in the utilities LPI relative to the national average have changed due to the change in the industry classification, and also due to the new price basis for the LPI and the impacts this can have due to changes in the effects of rounding raw LPI data (see the comments in Chapter 2.2). Chart 4.4 shows that the relative LPI in the utilities sector increased sharply across the second half of 2009, against the expected trends of the earlier report, mainly due to the weakness in manufacturing LPI (which held down the broader national LPI). The outlook is for only minor changes in utilities' relative LPI from the middle of 2010. Updated projections for utilities sector LPI and the national LPI are shown in the chart below.

Chart 4.4: Forecast wage growth nationally and in utilities



Forecasts for national and sectoral wage growth are shown in Table 5.1 and Table 5.2. National real and nominal LPI growth adjusted for the effects of changes in productivity (that is, they exclude the components of wage movement that can be explained by changes in the level of output by a typical worker) are shown Table 5.3 and Table 5.4.

5 Competitor industry economic outlooks

As with the utilities sector itself, the outlook for competitor industries has improved. There are differences between the three however. For the mining sector, the continued rebound of Chinese demand means that our expectations of growth in the next three years are basically unchanged from six months ago. In construction, the decline in output growth across the second half of 2009 occurred as expected, but our outlook for 2010 sees a much sharper rebound. Revisions to historical manufacturing growth rates mean that the slump across 2009 now looks far worse than the (bleak) one we saw in the last report, but the rebound in 2010 may rapidly unwind the difference.

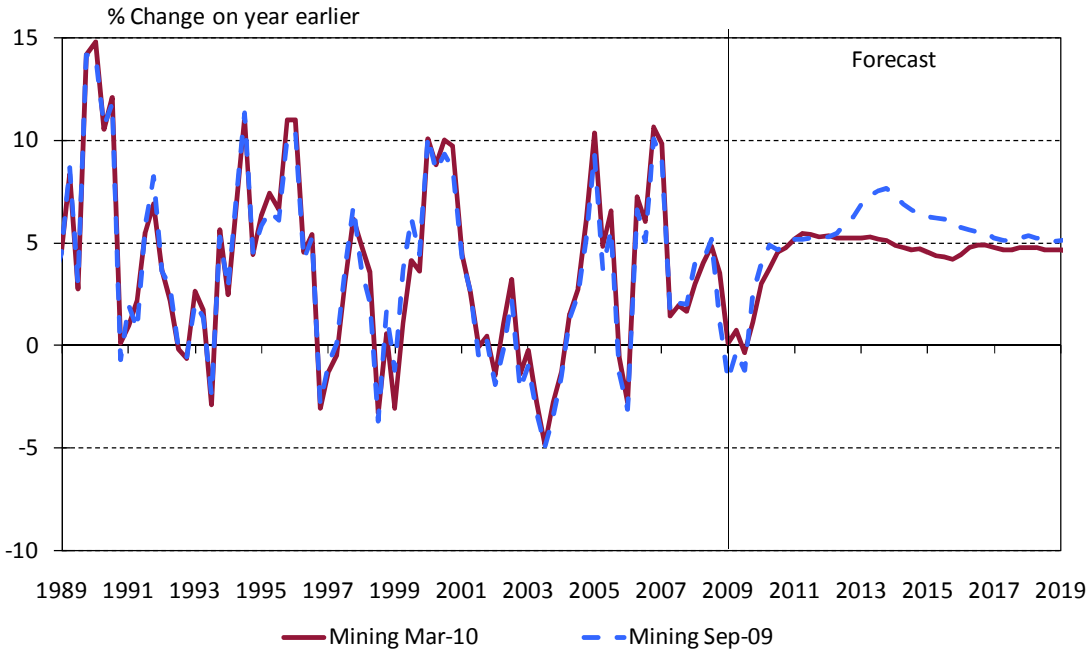
5.1 Mining sector projections

5.1.1 Changes to the outlook

Australia's miners have, like most of the nation, felt the impact of the downturn. However, the bounce back in this sector is expected to be larger than that for many other sectors. The rebound in global growth is happening - more to the point, it is concentrated among those nations which are commodity hungry. Demand from China in particular has been topped up by the ready availability of cheap credit, some of which underpinned a degree of stocking up on industrial commodity inputs by Chinese steelmakers.

That combination has underpinned short term demand for Australian minerals and energy. But demand is not the real story of the moment for Australian mines – it's a supply story for the next few years. In part that is because global investors have shown a renewed willingness to sign up to big projects requiring big bucks. Gorgon is the best known example of that, but it is not the only one. Moreover, one can argue the short term strength of Chinese industrial commodity demand, and Access Economics certainly has its doubts on that score. But it cannot be argued that the longer term strength of developing country demand for industrial commodities is anything but strong. Access Economics sees the volume of Australian exports rising by 50% in the five years to 2013-14, with mineral and energy exports accounting for more than half of that lift. This rise in exports underpins the rebound in growth seen in Chart 5.1. Growth is expected to be consistently around 5% per annum over the forecast period.

Chart 5.1: Mining output forecast change



Source: ABS, Access Economics' macroeconomic model

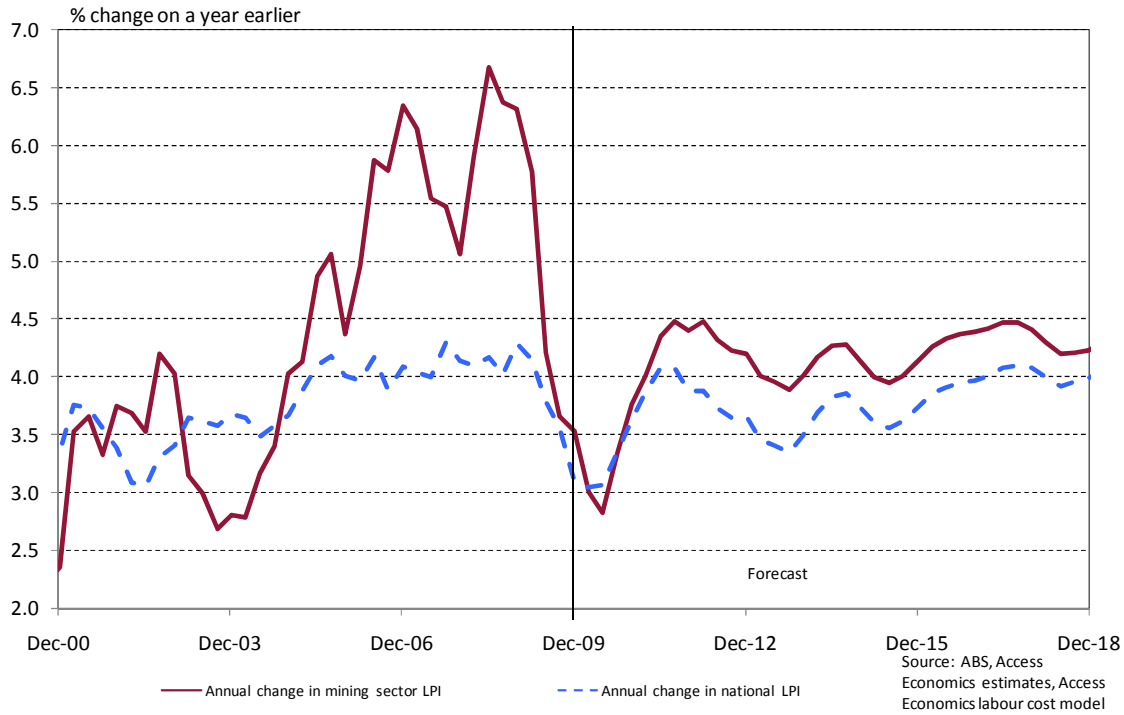
5.1.2 Current LPI projections

The mining sector is one of the key competitors for the utilities sector.

That is because some workers in the utilities sector are able to transfer their skills quite readily across these two sectors, so when wages in one sector move higher relative to the other, then employees are able to move – or able to at least point to the potential for making that move when they conduct wage negotiations.

This was the case during the commodity price boom, which generated strong growth in both profits and employment (though not output) in the mining sector. The extent of the skills shortage saw mining wages grow at annual rates of around 6% for several years (see Chart 5.2).

Chart 5.2: Mining LPI growth forecast



However with the financial crisis ending the commodities boom, the mining sector temporarily saw new investment ease while shedding staff at a rapid rate. In the June quarter of 2008, mining wages grew by 2.5% in that quarter alone. The matching quarterly gain in the June quarter of 2009 was 0.7%: a striking slowdown, and one not likely to be unwound soon.

This will see growth in the mining LPI stay slow in the very short term. However, wage growth is only projected to fall to 3%, which, although half of the growth rate seen recently, is still quite strong growth when compared to some other sectors.

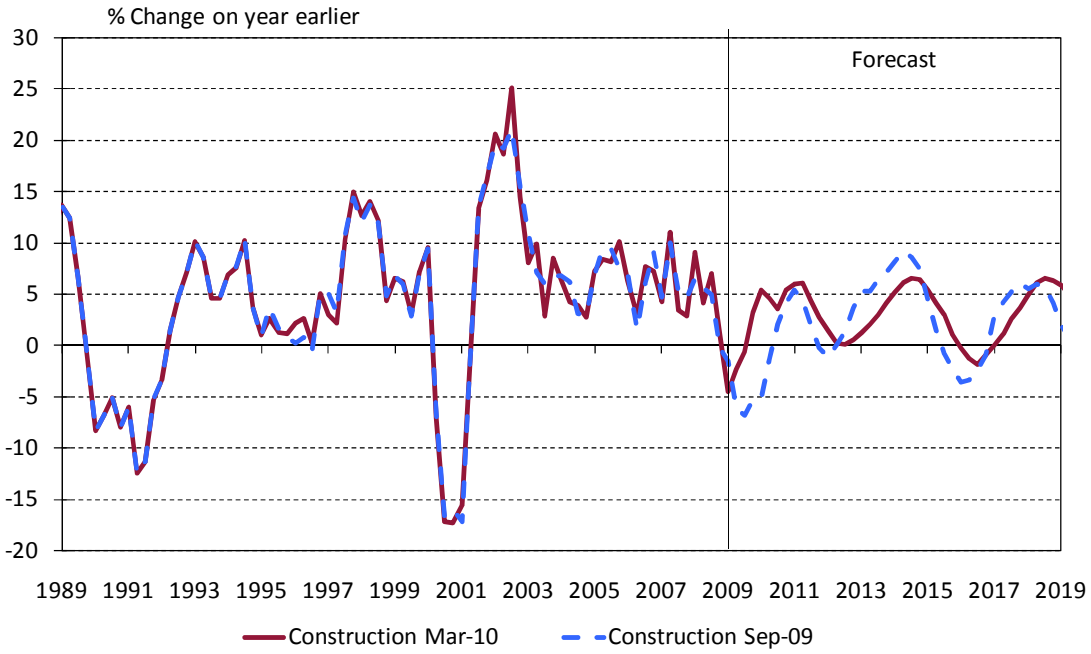
Wage growth in the mining sector is then expected to pick up in 2010-11 as the world recovers from the current economic downturn, and is expected to resume its higher than average growth over the rest of the forecast period.

5.2 Construction sector projections

5.2.1 Changes to the outlook

The construction sector is shrinking. Yet, as Chart 5.3 shows, it is not shrinking anywhere near as much as it has in previous downturns (those seen in the 1990-91 and 2000-01 saw falls of more than 10% across a 12-month period, while output declines in the current downturn may only reach half that). That's a great outcome given the developments in construction sectors in the rest of the developed world. The local sector suffered a short and sharp shock around the time the GST was introduced, and a shallower but more prolonged and ultimately worse downturn in the last recession. Yet, aided by the stimulus spend on schools and public housing, the current contraction barely ranks against either of those two downturns.

Chart 5.3: Construction output forecast change



Source: ABS, Access Economics' macroeconomic model

That is not to say that commercial construction in Australia is not beset by difficulties. The onset of the global financial crisis saw many building sites become suddenly silent. Most have since seen a return to work, but tight credit conditions remain a notable constraint on the pace of commercial construction in Australia, and an overzealous attitude by APRA, Australia's financial regulator, isn't helping much either.

With finance tight, CBD office vacancies higher and retail sales off their mid-2009 peaks, the pace of commercial construction is continuing to ease back from the highs it hit in late 2008. Even so, a little perspective is handy here: commercial construction might have fallen sharply as a share of Australia's economy, but that has merely pegged it back to where it was in early 2005, leaving it not too far away from its longer term average. Some further falls in commercial construction are expected in the short term, but the sector is projected to level off in the first half of 2010, and begin a modest recovery in 2011.

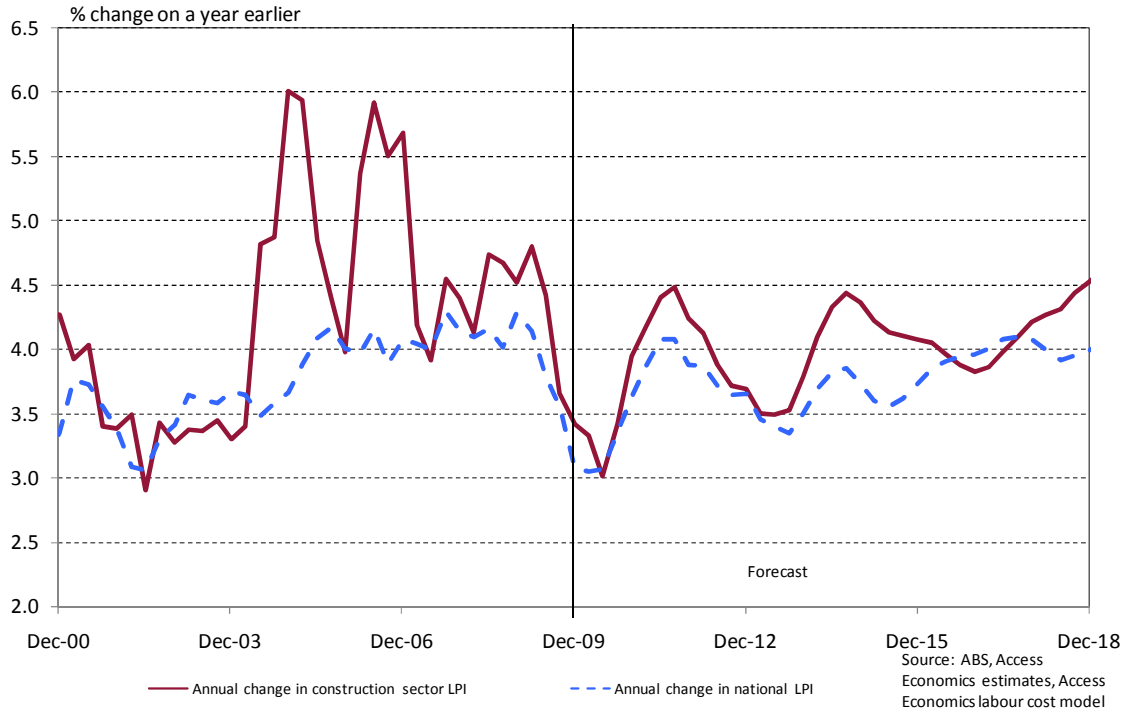
The outlook for engineering construction is rather different – and rather better. It is only just off its record high as a share of Australia's economy, and remains triple the levels it averaged through the 1980s and the 1990s. Further falls are again likely in the short term, but we see this sector steadying in 2010, and starting a Gorgon-inspired recovery in 2011. The world wants our resources, and that requires a big construction spend to get them to market. Moreover, urban infrastructure has suffered from neglect for too long, and both the private and public sectors need to scramble to repair the neglect of times past.

Taken together, commercial and engineering construction will weaken in the short term, but not too much further and, thanks to an expected recovery in engineering construction, should hold their own in coming years. Chart 5.3 shows that, while the predicted construction cycle has shifted in timing, the rates of growth remain consistent with the September 2009 report.

5.2.2 Current LPI projections

The construction sector was another beneficiary of the long run of economic growth seen in Australia. The flurry of construction work, including houses, renovations and office construction saw the demand for construction workers rise, and hence labour costs rose accordingly, yet wage pressures have subsided along with the level of broader construction activity (see Chart 5.4).

Chart 5.4: Construction LPI growth forecast



Source: ABS, Access Economics estimates, Access Economics labour cost model

Housing construction activity remains low and helps to explain the downturn in the construction LPI over the past year (along with the pausing of engineering and commercial construction activity). However, housing approvals are now on the rise and there is a growing pipeline of engineering construction work to get through which should support a rebound in the construction LPI from the latter part of 2010.

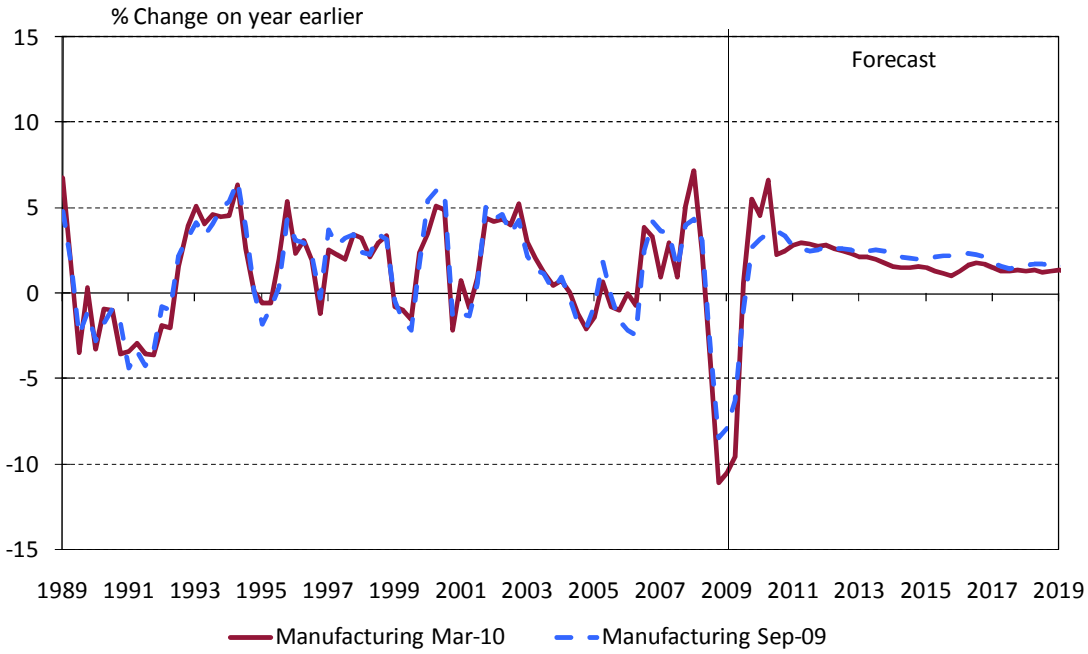
5.3 Manufacturing sector projections

5.3.1 Changes to the outlook

It is hard to exaggerate how badly hit Australian manufacturers were by the downturn of 2008-09. The combination of conditions seen through 2008-09 – beginning with high interest rates and a high $A, compounded by a crash in confidence that then saw consumers defer discretionary purchases – resulted in a downturn which was more than double in size than that seen in either the late 1980s or the early 1990s (see Chart 5.5).

The bad news was evident across the industry. Textiles and clothing – an underperformer at the best of times – is estimated to have shrunk by almost one-fifth through the course of 2009. The printing trades did better, losing one-sixth of their turnover, while chemicals fell by 'only' a tenth. There were similar losses – also down by a tenth – in both metal products and in machinery and equipment as well.

Chart 5.5: Manufacturing output forecast change



Source: ABS, Access Economics' macroeconomic model

There were some sectors which managed to hold their own: food manufacturers saw growth thanks to solid farm output while wood and paper merely saw its worst downturn since the last recession, and building products simply saw their worst downturn since 2001.

The only good news for the sector is that the worst is over. Although interest rates are rising and the $A is once more making many manufacturers uncompetitive, the return to confidence here and around the world is likely to lead to improved demand for a number of manufactures. That is especially true for the parts of manufacturing that either sell into the resources sector (as is true for parts of machinery and equipment) or are themselves downstream beneficiaries of the resources sector (as it true of the 'export' wing of metals manufacturing). That combination should lead to a recovery in output for the manufacturing sector, as seen in Chart 5.5.

5.3.2 Current LPI projections

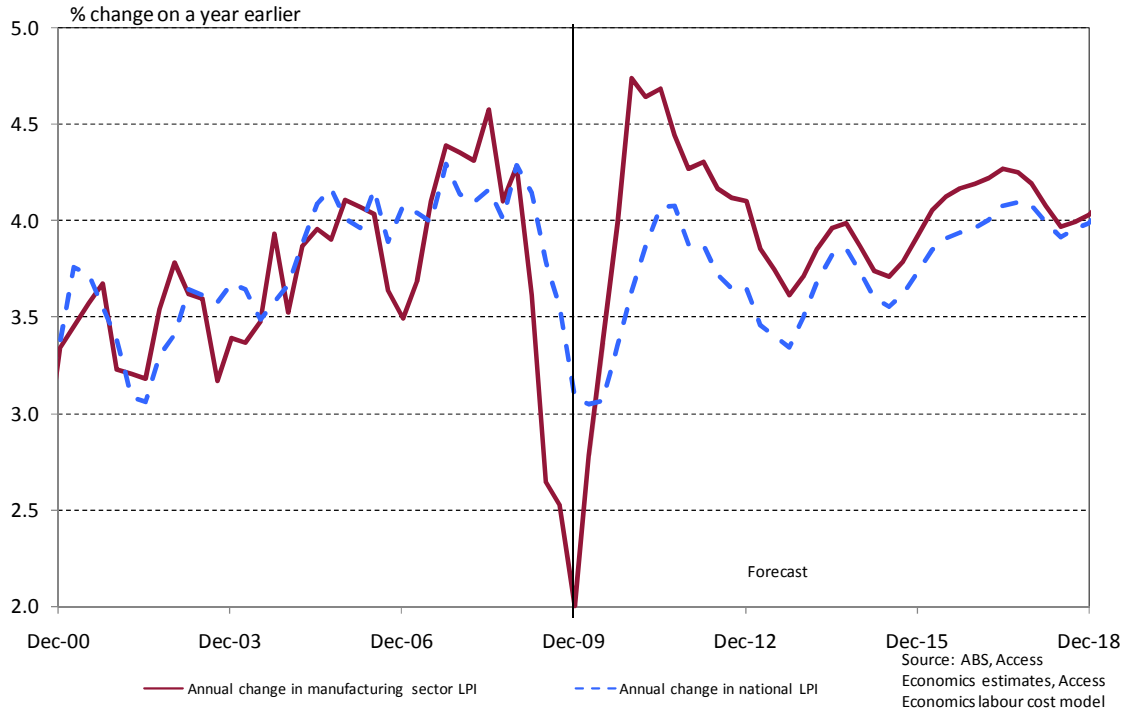
The manufacturing sector as a whole has been struggling over the last decade, as:

- Cheaper labour in many other part of the world has driven many companies to take their production offshore.
- That latter factor was exacerbated by a relative lack of economies of scale in Australian manufacturing operations, especially relative to new plants being commissioned and coming online in Asia.
- The high $A associated with the China boom and the related lift in resource export prices ate into the manufacturing sector's export markets and increased import penetration ratios.
- High interest rates and high petrol prices were a particular bugbear for Australian carmakers and manufacturers of car parts.

- High petrol prices and other high industrial commodity input prices also weighed on the sector.

That combination of negatives resulted in slower growth in labour costs in manufacturing over the last decade than the national average, as shown in Chart 5.6.

Chart 5.6: Manufacturing LPI growth forecast



As Chart 5.6 shows, growth in manufacturing sector LPI slumped sharply in 2009, and was the key reason for the greater than expected decline in overall LPI growth in the year. The current outlook would see some of that underperformance unwound in the short term (similar to the pattern seen with weakness in 2006 and a rebound in 2007). Beyond that, the relatively stable pattern of sectoral output growth (stronger relative to overall growth than typically seen in manufacturing) and positive trends in productivity should see the sector's LPI marginally outpace the average. Compositional shifts towards higher value/higher skilled/higher wage sectors within manufacturing should also assist in driving this trend.

5.4 Overall sectoral projections at the national level

The following tables outline our expectations of growth in national LPIs in the utilities sector, and in its key competitors. Table 5.3 and Table 5.4 show additional measures of wages growth excluding the effects of measured productivity.

Table 5.1: National industry LPI forecasts – financial year basis

Financial year changes in nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
National LPI	4.1	3.2	3.7	3.9	3.5	3.6	3.7	3.8	4.0	4.0
Utilities	4.4	4.0	3.9	3.9	3.5	3.5	3.6	3.8	4.1	4.1
Mining	5.7	3.2	3.9	4.4	4.1	4.1	4.1	4.2	4.4	4.3
Construction	4.6	3.4	4.0	4.2	3.6	3.9	4.3	4.0	3.9	4.2
Manufacturing	3.7	2.7	4.5	4.3	4.0	3.8	3.8	4.0	4.2	4.1

Financial year changes in real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
National LPI	0.9	1.0	0.8	0.9	1.0	1.5	1.7	1.2	1.2	1.4
Utilities	1.2	1.9	1.0	0.9	1.0	1.4	1.6	1.3	1.3	1.5
Mining	2.4	1.1	1.0	1.4	1.5	2.0	2.1	1.6	1.6	1.8
Construction	1.4	1.2	1.1	1.2	1.0	1.9	2.3	1.5	1.1	1.6
Manufacturing	0.5	0.5	1.6	1.3	1.4	1.7	1.8	1.4	1.4	1.5

Table 5.2: National industry LPI forecasts – calendar year basis

Calendar year changes in nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National LPI	3.6	3.3	4.0	3.7	3.4	3.8	3.6	3.9	4.1	4.0
Utilities	4.3	3.9	4.0	3.7	3.4	3.7	3.6	4.0	4.2	4.0
Mining	4.3	3.2	4.3	4.3	4.0	4.2	4.0	4.3	4.4	4.2
Construction	4.1	3.4	4.3	3.9	3.6	4.3	4.1	3.9	4.0	4.4
Manufacturing	2.7	3.7	4.5	4.2	3.7	3.9	3.8	4.1	4.2	4.0

Calendar year changes in real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National LPI	1.8	0.7	0.8	0.9	1.1	1.9	1.3	1.2	1.4	1.4
Utilities	2.5	1.2	0.8	0.9	1.0	1.8	1.3	1.3	1.4	1.4
Mining	2.4	0.6	1.2	1.5	1.6	2.3	1.7	1.6	1.7	1.7
Construction	2.2	0.8	1.2	1.1	1.3	2.4	1.8	1.2	1.3	1.8
Manufacturing	0.9	1.1	1.4	1.4	1.4	2.0	1.5	1.4	1.5	1.5

Table 5.3: National industry LPI forecasts – financial year basis excluding productivity

Financial year changes in nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
National LPI	3.9	2.6	3.2	2.5	1.9	1.6	2.3	2.9	2.4	2.3
Utilities	4.7	3.4	3.4	2.6	2.0	1.7	2.3	3.0	2.7	2.5
Mining	6.7	2.6	3.3	3.0	2.4	2.2	2.6	3.2	2.8	2.7
Construction	4.5	3.1	3.5	2.9	2.3	2.1	2.7	3.2	2.7	2.7
Manufacturing	3.8	2.3	3.7	2.8	2.2	1.8	2.3	2.9	2.5	2.4

Financial year changes in real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
National LPI	0.7	0.4	0.3	-0.5	-0.6	-0.4	0.3	0.4	-0.3	-0.2
Utilities	1.6	1.3	0.5	-0.4	-0.5	-0.4	0.3	0.5	-0.1	0.0
Mining	3.5	0.4	0.4	0.0	-0.1	0.1	0.6	0.7	0.0	0.1
Construction	1.4	1.0	0.6	-0.1	-0.2	0.1	0.7	0.7	-0.1	0.2
Manufacturing	0.6	0.2	0.8	-0.2	-0.3	-0.2	0.3	0.4	-0.3	-0.2

Table 5.4: National industry LPI forecasts – calendar year basis excluding productivity

Financial year changes in nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National LPI	2.6	3.7	2.5	2.4	1.4	2.1	2.6	2.8	2.4	2.4
Utilities	3.5	4.3	2.7	2.5	1.5	2.1	2.6	2.9	2.6	2.5
Mining	3.1	3.8	2.8	2.9	2.0	2.5	2.9	3.0	2.7	2.7
Construction	3.4	4.0	2.9	2.7	1.9	2.6	3.0	3.0	2.7	2.8
Manufacturing	2.3	3.9	3.0	2.7	1.7	2.2	2.6	2.8	2.4	2.3

Financial year changes in real productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National LPI	0.7	1.1	-0.6	-0.4	-0.8	0.2	0.3	0.1	-0.3	-0.1
Utilities	1.6	1.6	-0.4	-0.3	-0.7	0.2	0.3	0.2	0.0	0.0
Mining	1.3	1.2	-0.3	0.1	-0.3	0.6	0.6	0.4	0.1	0.1
Construction	1.6	1.4	-0.2	0.0	-0.4	0.7	0.7	0.4	0.0	0.3
Manufacturing	0.4	1.2	-0.1	-0.1	-0.6	0.3	0.3	0.1	-0.2	-0.2

6 Utilities and competitor sector wage growth by State

This chapter sets out the updated LPI projections at the State level for the utilities sector and in the three key competitor industry sectors.

6.1 Technical changes since the last report

The key factors affecting national industry historic estimates and projections (particularly the change in industry classifications) and the State economic data and projections, have also affected our detailed (industry by State) results. While there is some additional discussion in Appendix E, the key points to bear in mind are:

- The last report used our own estimates of the impact of this change, including derived estimates for industry output, and industry LPIs for each State based on a concordance of industries published by the ABS and derived based on industry employment levels (the latter have been available on the new industry classification for around two years). At the State level, industry LPI data under the new structure is available from September 2008 only. In all cases, we have used the rebased estimate of historical LPI growth from the last report for the period before September 2008.
- Not all industries have LPI published for all States (see Table E.1 for a detailed list). Some of those for which data is suppressed do have forecasts for average weekly earnings available. As noted later, the differential movements in overall AWE (compared with overall LPI) need to be accounted for if the AWE measure is used to inform an estimate of the detailed LPI measure. In addition, detailed AWE measures are only available from June 2009, meaning that in cases where this method is used for the most recent historical estimates, results for 2008-09 are the same as the last report.
- Where no State-specific industry LPI or AWE figures are available, the overall national growth rate for that sector is assumed for the past six months. Among the key sectors shown here, this only affects the mining sectors in the ACT and Victoria, which are particularly small[8].

6.2 New South Wales

The New South Wales economy has struggled in recent years – its output as a share of the national total has dipped sharply since 2000, at a greater rate than the State's relative losses in population compared with other States (a longer term phenomenon driven by faster growth in Queensland and Western Australia).

This underperformance weighs on State wage growth, but not notably so. Productivity growth has been more positive and should continue to be so in the future – largely counteracting the negative business cycle impact of the moment on wage setting in the State.

New South Wales has certainly begun to register a pulse in retail and approvals for housing construction. Yet there remain short term question marks given the $A is back through the roof and interest rates are rising. These two were a big part of the weakness in NSW's economy in recent years, and their revival does point to problems for the State's

[8] The ACT mining industry typically shows up as having no employment in the labour force survey estimates, while Victoria's mining sector employs around 10,000 people in a total labour force of 2.7 million.

manufacturing and tourism sectors (due to the $A) and for its family finances (as mortgage interest rates rise once more).

Table 6.1: New South Wales wage forecasts – financial year basis

Financial year changes in New South Wales nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
New South Wales	3.8	3.3	3.9	4.1	3.6	3.6	3.7	3.8	4.1	4.2
Utilities	3.5	4.6	3.8	3.7	3.3	3.2	3.5	3.7	4.1	4.2
Mining	5.1	3.8	4.2	4.7	4.2	4.1	4.2	4.3	4.6	4.6
Construction	3.4	2.6	4.2	4.7	4.0	4.1	4.5	4.2	4.1	4.5
Manufacturing	3.6	2.6	4.7	4.6	4.1	3.8	3.9	4.1	4.3	4.3

Financial year changes in New South Wales real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
New South Wales	0.7	1.1	1.0	1.1	1.1	1.5	1.7	1.3	1.3	1.6
Utilities	0.4	2.3	0.9	0.8	0.8	1.2	1.5	1.2	1.3	1.6
Mining	1.9	1.5	1.3	1.7	1.7	2.1	2.2	1.7	1.7	1.9
Construction	0.3	0.3	1.3	1.7	1.4	2.1	2.5	1.7	1.3	1.9
Manufacturing	0.5	0.4	1.8	1.6	1.6	1.8	2.0	1.5	1.5	1.7

Financial year changes in New South Wales nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
New South Wales	3.3	2.6	3.9	2.2	1.4	1.2	2.1	2.7	2.2	2.1
Utilities	3.8	3.8	3.4	2.4	1.7	1.3	2.2	2.9	2.6	2.6
Mining	6.3	2.9	3.7	3.2	2.4	2.1	2.7	3.2	2.8	2.8
Construction	3.2	2.3	3.8	3.3	2.6	2.2	2.9	3.4	2.9	2.9
Manufacturing	3.7	2.2	4.0	3.0	2.3	1.7	2.4	2.9	2.5	2.4

Financial year changes in New South Wales real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
New South Wales	0.2	0.3	1.0	-0.7	-1.1	-0.8	0.2	0.2	-0.5	-0.4
Utilities	0.7	1.5	0.6	-0.4	-0.8	-0.7	0.2	0.4	-0.2	0.0
Mining	3.1	0.7	0.8	0.2	-0.1	0.1	0.8	0.7	0.0	0.2
Construction	0.1	0.1	0.9	0.4	0.1	0.2	1.0	0.9	0.1	0.3
Manufacturing	0.6	-0.1	1.1	0.1	-0.3	-0.3	0.4	0.4	-0.2	-0.1

Table 6.2: New South Wales wage forecasts – calendar year basis

Calendar year changes in New South Wales nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
New South Wales	3.5	3.6	4.1	3.9	3.4	3.8	3.6	4.0	4.2	4.1
Utilities	3.7	4.5	3.7	3.6	3.1	3.5	3.5	4.0	4.2	4.1
Mining	4.1	4.1	4.5	4.5	4.0	4.3	4.1	4.4	4.6	4.4
Construction	2.7	3.5	4.6	4.3	3.9	4.5	4.3	4.1	4.3	4.6
Manufacturing	2.3	4.1	4.7	4.4	3.8	4.0	3.9	4.2	4.4	4.2

Calendar year changes in New South Wales real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
New South Wales	1.6	0.9	1.0	1.1	1.2	1.9	1.3	1.3	1.5	1.5
Utilities	1.9	1.8	0.6	0.8	0.8	1.6	1.2	1.3	1.5	1.5
Mining	2.2	1.4	1.4	1.7	1.7	2.4	1.8	1.7	1.9	1.8
Construction	0.9	0.8	1.5	1.5	1.6	2.6	2.0	1.4	1.6	2.0
Manufacturing	0.5	1.4	1.6	1.6	1.5	2.1	1.6	1.5	1.7	1.6

Calendar year changes in New South Wales nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
New South Wales	2.3	4.1	2.6	2.1	0.8	1.8	2.4	2.5	2.1	2.2
Utilities	2.8	4.8	2.5	2.2	1.1	1.9	2.5	2.8	2.6	2.5
Mining	2.9	4.5	3.1	2.9	1.9	2.6	2.9	3.1	2.8	2.7
Construction	2.2	3.9	3.3	3.1	2.0	2.7	3.1	3.2	2.8	2.9
Manufacturing	2.0	4.0	3.2	2.8	1.6	2.2	2.6	2.8	2.5	2.4

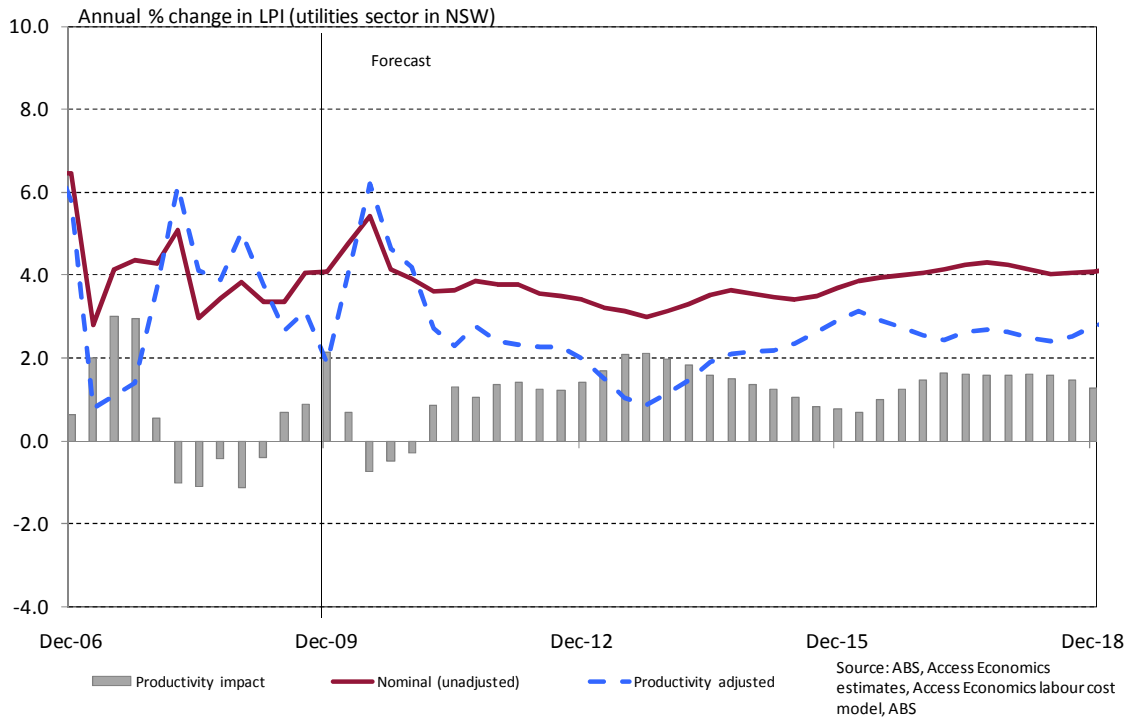
Calendar year changes in New South Wales real productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
New South Wales	0.5	1.4	-0.4	-0.6	-1.4	0.0	0.1	-0.1	-0.5	-0.3
Utilities	1.0	2.0	-0.5	-0.5	-1.1	0.0	0.2	0.2	-0.1	0.0
Mining	1.1	1.8	0.0	0.2	-0.4	0.7	0.6	0.4	0.1	0.2
Construction	0.3	1.2	0.2	0.4	-0.2	0.9	0.9	0.6	0.2	0.4
Manufacturing	0.1	1.3	0.2	0.1	-0.6	0.3	0.4	0.2	-0.2	-0.2

6.2.2 The utilities sector

Shrugging off the effects of relatively slow employment gains in the sector, LPI growth in NSW utilities has been relatively rapid across the past three years at a time when broader State measures have remained relatively stable.

Chart 6.1: New South Wales utilities LPI forecasts



There have been some specific payments which have boosted wages in NSW, such as 'equalisation payments' to some utilities staff on awards, as well as the likes of additional Electrical Safety Rules Allowance among electricity retailers.

Moreover, while macro conditions in the State worsened as the global financial crisis intensified in during 2009, EBA outcomes in the utilities were less affected. Average rates for current agreements in the sector reached 4.8% in early 2009 and, given that some recent EBA and non-EBA decisions will have a lingering effect on wage outcomes over the next few years, there is therefore a clear floor to expected wage gains in the period ahead.

Indeed, the pace of recent EBA activity in the State may have been influenced by the attempts in the last couple of years by NSW Governments to get some form of privatisation underway in the State's utilities sector.

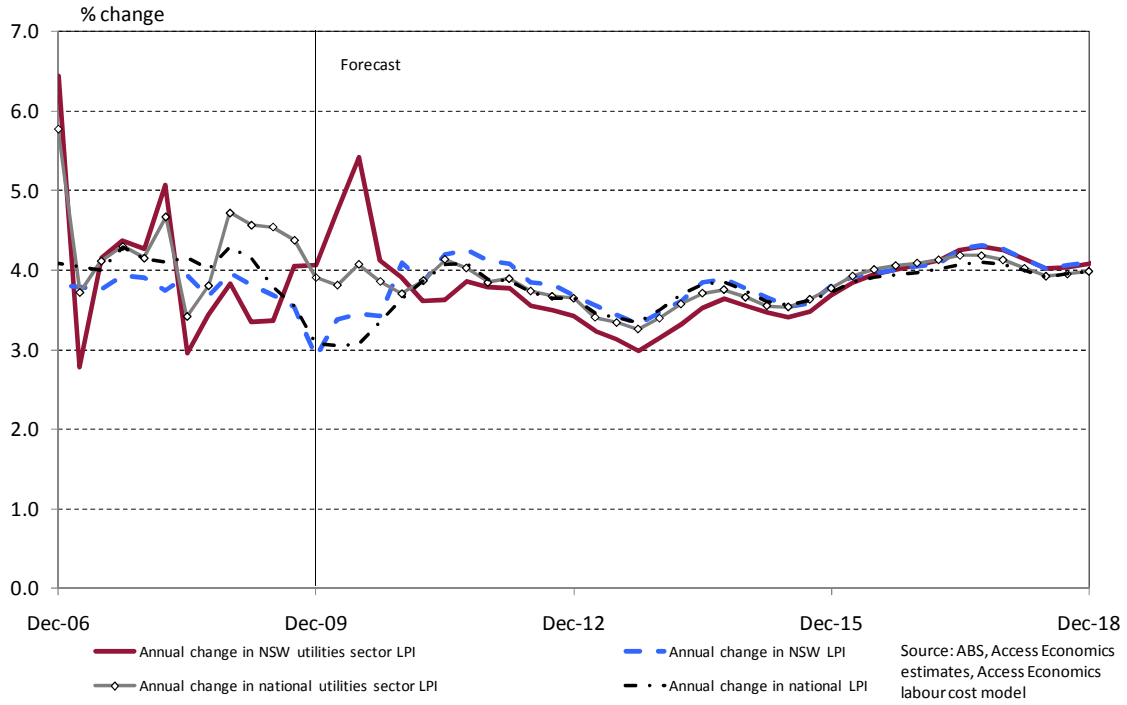
Those trends, along with the latest data suggesting the short-term outlook for the utilities sector in general is quite positive, means that nominal LPI growth in the sector in 2010 may be quite strong.

However, the data in Chart 6.1 (and Chart 6.2 below) shows growth rates may then fall back – sticking fairly close to State averages in the rest of the forecast period.

It should be remembered that the recent strong relative gains seen in the sector will of themselves make it harder to post continuing strong gains in the future. The sector might feel little competitive pressure on wage rates from either the construction or mining sectors in NSW, but those same sectors in other States do pose more of a competitive challenge for utilities wages in NSW. This may become more of an issue as a renewed mining boom intensifies in Western Australia.

In addition, the NSW Government's expressed wage targets remain on a tight leash, adding another reason to expect some moderation in the sector compared with recent wage gains.[9]

Chart 6.2: New South Wales utilities forecast comparison



And, just as in the national forecasts, the impact of slower productivity and relatively weak output growth in the sector leaves wages growth in the utilities below the State's average throughout the forecast period.

That said, utilities wage rates in NSW are projected to grow mostly in line with their national counterparts.

6.2.3 The mining sector

As with the rest of the country, NSW mining wages were rising sharply as long as the money was flowing in from China – consistently outpacing growth in the broader LPI (an even better result in actual dollar terms as mining wages are already more than 50% above the average weekly wage rate in the general economy) – although trailing the pace of gains in the national mining sector.

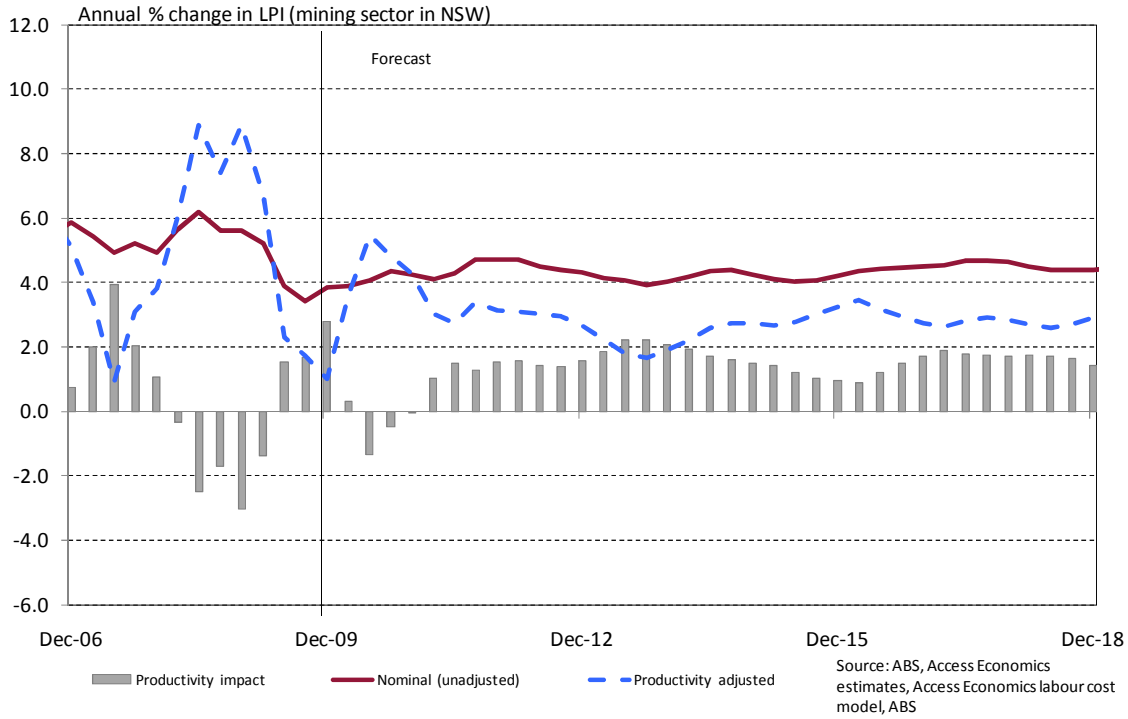
That process ended abruptly as the industry ducked for cover as global commodity prices entered a period of extreme uncertainty.

Although NSW is not one of the heavyweights of mining in Australia, thermal coal and gold are both mined in significant quantities, and a number of other minerals are also important to the State.

[9] In brief, the NSW Government wage policy may be summarised as all increases in wages, allowances and superannuation greater than 2.5% to be funded through cash backed 'employee related savings', no backdating beyond date of final agreement, all wages and conditions negotiated together including 'no extra claim clause', all 'employee-related' savings must be detailed, NSW Government approval required for any increase greater than 2.5%.

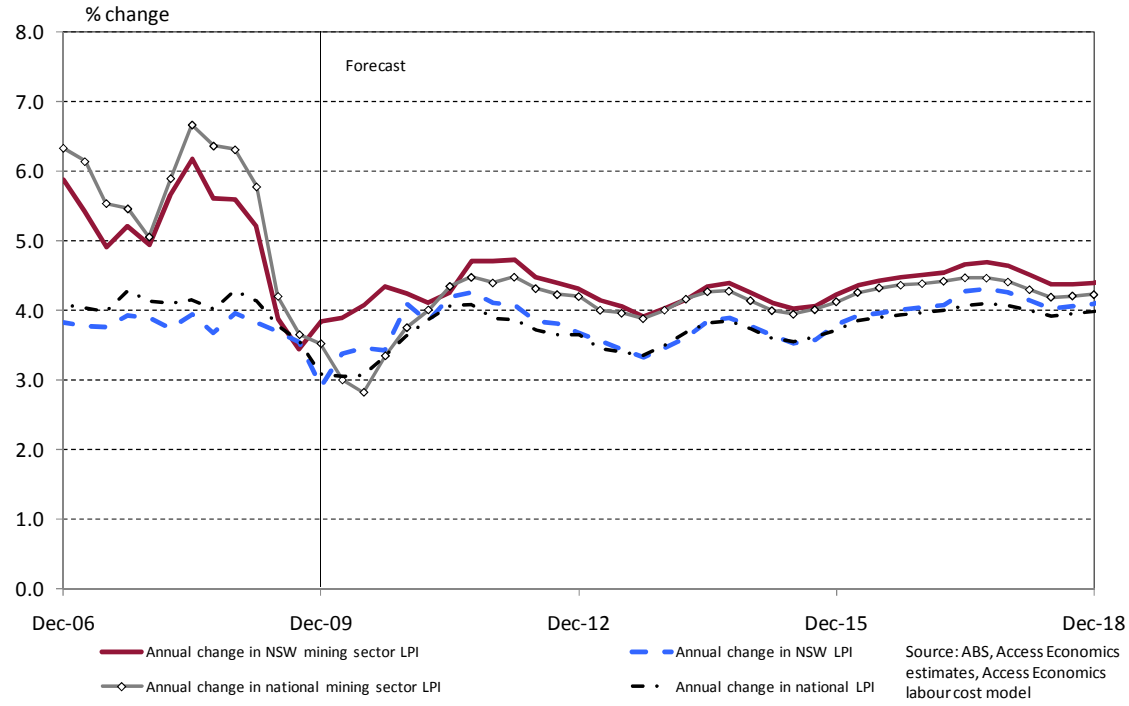
The forecasts here (seen in Chart 6.3 and Chart 6.4) point to a rebound in mining LPI growth as the world economic situation stabilises and commodity prices move higher once more. The recent bounce back in coal prices sets the local sector up to rebound relatively earlier.

Chart 6.3: New South Wales mining LPI forecasts



Beyond that, the recovery phase in NSW's economy – beginning from mid-2010 – suggests there will be slightly more bargaining power for miners in NSW than those in other States, and therefore sees NSW mining wages marginally outpace their national equivalents.

Chart 6.4: New South Wales mining forecast comparison



Given the recent strength in the wages growth in the sector, the "downturn" in wage gains for 2009-10 is fairly modest, with the lowest year-to rates of growth hitting 3% nationally (even after rather faster rates in recent years) with the low point in growth possibly having already been seen in NSW.

6.2.4 The construction sector

With the construction sector the first to suffer in the post-2000 downturn that NSW has endured, some of the factors that are expected to weigh on wage growth in NSW sectoral wage indices are not as important in construction, where wage growth has already been travelling at a slower pace since early 2007.

However, the weakness in the State's business cycle is still likely to pull NSW's wage growth rates below the national average in the short to medium term, before the State's better productivity performance then lifts the rate of growth in the LPI.

The pace of NSW housing construction hasn't been anything to write home about for a while now. The good news is that population pressures are projected to combine with still relatively low interest rates to generate a pick up from here. The bad news is that the pick up in construction is likely to keep lagging behind demographic demand for a while further. The biggest problem with getting new homes built in NSW lies in getting finance for developers to build new apartments. As Sydney relies more on high rise than any other State capital, that places a bigger obstacle in its path. That said, credit constraints are not going to be a problem forever, and NSW has got further than most other States to catch up to its underlying need for new homes. That should point to further good gains in the medium term.

Engineering construction in NSW is still soft and, despite a spike in recent starts, it is expected to remain weak through 2010. The biggest ticket item in the State's pipeline is the $1.9 billion desalination plant at Kurnell in Sydney, but there is not too much work yet to be done on it.

Road projects include the $1.5 billion Hunter Expressway between the F3 and the Branxton Highway and various upgrades to the Hume Highway worth some $920 million. Sydney Airport is receiving a $590 million upgrade, including the widening of runways and a new international terminal, while the Hunter Water Corporation is constructing the Tillegra Dam near Dungog at a cost of $480 million and Sydney Water Corporation is spending $500 million expanding the international container terminal at Port Botany. There is also work underway on the $920 million coal loading terminal at Kooragang Island off Newcastle.

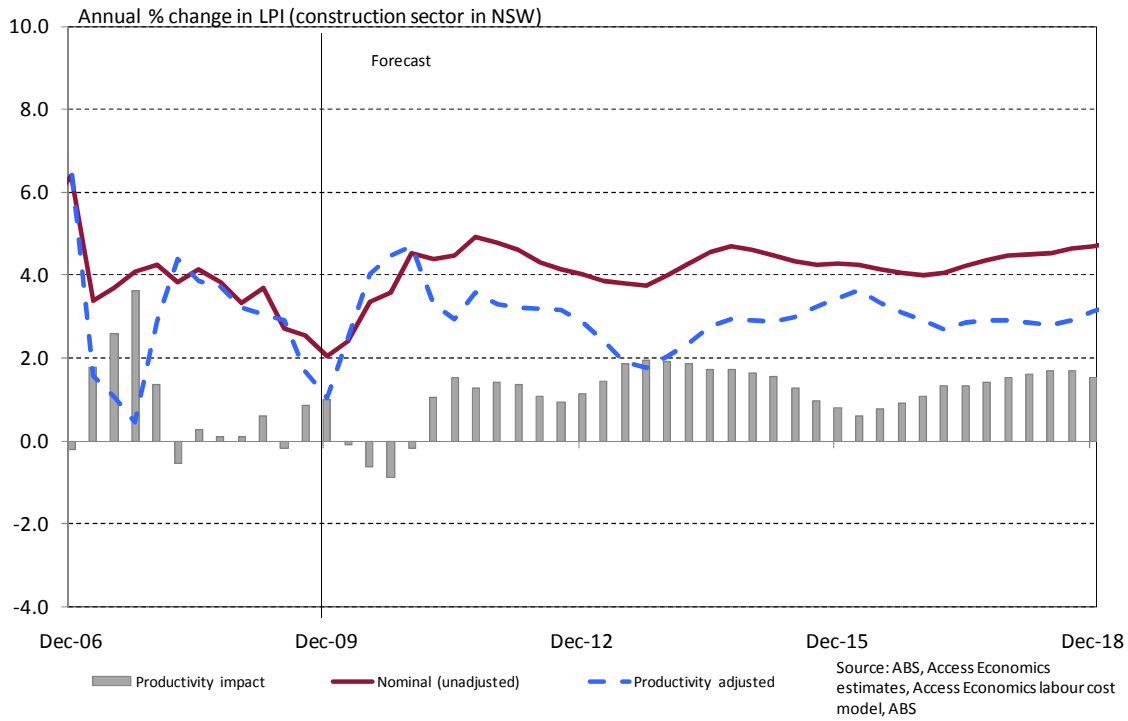
However, although many States are revelling in the potential for a renewed surge in the resource sector, so far new mining projects in NSW are relatively few and far between. Newcrest Mining's $550 million Ridgeway gold mine project near Orange and Felix Resources' $400 million Moolarben underground coal mine development near Mudgee are the two largest mining projects currently underway. Projects under consideration in the State include a $2.2 billion, 600-turbine wind farm proposal for a site near Broken Hill.

The State's commercial construction activity is also expected to be relatively soft through 2010. Although commercial building approvals spiked of late, that was almost solely due to school construction which was funded by Federal Government stimulus, with commercial construction approvals in most other sectors continuing a downward trend. Work underway is led by Westfield's $860 million redevelopment of Sydney CBD retail facilities, including the Centrepoint, Imperial Arcade and Skygarden buildings on Pitt Street, and the $720 million second stage of the Royal North Shore Hospital development. The University of Sydney is spending $480 million undertaking its Campus 2010 redevelopment, while the NSW Government is constructing a new prison at Cessnock and redeveloping facilities at the Taronga Zoo as part of a long term upgrade. Other health-related projects include upgrades to the Liverpool Hospital in Sydney and the Mater Hospital in Newcastle, while education projects include a $207 million upgrade to school science laboratories as part of the Federal Building Better Schools initiative.

So while the pace of commercial construction in the State has moderated, it hasn't fallen sharply, and the modest forward pipeline should provide a floor under the non-dwelling component of the industry as well.

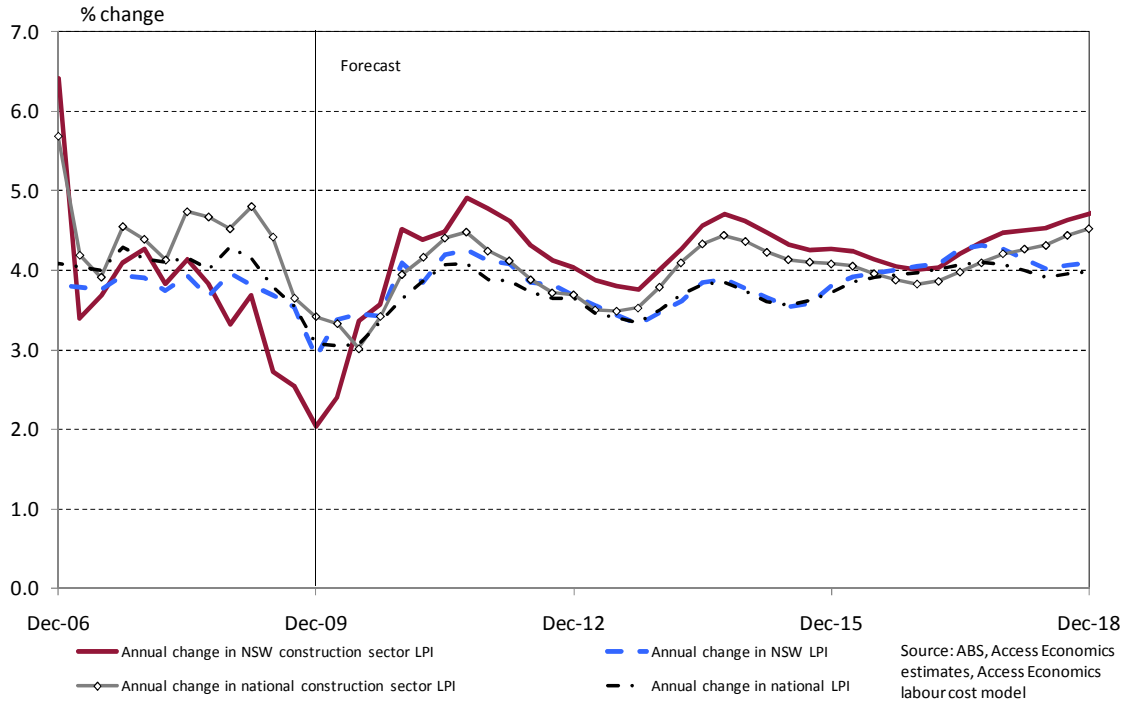
As Chart 6.5 shows, the rate of growth in labour costs (that is, adjusted for productivity, rather the unadjusted rise in labour prices) can differ sharply from the rise in labour prices in the relatively cyclical construction sector.

Chart 6.5: New South Wales construction LPI forecasts



As with the national indicator, NSW construction wages are also far more cyclical than in most other sectors. Recent results have been weak by the standards of the construction sector nationally, but are expected to move above the national average as the State stabilises and then sees a recovery in its relative economic performance over the next few years.

Chart 6.6: NSW construction forecast comparison



6.2.5 The manufacturing sector

The start of the GFC saw NSW lose jobs at a faster rate than anywhere else in the country, and (even though the true epicentre of the NSW employment downturn was in white-collar jobs in Sydney CBD) reports of factory closures around the State were covered far more extensively in the media. Still, the global financial crisis hit NSW hard, and took the manufacturing sector's wages growth with it.

Chart 6.7: New South Wales manufacturing LPI forecasts

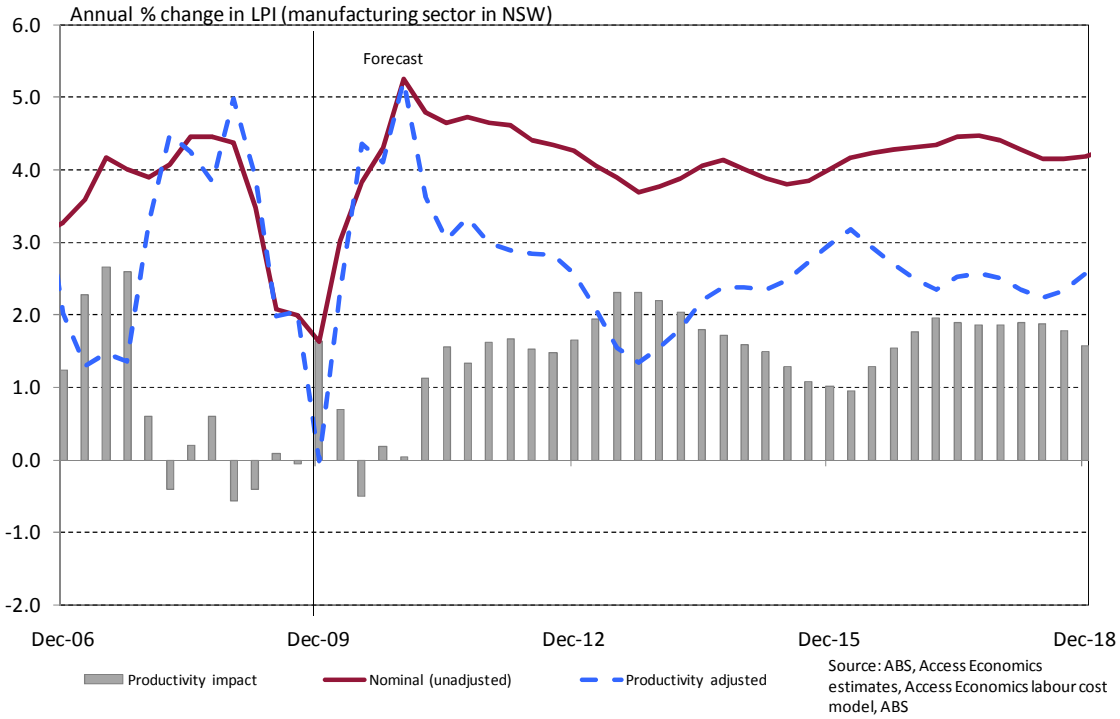
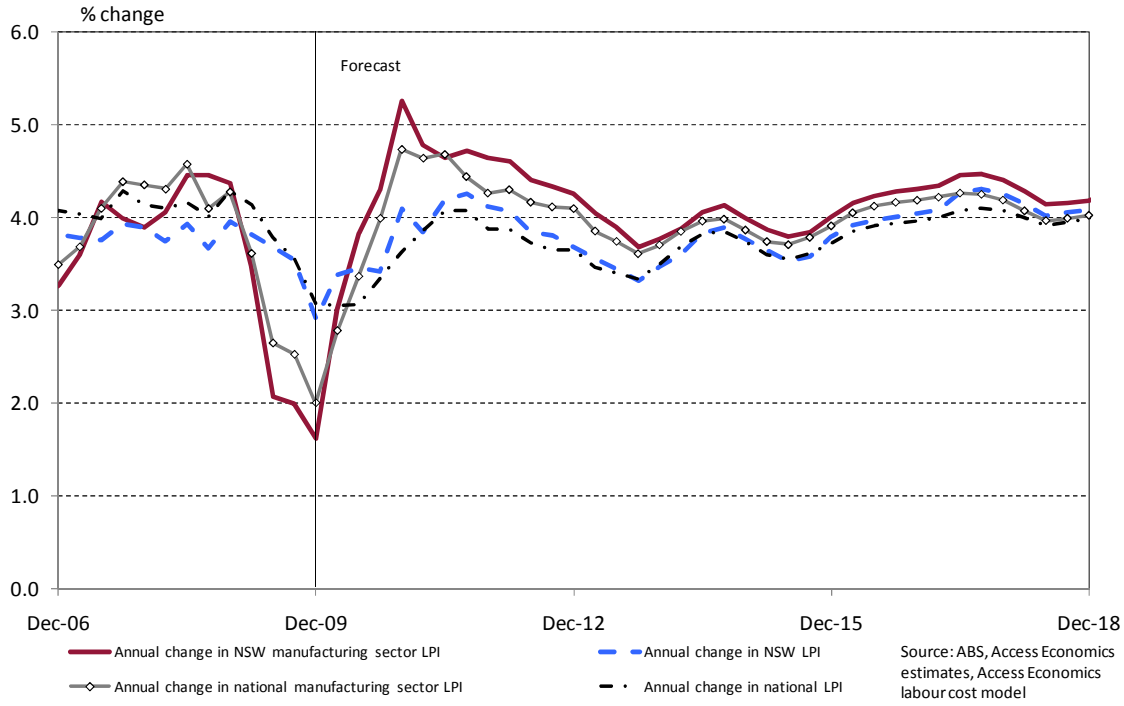


Chart 6.7 shows that wage growth in the sector in the year to December 2009 was an anaemic 1.8%.

However, the forecasts project a relative recovery to be in store for the State. Aided by the demand impacts from interest rates below their longer term average and an increase in general consumer confidence and willingness to spend, these forecasts see quarterly growth rates in manufacturing wages in NSW recovering relatively rapidly from the slowdown of the moment – partly as wages need to rise to make up for relative weakness of 2009.

In part that is because, while the growth in NSW's manufacturing wages has been reasonably subdued in the past year, there is scope for a moderate rebound in line with State and sector trends across the next two years amid an expected relatively strong improvement in manufacturing productivity across this period following the job losses of the past year.

Chart 6.8: New South Wales manufacturing forecast comparison



6.3 Victoria

Victoria continues to punch above its weight amid difficult conditions. It biggest short term risk is that the State's manufacturers remain very hard pressed, yet Victoria has come out of the recent crisis in good shape, and its recovery looks set to continue from here.

Victoria's economy performed rather better than that of NSW in recent years, but the national downturn in manufacturing has hit Victoria, with its large manufacturing base, harder than many other States.

The downturn in manufacturing was enough to shift Victoria's growth from being above the national average in 2007 to below it through much of 2009. So Victoria didn't escape unscathed from the global mess. Yet although Victoria's economy remains weak, it is definitely recovering, and prospects are for a further improvement in the State from here. In particular, families have shown a greater willingness to spend than elsewhere, providing a firmer tone to retail and consumer demand. And the State's revved up population gains mean that Victoria's housing construction sector, despite being relatively healthier than that seen in almost any other State, is seeing its demand pick up ahead of its national equivalent. Victoria is even getting more visitors from the rest of the world at a time when NSW is getting less, while the State's accountants and lawyers, whose phones stopped ringing when the global financial crisis first hit, are seeing signs of an upswing.

There have been notable job losses in food, wood and paper, plastics, building products and metal manufacturing, and, more recently, in car making as well. And the pipeline of construction work to be done in the State is falling away, which has further negative flow on effects for manufacturing sectors.

Table 6.3: Victorian wage forecasts – financial year basis

Financial year changes in Victorian nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Victoria	4.0	2.9	3.7	3.5	3.1	3.3	3.5	3.7	4.0	3.9
Utilities	5.1	4.5	3.9	3.5	3.0	3.2	3.5	3.8	4.1	4.0
Mining	5.3	3.2	3.8	4.1	3.7	3.9	4.0	4.2	4.4	4.3
Construction	4.9	5.7	4.0	3.5	2.8	3.4	4.0	3.9	3.8	4.1
Manufacturing	3.3	2.8	4.5	3.9	3.5	3.5	3.7	4.0	4.3	4.1

Financial year changes in Victorian real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Victoria	1.2	0.8	0.6	1.4	0.8	1.6	1.8	1.3	1.2	1.2
Utilities	2.3	2.4	0.7	1.3	0.7	1.4	1.8	1.4	1.4	1.3
Mining	2.5	1.1	0.6	1.9	1.4	2.1	2.3	1.8	1.7	1.6
Construction	2.1	3.5	0.9	1.4	0.5	1.7	2.3	1.5	1.1	1.4
Manufacturing	0.5	0.6	1.4	1.8	1.2	1.8	2.1	1.6	1.5	1.4

Financial year changes in Victorian nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Victoria	4.2	3.1	2.2	2.4	2.1	1.5	1.6	2.1	1.8	1.8
Utilities	5.6	3.9	3.1	2.5	1.8	1.5	2.0	2.7	2.5	2.4
Mining	6.7	2.4	2.8	2.9	2.3	2.0	2.4	2.9	2.5	2.5
Construction	4.8	5.5	3.2	2.5	1.9	1.8	2.3	2.9	2.5	2.5
Manufacturing	3.5	2.4	3.3	2.6	2.0	1.6	2.1	2.7	2.3	2.1

Financial year changes in Victorian real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Victoria	1.4	0.9	-0.9	0.3	-0.2	-0.3	0.0	-0.2	-0.9	-0.8
Utilities	2.7	1.7	-0.1	0.3	-0.4	-0.2	0.4	0.4	-0.2	-0.3
Mining	3.8	0.3	-0.3	0.7	0.0	0.3	0.8	0.6	-0.1	-0.2
Construction	2.0	3.3	0.1	0.4	-0.4	0.0	0.6	0.5	-0.2	-0.2
Manufacturing	0.7	0.3	0.2	0.5	-0.2	-0.1	0.4	0.3	-0.4	-0.5

Table 6.4: Victorian wage forecasts – calendar year basis

Calendar year changes in Victorian nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Victoria	3.3	3.3	3.8	3.2	3.1	3.5	3.5	3.9	4.0	3.8
Utilities	4.6	4.4	3.7	3.2	2.9	3.5	3.5	4.0	4.1	3.9
Mining	3.9	3.4	4.1	3.9	3.6	4.1	3.9	4.3	4.4	4.1
Construction	5.4	4.9	3.8	3.0	2.9	3.9	3.9	3.8	3.9	4.2
Manufacturing	2.5	4.0	4.3	3.7	3.4	3.8	3.7	4.2	4.2	3.9

Calendar year changes in Victorian real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Victoria	1.8	0.1	1.2	1.0	1.0	2.0	1.4	1.3	1.2	1.3
Utilities	3.1	1.3	1.1	1.0	0.9	1.9	1.5	1.4	1.3	1.3
Mining	2.4	0.2	1.5	1.6	1.5	2.5	1.9	1.8	1.6	1.6
Construction	3.9	1.7	1.3	0.8	0.8	2.4	1.8	1.2	1.1	1.6
Manufacturing	1.0	0.9	1.7	1.5	1.3	2.2	1.7	1.6	1.5	1.4

Calendar year changes in Victorian nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Victoria	3.9	2.6	2.1	2.5	1.6	1.5	1.8	2.0	1.9	1.9
Utilities	4.3	4.1	2.5	2.3	1.4	1.9	2.4	2.7	2.4	2.4
Mining	3.2	3.3	2.7	2.7	1.9	2.3	2.6	2.8	2.5	2.5
Construction	5.3	4.9	2.5	2.3	1.6	2.1	2.6	2.8	2.5	2.6
Manufacturing	2.6	3.4	2.8	2.4	1.6	1.9	2.3	2.6	2.2	2.1

Calendar year changes in Victorian real productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Victoria	2.4	-0.5	-0.4	0.3	-0.4	0.0	-0.2	-0.5	-0.8	-0.6
Utilities	2.7	0.9	0.0	0.1	-0.6	0.3	0.4	0.2	-0.3	-0.2
Mining	1.7	0.1	0.2	0.5	-0.1	0.8	0.6	0.3	-0.2	-0.1
Construction	3.7	1.7	0.0	0.1	-0.5	0.6	0.5	0.3	-0.3	0.0
Manufacturing	1.1	0.2	0.3	0.2	-0.5	0.4	0.3	0.1	-0.5	-0.4

6.3.2 The utilities sector

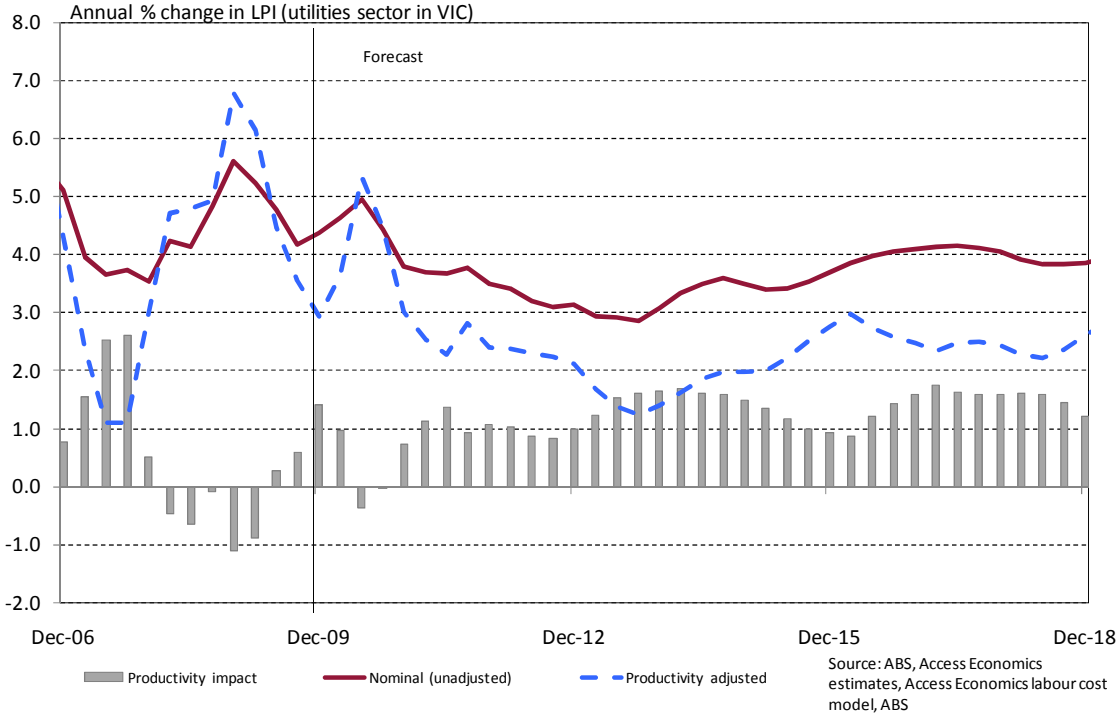
There are a number of structural factors in play in Victoria's utilities sector, including the impact of (any) eventual Emissions Trading Scheme, as well as a notable number of water supply projects:[10]

- An ETS has the potential to lower overall demand for the utilities, but also to reallocate that demand away from greenhouse gas intensive parts of the sector. Although most likely to be a longer rather than shorter term factor for the sector and its wage agreements, an ETS will both dampen wage pressures in some parts of the sector (the greenhouse gas intensive parts) and raise it in the rest of the sector.
- The water projects will, other things equal, add to the demand for workers in that part of the sector by raising supply side capacity. In turn, that will tend to (temporarily) raise wage demands as the indirect result of the stronger labour demand.

[10] These include a $3.1 billion desalination plant in the Gippsland region south east of Melbourne, the Wimmera-Mallee water pipeline (whereby 9,000 kilometres of pipes are being used to cover open irrigation channels), and a pipeline between the Waranga Channel and Lake Eppalock for Bendigo's water. Other projects under consideration include a 70 kilometre pipeline from the Goulburn River to the Sugarloaf Reservoir and the upgrade of the Eastern Treatment Plant at Carrum, the Ballarat super pipeline to provide water to Ballarat, Bendigo and Geelong, and a waste water treatment plant in Gippsland.

On the demand front, Victoria's utilities sector has suffered from many of the same factors afflicting the national sector, with the long running expansion nationally in mining and construction eating into the available supply of workers, resulting in persistent skill shortages in a range of areas in recent years, including fitters, electricians, pressure welders, plumbers, gas trainers and assessors, and for engineers.

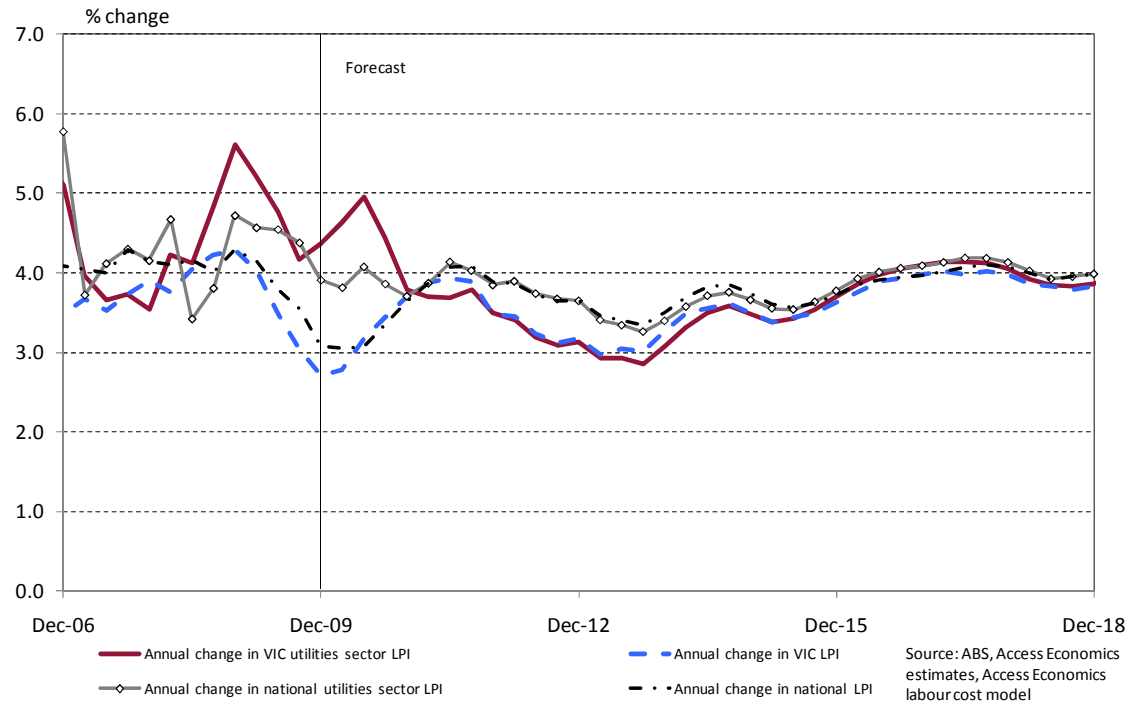
Chart 6.9: Victoria utilities LPI forecasts



Despite that, wage growth in the sector – as measured by the utilities LPI for the State – moderated somewhat in 2009 (a cumulative 4.4% over 2009 – compared with 5.6% in 2008), a trend that was lessened by a jump in sectoral productivity.

More important than developments on the demand front for what the utilities are selling are the developments on the demand front for what the sector is buying – the competition for labour with the manufacturing sector has undergone a seachange as the latter sector took such a beating of late. But that trend may not last much longer.

Chart 6.10: Victoria utilities forecast comparison



Both factors, the jump in sectoral productivity and a rebound in manufacturing wages, contribute to the forecast pattern mapped out in Chart 6.11, with Victoria's utilities sector – having led developments in the national sector – bouncing back slightly in terms of wages growth in 2010 before moderating as State-wide wage pressures ebb from mid 2011.

Looking longer term, the sector may be outperformed by the national average as Queensland begins to unwind some of its recently lost ground (as may Western Australia).

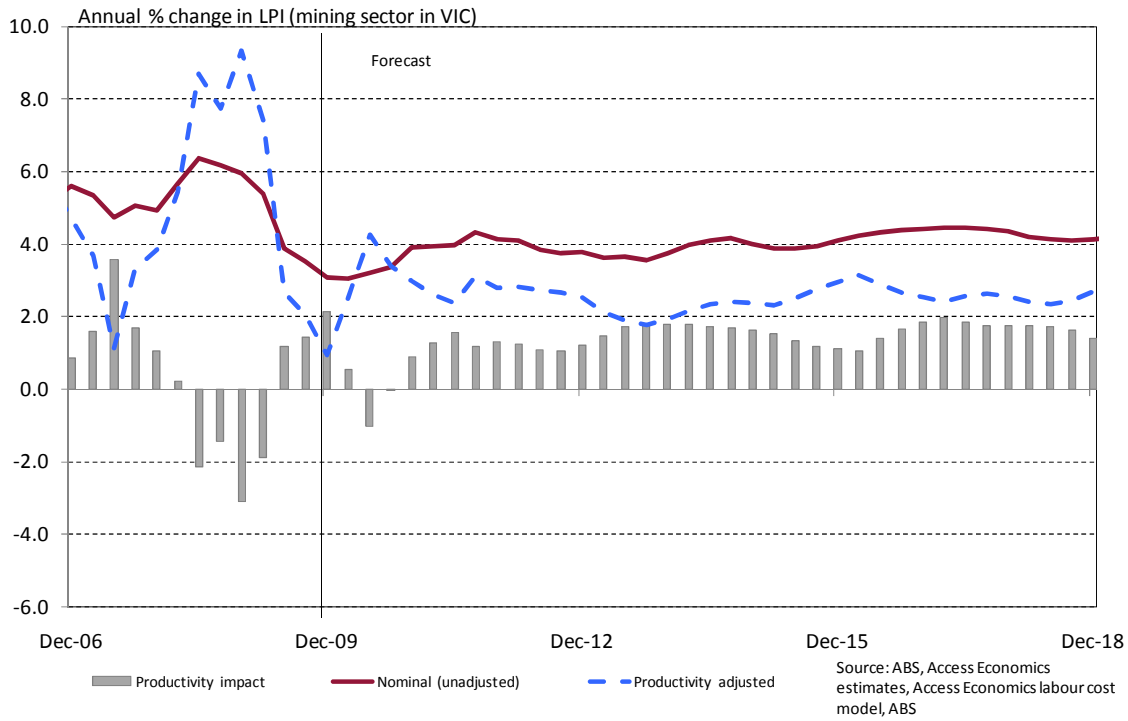
6.3.3 The mining sector

Victoria's small mining sector is barely larger than South Australia's and – despite the relatively slow decline in Bass Strait output – has been shrinking as oil and gas reserves from Bass Strait slowly run down.

Moreover, the sector (and its relative dependence on brown coal) remains at notable risk from climate change developments to its coal sectors.

Because the sector is so small, actual wage trends for the Victorian mining industry (either LPI or AWE) are not always released by the ABS (due to confidentiality restrictions). As a result, the safest options for historical trends in to use the underlying national rate of growth. That said, Victoria's economy is projected to do well relative to the resource States in 2010 and 2011, and that will aid growth in mining wages. Unlike recent years, mining workers in Victoria will have relative better alternative options in Victoria than miners in WA and Queensland will have in 2010, although that window appears to be closing as the global economy finds its feet more rapidly that earlier expectations suggested.

Chart 6.11: Victoria mining LPI forecasts

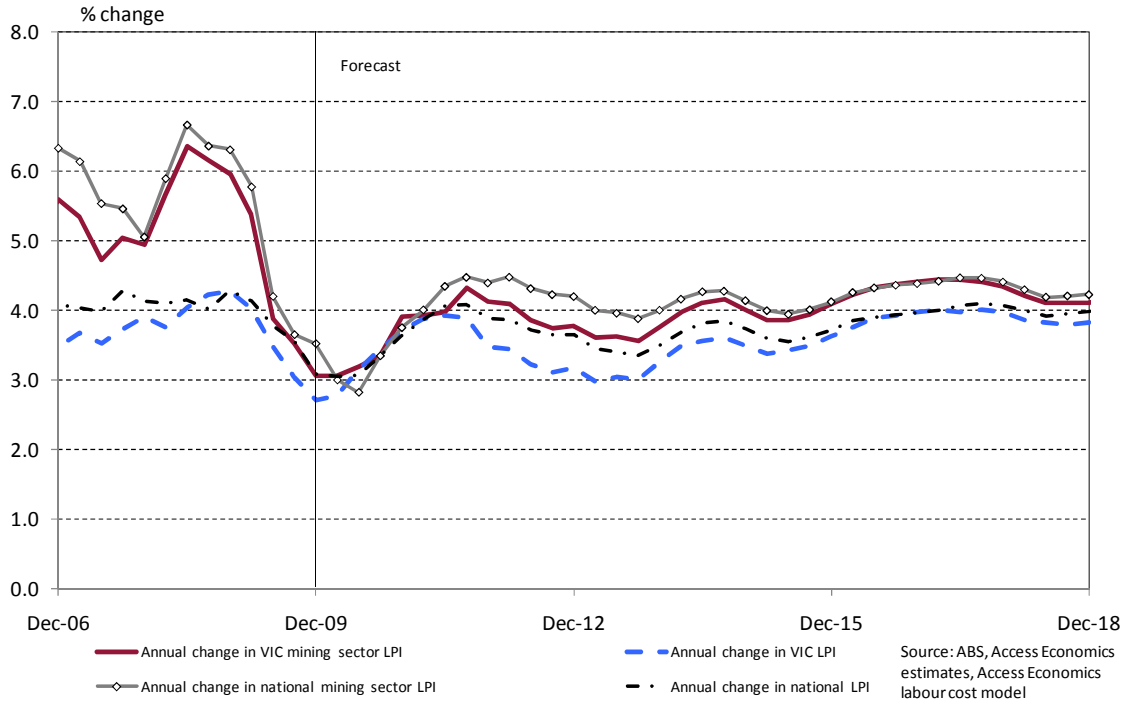


Beyond 2011 the competitive pressures in the wider national mining sector are likely to be a key factor in driving Victoria's mining sector wages, limiting the extent and longevity of divergences across States for similar jobs.

Any expansion in the Victorian mining sector – and the potential for that to add to demand pressures on the wages front – will centre around the hoped-for development of 'clean coal' and its ability to limit Australia's carbon emissions, while the expansion of Australia's LNG production may also support Victoria's $1.4 billion Kipper gas project.

With both Victoria and the national mining sector currently losing jobs, these forecasts project moderate quarterly wage growth in late 2009 and early 2010, before a recovery in wage gains then commences in the second half of 2010.

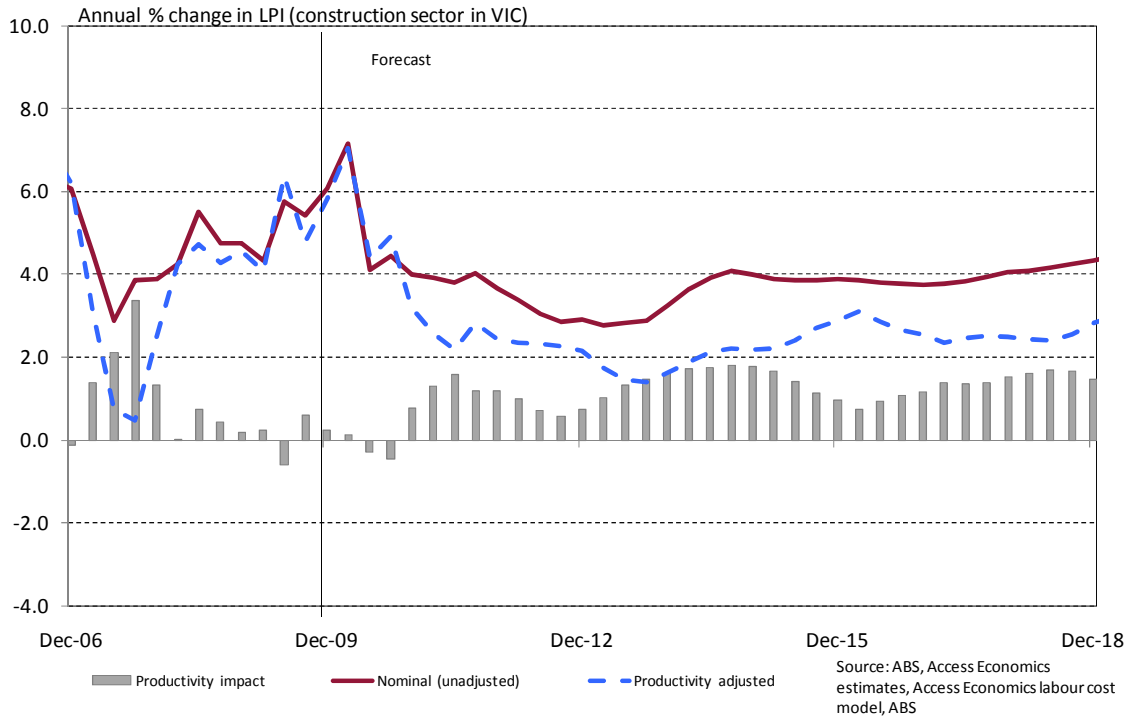
Chart 6.12: Victoria mining forecast comparison



6.3.4 The construction sector

Victoria's commercial construction sector has seen work falling away faster than its Australia-wide counterpart recently, with an even more marked fall in the pipeline of work remaining to be done. Yet that hasn't translated into a weak result for sectoral wage growth.

Chart 6.13: Victoria construction LPI forecasts



Access Economics has regularly described Australia's population growth as being an unsung hero of its defence against this downturn, and that is true in spades for Victoria. The State underperformed national population growth for most of the time since the early 1970s, and it is only recent years which saw Victoria draw level and then draw ahead of national gains.

That boost has provided a very firm underpinning for a State when it needed it most. In turn, that helps to explain why Victoria's retail spending growth is in line with the national average, and why its unemployment rate has edged below the national average for the first time in several years. Indeed, the recent upswing in job gains in the State is very heartening, and it points to the potential for the State's recovery to solidify through 2010 and 2011.

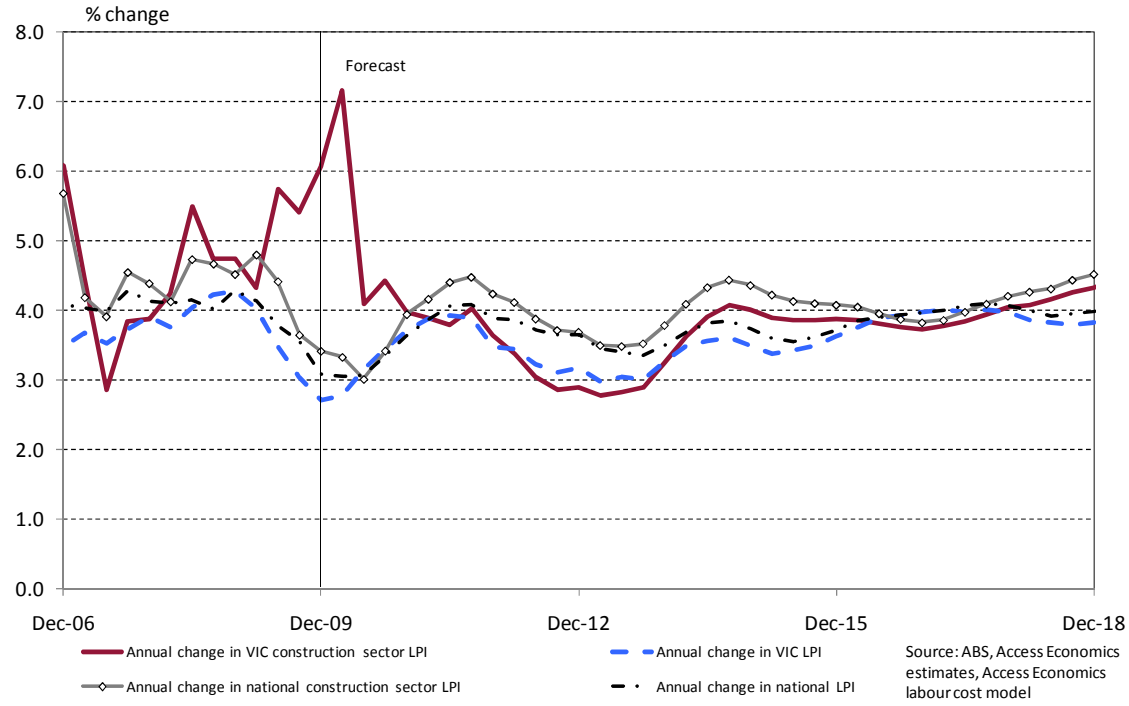
And even better, the strong population growth underpinned the strength of the Victorian housing sector. With population growth going like a train, a healthy rate of recovery in housing finance and solid gains in building approvals point to an increase in the pace of housing construction in the State through 2010 and into 2011. We had seen the Victorian housing construction upswing as more muted than that nationally given that the State had relatively less pent up demand than some other regions. However, the better that population growth looks in Victoria, the better that is for the State's housing construction outlook in the next year or so.

Business investment spending in Victoria has been below the national average for a couple of years now. Investment spending weakened in Australia through 2009 as businesses became more cautious on capital expenditure. And there was an element of that in Victoria too. Yet the State saw less of a fall than most. That is worth noting, because business investment spending shows how many dollars businesses are willing to punt on the future, and the 2009 upshot was that businesses found comfort in continuing to spend in Victoria. Engineering work activity in Victoria didn't see the same surge during the commodity boom as occurred in the likes of WA and Queensland, yet work levels in the State have been more than solid anyway thanks to spending on infrastructure such as roads, water and electricity.

And it is more of the same on that score over the next year or two. The work underway in Victoria includes road projects such as the $1.4 billion M1 upgrade linking the WestGate Bridge to the Monash Freeway, as well as the $750 million Peninsula Link between Eastlink and the Mornington Peninsula Freeway. Meanwhile, Origin Energy is building a gas-fired power station at Mortlake in the State's west, and the $970 million dredging of Port Phillip Bay to allow larger container ships to enter is still ongoing. HRL Developments is spending $750 million developing a new low-emission coal-fired power plant in the Latrobe Valley, while Wimmera Mallee Water is converting 9,000 kilometres of open water channels to pipelines throughout the region in an effort to reduce water loss.

The Tullamarine Airport is receiving a $330 million upgrade while is due to be completed in 2011, while AGL is constructing a hydro-electric power station in the Kiewa Valley at a cost of $230 million. Looking further ahead, projects under consideration include a new $3.6 billion desalination plant at Gippsland, and the construction of a dedicated rail line from West Werribee to Melbourne's Southern Cross Station (at a projected cost of some $4.3 billion).

Chart 6.14: Victoria construction forecast comparison



After an initial buffeting through the global financial crisis, commercial construction approvals have firmed in Victoria, paving the way for an improvement in activity through 2010. Work underway includes the $1.1 billion redevelopment of the Royal Children's Hospital at Royal Park in Melbourne, and development of the Waterfront City entertainment and retail precinct at Docklands. Myer has just finished a $500 million redevelopment of the Bourke Street store and former Lonsdale Street building, while Edwin Flack Field is being redeveloped at a cost of $267 million. The new home of The Age newspaper is underway on Collins Street at a cost of $110 million, while the emergency department at the Dandenong Hospital is being upgraded at a cost of $66 million. Projects under consideration include the construction of an IKEA centre at Springvale at a cost of $300 million and a plan to develop the new $300 million Melbourne fruit, vegetable, flower and fish markets at Epping.

All that growth has seen local wages shoot even higher, and (as Chart 6.15 shows) the momentum is unlikely to end until the middle of the year. However, the bulk of the rise expected in the coming year has already been recorded, and the quarterly pattern shows modest growth from mid 2010 onwards. And, following the strong lift in relative wages in 2010, there will be increased downward pressure in the longer term, suggesting medium term growth may lag behind the national equivalent.

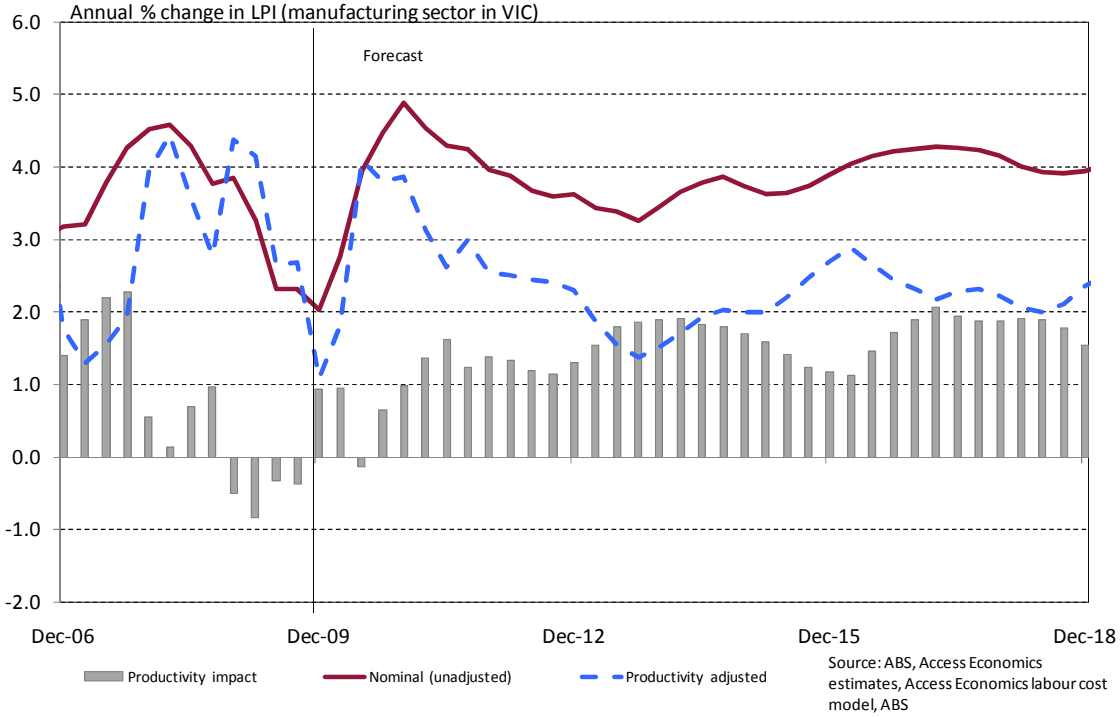
6.3.5 The manufacturing sector

In general, Victoria's overall economy performed solidly into the slowdown, but there was a key exception. It is hard to exaggerate how badly hit Australian manufacturers were by the downturn of 2008-09. The combination of conditions seen through 2008-09 – beginning with high interest rates and a high $A, compounded by a crash in confidence that then saw consumers defer discretionary purchases – tore strips off Australia's manufacturing sector – and the key manufacturing State is Victoria.

The bad news was evident pretty much everywhere. Textiles and clothing – an underperformer at the best of times – is estimated to have shrunk by almost one-fifth through the course of 2009. The printing trades did better, losing one-sixth of their turnover, while chemicals fell by 'only' a tenth. There were similar losses – also down by a tenth – in both metal products and in machinery and equipment as well. All of these losses were negative for Victoria.

There were also huge job losses of late in each of food, wood and paper (where Victoria's early 2009 fires didn't help), plastics, building products and metal manufacturing, and eventually in car making too.

Chart 6.15: Victoria manufacturing LPI forecasts



Those losses are flowing through to wage growth, with wage moderation often central to avoiding further job losses and factory closures. There has been a gradual moderation in wage growth in the sector over the past six quarters, especially across the first half of 2009.

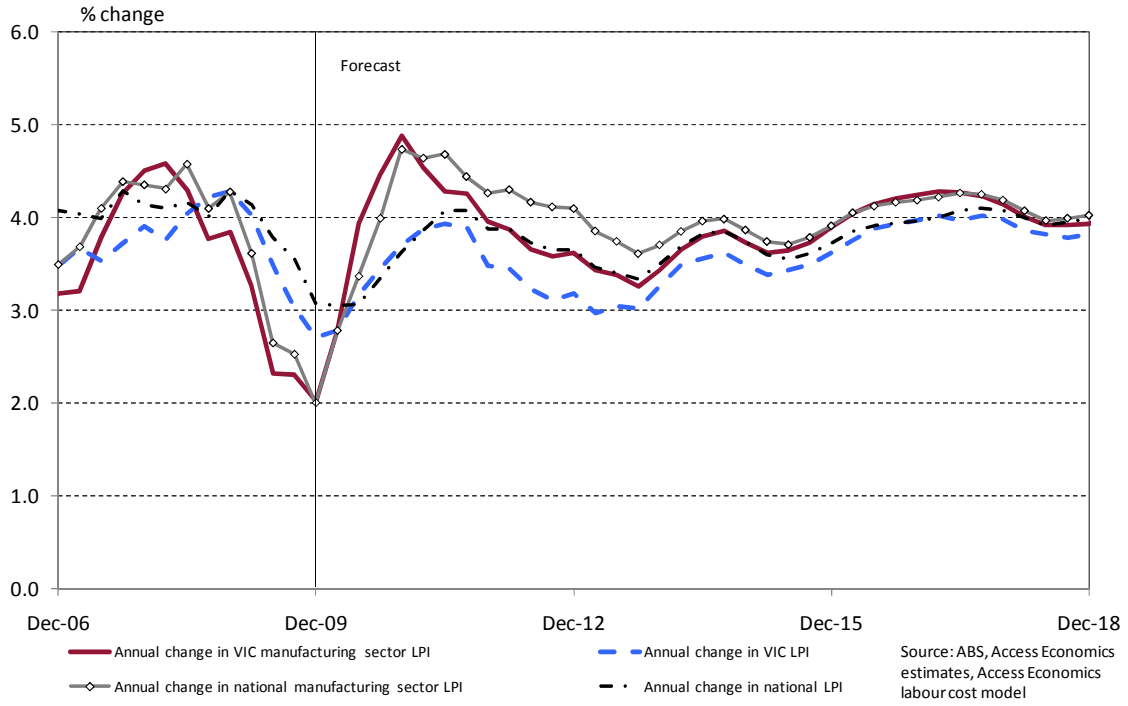
What next? The good news is that the worst is over. Although interest rates are rising and the $A is once more making many manufacturers uncompetitive, the return to confidence here and around the world is likely to lead to improved demand for a number of manufactures. That is especially true for the parts of manufacturing that either sell into the resources sector (as is true for parts of machinery and equipment) or are themselves downstream beneficiaries of the resources sector (as it true of the 'export' wing of metals manufacturing).

Forecast quarterly wage growth is projected to have bottomed across the second half of 2009 and should rebound sharply thereafter, aided as well by the projected pick up in the pace of housing construction in the State through the course of 2010.

There are reasons to be optimistic on such a turnaround in the business environment for manufacturing given the recent shifts in interest and exchange rates as well as in industrial commodity prices.

Moreover, the State's remaining manufacturing base is increasingly clustered in high-skilled niche industries.

Chart 6.16: Victoria manufacturing forecast comparison



The forecasts therefore suggest that some of the current very slow growth in Victorian manufacturing wages will be clawed back by relatively fast wage rises in 2011.

Beyond that the strength in overall wage trends in other States may well see Victorian manufacturing wages grow less rapidly than their national counterparts for a time – but still faster than broader Victorian wage rates, assisted over the longer term by a relatively strong productivity performance.

6.4 Queensland

Queensland has been a longstanding outperformer as a State economy, but it is suffering the current downturn more than most. A lack of finance has been more of a problem than in most other States, though in part that is because the Sunshine State is a developers' darling at a time when banks (and banking regulators) are dead scared of developers.

Weakness in engineering and construction prospects has rapidly affected prospects for commercial construction in Queensland, and the weakening in housing approvals in the State suggests that further bad news lies ahead.

Queensland has long been a standout State in the Australian economic landscape. Its strong resource base, attractive climate and successful niches in a number of key sectors saw the State steadily climb as a share of Australia's output and population over many years – its very

consistency at achieving that above average growth rate was very impressive. And we don't want to overstate it when we say that Queensland lags the national recovery. But it is lagging.

Part of that lag is because the pace of housing construction in the State was hit hard and late in this business cycle. Inflation-adjusted spending on building new homes and renovating old ones was cut by a quarter in the last year alone. Partly that is because Brisbane rental vacancy rates had begun to climb again through 2009. But partly it is because Queensland is developer central, and current financial conditions have not favoured developers at all. Indeed that has not only pressured the pace of housing construction, but has been an even bigger problem in commercial construction generally.

In brief then, the combination of engineering, commercial and housing construction weakness is hitting harder than the State has felt for a time. And the lags in the impacts from construction decisions to construction occurring suggests a lingering impact from the current slowdown lies ahead.

Table 6.5: Queensland wage forecasts – financial year basis

Financial year changes in Queensland nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Queensland	4.2	3.1	3.0	3.6	3.6	3.6	3.6	3.6	3.8	4.0
Utilities	4.9	3.6	3.8	4.2	3.9	3.7	3.8	3.8	4.0	4.0
Mining	6.8	3.5	3.0	4.1	4.0	3.9	4.0	3.9	4.1	4.2
Construction	5.8	3.1	3.2	3.9	3.6	3.9	4.3	3.9	3.7	4.2
Manufacturing	4.1	2.9	3.7	4.0	3.9	3.7	3.8	3.8	4.0	4.1

Financial year changes in Queensland real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Queensland	0.4	0.5	0.2	0.4	0.9	1.4	1.5	1.0	1.0	1.4
Utilities	1.1	1.1	1.0	0.9	1.3	1.5	1.6	1.3	1.2	1.5
Mining	2.9	1.0	0.2	0.8	1.3	1.7	1.8	1.4	1.3	1.7
Construction	2.0	0.6	0.4	0.6	0.9	1.7	2.1	1.3	0.9	1.7
Manufacturing	0.3	0.3	0.9	0.7	1.3	1.5	1.7	1.3	1.2	1.5

Financial year changes in Queensland nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Queensland	7.1	0.5	2.9	1.1	1.5	1.9	2.3	3.2	2.7	2.6
Utilities	6.3	2.5	3.4	2.7	2.4	2.1	2.5	3.2	2.7	2.6
Mining	9.1	2.3	2.5	2.4	2.3	2.1	2.6	3.0	2.5	2.6
Construction	6.6	2.5	2.8	2.4	2.3	2.2	2.7	3.3	2.8	2.8
Manufacturing	5.1	2.1	2.9	2.2	2.1	1.8	2.3	2.8	2.4	2.4

Financial year changes in Queensland real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Queensland	3.2	-2.0	0.1	-2.1	-1.0	-0.2	0.2	0.7	0.0	0.2
Utilities	2.5	-0.1	0.6	-0.5	-0.2	-0.1	0.4	0.6	-0.1	0.1
Mining	5.2	-0.3	-0.3	-0.8	-0.3	0.0	0.4	0.5	-0.2	0.2
Construction	2.7	0.0	0.0	-0.8	-0.3	0.1	0.6	0.7	0.0	0.3
Manufacturing	1.3	-0.5	0.1	-1.0	-0.5	-0.3	0.2	0.3	-0.4	-0.1

Table 6.6: Queensland wage forecasts – calendar year basis

Calendar year changes in Queensland nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Queensland	3.8	2.8	3.5	3.7	3.5	3.7	3.5	3.7	4.0	3.9
Utilities	4.7	3.5	4.0	4.1	3.7	3.8	3.7	3.9	4.0	3.9
Mining	5.2	2.8	3.6	4.1	3.8	4.0	3.9	4.0	4.2	4.1
Construction	4.5	3.0	3.6	3.7	3.5	4.2	4.1	3.7	3.9	4.3
Manufacturing	2.9	3.4	3.8	4.1	3.7	3.8	3.7	3.9	4.1	4.0

Calendar year changes in Queensland real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Queensland	1.3	0.2	0.1	0.7	1.1	1.7	1.1	1.0	1.3	1.3
Utilities	2.3	1.0	0.6	1.2	1.3	1.8	1.3	1.2	1.4	1.4
Mining	2.7	0.2	0.3	1.2	1.5	2.0	1.5	1.3	1.6	1.6
Construction	2.0	0.4	0.3	0.8	1.2	2.2	1.7	1.0	1.3	1.8
Manufacturing	0.4	0.9	0.5	1.1	1.3	1.8	1.3	1.2	1.5	1.4

Calendar year changes in Queensland nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Queensland	3.3	2.5	1.3	1.6	1.5	2.2	2.7	3.1	2.6	2.7
Utilities	4.2	3.5	2.7	2.7	2.0	2.4	2.8	3.0	2.6	2.6
Mining	4.2	3.0	2.1	2.5	2.0	2.5	2.7	2.8	2.6	2.6
Construction	4.3	3.2	2.2	2.6	2.0	2.6	3.0	3.1	2.8	2.9
Manufacturing	2.9	3.1	2.2	2.3	1.7	2.2	2.5	2.7	2.4	2.3

Calendar year changes in Queensland real productivity adjusted Labour Price aggregates

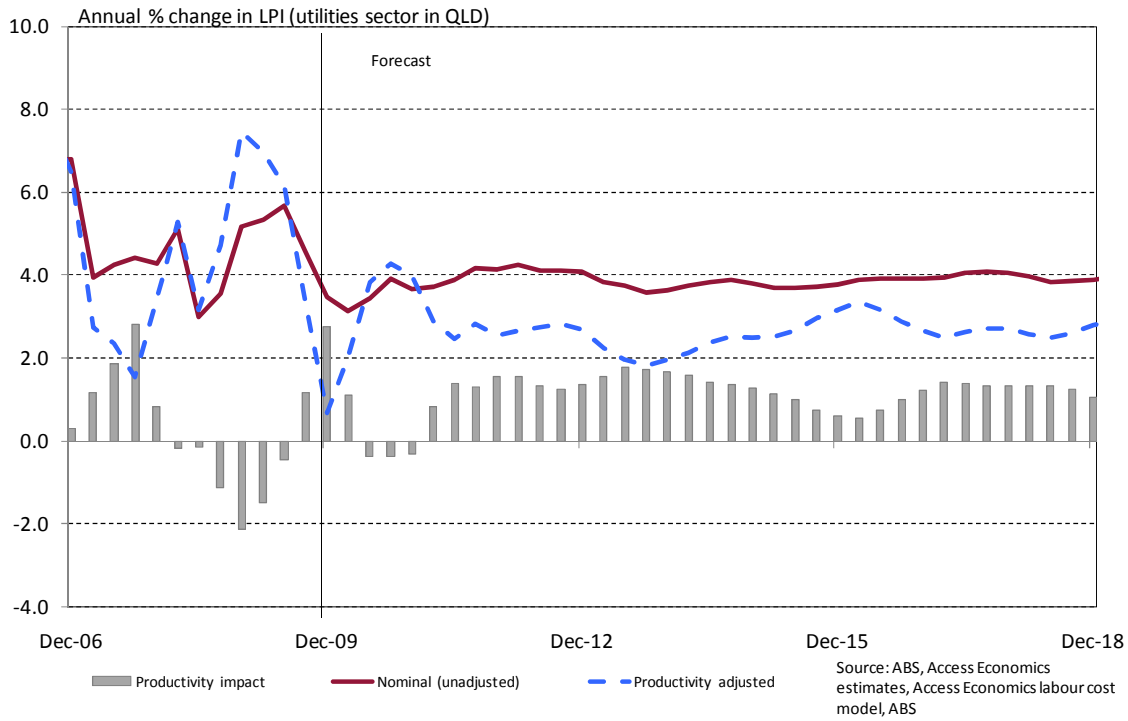
Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Queensland	0.9	-0.1	-1.9	-1.3	-0.8	0.2	0.3	0.4	0.0	0.2
Utilities	1.8	1.0	-0.6	-0.2	-0.4	0.4	0.5	0.3	0.0	0.1
Mining	1.8	0.4	-1.2	-0.4	-0.4	0.5	0.4	0.1	0.0	0.1
Construction	1.8	0.7	-1.1	-0.4	-0.3	0.6	0.6	0.4	0.1	0.4
Manufacturing	0.5	0.5	-1.0	-0.6	-0.6	0.2	0.2	0.0	-0.2	-0.2

6.4.2 The utilities sector

That developing underperformance in the wider Queensland economy (and in its construction prospects in particular) has begun to feed through into movements in utilities wages. Chart 6.18 shows that wage growth eased steadily 2009 – declining from growth rates of close to 6% in the year to June 2009, to just 3.5% by the end of the year – even as productivity in the sector began to improve.

The earlier strength in wages reflected in part the strength of the competition for scarce skills in recent years, as competition for available workers with the cashed-up mining sector spread from the traditional competitor industry to begin to affect the broader Queensland workforce, with even former teachers and nurses switching over to driving trucks on mine sites.

Chart 6.17: Queensland utilities LPI forecasts



However, as demand pressures in the utilities eased sharply in the second half of 2009 (with external pressures from the mining and construction also diminishing), and as the demand for the types of workers employed by the utilities sector slowed as well (in part due to the slowdown in the construction sector), growth in wages slowed rapidly, with Chart 6.17 suggesting there may be some further weakness in the first half of 2010.

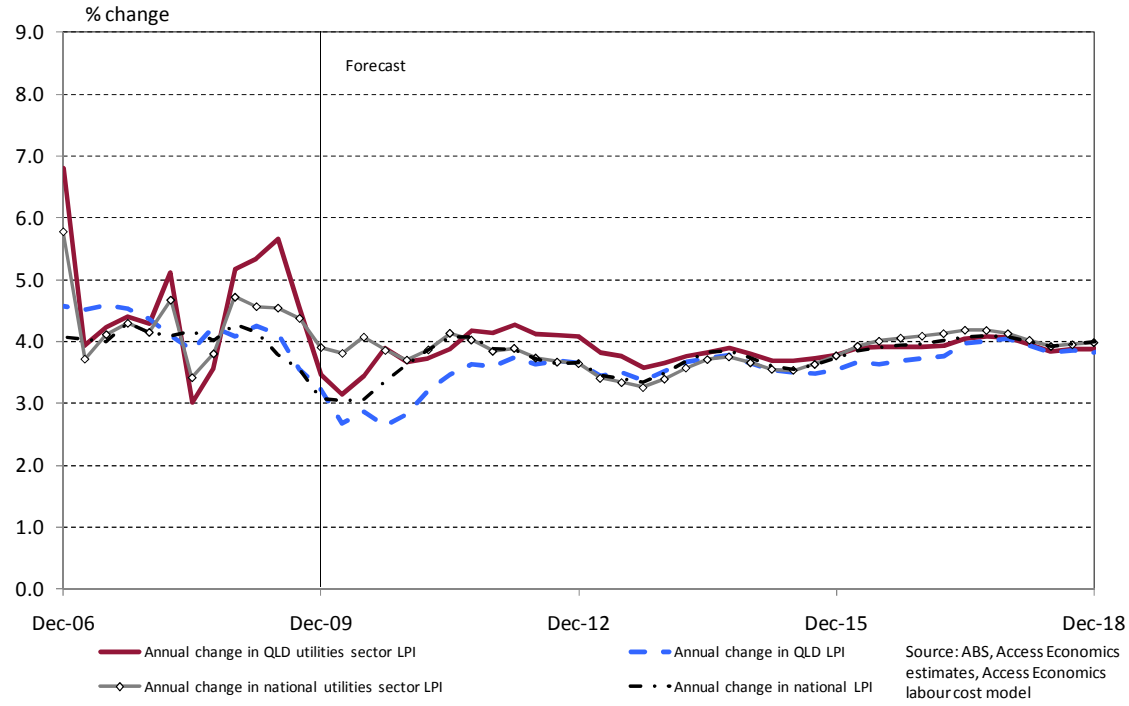
There are also some important developments on the supply side.

Current projects under construction include the $2.5 billion construction of a dam on the Mary River south of Gympie, due to be completed in 2011, and the $900 million South Regional Pipeline project linking the water sources of the Gold Coast and Brisbane, both undertaken by the Queensland Government.

The Queensland Government is also spending $333 million on the Wyaralong Dam project south-west of Brisbane.

Additionally, Origin Energy is constructing a $780 million gas-fired power plant in the Darling Downs.

Chart 6.18: Queensland utilities forecast comparison



Those supply side developments clearly point to additional demand for workers in the pipeline. That suggests that, on balance, wage growth in Queensland's utilities sector will be slightly ahead of the national average that after the current downturn is worked through – even as the weakening State economy limits the gap in wages growth more broadly.

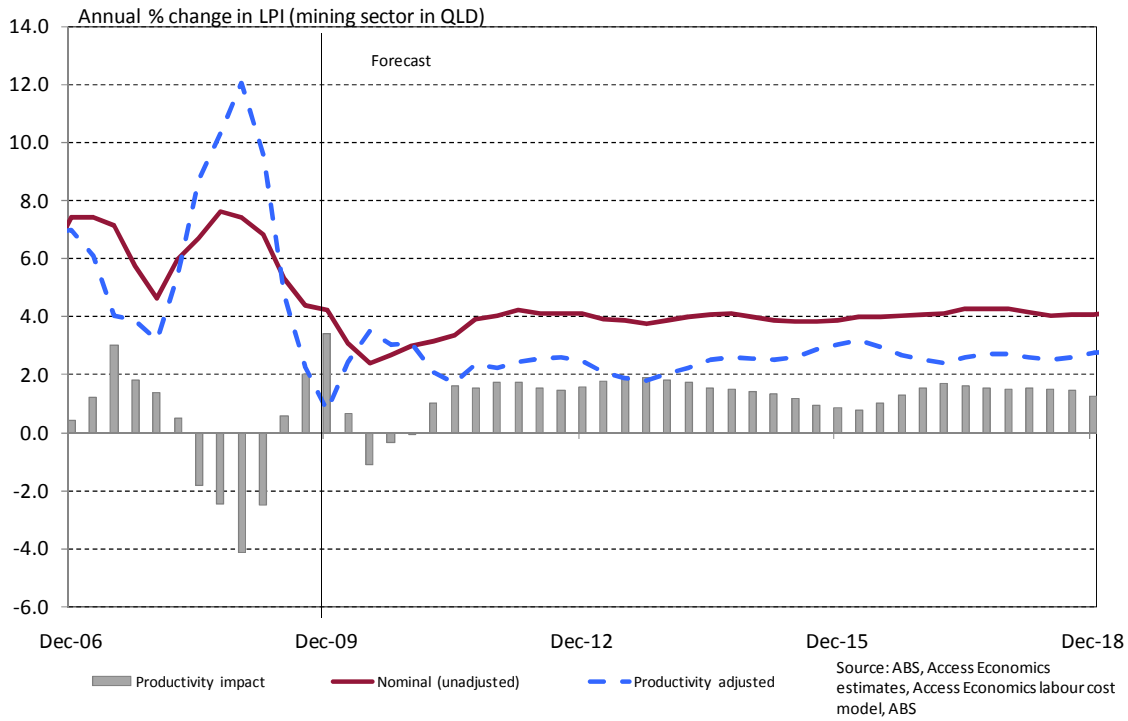
6.4.3 The mining sector

Weaker industrial commodity prices have hurt the mining sector in Queensland through 2009, with the global financial crisis contributing to April 2009 price settlements which saw coking coal prices fall by 60% and thermal coal prices by 44%.

Not surprisingly, the impact has been greater than that seen in the non-resource intensive States, but it has also been greater than that seen to date in Western Australia. That is because Queensland exports more heavily to Japan, a country which is one of the biggest casualties of the global financial crisis, whereas Western Australia has been helped by China's rapid rebound. This led to relatively more mine closures and staff layoffs in Queensland than in Western Australia, with a corresponding larger fall in mining output. The fall in output has been relatively larger than the falls in employment thus far – pushing down the growth in measured productivity (which shows up as a sharp fall in productivity in Chart 6.19).

That said, Japan's weakness would have affected Queensland even more sharply were it not for the impact of China's rapid rebound from the global financial crisis. China has gone from accounting for 1% of Australia's coking coal sales as recently as 2008 to more than a quarter today, a development of considerable assistance to Queensland's mining sector in general, and to developments in the Bowen Basin in particular.

Chart 6.19: Queensland mining LPI forecasts



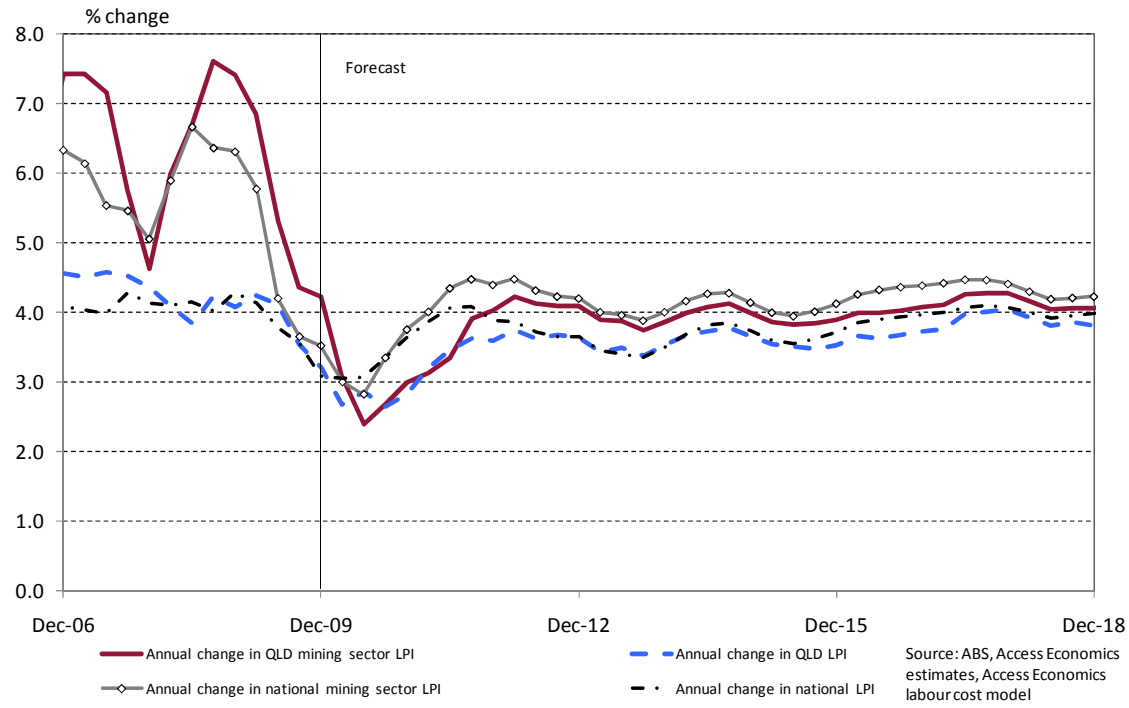
Assuming that Japan sits on the global sidelines for longer, the depth of Queensland's downturn therefore rests very heavily on China and the sustainability of its recent coal buying spree. The news on that front has brightened considerably in recent months, and some commodity prices may soon be ratcheted back towards earlier highs.

On balance, therefore, growth in the State's mining sector is expected to recover from here, assisted by a falling $A (helping both mining and manufacturing exports) over the longer term.

There is good news on the supply side, with a number of mining projects under construction, including Rio Tinto's $950 million Clermont opencut thermal coal mine development, Tarong Energy's $845 million Meandu steaming coal mine expansion and the $690 million Lake Lindsay coal mine development at Bowen Basin.

Yet recent job losses in the sector and the pace of the slowdown in the wider State economy point to developing weakness in State mining wage gains, with quarterly wage growth bottoming out in early 2010 and recovering thereafter.

Chart 6.20: Queensland mining forecast comparison



6.4.4 The construction sector

Queensland's housing sector looked very positive heading into 2008, rising solidly against relative national weakness. Since then, however, housing starts in the State have slipped dramatically, and they are now running at around half their peak levels.

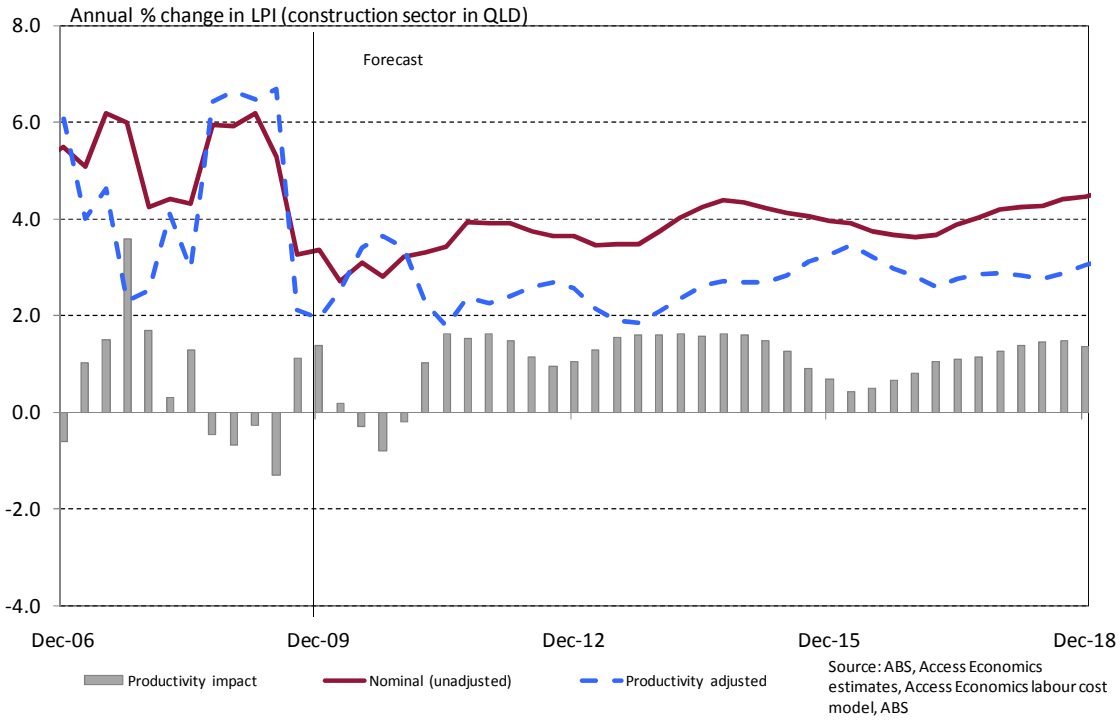
To say housing construction has been hard hit by the financial crisis is an understatement. But to suggest that Queensland – with its strong population growth and healthy underlying economy fundamentals – won't see a pickup in housing construction in coming years is to miss the point. Recovery will come, the only question is its timing and pace. Our current expectations are for the recovery to be more evident by the second half of 2010, once the loosening in the current tight credit constraints is able to have a significant impact. The steady impact of demographic destiny amid continuing good gains in population means that construction levels cannot long remain as weak as they have been recently.

So, it is likely that June 2009 marked the bottom of the trough for the pace of housing construction in Queensland – housing finance has been lifting since late 2008, reversing a trend that was a harbinger of the recent declines, although only just beginning to show up as new housing demand, with housing starts estimated to have slumped 27.5% in 2009 (although they have leapt by over 20% in the September quarter.

Queensland has a bunch of problems but, thanks to the big spending State Government and the continuing interest in resource development, engineering work is not among them. Work commenced in 2008-09 managed to surpass the levels reached during 2006-07 and 2007-08 – an impressive feat given the recent downturn in commodity prices. Yet there was some luck there too. Much of that resource-related investment was carried over from the boom years and, despite healthier commodity prices, resource-related commencements may still slow from here. Work underway includes big road projects such as work related to the North South

Bypass Tunnel, the $2 billion Cunningham Arterial, and the $1.9 billion duplication of the Gateway Bridge in Brisbane. Mining-related work includes the $2.2 billion Yarwun alumina refinery development at Gladstone, the $1 billion expansion of the Kunioon open cut coal mine by Tarong Energy, and Rio Tinto's $950 million Clermont coal mine development north of Clermont. The third stage of the Abbot Point coal terminal expansion at Bowen is ongoing at a cost of $450 million, while the Gold Coast City Council is spending $400 million on the third stage of raising the Hinze Dam. Although the State Government spend will continue for a while, medium term prospects are dominated by mining. Work under consideration is led by the $8 billion Curtin LNG proposal which includes an LNG plant and a 300 kilometre gas pipeline to the Surat Basin, and Santos' plan to spend $770 million building an LNG facility at Gladstone, with a final investment decision expected soon.

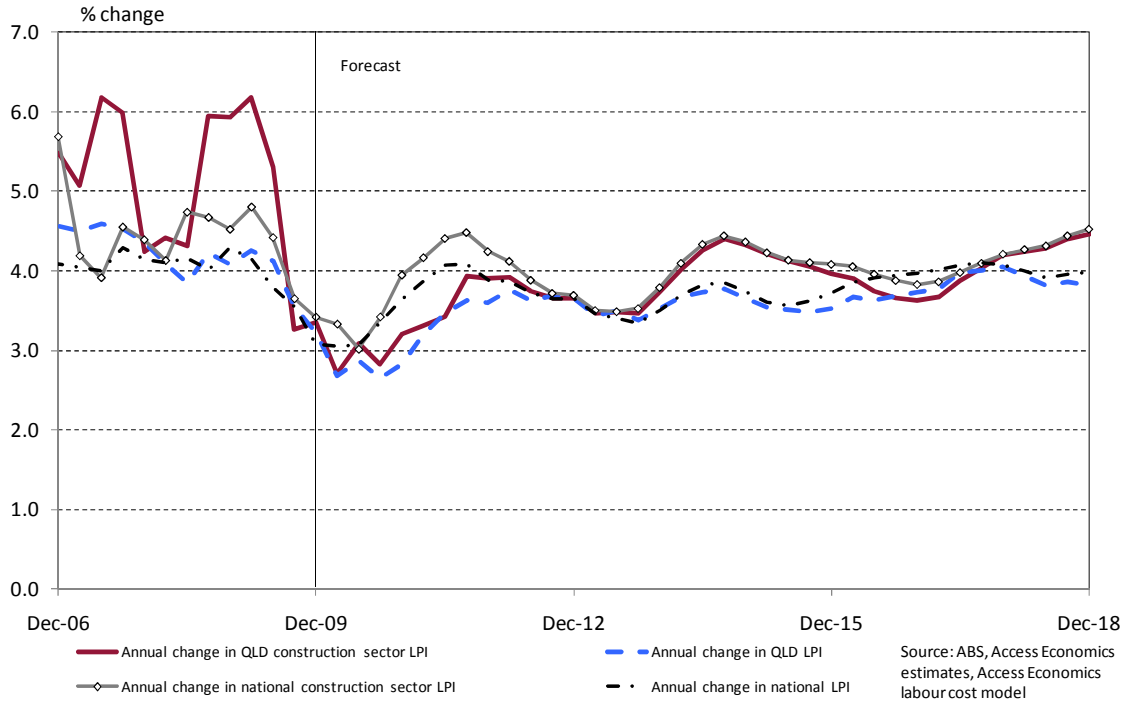
Chart 6.21: Queensland construction LPI forecasts



Source: ABS, Access Economics estimates, Access Economics labour cost model, ABS

But good news on engineering work is offset by the bad news on commercial construction. Total business investment spending dropped by a seventh in the past year. A lack of finance has been more of a problem in Queensland than in most other States. Approvals have weakened of late, suggesting a relatively soft year for activity in 2010. Work underway includes the construction of a new $1.8 billion, 750-bed Gold Coast University Hospital due to be completed in 2012, and a new $1.1 billion Queensland Children's Hospital in Brisbane. Other health-related work includes redevelopments of the Mount Isa and Cairns Hospitals and the construction of a new hospital at Mackay. Brisbane's court buildings are receiving a $600 million refurbishment, while a new $485 million correctional facility is underway at Gatton in the State's south-east. Other work under construction in Queensland includes a $360 million, 27-storey office tower in Brisbane, due to be completed in early 2012, and the $130 million redevelopment of the Carrara Stadium at the Gold Coast. Looking further ahead, work in planning includes a proposed $1.6 billion hospital for the Sunshine Coast, with a site yet to be determined, and restoring Brisbane's City Hall at a cost of $215 million.

Chart 6.22: Queensland construction forecast comparison



With that degree of slowdown in Queensland's construction pipeline, it is unlikely that the relatively strong growth seen in the State's construction wages in recent years – stronger still than national gains, as Chart 6.23 shows – will be sustained.

Wage growth in the June and September quarters in particular were among the weakest in the nation, and it looks set to stay slow until well into 2010, before staging a recovery thereafter.

6.4.5 The manufacturing sector

Queensland's manufacturing sector is relatively small, but it has been developing relatively fast as the State expands its share of the national economy.

As with the other sectors discussed in this report, manufacturers have found themselves in considerable competition with the mining sector for skilled workers – indeed at its height the problem had begun to expand to white collar sectors (even teachers and nurses) as those sectors also saw some of their workers tempted away to mining jobs.

That generally boosted wage growth in the manufacturing sector above the State average – against the national picture of relatively slow growth in manufacturing wages as the national sector struggled against imports, high interest rates and the rising $A.

Chart 6.23: Queensland manufacturing LPI forecasts

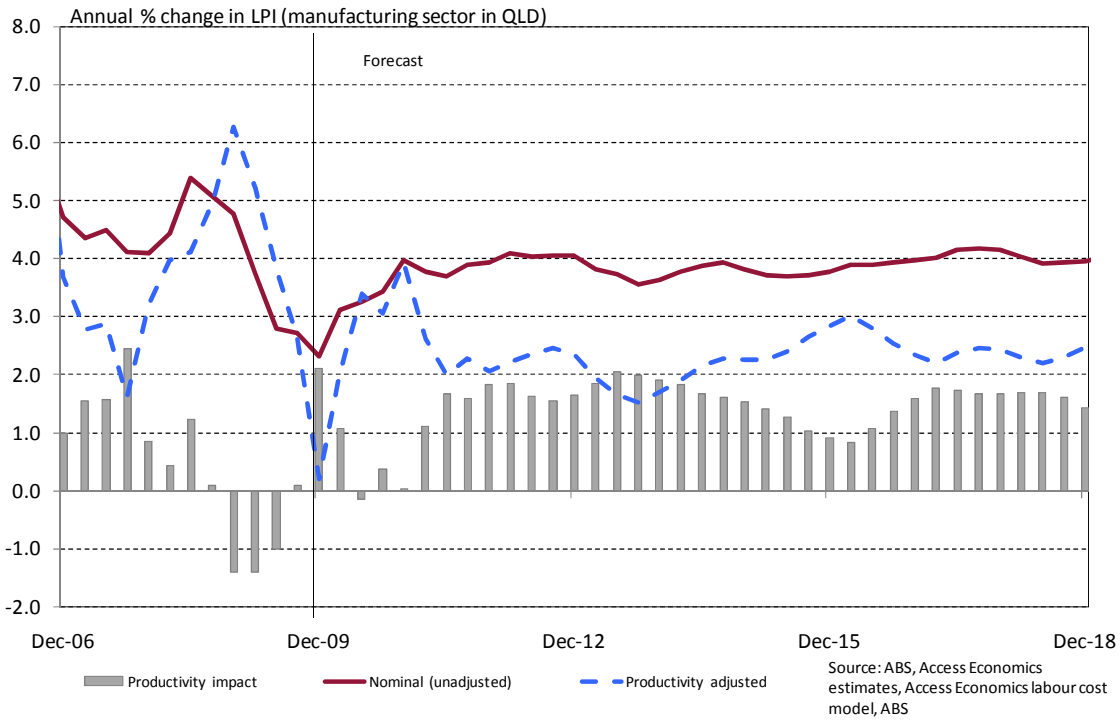
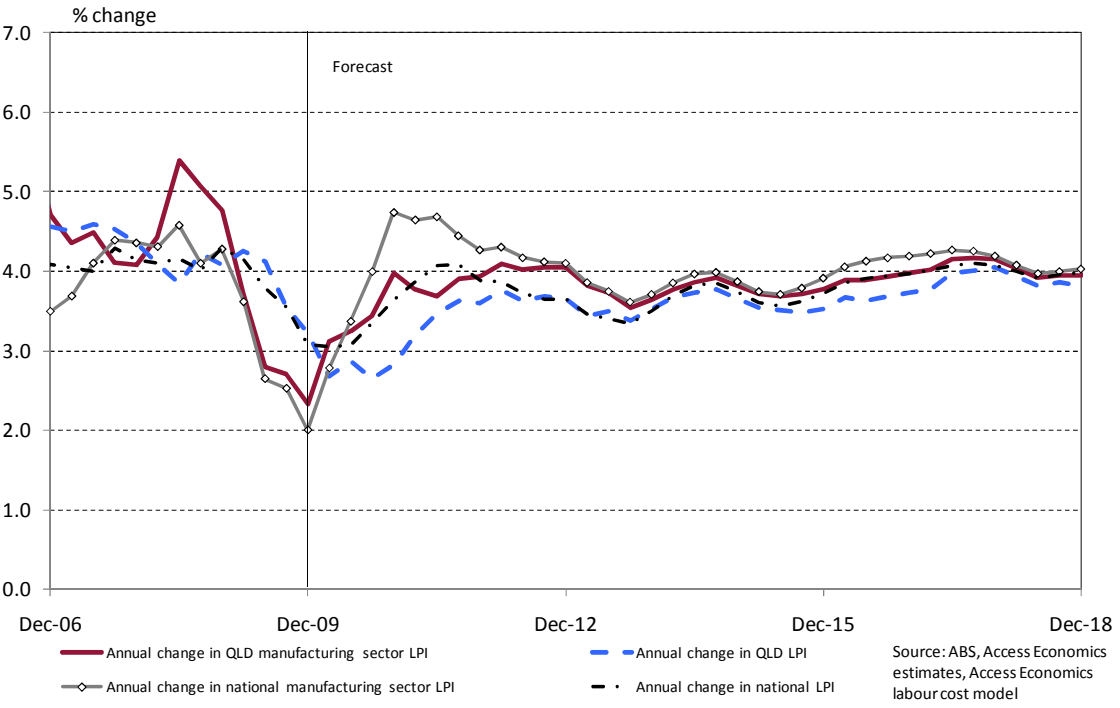


Chart 6.24: Queensland manufacturing forecast comparison



Much of the future expansion in the State's manufacturing sector will be focused around downstream manufacturing from upstream primary mining industries. Current projects under construction include the $2.2 billion second stage of the Yarwun Alumina refinery development at Gladstone – a prime example of this effect.

Although June quarter wage growth in the sector edged back up to 1.0%, the rest of the year continued a period of weakness, and a continuation of that trend is expected into the near future. Quarterly wage growth may not rebuild to a notable extent until late 2010.

Longer term, a more moderate mining outlook will limit the upward pressure on wages from competition between the sectors, with Queensland's strong population growth (boosting the relative supply of workers and further reducing upward pressure on wages) keeping average growth rates in the manufacturing LPI in Queensland marginally below the projected growth in the national average.

6.5 South Australia

South Australia's economy has grown more slowly than Australia as a whole in recent decades. In part that is attributable to the State's relatively heavy reliance on the manufacturing sector, which has also grown more slowly than Australia as a whole.

However, another notable contributor to slower output growth in South Australia has been the State's weaker population growth and its relatively older population. These demographic factors are both linked to the tendency – particularly through the 1990s – for younger South Australians to move to other States.

That said, the State's performance through the economic slowdown of the moment has been relatively good, aided by South Australia's relatively modest exposure to the hard hit finance and mining sectors. Some other areas of South Australia's manufacturing sector are more firmly footed in the current crisis (with Defence manufacturing, for example, well protected), but the impact of manufacturing weakness can be seen in the notable downturn in full time jobs in the State.

Yet this is a State making a good fist of those challenges. Growth has slowed – and was particularly weak in the twelve months to September 2009 – but recent data has been more positive, underpinning our view that South Australia can look forward to a solid 2010.

Table 6.7: South Australian wage forecasts – financial year basis

Financial year changes in South Australian nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
South Australia	3.9	2.9	3.9	3.5	3.1	3.4	3.7	3.9	3.9	3.9
Utilities	4.9	4.5	4.0	3.6	3.2	3.3	3.7	4.1	4.1	4.0
Mining	5.6	3.5	4.0	4.2	3.8	3.9	4.2	4.4	4.4	4.3
Construction	3.5	2.5	4.2	4.1	3.4	3.9	4.5	4.3	3.9	4.2
Manufacturing	3.8	2.8	4.9	4.1	3.6	3.6	3.9	4.2	4.1	4.0

Financial year changes in South Australian real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
South Australia	0.7	0.8	1.1	0.2	0.5	1.2	1.5	1.4	1.1	1.4
Utilities	1.7	2.3	1.2	0.3	0.5	1.2	1.6	1.5	1.3	1.5
Mining	2.4	1.3	1.2	0.9	1.1	1.7	2.0	1.8	1.6	1.8
Construction	0.3	0.4	1.4	0.8	0.8	1.7	2.3	1.8	1.1	1.7
Manufacturing	0.6	0.7	2.0	0.8	1.0	1.4	1.7	1.6	1.4	1.6

Financial year changes in South Australian nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
South Australia	4.4	3.0	3.5	2.8	1.6	1.1	1.6	2.2	2.1	1.9
Utilities	5.5	3.7	3.5	2.5	1.8	1.6	2.4	3.2	2.6	2.5
Mining	7.3	2.6	3.3	2.8	2.1	2.0	2.6	3.2	2.6	2.6
Construction	3.4	2.3	3.7	2.9	2.3	2.2	2.8	3.5	2.9	2.7
Manufacturing	4.1	2.5	3.9	2.6	1.9	1.6	2.3	2.9	2.3	2.2

Financial year changes in South Australian real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
South Australia	1.2	0.9	0.7	-0.5	-1.0	-1.0	-0.5	-0.3	-0.6	-0.5
Utilities	2.2	1.6	0.7	-0.7	-0.8	-0.5	0.2	0.6	-0.1	0.1
Mining	4.0	0.4	0.5	-0.4	-0.5	-0.1	0.5	0.7	-0.1	0.1
Construction	0.2	0.2	0.9	-0.3	-0.3	0.0	0.6	0.9	0.1	0.3
Manufacturing	0.8	0.3	1.0	-0.7	-0.7	-0.5	0.1	0.4	-0.4	-0.3

Table 6.8: South Australian wage forecasts – calendar year basis

Calendar year changes in South Australian nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Australia	3.3	3.5	3.8	3.3	3.1	3.7	3.7	3.9	3.9	4.0
Utilities	5.2	4.1	3.9	3.3	3.1	3.7	3.8	4.1	4.1	4.1
Mining	4.5	3.5	4.3	3.9	3.7	4.2	4.2	4.4	4.3	4.3
Construction	2.8	3.5	4.4	3.6	3.5	4.4	4.4	4.1	4.0	4.5
Manufacturing	2.8	4.4	4.5	3.8	3.5	3.9	4.0	4.2	4.1	4.1

Calendar year changes in South Australian real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Australia	1.4	1.0	0.5	0.3	0.8	1.7	1.3	1.3	1.3	1.5
Utilities	3.3	1.6	0.5	0.4	0.7	1.6	1.4	1.4	1.4	1.6
Mining	2.6	1.1	0.9	0.9	1.3	2.1	1.8	1.7	1.7	1.8
Construction	0.9	1.1	1.0	0.6	1.1	2.3	2.0	1.4	1.4	2.0
Manufacturing	1.0	1.9	1.1	0.8	1.1	1.8	1.6	1.5	1.5	1.6

Calendar year changes in South Australian nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Australia	4.4	3.2	3.2	2.3	1.1	1.4	1.8	2.3	2.1	2.0
Utilities	4.5	4.2	2.8	2.2	1.4	2.1	2.7	3.0	2.6	2.6
Mining	3.4	3.9	2.9	2.5	1.8	2.5	2.9	3.0	2.6	2.7
Construction	2.4	3.9	3.0	2.7	1.9	2.6	3.1	3.3	2.7	2.9
Manufacturing	2.8	4.0	3.0	2.3	1.4	2.0	2.6	2.7	2.2	2.2

Calendar year changes in South Australian real productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Australia	2.6	0.8	-0.2	-0.6	-1.2	-0.6	-0.6	-0.4	-0.5	-0.4
Utilities	2.6	1.7	-0.6	-0.7	-1.0	0.1	0.4	0.3	0.0	0.2
Mining	1.6	1.4	-0.4	-0.4	-0.5	0.4	0.5	0.3	0.0	0.2
Construction	0.6	1.4	-0.3	-0.3	-0.4	0.6	0.7	0.6	0.1	0.4
Manufacturing	1.0	1.6	-0.3	-0.7	-0.9	0.0	0.2	0.1	-0.4	-0.2

6.5.2 The utilities sector

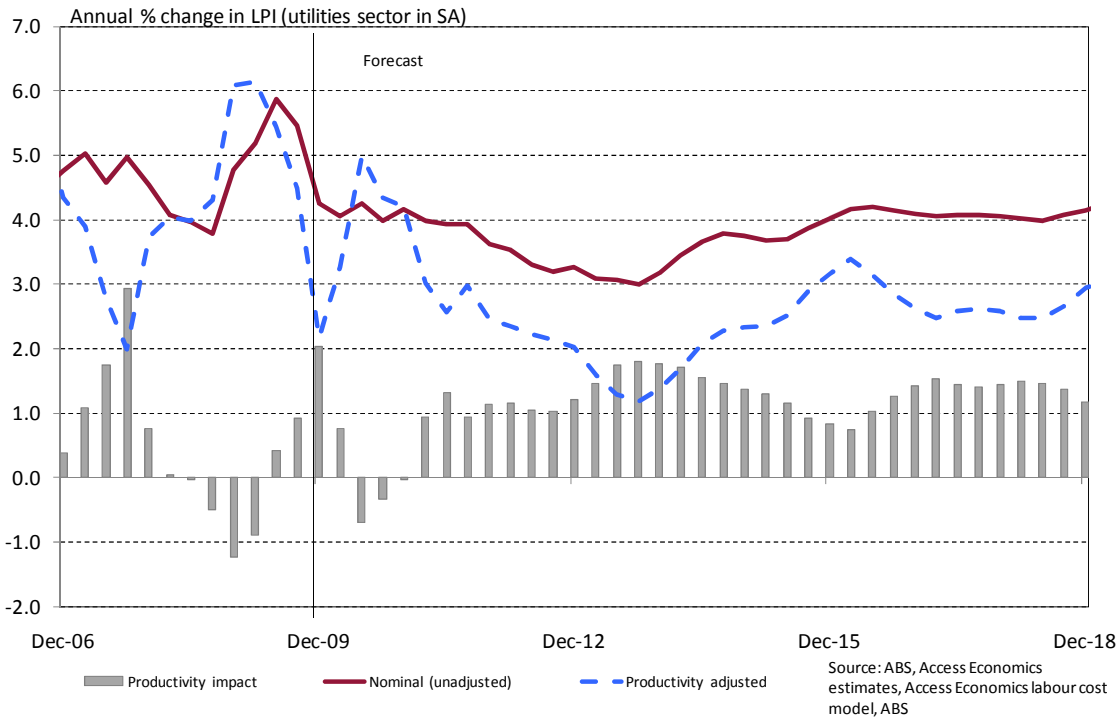
South Australia has three major electricity and gas suppliers, while water and waste management is carried out by SA Water, a government operated company.

Looking ahead, there will be a mixture of offsetting effects. A factor affecting labour demand – and hence the pace of wage settlements – will be the eventual impact on the sector of staffing for the $1.6 billion Adelaide desalination plant.

However, a key factor for the sector in South Australia will also be the pace of retirements in coming years. Nationally, the utilities sector as a whole may face a surge of retirements. The age profile of the South Australian utilities sector is – as is true of the overall State workforce – likely to be older than the national average, therefore pointing to relatively greater short term pressures from staff lost to retirement.

This loss of staff and industry knowledge will have an even greater impact in SA for two reasons. The first is that South Australia is a relatively small State competing with larger States for the same workers. The second is that, as noted, SA has a relatively older population. This means that it will be facing increasing pressure to attract or retain younger workers to a State that traditionally sees net flows of young people leaving the State.

Chart 6.25: South Australian utilities LPI forecasts

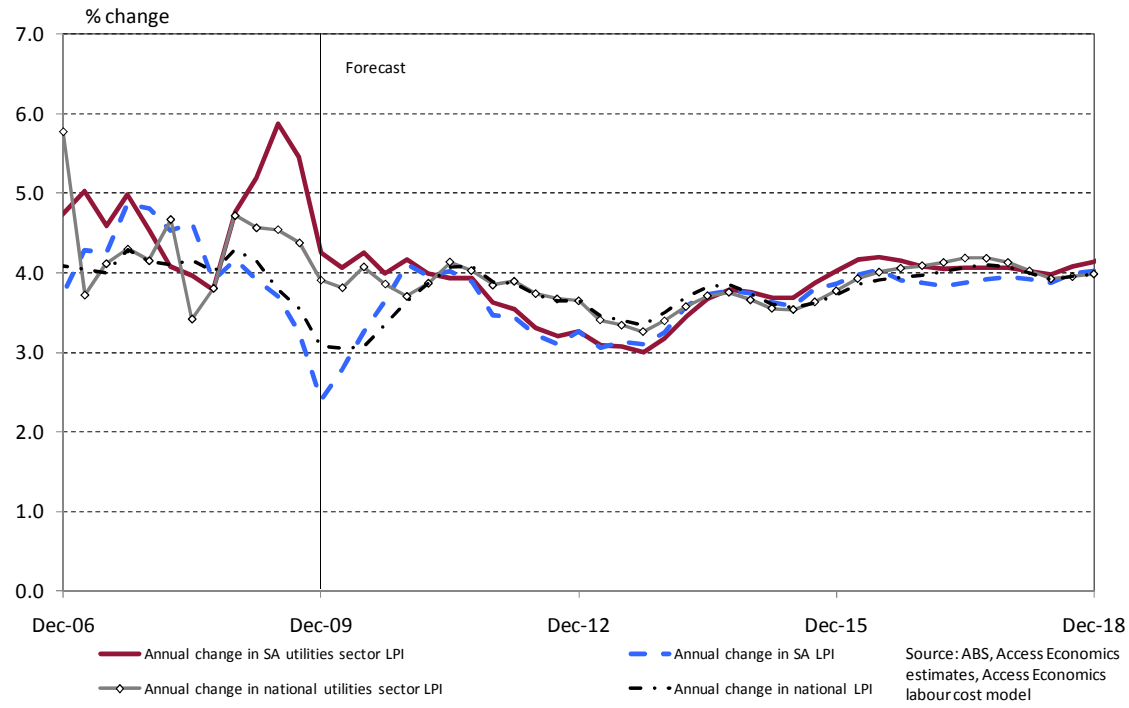


Other things equal, this competition for workers is likely to see labour costs rise faster in South Australia than that seen nationally as the State tries to retain and attract new workers. That may be overshadowed in the medium term by a lower productivity performance, a hangover from the sharp rise in local utilities was in 2008-09 (much faster than the national industry average) and less competition from other local sectors – notably manufacturing and construction, both of which saw very weak wage performances in late 2009.

It should almost be remembered that the resultant change in the age composition of the workforce in the utilities sector in the State will – other things equal – reduce measured average wage growth.

The growth in the South Australian utilities LPI had been very close to both the national equivalent and to overall SA LPI growth until the end of 2008, as Chart 6.26 shows. As general wage growth rates eased through the first half of 2009, measured utilities wage growth moved against the trend. Growth in South Australia was particularly strong, LPI growth in the 12 months to June 2009 around 1½% faster than the national average. However, local growth rates more recently have moved back in line with the national average for utilities (although sectoral growth is still well ahead of the overall State average) and should remain there for some time. The latter years (beyond 2013 in particular) may see demographic pressures again push up wage growth rates.

Chart 6.26: South Australian utilities forecast comparison



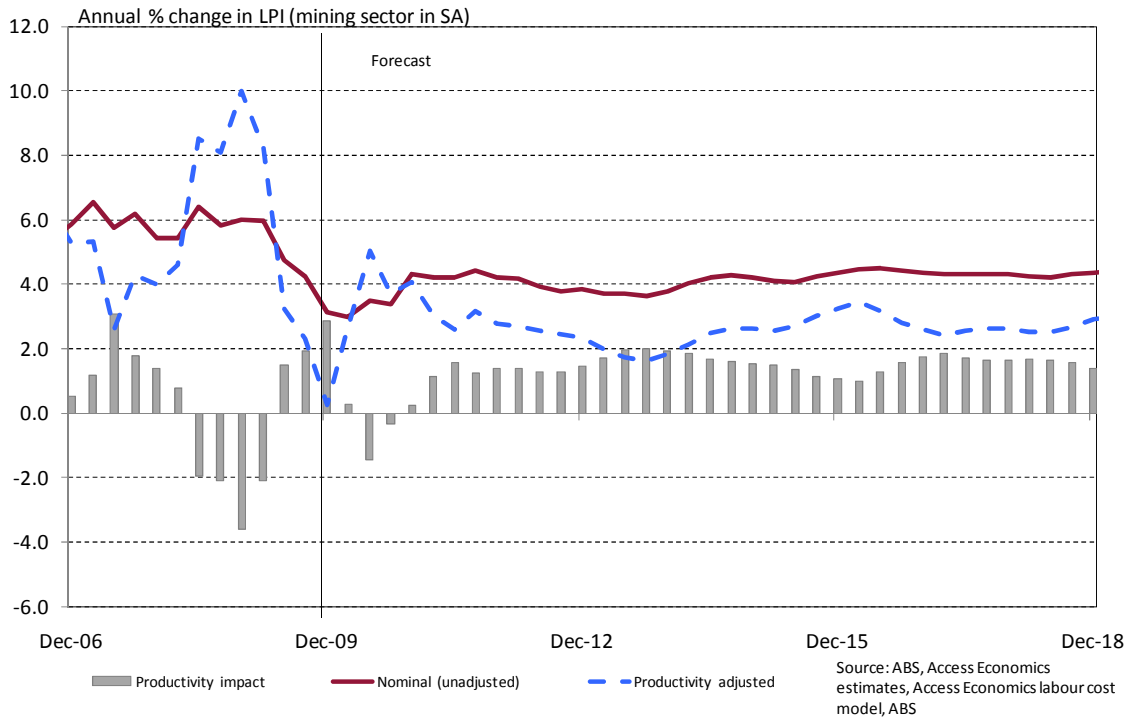
6.5.3 The mining sector

South Australia will one day be a world class producer of minerals, as the go-ahead for a huge expansion of Olympic Dam edges ever closer. But it is not a resource giant yet, and the State's short term fortunes will be won and lost more in manufacturing than in mining.

Chart 6.27 shows that productivity in the mining sector in SA has slumped in 2008 year as output fell while employment remained steady.

That partly reflects developments related to the State's ambition to become a bigger player in the Australian and global mining sector. There is indeed good potential for that to happen, most notably via Olympic Dam. Other things equal, however, the development push has tended to create jobs without, to date, much impact on output from those jobs.

Chart 6.27: South Australian mining LPI forecasts

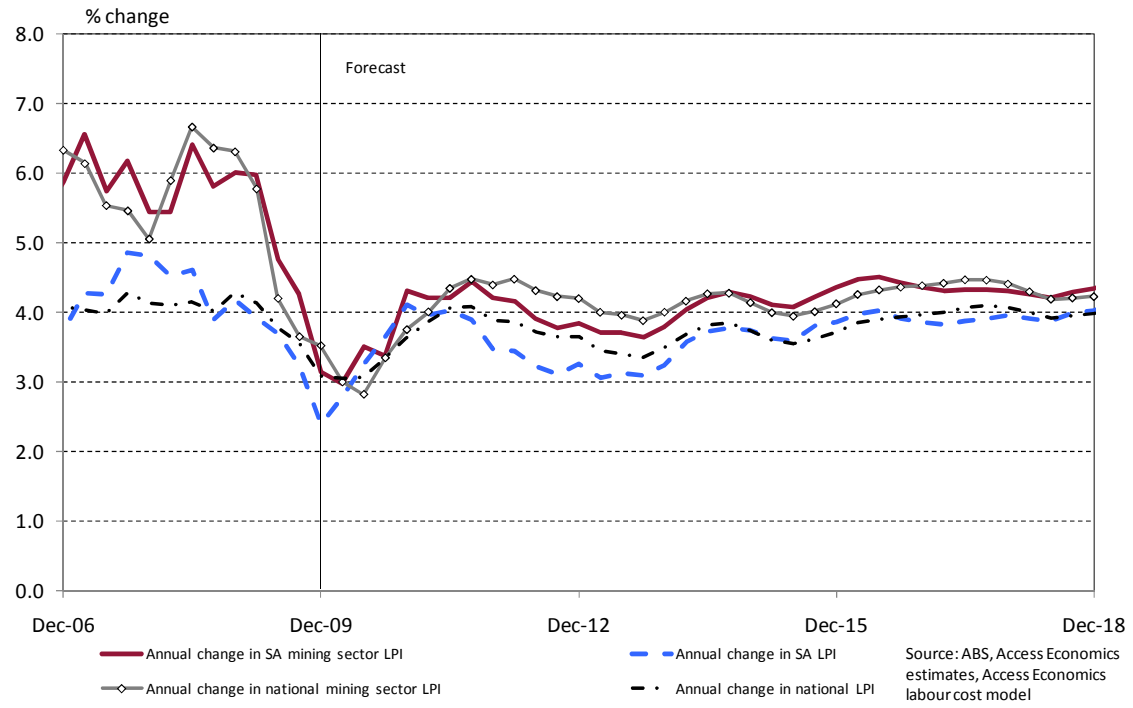


This phase artificially pushed the productivity adjusted LPI series higher, while the nominal growth rate remained relatively steady in the 5-6% range. The phase ended abruptly both as nominal wage growth eased back, but also as productivity levels increased – hiring was slowed and demand began to show signs of a tentative pick up.

The rate of nominal growth in mining wages in SA slowed as miners reassessed their expansion plans in light of the global financial crisis. Those current weaker conditions meant that a renewed acceleration in wage growth in the sector does not seem likely to establish itself until the second half of 2010 or early 2011.

However, such a recovery in the pace of mining sector wage growth in the State is still to be expected to be evident over the forecast period as the State tries to attract the labour it will need if it wants to increase its mining presence.

Chart 6.28: South Australian mining forecast comparison



Indeed, the South Australian mining sector should see increased activity in the future, regardless of whether Olympic Dam proceeds or not, in the form of mineral exploration. This increased demand for skilled labour is partly why the forecasts for SA mining LPI growth are higher than the growth for national mining LPI (as well as the South Australian total LPI).

6.5.4 The construction sector

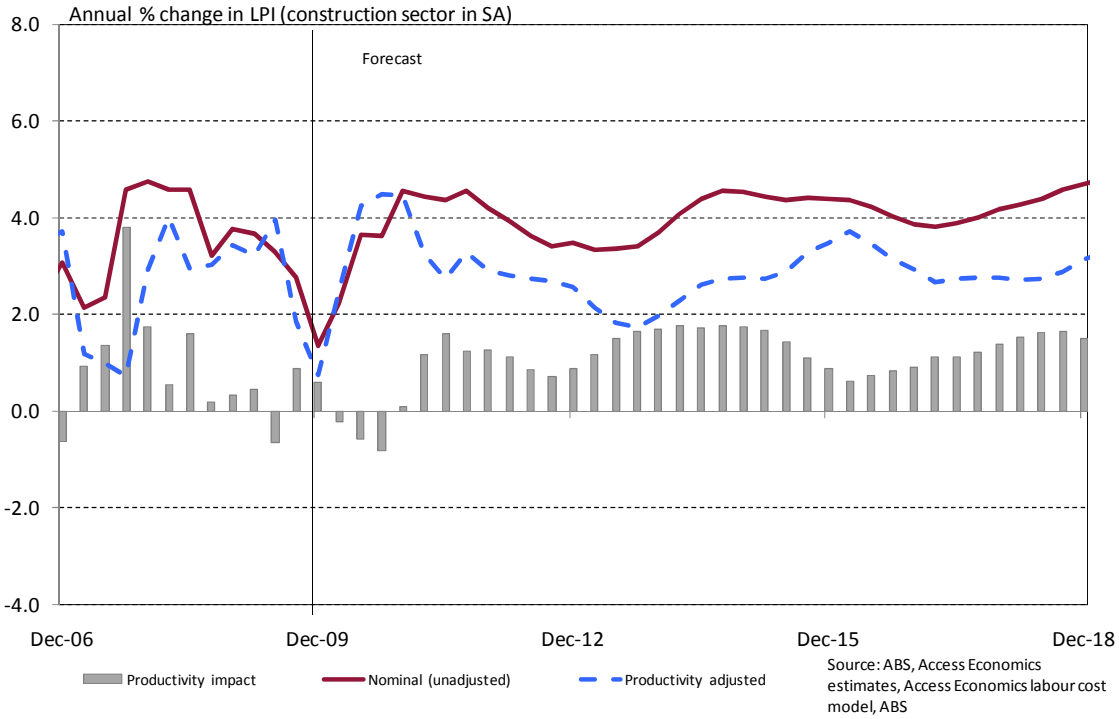
The construction sector has been quite strong in South Australia recently, which is impressive given that the State is not yet a major player in the mining sector (and so missed out on much of the increased investment during the boom).

Housing starts dropped by 10% in the past year. That was less than the fall seen nationally, where housing starts dropped by more than a sixth. However, although South Australia saw a moderate fall, there is conflict in the picture presented by the forward indicators of housing construction. Housing finance growth looks solid enough, but building approvals have yet to rebound from recent falls. That may help to explain why Adelaide's housing prices may be rising of late, but their growth still looks less feisty than that seen in some other States.

Overall business investment spending in South Australia has held up well in the past year, with relatively few businesses spooked at the prospect of spending on capital investment in SA. In part that is a recognition of the State's success in maintaining "steady as she goes" growth, avoiding both the heights of the boom and the depths of the bust. And the outlook is similarly reassuring: nothing flashy, but solid. Engineering construction work underway includes the $1.8 billion Port Stanvac desalination plant, to be completed by end-2012, along with a number of road projects such as the $860 million South Road Upgrade Program and the $560 million Gawler bypass. Construction on the new $260 million Common User Facility at Port Adelaide is pretty much done. The Eluka Basin mineral sands project, valued at $420 million, is set to be commissioned shortly, while BHP Billiton's massive $9.1 billion Olympic Dam proposal is looming as a significant boost to the value of work underway, though a final investment

decision is not expected on the project for a few more months yet. It is unusual for individual decisions to be that important to State economies, but a green light for this project would be a major boon for the State, with the upgrade expected to more than double the mine's existing output. Other projects under consideration in South Australia include a new $250 million electricity substation in Adelaide and the $130 million Kanmantoo copper mine near Callington in the Adelaide Hills.

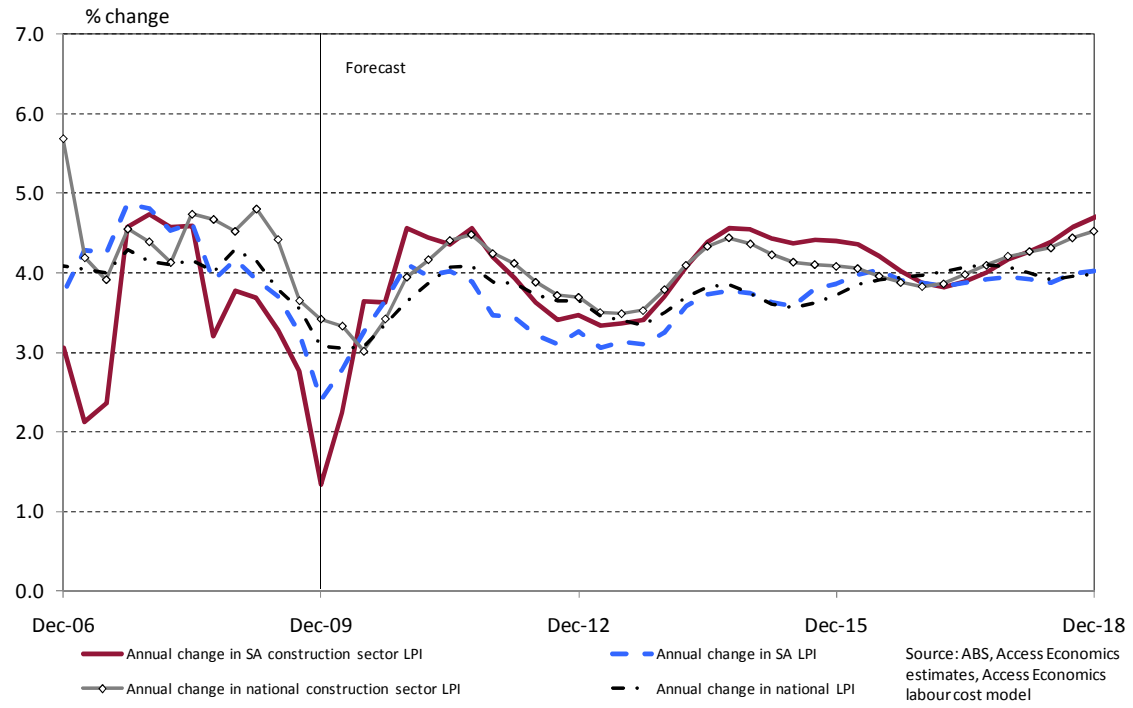
Chart 6.29: South Australian construction LPI forecasts



The news is more modest in commercial building. After recently halving, approvals in South Australia firmed of late, raising hopes for better activity levels in 2010. Work underway includes the new $409 million Edinburgh Defence precinct in Adelaide and the $260 million Techport Australia shipbuilding facility. Adelaide's AAMI Stadium is receiving a $250 million upgrade, while health-related spending includes the third stage of the Lyell McEwin Hospital redevelopment, the construction and fit-out of a new health and medical research institute near Royal Adelaide Hospital, and redevelopment of the Flinders Medical Centre.

The Queen Elizabeth Hospital is being redeveloped at a cost of $127 million, while the Royal Adelaide Hospital is also undergoing an upgrade. The Marion City Council is building a new State Aquatic Centre at a cost of $85 million which will be completed in mid-2010, while plans for the second stage of the Adelaide Oval grandstand refurbishment are well advanced.

Chart 6.30: South Australian construction forecast comparison



As the relative strength in South Australia's construction sector in recent years has been in housing (whereas in other States – and especially the resource States – it has been in engineering and commercial construction), there has been a compositional shift in the State's construction workforce versus that in the rest of Australia.

Other things equal, that has resulted in weaker growth in construction wages in South Australia over the past five years than in any other State– a trend that persists in the latest data. Moreover, ABS estimates that the State's construction LPI fell in both the June and September quarters – and annual growth to December 2009 measure just 1.5%, a very low results for any LPI series.

Those sorts of relatively slow wage growth cannot last in a single industry or State unless they are driven and sustained by continual changes in industry composition. The State's construction wages have drifted below those available elsewhere, yet both the State's economy and its construction sector are projected to outperform the nation over the next year or so.

Those cyclical factors drive the uptick in construction sector wage growth in the State through 2010 seen in Chart 6.31, while the need to catch up to competitor wages helps to maintain that above average outlook for much of the coming decade.

6.5.5 The manufacturing sector

The manufacturing sector in South Australia is dominated by automotive, wine and Defence manufacturing.

Recent manufacturing news has been grim. The fall off in the pace of car production in 2009 was unhappily high, with national production dropping from 325,000 cars to 225,000 cars. That is the lowest level of production in Australia in half a century. And if you think that

throws up question marks on critical mass for car making and auto part manufacturing in Australia, you'd be right. Much of Australia is recovering after a modest slowdown. Australian car production is also recovering, but after a shocker.

And the glut in wine production which has been building for a number of years is hitting home just as the $A is riding above US90 cents. The resultant pincer on the profits of grape growers and downstream wine manufacturing is very sharp. Prices are taking a beating. That means you can get superb quality for just a few bucks as a buyer, but the flipside of that is producers are expected to produce great quality for next to no money. That is unsustainable.

Although other areas of South Australia's manufacturing sector are more firmly footed in the current crisis (with Defence manufacturing, for example, well protected), the impact of manufacturing weakness can be seen in the notable downturn in full time jobs in the State.

This slump in manufacturing output has resulted in low (or negative) productivity for the industry, as shown in Chart 6.31 and a sharp drop in wage growth as well. The forecasts show SA manufacturing LPI rebounding in 2010 as the overall economy recovers, exchange rates normalise and the car industry begins to take full advantage of the Green Car Fund (a fund which will provide the car manufacturers with financial assistance to produce hybrid and other environmentally friendly cars). Productivity growth is expected to be good, as the sector sheds lower skilled workers in favour of more highly skilled defence and automotive manufacturers.

The growth in South Australia's manufacturing LPI is forecast to remain slightly higher than the national average over the latter part of the forecast period, ranging between 3½ and 4½%.

Chart 6.31: South Australian manufacturing LPI forecasts

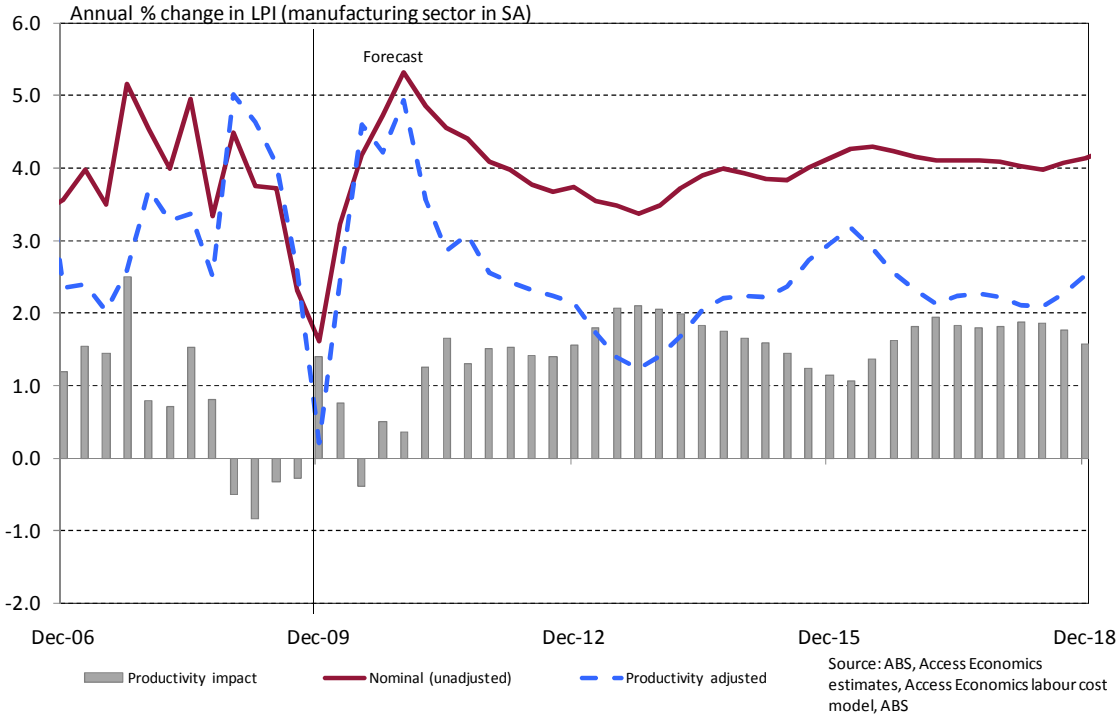
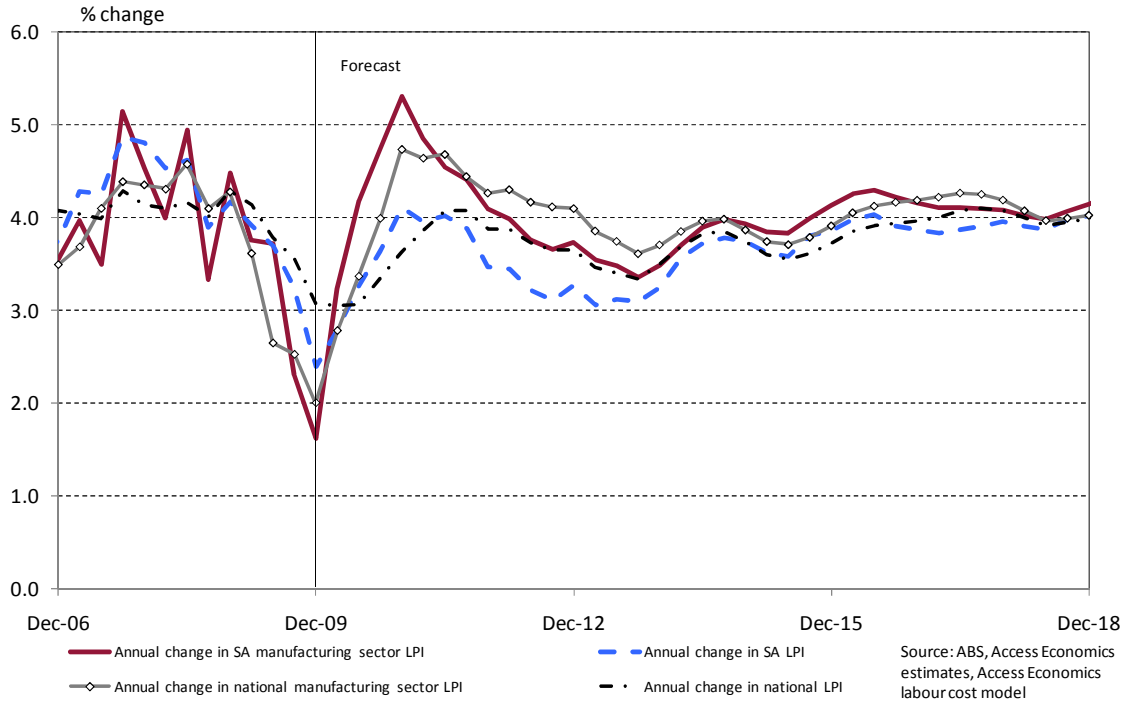


Chart 6.32: South Australian manufacturing forecast comparison



6.6 Australian Capital Territory

Even with rising interest rates through the course of 2010, the pace of spending in the ACT is projected to continue to recover at solid rates. However, the need for Federal fiscal restraint may mean its recovery is relatively muted compared with those seen elsewhere.

As many have said before, if you are going to ride out a downturn, Canberra is as safe a spot to do it as any. The Rudd Government is hiring, and doing so at enough pace to have staunched the earlier falls in ACT jobs and start to drive some decent job gains. That has allowed the unemployment rate to level off, remaining at enviably low levels. And whereas private sector wage growth has slowed, public sector hasn't. So with jobs now growing and wage gains solid, that provides a firmer floor to ACT incomes than in much of the rest of Australia.

In turn, families are more willing to spend that money than they have been for a while. Lower interest rates unleashed a lift in the pace of ACT retail spending growth, and the early evidence is that the recent rises in interest rates haven't yet halted the ACT's retail recovery. Even the Federal-inspired school stimulus plan seems to have been rolled out earlier and more completely in the ACT than elsewhere.

Moreover, Canberra's housing sector is seeing increasing strength in its forward indicators despite a recent easing in the pace of population growth in the Territory.

The ACT is a small jurisdiction, with only a small manufacturing presence, while the mining sector is virtually non-existent. The utilities sector in the Territory is dominated by ActewAGL.

The size of these sectors is highlighted by the size of industrial production (the output from the utilities, manufacturing and mining sectors) in the Territory. In other States, industrial production accounts for around one in every six dollars of output, however the matching

figure is one in 30 in the Territory. Access Economics forecasts that this ratio will widen further in the short term, as commercial construction in the Territory is expected to weaken, leaving the ratio at one in every 32 dollars by 2012.

Note that the industries discussed for the ACT are much smaller than the same industries in other States, and as such, the ACT sectoral data is subject to a great deal of volatility.

Table 6.9: Australian Capital Territory wage forecasts – financial year basis

Financial year changes in Australian Capital Territory nominal Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Australian Capital Territory	3.9	3.4	3.1	3.2	3.2	3.4	3.6	3.9	4.4	4.2
Utilities	4.4	4.5	3.0	3.2	3.3	3.5	3.8	4.0	4.6	4.3
Mining	5.2	3.4	3.0	3.8	3.7	3.8	3.9	4.1	4.7	4.5
Construction	4.1	3.0	3.1	3.5	3.2	3.7	4.2	4.1	4.3	4.5
Manufacturing	4.1	4.9	3.8	3.4	3.3	3.3	3.5	3.8	4.4	4.2

Financial year changes in Australian Capital Territory real Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Australian Capital Territory	0.5	1.0	0.1	0.2	0.6	1.3	1.6	1.4	1.7	1.6
Utilities	1.0	2.2	0.0	0.3	0.7	1.4	1.7	1.5	1.8	1.8
Mining	1.7	1.1	0.1	0.8	1.2	1.7	1.9	1.6	1.9	2.0
Construction	0.6	0.7	0.2	0.5	0.7	1.6	2.2	1.6	1.5	2.0
Manufacturing	0.6	2.5	0.8	0.4	0.8	1.2	1.5	1.3	1.7	1.7

Financial year changes in Australian Capital Territory nominal productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Australian Capital Territory	3.8	4.3	4.0	1.6	0.7	0.1	0.9	3.0	3.0	3.5
Utilities	5.2	3.9	2.6	2.0	1.8	1.6	2.4	3.3	3.2	3.0
Mining	7.1	2.6	2.5	2.3	2.0	1.8	2.4	3.1	3.0	2.9
Construction	4.1	3.0	2.7	2.3	2.1	1.9	2.5	3.4	3.4	3.1
Manufacturing	4.4	4.6	2.9	1.8	1.5	1.2	1.9	2.7	2.6	2.4

Financial year changes in Australian Capital Territory real productivity adjusted Labour Price aggregates

Annual % change	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Australian Capital Territory	0.4	2.0	1.0	-1.3	-1.8	-1.9	-1.1	0.5	0.3	0.9
Utilities	1.7	1.6	-0.3	-0.9	-0.7	-0.4	0.4	0.8	0.5	0.5
Mining	3.6	0.4	-0.4	-0.7	-0.5	-0.2	0.4	0.6	0.3	0.4
Construction	0.7	0.7	-0.2	-0.7	-0.4	-0.1	0.5	0.9	0.6	0.6
Manufacturing	1.0	2.3	0.0	-1.1	-1.0	-0.8	-0.1	0.2	-0.1	-0.1

Table 6.10: Australian Capital Territory wage forecasts – calendar year basis

Calendar year changes in Australian Capital Territory nominal Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian Capital Territory	3.9	2.9	3.3	3.2	3.1	3.7	3.6	4.3	4.4	4.0
Utilities	5.1	3.3	3.1	3.3	3.2	3.8	3.7	4.4	4.6	4.1
Mining	4.4	2.9	3.5	3.8	3.6	4.0	3.9	4.5	4.7	4.3
Construction	3.8	2.7	3.5	3.3	3.3	4.2	4.1	4.2	4.4	4.6
Manufacturing	4.4	4.5	3.5	3.4	3.2	3.6	3.5	4.2	4.4	4.0

Calendar year changes in Australian Capital Territory real Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian Capital Territory	1.7	0.3	0.1	0.4	0.8	1.7	1.3	1.6	1.7	1.5
Utilities	2.9	0.7	0.0	0.5	0.9	1.9	1.4	1.7	1.9	1.6
Mining	2.2	0.2	0.4	1.0	1.3	2.1	1.5	1.8	2.1	1.8
Construction	1.6	0.1	0.4	0.6	1.0	2.3	1.8	1.5	1.8	2.1
Manufacturing	2.2	1.8	0.4	0.6	0.9	1.6	1.2	1.5	1.8	1.5

Calendar year changes in Australian Capital Territory nominal productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian Capital Territory	4.4	5.0	2.4	1.1	0.4	0.3	2.0	3.0	3.5	3.3
Utilities	4.5	3.7	2.0	2.0	1.4	2.2	2.8	3.4	3.2	2.8
Mining	3.3	3.5	2.1	2.3	1.6	2.2	2.7	3.2	3.0	2.8
Construction	3.5	3.4	2.1	2.3	1.7	2.3	2.9	3.6	3.3	3.0
Manufacturing	4.5	4.4	2.0	1.8	1.1	1.7	2.2	2.8	2.6	2.3

Calendar year changes in Australian Capital Territory real productivity adjusted Labour Price aggregates

Annual % change	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian Capital Territory	2.2	2.3	-0.7	-1.6	-1.8	-1.6	-0.3	0.4	0.9	0.8
Utilities	2.3	1.0	-1.1	-0.7	-0.8	0.3	0.5	0.8	0.6	0.3
Mining	1.1	0.8	-1.0	-0.5	-0.6	0.3	0.4	0.5	0.4	0.3
Construction	1.3	0.7	-1.0	-0.4	-0.6	0.4	0.6	0.9	0.7	0.6
Manufacturing	2.3	1.7	-1.1	-1.0	-1.2	-0.2	-0.1	0.2	0.0	-0.2

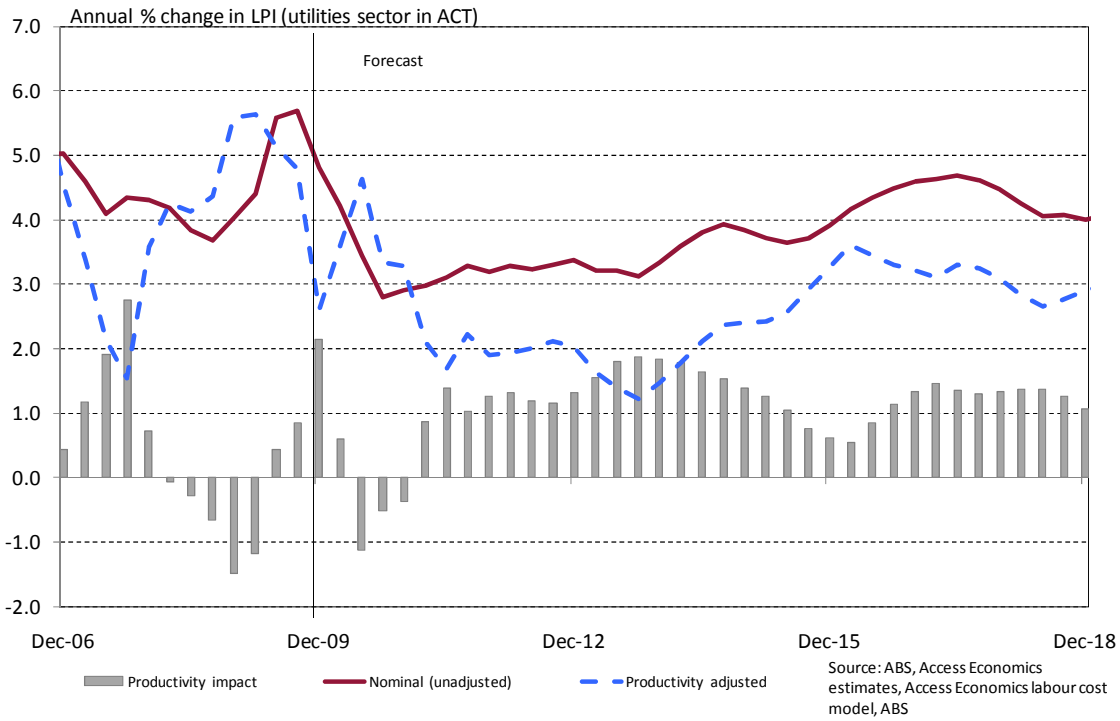
6.6.2 The utilities sector

ActewAGL provides electricity, gas, water and waste services to Canberra.

After an acceleration in estimated LPI growth in the ACT utilities sector to a little over 5% in the year to the June quarter, growth rates have eased somewhat, possibly back to 5% in the year to December. However, that strength in growth broadly mirrors a matching move in ACT construction wages, with the lift in the pace of commercial construction – especially office space – across the years 2006 to 2008 adding to the demand for workers for that sector.

However, the ACT economy is now growing relatively slowly, and the commercial construction sector has seen the pace of activity decelerate notably.

Chart 6.33: Australian Capital Territory utilities LPI forecasts

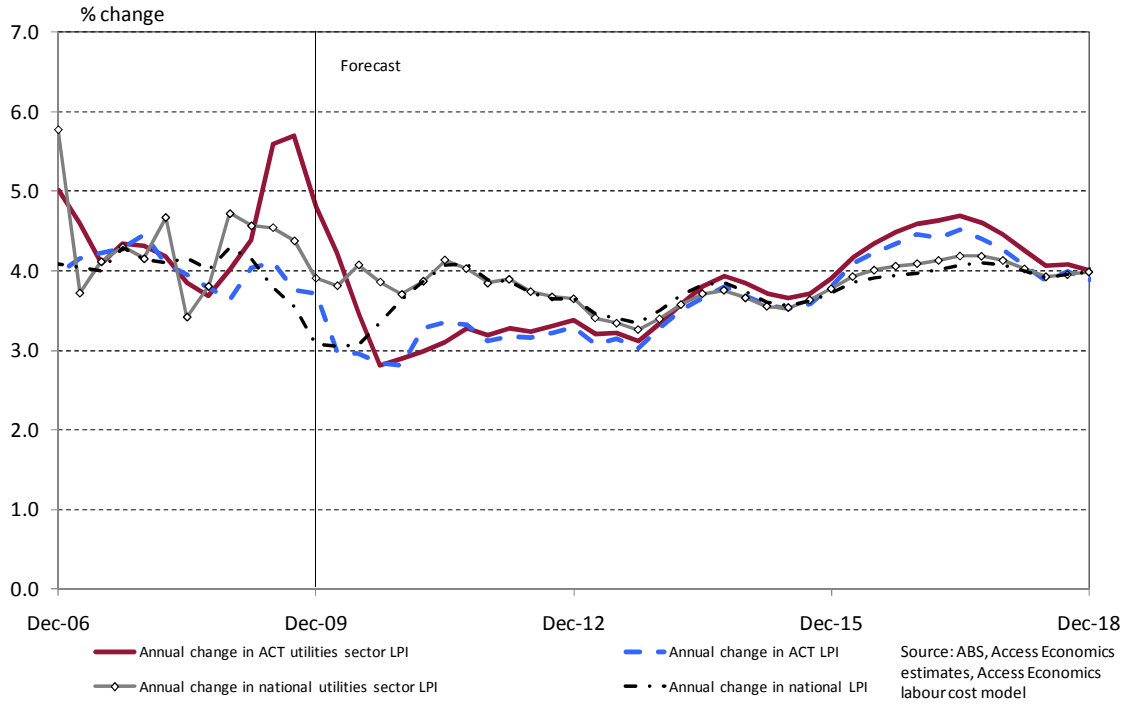


Those two factors are reducing the competition for workers from other sectors, and Charts 6.33 and 6.34 point to a slowing in the pace of wage gains in the ACT utilities sector over the next year and a half.

Chart 6.34 compares the ACT utilities and total LPI with their national equivalents. As is true across the ACT as a whole and most of the ACT sectors analysed in this report, the period from 2011 to 2014 is projected to be marked by slower economic growth, with that weighing on the expected growth in wages as well.

This phase is predicated on the expected need to repair the Federal Budget in coming years. To the extent that occurs by cutting spending rather than raising taxes, it implies a relatively weaker ACT economy at that time.

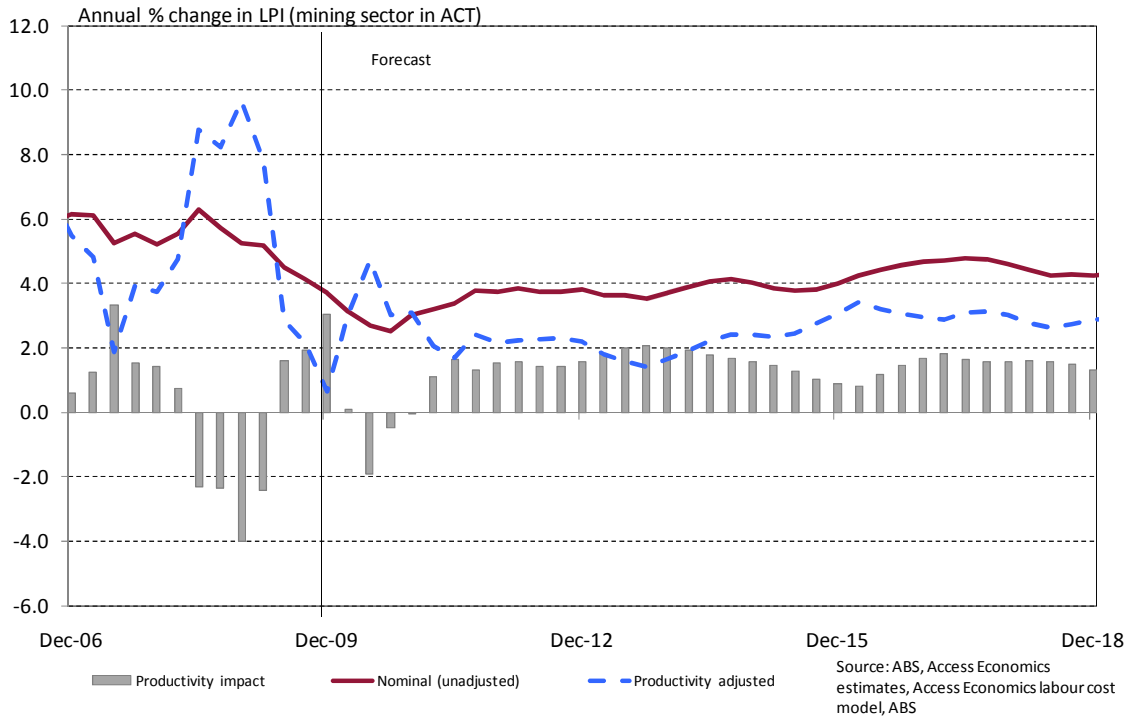
Chart 6.34: Australian Capital Territory utilities forecast comparison



6.6.3 The mining sector

The mining sector in the ACT is very small, with a quarry and a couple of mining exploration companies making up the bulk of the sector. The sector is so small that the mining industry does not always show up as having any employees in the ACT in the ABS labour surveys.

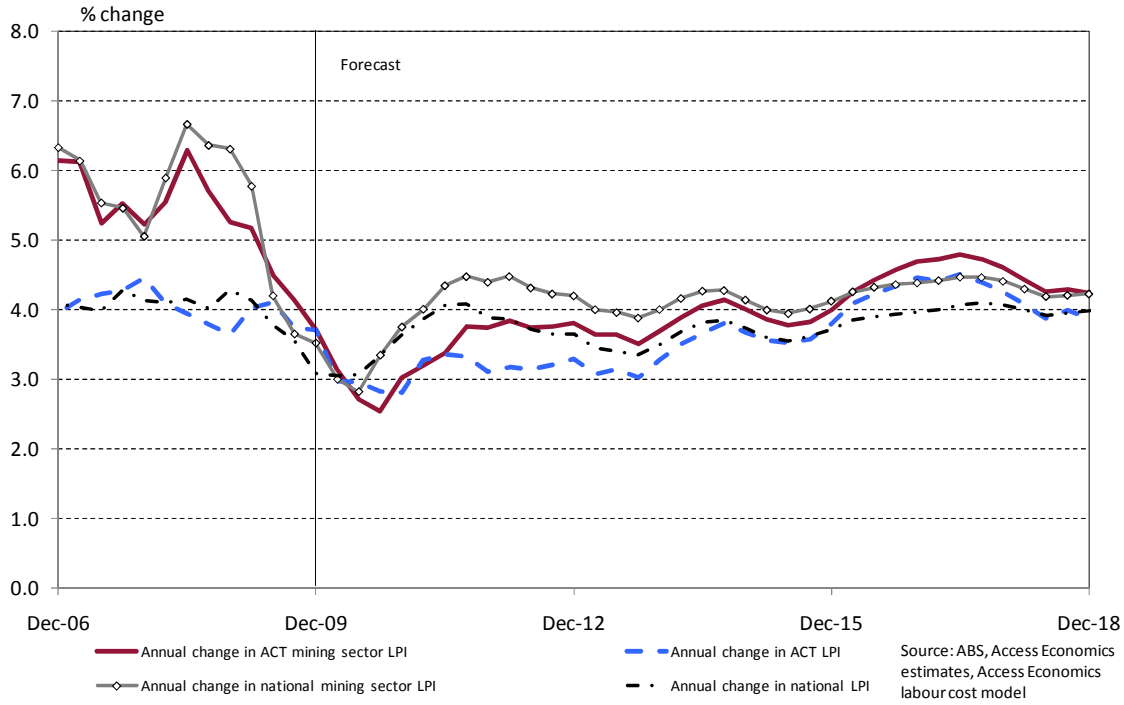
Chart 6.35: Australian Capital Territory mining LPI forecasts



Not surprisingly, wage growth rates are not released by the ABS due to confidentiality restrictions. The ACT is competing with mining heavyweights such as WA and Queensland for labour, which keeps pressure on labour costs, while average incomes in the Territory are the highest in the nation. However, these are unlikely to be sufficient to outweigh the generally weaker economic conditions in the ACT and the resultant drag on local sector wages.

Chart 6.36 shows that the ACT mining LPI follows the national mining LPI sharply down in the short term, before rebounding in the medium term. LPI growth in the sector is forecast to be lower than the national average through to 2014, although ahead of rates in the broader ACT economy. The forecasts remain well below the growth rates seen in recent history.

Chart 6.36: Australian Capital Territory mining forecast comparison



6.6.4 The construction sector

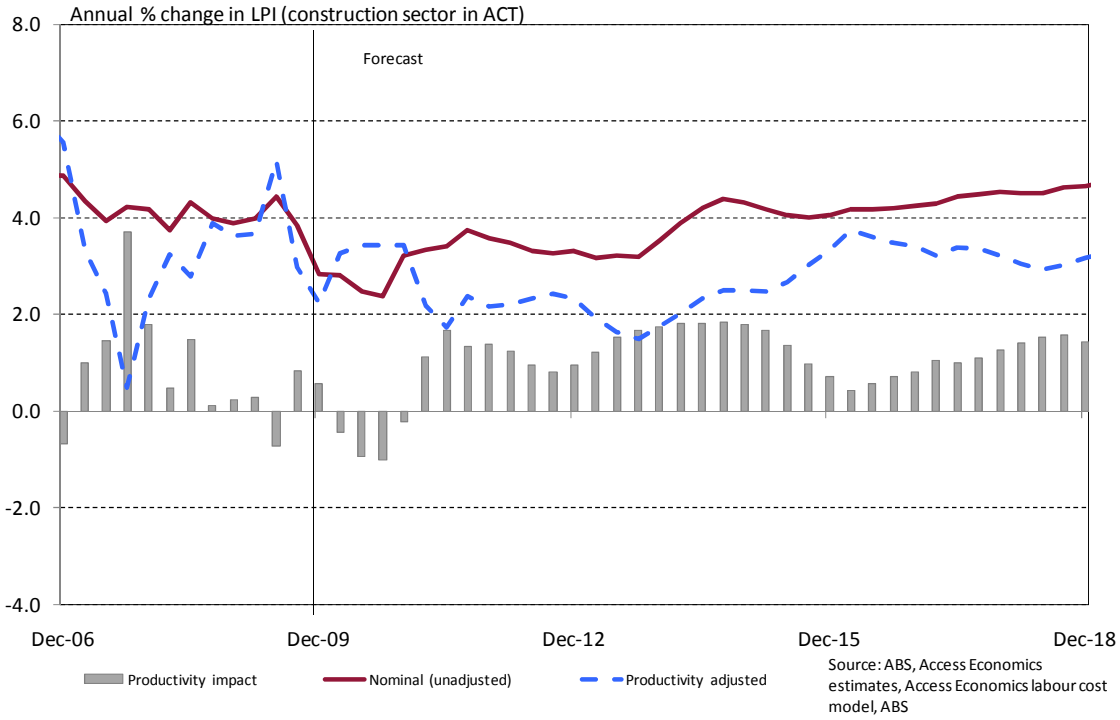
The construction sector in the ACT surged in recent years as a burst in Federal spending resulted in increased office and retail construction. This increased activity saw labour cost growth also lift notably – maintaining 6-10% annual growth rates over the last three years.

However this level of new construction was never sustainable, and Chart 6.37 shows that growth in the construction LPI is similarly expected to moderate in the short term – though not as much as some other States.

That said, and unlike most other States examined in this report, LPI growth in the ACT construction sector is expected to remain moderate over the medium term as well. The ACT depends very much on the Federal Government for much of its economic activity, and in the same way that the stimulus packages were good for the ACT economy, the tightening in coming years in order to get the Federal Budget out of deficit will weigh on the ACT economy in general, but perhaps on its construction sector in particular.

That is because the winding back of spending by the Federal Government in the medium term will – other things equal – decrease the demand for new office space and the demand for housing in the ACT, although new local government initiatives, such as the revived land rent scheme, may assist in sustaining housing demand somewhat. However if the Federal Government is trying to cut spending, then the growth in public servants is likely to be smaller than otherwise, which will reduce housing demand in the Territory.

Chart 6.37: Australian Capital Territory construction LPI forecasts



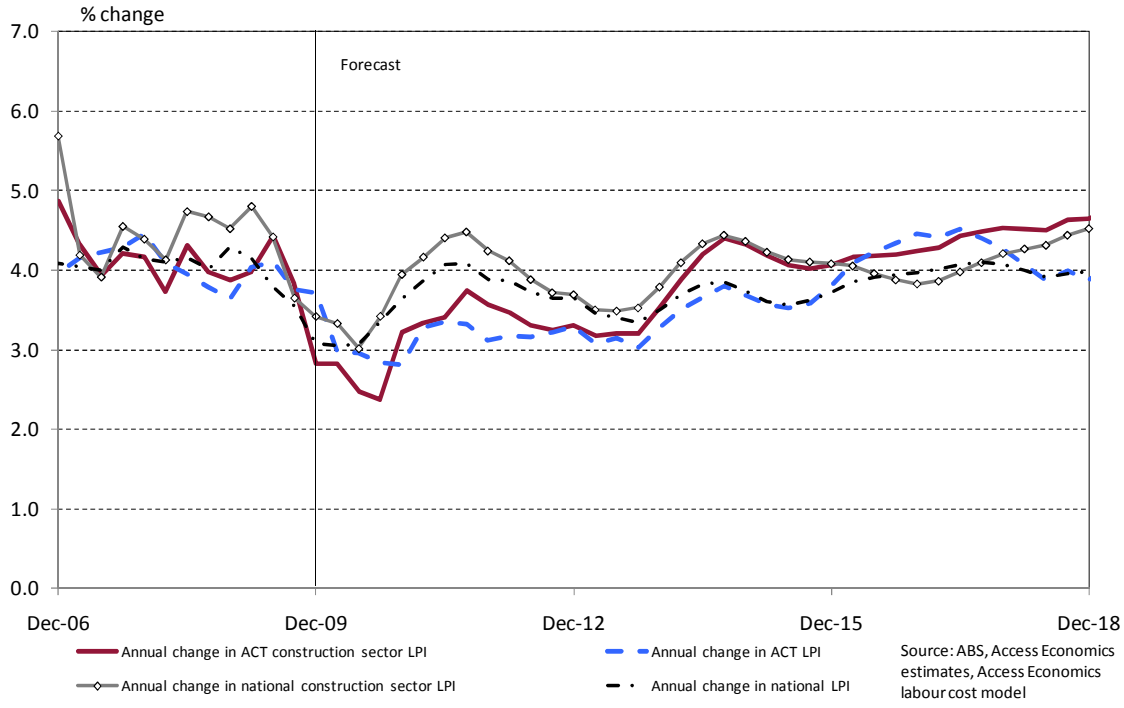
Engineering construction activity eased of late, but looks set to rise from here. Having been promised for some time, the expansion of the Cotter Dam from 4 to 78 gigalitres in order to help secure long term water supplies to Canberra is finally underway, with the cost of the project recently revised up to $363 million. The $350 million upgrade to the Canberra Airport is also ongoing, including a new passenger terminal, runway extension, road upgrades, and parking, while the $84 million duplication of the Gungahlin Drive Extension is underway as well. A number of other road upgrades are also taking place, including duplicating Flemington Road and replacing the bus interchange at the Belconnen shopping centre. Work in planning includes the $155 million construction of a pipeline from the Murrumbidgee River to the Googong Dam, with work set to start soon.

Commercial building activity has slowed from its 2007 peak. A new $133 million ASIO HQ is underway at Russell, and is due to be completed by end-2010. Work on the $93 million National Gallery of Australia refurbishment is drawing to a close, while the new $67 million Gungahlin College will open at the start of 2011. Work on an office complex for the Federal Department of Health and Ageing is almost complete, while plans are being finalised for a $100 million expansion and renovation of the Belconnen shopping centre.

Chart 6.38 shows the extent of the wage cycle expected in this sector. Wage gains are projected to weaken further in response to the slowdown in commercial construction now

underway, though a peak in the ACT housing construction cycle in 2013-14 aids gains at that time.

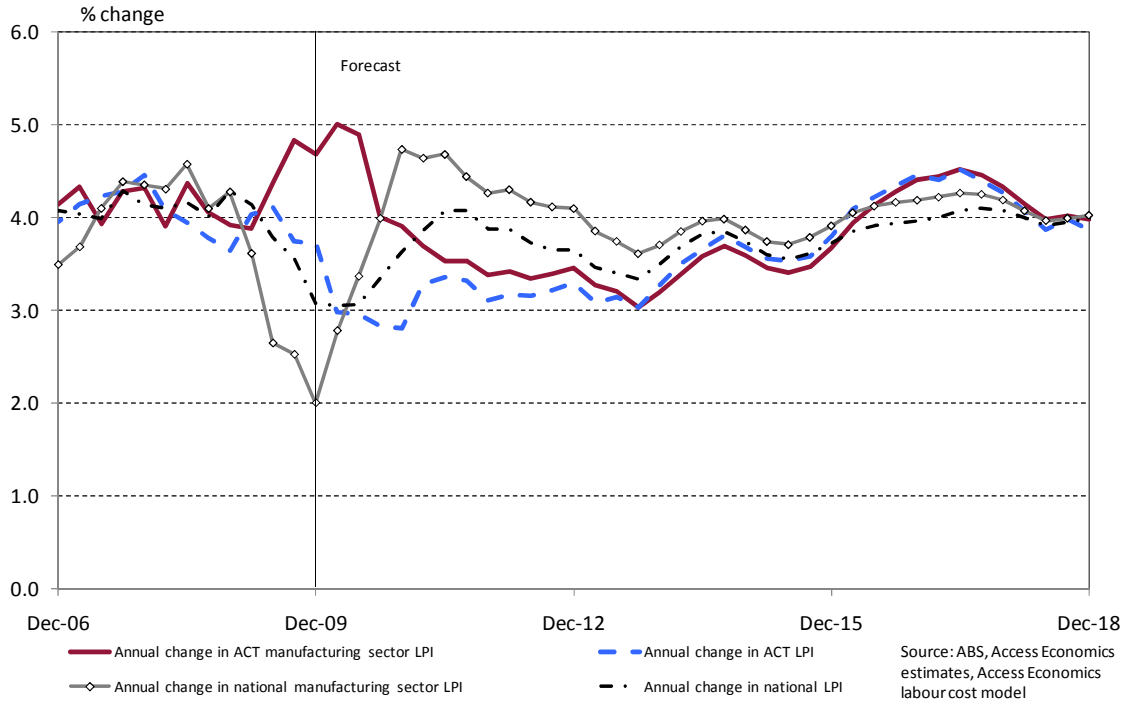
Chart 6.38: Australian Capital Territory construction forecast comparison



6.6.5 The manufacturing sector

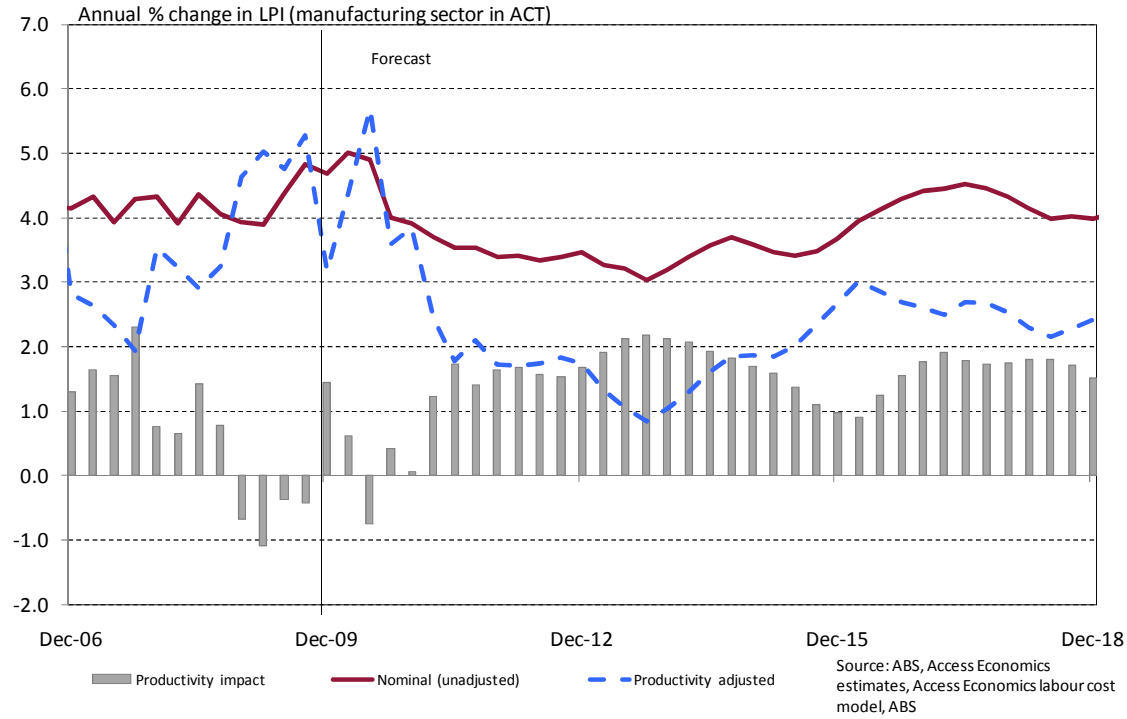
The manufacturing sector in the ACT is also small. Growth in the manufacturing LPI is estimated to have lifted recently – moving against the extremely weak national result – but this may not be sustainable amid the slowdown in the national manufacturing sector currently underway.

Chart 6.39: Australian Capital Territory manufacturing LPI forecasts



Charts 6.39 and 6.40 show that ACT manufacturing LPI growth is expected to fall back to 4% over the year by the September quarter 2010 and may ease further if local economic weakness remains.

Chart 6.40: Australian Capital Territory manufacturing forecast comparison



Appendix A: Some rules of thumb for wage forecasting

Inflation has three main drivers:

- wage gains (or, to be more exact, wages relative to productivity),
- import prices, and
- the degree of pressure on prices coming from the spare capacity (or the lack of it) in the economy.

The Reserve Bank tries to keep consumer price inflation (CPI) to an average of 2 to 3% a year across the business cycle. That is an average both across time and across categories. For example, retail prices for imports have grown relatively slowly across the past decade, while prices for services have tended to grow faster.

Aiming for average CPI of 2 to 3% also requires aiming for average inflation in labour costs of the same.

- That is exactly what does occur – growth in nominal unit labour costs is close to growth in the CPI over time.
- Many people in the corporate world find that strange at first blush. After all, they see their own wages and those of people around them growing at faster rates.
- However, there are two other steps to take account of in translating wage growth into labour cost growth.
  - **First**, the workforce sees entries and retirements each year, with those retiring on higher earnings than the juniors who are entering. To look at the wage growth of individuals as a proxy for wage growth more widely is to forget that the group of individuals gains a year in experience and seniority every year whereas, due to retirements, the workforce as a whole sees rather less of an increase in experience and seniority every year.
  - **Second**, whether considering a specific group of individuals or the workforce as a whole, you have to remember that we get better at working over time – for example, thanks to working with better equipment. This growth in labour productivity saves money. For example, the work that last year took an hour may this year take 58 or 59 minutes. In turn, that productivity growth reduces the impact of rising wages on labour costs.

The above therefore helps to identify some rules of thumb:

- Across a long enough period, growth in prices will tend to average somewhere in the Reserve Bank's target range of 2 to 3% a year – perhaps 2.5%.
- The same is true for labour costs for a unit of output (nominal unit labour costs) – also averaging somewhere close to 2.5%.
- However, wages for the 'average' worker will tend to grow faster – the sum of both prices and productivity. As the latter has averaged around 1.75% over the past three decades, that might suggest that wages for the 'average' worker will grow by perhaps 4.25% in a typical year.

- There will be a divergence between wage growth on the one hand and price and productivity growth on the other over the course of a business cycle. When demand is strong relative to the available supply of workers, wage growth will exceed this rule of thumb measure – and vice versa.
- Moreover, wages for the typical 'specific' worker will tend to grow faster still, as their seniority and experience increases each year. It is harder to identify a general rule of thumb here, as the reward for seniority and experience varies notably across sectors and occupations, as well as across the business cycle. That said, wages for the typical 'specific' worker will tend to grow by perhaps 5.25% in a typical year.

Appendix B: Regional wage variations in Australia

There are some natural limits to the extent or period to which wages and prices can be notably higher or lower in one State or region versus another.

For example:

- Workers can move between and within States ("we'll leave Adelaide and try our luck in Perth").
- Workers can move to Australia from other nations:
- Permanent and temporary (visa 457) migration may be bureaucratically slow to move, but has the potential to ease a transition period.
- As do shifts by permanent residents (Australians who decide to go to London next year rather than this, or to come back from working in Canada because prospects are now better here).
- Shifts by New Zealanders (who face fewer restrictions on migration than do those from other nations).
- Shifts in wages can and will see people substitute into growing areas related to their existing skills ("I'll leave construction and try my luck in mining").
- Ditto shifts in relative wages can delay retirements or exits ("We'll have baby next year"), as well as encourage new entrants ("I'm going to study electrical engineering, because wages in that occupation are good").
- Shifts in the use of labour due to changes in relative costs ("We'll use more Enrolled Nurses and less Registered Nurses because wages for Registered Nurses have risen relative to those for Enrolled Nurses").

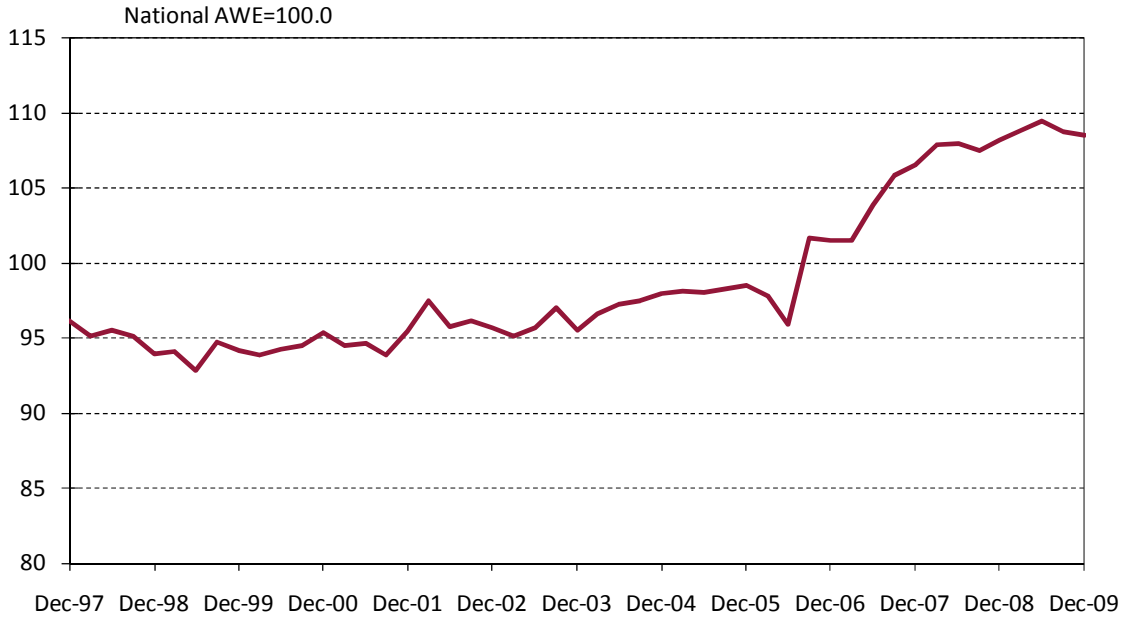
Many of these 'equilibrating factors' can be very slow to operate, meaning that divergences in wages across States (and, for that matter, across sectors and occupations within a State) can persist for long periods.

However, they will tend to narrow over time as these supply and demand factors in labour (and materials) markets gradually make their presence felt.

An example is Western Australian wages relative to national wages, as seen in the chart below.

That ratio rose during the boom, but is now starting to level off, and the next move in this ratio is likely to be downward.

Chart B.1: Western Australian wages relative to national wages



Appendix C: Macroeconomic and wage forecasting methodology

Introduction

The model used by Access Economics to forecast the LPI by State and by industry has been created as a subsidiary component of our Access Economics Macro (AEM) model. Key aggregates, including overall wage and productivity movements, and projections for output and employment by State and for Australia are used to drive LPI measures at more detailed levels.

The macroeconomic forecasts presented in this report are based on preliminary estimates from the AEM model (March 2010). The reason these forecasts can only be regarded as preliminary is that while the key December quarter output variables (contained in the quarterly national accounts publication) have been released a number of other important variables are not yet available. Key among these are the December quarter dwelling commencements (housing starts) as well as February employment levels. Both variables will have a considerable impact on our view of the current state of the Australian economy, as well as the short term output. As such the forecasts underlying this model will differ to some degree from those that will appear in the March quarter *Business Outlook* publication, with the level of difference depending largely on these latter economic releases.

The following are **excerpts** from the full model documentation that cover the creation of the key driver of the detailed wage model. Full documentation for this component of the model has been provided separately to the AER.

Macroeconomic forecasting

AEM is a macroeconometric model of the Australian economy. It is made up of numerous accounting identities and behavioural equations which describe the aggregate actions of households, businesses, government and foreigners. The formulation of these behavioural equations is based on mainstream theory. The resultant model is best described as a small open economy model in which all foreign (world) prices and interest rates are taken as given (that is, they are exogenous to the model).

The structure of AEM has evolved over time in response to various forecasting and policy simulation challenges. Significant changes to current and future Australian population characteristics have led to a number of changes in the structure of the AEM over the previous version (version 5).

In brief, the model now has a better spelled out supply side, with an endogenous role for capital deepening and an exogenous role for total factor productivity growth, which along with a more detailed treatment of population dynamics acts as a long term anchor for output.

As Treasury Secretary Ken Henry noted in March 2007, Australia cannot:

> *"… generate higher national income without first expanding the nation's supply capacity: one of the 3Ps — population, participation or productivity. Now you*

might be thinking that that's all pretty obvious. It is, after all, a tautology. But one of my messages to you today is that if you understand what I have just been talking about, then you are a member of a rather small minority group."

The redesigned model adds to the sectoral structure of the previous version, which included a business sector, a housing services sector and government sector, by netting out farm output from the business sector. Given the variable nature of farm output, this change allows us to account for volatile changes that could not be captured when farm output was combined with non-farm output.

In the new model, business sector factors of production (capital and labour) produce non-farm business sector output, which is non-farm GDP less the service flow from housing and the value of government services. The level of business sector output is the sum of potential output and the output gap.

Potential business sector output is the level of output that would exist if there were no temporary or cyclical influences. In constructing potential business sector output, considerable attention is paid to the population characteristics which influence labour force participation, the growth rate of residual total factor productivity and the expected rate of capital deepening. The output gap is the gap between actual and potential business sector output. Negative output gaps imply the economy is operating below its potential, while positive gaps imply the economy is operating above its potential.

Fluctuations in the output gap are driven by a number of cyclical factors, including fluctuations in interest rates, foreign GDP and the terms of trade.

Imports are effectively intermediate goods in the latest version of the AEM model. They are combined with domestically produced traded goods to produce gross national expenditure on traded goods. Higher domestic demand raises the demand for imports. In contrast to the previous version of the model, the level of exports is determined by foreign demand conditions rather than domestic supply conditions. Just as stronger domestic demand raises the demand for imports, stronger foreign demand raises the demand for exports.

The demand for capital and labour in the new model has been reworked so that the short and long run paths of capital and labour are consistent with the forecast potential output path.

One of the new features of the model is the introduction of an equation forecasting the price of business sector investment. This change was necessary because the previous model assumption that the pricing of consumption and investment goods are similar no longer fits with the data. This change should yield more accurate forecasts of investment and the returns to investment.

Changes to the household sector in the model were minor. The most significant change involved the introduction of equations for the price of consumption and housing investment.

With the exception of some minor changes caused by the introduction of distinct prices for consumption and investment, the balance of the model remains unchanged.

Finally, model parameters are estimated using quarterly data extending from September 1974 to the most recent quarter for which data are available. Quarterly data are used as annual data is too aggregated to allow analysis of turning points and interest rate movements.

Monthly data is not feasible because most key ABS collections are produced on a quarterly basis – notably the national accounts, the balance of payments, CPI and international investment data. Another advantage of quarterly data over annual data is that both calendar and financial year totals can be calculated.

Domestic production

Domestic production is divided into farm and non-farm. Non-farm production is further divided into household, general government and business sector production.

The current version of the model nets out **farm sector** production from total production. Given the variable nature of farm output, this change allows us to account for volatile changes in farm output that could not be captured when farm output was combined with non-farm output. Farm output is an exogenous input to the model.

In keeping with the previous version of the model the **household sector** produces housing rental services. This is the household sector's only output. The service flow is modelled as a fixed proportion of the housing capital stock.

Public sector production is limited to general government output, which comprises general government services (equal to the wage cost of the general government employees) and general government gross operating surplus (equal to the depreciation of general government capital).

All other non-farm production takes place in the **business sector**, which incorporates private and public enterprises. Business sector output is produced using capital and labour via a standard constant returns production technology. Business sector production is also influenced by the level of total factor productivity.

To capture the impact of cyclical fluctuations on the economy business sector output is divided into potential output and an output gap. **Potential business sector output** is the level of output that would exist if there were no temporary or cyclical influences. In constructing potential business sector output, considerable attention is paid to population characteristics which influence labour force participation, the growth rate of residual total factor productivity and the expected rate of capital deepening.

The **business sector output gap** is the gap between actual and potential business sector output. Negative output gaps imply the economy is operating below its potential, while positive gaps imply the economy is operating above its potential. Fluctuations in the output gap are driven by a number of cyclical factors including fluctuations in interest rates, foreign GDP and the terms of trade. Output gaps play an important role in determining the level of price and wage inflation.

AEM forecasts all components of aggregate demand. To ensure consistency between aggregate expenditure and aggregate output, the model uses adjustment factors which trim individual expenditure components so that aggregate expenditure equals aggregate output.

Labour market

The size of the **labour force** is forecast using exogenous assumptions about age specific **population growth** and **labour force participation**.

There are two measures of employment in the model. There is the potential employment that underlies the estimate of potential output and actual employment. The output gap to a large extent reflects the gap between the actual and potential employment.

Potential employment is the actual labour force less the level of unemployed workers implied by the natural rate of unemployment, where the natural rate of unemployment is the level of unemployment that would exist in the absence of cyclical fluctuations.

Actual employment is the actual labour force less the level of unemployed workers implied by the actual rate of unemployment.

There are three types of workers in the economy, civilian non-government (business sector workers), civilian general government and defence employees. Demand for business sector workers is endogenous, while the demand for the other two types is exogenous.

Business sector employment is driven by a standard labour demand function that relies on labour productivity, real wages and business sector output growth. Since labour force participation is tied down by exogenous assumptions, the actual unemployment rate for the economy is the residual after subtracting employment (for all three types of workers) from the labour force.

Other measures of employment, such as **wage and salary earners** are assumed to grow at the same rate as total employment.

Prices and wages

In addition to national account price deflators, the model also includes the underlying and headline measures of the **consumer price index (CPI),** and prices for **new cars, house building materials, material used in manufacturing, and preliminary stage domestic and imported commodities.**

The model also includes a number of measures of wages. The central measure is **average quarterly earnings** estimated from the national accounts. Other measures include **average weekly ordinary time earnings, average weekly earnings** and the **labour price index**.

Price and wage inflation in AEM are governed by the behavioural equations of the:

- business sector output gap;
- real exchange rate;
- import prices (including oil prices);
- monetary policy reaction function;
- average quarterly wages; and
- underlying consumer price index.

The way these equations interact is best observed through some examples.

A positive shift in domestic demand that raises the gap between actual and potential output (a positive output gap) will have a direct impact on price inflation by raising the underlying CPI.

Wages respond with a lag to changes in underlying CPI inflation, with the long run real wage tied to CPI inflation and labour productivity growth.

A positive output gap also has a direct and indirect effect on real interest rates via the monetary policy reaction function, with the typical reaction to a widening output gap and higher price inflation being higher nominal interest rates. Higher interest rates dampen domestic demand which narrows the output gap and relieves upward pressure on price and wage inflation. Over time this mechanism forces the output gap back to zero, interest rates to a neutral position and inflation to return to the RBA target level.

A change in real wages that exceeded the change in labour productivity raises price inflation in the short run. Since wages increase by more than labour productivity this raises nominal unit labour costs, which in turn raises underlying CPI inflation. Wages in turn respond to changes in underlying CPI inflation. Over time wage inflation will equal price inflation (plus changes in productivity growth). In the long run, price inflation is governed by the same mechanism at work in the output gap example above, which forces the CPI inflation rate to return to the RBA target level.

While the real exchange rate and import prices do not have an import role in the output gap and real wage scenarios, they are key players in the next foreign price shock example. Holding other things constant, higher world prices raise domestic import prices. Higher import prices have a direct impact on price inflation by raising the underlying CPI. Higher price inflation causes nominal interest rates to rise via the monetary policy reaction function. Higher domestic interest rates and incomplete pass-through of world price changes to domestic prices causes the differential between domestic and world real interest rates to rise.

Ordinarily this would imply an appreciation of the real exchange rate but in the Australian case this is more than offset by a deterioration of the terms of trade due to higher import prices which causes a depreciation of the real exchange rate. Combined with incomplete price pass-through the nominal exchange rate appreciates in the short run, which partly offsets the rise in domestic import prices due to rising world price. Over time there is full pass-through of world prices to domestic prices, which eliminates the gap between domestic and foreign real interest rates and returns the terms of trade to its pre-price shock level. Just as in the domestic inflation example, wages respond with a lag to changes in underlying CPI inflation, with the long run real wage tied to CPI inflation and labour productivity growth.

Wage forecasting

The wage forecasting methodology adopted in this report involves estimation of the deviations between industry – and State-specific wage measures and the broadest measures of wages in the Australian economy. In other words, the AEM model has provided an overall picture for how the LPI will move, and the remainder of the modelling determines which industry, State and industries within States will see their LPI measures grow faster or slower than this value.

Industry and State Labour Price Indices

Modelling of specific labour price indices (LPIs) begins with the movements in the total Australian LPI – taken from the Access Economics Macroeconomic model. This measure serves as an anchor to overall wage rates in every part of the economy, in part because it provides a

measure of the wage rises that other employees are receiving, making it a common starting point for negotiations.

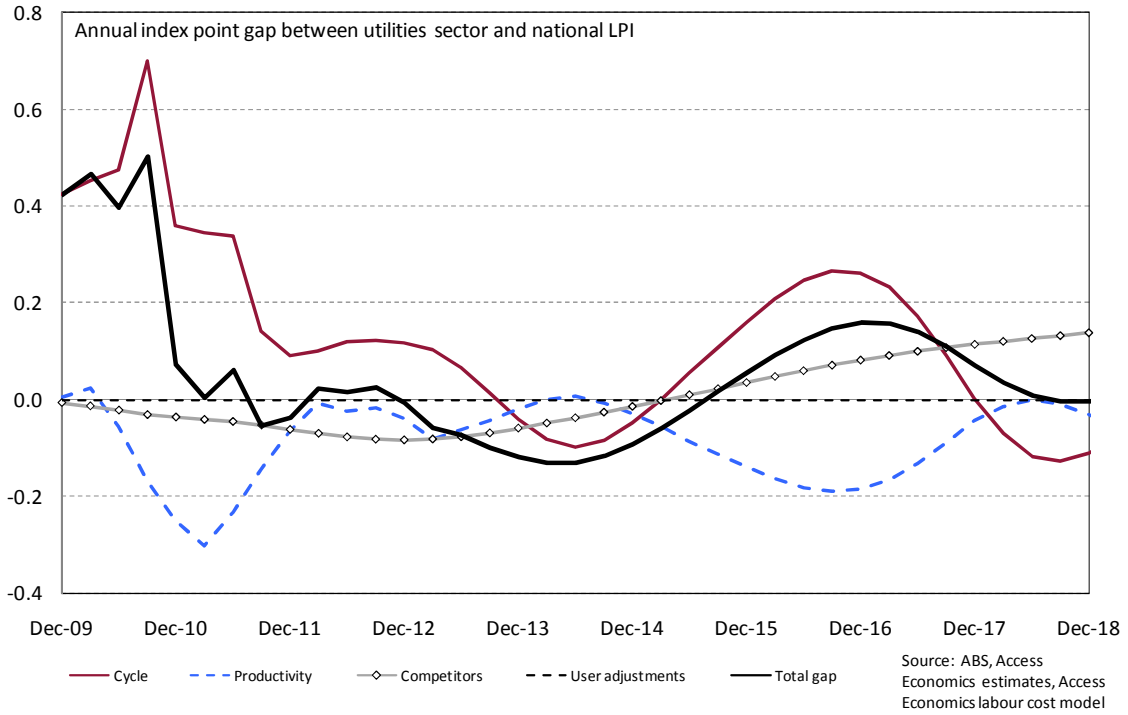
From this initial index, the model adds in deviations from the average. Three key factors will drive these wage differentials:

- **Business cycle factors**. Deviations in industry (or State) performance from the national average. Faster growing industries and States will tend to see faster growth in wages and vice versa. In this model, the key factor is how fast the industry (or State) is growing relative both to the national average, as well as to historical averages. So, while manufacturing growth in the future may be below the national average, if the gap is relatively less that has been seen in recent years, this is view as an out-performance by the sector and would see some upward pressure on wages. In this model the methodology is forward-looking, with forecast growth across the next six months (as well as the past twelve) used to determine the current performance of an industry.
- **Productivity factors**. The model assumes that industries with faster growth in productivity will see faster growth in wages – workers across an industry being rewarded for increasing the average amount of output per employee faster than the national average. As these factors take some time to become evident (and due to the inherent volatility in productivity measures at the State and industry level) an average productivity trend across the past two years is used.
- **Competition (relative wage) factors**. Depending on the nature of the industry, workers will have skills that are relatively more or less transferable to other sectors where wages may be rising faster than in their own. Indeed, many workers will be performing effectively the same task (or same occupation – effectively their job description) across different industries (as their industry classification is determined by what their employer produces, rather than what they do). This will tend to limit the ability of wage rates to diverge. As wage rates in (say) mining rise higher, companies in (say) the construction sector will be forced to pay higher wages to keep their staff. Similar factor operate across States – although they are likely to be less significant (and react only to relatively larger discrepancies in wages). The modelling here will see wages in competitor industries tend to move more closely together – with industries that are benefiting from the two previous factors tending to be drawn back towards the average, and wages in otherwise slow growing industries boosted.

In addition to these three 'mechanical' factors, there is often the need to use judgement to determine movements in wages – particularly when other data is volatile (which employment data currently is) and when factors not relevant to wage determination are having effects on broader output and employment measures.

It is important to remember that the LPI for an industry is a composite measure and can, in certain situations, behave in the perverse manner. When there is a significant change in the occupational structure of an industry, movements in the LPI may not be reflective of movements in the wages of individual employees. In an extreme case, it would be possible for (say) all the high-paid workers in an industry to take a pay cut but the overall LPI measure in the industry to rise is all the low-paid workers left the industry all together – shifting the average wage towards the higher level.

Chart C.1: Sample composition chart of sectoral wage drivers (national level)



The user-defined adjustments that are required have been explicitly shown in the charts that decompose the movements in industry LPI. The chart above (analysing the national utilities sector) compares movements to the national LPI – above the line means growth in the index of more than would be expected if it rose in line with the national LPI and below the line implies growth in the index less than that implied by the national LPI.

In the case of the utilities sector chart above, this indicates the following:

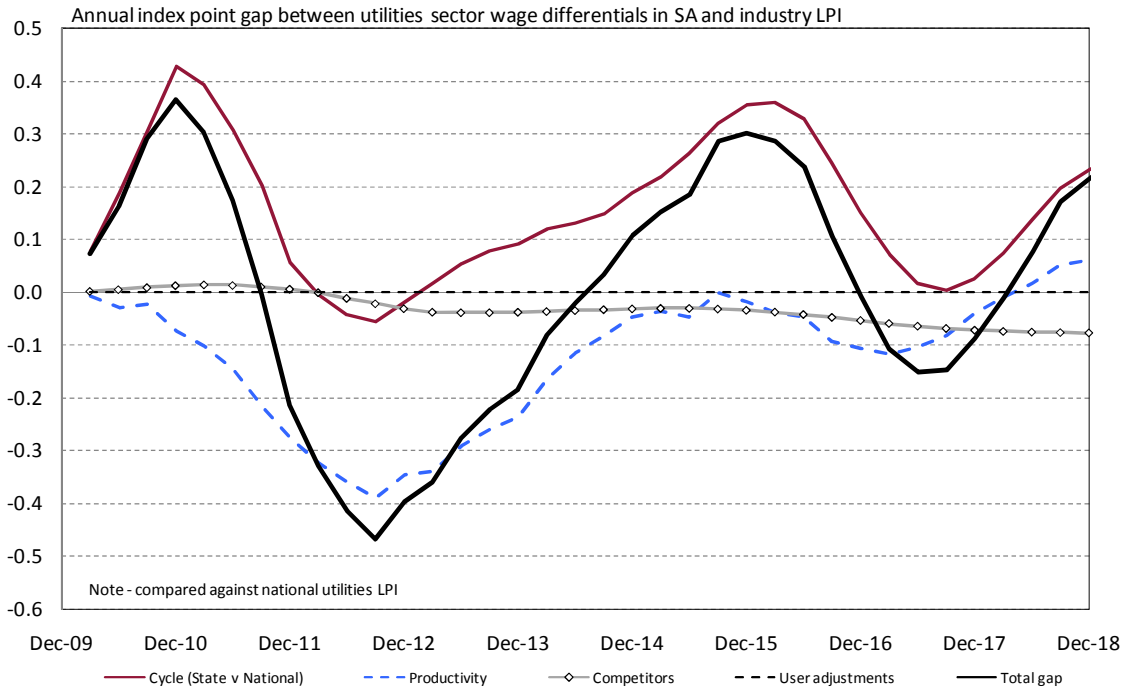
- The recent strength in the utilities sector will keep upward pressure on the wages in the sector (represented here by the **Cycle** line). By the end of 2011 growth rates will begin to move in line with the overall economy and the cyclical pressure will diminish; and
- The lower rate of productivity growth in the utilities sector will put downward pressure on the LPI for utilities across first few years of the forecast period (the **Productivity** line). This effect will largely dissipate beyond this point; but
- The relatively strong growth in utilities sector wages implied by these first trend (and the recent strength in the LPI) means the sector will face minor downward wage pressure. Weakness in the manufacturing sector is particular will limit the impact from competitor industry wages (the **Competitors** line). In the longer term the otherwise weaker wages growth in the sector will need to rise to maintain pace with growth in competitor sectors (mining, construction and manufacturing) to prevent workers being tempted to move.

The final result of all of these effects is utilities sector LPI growth roughly in line with the national average early on, but lagging in later years.

In the case of State-level indices, our point of departure is the national industry LPI. So the chart below implies that South Australia's utilities sector LPI will:

- Grow relative fast as the South Australia's economy growth, while remaining below the national average, should in general be closer to the national average than it has been in the past;
- See a strong offset due to relatively weaker productivity growth, particularly in the earlier years; and
- Will initially be boosted as the South Australian LPI is currently low by historical standards, but will be constrained in the longer run as the LPI soon grows ahead of the national rate.

Chart C.2: Sample composition chart of sectoral wage drivers (State level)



Labour prices versus labour costs

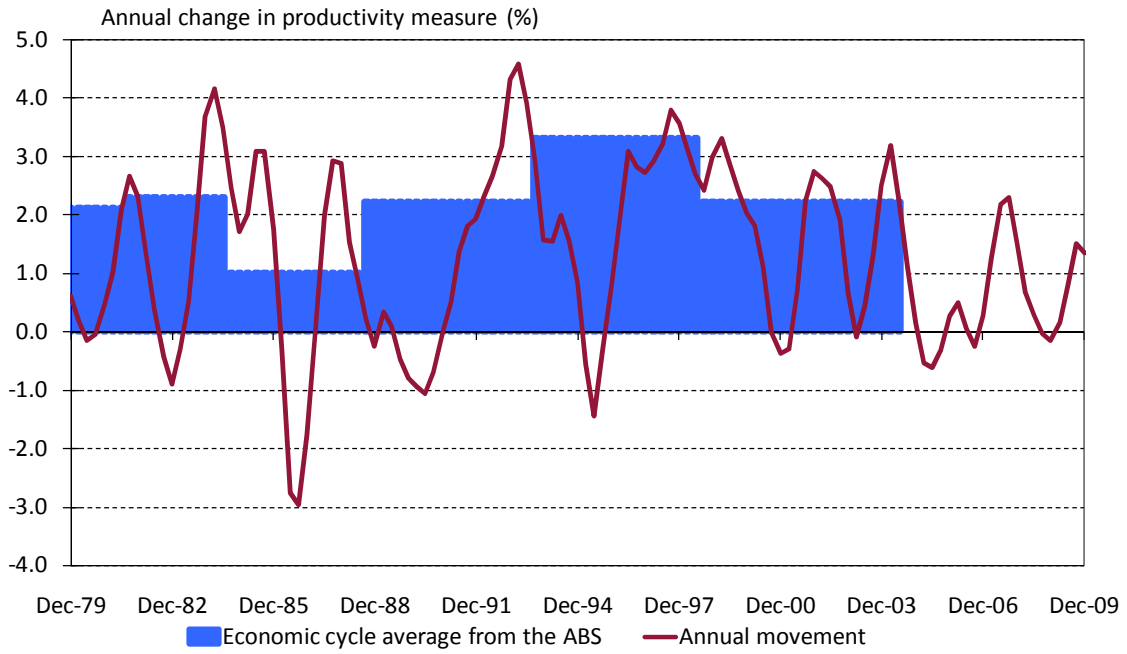
The methodology above estimates movements in labour prices – the cost of employing the average employee, whether broadly in the Australian economy, or in a specific industry in a specific State.

However, labour costs will rise at a different rate due to the effects of labour productivity growth. Effectively, labour productivity measure the number of units of output an individual employee can produce in a given time period. The more units of output each worker can produce, the fewer workers are required to create a given level of industry output. If productivity is rising, the total cost of labour (the price of each employee multiplied by the number of employees) will rise less rapidly than the individual employee's price.

The measure adopted for increases in labour costs is the growth in productivity-adjusted labour prices. Because so many factors can influence productivity (for example, during times of rapid expansion in employment, productivity may fall as new workers are often less productive that those who have been working in an industry for longer, but productivity may

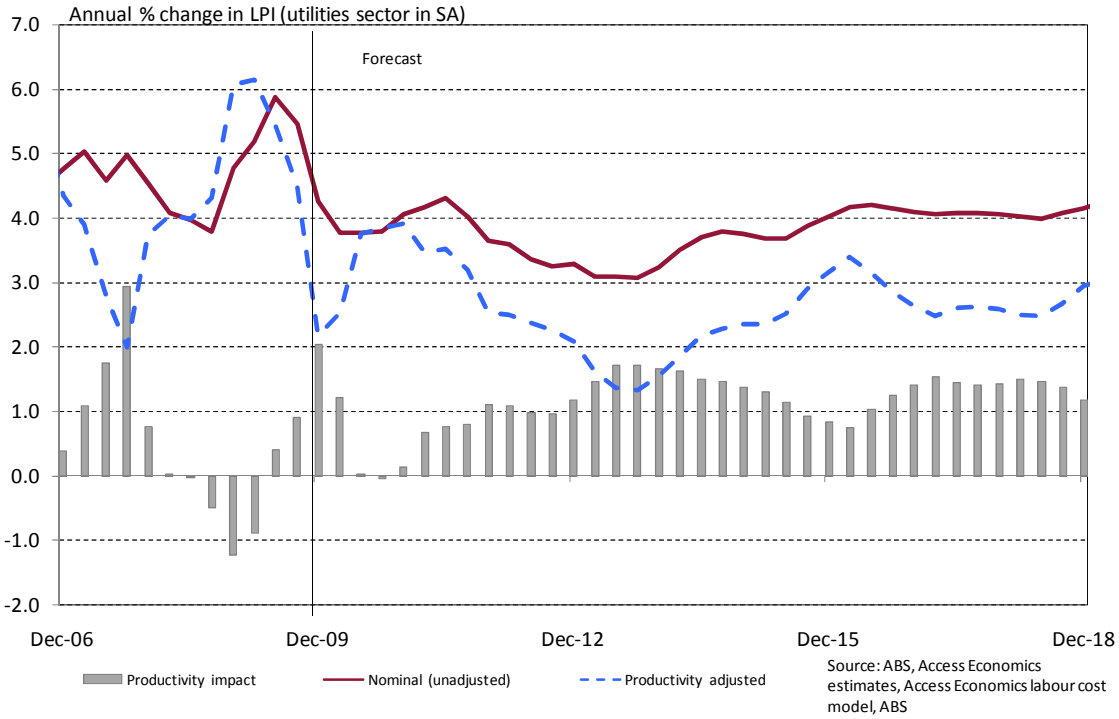
also rise as 'economies of scale' become available, and workers who may has been underemployed in their workplace increase their effective level of output) it is often best measured over an entire economic cycle. The chart below shows annual growth in a simple productivity measure against the ABS' cyclical average measure (the last published cycle ends in 2003-04, so the last few years have no official cyclical productivity growth measure).

Chart C.3: Growth in productivity – annual methodology vs economic cycle methodology



However, in the methodology used here the volatility in the underlying productivity data is minimised by creating a composite productivity measure based on national, industry and State-specific productivity movements – where the relative impact of movements in the smaller and more volatile States and industries is lessened.

Chart C.4: Sample measure of forecast productivity effects



In the example above, the cyclical impact of productivity becomes more clear. Across the latter part of the forecast (from 2012 to 2018), the nominal (or unadjusted) LPI rises by 3.8% per year, while the rate of increase adjusted for productivity improvements is just 2.4% per year – the gap implying productivity improvements of 1.4% per year.

Appendix D: Different measures of wage growth

The Australian Bureau of Statistics published an article in the October 2005 issue of Australian Labour Market Statistics (catalogue 6105.0) which discussed the comparative features and relative merits of the measures they produce.[11] The following reproduces part of that article, and then adds some observations.

Introduction

Statistics on employee remuneration are in demand from a wide range of users, including economic analysts, social researchers, policy makers, and employer and employee associations. The ABS publishes a number of measures relating to the remuneration of employees, to meet the different needs of users. These measures include average weekly earnings, changes in the price of labour, and compensation of employees.

The variety of measures available can sometimes lead to misunderstanding and misapplication. The choice of measure will depend on what type of analysis is being undertaken. This article explores the differences between the various measures of employee remuneration.

Measures of employee remuneration

Three distinct measures of employee remuneration are discussed in this article: earnings; changes in the price of labour; and compensation of employees. Each measure is outlined below.

Earnings

Estimates of the level of earnings are produced from a number of surveys: the Survey of Average Weekly Earnings (AWE); the Survey of Employee Earnings and Hours (EEH); and the Survey of Employee Earnings, Benefits and Trade Union Membership (EEBTUM).

The AWE survey is one of the major sources of data on earnings, and is designed to provide a quarterly measure of the level of earnings. Three earnings series are produced from AWE:

- average weekly ordinary time earnings for full-time adults;
- average weekly total earnings for full-time adults; and
- average weekly total earnings for all employees.

While the AWE survey provides a frequent time series, data are only available for full-time adult employees and all employees, and can only be cross-classified by a small number of variables, such as sex, state, sector, and industry. The EEH and EEBTUM surveys provide additional detail, although on a less frequent basis. The EEH survey is run every two years and provides a large number of variables important in the analysis of weekly earnings, including: managerial/non-managerial status; state; sector; level of government; industry; occupation;

[11] See http://www.abs.gov.au/AUSSTATS/abs@.nsf/90a12181d877a6a6ca2568b5007b861c/9b6a7239b96304ddca2570930000e4bf!OpenDocument

employer size; sex; full-time/part-time status; adult/junior status; and type of employee (e.g. permanent/fixed-term contract or casual). The EEH survey therefore supplements AWE survey data by providing detailed information on the composition and distribution of employee earnings and hours.

The annual EEBTUM survey is a household survey, in contrast to the AWE and EEH surveys which are business surveys. The EEBTUM survey, which is conducted as a supplement to the monthly Labour Force Survey, collects weekly earnings data cross-classified by a range of socio-demographic information, including: sex; age; marital status; relationship in household; geographic region; school attendance; birthplace and year of arrival in Australia. The EEBTUM survey also collects details about the type of employment, including: occupation; industry; hours worked; full-time or part-time status; sector; size of workplace and leave entitlements.

While the EEH and EEBTUM surveys are run less frequently than the AWE survey, they are a valuable source of information as they enable detailed analysis of earnings levels.

Changes in the price of labour

Information on changes in the price of labour is available from the quarterly Labour Price Index (LPI). The LPI is compiled from information collected from businesses on changes in wage and non-wage costs. Information collected on wages is used to produce a Wage Price Index (WPI).

The WPI was first compiled for the September quarter 1997 and is the main ABS measure of wage growth. The WPI measures quarterly changes over time in the cost to an employer of employing labour, and is unaffected by changes in the quality or quantity of work performed.

The ABS publishes four wage price indexes each quarter. The headline WPI series is the index of total hourly rates of pay excluding bonuses. This series excludes bonus payments (which generally relate to the individual performance of the employee or to the organisation's performance), and so represents a pure price measure for combined ordinary time and overtime hourly rates of pay.

Compensation of employees

Compensation of employees (CoE) is a quarterly measure of the total remuneration paid to employees in return for work done and is published as part of the national accounts. Compensation of employees is a broader measure than earnings as it includes irregular payments (e.g. annual bonuses) and social contributions paid by the employer (e.g. severance, termination and redundancy payments; employer superannuation contributions; and workers compensation premiums). These payments are excluded from measures of earnings, which have a narrower focus.

A quarterly measure of the average CoE per employee, known as Average Earnings National Accounts (AENA), is produced by dividing the total compensation of employees for the quarter by the total number of employees. The total number of employees is estimated using Labour Force Survey data, calculated as an average of the three months in each quarter. Some adjustments are made to this estimate of employment. Two measures of AENA are produced: average non-farm compensation per employee; and average compensation per employee. The average non-farm compensation per employee estimate is the key series, as it is a more stable

estimate. This is because employee earnings in the agricultural sector can fluctuate due to seasonal effects.

Summary of the surveys and their key series

Table D.1 (found at the end of this chapter) provides a comparison of each of the surveys discussed. It outlines the key series produced, what each survey is designed to measure, the frequency and type of data source, the benefits and limitations of each survey, and the related publication.

Access Economics' view

As the above discussion from the ABS suggests, they see the LPI as their preferred measure for "changes in the price of labour"

That is the task at hand here, and hence the LPI (excluding bonuses) is Access Economics' preferred measure for this type of analysis.

Indeed, the LPI was originally developed because of the shortcomings of existing wage measures for this type of analysis. For example, AWOTE is affected by shifts in the composition of employment. For example, if a sector employs relatively more high paid full time workers over time (as has happened, for example, in the manufacturing sector as low skilled jobs have been lost to competitors in developing Asia), then that will tend to raise measured AWOTE even if the wage levels for a given level of skill have not changed at all.

More broadly, compositional changes arising from the business cycle, changed educational levels, the pace of recruitment and retirement, the degree of outsourcing, changed relativities in the employment of men and women and compositional changes arising from shifts in average hours worked can all distort AWOTE as a proxy for "changes in the price of labour".

That said, 'best measure' is not the same as 'perfect measure', and there are also drawbacks to using the LPI.

First, the LPI is published by State and by sector separately, but not by State and by sector. That is, the LPI for NSW is published, and the mining sector LPI is also published, however the NSW mining sector LPI is not. The latter data is only available by special request and, in the case of small sample sizes, the ABS does not release their estimates. In contrast, more series at the 'by State and by sector' are available for AWOTE from the ABS 6302.0 release.

However, it is possible to 'back out' reasonable estimates of LPI at the 'by State and by sector' level. Appendix E discusses how Access Economics does that. The resultant series are rather less volatile than the matching ABS AWOTE series.

Second, it is sometimes relevant that the composition of the workforce is changing. That is particularly true in analysing the implications of wage developments for the Australian economy as a whole. For example, promotions are easier to get during a sustained expansion, reflecting the strength of cyclical demand rather than pure productivity. Other things equal, that adds to total incomes in the economy, but doesn't show up in the LPI (which does not 'recognise' that people at a certain seniority today are, on average, different to those who were at that level some years past).

As the LPI has only existed since 1997, and Australia's long economic expansion began in 1992, there is an argument that the LPI has understated true 'like-for-like' wage gains across most of the time it has been in existence.

However, that bias is unlikely to have been large.

Moreover, the cycle has since swung. Even though the current slowdown in the economy is smaller than the recessions of the early 1980s or early 1990s, the change in the cycle suggests that – other things equal – the pace of promotions is slowing and hence that – again, other things equal, LPI is more likely to overstate potential wage growth than understate it.

EBAs and contract rates

Access Economics' forecasts are developed using a more formal modelling approach rather than a more 'institution-based' approach.

The latter focuses on:

- increases in the **Federal Minimum Wage / Fair Pay Commission decisions**,
- increases in **collective agreements** under enterprise bargaining,
- increases in **individual agreements**.

That said, close attention to such institutional factors can assist in short term forecasting (as opposed to longer term forecasts), given that most such decisions have lingering effects on wage outcomes.

Accordingly, Access Economics notes developments in DEEWR's Trends in Federal Enterprise Bargaining reports at www.workplace.gov.au/TrendsInFederalEnterpriseBargaining, and takes account of these in its short term forecasting if they appear likely to have a material impact.

Table D.1: National wage surveys

	AWE Survey	EEH Survey	EEBTUM Survey	LPI	CoE
Key series produced	Average weekly total earnings (AWTE) for full-time adult employees and all employees. Average weekly ordinary time earnings (AWOTE) for full-time adult employees	Average weekly earnings for all employees. Average weekly earnings for full-time adult non-managerial employees	Median and mean weekly earnings of full-time, part-time and all employees	Labour Price Indexes. Wage Price Index (WPI) of total hourly rates of pay excluding bonuses.	Non-farm Average Earnings National Accounts (AENA)
Designed to measure	Level estimates of weekly earnings and the distribution of earnings	Level estimates of weekly and hourly earnings and the distribution of earnings	Level estimates of earnings and the distribution of earnings	Changes in the price of labour	Level estimates of average compensation of employees
Frequency and basis of survey	Quarterly survey of businesses	Biennial survey of businesses	Annual survey of households	Quarterly survey of businesses	Quarterly national accounts series based on quarterly survey of businesses
Benefits of the methodology	Quarterly time series (original, seasonally adjusted and trend estimates available)	Provides detailed job information allowing analysis by industry, occupation, hourly rates etc. Source of distributional data (e.g. quartiles)	Provides detailed demographic and job information. Source of distributional data (e.g. medians)	Provides estimates of wage and non-wage inflation	Broad measure of remuneration
Limitations of the methodology	Few cross-classificatory items	Survey run infrequently (two-yearly)	Only provides average weekly total earnings (no series on ordinary time earnings). Includes payments not related to the period of work performed (e.g. backpay and pay in advance)	No level estimates or in-depth cross-classificatory items	Few cross-classificatory items
Publication description and ABS catalogue number	Average Weekly Earnings, Australia (cat. no. 6302.0)	Employee Earnings and Hours, Australia (cat. no. 6306.0)	Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0)	Labour Price Index, Australia (cat. no. 6345.0)	Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)

Appendix E: LPI sectoral history at the State level

As discussed in Appendix D, the historical LPI data is not necessarily released for each sector by State. This is due to small sample sizes, and reasons of confidentiality. In some cases, where a specific LPI series is not available, a comparative series for average weekly earnings (AWE) can be obtained.

The following table shows (for the key States and sectors modelled) which data is available in time series for the LPI and (for those where LPI is not available) AWE. These are data series provided on the new ANZSIC06 basis. In the case of LPI data this has been provided across the period from September quarter 2008 to December quarter 2009 (six quarters of data on a consistent basis). For the AWE data only estimates for the last three quarters (June, September and December 2009) have been calculated by the ABS.

Table E.1: Wage data series availability

	Utilities	Mining	Construction	Manufacturing
NSW	LPI	AWE	LPI	LPI
VIC	LPI	-	LPI	LPI
QLD	AWE	LPI	LPI	LPI
SA	AWE	AWE	AWE	LPI
ACT	AWE	-	AWE	AWE

As the table shows, we have some data for all the utilities series, and all the series for key competitor industries apart from the (very small) Victorian and ACT mining sectors[12]. However, the overall AWE data itself is not consistent with the LPI data for Australia (as noted in the chart in the executive summary), so rather than using the raw data, to obtain a State by industry LPI we have used the deviations in the AWE growth from State AWE averages and applied a consistent ratio to the known State LPIs.

In other words, if the Queensland utilities sector AWE measure is rising faster than the overall Queensland AWE measure, then we allow the Queensland utilities sector LPI measure to rise faster than Queensland's overall LPI over the past six months. Because the AWE data has been far more volatile than LPI in recent years, we limit the deviations that this might imply[13].

Note that in the case of sectors where only the AWE data is published, we have retained our historical estimates from the last report (that is, up to June quarter 2009) and only applied these growth rates to the interim results. For series where the longer LPI series is available, we have replaced our earlier estimates with these actuals.

[12] In these two cases (and all cases where we have no official data) we have used the relevant national LPI as a proxy for growth in the past six months.

[13] We do that by comparing the variations in published AWE and LPI measures within each State and adjust the unknown deviations accordingly.

Changes to the base year

The current base year for LPI measures is the 2008-09 financial year. This means each LPI series averages 100.0 across this period. Previously, the 2003-04 financial year was the benchmark year. Note that this does not imply wages in each industry as equal in 2008-09.

Appendix F: ANZSIC06 and ANZSIC93

Since the previous report, the ABS has converted all the publications relevant to this report (industry output, industry employment and industry wags) from the old Australian and New Zealand Standard Industry Classifications (ANZSIC) which were produced in 1993 to the updated 2006 version.

ANZSIC 2006 has seen industry classifications expand, from 17 to 19, while the composition of industries has also changed.

As noted above, new ANZSIC06 level LPI and AWE series by State and industry are only available from mid-2008 (for LPI) and mid-2009 (for AWE). For earlier data, Access Economics has used a concordance table (which excludes agriculture, as does the LPI) to reclassify the LPI estimates into the new ANZSIC structure. This concordance is shown in the table below.

The concordance shows that some industries remain unchanged – for example the mining sector remains as it was.

However some sectors have been distributed widely among the new industries. For example large portions of the ANZSIC 1993 Personal and Other Services sector have been reclassified into the Utilities, Administrative and Support Services and Public Administration sectors.

The latter development has required recalibration of the historical LPI data to reallocate it across the new sectoral definitions.

Table F.1: High level concordance between ANZSIC93 and ANZSIC06

ANZSIC 06	ANZSIC93	Agriculture, Forestry and Fishing	Mining	Manufacturing	Electricity, Gas and Water Supply	Construction	Wholesale Trade	Retail Trade	Accommodation, Cafes and Restaurants	Transport and Storage	Communication Services	Finance and Insurance	Property and Business Services	Government Administration and Defence	Education	Health and Community Services	Cultural and Recreational Services	Personal and Other Services
Agriculture, Forestry and Fishing		97.9					1.0											
Mining			ALL															
Manufacturing		0.0		93.0			0.7	1.4										0.5
Electricity, Gas, Water and Waste Svcs					ALL	0.0												5.4
Construction		1.7		0.5		96.1		2.6					2.2					
Wholesale Trade							83.8	0.4					0.3					
Retail Trade							7.4	74.0										
Accommodation and Food Services								11.6	97.1									
Transport, Postal and Warehousing								0.8		90.0	43.2						0.4	1.2
Information Media and Telecom'ns				4.4							56.8		2.4				23.7	0.8
Financial and Insurance Services												99.2						
Rental, Hiring and Real Estate Services									2.7				13.2					6.4
Professional, Scientific and Tech'l Svcs													59.1	2.0		1.5	0.8	0.7
Administrative and Support Services				0.4		2.0	0.2	0.4		7.2		0.8	18.1				3.1	16.8
Public Administration and Safety		0.2						0.3					2.7	98.0		1.4		20.6
Education and Training										0.9			0.6		ALL		8.1	
Health Care and Social Assistance																96.4		
Arts and Recreation Services									0.3				0.4				62.0	
Other Services		0.1		1.6		1.9	6.9	8.5		1.9			1.1			0.7	2.0	47.8

Table F.1 shows how the former ANZSIC93 industries are now allocated. Each column shows how the total industry (summing to 100%) has been split among new industry sectors. Each row therefore shows where the components of former industries now sit. Where there is no value, there is no section of the old industry within the new. Where "ALL" appears, that says that all the former industry is located in this new industry (and, therefore, that is the only entry in the column).

For example, the new utilities sector (**Electricity, Gas, Water and Waste Services**) consists of:

- All of the former utilities sector (**Electricity, Gas and Water Supply**);
- A tiny component of the former construction sector (a part of the former **construction services not elsewhere classified** sector – an area consisting of business mainly engaged in specialised trade contract work); and
- Around 5.4% of the former personal and other services sector (almost all of the former **waste disposal services** sector – excluding some building and other industrial cleaning services).

Note that the percentages across the column cannot be directly compared – as the shares of former industries are shares of differently sized sectors. In the case of the new utilities sector the employment structure of the new industry consists of:

- 80.5% workers formerly in the old utilities sector;
- 0.4% formerly considered to be construction workers; and
- 19.2% formerly employment in the personal and other services industry.

At the end of the reclassification process, Access Economics' labour cost model normalises the data, in order to make sure that the totals add both across States and across Industries to their respective LPIs. Employment weights are used in this process.

Overall industry LPI (and AWE) are available across the historical period, which provides an additional level of checking on our estimates.