

## **Wage Price Index forecasts**

Prepared for the Australian  
Energy Regulator

15 December 2021

[REDACTED]  
Australian Energy Regulator

By email: [REDACTED]

15 December 2021

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## Report on wage price index forecasts

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

This report has been drafted on the basis of the forecasts that underpin the September 2021 quarter *Business Outlook* publication that relies on the June 2021 quarter Australian Bureau of Statistics National Accounts and the September 2021 WPI release.

Yours sincerely

[REDACTED]

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# Glossary

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AAWI	Average Annualised Wage Increase
ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AWE	Average Weekly Earnings
AWOTE	Average Weekly Ordinary Time Earnings
CAGR	Compound Annual Growth Rate
CPI	Consumer Price Index
EBA	Enterprise Bargaining Agreement
FWC	Fair Work Commission
GDP	Gross Domestic Product
GSP	Gross State Product
GW	Gigawatt
LNG	Liquefied Natural Gas
MW	Megawatt
NEM	National Electricity Market
PV	Photovoltaics
RBA	Reserve Bank of Australia
WPI	Wage Price Index

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# Executive Summary

## Australian wages grow at their fastest rate since late 2020 despite the impact of Delta lockdowns

The Wage Price Index (WPI) grew 0.6% in the September quarter of 2021, to be 1.7% higher for the year. Downward pressure on wages amid the Delta lockdown in New South Wales, Victoria and the Australian Capital Territory was outweighed by upward pressure on wages from salary reviews at the conclusion of the previous financial year and scheduled increases in enterprise agreements and award wages.

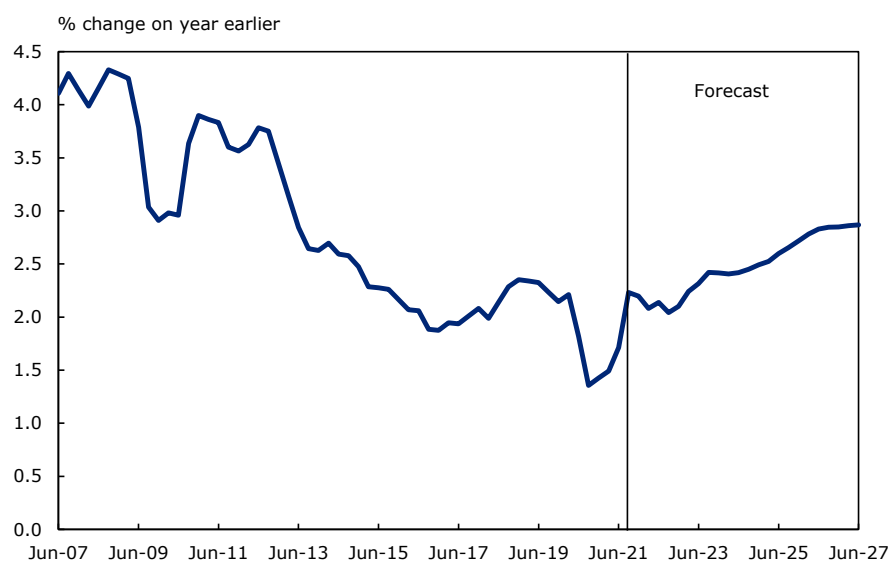
Annual public sector wage growth remains at a record low due to the lingering effect of wage freezes and wage caps announced in 2020. Private sector wage growth was led by a 1.3% increase in professional services wages and a 1.1% increase in construction wages during the September quarter of 2021. Border closures and demand for skilled workers have boosted wages in the professional services industry, while strong home building and renovation activity has lifted demand for construction workers. Conversely, wage gains were slowest in the financial services, retail and utilities industries – at 0.5% in the September quarter of 2021.

Wage gains are forecast to accelerate from 2021-22 alongside the recovery in the Australian economy, an improvement in consumer and business confidence, an increase in Consumer Price Index (CPI) inflation, and an increase in award wages and the minimum wage.

However, there are a number of factors that may limit the pace of wage gains in the coming years. This includes elevated levels of underemployment, inertia in the wage-setting process, employers looking to control costs, the easing of international border restrictions, scheduled superannuation guarantee increases, and trends such as automation of work processes and an increase in insecure work.

Looking ahead, Deloitte Access Economics forecasts nominal wage growth of 2.2% in 2021-22 and 2022-23. The pace of wage gains is forecast to accelerate over the medium term, growing by 2.4% in 2023-24 before reaching 2.9% in 2026-27.

Chart i National WPI forecasts



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

Real wages (or nominal wages adjusted for inflation) are forecast to fall 0.3% in 2021-22 as CPI growth of 2.4% outpaces wage growth of 2.2%. An easing of CPI inflation is expected to support real wage growth of 0.5% in 2022-23. Real wage growth is forecast to reach 0.6% by 2026-27.

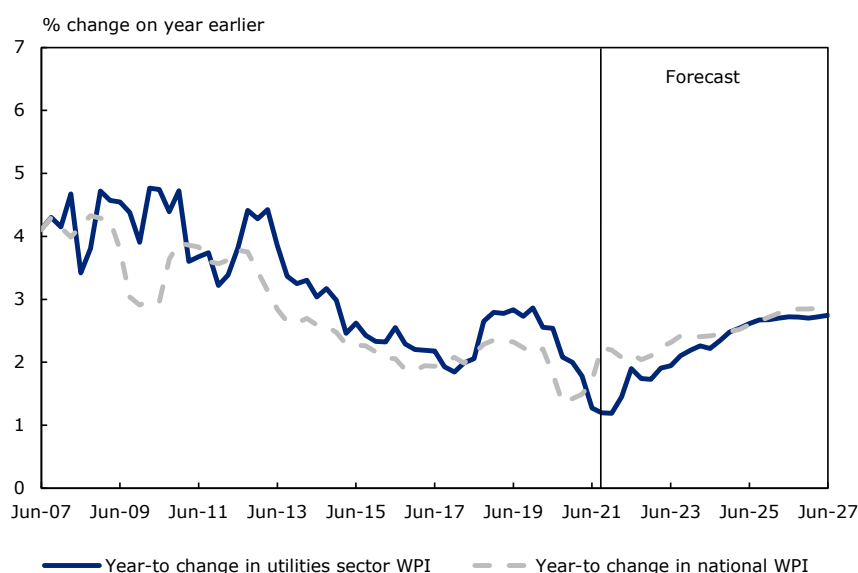
Compared with the forecasts presented in Report 3A, the current forecasts have stronger nominal wage growth in the short and medium term. This reflects wage pressures in particular industries and the faster than anticipated recovery in CPI inflation. Nominal wage growth has been revised higher by a cumulative 3.0 percentage points across the period from 2021-22 to 2026-27.

### Utilities wages to grow at a slower pace compared to all industry wages

Utilities industry wages grew 0.5% in the September quarter of 2021 to be 1.6% higher for the year. Wage gains have fallen from a high of 2.8% in 2019, with falls across both the private and public sectors.

For much of the past decade utilities industry wage growth outpaced wage growth for the overall economy. However, the recent slowdown has meant that wage gains in the utilities industry are now below that of the broader economy. This is partly due to falls in utilities industry employment that have added to spare capacity in the labour market, falls in utilities industry output that weigh on employers willingness to increase wages, and weak activity in industries such as mining that typically compete with the utilities industry for labour.

Chart ii National utilities industry WPI forecasts



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

The utilities WPI is forecast to grow by 1.4% in 2021-22 before increasing to a gain of 1.8% in 2022-23 and reaching 2.7% in 2026-27. Utilities wages are forecast to grow at a slower rate than wages across the wider Australian economy over the medium-term. This reflects the fact that utilities output is forecast to grow at a compound annual growth rate (CAGR) of 1.4% from 2020-21 to 2026-27 compared to a CAGR of 2.9% in the wider Australian economy.

Real wages in the utilities industry are forecast to fall 1.0% in 2021-22 as inflation outpaces nominal wage growth. Real wage gains are forecast to increase 0.2% in 2022-23 amid upward pressure on nominal wages and a moderation in CPI inflation. Real wages are forecast to gradually increase thereafter, reaching 0.4% by 2026-27.

Compared to the forecasts in Report 3A, utilities wage growth has been revised up by a cumulative 2.0 percentage points across the forecast period from 2021-22 to 2026-27. This is primarily due to the faster than expected recovery in the Australian economy as well as stronger than expected wage pressures across all industries.

### **Victorian utilities wages forecast to grow at a slower pace compared to Australian utilities wages**

Wages in the Victorian utilities industry grew 1.9% in the year to September 2021. This is above the national average for the utilities industry of 1.6% and remains marginally above the Victorian all industry average of 1.8%.

Wage growth in the Victorian utilities industry is forecast to reach a trough of 1.5% in 2021-22. Wage gains are then expected to accelerate, reaching 2.6% growth in 2026-27 as utilities industry output gradually recovers. These forecasts represent a cumulative upward revision in nominal wages growth of 2.5 percentage points from 2021-22 to 2025-26 compared with those in Report 2.

Victorian utilities industry wage growth is forecast to lag growth for wages in the broader state economy, as well as wages in the national utilities industry. This reflects forecasts for modest growth in the Victorian utilities industry compared to the Victorian all industry average, as well as the impact of COVID on the rate of growth in the Victorian population compared to the Australian population.

Victorian utilities industry real WPI is forecast to fall 0.7% in 2021-22 as nominal wages growth remains muted and inflation accelerates. Despite rising nominal wages, real WPI is forecast to decline through to 2024-25. Real wage growth is forecast to reach 0.3% by 2026-27 as nominal wages gradually lift in line with increasing utilities industry output.

### **Australia's economy to recover strongly as Delta lockdowns end**

Delta lockdowns in New South Wales, Victoria and the Australian Capital Territory have weighed on Gross Domestic Product (GDP) in the September quarter of 2021. High vaccination rates and the easing of COVID restrictions are expected to drive economic growth in the December quarter of 2021. Rising consumer confidence and elevated household wealth are expected to support private consumption, record infrastructure investment is expected to support public investment, and elevated government spending is underpinning continued growth in public consumption. More modest improvements are forecast for private investment and exports.

Yet the coming recovery will be slower and less complete than the recovery Australia saw through to mid-2021. There are several factors behind this. We are transitioning to a 'living with the virus' position rather than a 'COVID-free' position, more small businesses have closed and more employees have lost contact with employers, there is less government stimulus, and the global economy is less supportive.

The recent Delta outbreak and associated lockdowns led to an unwinding of earlier strength in the labour market. Employment fell by 331,000 persons between June and October 2021, a decline of 2.5%. Part time employment declined by 242,000 (5.9%), as industries affected by lockdowns tended to have higher shares of part time workers. Looking ahead, the number of jobs advertisements rose 6.2% in October, indicating that employment is set to recover strongly as restrictions ease in eastern Australia.

The Australian economy is forecast to grow 1.1% in the December quarter, to be 3.2% larger in 2021. Although the outlook is subject to a high level of uncertainty, the Australian economy is well placed to recover strongly in 2022. Economic activity is expected to be supported by the easing of COVID-restrictions, elevated vaccination rates, and continued growth in consumer and business confidence. Overall, real GDP is forecast to grow by 1.5% in 2021-22 before accelerating to a gain of 5.3% in 2022-23 and 2.8% in 2023-24.

### **Utilities output forecast to see modest gains compared to the wider economy in 2021-22 and 2022-23**

Utilities industry output fell 1.3% over 2020-21. Activity fell in the electricity supply (-1.8%) and water supply and waste services (-1.1%) sub-industries, which together account for more than



95% of industry output. Elsewhere, output in the gas supply sub-industry grew 3.4% over 2020-21.

Average operational demand in the National Electricity Market (NEM) fell by 0.2% in the September quarter of 2021 compared to a year earlier. This was driven by the continued uptake of solar photovoltaic (PV) generation that contributed to large reductions in daytime demand and relatively mild weather conditions which reduced heating demand.

The COVID pandemic has had relatively small effects on overall electricity demand but more significant effects on electricity consumption patterns. Demand from businesses and industrial users has generally decreased amid the impact of workplace restrictions, while residential demand has increased as people spent more time at home (working, schooling, unemployed, or underemployed).

The Australian Energy Market Operator (AEMO) forecasts energy consumption to decline over the next five years. Higher demand from a growing Australian population is expected to be offset by an increasing share of households and businesses adopting distributed energy technologies (such as rooftop PV, battery storage and other small-scale generation resources), further increases in energy efficiency, as well as stronger growth in less energy-intensive industries compared to more energy-intensive industries such as manufacturing.

Utilities industry output is forecast to grow by 2.5% in 2021-22, compared to a gain of 1.5% for the wider economy. The outperformance of the utilities industry is driven by the Delta related lockdowns in the September quarter of 2021, which affected growth for industries such as tourism, the arts, offices and education proportionally more than the utilities industry. Utilities industry output is forecast to grow by 1.4% in 2022-23 compared to a 5.3% gain in the wider economy.

Table i State WPI forecasts, all industries

**Financial year changes in nominal WPI**

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
National	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Victoria	1.4	2.3	2.2	2.3	2.4	2.7	2.8

**Financial year changes in real WPI**

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
National	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
Victoria	0.0	0.1	0.5	0.1	0.1	0.3	0.6

**Year ending March changes in nominal WPI**

Annual % change	History		Forecast				
	2021	2022	2023	2024	2025	2026	2027
National	1.5	2.1	2.1	2.4	2.5	2.7	2.8
Victoria	1.4	2.2	2.1	2.4	2.3	2.6	2.8

**Year ending March changes in real WPI**

Annual % change	History		Forecast				
	2021	2022	2023	2024	2025	2026	2027
National	0.9	-0.8	0.5	0.3	0.2	0.3	0.5
Victoria	0.6	-0.2	0.4	0.2	0.1	0.2	0.5

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

Source: ABS, Deloitte Access Economics.

Table ii Key variables, Australia

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Output	1.4	1.5	5.3	2.8	2.7	2.6	2.4
Consumer price index	1.6	2.4	1.7	2.2	2.3	2.4	2.3
Wage Price index	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Ave. weekly earnings	1.6	3.2	2.4	2.8	3.1	3.1	2.8
Ave. weekly ordinary time earnings	2.7	2.5	3.3	3.1	3.5	3.3	2.9

Source: ABS, Deloitte Access Economics.

Table iii Economic variables, Australia

Annual % change (unless noted)	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Consumption							
Private sector	1.1	1.7	6.1	3.1	3.1	2.8	2.9
Public sector	5.8	2.9	1.7	1.1	0.8	1.8	1.9
Private sector investment							
Non-business housing	4.4	4.7	-0.3	-2.5	1.5	2.5	-1.2
Non-business real estate	27.1	4.0	-2.3	-3.5	0.1	0.9	-2.3
Non-residential building	-11.5	-1.0	11.5	12.1	6.1	4.9	4.9
Engineering construction	-1.3	1.5	9.6	3.8	5.6	4.4	4.4
Machinery and equipment	2.4	8.5	5.5	4.9	4.5	3.7	3.7
IP and livestock	0.4	6.8	6.7	9.8	7.7	5.7	5.6
Public investment							
General Government	6.1	14.4	0.6	-2.9	-2.7	1.0	2.0
Public enterprises	2.4	-5.8	-0.6	1.4	2.1	1.6	1.7
Domestic final demand	2.5	2.9	4.5	2.5	2.6	2.7	2.6
Private sector	1.3	2.4	5.7	3.2	3.4	3.1	2.8
Public sector	5.7	4.3	1.4	0.4	0.3	1.6	1.9
Gross national expenditure	3.2	2.4	4.5	2.9	2.6	2.7	2.6
International trade							
Exports	-9.1	3.1	13.9	6.5	4.2	2.8	3.9
Imports	-3.1	8.6	10.7	7.1	3.8	3.0	4.6
Net (% additon to growth)	-3.5	0.9	0.1	0.0	0.1	0.0	-0.2
Total output (GDP)	1.4	1.5	5.3	2.8	2.7	2.6	2.4
Non farm output	0.9	1.4	5.4	2.9	2.7	2.7	2.5
Employment	1.1	1.0	1.7	1.7	1.5	1.4	1.5
Unemployment rate (%)	6.1	4.6	4.9	4.7	4.6	4.6	4.6

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				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Consumer price index (CPI)	1.6	2.4	1.7	2.2	2.3	2.4	2.3
Wage price index (WPI)							
Nominal	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Real	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
Average weekly eamings (AWE)							
Nominal	1.6	3.2	2.4	2.8	3.1	3.1	2.8
Real	0.0	0.8	0.7	0.5	0.8	0.7	0.5
Average weekly ordinary time eamings (AWOTE)							
Nominal	2.7	2.5	3.3	3.1	3.5	3.3	2.9
Real	1.0	0.1	1.6	0.9	1.2	0.9	0.6
Unit labour costs							
Nominal	0.3	3.4	6.2	3.1	2.9	2.9	3.1
Real	-1.3	0.9	4.5	0.9	0.6	0.5	0.8

Source: ABS, Deloitte Access Economics.

Table v Industry wages, Australia

<b>Financial year changes in nominal national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Utilities	1.8	1.4	1.8	2.2	2.5	2.7	2.7

<b>Financial year changes in real national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
Utilities	0.2	-1.0	0.2	0.0	0.2	0.3	0.4

<b>Year ending March changes in nominal national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	1.5	2.1	2.1	2.4	2.5	2.7	2.8
Utilities	2.1	1.3	1.8	2.1	2.4	2.7	2.7

<b>Year ending March changes in real national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	0.9	-0.8	0.5	0.3	0.2	0.3	0.5
Utilities	1.5	-1.6	0.2	0.0	0.1	0.3	0.4

Source: ABS, Deloitte Access Economics.

Table vi State utilities industry wages

<b>Financial year changes in nominal utilities sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
National	1.8	1.4	1.8	2.2	2.5	2.7	2.7
Victoria	2.1	1.5	1.7	1.9	2.2	2.5	2.6

<b>Financial year changes in real utilities sector Wage Prices</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
National	0.2	-1.0	0.2	0.0	0.2	0.3	0.4
Victoria	0.7	-0.7	0.0	-0.3	-0.1	0.1	0.3

<b>Year ending March changes in nominal utilities sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
National	2.1	1.3	1.8	2.1	2.4	2.7	2.7
Victoria	2.4	1.5	1.7	1.8	2.1	2.4	2.6

<b>Year ending March changes in real utilities sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
National	1.5	-1.6	0.2	0.0	0.1	0.3	0.4
Victoria	1.6	-0.9	0.0	-0.3	-0.2	0.1	0.3

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 2026-27 for Australia and Victoria.

Specifically, the AER has requested:

- Annual Wage Price Index (WPI) forecasts for Australia and relevant states and territories.
- 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 industry.
  - An analysis of the national and state outlook for wages for all industries and the utilities industry.
  - 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.
- An analysis of how the legislated changes to the superannuation guarantee will affect forecast labour price growth.

This is report 3B in the current determination period and follows Report 3A that was delivered in June 2021. A detailed methodology description can be found in Report 1 that was delivered in August 2020.

## 2 Australia

### 2.1 Economic outlook

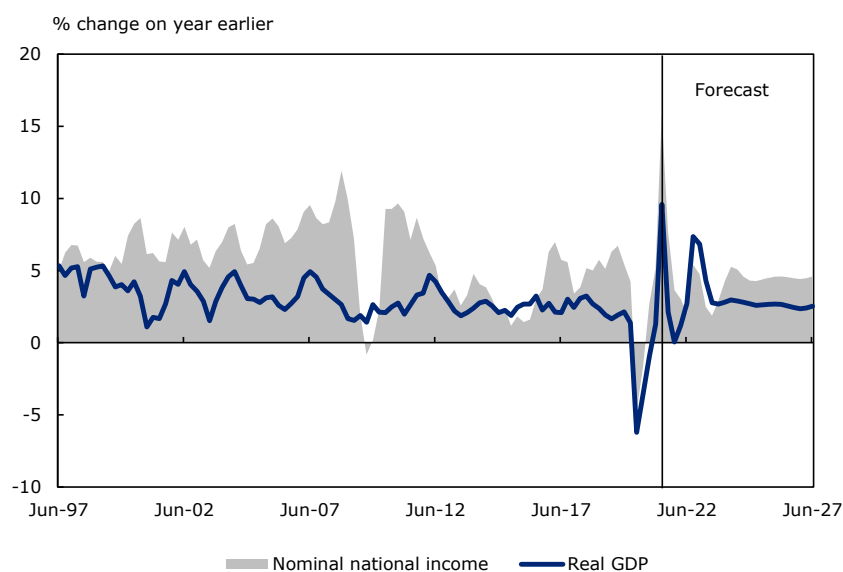
#### 2.1.1 Overview

Delta lockdowns in New South Wales, Victoria and the Australian Capital Territory have weighed on Gross Domestic Product (GDP) in the September quarter of 2021. High vaccination rates and the easing of COVID restrictions are expected to drive economic growth in the December quarter of 2021. Rising consumer confidence and elevated household wealth are expected to support private consumption, record infrastructure investment is expected to support public investment, and elevated government spending is underpinning continued growth in public consumption. More modest improvements are forecast for private investment and exports.

Yet the coming recovery will be slower and less complete than the recovery Australia saw through to mid-2021. There are several factors behind this. We are transitioning to a 'living with the virus' position rather than a 'COVID-free' position, more small businesses have closed and more employees have lost contact with employers, there is less government stimulus, and the global economy is less supportive.

The Australian economy is forecast to grow 1.1% in the December quarter, to be 3.2% larger in calendar year 2021. A further gain of 4.5% is forecast in 2022 before the pace of growth is expected to moderate thereafter.

Chart 2.1 Australian production and national income growth



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

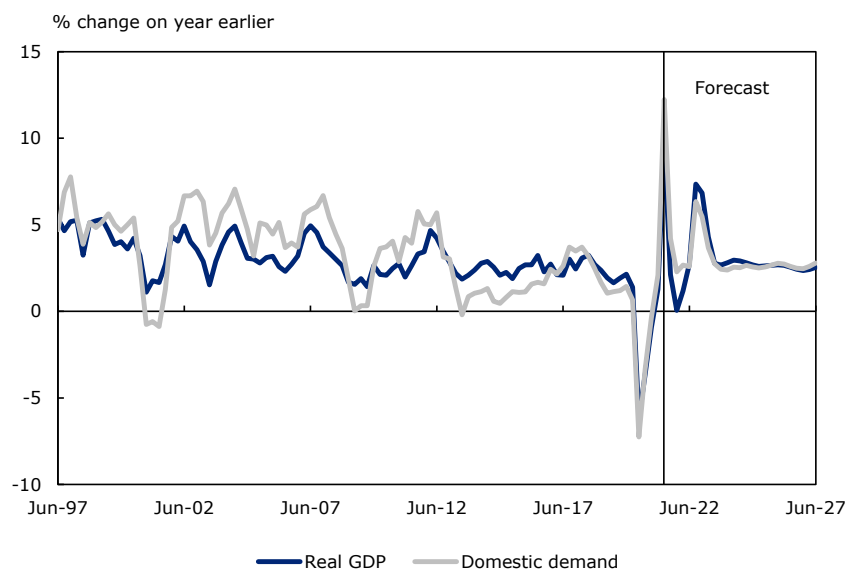
Source: ABS, Deloitte Access Economics.

The recent Delta outbreak and associated lockdowns led to an unwinding of earlier strength in the labour market. Employment fell by 331,000 persons between June and October 2021, a decline of 2.5%. Part time employment declined by 242,000 (5.9%), as industries affected by lockdowns tended to have higher shares of part time workers. Looking ahead, the number of job

advertisements rose 6.2% in October, indicating that employment is set to recover strongly as restrictions ease in New South Wales, Victoria and the Australian Capital Territory.<sup>1</sup>

Elevated government spending has been a key support for the Australian economy since early 2019. General government consumption reached its highest level as a share of the economy since records began in 1960. This share has since moderated as government stimulus efforts shifted from consumption to investment. Infrastructure investment is forecast to increase by almost 30% in 2021-22. And a total of approximately \$175 billion is expected to be spent on infrastructure over the next three years – 70% of which will be in New South Wales and Victoria.

Chart 2.2 Domestic demand and GDP



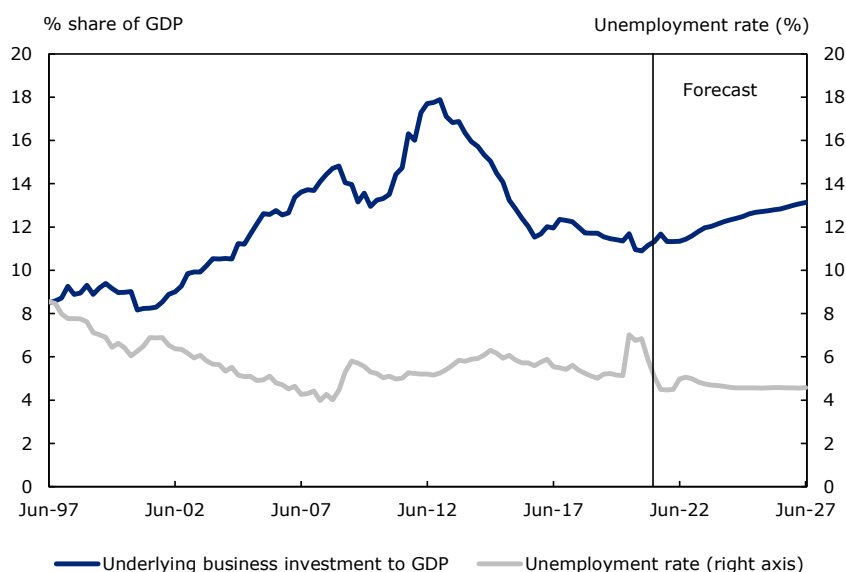
Note: % change on year earlier refers to growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

Business investment rebounded in the first half of 2021 and reached pre-COVID levels prior to the Delta outbreak. While business investment is expected to contract in the September quarter, the easing of lockdowns has seen business confidence rebound in October. With business confidence now above the long run average and the vaccination rates continuing to climb, business investment is forecast to rebound strongly. Overall, business investment is forecast to grow by 4.6% in 2021-22 and 7.9% in 2022-23.

Over the medium-term, the pace of economic growth will increasingly depend on the demand for labour (the unemployment rate) and the demand for capital (the business investment rate). Both of these indicators are forecast to strengthen from late 2021 (see Chart 2.3).

<sup>1</sup> ANZ, *ANZ Australian Job Advertisement Series Media Release* (1 November 2021), <=[https://media.anz.com/posts/2021/November/anz-job-ads\\_lockdown\\_losses\\_recovered?adobe\\_mc=MCMID%3D76468945189557347910868955218524878813%7CMORGID%3D67A216D751E567B20A490D4C%2540AdobeOrg%7CTS%3D1636669459](https://media.anz.com/posts/2021/November/anz-job-ads_lockdown_losses_recovered?adobe_mc=MCMID%3D76468945189557347910868955218524878813%7CMORGID%3D67A216D751E567B20A490D4C%2540AdobeOrg%7CTS%3D1636669459)>.

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



Source: ABS, Deloitte Access Economics.

Key risks to the outlook include potential mutations of COVID that are more resistant to vaccines and the uncertainty over the timing of the reopening of international borders and return of international students and visitors. The relatively low levels of vaccinations in many countries also makes the international economic outlook more uncertain and international trade and supply chains more vulnerable to disruption.

Although the outlook is subject to a high level of uncertainty, the Australian economy is well placed to recover strongly in 2022. Economic activity is expected to be supported by the easing of COVID-restrictions, elevated vaccination rates, and continued growth in consumer and business confidence. Overall, real GDP is forecast to grow by 1.5% in 2021-22 before accelerating to a gain of 5.3% in 2022-23 and 2.8% in 2023-24.

### 2.1.2 Utilities

The 'utilities' industry 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 industry covers activity in the provision of electricity, gas through mains systems, water, drainage and sewage services.

Utilities industry output fell 1.3% over 2020-21. Activity fell in the electricity supply (-1.8%) and water supply and waste services (-1.1%) sub-industries, which together account for more than 95% of industry output. Elsewhere, output in the gas supply sub-industry grew 3.4% over 2020-21.

Average operational demand in the National Electricity Market (NEM) fell by 0.2% in the September quarter of 2021 compared to a year earlier. This was driven by the continued uptake of solar photovoltaic (PV) generation that contributed to large reductions in daytime demand and relatively mild weather conditions which reduced heating demand.

The COVID pandemic has had relatively small effects on overall electricity demand but more significant effects on electricity consumption patterns. Demand from businesses and industrial users has generally decreased amid the impact of workplace restrictions, while residential demand has increased as people spent more time at home (working, schooling, unemployed, or underemployed).



The Australian Energy Market Operator (AEMO) forecasts energy consumption to decline over the next five years.<sup>2</sup> Higher demand from a growing Australian population is expected to be offset by an increasing share of households and businesses adopting distributed energy technologies (such as rooftop PV, battery storage and other small-scale generation resources), further increases in energy efficiency, as well as stronger growth in less energy-intensive industries compared to more energy-intensive industries such as manufacturing.

Across the final five years of the next decade demand is expected to see a modest recovery, driven by a growing population, the electrification of industries and residential connections and the uptake of electric vehicles. As a result, expected unserved energy – the amount of energy demanded but not supplies – is forecast to remain below the reliability standard in all states until 2027-28.

In the September quarter of 2021, average wholesale electricity prices fell by approximately 30% from the prior quarter due to mild weather and increased renewable energy output. However, prices remain elevated compared to a year earlier as industrial activity and demand recovers from the COVID recession.

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

- The transition from a centralised fossil fuel-led generation mix to a more decentralised and varied generation mix may produce costs for businesses and consumers in the NEM.
- Greater uptake of distributed energy resources such as rooftop PV and battery storage systems will weigh on NEM electricity demand.
- Further pressure on the manufacturing industry may see additional industrial electricity users choose to close local operations and move offshore.

There are also a number of upside risks that may support growth:

- An acceleration in the uptake of electric vehicles will increase NEM electricity demand. According to AEMO this will depend on government policies, electric vehicle costs relative to non-electric vehicles, other transport alternatives (e.g. public transport), commercial demand, access to charging infrastructure and the availability of car models in Australia.
- There is also the potential for higher demand from the business sector as industries undergo electrification. This includes demand from the manufacturing, mining, transport and services industries.
- The announcement of a net-zero target for carbon dioxide emissions by 2050. This includes the Technology Investment Roadmap which is designed to guide \$20 billion of government investment into low emissions technology in the decade to 2030. The government aims to drive at least \$80 billion of total new investment by 2030.<sup>3</sup>

Total gas demand increased by 5% from September 2020 to September 2021. Growth in Queensland liquified natural gas (LNG) exports more than offset reduced demand for gas powered electricity generation and domestic demand in the NEM.

Quarterly average gas prices reached record highs across all east coast gas markets, increasing by 120% since the September quarter 2020. The record prices reflect supply issues and low storage levels at a gas and storage plant in Queensland as well as high demand for LNG exports.

According to the AEMO 2021 Gas Statement of Opportunities, the supply of gas from existing and committed developments is expected to meet demand from eastern and south-eastern Australia

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<sup>2</sup> Australian Energy Market Operator, *2021 Electricity Statement of Opportunities* (31 August 2021) <<https://aemo.com.au/en/library/major-publications>>.

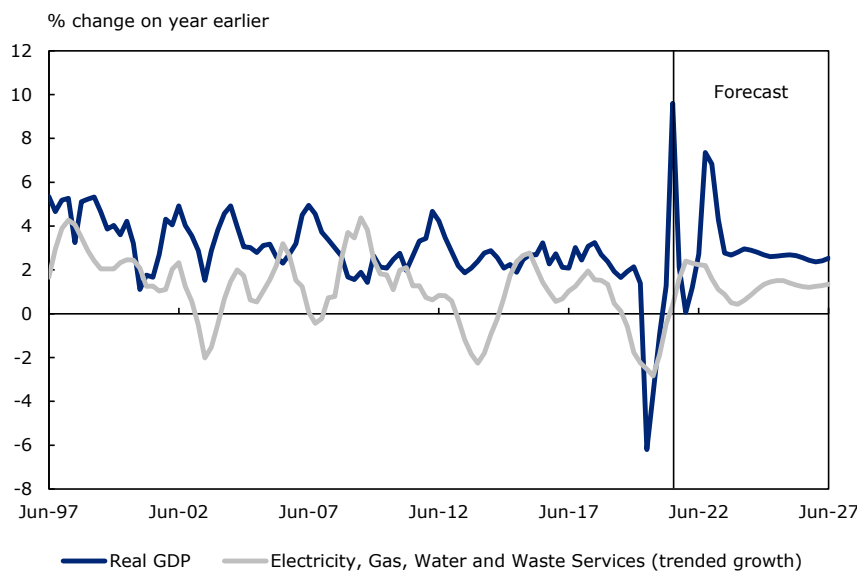
<sup>3</sup> Department of Industry, Science, Energy and Resources, *Australia's Long-Term Emissions Reduction Plan* (26 October 2021) <<https://www.industry.gov.au/data-and-publications/australias-long-term-emissions-reduction-plan>>

until 2026.<sup>4</sup> This improved outlook is due to Australia Industrial Energy’s commitment to the Port Kembla Gas Terminal in New South Wales.

Utilities industry output experienced a smaller COVID-related contraction during 2020 compared to the broader economy (see Chart 2.4). This was due to the utilities industry being less affected by lockdowns and restrictions than other industries.

Utilities industry output is forecast to grow by 2.5% in 2021-22, compared to a gain of 1.5% for the wider economy. The outperformance of the utilities industry is driven by the Delta related lockdowns in the September quarter of 2021, which affected growth for industries such as tourism, the arts, offices and education proportionally more than the utilities industry. Utilities industry output is forecast to grow by 1.4% in 2022-23 compared to a 5.3% gain in the wider economy.

Chart 2.4 Utilities industry output and GDP

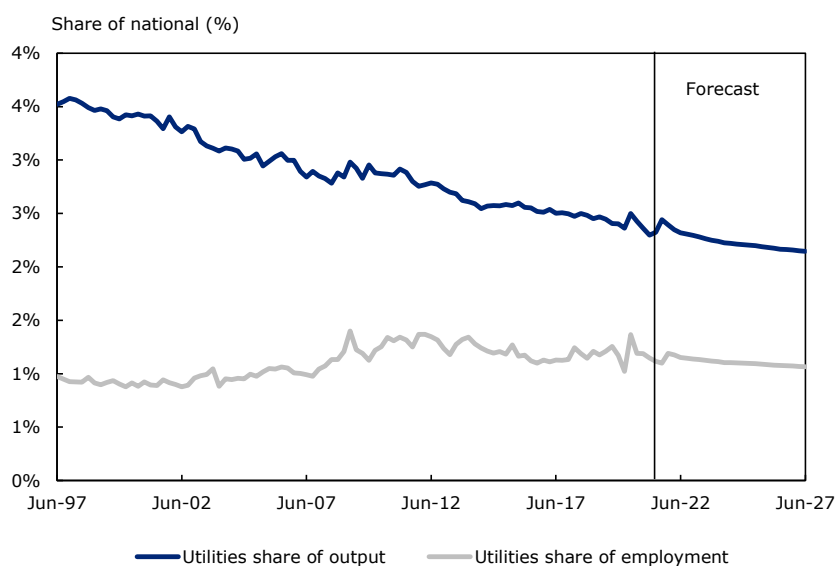


Note: % change on year earlier refers to growth between a quarter and the same quarter a year earlier.  
Source: ABS, Deloitte Access Economics.

From 2021-22 to 2026-27, growth in utilities industry output is forecast to remain weaker than growth in the Australian economy (see Chart 2.4). As a result, the utilities industry is forecast to fall as a share of national output and employment over time (see Chart 2.5).

<sup>4</sup> Australian Energy Market Operator, *2021 Gas Statement of Opportunities* (29 March 2021) <[https://aemo.com.au/-/media/files/gas/national\\_planning\\_and\\_forecasting/gsoo/2021/2021-gas-statement-of-opportunities.pdf?la=en](https://aemo.com.au/-/media/files/gas/national_planning_and_forecasting/gsoo/2021/2021-gas-statement-of-opportunities.pdf?la=en)>.

Chart 2.5 Utilities share of national output and employment



Source: ABS, Deloitte Access Economics.

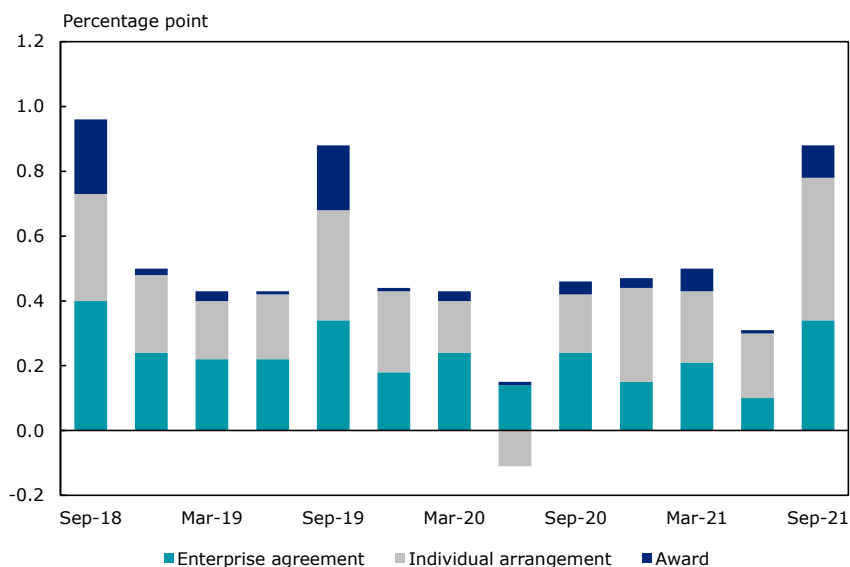
## 2.2 The outlook for wages

### 2.2.1 All industries

The Wage Price Index (WPI) grew 0.6% in the September quarter of 2021, to be 1.7% higher for the year. Downward pressure on wages amid the Delta lockdown in New South Wales, Victoria and the Australian Capital Territory was outweighed by upward pressure on wages from salary reviews at the conclusion of the previous financial year and scheduled increases in enterprise agreements and award wages.

The drivers of wage growth largely returned to the pre-COVID pattern in the September quarter of 2021 (see Chart 2.6). In the September quarter of 2020, around 20% of jobs saw a wage increase, below the typical 35-40% of jobs that see an increase in the quarter, as COVID led to wage freezes and postponed wage increases. In the September quarter of 2021, the proportion of employees seeing a wage increase returned to the pre-COVID average of 35 to 40%.

Chart 2.6 Contributions to WPI growth, by method of setting pay



Source: ABS.

The largest contribution to growth came from employees on individual agreements. Around 40% of employees on individual agreements received their second pay increase in a year, compared to the typical share of around 20%, driven by high demand for specific occupations.

Wage increases from enterprise agreements made a larger contribution to wage growth compared to recent quarters as some public sector wage freezes ended. The Fair Work Commission's (FWC) decision to increase award wages by 2.5% in 2021-22 also supported wage growth in the September quarter of 2021.

The FWC staggered recent award wage increases amid the impact of COVID. Most award wages increased from 1 July 2021 with the exception of the Retail Award (which increased from 1 September 2021) and 21 other awards (which will increase from 1 November 2021). Overall, around 55% of workers on awards received a pay increase in the September quarter, compared to around 80% in pre-COVID years. Looking ahead, the December quarter WPI should be supported by scheduled award wage increases.

The WPI for the public sector increased 0.5% in the September quarter of 2021, below the 0.6% increase in the private sector WPI. Annual public sector wage growth remains at a record low of 1.5% due to the lingering effect of wage freezes and wage caps announced in 2020.

Private sector wage growth was led by a 1.3% increase in professional services wages and a 1.1% increase in construction wages during the September quarter of 2021. Border closures and demand for skilled workers have boosted wages in the professional services industry, while strong home building and renovation activity has lifted demand for construction workers. Conversely, wage gains were slowest in the financial services, retail and utilities industries – at 0.5% in the September quarter.

Wage gains are forecast to accelerate from 2021-22 alongside the recovery in the Australian economy, an improvement in consumer and business confidence, an increase in Consumer Price Index (CPI) inflation, and an increase in award wages and the minimum wage.

However, there are a number of factors that may limit the pace of wage gains in the coming years:

- The structural increase in underemployment over recent decades could mean that there is additional spare capacity in the labour market that needs to be absorbed before wages rise. Therefore, the unemployment rate may have to fall by more than it previously has before there is sustained upward pressure on wages.
- The wage-setting process - including multi-year enterprise agreements and annual award wage increases – also leads to some inertia in overall wage growth that may limit the pace of short-term gains.
- Many employers have responded to the COVID pandemic by tightly controlling costs. Even as the economy recovers it is possible that employers remain cautious about adding to their wage bill amid concerns over the economic outlook.
- The easing of international border restrictions is also likely to increase the number of foreign workers in Australia, placing downward pressure on wages in certain industries.
- 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 focused on intangible capital goods such as software and IT, tend to be highly concentrated in a few firms across a small number of industries. Firms that are unable to innovate and take advantage of new technologies are often choosing to control costs as a way of remaining competitive. This cost-control approach can sit at odds with paying higher wages to employees.

- Scheduled increases in the superannuation guarantee rate across coming years which the Reserve Bank of Australia (RBA) estimates will reduce WPI growth relative to average earnings by approximately 0.25 percentage points through 2023.

Looking ahead, Deloitte Access Economics forecasts nominal wage growth of 2.2% in 2021-22 and 2022-23. The pace of wage gains is forecast to accelerate over the medium term, growing by 2.4% in 2023-24 before reaching 2.9% in 2026-27.

Real wages (or nominal wages adjusted for inflation) are forecast to fall 0.3% in 2021-22 as CPI growth of 2.4% outpaces wage growth of 2.2%. An easing of CPI inflation is expected to support real wage growth of 0.5% in 2022-23. Real wage growth is forecast to reach 0.6% by 2026-27.

Compared with the forecasts presented in Report 3A, the current forecasts have stronger nominal wage growth in the short and medium term. This reflects wage pressures in particular industries and the faster than anticipated recovery in CPI inflation. Nominal wage growth has been revised higher by a cumulative 3.0 percentage points across the period from 2021-22 to 2026-27.

Chart 2.7 National WPI forecasts

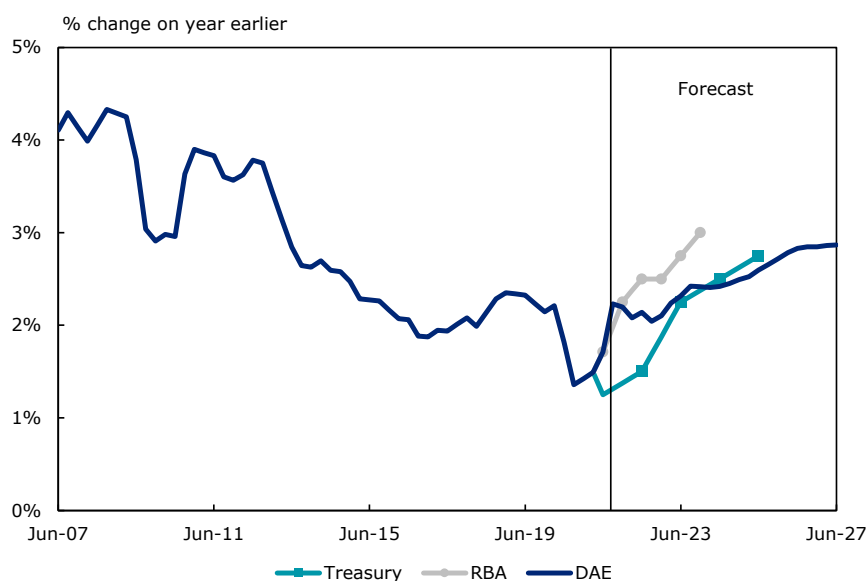


Note: % change on year earlier refers to growth between a quarter and the same quarter a year earlier.

Source: ABS, Deloitte Access Economics.

By way of benchmarking, Deloitte Access Economics forecasts (September 2021 last WPI actual) a more gradual acceleration in the pace of wage growth over the short term compared to the latest forecasts released by the RBA in its November 2021 *Statement of Monetary Policy* (June 2021 last WPI actual). However, Deloitte Access Economics forecasts are stronger than the Commonwealth Treasury forecasts published in the *2021-22 Budget* released in May 2021 (December 2020 last WPI actual), until June 2023 when the forecasts broadly align thereafter.

Chart 2.8 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 2021-22, Deloitte Access Economics, RBA November 2021 Statement of Monetary Policy.

Table 2.1 National wage forecasts

**Financial year nominal wages forecasts**

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Wage price index	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Average weekly earnings	1.6	3.2	2.4	2.8	3.1	3.1	2.8
Ordinary time earnings	2.7	2.5	3.3	3.1	3.5	3.3	2.9
Unit labour costs	0.3	3.4	6.2	3.1	2.9	2.9	3.1

**Financial year real wages forecasts**

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Wage price index	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
Average weekly earnings	0.0	0.8	0.7	0.5	0.8	0.7	0.5
Ordinary time earnings	1.0	0.1	1.6	0.9	1.2	0.9	0.6
Unit labour costs	-1.3	0.9	4.5	0.9	0.6	0.5	0.8

### Year ending March nominal wages forecasts

Annual % change	History Forecast						
	2021	2022	2023	2024	2025	2026	2027
Wage Price Index	1.5	2.1	2.1	2.4	2.5	2.7	2.8
Average weekly earnings	2.9	2.6	2.3	2.8	3.1	3.2	2.8
Ordinary time earnings	3.6	2.2	3.0	3.2	3.4	3.4	2.9
Unit labour costs	-5.0	6.2	5.9	3.3	2.9	2.8	3.1

### Year ending March real wages forecasts

Annual % change	History Forecast						
	2021	2022	2023	2024	2025	2026	2027
Wage Price Index	0.9	-0.8	0.5	0.3	0.2	0.3	0.5
Average weekly earnings	2.4	-0.4	0.7	0.6	0.8	0.8	0.5
Ordinary time earnings	3.0	-0.7	1.4	1.1	1.1	1.0	0.6
Unit labour costs	-5.6	3.2	4.1	1.1	0.6	0.5	0.7

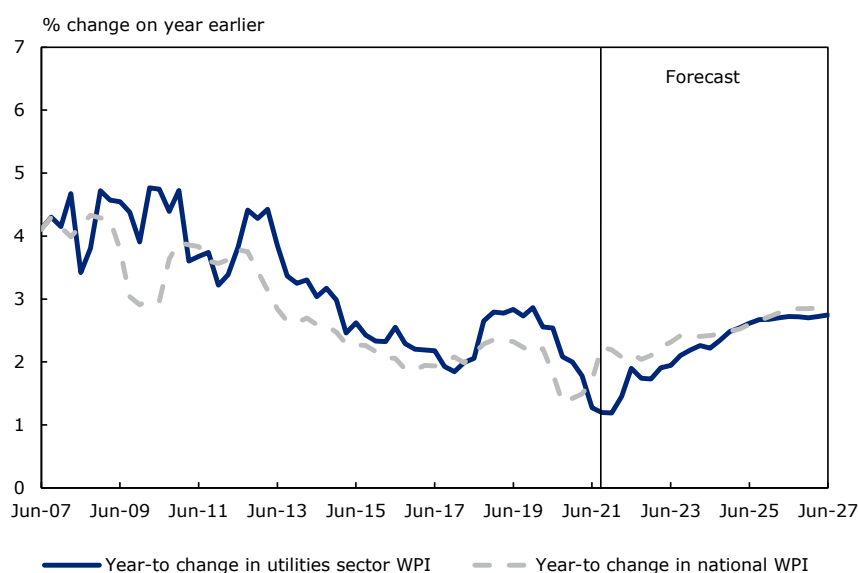
Source: ABS, Deloitte Access Economics.

## 2.2.2 Utilities industry wages

Utilities industry wages grew 0.5% in the September quarter of 2021 to be 1.6% higher for the year. Wage gains have fallen from a high of 2.8% in 2019, with falls across both the private and public sectors. Private sector utilities wages have slowed from an annual growth rate of 3.1% in the year to December 2019 to 1.8% in the year to September 2021, while public sector wages have slowed from 2.5% to 1.4% over the same period.

For much of the past decade utilities industry wage growth outpaced wage growth for the overall economy. However, the recent slowdown has meant that wage gains in the utilities industry are now below that of the broader economy (see Chart 2.9).

Chart 2.9 National utilities industry Wage Price Index forecasts



Note: % change on year earlier refers to 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 slowdown of utilities wages relative to the all industry average:

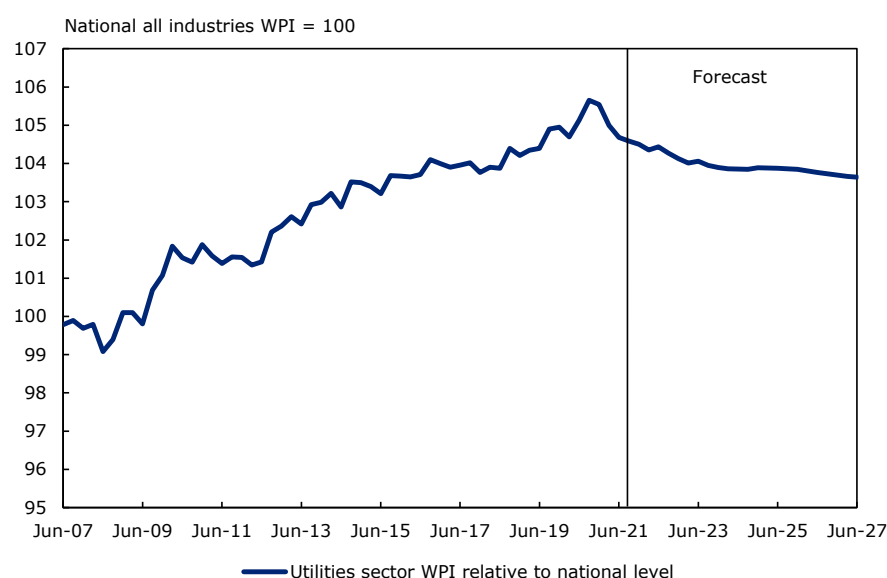
- Utilities employment fell 2.3% in 2020-21, adding to spare capacity in the utilities industry at a time when all industry employment grew 0.6%.

- Utilities industry output fell 1.3% in 2020-21, compared to a 1.4% rise in output across the wider economy. Declining utilities output may prompt employers in the industry to control costs by restricting wage increases.
- Output in the mining industry fell 3.1% in 2020-21. The mining industry traditionally competes with the utilities industry for labour, meaning that weakness in the mining industry could limit upward pressure on utilities wages.

The utilities WPI is forecast to grow by 1.4% in 2021-22 before increasing to a gain of 1.8% in 2022-23 and reaching 2.7% in 2026-27. Utilities wages are forecast to grow at a slower rate than wages across the wider Australian economy over the medium-term. This reflects the fact that utilities output is forecast to grow at a compound annual growth rate (CAGR) of 1.4% from 2020-21 to 2026-27 compared to a CAGR of 2.9% in the wider Australian economy.

Real wages in the utilities industry are forecast to fall 1.0% in 2021-22 as inflation outpaces nominal wage growth. Real wage gains are forecast to increase 0.2% in 2022-23 amid upward pressure on nominal wages and a moderation in CPI inflation. Real wages are forecast to gradually increase thereafter, reaching 0.4% by 2026-27.

Chart 2.10 Utilities Wage Price Index relative to National Wage Price Index



Source: ABS, Deloitte Access Economics.

Forecasts for utilities industry nominal WPI growth have been revised slightly higher from 2021-22 to 2026-27 compared to the forecasts in Report 3A. Utilities wage growth has been revised up by a cumulative 2.0 percentage points across the forecast period from 2021-22 to 2026-27. This is primarily due to the faster than expected recovery in the Australian economy as well as stronger than expected wage pressures across all industries.

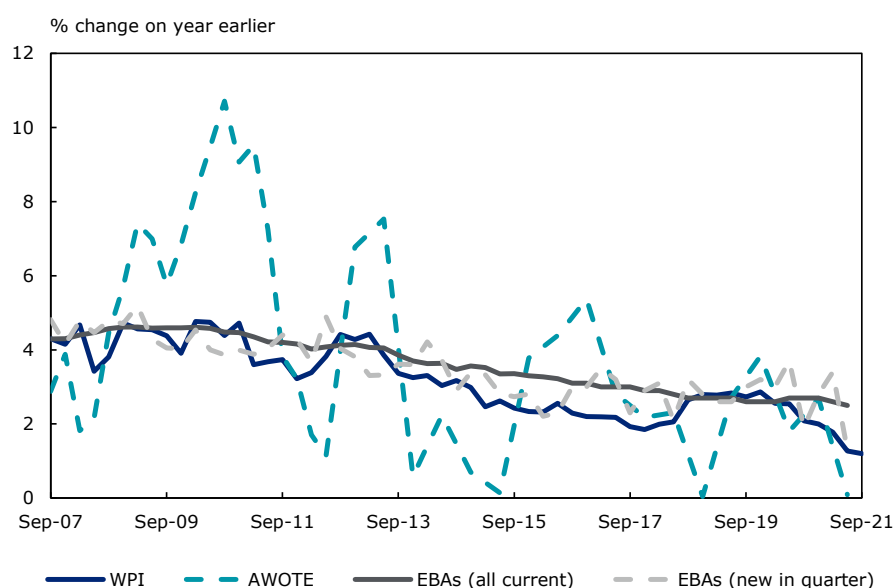
### 2.2.2.2 Comparison with results from other wage growth measures

Chart 2.11 shows that, despite volatility in Average Weekly Ordinary Time Earnings (AWOTE), the downward trend in utilities WPI from 2006 to 2018 and from 2020 has been mirrored by several other wage growth measures that are produced on a regular basis.

These include Enterprise Bargaining Agreements (EBAs) sourced from the *Trends in Federal Enterprise Bargaining* publication produced by the Attorney-General's Department.



Chart 2.11 Measures of utilities industry wage growth



Note: % change on year earlier refers to growth between a quarter and the same quarter a year earlier.  
Source: ABS, Attorney-General's Department

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 November 2020, the Australian Bureau of Statistics (ABS) indicated that *"The purpose of the survey is to measure the level of average gross weekly earnings associated with employees. While AWE is not designed to produce movement in earnings data, 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 June quarter of 2021, there were 356 EBAs active in the utilities industry, covering some 45,300 employees – approximately 31% of total utilities industry employees. The Average Annualised Wage Increase across all current utilities EBAs was 2.5% in the June quarter of 2021, below the 2.9% AAWI seen a year earlier.

A total of 35 EBAs (covering 2,500 employees) with an AAWI of 2.6% are due to expire in the September quarter of 2021. This is expected to place some downward pressure on the AAWI for all current EBAs.

A total of 37 new EBAs, covering 7,200 employees, were lodged in the June quarter of 2021. The AAWI for new EBAs in the June quarter of 2021 was 1.3%, below the 3.4% AAWI for new EBAs in the March quarter of 2021 and the 2.8% for new EBAs in the December quarter of 2020.

### 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. There are three different values that are utilised to calculate productivity measures used in this report:

1. 'National' productivity = Gross Domestic Product / employed persons in Australia
2. 'State' productivity = Gross State Product / employed persons in that state
3. 'Industry' productivity = Gross Value Added / employed persons in that industry in Australia

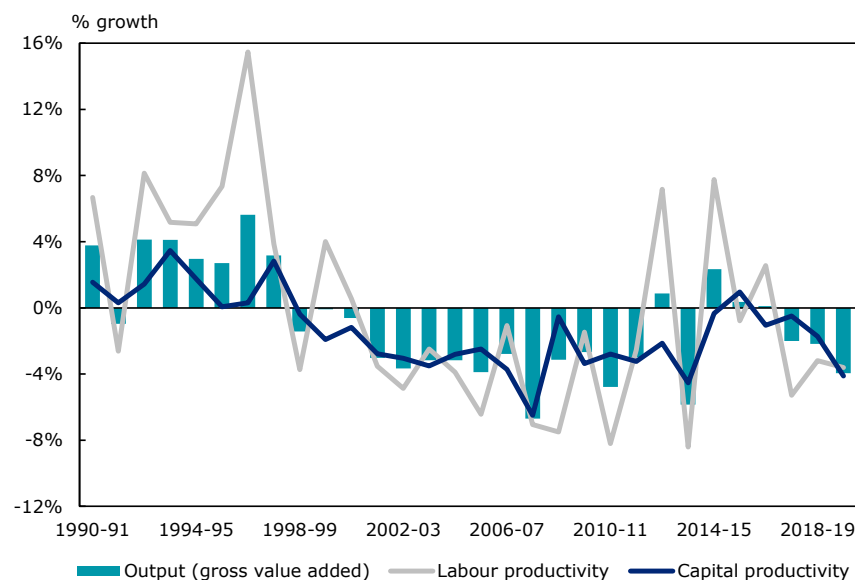
A detailed methodology discussion can be found in Report 1 provided to the AER in August 2020.

Historical estimates of labour productivity may differ from those presented in Report 1 as the ABS has changed the reference year for chain volume measures in the December 2020 National Accounts (to 2018-19 from 2017-18).

Labour productivity increased in 2020-21 as COVID saw labour reallocated from low productivity industries to higher productivity industries.<sup>5</sup> While most industries saw both output and labour inputs fall, labour productivity outcomes varied across industries. Industries that saw labour productivity increases tended to have large falls in hours worked combined with relatively small declines in output.

The utilities industry saw labour productivity increase during 2020-21 as employment fell by more (-2.3%) than output (-1.3%). Labour productivity in the utilities industry has largely grown at a slower rate than productivity across the wider economy over the last two decades. Utilities industry labour productivity fell by a CAGR of 2.7% from 1999-00 to 2019-20, weighing on overall output in the utilities industry (see Chart 2.12). Analysis from the Productivity Commission found that falling 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).

Chart 2.12 Measures of utilities industry productivity



Source: ABS, Deloitte Access Economics

According to the ABS, industry productivity trends have been especially difficult to interpret in recent years. "This is because productivity measures include a number of drivers including technical change, scale and cyclical effects which are difficult to separately identify. The COVID-19 pandemic has compounded this issue, as it has had varying impacts on productivity estimates for

<sup>5</sup> Productivity Commission, *PC Productivity Insights: Recent Developments* (17 June 2021) <<https://www.pc.gov.au/research/ongoing/productivity-insights/recent-developments-2021>>.

2019-20. Care should be taken when interpreting year-to-year productivity growth for the market sector and by industry.<sup>6</sup>

Labour productivity in the utilities industry is forecast to grow by 0.6% in 2021-22, slightly above the 0.5% gain in all industry labour productivity. Utilities labour productivity is forecast to grow by 3.4% in 2022-23 as the industry output and broader economy recovers from the effects of COVID. Utilities industry labour productivity is expected to closely track productivity in the wider economy over the medium term.

Table 2.2 Australian labour productivity forecasts

<b>Financial year changes in labour productivity forecasts</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	0.3	0.5	3.5	1.1	1.1	1.2	0.9
Utilities	0.3	0.6	3.4	1.1	1.1	1.2	0.9

<b>Year ending March changes in labour productivity forecasts</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	-0.1	0.1	4.0	1.1	1.1	1.3	0.9
Utilities	-0.3	0.3	3.9	1.1	1.1	1.3	0.9

Source: ABS, Deloitte Access Economics.

<sup>6</sup> Australian Bureau of Statistics, *Estimates of Industry Multifactor Productivity, 2019-20*, cat. No. 5260.0.002 (30 November 2020).

## 2.2.4 Summary results

Table 2.3 National industry wage forecasts

<b>Financial year changes in nominal national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	1.5	2.2	2.2	2.4	2.5	2.7	2.9
Utilities	1.8	1.4	1.8	2.2	2.5	2.7	2.7

<b>Financial year changes in real national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
Utilities	0.2	-1.0	0.2	0.0	0.2	0.3	0.4

<b>Financial year changes in labour productivity forecasts</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
All industries	0.3	0.5	3.5	1.1	1.1	1.2	0.9
Utilities	0.3	0.6	3.4	1.1	1.1	1.2	0.9

<b>Year ending March changes in nominal national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	1.5	2.1	2.1	2.4	2.5	2.7	2.8
Utilities	2.1	1.3	1.8	2.1	2.4	2.7	2.7

<b>Year ending March changes in real national industry sector WPI</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	0.9	-0.8	0.5	0.3	0.2	0.3	0.5
Utilities	1.5	-1.6	0.2	0.0	0.1	0.3	0.4

<b>Year ending March changes in labour productivity forecasts</b>							
<b>Annual % change</b>	<b>History</b>		<b>Forecast</b>				
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
All industries	-0.1	0.1	4.0	1.1	1.1	1.3	0.9
Utilities	-0.3	0.3	3.9	1.1	1.1	1.3	0.9

Source: ABS, Deloitte Access Economics.

## 3 Victoria

### 3.1 Economic outlook

#### 3.1.1 Overview

Victorian Gross State Product (GSP) decreased by 0.4% in 2020-21 as several lockdowns disrupted economic activity. The fall was led by declines in household consumption and business investment which suffered from reduced ability to spend and increased uncertainty. The Delta lockdown in the September quarter of 2021 is expected to weigh on economic activity, but the state's economy is expected to rebound strongly from late 2021 as high vaccination rates have allowed for a relatively rapid easing of COVID restrictions.

The Victorian labour market is expected to recovery strongly from Delta lockdowns. The number of people employed fell by 175,600 persons from August 2021 to October 2021, with the unemployment rate reaching 5.6% - above the national figure of 5.2%. Despite this, the Victorian payroll jobs index has increased 0.8% in the fortnight to 16 October 2021 and job advertisements for October 2021 were 49% above pre-COVID levels.<sup>7</sup>

The Delta lockdown has weighed on Victorian private consumption. But a robust labour market, increases in household wealth, and a degree of pent-up demand are expected to support a recovery in private consumption in 2022. And although government pandemic response payments have been now ended, Victorian households received \$4.4 billion via the COVID Disaster Payment, Income Support Payments, and the Pandemic Leave Disaster Payment. Household wealth has also been supported by strong growth in dwelling values. According to CoreLogic, Melbourne dwelling values increased 16.4% in the year to October 2021, while regional Victorian dwelling values grew 23.4%. As a result, Victorian private consumption is forecast to grow by 2.8% in 2021-22 before accelerating to a 10.3% gain in 2022-23.

A key driver of the Victorian economy prior to the outbreak of COVID-19 was strong population growth. The Victorian population grew at an average annual rate of 2.1% in the decade to 2019, compared to 1.6% growth in the wider Australian population. More than three fifths of the increase in the Victorian population over this period has been due to international and interstate migration. While international migration has been severely affected by the closure of international borders, extended lockdowns in the state have also seen net interstate migration turn negative as Victorians have moved to more COVID-free states.

Victoria is also reliant on education exports which have been curtailed due to border restrictions. While the state government is planning to bring back foreign students by 2022. Yet it is unclear when, or if, the number of international students commencing study in Victoria will return to pre-COVID levels. Geopolitical tensions could also weigh on the number of Chinese students in Australia.

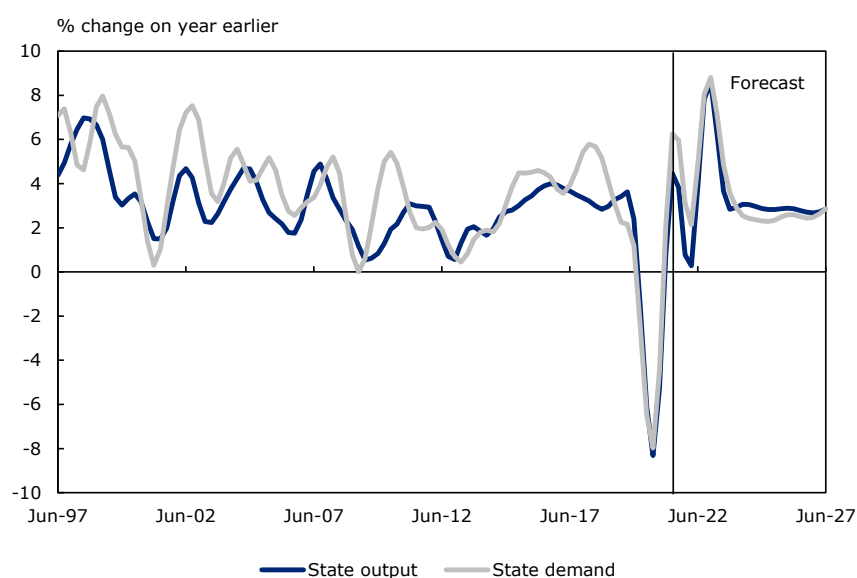
COVID will continue to pose a key risk to the economic recovery. There remains the potential for the re-introduction of restrictions, interstate border closures as well as the development of more vaccine resistant variants of the disease.

Deloitte Access Economics forecasts Victorian GSP to increase by 1.2% in 2021-22 before rebounding by 7.0% in 2022-23. This acceleration in the pace of growth reflects the relatively large decline in activity experienced in Victoria compared to other states and territories. Output growth is then expected to moderate to 2.7% by 2026-27.

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<sup>7</sup> National Skills Commission, *Vacancy Report* (8 November 2021)  
<<https://lmip.gov.au/default.aspx?LMIP/GainInsights/VacancyReport>>

Chart 3.1 Victorian output and state final demand



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

Source: ABS, Deloitte Access Economics.

Table 3.1 Victorian economic forecasts

Annual % change (unless noted)	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Consumption							
Private sector	-3.6	2.8	10.3	3.7	2.8	2.7	2.9
Public sector	7.6	2.5	0.6	0.0	0.3	1.5	1.8
Private sector investment							
Dwelling investment	-3.2	-1.0	3.9	-1.3	2.2	2.6	-0.8
Non-residential building	-16.6	-0.4	17.0	11.5	6.0	4.9	4.9
Engineering construction	-14.4	9.1	14.9	8.9	5.7	4.6	4.7
Machinery and equipment	1.5	14.2	16.7	7.5	4.7	4.0	4.1
IP and livestock	-0.8	9.2	8.9	10.0	7.1	4.1	5.8
Public investment							
General Government	14.1	12.2	-2.8	-3.9	-3.2	1.0	2.2
Public enterprises	-4.4	-12.6	-0.7	2.0	2.5	1.9	2.1
Real final demand							
Private sector	-3.8	3.0	10.4	4.0	3.1	2.9	2.8
Public sector	8.2	3.6	0.0	-0.6	-0.2	1.5	1.9
Gross State output	-1.8	1.2	7.0	3.0	2.9	2.9	2.7
Employment	-0.6	1.8	1.3	1.9	1.7	1.6	1.7
Unemployment rate (%)	6.2	4.6	4.6	4.4	4.3	4.3	4.3

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

Source: ABS, Deloitte Access Economics.

### 3.1.1 Utilities

Victorian electricity demand remained muted in the September quarter of 2021 due to the reimposition of COVID restrictions and relatively mild weather conditions.<sup>8</sup> Meanwhile the supply of renewable energy generation increased as the 286 megawatt (MW) Stockyard Hill Wind Farm commenced operation and higher wind speeds increased generation from other large scale wind farms.

The combination of weak demand and increased supply weighed on prices falling through the September quarter of 2021, with record occurrences of negative or zero spot prices. Electricity futures market indicates that Victorian electricity prices will remain subdued in 2022, with Victoria likely to have the lowest priced electricity of any state in the NEM.<sup>9</sup>

Overall, the Victorian energy landscape continues to be transformed by several ongoing trends:

1. The continued development of renewable energy generation (i.e., large scale wind and solar generation)
2. Strong uptake by consumers of distributed energy resources (i.e., rooftop PV)
3. The withdrawal of synchronous generation (i.e., the closure of the Yallourn Power Station in 2028).

The Victorian Government is targeting 40% renewable energy generation by 2025 and 50% by 2030. AEMO expects this to require up to 5 gigawatts (GW) of additional renewable generation in Victoria, mainly delivered through a combination of distributed energy resources (including rooftop PV) and large-scale renewable projects.<sup>10</sup>

In 2020-21, 472 MW of large-scale wind and solar projects were connected in Victoria. The state now has 8.2 GW of large-scale wind and solar generation capacity, and a further 3.1 GW of rooftop PV. This equates to approximately 45% of existing and committed generation capacity in the state. Victoria is also increasing battery storage capacity, with around 375 MW of existing or committed battery storage projects. This includes Victoria's Big Battery, a 300 MW battery storage project which is expected to come online by the end of 2021.

The rise of renewable energy generation is needed to help offset decreasing reliability and exit of coal-fired generation. AEMO has noted that while some improvements to coal fired power plants are expected to be made, many generators could experience decreasing reliability in the longer term, potentially leading to supply risks.

The expected retirement of the coal powered Yallourn Power Station in 2028 would withdraw around 1.5 GW of generation capacity. To help manage the exit of the plant, a 350 MW large-scale battery project is expected to be built before Yallourn retires and would close much of the anticipated reliability gap in Victoria.<sup>11</sup>

Overall, AEMO expects that grid-supplied electricity demand growth will remain subdued over the decade to 2030-31 amid continued growth in rooftop PV, energy efficiency improvements, and a moderate reduction in business demand. However, there is likely to be upward pressure on electricity demand from continued growth in the population, the electrification of transport, as well as a shift away from gas heating.

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<sup>8</sup> Australian Energy Market Operator, *Quarterly Energy Dynamics Q3 2021* (22 October 2021) <<https://aemo.com.au/en/library/major-publications>>.

<sup>9</sup> Ibid

<sup>10</sup> Australian Energy Market Operator, *Victorian Annual Planning Report October 2021* (29 October 2021) <<https://aemo.com.au/en/library/major-publications>>.

<sup>11</sup> Australian Energy Market Operator, *2021 Electricity Statement of Opportunities August 2021* (31 August 2021) <<https://aemo.com.au/en/library/major-publications>>.

### 3.2 Outlook for wages

#### 3.2.1 All industries

The Victorian WPI grew 0.9% in the September quarter of 2021, to be 1.8% higher over the year. This represents the fastest quarterly growth in wages since September 2013, supported by the unwinding of temporary wage cuts or freezes for some workers.

Victorian private sector wages grew 1.0% in the September quarter of 2021, while public sector wages grew 0.7%. Private sector wage growth was led by construction (1.9%), health (1.3%), education (1.2%) and professional services (1.0%) industries.

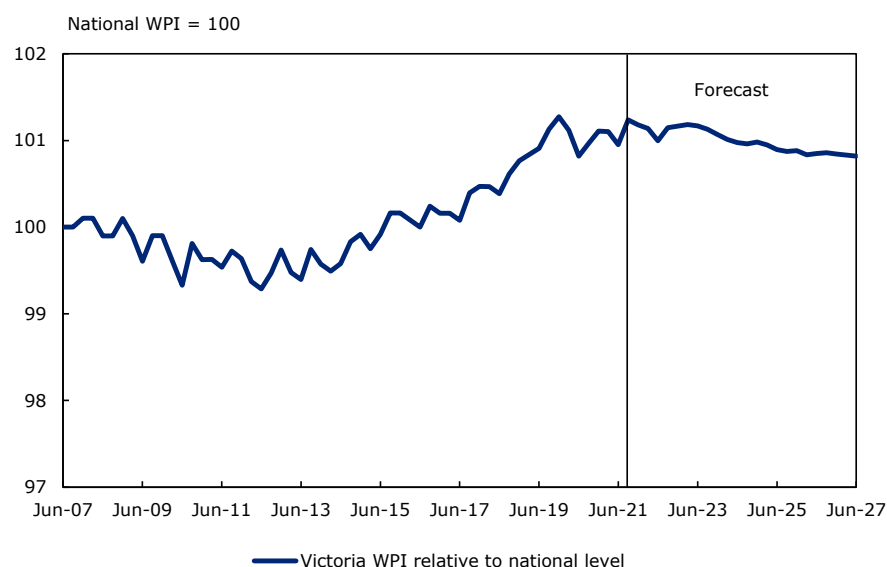
From 2015 to 2019, Victorian wage growth had broadly outpaced Australian wages due to the relative strength of the Victorian economy. Victoria experienced several years of elevated population growth, generating broad-based gains in the Victorian economy.

The onset of COVID saw Victorian wages fall relative to the national average due to more severe restrictions in Victoria, as well as the proportionally large impact of lower net international migration on the Victorian population and economy.

Wage growth has recovered in 2021 as economic activity has rebounded, absorbing spare capacity in the Victorian labour market and placing upward pressure on wages. Over the medium-term wages are forecast to gradually recover as economic activity improves. A gradual recovery in wages is forecast as COVID is likely to have exacerbated several long-running trends weighing on the pace of wage growth (such as automation of work processes, cost-control measures within businesses, and employees prioritising job security).

Over the forecast period, Victorian wages are forecast to remain above the national average, but this outperformance is expected to decline (Chart 3.2). This is largely due to a moderation in the outperformance of the Victorian economy amid slower forecast rates of population growth compared to pre-COVID forecasts.

Chart 3.2 Victorian WPI relative to national WPI



Source: ABS, Deloitte Access Economics.

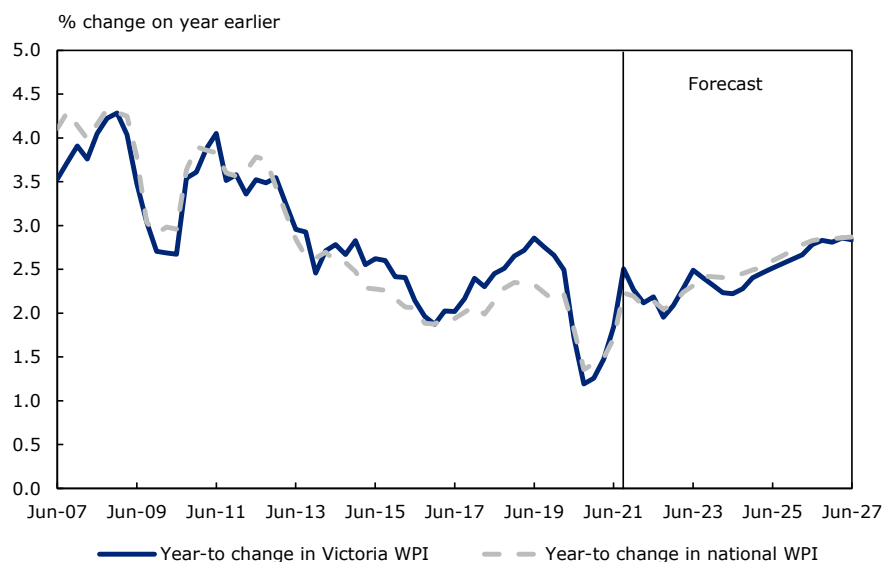
The Victorian all industry nominal WPI is forecast to grow 2.3% in 2021-22 and 2.2% in 2022-23 before reaching a gain of 2.8% in 2026-27. These forecasts represent a faster rate of growth from 2020-21 to 2025-26 when compared to those in Report 2 (the most recent report that covers Victoria). Nominal wage growth is a cumulative 3.6 percentage points higher across the forecast



period from 2020-21 to 2025-26.<sup>12</sup> The Victorian nominal WPI is forecast to reach 2.7% in 2025-26 compared to a forecast of 2.0% in Report 2.

Victorian real wages are forecast to increase 0.1% in 2021-22 and 0.5% in 2022-23 amid a moderation in CPI inflation relative to nominal wages. Real WPI growth is forecast to reach 0.6% by 2026-27.

Chart 3.3 Victorian all industry WPI growth



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

Source: ABS, Deloitte Access Economics.

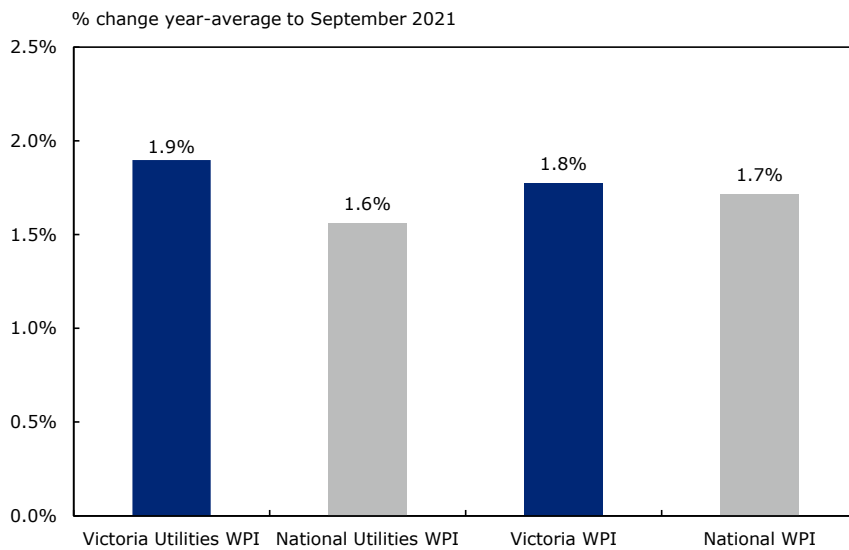
### 3.2.2 Utilities industry wages

Victoria is Australia’s second most populous state and comprises a substantial share of national utilities output. Therefore, Victorian and national utilities industry wages often follow similar trends. However, at the state level there may be greater volatility in utilities output, particularly over the short term.

Wages in the Victorian utilities industry grew 1.9% in the year to September 2021 (Chart 3.4). This is above the national average for the utilities industry of 1.6% and remains marginally above the Victorian all industry average of 1.8%. Utilities industry operations have been less affected by COVID than across most other industries, supporting faster wage growth compared to the all industry average.

<sup>12</sup> Report 2 was finalised in February 2021 and included a December 2020 last actual for WPI. The forecast period was 2020-21 to 2025-26.

Chart 3.4 Comparative WPI annual growth rates

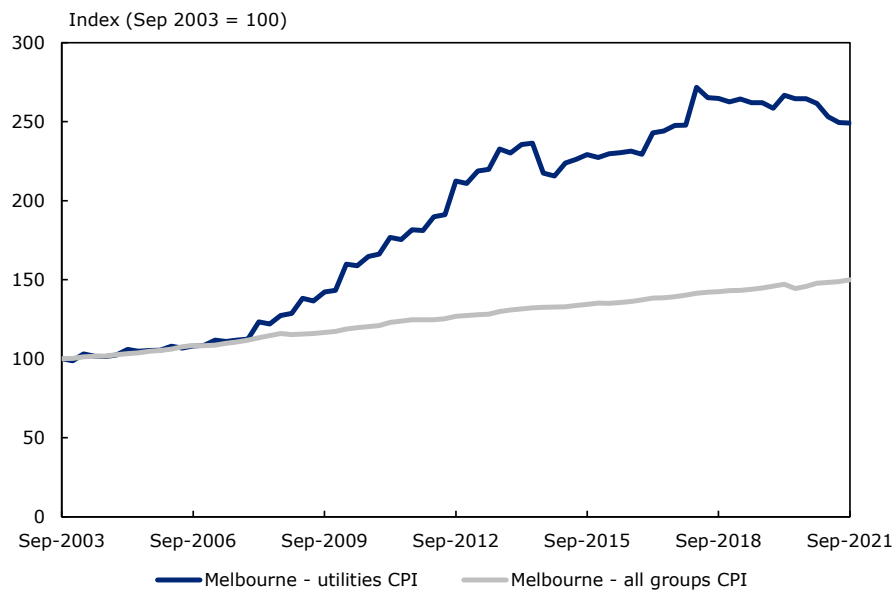


Source: ABS, Deloitte Access Economics.

Melbourne utilities prices increased in line with the broader CPI until around 2006-07. The utilities CPI then rose by 8.1% per annum through to 2017-18 compared to 2.4% increase in the broader CPI (see Chart 3.5). Since then, utilities prices have fallen by 0.1% per annum while CPI has increased by 1.6% per annum. This has partly been due to the growth of rooftop PV generation, which has reduced demand for grid-supplied electricity.

Despite the recent moderation in the utilities CPI group, prices remain well above the broader CPI. Looking ahead, the Australian Energy Market Commission (AEMC) expects annual residential electricity bills to decline by 7.7% from 2020-21 to 2023-24, driven primarily by lower wholesale costs.<sup>13</sup>

Chart 3.5 Melbourne utility prices

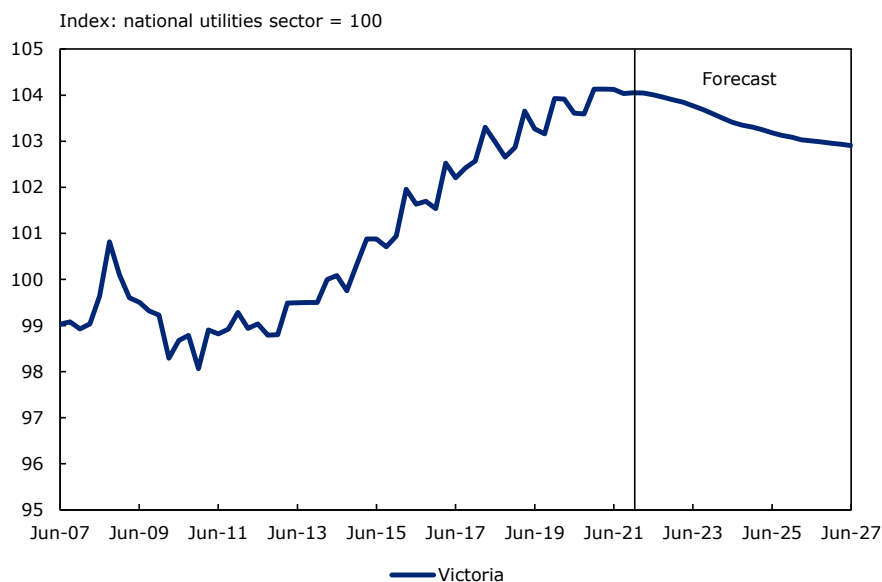


Source: ABS

<sup>13</sup> Australian Energy Market Commission, *Residential Electricity Price Trends 2021* (25 November 2021) <<https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2021>>.

The Victorian utilities industry WPI has increased relative to the national utilities industry WPI over the past decade (Chart 3.6). This partly reflects the stronger population growth in the state which has underpinned utilities industry output. It has also supported conditions in industries that compete with the utilities industry for workers, including the construction industry. Looking ahead, the Victorian utilities industry WPI is expected to fall relative to the national utilities industry WPI, amid the long-term impact of COVID on the rate of growth in the Victorian population compared to the Australian population.

Chart 3.6 Victorian utilities WPI relative to national utilities WPI



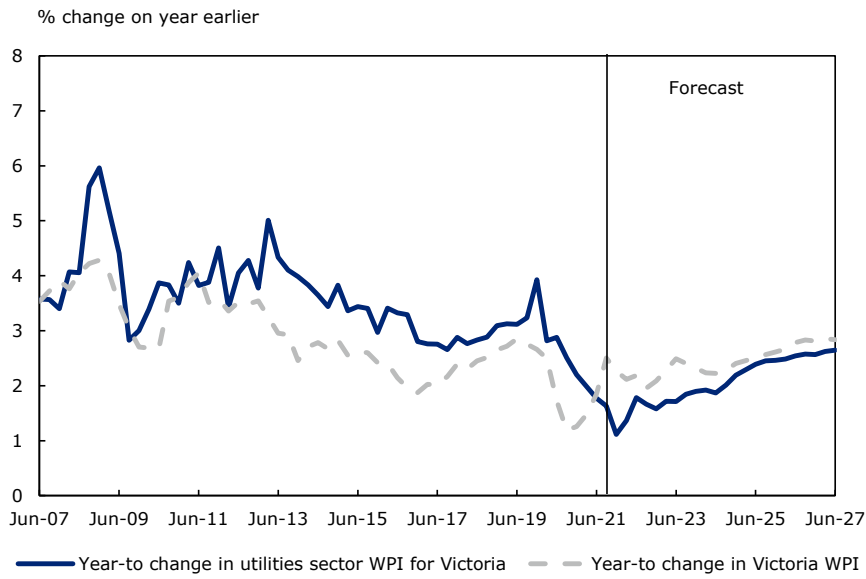
Source: ABS, Deloitte Access Economics.

Wage growth in the Victorian utilities industry is forecast to reach a trough of 1.5% in 2021-22. Wage gains are then expected to accelerate, reaching 2.6% growth in 2026-27 as utilities sector output gradually recovers. These forecasts represent a cumulative upward revision in nominal wages growth of 2.5 percentage points from 2021-22 to 2025-26 compared with those in Report 2.

Victorian utilities industry wage growth is forecast to lag growth for wages in the broader state economy. This reflects forecasts for modest growth in the Victorian utilities industry compared to the Victorian all industry average.

Victorian utilities industry real WPI is forecast to fall 0.7% in 2021-22 as nominal wages growth remains muted and inflation accelerates. Despite rising nominal wages, real WPI is forecast to decline through to 2024-25. Real wage growth is forecast to reach 0.3% by 2026-27 as nominal wages gradually lift in line with increasing utilities industry output.

Chart 3.7 Victorian utilities WPI growth



Note: % change on year earlier refers to 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 88 current EBAs in the Victorian utilities industry in the June quarter of 2021, covering around 7,500 employees, with an AAWI of 2.7%. Chart 3.8 shows the Victorian utilities industry WPI and the outcomes in state EBAs for the utilities industry. The chart shows:

- The AAWI for current EBAs fell to its lowest value in the June quarter of 2021 since the EBA series began in the June quarter of 2010. The AAWI for current EBAs in Victoria (2.7% in June 2021) remains above the Australian average (2.5%).
- The AAWI for new EBAs fell to 2.0% in the June quarter of 2021 from 2.4% in the March quarter of 2021. A total of 800 employees are covered by the EBAs lodged in the June quarter.

Chart 3.8 Comparative measures of wage growth in the Victorian utilities industry



Note: % change on year earlier refers to growth between a quarter and the same quarter a year earlier.  
 Source: ABS, Attorney-General’s Department

### 3.2.3 Labour productivity

Victorian utilities and all industry labour productivity fell by more than the equivalent Australian labour productivity measures in 2020-21. This mostly reflects the impact of COVID lockdowns in Victoria relative to the wider Australian economy.

Victorian labour productivity growth is forecast to remain below the national average in 2021-22 amid the impact of Victoria's lockdown in the September quarter of 2021. Victorian utilities labour productivity is forecast to grow 0.3% in 2021-22 as utilities industry output increases at a faster rate than utilities industry employment.

Labour productivity growth is forecast to accelerate in 2022-23 as the impact of the COVID pandemic fades. By the end of the forecast period Victorian utilities industry labour productivity is forecast to grow at a similar pace to Australian utilities industry labour productivity.

Table 3.2 Victorian and national labour productivity forecasts

#### Financial year changes in Victoria labour productivity forecasts

Annual % change	History		Forecast				
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Victoria - All industries	-1.2	-0.5	5.6	1.1	1.1	1.3	1.0
Victoria - Utilities	-0.1	0.3	4.0	1.1	1.1	1.3	0.9
National - All industries	0.3	0.5	3.5	1.1	1.1	1.2	0.9
National - Utilities	0.3	0.6	3.4	1.1	1.1	1.2	0.9

#### Year ending March changes in Victoria labour productivity forecasts

Annual % change	History Forecast						
	2021	2022	2023	2024	2025	2026	2027
All industries	-2.8	-0.7	6.0	1.2	1.1	1.3	1.0
Utilities	-1.2	0.1	4.5	1.1	1.1	1.3	1.0
National - All industries	-0.1	0.1	4.0	1.1	1.1	1.3	0.9
National - Utilities	-0.3	0.3	3.9	1.1	1.1	1.3	0.9

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.

### 3.2.4 Summary results

Table 3.3 Victorian and national wage forecasts

<b>Financial year changes in Victoria and national nominal WPI</b>							
<b>Annual % change</b>	<b>History</b>	<b>Forecast</b>					
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
Victoria - All industries	1.4	2.3	2.2	2.3	2.4	2.7	2.8
Victoria - Utilities	2.1	1.5	1.7	1.9	2.2	2.5	2.6
National - All industries	1.5	2.2	2.2	2.4	2.5	2.7	2.9
National - Utilities	1.8	1.4	1.8	2.2	2.5	2.7	2.7

<b>Financial year changes in Victoria and national real WPI</b>							
<b>Annual % change</b>	<b>History</b>	<b>Forecast</b>					
	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
Victoria - All industries	0.0	0.1	0.5	0.1	0.1	0.3	0.6
Victoria - Utilities	0.7	-0.7	0.0	-0.3	-0.1	0.1	0.3
National - All industries	-0.1	-0.3	0.5	0.2	0.2	0.4	0.6
National - Utilities	0.2	-1.0	0.2	0.0	0.2	0.3	0.4

<b>Year ending March changes in Victoria and national nominal WPI</b>							
<b>Annual % change</b>	<b>History Forecast</b>						
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Victoria - All industries	1.4	2.2	2.1	2.4	2.3	2.6	2.8
Victoria - Utilities	2.4	1.5	1.7	1.8	2.1	2.4	2.6
National - All industries	1.5	2.1	2.1	2.4	2.5	2.7	2.8
National - Utilities	2.1	1.3	1.8	2.1	2.4	2.7	2.7

<b>Year ending March changes in Victoria and national real WPI</b>							
<b>Annual % change</b>	<b>History Forecast</b>						
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Victoria - All industries	0.6	-0.2	0.4	0.2	0.1	0.2	0.5
Victoria - Utilities	1.6	-0.9	0.0	-0.3	-0.2	0.1	0.3
National - All industries	0.9	-0.8	0.5	0.3	0.2	0.3	0.5
National - Utilities	1.5	-1.6	0.2	0.0	0.1	0.3	0.4

Source: ABS, Deloitte Access Economics.

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