



**Labour Price Growth Forecasts**

Prepared for the Australian  
Energy Regulator

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Dear Claire

### **Report on labour price growth forecasts**

I enclose Deloitte Access Economics' report on the Wage Price Index (WPI) for Australia, New South Wales, Queensland and South Australia prepared for the Australian Energy Regulator.

This report has been drafted on the basis of the forecasts that underpin the March 2019 quarter *Business Outlook* and *Investment Monitor* publications that rely on the December 2018 quarter Australian Bureau of Statistics (ABS) National Accounts. However, the March 2019 quarter ABS WPI release has been included in this report.

Yours sincerely



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Lead Partner  
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# Glossary

|        |  |
|--------|--|
| AAWI   | Average Annualised Wage Increase                           |
| ABS    | Australian Bureau of Statistics                            |
| AEMO   | Australian Energy Market Operator                          |
| AER    | Australian Energy Regulator                                |
| ANZSIC | Australia and New Zealand Standard Industry Classification |
| AWE    | Average Weekly Earnings                                    |
| AWOTE  | Average Weekly Ordinary Time Earnings                      |
| CPI    | Consumer Price Index                                       |
| DAE    | Deloitte Access Economics                                  |
| EBA    | Enterprise Bargaining Agreement                            |
| FWC    | Fair Work Commission                                       |
| GDP    | Gross Domestic Product                                     |
| GSP    | Gross State Product  |
| LNG    | Liquefied Natural Gas                                      |
| MW     | Megawatt   |
| NDIS   | National Disability Insurance Scheme                       |
| NEM    | National Electricity Market                                |
| PV     | Photovoltaics  |
| RBA    | Reserve Bank of Australia                                  |
| SFD    | State Final Demand   |
| UNGI   | Underwriting New Generation Investments                    |
| WPI    | Wage Price Index   |

# Executive Summary

## Australian wage growth gradually accelerating

Wage gains are slowly recovering from a low in 2017 amid a gradual tightening of the labour market. The Wage Price Index (WPI) grew by 0.5% in the March quarter of 2019, to be 2.3% higher over the year.

Wage gains were faster in the public sector (2.5%) compared to the private sector (2.2%). The fastest wage gains were also in industries in which the public sector plays a larger role, with gains of 2.8% in health care, 2.6% in utilities, and 2.6% in education. At the other end of the scale, wage gains were weakest in the mining, telecommunications and retail sectors, which recorded growth of 1.8%. At the state level, wages grew the fastest in Victoria (2.6%) and Tasmania (2.5%). Wages grew the slowest in Western Australia (1.5%), the Northern Territory (2.0%) and the Australian Capital Territory (2.0%).

The improvement in wage growth over the last few years has been strongest for employees covered by awards and individual agreements. This has been supported by the Fair Work Commission's (FWC) 3.5% increase in award and minimum wages from 1 July 2018. The FWC has also recently announced that award and minimum wages will increase by a 3.0% from 1 July 2019.

Wage gains for employees covered by enterprise bargaining agreements (EBAs) have been more muted. The share of EBA-reliant employees receiving no change in wages (a wage 'freeze') is falling, but remains elevated in industries such as construction and retail. A number of newly registered private sector EBAs will add upwards pressure to average EBA wages growth, however this will take some time to occur.

The advent of softer economic conditions suggests that wage gains are likely to remain modest during 2019-20. There are a number of factors that are likely to limit the pace of wage gains:

- Consumer inflation moderated of late.
- Falling property prices and record levels of mortgage debt mean that employees may be more interested in job security than increases in income.
- Analysis by the Reserve Bank of Australia (RBA) has found that workers are now less likely to voluntarily change jobs compared to the mid-2000s. Wage growth is typically lower for workers who do not change employer.
- Both globally and in Australia, economic growth is showing up more in profits and jobs than it used to, but less so in wages. In part, this is due to the fact that employers require sufficient confidence about the longevity of improved operating conditions before adding to their wage bill.
- Trends such as automation of work processes, an increase in contract work, and competitive pressures from the internationalisation of services trade have all combined to restrain workers' bargaining power.
- Firms that are unable to innovate and take advantage of new technologies are often opting to control costs as a way of remaining competitive. This cost-control approach can sit at odds with paying employees higher wages.

Despite this, a number of factors are pointing to an acceleration in the pace of wage growth over the coming years:

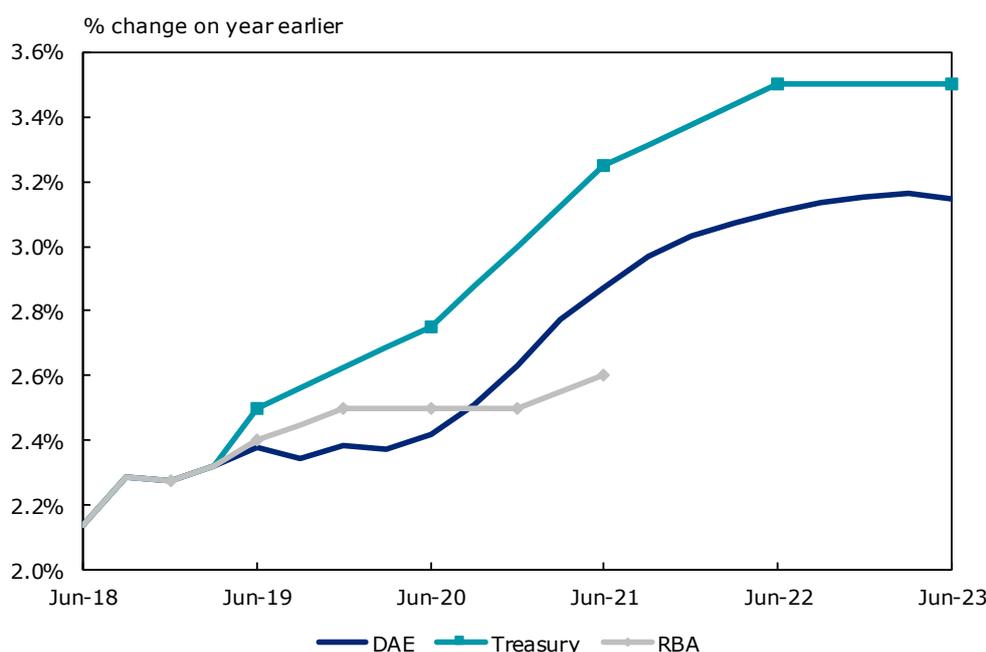
- The underutilisation rate – the unemployed plus those who would like to work longer hours – has been falling relatively fast over the past eighteen months. Continued employment gains are expected to absorb remaining spare capacity in the labour market. This tightening of labour market conditions will place downward pressure on unemployment and underemployment, leading to gradual improvements in wage growth.

- The RBA decided to lower the cash rate by 25 basis points to 1.25% at the June 2019 Monetary Policy Meeting. A lower level of the cash rate will assist in reducing spare capacity in the labour market thereby adding to wage pressures.
- The CPI is forecast to grow by 1.7% in 2018-19, lifting to 1.8% in 2019-20 before reaching 2.3% growth in 2020-21. While this improvement is slower than previously expected, faster growth in inflation will eventually flow through to wages.
- Growth in national income has lifted notably from a low in mid-2016. To date much of the gain has been directed toward profits, which have increased by almost three quarters in the two and a half years to December 2018. A greater share of national income is expected to flow to wages as the labour market tightens.
- In the long run, demographic factors are also expected to add to wage pressures. The increasing retirement among baby boomers is set to restrain growth in the number of potential workers. This should hand employees back some bargaining power in wage negotiations, contributing to higher wage outcomes.

Deloitte Access Economics forecasts a gradual lift in wage growth. Nominal wages are projected to lift from 2.3% in 2018-19, reaching 3.0% growth in 2021-22.

By way of benchmarking, these forecasts are close to the latest released by the RBA in the May 2019 *Statement of Monetary Policy*, but continue to project a more gradual rate of pick-up in wage inflation than is envisaged in the Commonwealth Treasury forecasts encompassed in the *2019-20 Budget* released in April 2019.

Chart 1.1 Comparison of national WPI forecasts by forecaster



Note: Markers indicate provided forecast, remaining data points have been imputed. Series are 'year-to' not 'year-average' growth rates.  
 Source: Commonwealth Treasury Budget 2019-20, Deloitte Access Economics, RBA May 2019 Statement of Monetary Policy.

### Utilities wage growth to continue outperforming the wider economy in the short term

Utilities sector wages grew by 0.6% in the March quarter of 2019 to be 2.6% higher over the year. Wage gains have accelerated from a low in mid-2018 and are now at the highest levels seen since late 2015.

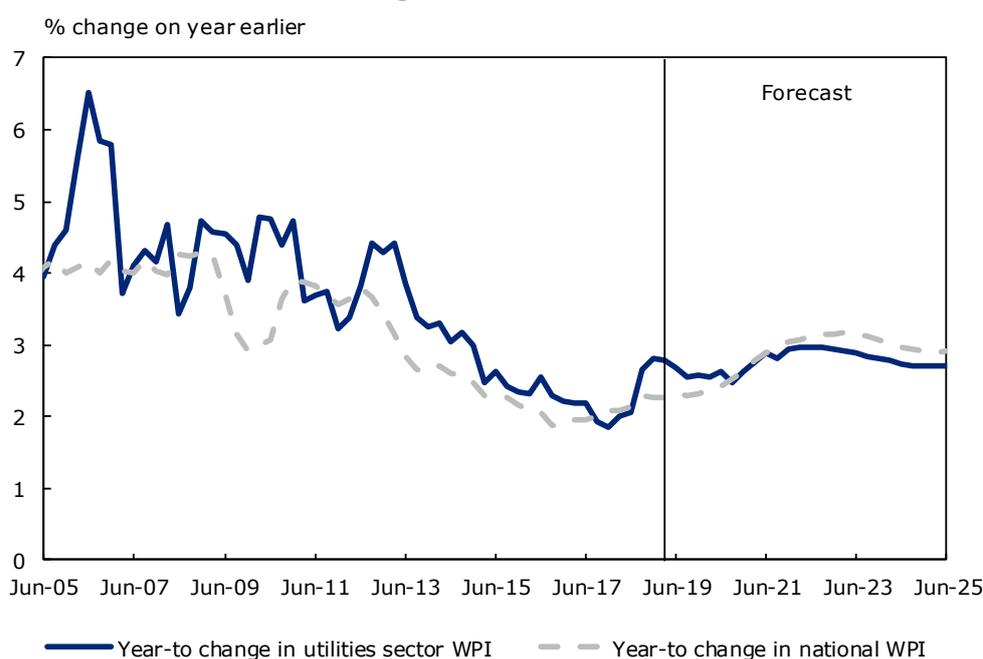
The improvement in wage gains has been sharpest in the private sector, where growth has lifted from a low of 1.9% in March 2018 to 2.7% in March 2019. Public sector wages grew from 2.1%

growth to 2.4% over the same period. This is partly due to the fact that private sector utilities employment has been growing at robust rates since late 2017, while public sector utilities employment has only recently stopped falling.

Wage gains in the utilities sector have outperformed wages in the wider Australian economy since June 2018. This marks a return to the long-running trend of faster wage gains in the utilities sector relative to the average across all sectors.

The acceleration in utilities sector wages does not appear to be driven by an improvement in the growth in utilities sector output, which remains below the average across all sectors. Measures of labour productivity (which make workers more valuable to businesses) remain sluggish, while conditions in sectors that compete with utilities for labour (such as construction, mining and manufacturing) are relatively subdued.

Chart 1.2 National utilities sector Wage Price Index forecasts



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Deloitte Access Economics.

There are a number of potential explanations for the recent lift in utilities wages:

- Utilities sector employment grew by 4.3% in the year to February 2019, above the 2.4% gain across all other sectors. Utilities sector employment has been growing at healthy rates since early 2018, helping to absorb spare capacity in the sector.
- Record levels of infrastructure investment have seen activity shift away from housing construction towards civil infrastructure construction. It is possible that there is a greater degree of substitutability between the skills required for civil construction and those used in the utilities sector, compared with housing construction and the utilities sector. This would add upwards pressure to wage gains in the utilities sector.
- It is possible that wages have increased because requisite skills have lifted, but – if so – then better skilled workers have yet to boost sector output.
- The utilities sector WPI exhibits a greater degree of volatility than the all industry WPI throughout history. It is possible that the recent acceleration in wage gains is a temporary fluctuation.
- The ABS refreshes the representative sample of employers surveyed in the WPI series annually. This update occurs in the December quarter, and may have contributed somewhat to the acceleration in utilities wage gains seen in the past two quarters.

The factors noted above will see utilities wages continue to outperform the all industry average in the short term. Utilities wages are then expected to grow at a marginally slower rate than the all industry average. This is largely driven by the fact that utilities output is forecast to grow slower than the average across all sectors. Conditions are expected to remain weak in competitor sectors such as manufacturing and mining, while infrastructure investment activity is likely to peak in the near future.

The utilities WPI is forecast to recover from growth of 2.0% in 2017-18, to 2.7% in 2018-19, before reaching 2.9% by 2021-22.

### Utilities wage growth at the state level will largely mirror national trends

Wage growth for the utilities sector in **New South Wales** was 2.4% over the year to March 2019.

- Following several years of underperformance, New South Wales utilities output growth has converged with national level growth leading to a stabilisation in relative wages.
- Strength in state economic activity should support New South Wales utilities sector output helping to lift employment and wages growth. Wages in the New South Wales utilities sector are forecast to grow at a similar pace as wages across the state economy.
- New South Wales utilities sector wages are forecast to grow by 2.6% in 2018-19. By 2024-25, forecast wage growth in the New South Wales utilities sector is 2.9%.

Wage growth for the utilities sector in **Queensland** was 2.9% over the year to March 2019.

- Wages in the Queensland utilities sector have grown at rates above the national utilities sector average since 2016. This is partly because falling engineering construction activity is no longer weighing on economic growth and employment opportunities following the completion of the state's three large liquefied natural gas (LNG) projects.
- Queensland utilities sector wage gains are forecast to accelerate from 2.5% in 2017-18 to 2.7% in 2018-19, before reaching a high of 3.0% in 2021-22. This acceleration mirrors expected wage gains in the wider Queensland economy, and is partly due to the forecast for continued growth in the utilities sector. Growth in the state's renewable energy generation is likely to result in higher demand for particular skills in the utilities workforce which may add to wage pressures.
- Utilities wages are expected to grow at a slightly slower rate than wages in the wider Queensland economy from 2020-21 amid weaker output growth. By 2024-25, forecast wage growth in the Queensland utilities sector is 2.7%.

Deloitte Access Economics estimates that **South Australian** utilities WPI grew by 1.9% over the year to March 2019.

- Wages in the South Australian utilities sector have generally grown at rates below the national average for the past several years. Relatively weak population and economic growth across the state have weighed on labour demand and wages.
- Gains in South Australian WPI and utilities WPI are expected to increase over the coming years, as the state economy recovers from the end of automotive manufacturing. South Australia utilities wages are expected to lift from 1.7% growth in 2017-18 to 2.1% in 2018-19 as utilities output ticks up.
- The state is expecting the share of renewables in electricity generation to increase from 50% in 2018 to around 100% by 2030. Strong investment in wind, solar and battery storage technology will propel growth in the sector. This activity will assist in driving wage growth to the forecast rate of 2.6% by 2024-25.

### Australia economic growth has moderated amid a slowing housing market and softer global economic conditions

The Australian economy grew by 0.4% in the March quarter of 2019 to be 2.5% larger over the year. The pace of growth has slowed since mid-2018 amid a loss of momentum in global growth,

and continued declines in property prices that have contributed to flat growth in consumption and large falls in dwelling investment. A number of temporary factors have also limited growth. Farm exports have been affected by the drought, resource exports have been hit by supply disruptions, and engineering construction has been weighed down by the end of construction at large LNG projects.

Although the latest data indicates that Australian economic growth has slowed, that slowdown is occurring against the backdrop of solid momentum in national income. The price of bulk commodity exports has increased during the period that global growth has slowed. This has largely been due to attempts by the Chinese authorities to stimulate their economy. Much of this stimulus is aimed at the construction sector, supporting the price for iron ore and coal. This has underpinned an acceleration in Australian national income, which is growing at above trend rates at the same time as GDP – production growth – has been growing at below trend rates.

The recent slowdown in the Australian economy owes much to an acceleration in falls in housing prices – particularly in Sydney and Melbourne – that began in late 2018. According to CoreLogic, dwelling values fell by 8.4% across capital cities over the year to May 2019. Growth in the Australian economy is set to remain modest in the near term as softer housing market conditions weigh on private consumption and housing construction.

However, there is some indication that sentiment in the housing market is returning, with recent weeks seeing price falls slowing and auction clearance rates improving. The June 2019 decision by the RBA to lower the cash rate, the continuation of existing investor tax concessions, and loosening of some lending restrictions are all expected to support housing market conditions over the next year.

Employment conditions remain positive, with unemployment close to the lowest rates recorded since early this decade.

Overall, real GDP is expected to slow from 2.8% growth in 2017-18 to 2.2% in 2018-19, before lifting to 2.7% in 2019-20. Growth in the Australian economy is then projected to reach a peak of 3.0% in 2021-22.

### **Utilities output to grow at a slower pace than the wider economy**

Utilities sector output grew by 1.2% in the year to March 2019, below 2.5% growth for the Australian economy as a whole. Conditions continue to be weighed down by sluggish growth in the electricity supply sub-sector, which grew by 1.0%.

This continues a long-running trend that has seen the utilities sector underperform compared to the wider economy since 2008-09. The underperformance of the utilities sector has been partly due to a decline in the amount of electricity consumed from the grid across the National Electricity Market (NEM) since 2009. There have been three key drivers of this decline in grid consumption including elevated retail electricity prices, increasing prevalence of rooftop photovoltaics (PV) and battery storage, as well as trends towards more energy efficient appliances, machinery and building.

These trends are expected to persist over the coming years, outweighing the positive effect of new grid connections due to population growth. According to the Australian Energy Market Operator's (AEMO) 2018 Electricity Statement of Opportunities, consumption of NEM grid-supplied electricity is projected to remain relatively flat over the next decade.

Electricity markets have been a key focus of policymakers over recent years amid large price increases. Retail electricity prices have increased by one fifth from a recent low in June 2016, four times the increase seen in the Consumer Price Index (CPI) over the same period. This is continuing to stretch household budgets.

Prices are also higher for industrial users of electricity such as manufacturers. The Australian Industry Group's April Performance of Manufacturing Index noted that energy input costs were an ongoing problem for many businesses. Electricity demand from manufacturers is expected to slow in response to these higher prices.

Electricity prices are expected to fall over the next two years. This is partly due to strong growth in supply from renewable energy projects. According to AEMO, more than 6,000 megawatts (MW) worth of wind and solar generation projects are currently listed as committed. In comparison, around 2,750 MW worth of generation capacity is slated to be withdrawn or retired over the coming years. Intensified public scrutiny on retail margins and regulatory changes are also likely to place downward pressure on prices.

The electricity sector faces a number of risks over the medium term:

- Notwithstanding the 2019 Federal Election result, continued uncertainty around policy settings means greater risk for investors.
- Significant falls in the cost of household battery storage systems could prompt a larger share of households to move off the grid entirely.
- Further pressure on the manufacturing sector may see additional industrial electricity users choose to close local operations and move offshore.

On the upside, there is the potential for an acceleration in the take-up of electric vehicles. There is also the potential for higher demand related to the liquefied natural gas, coal seam gas and mining sectors.

Utilities sector output is expected to fall from 1.8% growth in 2017-18 to 0.4% in 2018-19, before recovering to 1.2% in 2019-20. Growth in utilities sector output is forecast to remain weaker than growth in the Australian economy over the forecast period to 2024-25.

Table i State WPI forecasts, all sectors

#### Yearly changes in nominal WPI

| Annual % change | History |         | Forecast |         |         |         |         |         |  |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| National        | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |  |
| New South Wales | 2.1     | 2.4     | 2.4      | 2.6     | 3.0     | 3.0     | 3.0     | 3.0     |  |
| Queensland      | 2.2     | 2.3     | 2.2      | 2.8     | 3.2     | 3.3     | 3.2     | 3.0     |  |
| South Australia | 2.0     | 2.2     | 2.2      | 2.6     | 2.9     | 3.1     | 3.0     | 2.8     |  |

#### Yearly changes in real WPI

| Annual % change | History |         | Forecast |         |         |         |         |         |  |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| National        | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |  |
| New South Wales | 0.0     | 0.8     | 0.5      | 0.1     | 0.6     | 0.6     | 0.6     | 0.8     |  |
| Queensland      | 0.4     | 0.6     | 0.5      | 0.5     | 0.8     | 0.8     | 0.9     | 0.8     |  |
| South Australia | -0.2    | 0.7     | 0.4      | 0.3     | 0.5     | 0.6     | 0.7     | 0.6     |  |

Note: annual % change refers to the year-average change.

Source: ABS, Deloitte Access Economics.

Table ii Key variables, Australia

| Annual % change                    | History |         | Forecast |         |         |         |         |         |  |
|------------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                                    | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Output                             | 2.8     | 2.2     | 2.7      | 2.8     | 3.0     | 2.9     | 2.7     | 2.5     |  |
| Consumer price index               | 2.0     | 1.7     | 1.8      | 2.3     | 2.4     | 2.5     | 2.3     | 2.2     |  |
| Wage Price index                   | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |  |
| Ave. weekly earnings               | 2.3     | 2.8     | 2.3      | 2.5     | 2.8     | 2.9     | 2.8     | 2.6     |  |
| Ave. weekly ordinary time earnings | 2.4     | 2.4     | 2.6      | 3.1     | 3.4     | 3.6     | 3.6     | 3.5     |  |

Source: ABS, Deloitte Access Economics.

Table iii Economic variables, Australia

| Annual % change (unless noted) | History |         | Forecast |         |         |         |         |         |
|--------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                                | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| Consumption                    |         |         |          |         |         |         |         |         |
| Private sector                 | 2.8     | 2.3     | 2.4      | 2.2     | 2.4     | 2.4     | 2.5     | 2.7     |
| Public sector                  | 3.7     | 5.2     | 3.4      | 2.8     | 2.2     | 1.6     | 1.8     | 1.9     |
| Private sector investment      |         |         |          |         |         |         |         |         |
| Non-business housing           | 0.2     | -0.2    | -3.7     | 2.6     | 7.3     | 4.2     | -1.3    | -3.4    |
| Non-business real estate       | 0.0     | -8.6    | -0.9     | 2.5     | 6.2     | 3.2     | -1.7    | -3.6    |
| Non-residential building       | 9.4     | -2.7    | 9.0      | 10.2    | 5.2     | 3.1     | 4.0     | 2.9     |
| Engineering construction       | 4.4     | -10.0   | 0.8      | 7.7     | 4.7     | 2.6     | 3.5     | 2.4     |
| Machinery and equipment        | 6.8     | 2.1     | 4.9      | 10.4    | 7.2     | 5.3     | 6.5     | 5.4     |
| IP and livestock               | 3.2     | 5.8     | 8.5      | 11.2    | 9.6     | 8.0     | 9.4     | 8.4     |
| Public investment              |         |         |          |         |         |         |         |         |
| General Government             | 5.7     | 9.8     | 1.9      | 3.9     | 3.9     | 3.6     | 3.3     | 3.2     |
| Public enterprises             | -8.0    | -1.8    | 1.2      | 2.8     | 2.1     | 2.0     | 3.2     | 2.6     |
| Domestic final demand          |         |         |          |         |         |         |         |         |
| Private sector                 | 3.4     | 2.3     | 2.5      | 3.4     | 3.3     | 2.8     | 2.6     | 2.5     |
| Public sector                  | 3.4     | 1.3     | 2.3      | 3.5     | 3.6     | 3.0     | 2.8     | 2.6     |
| Public sector                  | 3.3     | 5.5     | 3.0      | 2.9     | 2.5     | 1.9     | 2.1     | 2.1     |
| Gross national expenditure     |         |         |          |         |         |         |         |         |
|                                | 3.4     | 2.2     | 2.5      | 3.4     | 3.3     | 2.8     | 2.7     | 2.5     |
| International trade            |         |         |          |         |         |         |         |         |
| Exports                        | 4.1     | 1.8     | 2.2      | 3.7     | 4.0     | 5.1     | 5.6     | 5.4     |
| Imports                        | 7.1     | 0.3     | 2.1      | 6.8     | 5.9     | 4.6     | 5.4     | 5.1     |
| Net (% additon to growth)      | -0.4    | 0.1     | -0.1     | -0.6    | -0.2    | 0.1     | 0.0     | 0.1     |
| Total output (GDP)             |         |         |          |         |         |         |         |         |
|                                | 2.8     | 2.2     | 2.7      | 2.8     | 3.0     | 2.9     | 2.7     | 2.5     |
| Non farm output                |         |         |          |         |         |         |         |         |
|                                | 3.0     | 2.3     | 2.6      | 2.8     | 3.0     | 2.9     | 2.7     | 2.6     |
| Employment                     |         |         |          |         |         |         |         |         |
|                                | 3.1     | 2.3     | 1.0      | 1.1     | 1.3     | 1.4     | 1.3     | 1.2     |
| Unemployment rate (%)          |         |         |          |         |         |         |         |         |
|                                | 5.5     | 5.1     | 5.1      | 5.1     | 5.1     | 5.0     | 5.0     | 5.1     |

Source: ABS, Deloitte Access Economics. All variables (except for population, employment and unemployment) expressed in inflation-adjusted terms.

Table iv Wages and prices, Australia

| Annual % change                               | History |         | Forecast |         |         |         |         |         |
|---|---------|---------|----------|---------|---------|---------|---------|---------|
|   | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| Consumer price index (CPI)                    |         |         |          |         |         |         |         |         |
|   | 2.0     | 1.7     | 1.8      | 2.3     | 2.4     | 2.5     | 2.3     | 2.2     |
| Wage price index (WPI)                        |         |         |          |         |         |         |         |         |
| Nominal                                       | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |
| Real  | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |
| Average weekly earnings (AWE)                 |         |         |          |         |         |         |         |         |
| Nominal                                       | 2.3     | 2.8     | 2.3      | 2.5     | 2.8     | 2.9     | 2.8     | 2.6     |
| Real  | 0.3     | 1.0     | 0.5      | 0.2     | 0.4     | 0.4     | 0.5     | 0.5     |
| Average weekly ordinary time earnings (AWOTE) |         |         |          |         |         |         |         |         |
| Nominal                                       | 2.4     | 2.4     | 2.6      | 3.1     | 3.4     | 3.6     | 3.6     | 3.5     |
| Real  | 0.4     | 0.6     | 0.7      | 0.8     | 1.0     | 1.1     | 1.3     | 1.3     |
| Unit labour costs                             |         |         |          |         |         |         |         |         |
| Nominal                                       | 1.3     | 2.0     | 0.7      | 0.7     | 1.5     | 1.8     | 2.2     | 2.3     |
| Real  | -0.7    | 0.3     | -1.1     | -1.6    | -0.9    | -0.7    | -0.1    | 0.1     |

Source: ABS, Deloitte Access Economics.

Table v Sectoral wages, Australia

**Financial year changes in nominal national WPI**

| Annual % change | History |         | Forecast |         |         |         |         |         |  |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| All industries  | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |  |
| Utilities       | 2.0     | 2.7     | 2.6      | 2.7     | 2.9     | 2.9     | 2.8     | 2.7     |  |

**Financial year changes in real national WPI**

| Annual % change | History |         | Forecast |         |         |         |         |         |  |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| All industries  | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |  |
| Utilities       | 0.0     | 1.0     | 0.7      | 0.4     | 0.5     | 0.4     | 0.5     | 0.5     |  |

Source: ABS, Deloitte Access Economics.

Table vi State utilities sector nominal wages

| Annual % change  | History |         | Forecast |         |         |         |         |         |  |
|------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                  | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| National         | 2.0     | 2.7     | 2.6      | 2.7     | 2.9     | 2.9     | 2.8     | 2.7     |  |
| New South Wales  | 1.3     | 2.6     | 2.7      | 2.7     | 2.9     | 2.9     | 2.8     | 2.9     |  |
| Queensland       | 2.5     | 2.7     | 2.4      | 2.7     | 3.0     | 3.0     | 2.8     | 2.7     |  |
| South Australia* | 1.7     | 2.1     | 2.4      | 2.7     | 2.8     | 2.9     | 2.8     | 2.6     |  |

\*Historical data estimated using Deloitte Access Economics' wage price model. Unavailable from the ABS.

Source: ABS, Deloitte Access Economics.

Table vii State utilities sector real wages

| Annual % change  | History |         | Forecast |         |         |         |         |         |  |
|------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                  | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| National         | 0.0     | 1.0     | 0.7      | 0.4     | 0.5     | 0.4     | 0.5     | 0.5     |  |
| New South Wales  | -0.7    | 1.0     | 0.8      | 0.2     | 0.5     | 0.4     | 0.5     | 0.7     |  |
| Queensland       | 0.8     | 1.0     | 0.6      | 0.5     | 0.6     | 0.5     | 0.6     | 0.5     |  |
| South Australia* | -0.5    | 0.6     | 0.6      | 0.4     | 0.4     | 0.3     | 0.5     | 0.4     |  |

\*Historical data estimated using Deloitte Access Economics' wage price model. Unavailable from the ABS.

Source: ABS, Deloitte Access Economics.

# 1 Background

The Australian Energy Regulator (AER) commissioned Deloitte Access Economics to provide forecasts for wage price growth for the electricity, gas, water and waste services (utilities) industry to 2024-25 for the following jurisdictions:

- New South Wales
- Queensland
- South Australia
- Australia.

Specifically, AER has requested:

- Annual WPI forecasts for Australia and relevant states;
- A brief analysis of the key influences on the forecast changes in the WPI, including:
  - An overview of the national and state economic outlook, including a discussion of the outlook for the utilities sector.
  - An analysis of the national and state outlook for wages for all industries and the utilities sector.
  - A discussion of the key drivers for wage growth including inflationary trends, productivity trends, Enterprise Bargaining data, and relevant cyclical factors.
- A description of the methodology and assumptions used to forecast WPI.

For the states covered in this report, the Australian Bureau of Statistics (ABS) only releases WPI estimates in the utilities sector for New South Wales and Queensland. For those states where the ABS does not release WPI estimates, Deloitte Access Economics uses a range of related data to estimate the utilities sector WPI.

A detailed methodology description can be found in Report 1 provided to the AER in July 2018.

# 2 Australia

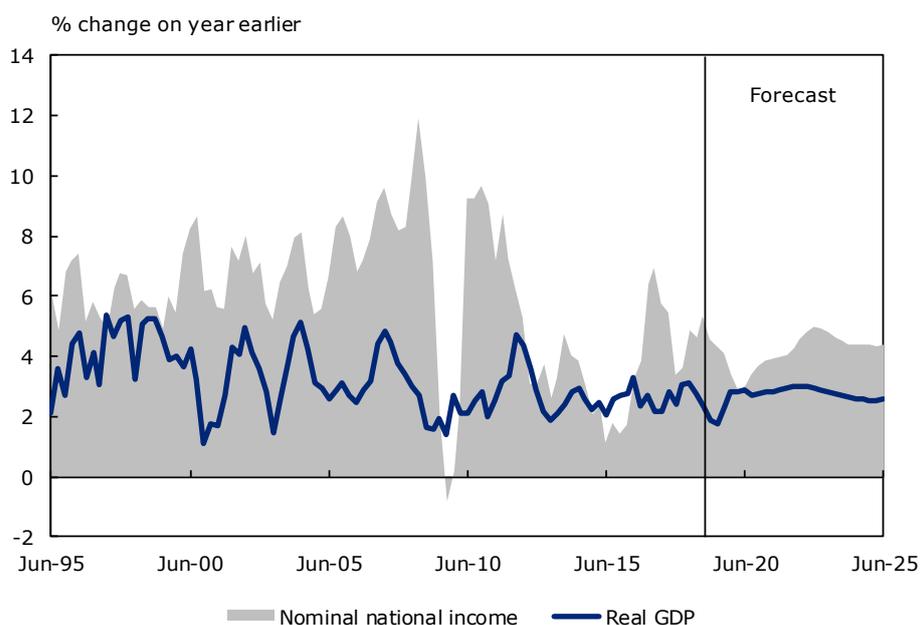
## 2.1 Economic outlook

### 2.1.1 Overview

The Australian economy grew by 0.4% in the March quarter of 2019 to be 2.5% larger over the year. The pace of growth has slowed since mid-2018 amid a loss of momentum in global growth, and continued declines in property prices that have contributed to flat growth in consumption and large falls in dwelling investment. A number of temporary factors have also limited growth. Farm exports have been affected by the drought, resource exports have been hit by supply disruptions, and engineering construction has been weighed down by the end of construction at large LNG projects.

Although the latest data indicates that Australian economic growth has slowed, that slowdown is occurring against the backdrop of solid momentum in national income. The price of bulk commodity exports has increased during the period that global growth has slowed. This has largely been due to attempts by the Chinese authorities to stimulate their economy. Much of this stimulus is aimed at the construction sector, supporting the price for iron ore and coal. This has underpinned an acceleration in Australian national income, which is growing at above trend rates at the same time as GDP – production growth – has been growing at below trend rates (see Chart 2.1).

Chart 2.1 Australian production and national income growth



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

The recent slowdown in the Australian economy owes much to an acceleration in falls in housing prices – particularly so in Sydney and Melbourne – that began in late 2018. The initial correction was spurred by regulators placing (now relaxed) restrictions on investor credit growth, the pace of building activity increasingly catching up with previously unmet demand, and the scrutiny resulting from the Hayne Royal Commission prompting many banks to grant smaller loans and take longer to approve finances. More recently, the decline in house prices has been the result of fewer people wanting to borrow, rather than lack of access to credit.

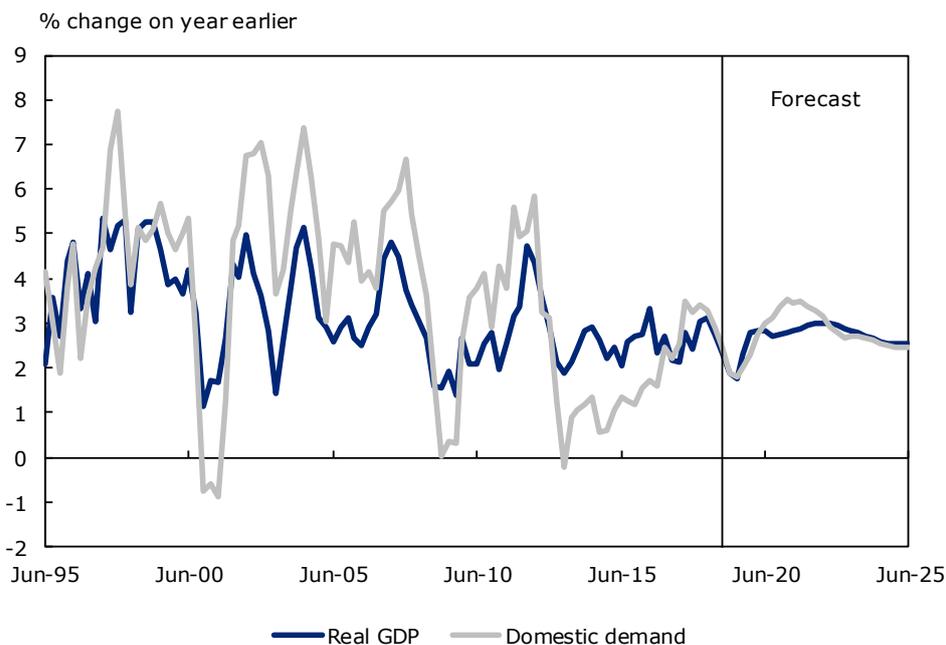
According to CoreLogic, dwelling values fell by 8.4% across capital cities over the year to May 2019, with falls of 10.7% in Sydney and 9.9% in Melbourne. Lower property prices are now starting to affect both the largest component of spending in the Australian economy (that of consumers) and one of the most volatile areas of the economy (housing construction).

The value of residential building approvals fell by 9.1% in the year to March 2019. And that fall is not merely among investors (whose loan volumes have dropped back to the \$5 billion a month that was typical in the years up until 2012), but also now among owner-occupiers. Excluding first home buyers, the monthly flow of credit to owner-occupiers has now dipped below \$10 billion for the first time since 2014. Other things equal, that suggests that Australia will build fewer homes in the next couple of years.

Falling housing prices are also affecting the willingness of Australian consumers to spend. Car sales fell by 7.4% over the year, while retail turnover grew by less than 3%. Continued house price falls are likely to result in further worsening in sentiment among consumers, weighing on private consumption growth in the near term.

Although house prices continue to fall, the pace of declines has eased somewhat since early 2019. The June 2019 decision by the Reserve Bank of Australia (RBA) to lower the cash rate, the continuation of existing investor tax concessions, and loosening of some lending restrictions are all set to support housing market conditions. Adding to this, the Federal Government has announced plans to guarantee deposits for up to 10,000 first home buyers, while a number of state governments have also announced more generous concessions for first home buyers.

Chart 2.2 Domestic demand and GDP



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

Business investment remains a key area of uncertainty for the Australian economy in the next few years. The slowdown in both global and domestic economic growth is affecting businesses sentiment. Businesses are more willing to invest in increasing their production capacity if demand is strong. As a result, a slowdown in the economy can impact on the timing of capital expenditure plans. This is already showing up in easing measures of capacity utilisation, especially in the wholesale and retail sectors, and weaker business confidence.

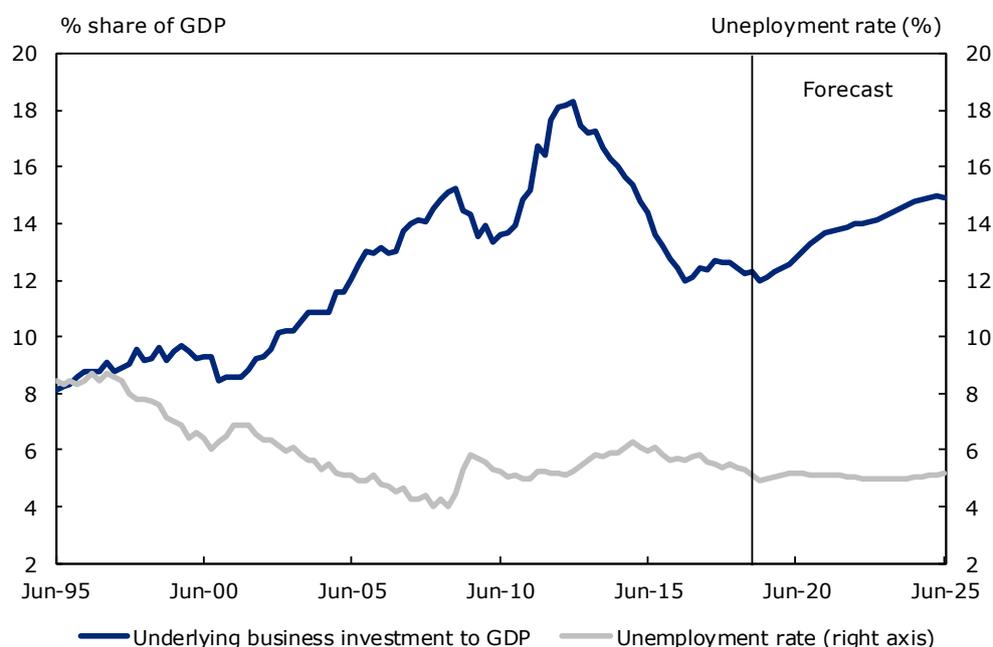
There are still a number of positives that will see investment eventually lift. Measures of capacity utilisation remain relatively tight (despite the recent worsening), interest rates are low, and credit is still readily available for large businesses (although loan availability is constrained for small

businesses, it is large businesses that drive capital expenditure). And finally, the record infrastructure spend by governments – especially in New South Wales and Victoria – has both direct and indirect benefits across the business investment landscape. These positives are expected to support business investment over the medium to long-term. As a result, business investment will improve over the coming years, but at a slower pace than previously expected.

Growth in the Australian economy is set to remain modest in the near term as softer housing market conditions weigh on private consumption and housing construction. Yet there are a number of positives suggesting that the slowdown in Australian growth will be relatively moderate. The worst of the falls in property prices appear to have passed and Australia is benefitting from Chinese authorities attempts to stimulate their economy via higher commodity prices. Adding to this, the Australian economy is coming off a period of strength, with unemployment at the lowest rates recorded since early this decade.

Overall, real GDP is expected to slow from 2.8% growth in 2017-18 to 2.2% in 2018-19, before lifting to 2.7% in 2019-20. Growth in the Australian economy is then projected to reach a peak of 3.0% in 2021-22.

Chart 2.3 Business investment as a share of GDP and the unemployment rate



Source: ABS, Deloitte Access Economics.

### 2.1.2 Utilities sector

The 'utilities' sector is the broad term applying to the electricity, gas, water and waste services industry, which is Division D of the Australian and New Zealand Standard Industrial Classification (ANZSIC). The sector covers activity in the provision of electricity; gas through mains systems; water; drainage; and sewage services.

Utilities sector output grew by 1.2% in the year to March 2019, below 2.5% growth for the Australian economy as a whole. Conditions continue to be weighed down by sluggish growth in the electricity supply sub-sector, which grew by 1.0%.

This continues a long-running trend that has seen the utilities sector underperform compared to the wider economy since 2008-09. The underperformance of the utilities sector has been partly due to a decline in the amount of electricity consumed from the grid across the NEM since 2009. There have been three key drivers of this decline in grid consumption:

- An increasing share of households and businesses have adopted rooftop PV, battery storage, and other small scale technologies to generate their own electricity.
- Elevated retail electricity prices have contributed to households and businesses actively modifying their behaviour to reduce electricity use where possible.
- The trend towards more energy efficient appliances, machinery and buildings.

These trends are expected to persist over the coming years, outweighing the positive effect of new grid connections due to population growth. According to AEMO's 2018 Electricity Statement of Opportunities, consumption of NEM grid-supplied electricity is projected to remain relatively flat over the next decade.

Electricity markets have been a key focus of policymakers over recent years amid large price increases. Retail electricity prices have increased by one fifth from a recent low in June 2016, four times the increase seen in CPI over the same period. This is continuing to stretch household budgets.

Prices are also higher for industrial users of electricity such as manufacturers. The Australian Industry Group's April Performance of Manufacturing Index noted that energy input costs were an ongoing problem for many businesses. Electricity demand from manufacturers is expected to slow in response to these higher prices.

Electricity prices are expected to fall over the next two years. This is partly due to strong growth in supply from renewable energy projects. According to AEMO, more than 6,000 MW worth of wind and solar generation projects are currently listed as committed. In comparison around 2,750 MW worth of generation capacity is slated to be withdrawn or retired over the coming years. Intensified public scrutiny on retail margins and regulatory changes are also likely to place downward pressure on prices.

The electricity sector faces a number of risks over the medium term:

- Notwithstanding the 2019 Federal Election result, continued uncertainty around policy settings means greater risk for investors.
- Significant falls in the cost of household battery storage systems could prompt a larger share of households to move off the grid entirely.
- Further pressure on the manufacturing sector may see additional industrial electricity users choose to close local operations and move offshore.

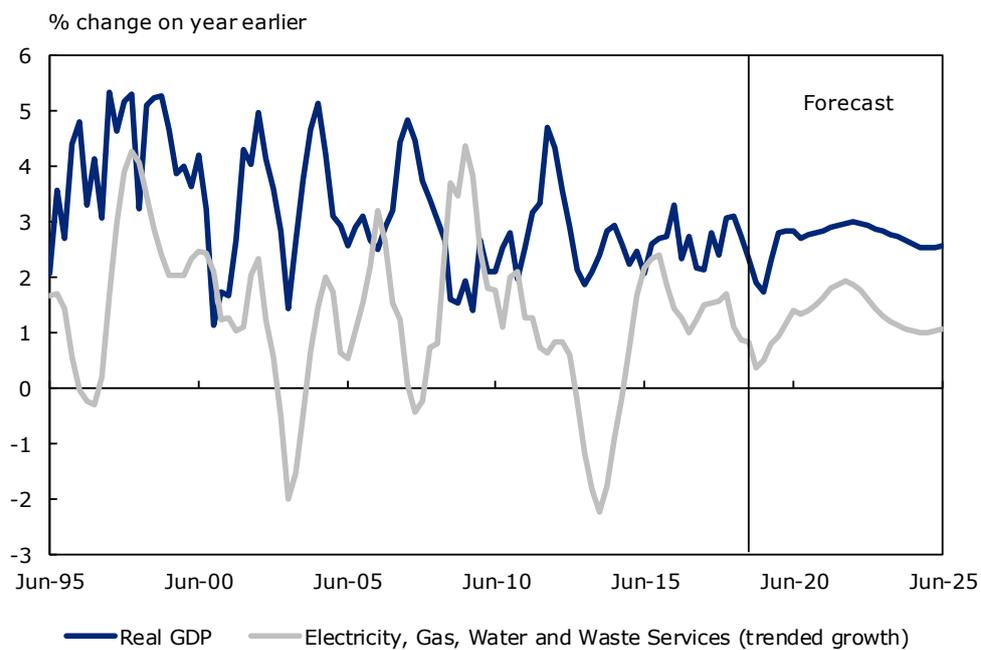
On the upside, there is the potential for an acceleration in the take-up of electric vehicles. There is also the potential for higher demand related to the LNG, coal seam gas and mining sectors.

In the gas sector, consumption is forecast to decline over the coming years. Household and business consumption is set to fall amid improvements in energy efficiency and consumers continuing to switching from gas to electricity. Gas-powered generation of electricity is also expected to soften, while slower demand growth from manufacturers will weigh on the sector. Consumption is set to stabilise thereafter as LNG exports ramp-up to meet growing demand from Asia.

Rapid growth in LNG exports has contributed to a coupling of the Australian gas market to international markets. In response to concerns around high gas prices and potential shortfalls on Australia's east coast, the Australian Government implemented the Australian Domestic Gas Security Mechanism in 2017. In the event that there is insufficient natural gas to meet the needs of Australian consumers, LNG exporters can be required to limit exports or find offsetting sources of new gas. AEMO's 2019 Gas Statement of Opportunities projects sufficient gas supply over the short term, but notes the risk of potential weather-related shortages.

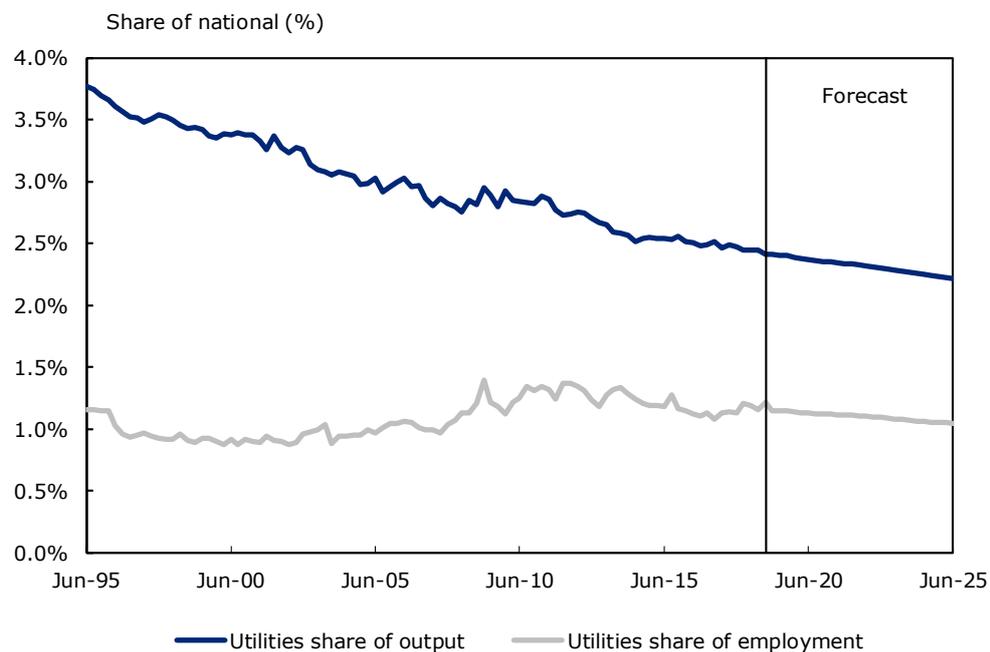
Utilities sector output is expected to fall from 1.8% growth in 2017-18 to 0.4% in 2018-19, before recovering to 1.2% in 2019-20. Growth in utilities sector output is forecast to remain weaker than growth in the Australian economy over the forecast period to 2024-25 (see Chart 2.4). As a result, the utilities sector is forecast to fall as a share of national output and employment (see Chart 2.5).

Chart 2.4 Utilities sector output and GDP



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Deloitte Access Economics.

Chart 2.5 Utilities share of national output and employment



Source: ABS, Deloitte Access Economics.

## 2.2 The outlook for wages

### 2.2.1 All industries

Wage gains are slowly recovering from a low in 2017 amid a gradual tightening of the labour market. The WPI grew by 0.5% in the March quarter of 2019, to be 2.3% higher over the year.

The recent improvement in wage growth is more pronounced when bonuses and commissions are included, with total wage growth of 2.6% in the year to March 2019. RBA analysis suggests that the share of workers receiving bonuses has also increased.

Over the year, wage gains were faster in the public sector (2.5%) compared to the private sector (2.2%). The fastest wage gains were also in industries in which the public sector plays a larger role, with gains of 2.8% in health care, 2.6% in utilities, and 2.6% in education. At the other end of the scale, wage gains were weakest in the mining, telecommunications and retail sectors, which recorded growth of 1.8%. At the state level, wages grew the fastest in Victoria (2.6%) and Tasmania (2.5%). Wages grew the slowest in Western Australia (1.5%), the Northern Territory (2.0%) and the Australian Capital Territory (2.0%).

The improvement in wage growth over the last few years has been strongest for employees covered by awards and individual agreements. This has been supported by the FWC's 3.5% increase in award and minimum wages from 1 July 2018. The FWC has also recently announced that award and minimum wages will increase by 3.0% from 1 July 2019.

Wage gains for employees covered by EBAs have been more muted. The share of EBA-reliant employees receiving no change in wages (a wage 'freeze') is falling, but remains elevated in industries such as construction and retail. A number of newly registered private sector EBAs will add upwards pressure to average EBA wages growth, however this will take some time to occur.

The advent of softer economic conditions suggests that wage gains are likely to remain modest during 2019-20. There are a number of factors that are likely to limit the pace of wage gains:

- Consumer inflation moderated of late.
- Falling property prices and record levels of mortgage debt mean that employees may be more interested in job security than increases in income.
- RBA analysis has found that workers are now less likely to voluntarily change jobs compared to the mid-2000s. Wage growth is typically lower for workers who do not change employer.
- Both globally and in Australia, economic growth is showing up more in profits and jobs than it used to, but less so in wages. In part, this is due to the fact that employers require sufficient confidence about the longevity of improved operating conditions before adding to their wage bill.
- Trends such as automation of work processes, an increase in contract work, and competitive pressures from the internationalisation of services trade have all combined to restrain workers' bargaining power. It is possible that these trends are making workers feel less secure about their future employment and less likely to push for larger pay rises.
- The returns to technological developments, which are increasingly focussed on intangible capital goods such as software and IT, tend to be highly concentrated in a few firms across a small number of sectors. Firms that are unable to innovate and take advantage of new technologies are often opting to control costs as a way of remaining competitive. This cost-control approach can sit at odds with paying employees higher wages.

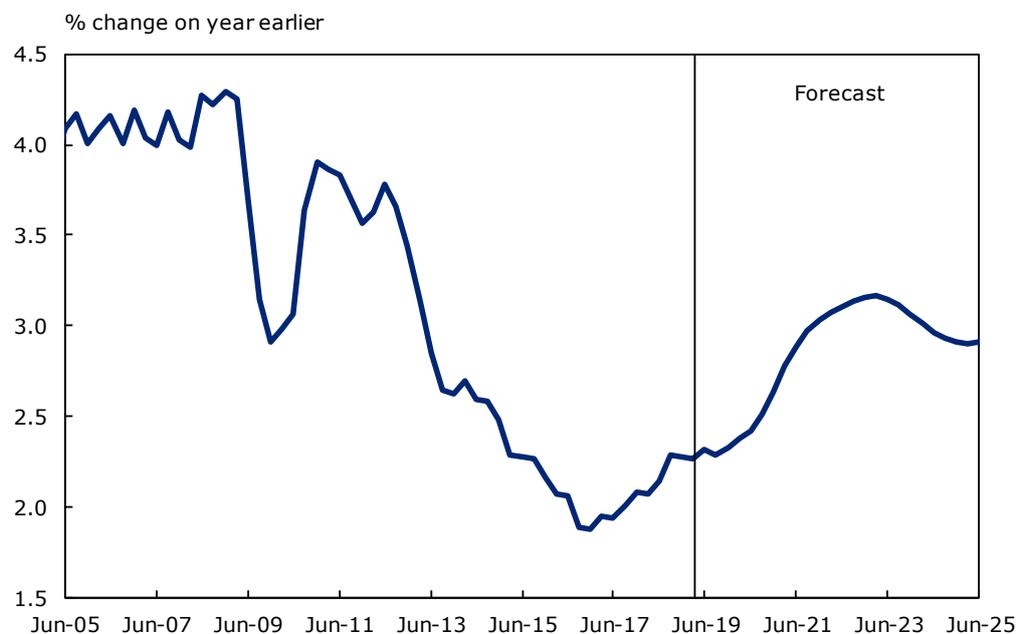
Despite this, a number of factors are pointing to an acceleration in the pace of wage growth over the coming years:

- The underutilisation rate – the unemployed plus those who would like to work longer hours – has been falling relatively fast over the past eighteen months. Continued employment gains are expected to absorb remaining spare capacity in the labour market. This tightening of labour market conditions will place downward pressure on unemployment and underemployment, leading to gradual improvements in wage growth.

- The RBA decided to lower the cash rate by 25 basis points to 1.25% at the June 2019 Monetary Policy Meeting. A lower level of the cash rate will assist in reducing spare capacity in the labour market thereby adding to wage pressures.
- The CPI is forecast to grow by 1.7% in 2018-19, lifting to 1.8% in 2019-20 before reaching 2.3% growth in 2020-21. While this improvement is slower than previously expected, faster growth in inflation will eventually flow through to wages.
- Growth in national income has lifted notably from a low in mid-2016. To date much of the gain has been directed toward profits, which have increased by almost three quarters in the two and a half years to December 2018. A greater share of national income is expected to flow to wages as the labour market tightens.
- In the long run, demographic factors are also expected to add to wage pressures. The increasing retirement among baby boomers is set to restrain growth in the number of potential workers. This should hand employees back some bargaining power in wage negotiations, contributing to higher wage outcomes.

Deloitte Access Economics forecasts a gradual lift in wage growth. Nominal wages are projected to lift from 2.3% in 2018-19, reaching 3.0% growth in 2021-22.

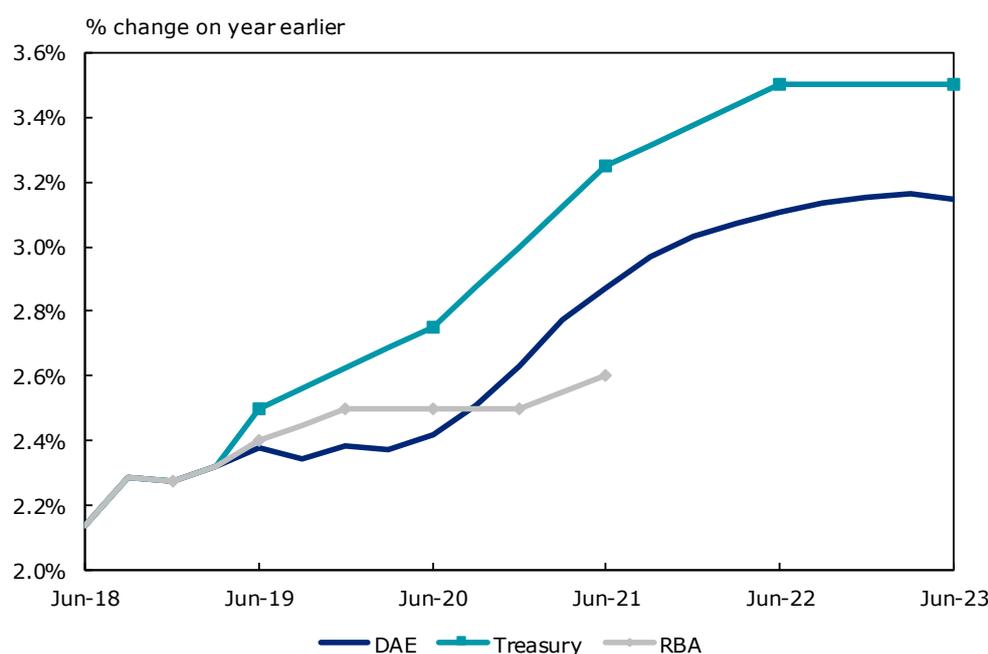
Chart 2.6 National WPI forecasts



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

By way of benchmarking, Deloitte Access Economics' forecasts are close to the latest released by the RBA in its May 2019 *Statement of Monetary Policy*, but continue to project a more gradual rate of pick-up in wage inflation than is envisaged in the Commonwealth Treasury forecasts encompassed in the *2019-20 Budget* released in April 2019.

Chart 2.7 Comparison of national WPI forecasts by forecaster



Note: Markers indicate provided forecast, remaining data points have been imputed. Series are 'year-to' not 'year-average' growth rates.

Source: Commonwealth Treasury Budget 2019-20, Deloitte Access Economics, RBA May 2019 Statement of Monetary Policy.

Table 2.1 National wage forecasts

**Financial year nominal wages forecasts**

| Annual % change         | History |         | Forecast |         |         |         |         |         |  |
|-------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                         | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Wage price index        | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |  |
| Average weekly earnings | 2.3     | 2.8     | 2.3      | 2.5     | 2.8     | 2.9     | 2.8     | 2.6     |  |
| Ordinary time earnings  | 2.4     | 2.4     | 2.6      | 3.1     | 3.4     | 3.6     | 3.6     | 3.5     |  |
| Unit labour costs       | 1.3     | 2.0     | 0.7      | 0.7     | 1.5     | 1.8     | 2.2     | 2.3     |  |

**Financial year real wages forecasts**

| Annual % change         | History |         | Forecast |         |         |         |         |         |  |
|-------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                         | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Wage price index        | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |  |
| Average weekly earnings | 0.3     | 1.0     | 0.5      | 0.2     | 0.4     | 0.4     | 0.5     | 0.5     |  |
| Ordinary time earnings  | 0.4     | 0.6     | 0.7      | 0.8     | 1.0     | 1.1     | 1.3     | 1.3     |  |
| Unit labour costs       | -0.7    | 0.3     | -1.1     | -1.6    | -0.9    | -0.7    | -0.1    | 0.1     |  |

Source: ABS, Deloitte Access Economics.

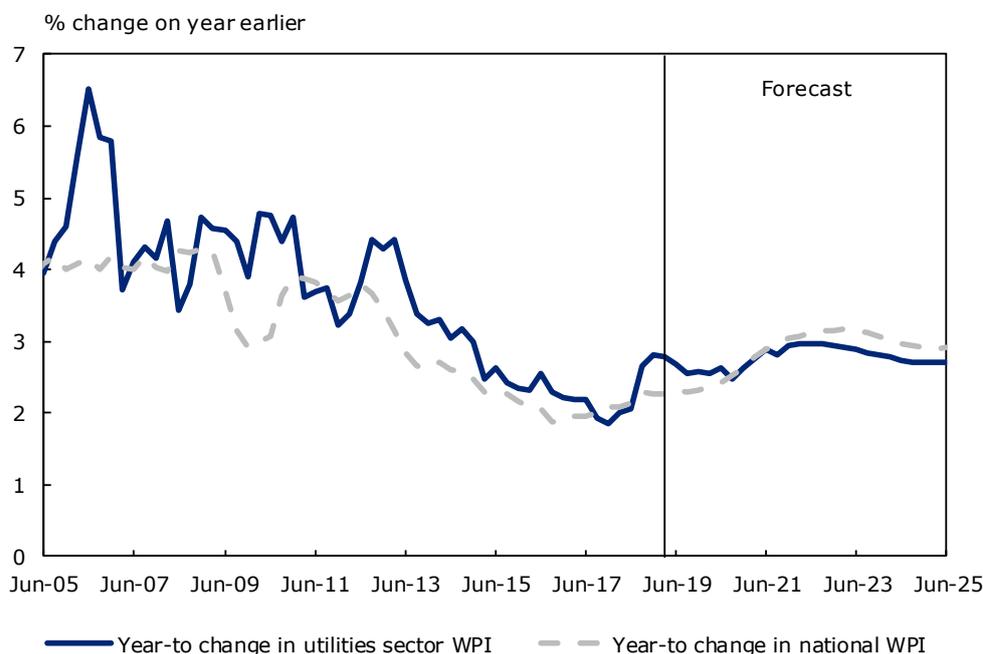
**2.2.2 Utilities sector wages**

Utilities sector wages grew by 0.6% in the March quarter of 2019 to be 2.6% higher over the year. Wage gains have accelerated from a low in mid-2018 and are now at the highest levels seen since late 2015.

The improvement in wage gains has been sharpest in the private sector, where growth has lifted from a low of 1.9% in March 2018 to 2.7% in March 2019. Public sector wages grew from 2.1% growth to 2.4% over the same period. This is partly due to the fact that private sector utilities employment has been growing at robust rates since late 2017, while public sector utilities employment has only recently stopped falling.

Wage gains in the utilities sector have outperformed wages in the wider Australian economy since June 2018. This marks a return to the long-running trend of faster wage gains in the utilities sector.

Chart 2.8 National utilities sector Wage Price Index forecasts



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Deloitte Access Economics.

The acceleration in utilities sector wages does not appear to be driven by an improvement in the growth in utilities sector output, which remains below the average across all industries. Measures of labour productivity (which make workers more valuable to businesses) remain sluggish, while conditions in industries that compete with utilities for labour (such as construction, mining and manufacturing) are relatively subdued.

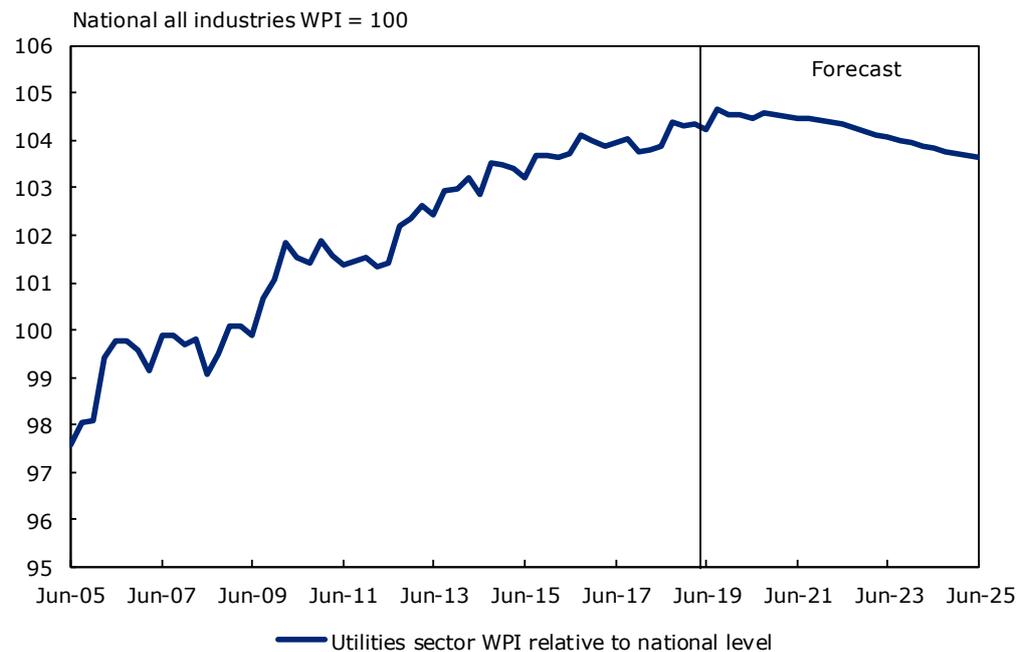
There are a number of potential explanations for the recent lift in utilities wages:

- Utilities sector employment grew by 4.3% in the year to February 2019, above the 2.4% gain across all other sectors. Utilities sector employment has been growing at healthy rates since early 2018, helping to absorb spare capacity in the sector.
- Record levels of infrastructure investment have seen activity shift away from housing construction towards civil infrastructure construction. It is possible that there is a greater degree of substitutability between the skills required for civil construction and those used in the utilities sector, compared with housing construction and the utilities sector. This would add upwards pressure to wage gains in the utilities sector.
- The outperformance of wage gains in the utilities sector relative to the wider economy may reflect factors that are difficult to observe. For example, it is possible that wages have increased because requisite skills have lifted, but – if so – then better skilled workers have yet to boost sector output. It may also be the case that employment growth has reduced spare capacity in the utilities sector at a faster rate than seen in the wider economy, adding proportionally more upward pressure to utilities sector wages.
- The utilities sector WPI exhibits a greater degree of volatility than the all industry WPI throughout history. It is possible that the recent acceleration in wage gains is a temporary fluctuation.
- The ABS refreshes the representative sample of employers surveyed in the WPI series annually. This update occurs in the December quarter, and may have contributed somewhat to the acceleration in utilities wage gains seen in the past two quarters.

The factors noted above will see utilities wages continue to outperform the all industry average in the short term. Utilities wages are then expected to grow at a marginally slower rate than the all industry average. This is largely driven by the fact that utilities output is forecast to grow slower than the average across all sectors. Conditions are expected to remain weak in competitor sectors such as manufacturing and mining, while infrastructure investment activity is likely to peak in the near future.

The utilities WPI is forecast to recover from growth of 2.0% in 2017-18, to 2.7% in 2018-19, before reaching 2.9% by 2021-22. The recovery in wage growth in the utilities sector is in line with the gradual recovery in Australian wages over the next few years.

Chart 2.9 Utilities Wage Price Index relative to National Wage Price Index



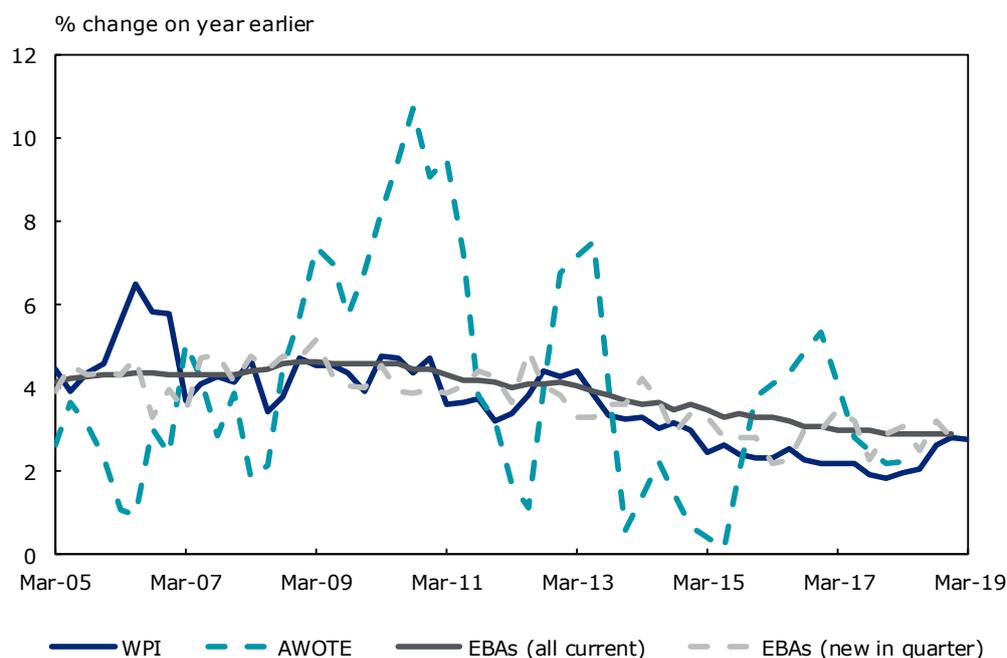
Source: ABS, Deloitte Access Economics.

### 2.2.2.2 Comparison with results from other wage growth measures

Chart 2.10 shows that, despite volatility in Average Weekly Ordinary Time Earnings (AWOTE), the downward trend in utilities WPI from 2006 to 2018 has been mirrored by several other wage growth measures that are produced on a regular basis.

These include EBAs sourced from the *Trends in Federal Enterprise Bargaining* publication produced by the Department of Employment, Skills, Small and Family Business.

Chart 2.10 Measures of utilities sector wage growth



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Department of Employment, Skills, Small and Family Businesses.

The AWOTE series fluctuates considerably and is consequently limited in its use in forecasting wage growth. In the latest Average Weekly Earnings (AWE) publication released in February 2019, the ABS indicated that the biannual survey was 'designed to provide estimates of the level of average earnings at a point in time and, while not designed for movements in earnings, the frequency of collection supports a time series of these level estimates'. Data on the average level of earnings is useful for comparing what an individual earns relative to the average. It is therefore used in the Deloitte Access Economics wage price model as an indicator only.

The utilities EBA data provides a good partial indicator of the future trend growth in the utilities WPI measure. Deloitte Access Economics considers EBA data in forecasting WPI, but it is not the primary driver.

As at the December quarter of 2018, there were 332 EBAs active in the utilities sector, covering some 50,700 employees. Wages in 'all current EBAs' grew at 2.9% for the utilities sector in the December quarter of 2018, the fifth consecutive quarter of such gains. The average annualised wage increase (AAWI) in the utilities sector was above the 2.7% gain seen across all sectors.

Wage growth in new utilities sector EBAs was 2.8% in the year to December 2018, below the 3.2% gain in September 2018. The AAWI increase in utilities sector EBAs has outperformed the all industry average for most of the last two years, but this outperformance has moderated since June 2018. New EBAs lodged in the December quarter of 2018 only covered 3,800 employees, meaning that the trend of softer utilities EBA wage outcomes will need to continue for it to weigh on the AAWI for all current EBAs in a meaningful way.

### 2.2.3 Labour productivity

Labour productivity measures 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.

In this report, Deloitte Access Economics provides estimates of labour productivity at the national, state and industry level. The methodology used is presented in the Appendix of Report 1.

Labour productivity in the utilities sector has largely grown at a slower rate than productivity across the wider economy over the last two decades. Growth in utilities sector multifactor productivity (a measure of productivity that captures the difference in the growth of outputs and inputs such as capital and labour) fell by an average annual rate of 3.2% from 1999-00 to 2013-14.

Analysis from the Productivity Commission found that falling multifactor productivity growth was due to an increase in the ratio of peak to average electricity demand (which lowered rates of capacity utilisation), investment in capital assets (which temporarily increased inputs prior to growth in output), undergrounding electricity cabling (which raised costs and quality of service but not the volume of output) and a policy shift in favour of cleaner energy generation (which were initially higher-cost forms of generation). More recently, the impact of these factors has largely passed, leading to more settled gains in labour productivity in the utilities sector. Multifactor productivity in the utilities sector has grown by 0.5% per annum in the four years from 2013-14 to 2017-18.

In 2017-18, labour productivity fell by 0.4% in the utilities sector, compared to a 0.2% fall across all industries. Utilities sector labour productivity is forecast to fall by a further 0.2% in 2018-19 before lifting to 1.7% growth in 2019-20. This is largely due to the fact that employment gains are set to moderate from a peak in 2017-18, adding upwards pressure to labour productivity. Utilities sector labour productivity is expected to closely track productivity in the wider economy over the medium term.

Table 2.2 Australian labour productivity forecasts

| Annual % change | History |         | Forecast |         |         |         |         |         |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| All industries  | -0.2    | -0.1    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |
| Utilities       | -0.4    | -0.2    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |

Source: ABS, Deloitte Access Economics.

## 2.2.4 Summary results

Table 2.3 National sectoral wage forecasts

### Financial year changes in nominal national WPI

| Annual % change | History |         | Forecast |         |         |         |         |         |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| All industries  | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |
| Utilities       | 2.0     | 2.7     | 2.6      | 2.7     | 2.9     | 2.9     | 2.8     | 2.7     |

### Financial year changes in real national WPI

| Annual % change | History |         | Forecast |         |         |         |         |         |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| All industries  | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |
| Utilities       | 0.0     | 1.0     | 0.7      | 0.4     | 0.5     | 0.4     | 0.5     | 0.5     |

### Financial year changes in labour productivity forecasts

| Annual % change | History |         | Forecast |         |         |         |         |         |
|-----------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                 | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| All industries  | -0.2    | -0.1    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |
| Utilities       | -0.4    | -0.2    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |

Source: ABS, Deloitte Access Economics.

# 3 New South Wales

## 3.1 Economic outlook

### 3.1.1 Overview

The New South Wales economy continues to perform strongly, with high levels of public infrastructure investment partly offsetting weakness in the housing and construction sectors. State final demand (SFD) grew by 3.0% over the year to March 2019, slightly below the 3.2% growth seen in the prior year. The depreciating Australian dollar, low interest rates and robust population growth have all been important in supporting activity in the state.

Government infrastructure spending has been a key driver of the state's growth in recent years. The level of spending is expected to remain high, with the state's 2019-20 Budget allocating \$93 billion over the four years to 2022-23 for the capital program. This includes investment in public transport and roads of \$55.6 billion, including funding to accelerate Sydney Metro West and to restore bridges and roads across New South Wales. Based on current policies, government infrastructure spending will peak around 2019-20.

Conditions in the housing market have slowed following several years of strong growth. From 2012 to 2017, prices in Sydney increased by around 70% amid strong population growth and cuts to interest rates.<sup>1</sup> Construction activity and employment both increased, helping to drive growth in the broader state economy.

While interest rates remain low, population growth in Sydney has weakened, combined with regulatory measures restricting foreign investment and credit supply have caused weakness in house prices. Prices have fallen by around 15% from their peak in mid-2017, with the declines partly responsible for a slowdown in retail spending, car sales and housing construction activity.<sup>2</sup>

Near-term consumption growth will likely remain muted, amid falling house prices and low wage growth. Housing construction will fall further over the next few years as declining house prices deter developers and increase the risks of property lending by financial institutions. Meanwhile, building approvals remain weak. The number of dwelling units approved in New South Wales fell by almost one fifth over the year to April, and the outlook remains modest with a large number of newly constructed units continuing to absorb dwelling undersupply in the Sydney market.

Property prices are expected to fall through 2019, although the June decision by the RBA to cut interest rates to a record low of 1.25% could help stabilise prices. Market participants are expecting at least one more rate cut in 2019, with some predicting rates will drop even further below 1%.

The labour market has remained robust with the unemployment rate at 4.5% in April, still well below the national figure of 5.2%. The pace of wage growth has lifted modestly with an increase of 2.3% in the year to March 2019. Wage gains are expected to continue to lift gradually as the labour market tightens, but with the unemployment rate already low in New South Wales this may take some time.

Population growth is set to moderate, but remain at elevated levels. There has been a decrease in net interstate migration to New South Wales due to factors such as housing affordability (among others). Net overseas migration may also be constrained by the decrease in permanent migrant intake from 190,000 to 160,000. Finally, the state has seen a surge in foreign student arrivals over the past few years, however those students are now nearing the end of their courses.

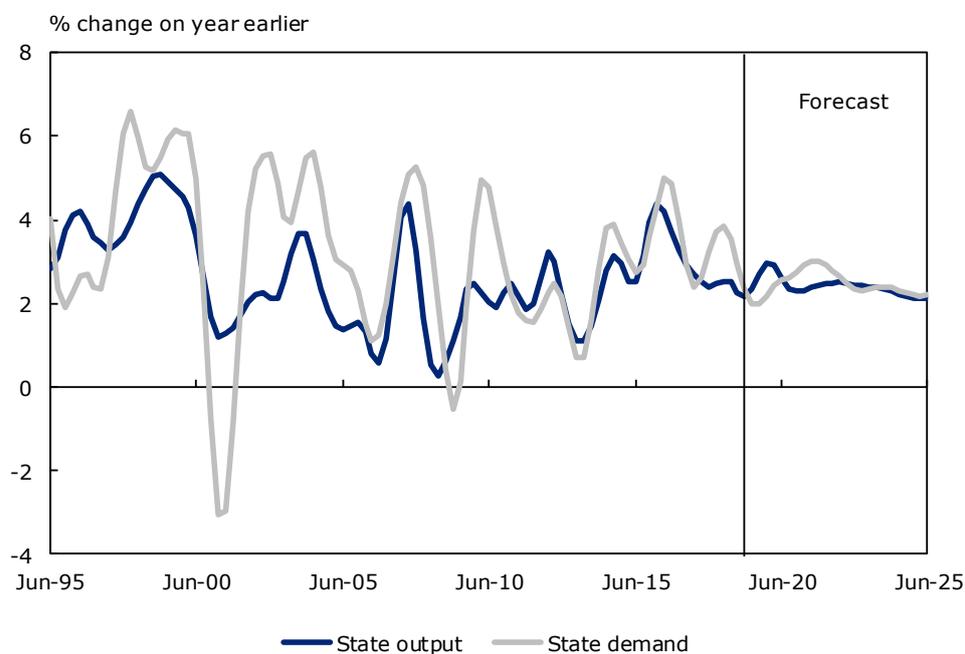
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<sup>1</sup> Australian Bureau of Statistics, *Residential Property Price Indexes: Eight Capital Cities, Dec 2018*, cat. no. 6416.0 (3 June 2019).

<sup>2</sup> CoreLogic, *CoreLogic Hedonic Home Value Index, April 2019 Results* (24 May 2019) <<https://www.corelogic.com.au/research/monthly-indices>>.

The drivers of growth in the New South Wales economy are shifting. Future growth will be supported less by dwelling investment and household consumption and more by business investment and exports. Growth in the New South Wales economy is expected to lift from a low of 2.6% in 2017-18 to 2.8% in 2018-19, before accelerating to a 3.1% gain in 2019-20.

Chart 3.1 Output and demand (change on year earlier), New South Wales



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

Table 3.1 New South Wales economic forecasts

| Annual % change (unless noted) | History | Forecast |         |         |         |         |         |         |  |
|--------------------------------|---------|----------|---------|---------|---------|---------|---------|---------|--|
|                                | 2017-18 | 2018-19  | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Consumption                    |         |          |         |         |         |         |         |         |  |
| Private sector                 | 2.7     | 2.1      | 1.9     | 1.7     | 2.0     | 2.1     | 2.2     | 2.3     |  |
| Public sector                  | 2.4     | 6.5      | 2.8     | 2.7     | 2.1     | 1.5     | 1.7     | 1.8     |  |
| Private sector investment      |         |          |         |         |         |         |         |         |  |
| Dwelling investment            | 2.1     | -0.8     | -4.3    | -1.4    | 4.1     | 2.5     | -2.2    | -3.9    |  |
| Non-residential building       | 17.6    | 2.5      | 6.7     | 9.7     | 4.1     | 1.8     | 3.4     | 2.5     |  |
| Engineering construction       | 38.2    | -3.4     | -6.0    | 3.2     | 1.8     | 0.8     | 2.7     | 2.2     |  |
| Machinery and equipment        | -0.1    | 2.9      | 8.7     | 14.2    | 8.5     | 5.7     | 6.7     | 5.6     |  |
| IP and livestock               | 7.9     | 7.4      | 11.1    | 11.9    | 9.6     | 7.7     | 9.5     | 8.5     |  |
| Public investment              |         |          |         |         |         |         |         |         |  |
| General Government             | 15.8    | 16.1     | 0.8     | 1.2     | 3.0     | 2.3     | 2.7     | 2.8     |  |
| Public enterprises             | 0.9     | -9.6     | 1.7     | 1.1     | 2.1     | 1.8     | 2.9     | 2.4     |  |
| Real final demand              | 3.4     | 2.8      | 2.3     | 2.8     | 2.8     | 2.4     | 2.4     | 2.2     |  |
| Private sector                 | 3.1     | 1.6      | 2.2     | 2.9     | 3.0     | 2.6     | 2.5     | 2.3     |  |
| Public sector                  | 4.3     | 7.0      | 2.4     | 2.3     | 2.3     | 1.6     | 1.9     | 2.0     |  |
| Gross State output             | 2.6     | 2.3      | 2.8     | 2.3     | 2.5     | 2.4     | 2.3     | 2.1     |  |
| Employment                     | 3.2     | 3.3      | 0.9     | 0.7     | 1.1     | 1.2     | 1.2     | 1.0     |  |
| Unemployment rate (%)          | 4.8     | 4.4      | 4.6     | 4.9     | 5.0     | 4.9     | 4.9     | 5.0     |  |

Note: All variables (except for jobs and unemployment) expressed in inflation adjusted terms.  
Source: ABS, Deloitte Access Economics.

### **3.1.1 Utilities sector**

Utilities sector activity rose in 2017 and through mid-2018, after several years of falling output. Extreme summer temperatures and increasing electricity generation from renewable sources, particularly wind and solar, have offset some declines in natural gas generation.

New South Wales recorded its highest average wholesale electricity price on record in the first quarter of 2019. There were several supply side drivers of high prices including dry conditions, which resulted in reduced supply from hydro generators and an increase in the price of black coal-fired generation as some generators experienced quality issues. Hot summer temperatures also contributed to an increase in electricity demand.

The prices set by electricity generators for all fuel types increased in the March quarter of 2019 compared to March 2018. Black coal continues to be the primary price setter in New South Wales, setting the price approximately 70% of the time.<sup>3</sup>

Electricity generation from renewable sources saw mixed results in early 2019. New South Wales hydro generation fell compared to the first quarter of 2018. On average, output from New South Wales hydro units was 244 MW lower, mostly due to reduced output from the Tumut Hydroelectric power station.

New South Wales saw a 30% increase in rooftop PV generation over the past year, the largest increase across Australia. Increases in rooftop PV generation coincided with a record amount of installed rooftop PV capacity over 2018 and 2019. Average gas powered generation increased by 68 MW due to high spot prices resulting from high demand and low hydro output.

Several electricity generation projects in New South Wales have been shortlisted by the Federal Government under the Underwriting New Generation Investments (UNGI) program. This program is designed to support targeted investment in electricity generation assets to increase competition and lower prices. The three projects in New South Wales are a gas, hydro and coal project:

- Australian Industrial Energy - Port Kembla, New South Wales - Gas
- UPC Renewables - Armidale, New South Wales - Renewable Pumped Hydro
- Delta - Lake Macquarie, New South Wales - Coal Upgrade

There also remains significant uncertainty over climate and energy policy, with the Federal Government still pursuing legislation to force energy companies to divest assets if they do not lower prices and ensure reliable supply.

## **3.2 Outlook for wages**

### **3.2.1 All industries**

The New South Wales WPI grew by 2.3% over the year to March 2019, in line with the national figure. The pace of gains has lifted modestly from low of 2.1% in June 2018 amid a strong labour market.

The decline in the state's WPI relative to the national equivalent beginning in 2005 largely reflects rising wages in resource rich states such as Queensland and Western Australia during the mining boom (Chart 3.2).

Relative wage gains in New South Wales have recovered from a trough in mid-2015. The relative wage increases are partly due to the strength of the New South Wales economy compared to other states and territories. The housing construction boom, a robust labour market and record levels of

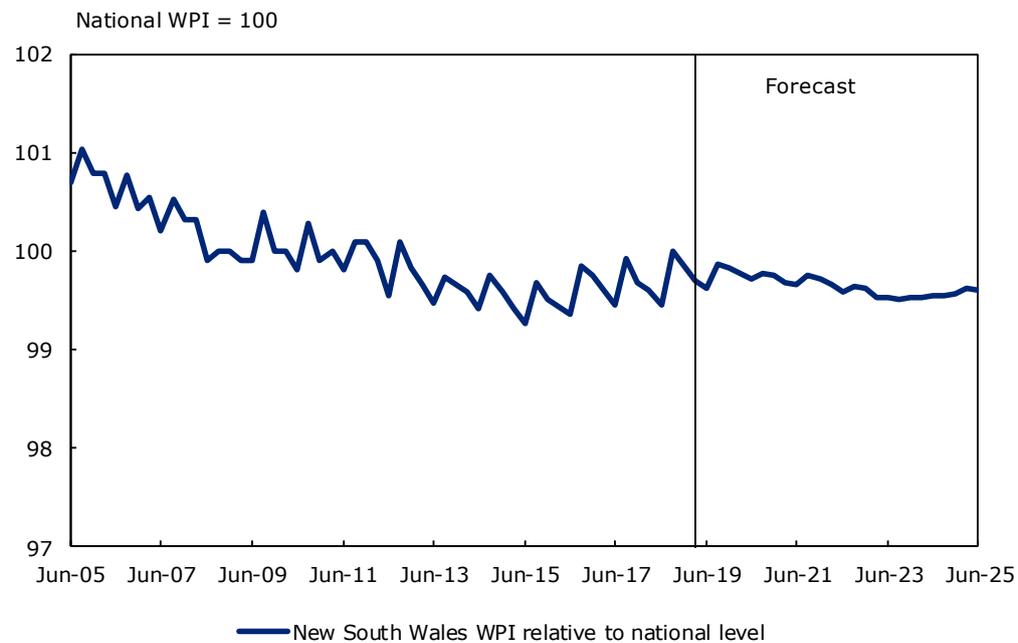
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<sup>3</sup> Australian Energy Market Operator, *Quarterly Energy Dynamics Q1 2019 (30 May 2019)*  
<[https://www.aemo.com.au/-/media/Files/Media\\_Centre/2019/QED-Q1-2019.pdf](https://www.aemo.com.au/-/media/Files/Media_Centre/2019/QED-Q1-2019.pdf)>.

infrastructure investment have all contributed to this period of strength. However, with the recent drivers of growth slowing, the state's relative WPI is set to remain slightly below the national average over the forecast period.

Some loosening of lending regulations, continuation of existing property tax concessions and interest rate cuts by the RBA are expected to provide some support housing prices and construction activity over the forecast period. The recent boom in public infrastructure investment should also help to lift productivity and wages in the state.

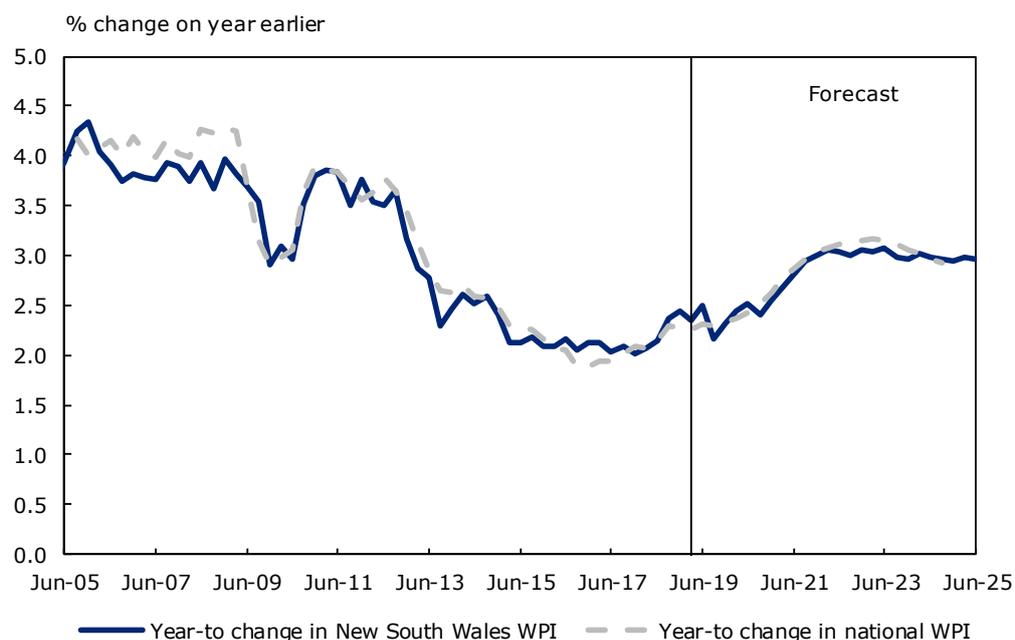
Chart 3.2 New South Wales WPI relative to national WPI



Source: ABS, Deloitte Access Economics.

Wage growth in New South Wales is forecast to lift to 3.0% by 2024-25, as a tighter labour market eventually pushes up wages.

Chart 3.3 New South Wales general WPI growth



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

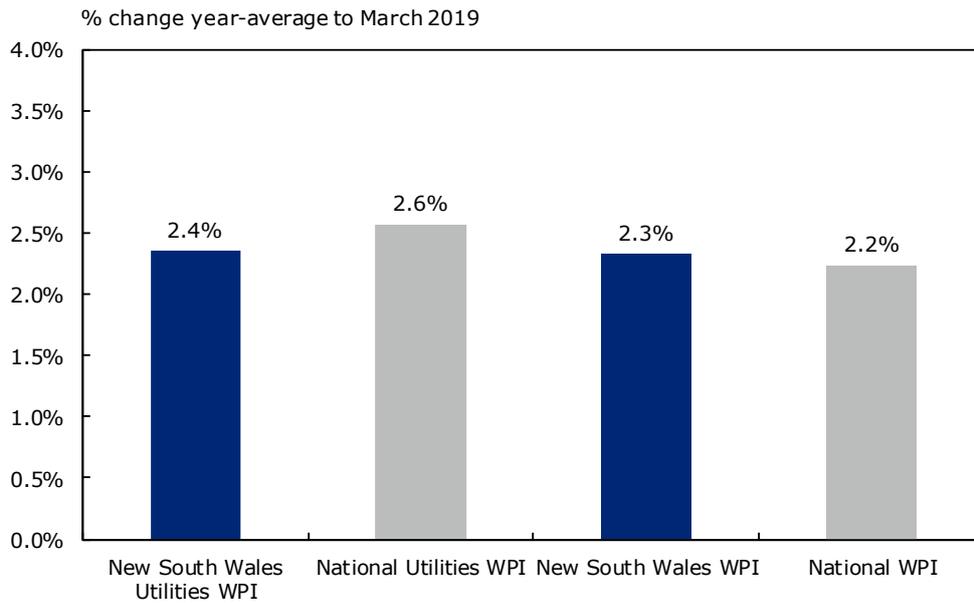
Source: ABS, Deloitte Access Economics.

### 3.2.2 Utilities sector wages

As the largest state by population, New South Wales comprises a substantial share of national utilities output. Therefore, New South Wales and national utilities sector wages follow similar trends. However, at the state level there may be greater volatility in utilities output, particularly over the short term.

Wages in the New South Wales utilities sector grew by 2.4% over the year to March 2019 (see Chart 3.4). This is below the national average for the utilities sector of 2.6%, but remains above the New South Wales all industry average of 2.3%.

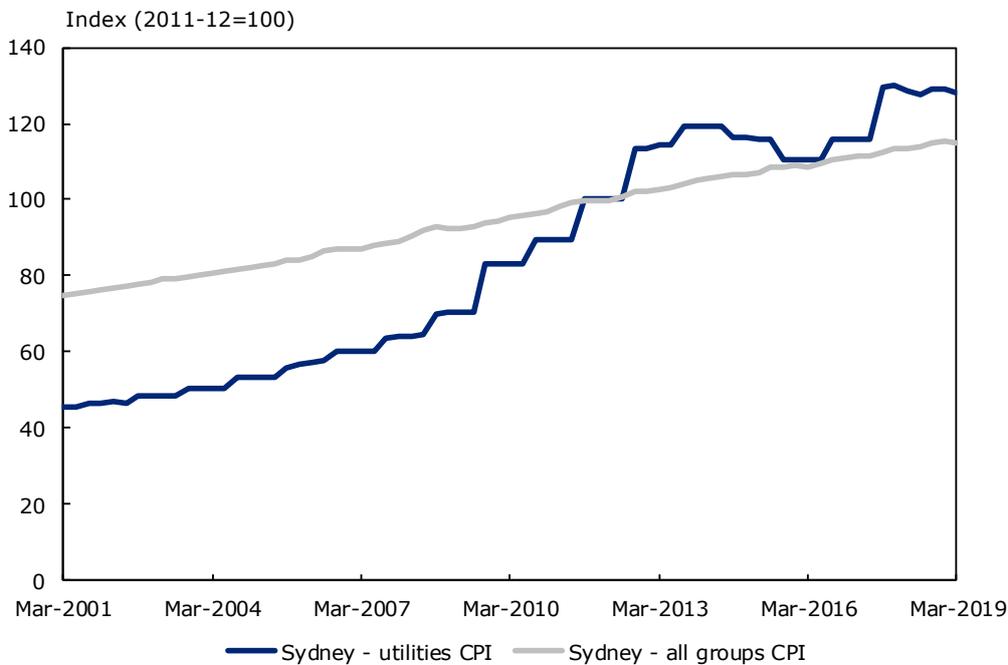
Chart 3.4 Comparative WPI annual growth rates in year to March 2019



Source: ABS, Deloitte Access Economics.

Utilities price growth has remained relatively flat over the past year after a significant increase in prices in September 2017 (Chart 3.5). Over the year to March 2019, CPI for utilities increased by 1.9% compared to a 1.8% increase across all groups. Utilities CPI remains above CPI for all groups following an 85% increase over the past decade, compared to 25% growth in the broader Sydney CPI.

Chart 3.5 Sydney utilities prices

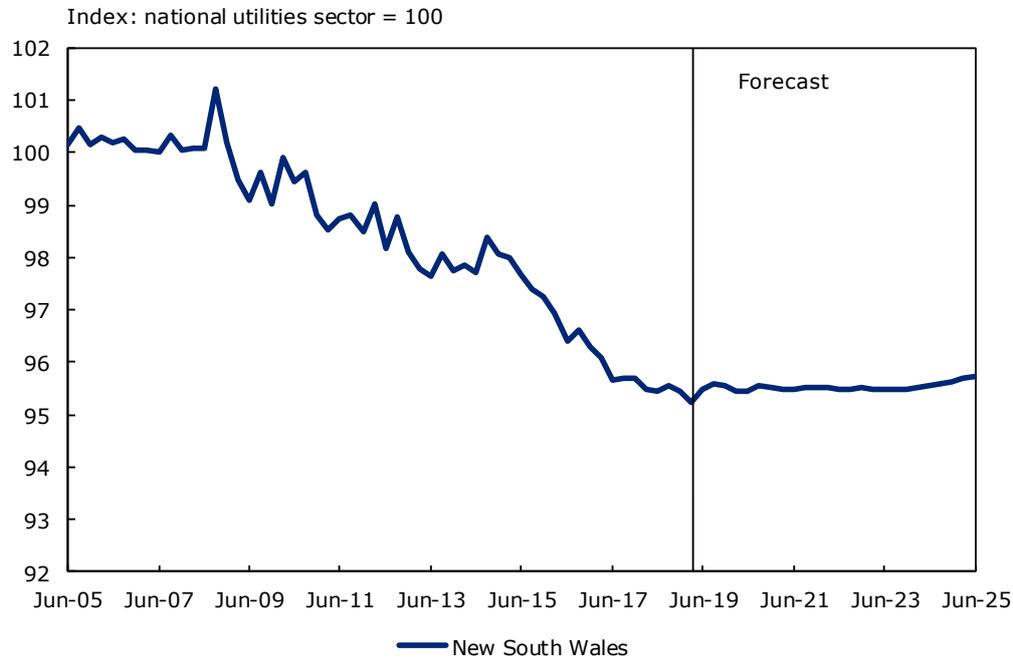


Source: ABS.

New South Wales utilities sector WPI relative to the national utilities sector average has been declining since 2009, coinciding with relatively weaker economic conditions compared to resource

rich states (Chart 3.6). Output from the utilities sector in New South Wales has underperformed relative to the national level, contributing to declining relative wages in the sector. This downward trend in relative wages has stabilised since 2017 coinciding with some convergence between national and state level utilities output growth.

Chart 3.6 New South Wales utilities WPI relative to national utilities WPI



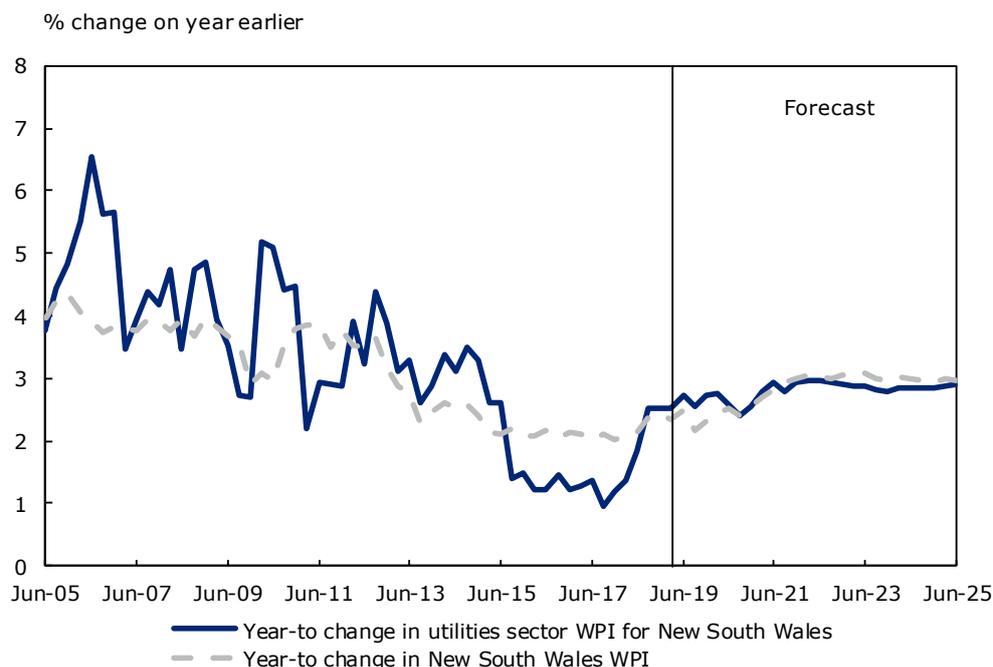
Source: ABS, Deloitte Access Economics.

Wage growth for the New South Wales utilities sector was below the gains in the wider state average from mid-2015 to mid-2018, due to the strong performance in other sectors such as construction and health care sectors.

Wages in the New South Wales utilities sector are expected to maintain a similar growth rate to the state average as utilities output in the state returns to moderate growth after several years of declining output. The improvement in utilities output growth is expected to drive labour demand and increase wages.

New South Wales utilities wages are forecast to increase 2.6% in 2018-19 and reach 2.9% growth by 2024-25.

Chart 3.7 New South Wales utilities general WPI growth



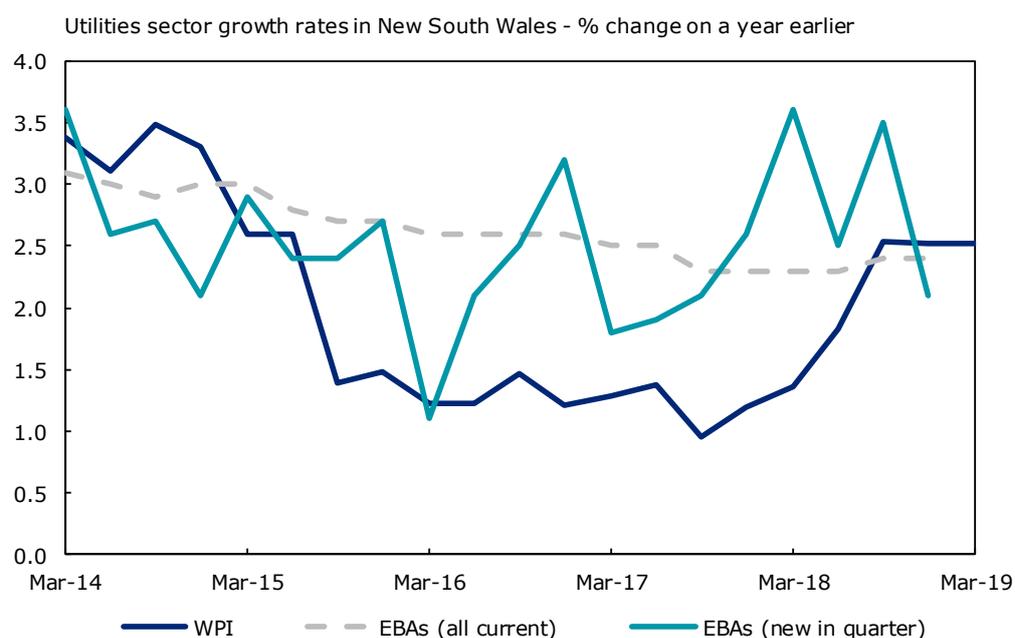
Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Deloitte Access Economics.

### 3.2.2.2 Comparison with EBA outcomes

There were 94 current EBAs in the utilities sector in the December quarter of 2018, covering almost 15,000 employees, with an AAWI of 2.4%. Chart 3.8 shows the utilities sector WPI and the outcomes in state EBAs for the sector. The chart shows:

- The AAWI across all current utilities EBAs in New South Wales has declined only slightly in recent years.
- The AAWI for new utilities sector EBAs in New South Wales fell from 3.5% in September 2018 to 2.1% in December 2018. However, only seven EBAs covering 600 employees were signed in December 2018.

Chart 3.8 Comparative measures of wage growth in the New South Wales utilities sector



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Department of Employment, Skills, Small and Family Businesses.

### 3.2.3 Labour productivity

Labour productivity across all measures is forecast to fall in 2018-19, following a decline in 2017-18. The decline in labour productivity in the utilities sector has mainly been due to weak growth in electricity output in the state. Growth in the New South Wales economy has slowed slightly in 2018-19, reducing demand for electricity from households and businesses.

Labour productivity for the New South Wales utilities sector should return to growth in 2019-20. Utilities sector output is expected to see modest growth over the forecast period, driven by greater renewable energy output and an increasing population. Employment growth is set to moderate after strong growth in 2017-18, helping to raise labour productivity.

Table 3.2 New South Wales and national labour productivity forecasts

| Annual % change                  | History |         | Forecast |         |         |         |         |         |
|----------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                                  | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| New South Wales - All industries | -0.6    | -1.0    | 1.9      | 1.6     | 1.4     | 1.2     | 1.1     | 1.1     |
| New South Wales - Utilities      | -0.6    | -0.5    | 1.8      | 1.6     | 1.5     | 1.4     | 1.3     | 1.3     |
| National - All industries        | -0.2    | -0.1    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |
| National - Utilities             | -0.4    | -0.2    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |

Source: ABS, Deloitte Access Economics.

Note: Productivity forecasts at the state level should be interpreted with care. Quarterly State Final Demand data is used to estimate quarterly GDP, which may not fully capture the impact of interstate trade. This can lead to some volatile movements in the first forecast year for state productivity.

### 3.2.4 Summary results

Table 3.3 New South Wales and national wage forecasts

| <b>Financial year changes in New South Wales and national nominal Wage Price aggregates</b> |                |                |                 |                |                |                |                |                |     |
|---|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|-----|
| <b>Annual % change</b>  | <b>History</b> |                | <b>Forecast</b> |                |                |                |                |                |     |
|   | <b>2017-18</b> | <b>2018-19</b> | <b>2019-20</b>  | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>2024-25</b> |     |
| New South Wales - All industries  | 2.1            | 2.4            | 2.4             | 2.6            | 3.0            | 3.0            | 3.0            | 3.0            | 3.0 |
| New South Wales - Utilities   | 1.3            | 2.6            | 2.7             | 2.7            | 2.9            | 2.9            | 2.8            | 2.9            | 2.9 |
| National - All industries   | 2.1            | 2.3            | 2.3             | 2.7            | 3.0            | 3.1            | 3.0            | 2.9            | 2.9 |
| National - Utilities  | 2.0            | 2.7            | 2.6             | 2.7            | 2.9            | 2.9            | 2.8            | 2.7            | 2.7 |

| <b>Financial year changes in New South Wales and national real Wage Price aggregates</b> |                |                |                 |                |                |                |                |                |     |
|--|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|-----|
| <b>Annual % change</b>   | <b>History</b> |                | <b>Forecast</b> |                |                |                |                |                |     |
|  | <b>2017-18</b> | <b>2018-19</b> | <b>2019-20</b>  | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>2024-25</b> |     |
| New South Wales - All industries   | 0.0            | 0.8            | 0.5             | 0.1            | 0.6            | 0.6            | 0.6            | 0.8            | 0.8 |
| New South Wales - Utilities  | -0.7           | 1.0            | 0.8             | 0.2            | 0.5            | 0.4            | 0.5            | 0.7            | 0.7 |
| National - All industries  | 0.1            | 0.6            | 0.5             | 0.4            | 0.7            | 0.6            | 0.7            | 0.7            | 0.7 |
| National - Utilities   | 0.0            | 1.0            | 0.7             | 0.4            | 0.5            | 0.4            | 0.5            | 0.5            | 0.5 |

Source: ABS, Deloitte Access Economics.

# 4 Queensland

## 4.1 Economic outlook

### 4.1.1 Overview

Conditions in the Queensland economy have slowed in recent quarters. Queensland SFD grew by 2.0% in the year to March 2019, below the 3.6% growth seen in March 2018. Employment growth has slowed in early 2019, following strong gains in 2017 and 2018. This has combined with weaker consumer confidence and lower housing prices to weigh on consumer spending. Housing construction also continues to fall from a peak in 2016, weighing on overall economic conditions.

Export growth is also likely to slow in 2019, weighing on output growth. The ramp-up of production at major LNG facilities has largely run its course, growth in tourist arrivals has moderated somewhat, and recent floods in north Queensland have affected farm exports.

The impact of these headwinds is likely to be relatively small, with overall economic growth in Queensland set to lift towards the end of 2019 and remain relatively strong. The upswing will be supported by further gains in population growth, an improvement in exports and private business investment, as well as the end of falls in housing construction activity.

Queensland's population is being supported by strength in both net interstate and net overseas migration. Net interstate migration to Queensland has almost tripled from the recent low observed in 2014, as more people migrate from New South Wales and Victoria due to factors such as housing affordability (among others). Although the flow of people from interstate to Queensland may soon peak, Queensland will receive a higher number of interstate migrants than during much of the past decade. Net international migration has also increased by around two quarters from the post-mining boom low observed in late 2015. And while the number of overseas migrants is unlikely to reach the levels seen during the mining boom, arrivals are set to remain elevated. This combination means that Queensland's population is forecast to grow at a faster rate than the national average for the next few years.

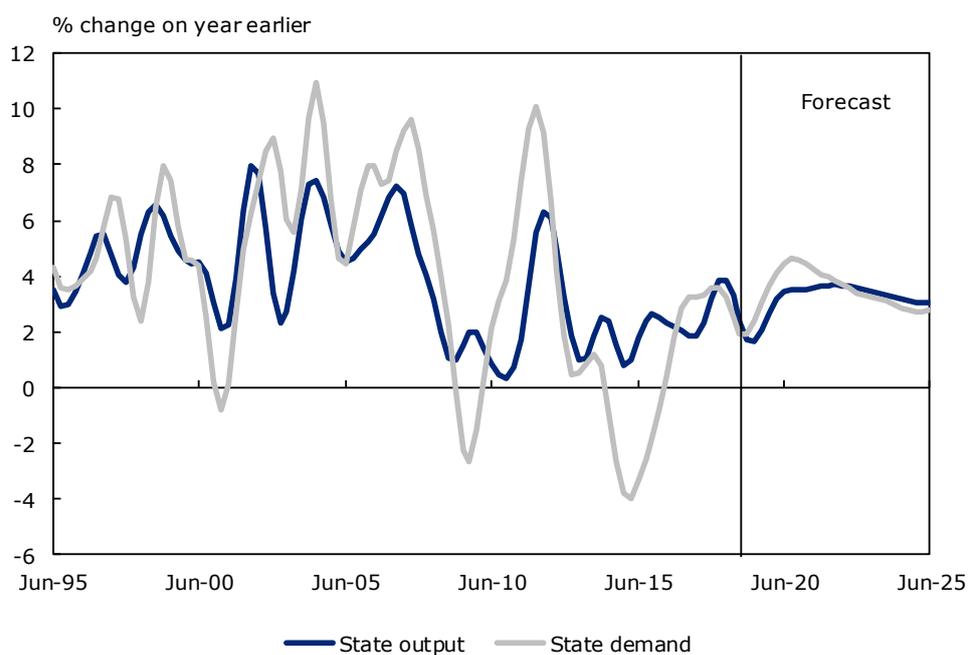
The economic upswing will also come partly from sectors that Queensland specialises in, namely tourism and mining. The modest falls in the Australian dollar over the past year will support growth international tourist arrivals. Exports of metals, particularly bauxite and zinc, will increase. Adding to this, strong demand from Asia and elevated prices may also spur investment in new gas projects.

Housing construction activity continues to fall, but the construction cycle is close to a trough. This means that housing construction will weigh less on economic activity in 2019-20, before making a positive contribution in 2020-21. There are already positive signs in the housing market. Brisbane's rental vacancy rate reached a low of 2.6% in April 2019 and residential rents are no longer falling.

Private business investment is set to ease slightly in 2018-19 before growing at elevated rates from 2019-20. Engineering construction is being supported by investment in the electricity sector. The value of work done in the electricity sector has grown by almost 150% in the past two years, while work done across other sectors has grown by around 10%. These gains have largely come from the renewables sector. Elsewhere, a lower Australian dollar is supporting investment in hotel accommodation projects, particularly on the Gold Coast and in Cairns.

Deloitte Access Economics forecasts Queensland output growth to slow from 3.4% in 2017-18 to 2.2% in 2018-19. Output growth is projected to accelerate to 2.9% in 2019-20 before reaching a peak of 3.7% in 2021-22. This will see the state's share of Australia's output and population modestly increase.

Chart 4.1 Queensland output and demand



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

Table 4.1 Queensland economic forecasts

| Annual % change (unless noted) | History |         | Forecast |         |         |         |         |         |
|--------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                                | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| Consumption                    |         |         |          |         |         |         |         |         |
| Private sector                 | 2.6     | 2.4     | 3.3      | 2.8     | 2.7     | 3.0     | 3.0     | 3.2     |
| Public sector                  | 5.3     | 4.6     | 2.9      | 2.3     | 2.0     | 1.5     | 1.9     | 2.0     |
| Private sector investment      |         |         |          |         |         |         |         |         |
| Dwelling investment            | -3.9    | -4.2    | -0.4     | 9.6     | 12.0    | 7.1     | 0.3     | -2.5    |
| Non-residential building       | 16.9    | -7.7    | 6.4      | 9.4     | 5.9     | 3.3     | 4.0     | 2.8     |
| Engineering construction       | 18.9    | -4.4    | 0.8      | 6.8     | 4.9     | 2.8     | 3.6     | 2.4     |
| Machinery and equipment        | 7.7     | 5.5     | 11.4     | 12.3    | 8.3     | 6.0     | 6.6     | 5.4     |
| IP and livestock               | 4.5     | 5.1     | 5.5      | 8.7     | 7.6     | 7.1     | 8.8     | 7.6     |
| Public investment              |         |         |          |         |         |         |         |         |
| General Government             | 0.3     | 8.8     | 4.9      | 7.6     | 4.1     | 3.7     | 3.4     | 3.1     |
| Public enterprises             | -3.9    | 7.9     | 13.8     | 11.1    | 5.3     | 3.6     | 4.3     | 3.0     |
| Real final demand              | 3.5     | 2.1     | 3.8      | 4.5     | 3.9     | 3.4     | 3.0     | 2.8     |
| Private sector                 | 3.3     | 1.0     | 3.8      | 4.8     | 4.4     | 3.8     | 3.3     | 2.9     |
| Public sector                  | 4.0     | 5.4     | 3.8      | 3.6     | 2.5     | 2.0     | 2.3     | 2.2     |
| Gross State output             | 3.4     | 2.2     | 2.9      | 3.5     | 3.7     | 3.5     | 3.3     | 3.1     |
| Employment                     | 4.1     | 1.4     | 1.2      | 1.7     | 1.8     | 1.9     | 1.7     | 1.4     |
| Unemployment rate (%)          | 6.0     | 5.9     | 5.5      | 5.4     | 5.2     | 5.1     | 5.1     | 5.2     |

Note: All variables (except for jobs and unemployment) expressed in inflation adjusted terms.

Source: ABS, Deloitte Access Economics.

#### 4.1.2 Utilities sector

Queensland utilities output rose sharply from a low in early 2017 before reaching a peak in mid-2018. Output growth has since moderated, but remains elevated. Conditions in the sector have been supported by the recovery in population growth as well as demand from the gas sector.

Total energy consumption in Queensland grew by 3.5% in 2016-17, with the largest gains in the renewables (7.6%) and coal (5.2%) sectors. Queensland energy consumption has grown at a faster rate than the national average since 2011-12.

Electricity generation in Queensland is dominated by fossil fuels. Coal accounted for approximately 73% of electricity generated in 2017, the third highest share of any state or territory. Natural gas accounts for a further 18% of electricity produced, while renewables and hydroelectricity generate around 7% of Queensland's electricity.

Queensland continued a trend that has seen maximum demand increase. The state recorded a new record high of over 10,000 MW in February 2019 during a period of high temperatures. The state also saw the second highest ever prices on record in early 2019. Despite this, Queensland had the lowest average wholesale electricity price of any state in the NEM region in early 2019. Measures of price volatility were also low. A number of factors have driven the combination of comparatively low average prices and low volatility:

- High availability of black coal generators at prices below \$300 per MWh.
- The return of the 380 MW Swanbank E gas-fired power station.
- The Queensland Government's direction to the state's largest electricity generator to "undertake strategies to place downward pressure on wholesale prices" as part of the Powering Queensland Plan.<sup>4</sup>

The Powering Queensland Plan also included an investigation in the restructure of government-owned generators, as well as the possible creation of a new generator to operate the state's renewable and low-emissions energy assets. The state has committed to a 50% renewable energy target by 2030, with plans to facilitate investment in renewables via a reverse auction.

The Queensland Government are also implementing the Queensland Gas Action Plan, which will involve releasing more than 450 square kilometres of new gas tenure for development.

Additional gas production remains an upside risk for electricity demand in Queensland. The state's LNG production reached a record high in 2018, with future gains from existing facilities likely to be relatively modest. Global markets for LNG remain tight, but there is scope for additional production from the early 2020s. Some of this production may be added in Australia. The largest planned projects are currently located in Western Australia and the Northern Territory, but there are a number of smaller developments in planning in Queensland's Galilee and Surat basins.

Looking ahead, utilities output is expected to grow below the rate in the overall economy as broader trends towards energy efficiency by households and business reduces demand, outweighing the positive impact of faster population growth and demand from the gas sector.

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<sup>4</sup> Queensland Department of Natural Resources, Mines and Energy, *Powering Queensland Plan: an integrated energy strategy for the state* (5 March 2019) <<https://www.dnrme.qld.gov.au/energy/initiatives/powering-queensland>>.

## 4.2 Outlook for wages

### 4.2.1 All industries

The Queensland WPI grew by 0.4% in the March quarter of 2019 to be 2.3% higher over the year. This continues a modest acceleration in the pace of gains from mid-2017 amid a tightening labour market.

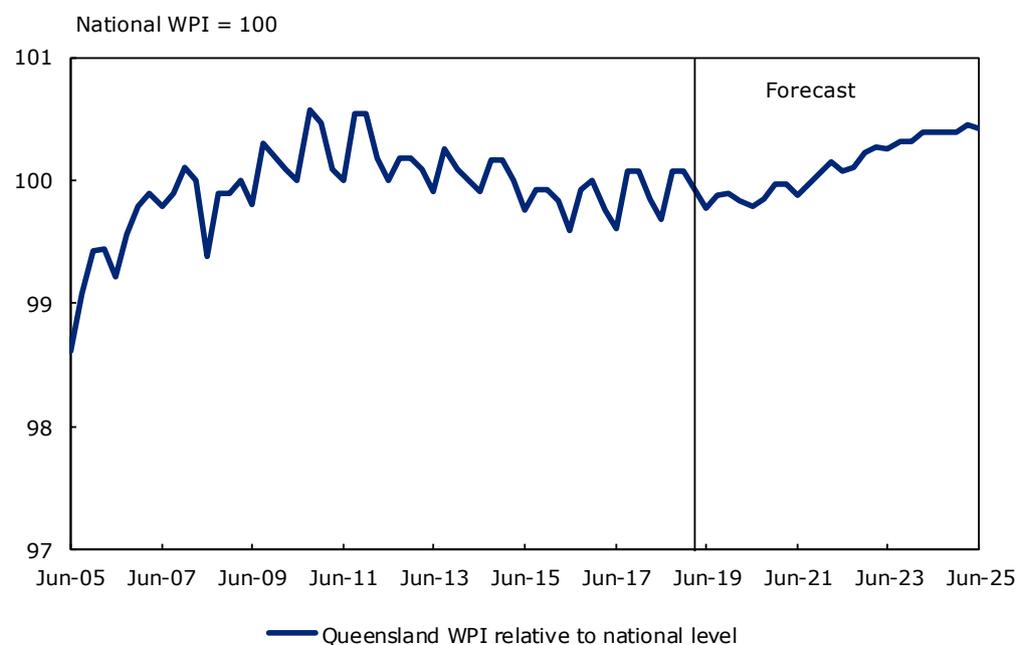
Despite a recent slowdown in the pace of growth, public sector wage gains continue to outpace private sector gains. Public sector wage growth has fallen from a peak of 2.7% in June 2018 to 2.4% in March 2019, while private wages have lifted from a trough of 1.8% in September 2017 to 2.2% in March 2019.

Queensland's WPI grew relative to the national WPI from a low in 2002-03 to a high in 2011-12 (see Chart 4.2). This was largely due to mining construction boom, which increased the demand for labour in the mining and related sectors. Wages increased as a means of attracting appropriately skilled workers to design and construct Queensland's pipeline of mining projects. Following the peak of mining construction activity, the state's WPI has moderated against the national WPI.

Queensland's WPI grew at a slower rate than the national average from 2012-13 to 2016-17 as falling engineering construction activity weighed on the wider state economy (see Chart 4.3). The underperformance of Queensland wage gains was relatively modest when compared to other resource intensive economies such as Western Australia and the Northern Territory. Wage gains have slightly outperformed the national average in the past two years amid stronger economic conditions in Queensland. A recovery in private business investment, elevated exports (namely tourism and gas), and strong gains in population and employment have all supported the backdrop for faster wage gains in Queensland.

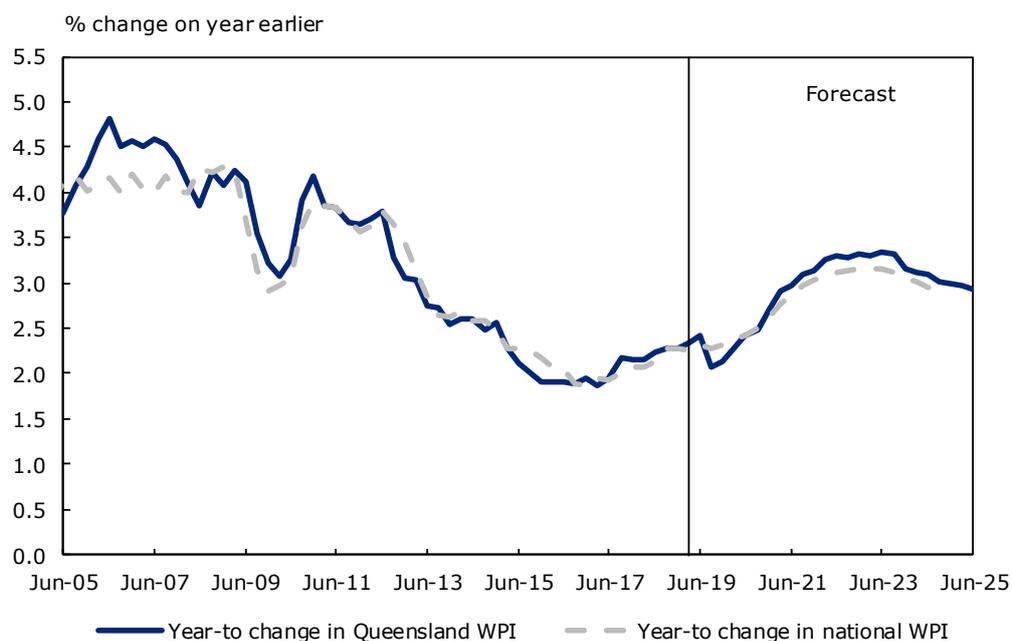
Wages gains in Queensland are forecast to accelerate from 2.2% in 2017-18 to 2.3% in 2018-19, before reaching a high of 3.3% in 2022-23. Queensland wage gains are set to marginally outpace national gains over much of the forecast period.

Chart 4.2 Queensland WPI relative to national WPI



Source: ABS, Deloitte Access Economics.

Chart 4.3 Queensland general WPI growth

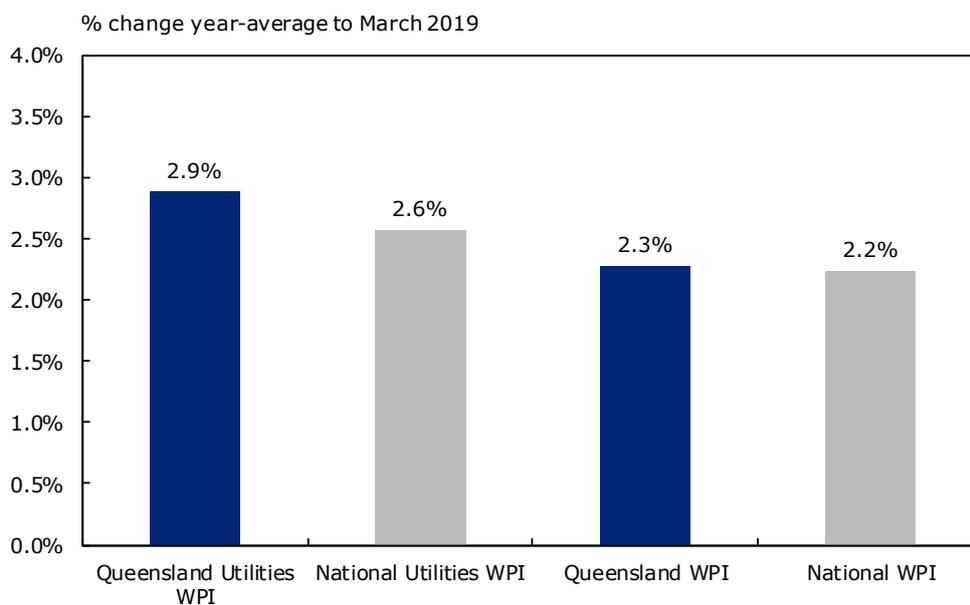


Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Deloitte Access Economics.

#### 4.2.2 Utilities sector wages

The Queensland utilities WPI grew by 2.9% over the year to March 2019 (see Chart 4.4), faster than both national utilities sector wages (at 2.6%) and overall state WPI (2.3%).

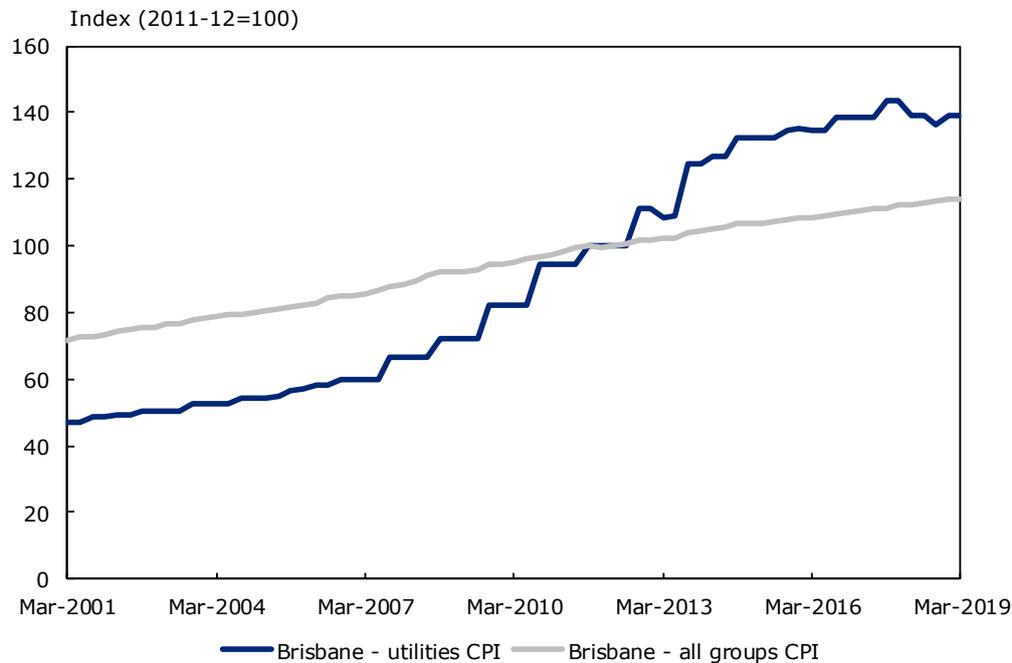
Chart 4.4 Comparative WPI annual growth rates in the year to March 2019



Source: ABS, Deloitte Access Economics.

Utilities prices have remained relatively stable in Brisbane in recent years, following six years of notable increases between 2007 and 2013 (as shown in Chart 4.5). Electricity prices have been a focal point of public policy in recent years as increases have put a strain on households and businesses across the nation. Utilities CPI remains above the CPI across all groups.

Chart 4.5 Brisbane utilities prices



Source: ABS, Deloitte Access Economics.

Wages in the Queensland utilities sector relative to the national utilities sector grew sharply from late 2008 to late 2010. This period coincided with the start of early construction and enabling works at the state’s three large LNG projects. This created competition for workers in the construction and mining sectors. This added upward pressure on wages in the utilities sector, which attracts workers from a similar labour pool. Relative wages then declined through to a low in early 2016 as construction wrapped-up on major mining projects.

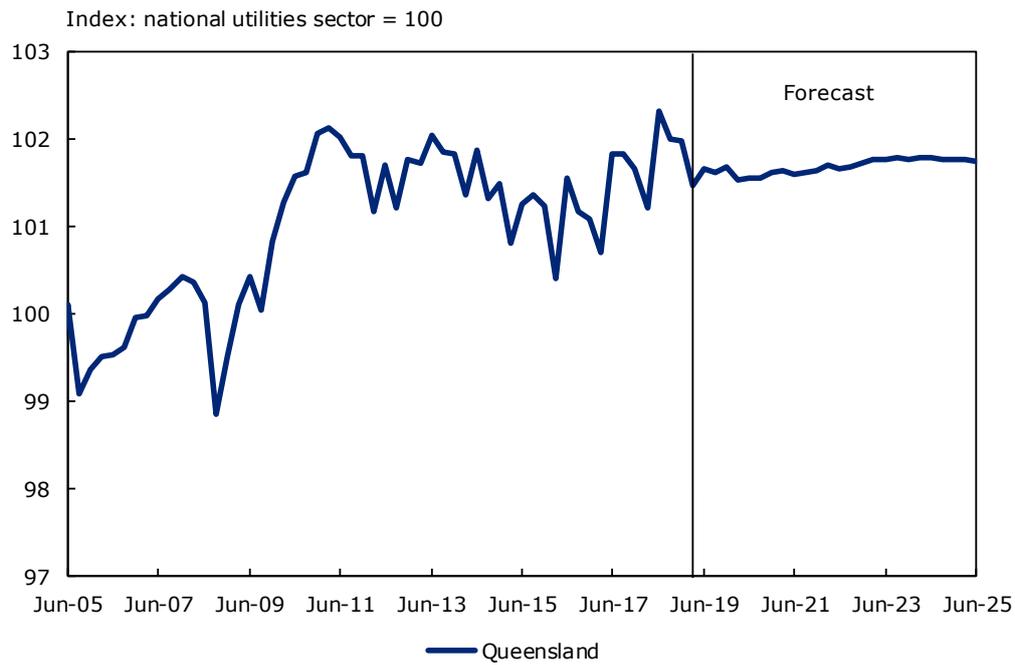
LNG facilities have since commenced production and export. This production phase of the mining boom typically does not benefit wage growth and employment as much as the domestically oriented construction phase. LNG is the exception to this rule, with new LNG facilities increasing demand for electricity. In order to export natural gas it is cooled until it turns into a liquid. This process uses a large amount of electricity and has contributed to the increased demand for electricity in Queensland.

Looking ahead, wages are also likely to be affected by the ongoing transition towards renewable energy. The state government has announced a target to produce half of all electricity using renewable technology by 2030. This has helped support a large increase in investment in renewable energy projects across the state, particularly wind and solar developments.

The increasing share of renewable energy generation is likely to result in higher demand for particular skills in the utilities workforce. These skills can often take a number of years to acquire, and to the extent that there is a mismatch between skills demanded and skills supplied, there may be upwards pressure on wages.

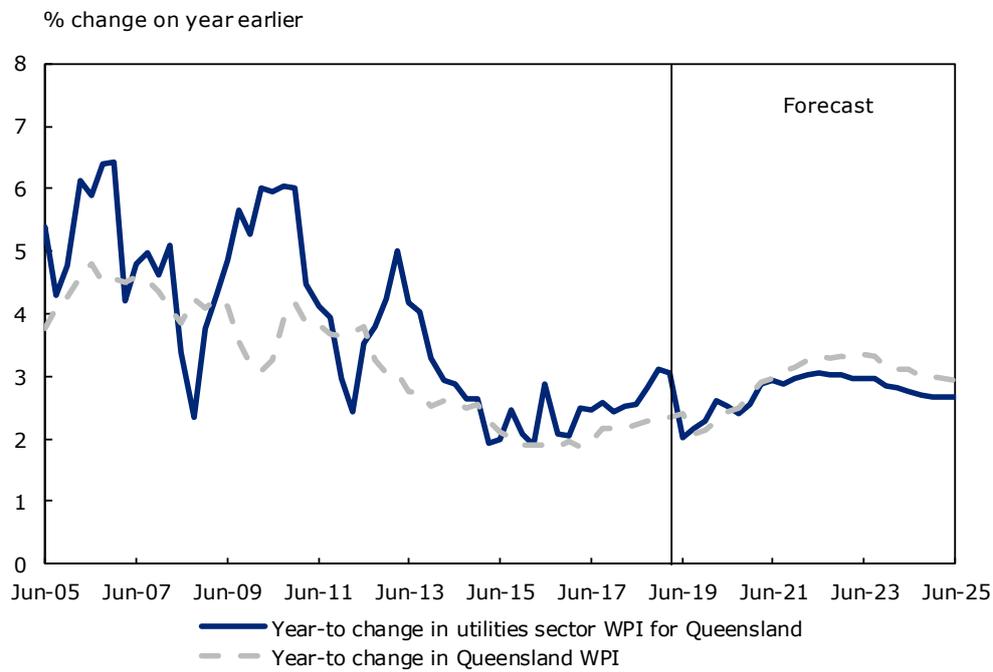
Queensland utilities sector wage gains are forecast to accelerate from 2.5% in 2017-18 to 2.7% in 2018-19, before reaching a high of 3.0% in 2021-22. This acceleration mirrors expected wage gains in the wider Queensland economy, and is partly due to the forecast for continued growth in Queensland utilities output. Utilities wages are expected to grow at a slightly slower rate than wages in the wider Queensland economy from 2020-21 amid weaker output growth.

Chart 4.6 Relative utilities WPI forecasts for Queensland



Source: ABS, Deloitte Access Economics.

Chart 4.7 Queensland utilities forecast comparison



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Deloitte Access Economics.

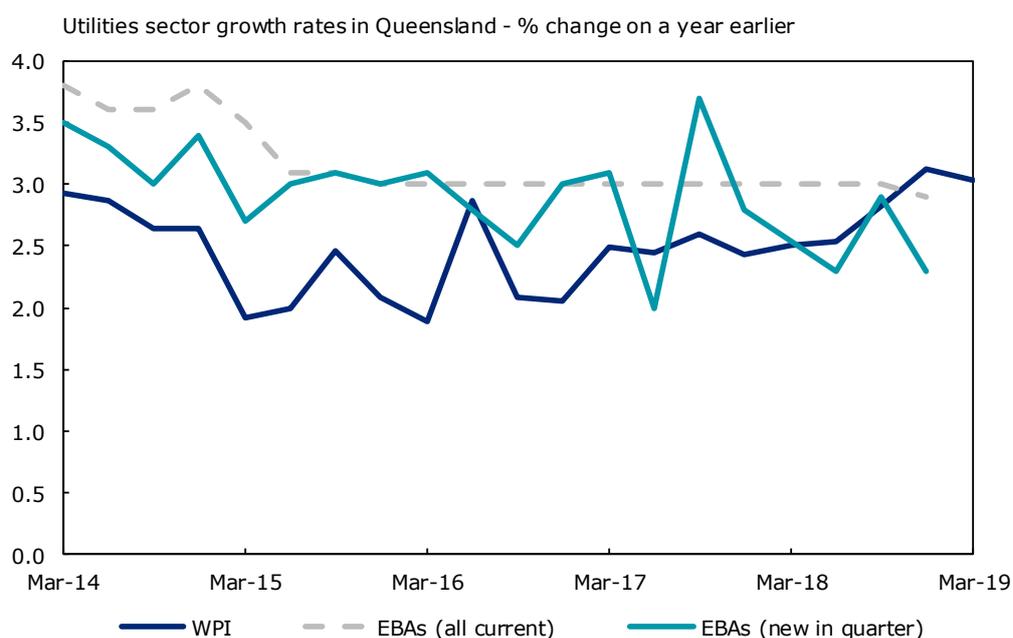
#### 4.2.2.2 Comparison with EBA outcomes

As at the December quarter of 2018, there were 56 EBAs active in the Queensland utilities sector, covering some 4,100 employees (13% of the Queensland utilities workforce). Wage growth in 'all current EBAs' were 2.9% for the Queensland utilities sector in the December quarter of 2018, below the 3.0% growth in September 2018. The AAWI in the Queensland utilities sector is equal to the AAWI in the national utilities sector.

Wage growth in new Queensland utilities sector EBAs was 2.3% in the year to December 2018, below 2.9% in September 2018. The AAWI for new EBAs has been below all current EBAs for much of the last five years and the AAWI for both EBA measures is now below the growth in the WPI. Recent years have seen a high degree of variability in new EBA wage outcomes for the Queensland utilities sector. For example, the AAWI for new utilities sector EBAs grew from a low of 2.0% in June 2017 to a high of 3.7% in September 2017. This is partly due to the small number of employees covered by new EBAs each quarter. Seven EBAs covering approximately 500 employees were lodged in December 2018, which represents approximately 2% of the Queensland utilities sector workforce. As a result, it is unlikely that new EBAs are a significant driver of recent wage growth for the Queensland utilities sector.

The gradual increase in the utilities sector WPI since 2016 has largely been due to the acceleration in wage gains in the wider economy over the same period. There are a number of reasons why this increase has not also been reflected in EBAs. EBAs generally apply for several years and can be delayed during negotiations, resulting in a lag between EBA outcomes and broader labour market conditions. It is also possible that the EBAs being negotiated since 2016 include non-monetary benefits such as additional worker entitlements.

Chart 4.8 Comparative measures of wage growth in the Queensland utilities sector



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Department of Employment, Skills, Small and Family Businesses.

#### 4.2.3 Labour productivity

Queensland labour productivity for both the utilities sector and the wider economy fell in 2017-18, as gains in employment were stronger than gains in output. Labour productivity is set to improve in the coming years as employment growth moderates. Labour productivity in the Queensland utilities sector is forecast to remain flat in 2018-19 before lifting to 1.7% growth in 2019-20. Over the forecast period, the state utilities sector estimate for labour productivity follows expected movements at the national level.

Table 4.2 Queensland and national labour productivity forecasts

| Annual % change             | History |         | Forecast |         |         |         |         |         |  |
|-----------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                             | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Queensland - All industries | -0.8    | 0.8     | 1.7      | 1.8     | 1.8     | 1.6     | 1.6     | 1.6     |  |
| Queensland - Utilities      | -0.7    | 0.0     | 1.7      | 1.7     | 1.7     | 1.5     | 1.4     | 1.4     |  |
| National - All industries   | -0.2    | -0.1    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |  |
| National - Utilities        | -0.4    | -0.2    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |  |

Source: ABS, Deloitte Access Economics.

Note: Productivity forecasts at the state level should be interpreted with care. Quarterly State Final Demand data is used to estimate quarterly GSP, which may not fully capture the impact of interstate trade. This can lead to some volatile movements in the first forecast year for state productivity.

#### 4.2.4 Summary results

Table 4.3 Queensland and national wage forecasts

##### Financial year changes in Queensland and national nominal Wage Price aggregates

| Annual % change             | History |         | Forecast |         |         |         |         |         |  |
|-----------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                             | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Queensland - All industries | 2.2     | 2.3     | 2.2      | 2.8     | 3.2     | 3.3     | 3.2     | 3.0     |  |
| Queensland - Utilities      | 2.5     | 2.7     | 2.4      | 2.7     | 3.0     | 3.0     | 2.8     | 2.7     |  |
| National - All industries   | 2.1     | 2.3     | 2.3      | 2.7     | 3.0     | 3.1     | 3.0     | 2.9     |  |
| National - Utilities        | 2.0     | 2.7     | 2.6      | 2.7     | 2.9     | 2.9     | 2.8     | 2.7     |  |

##### Financial year changes in Queensland and national real Wage Price aggregates

| Annual % change             | History |         | Forecast |         |         |         |         |         |  |
|-----------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                             | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| Queensland - All industries | 0.4     | 0.6     | 0.5      | 0.5     | 0.8     | 0.8     | 0.9     | 0.8     |  |
| Queensland - Utilities      | 0.8     | 1.0     | 0.6      | 0.5     | 0.6     | 0.5     | 0.6     | 0.5     |  |
| National - All industries   | 0.1     | 0.6     | 0.5      | 0.4     | 0.7     | 0.6     | 0.7     | 0.7     |  |
| National - Utilities        | 0.0     | 1.0     | 0.7      | 0.4     | 0.5     | 0.4     | 0.5     | 0.5     |  |

Source: ABS, Deloitte Access Economics.

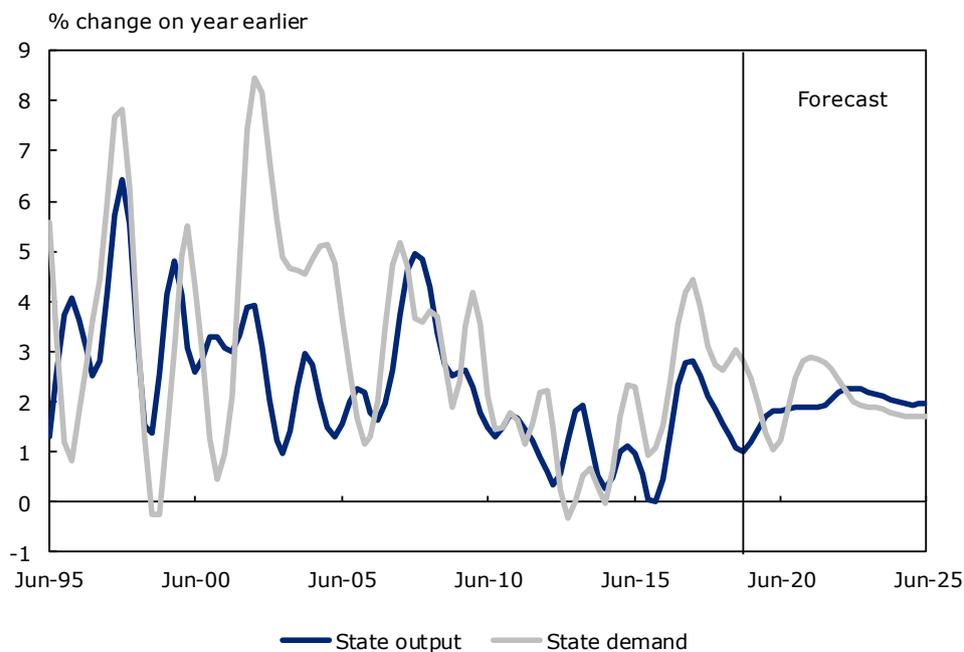
# 5 South Australia

## 5.1 Economic outlook

South Australian SFD increased by 2.4% over the year to March 2019, down from 3.6% a year earlier. Agricultural production has fallen due to drought, while weak population and wage growth have also constrained economic activity. Output growth was supported by private investment and government expenditure as the South Australian Government increased spending on a number of public projects across transport and social infrastructure. The ongoing rollout of the National Disability Insurance Scheme (NDIS) has also added to public demand.

The recent free trade agreement with China has boosted wine exports while the weaker Australian dollar has supported growth in both goods and services exports. The lower exchange rate is making Australia a more affordable destination for international students and tourists. Increased domestic and international visitor expenditure is also helping to bolster consumer spending in the state.

Chart 5.1 South Australian output and demand



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.

Source: ABS, Deloitte Access Economics.

Employment grew by 1.6% over the year to April, with the pace of growth slowing in recent months. As a result, the unemployment rate increased from 5.4% in November 2018 to 6.1% in April 2019. Wage growth also remains low, with the WPI increasing 2.2% over the year to March 2019.

Looking ahead, Deloitte Access Economics expects household consumer spending to slow further as employment growth moderates. Over the medium term, naval shipbuilding projects will provide support to employment growth.

The South Australian population grew by 0.8% in the year to March 2019, below the 1.8% increase in the Australian population. Net overseas migration has been the main driver of population increases while negative net interstate migration continues to drag on growth. South Australia has seen significant outflows of younger residents moving to major cities in the eastern states.

The Adelaide housing market has largely avoided the boom and bust cycle seen in the eastern states, with demand for housing remaining modestly positive over this period. That has seen a gentle easing in the residential vacancy rate and a corresponding pick-up in the pace of rental growth.

That said, while the pace of housing construction will contribute to the state's growth over the short term, this is likely to fade in the medium term. The pipeline of housing approvals looks to have already peaked, which will see construction activity fall from 2020 onwards. South Australia's low rate of population growth will reduce residential construction activity over the long term.

Business investment has bolstered growth in recent years. The relatively positive global environment and low \$A have created conditions conducive to investment, particularly in export-oriented industries such as farming, food and beverage manufacturing and tourism. Recent business tax changes including reductions in payroll tax may also be contributing to the more positive outlook for investment in the state.

South Australian Government expenditure on infrastructure projects should support current and future economic activity. More than \$11 billion will be spent on infrastructure over the next four years, with \$3.3 billion going towards transport projects and \$1.2 billion towards water infrastructure.

Over the longer run the South Australian economy will remain relatively weak. This reflects the key structural challenges faced by the South Australian economy, with ongoing weak growth in the working age population as younger South Australians continue to leave the state. Real GSP growth is forecast to slow from 2.0% in 2017-18 to 1.1% in 2018-19.

Table 5.1 South Australian output and demand forecasts

| Annual % change (unless noted) | History |         | Forecast |         |         |         |         |         |
|--------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|
|                                | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
| Consumption                    |         |         |          |         |         |         |         |         |
| Private sector                 | 2.0     | 1.8     | 1.8      | 1.5     | 1.7     | 1.7     | 1.7     | 1.9     |
| Public sector                  | 3.5     | 3.5     | 2.3      | 2.0     | 1.7     | 1.1     | 0.9     | 0.9     |
| Private sector investment      |         |         |          |         |         |         |         |         |
| Dwelling investment            | 9.2     | 5.0     | -9.7     | -0.1    | 6.4     | 3.1     | -2.7    | -5.1    |
| Non-residential building       | 16.4    | -0.1    | 2.5      | 9.3     | 5.7     | 1.9     | 2.8     | 1.7     |
| Engineering construction       | 27.1    | -8.9    | 1.2      | 10.1    | 5.9     | 1.7     | 2.6     | 1.4     |
| Machinery and equipment        | 3.2     | 0.6     | 7.2      | 14.7    | 8.3     | 4.7     | 6.8     | 5.4     |
| IP and livestock               | 1.7     | 5.1     | 1.6      | 13.8    | 14.1    | 8.4     | 8.2     | 7.3     |
| Public investment              |         |         |          |         |         |         |         |         |
| General Government             | -2.8    | 10.7    | 0.6      | -1.1    | 1.6     | 2.8     | 2.9     | 2.8     |
| Public enterprises             | 7.1     | 28.5    | -3.8     | -0.9    | -0.5    | 0.3     | 2.0     | 1.7     |
| Real final demand              | 3.1     | 2.8     | 1.4      | 2.5     | 2.7     | 2.0     | 1.8     | 1.7     |
| Private sector                 | 3.2     | 1.8     | 1.3      | 2.9     | 3.1     | 2.2     | 2.0     | 1.9     |
| Public sector                  | 2.7     | 5.5     | 1.7      | 1.5     | 1.6     | 1.3     | 1.2     | 1.2     |
| Gross State output             | 2.0     | 1.1     | 1.7      | 1.9     | 2.0     | 2.2     | 2.1     | 2.0     |
| Employment                     | 2.4     | 0.6     | 0.6      | 0.6     | 0.7     | 0.7     | 0.4     | 0.2     |
| Unemployment rate (%)          | 5.9     | 5.6     | 5.9      | 5.8     | 5.7     | 5.6     | 5.7     | 5.9     |

Note: All variables (except for jobs and unemployment) expressed in inflation adjusted terms.

Source: ABS, Deloitte Access Economics.

### 5.1.2 Utilities sector

Utilities sector output grew by 8.2% over 2017-18, outpacing growth in the broader state economy as electricity power generators increased output following expansionary work. Solar and wind generation led growth following significant investment in renewable sources across the state.

The dynamics of the electrical power system in South Australia are changing as ageing coal-fired generation assets have closed while wind generation, rooftop PV generation, and battery storage have grown rapidly. Changing energy usage patterns means that the power system needs to accommodate more flexible, technologically and geographically diverse generation and distribution assets.

Some recent developments in South Australia reflect these changes in the electricity generation sector. The new Hornsdale Power Reserve Battery Energy Storage System is the largest lithium-ion battery in the world and is designed to increase reliability, prevent load shedding, and facilitate the integration of renewable energy in South Australia.

South Australia is close to privatising emergency diesel generators that provided emergency backup power during extreme temperatures in early 2019. The generators will shift to selling electricity into the market rather than providing emergency supply during shortfalls. In addition, Barker Inlet, a 210 MW engine power station due for operation in 2019, will be capable of increasing output to full capacity within five minutes.

The South Australian Government is investing \$100 million in supporting the installation of 40,000 residential batteries through a Home Battery Scheme, which will help shift rooftop PV generation to cover the evening peak.<sup>5</sup> The state government is also investing \$50 million for a Grid Scale Storage Fund to facilitate development of new storage technologies and \$30 million to reward consumers for demand flexibility and changing their consumption patterns to reduce peak demand.

South Australia experienced extreme temperatures in the first quarter of 2019, with temperatures in Adelaide reaching almost 48 degrees Celsius in January. This led a spike in electricity demand and a record high average daily price of \$3,360/MWh. Over the quarter, the average spot wholesale electricity price was \$163/MWh, another record high.<sup>6</sup>

South Australia set a first quarter minimum demand record of 695 MW on in January 2019, 25 MW lower than the previous record. The main driver of this record was the increased rooftop PV capacity lowering midday operational demand, a trend that has occurred for the past two years and is expected to continue.

Renewable energy sources continue to expand with one new solar farm commencing generation. Between early 2018 and early 2019 average rooftop PV generation increased by 28% while gas powered generation increased by 96 MW. Comparatively low hydro output due to dry conditions led to a larger role for gas, particularly as demand peaked around January.

Total quarterly inter-regional transfers were comparable to previous quarters, and remained evenly balanced on a directional basis, with net average flows of 13 MW into Victoria.

The UNGI program proposed by the Federal government has shortlisted several projects in South Australia. These include one gas and three hydro projects:

- Alinta Energy, Gas, Reeves Plains, South Australia,
- Sunset Power and Delta Electricity, Renewable Pumped Hydro, Lincoln Gap, South Australia
- Rise Renewables, Renewable Pumped Hydro, Baroota, South Australia

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<sup>5</sup> Australian Energy Market Operator, *South Australian Electricity Report November 2018 (3 June 2019)*, <[https://www.aemo.com.au/-/media/Files/Electricity/NEM/Planning\\_and\\_Forecasting/SA\\_Advisory/2018/2018-South-Australian-Electricity-Report.pdf](https://www.aemo.com.au/-/media/Files/Electricity/NEM/Planning_and_Forecasting/SA_Advisory/2018/2018-South-Australian-Electricity-Report.pdf)>

<sup>6</sup> Australian Energy Market Operator, *Quarterly Energy Dynamics Q1 2019 (30 May 2019)* <[https://www.aemo.com.au/-/media/Files/Media\\_Centre/2019/QED-Q1-2019.pdf](https://www.aemo.com.au/-/media/Files/Media_Centre/2019/QED-Q1-2019.pdf)>.

- SIMEC Zen Energy, Renewable Pumped Hydro, Eyre Peninsula, South Australia

## 5.2 Outlook for wages

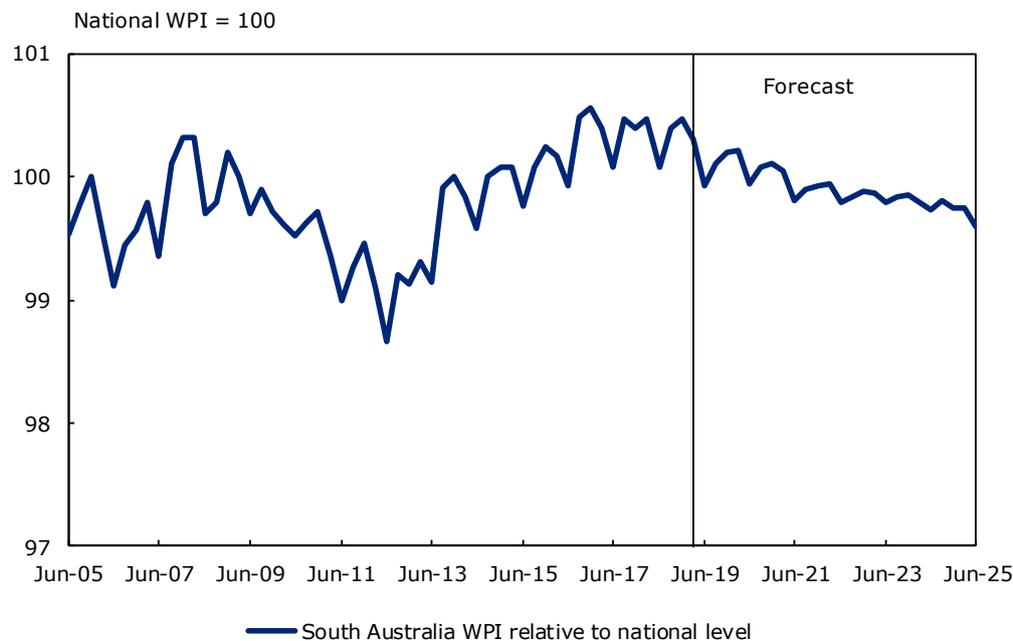
### 5.2.1 All industries

Wage growth in South Australia was 2.2% over the year to March 2019, slightly below national growth. This partly reflects softer conditions in the South Australian economy compared to the national economy contributing to weaker employment and wages growth. The state economy has also struggled to adjust to the structural decline of the manufacturing industry, which has also weighed on output and employment.

Similar to the trends in other states, private sector wage growth (2.2%), was below public sector (2.3%). This reflects greater economic activity in industries with a larger public sector presence such as health care, which have benefited from increased spending on the NDIS.

The South Australian WPI is forecast to moderate relative to the national WPI over the forecast period (see Chart 5.2).

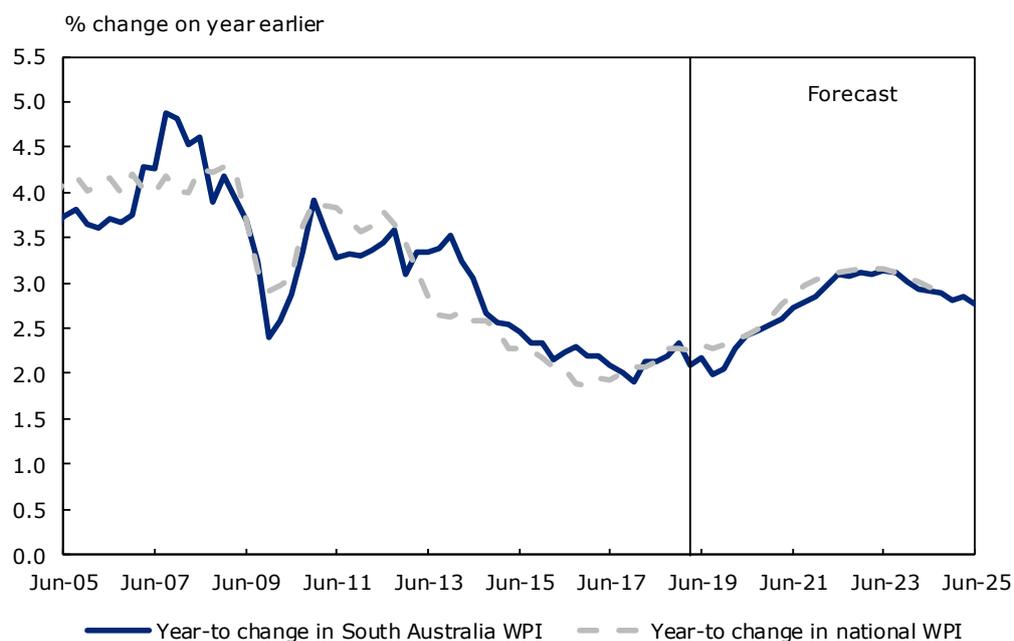
Chart 5.2 South Australian WPI relative to national WPI



Source: ABS, Deloitte Access Economics.

Wage growth in South Australia is forecast to increase from its current levels to reach 2.8% growth by 2024-25 as the labour market recovers following the end of automotive manufacturing. Naval shipbuilding, government infrastructure spending, and land and payroll tax cuts will all help support employment growth and wage gains.

Chart 5.3 South Australian general WPI growth

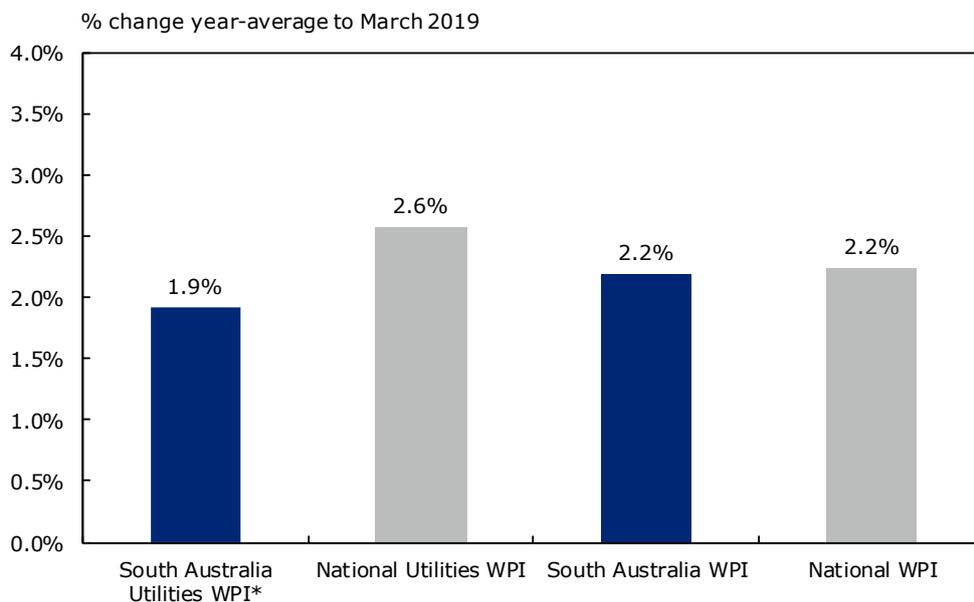


Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Deloitte Access Economics.

### 5.2.2 Utilities sector wages

South Australian utilities WPI grew by 1.9% over the year to March 2019. This is below the growth in the national utilities sector and reflects a weaker economic backdrop in the state.

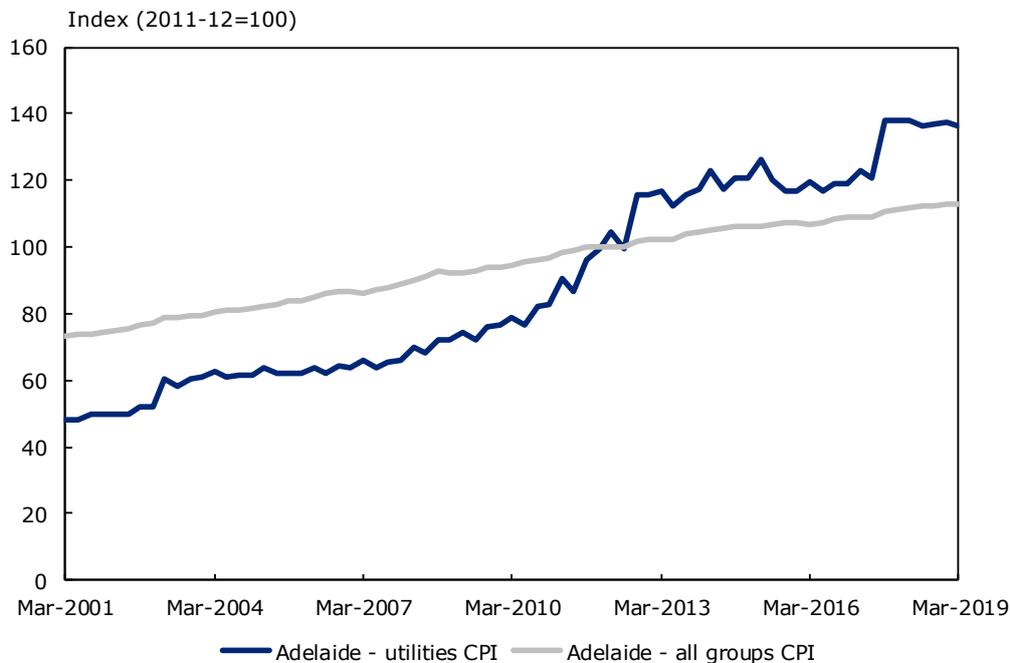
Chart 5.4 Comparative WPI annual growth rates in the year to March 2019



\*Historical data estimated using Deloitte Access Economics' wage price model. Unavailable from the ABS.  
 Source: ABS, Deloitte Access Economics.

Utilities prices have remained relatively flat in Adelaide since September 2017, following a sharp increase in mid-2017 (as shown in Chart 5.5). However, over the past year utilities CPI, at 2.3%, increased faster than overall CPI at 1.9%. South Australia has faced some of the highest electricity prices in the nation due to significant network investment, high gas prices, more concentrated wholesale markets, and the transition from large scale synchronous generation to variable and intermittent renewable energy resources.<sup>7</sup>

Chart 5.5 Adelaide utilities prices

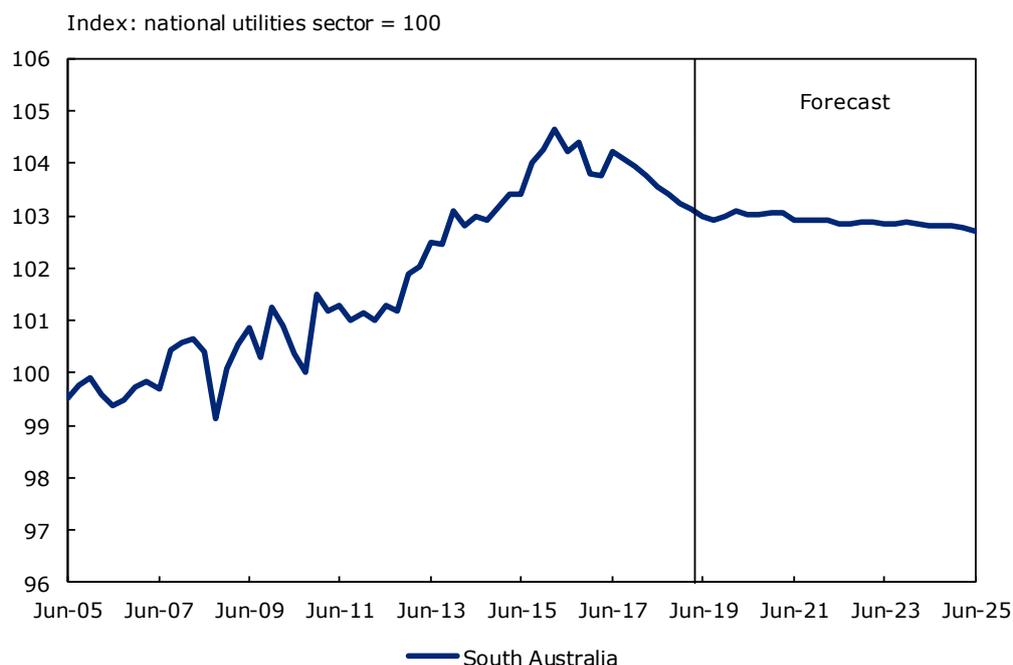


Source: ABS.

Utilities wage growth in South Australia has been lower than the national utilities sector since late 2015, though wages remain above the national average. The recent underperformance of state utilities wage growth relative the national level reflects the relative economic weakness in South Australia and the closure of automotive manufacturing which has reduced demand for electricity.

<sup>7</sup> Australian Competition and Consumer Commission 2017, *Retail Electricity Pricing Inquiry Preliminary Report* (3 June 2019), <<https://www.accc.gov.au/system/files/Retail%20Electricity%20Inquiry%20-%20Preliminary%20report%20-%202013%20November%202017.pdf>>

Chart 5.6 Relative utilities WPI forecast for South Australia



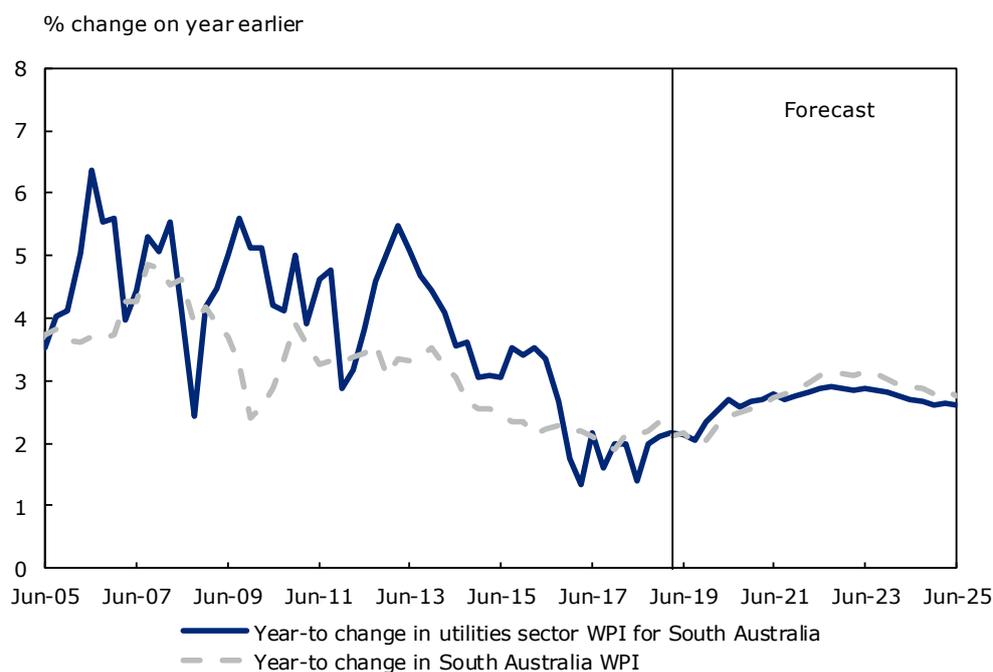
Source: ABS, Deloitte Access Economics.

Deloitte Access Economics forecasts utilities wage growth of 2.6% in 2024-25. Wage growth in the utilities sector will likely remain below state level growth due to slower output growth than in the overall state economy. The current trends of slow population growth and moves by households and businesses to increase energy efficiency will constrain utilities wage growth.

A significant driver of the South Australian utilities sector will be the continuing growth of renewable energy generation. In 2018, over 50% of electricity generation came from renewable energy sources, an increase from 40% just three years prior. This trend is likely to continue with the government expecting the state to advance close to 100% net renewable energy generation by 2030. This means that interconnections will enable the state to export excess wind and solar power to other states.

The growth in renewable generation will help drive demand for workers in the utilities sector. The skills required for workers in expanding renewable energy technology areas (such as battery storage) can differ from traditional skills used in the utilities sector. The additional demand for workers is expected to place upward pressure on wages.

Chart 5.7 South Australian utilities WPI forecast comparison



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Deloitte Access Economics.

### 5.2.2.2 Comparison with EBA outcomes

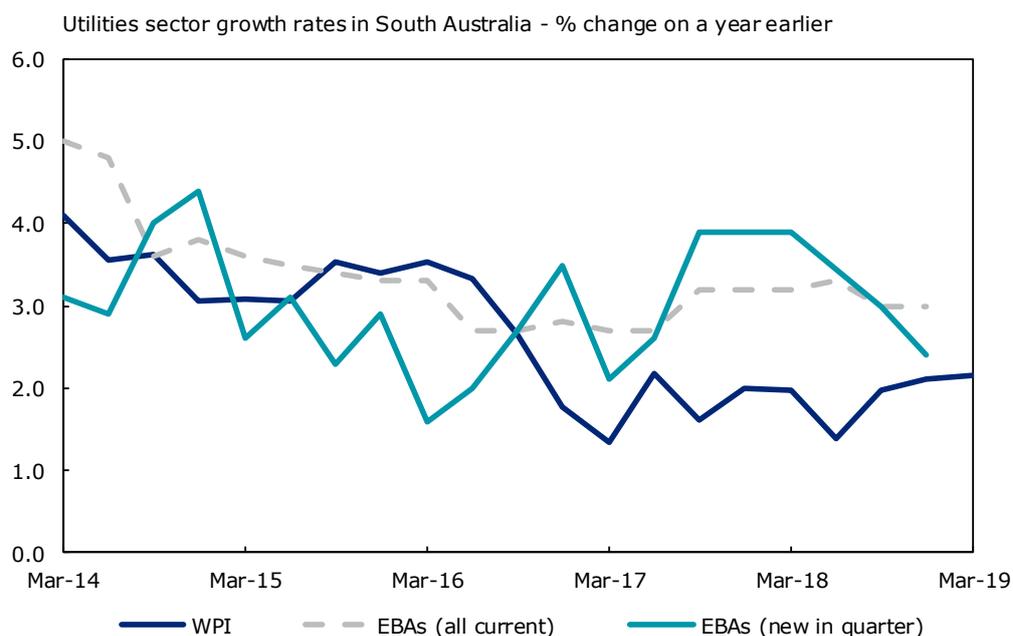
In December 2018, there were 16 current EBA for the South Australian utilities sector covering around 4,400 employees, with an average annual wage increase of 3.0%. Chart 5.8 shows that:

- Wage growth for existing utilities sector EBAs declined slightly to 3.0% in the December quarter of 2018 from 3.3% in the previous quarter, but remains above rates seen in the two years prior.
- The one EBA approved in this quarter had an AAWI of 2.4%, lower than current EBAs both in the utilities sector and for the state overall, potentially pointing to lower wage growth in the future. However, this agreement does not have a significant influence on the forecast for utilities WPI in the state given that it covers less than 100 employees while the overall utilities workforce in the state is around 13,000.

South Australian utilities sector WPI growth has been below the relevant AAWI for new and current EBAs since late 2016. In contrast, in New South Wales and Queensland, utilities sector WPI growth has recently increased to be marginally higher than utilities AAWI for current EBAs in the respective states. This reflects stronger utilities sector WPI results in New South Wales and Queensland that is not reflected in South Australian estimates, as well as stronger recent economic growth in New South Wales and Queensland relative to South Australia.

Over the forecast period, South Australian utilities wage forecasts are affected by expectations for slower output growth in the utilities sector relative to the overall state economy together with overall state WPI moderating relative to national WPI. However, WPI estimates (and forecasts) also take into account EBA outcomes and the relationship between AAWI and WPI will continue to be monitored over time.

Chart 5.8 Comparative measures of wage growth in the South Australian utilities sector



Note: % change on year earlier refers to output growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Department of Employment, Skills, Small and Family Businesses.

### 5.2.3 Labour productivity

Labour productivity for South Australia’s utilities sector declined by 0.4% in 2017-18, but is forecast to rebound to 0.5% growth in 2018-19. Labour productivity growth in the South Australian utilities sector should be supported by:

- Increased activity related to defence projects, including frigate and submarine shipbuilding, that will support electricity demand following the decline of automotive manufacturing.
- State government investment in energy infrastructure to increase the reliability of energy supply.

Table 5.2 South Australia and national labour productivity forecasts

| Annual % change                  | History |         | Forecast |         |         |         |         |         |  |
|----------------------------------|---------|---------|----------|---------|---------|---------|---------|---------|--|
|                                  | 2017-18 | 2018-19 | 2019-20  | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |  |
| South Australia - All industries | -0.4    | 0.5     | 1.1      | 1.3     | 1.2     | 1.6     | 1.6     | 1.8     |  |
| South Australia - Utilities      | -0.6    | -0.1    | 1.6      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |  |
| National - All industries        | -0.2    | -0.1    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |  |
| National - Utilities             | -0.4    | -0.2    | 1.7      | 1.6     | 1.6     | 1.5     | 1.4     | 1.4     |  |

Note: Productivity forecasts at the state level should be interpreted with care. Quarterly State Final Demand data is used to estimate quarterly GSP, which may not fully capture the impact of interstate trade. This can lead to some volatile movements in the first forecast year for state productivity.

Source: ABS, Deloitte Access Economics.

## 5.2.4 Summary results

Table 5.3 South Australia and national wage forecasts

| <b>Financial year changes in South Australia and national nominal Wage Price aggregates</b> |                |                |                 |                |                |                |                |                |  |
|---|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|--|
| <b>Annual % change</b>  | <b>History</b> |                | <b>Forecast</b> |                |                |                |                |                |  |
|   | <b>2017-18</b> | <b>2018-19</b> | <b>2019-20</b>  | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>2024-25</b> |  |
| South Australia - All industries  | 2.0            | 2.2            | 2.2             | 2.6            | 2.9            | 3.1            | 3.0            | 2.8            |  |
| South Australia - Utilities*  | 1.7            | 2.1            | 2.4             | 2.7            | 2.8            | 2.9            | 2.8            | 2.6            |  |
| National - All industries   | 2.1            | 2.3            | 2.3             | 2.7            | 3.0            | 3.1            | 3.0            | 2.9            |  |
| National - Utilities  | 2.0            | 2.7            | 2.6             | 2.7            | 2.9            | 2.9            | 2.8            | 2.7            |  |

| <b>Financial year changes in South Australia and national real Wage Price aggregates</b> |                |                |                 |                |                |                |                |                |  |
|--|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|--|
| <b>Annual % change</b>   | <b>History</b> |                | <b>Forecast</b> |                |                |                |                |                |  |
|  | <b>2017-18</b> | <b>2018-19</b> | <b>2019-20</b>  | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>2024-25</b> |  |
| South Australia - All industries   | -0.2           | 0.7            | 0.4             | 0.3            | 0.5            | 0.6            | 0.7            | 0.6            |  |
| South Australia - Utilities*   | -0.5           | 0.6            | 0.6             | 0.4            | 0.4            | 0.3            | 0.5            | 0.4            |  |
| National - All industries  | 0.1            | 0.6            | 0.5             | 0.4            | 0.7            | 0.6            | 0.7            | 0.7            |  |
| National - Utilities   | 0.0            | 1.0            | 0.7             | 0.4            | 0.5            | 0.4            | 0.5            | 0.5            |  |

\*Historical data estimated using Deloitte Access Economics' wage price model. Unavailable from the ABS.

Source: ABS, Deloitte Access Economics.

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