

# AUSTRALIAN CONSTRUCTION MARKET REPORT MAY 2019



**acif**  
Australian Construction  
Industry Forum

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# Foreword

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The Australian Construction Industry Forum (ACIF) is proud to provide the building and construction industry with the May 2019 Australian Construction Market Report. ACIFs' Construction Forecasting Council (CFC) looks at the complete picture affecting every sector in the building and construction industry.

The ACIF Forecasts report on all sectors - the industry operates in including:

- Residential Building (houses, apartments, townhouses);
- Non-Residential Building (offices, retail, industrial, hotels, health, education and entertainment facilities); and
- Engineering Construction (major economic infrastructure including roads, rail and ports, and mining resource-based projects).

ACIF's tracking of major projects had been showing sharp falls in the number and value of Residential Building projects over the last year or more. Last year we forecast that the coming downturn in Residential Building activity would be largely offset by increases in other areas of building and construction activity, especially in Engineering Construction. That remains our view today!

The recent upturn in Non-Residential Building has offset falls in Residential Building activity. While this has been quite important in sustaining workflow, it must be recognised that Non-Residential Building activity will not be enough by itself to offset the declines in Residential Building activity.

The recent surge in Infrastructure Construction, is of crucial significance for the building and construction industries — as it is for the economy at large. This started with roads then rail and is now gathering momentum in electricity, pipelines, water and sewerage. Many projects are moving ahead and second and subsequent phases are planned. However, the ACIF report notes that there remain some fairly substantial risks to disturb our finely balanced outlook.

The downturn in the residential market may spill over into the rest of the economy, reducing consumer confidence, eroding already fragile investment intentions and dragging down growth. Continued growth in infrastructure depends on State Government finances which may be eroded by falls in revenue due to falling house prices.

The ACIF Forecasts that are behind this report outline the next ten years of upcoming demand for work across the four key construction sectors, as well as what is happening with labour requirements. The ACIF Forecasts aim to foster a more informed, transparent, efficient and respected marketplace, and in doing so, give industry participants quality information and insights that they need to make more informed investment and business decisions.

These forecasts are overseen by the Construction Forecasting Council (CFC), which comprises a panel of economists and industry leaders whose wealth of experience and on-ground insights plays a valuable role in providing input into, and reviewing, the ACIF Forecasts. The ACIF Australian Construction Market Report is prepared by industry, for industry.

As Chair of the Construction Forecasting Council it has been my privilege to work with my fellow CFC members and I sincerely thank them for their contribution to the forecasts. In addition, I'd like to thank the following:

- Kerry Barwise and his colleagues Peter Downes and Kevin Toohey who prepare the evidence-based forecasts that inform the report;
- CoreLogic who provide critical data on projects with values of \$20 million and above to inform our forecasts and who are a leading authority on project activity and building cost information in Australia;
- The ACIF team, who manages the production of the ACIF Forecasts and the Construction Forecasting Council.

Finally, I encourage all members of the industry to visit ACIF's website [www.acif.com.au](http://www.acif.com.au) and take advantage of a rich database of information on the industry on the upcoming work demand, the sectors to consider and the labour requirements. The ACIF Dashboard also provides the ability to tailor forecasts to meet your business type and location.

We welcome feedback on the report and forecasts and look forward to receiving any comments on how it might be adapted to provide additional benefits for the industry.



**Bob Richardson**  
Chair, Construction Forecasting Council  
and Managing Director, Xmirus



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# Acknowledgements

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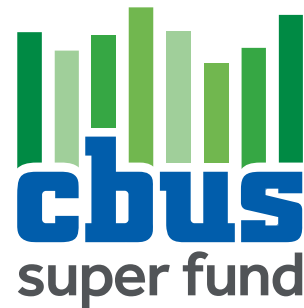
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## Partners

CoreLogic has been part of this work since it started in 2002, providing major projects data which adds to the rich information that underpins these ACIF Forecasts. We are grateful to all at CoreLogic who help make this happen.

DesignBuild, MNF Group, Viewpoint Software, and the Australian Institute of Quantity Surveyors each make a significant financial contribution. We are grateful for their continued support.

# About ACIF

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The Australian Construction Industry Forum (ACIF) is the meeting place for leaders of the construction industry in Australia. ACIF facilitates and supports an active dialogue between the key players in residential and non-residential building, engineering construction, other industry groups, and government agencies.

Our members are among the most significant associations in the industry, spanning the entire asset creation process from feasibility study through design, cost planning, construction, building and management.

## Our Agenda

ACIF seeks to develop a successful, strong and sustainable construction industry in Australia. ACIF is focused on creating a competitive construction and property industry that is a leader in building Australia's prosperity. As well as facilitating communication within the construction sector, ACIF provides governments and other agencies with a central and efficient industry liaison point.

## ACIF's Policy and Advocacy

The Australian construction industry employs over 1.2 million Australians, and in 2017-18 had a turnover of \$247 billion.

Therefore, the construction industry is one of the main drivers of the Australian economy and its productivity and success is critical to the growth and success of the Australian economy.

ACIF identifies the most important issues on which to create policies, and then advocates on those issues. This assists ACIF's Members and leads to increased productivity and efficiencies in the industry.

## Strategic Forum

ACIF has partnered with its government counterpart, the Australasian Procurement and Construction Council (APCC) to focus government and industry on increasing productivity and developing the processes and culture of the industry to maximise the benefits for all Australians.

Since 2014, this partnership has been known as Strategic Forum for the Australasian Building and Construction Industry, and has produced a series of guides and resources around project team integration and building information modelling.

**More information about these resources is available at [www.acif.com.au/strategicforum](http://www.acif.com.au/strategicforum)**

## Members

- Air Conditioning and Mechanical Contractors' Association of Australia
- Association of Consulting Architects Australia
- Australian Elevator Association
- Australian Institute of Architects
- Australian Institute of Building
- Australian Institute of Quantity Surveyors
- Fire Protection Association Australia
- Insulated Panel Council Australasia
- Master Electricians Australia
- National Fire Industry Association
- National Precast Concrete Association Australia
- PrefabAUS
- Society of Construction Law Australia

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# ACIF and the ACM Report

## The ACIF Construction Market Forecasts

ACIF forecasts are the industry's 'compass' to the future. They provide rolling ten year forecasts of building and construction activity. These forecasts are a primary source of market information for the building and construction industries in Australia, providing decision makers with comprehensive information and insight to reveal the direction in which building and construction activity is heading.

The forecasts are revised and updated twice a year in order to ensure that the outlook reflects the most recent information about what is actually happening and to refresh insights about what will happen next.

## How ACIF Forecasts Are Produced

The ACIF forecasts are prepared by blending macroeconomic forecasts of the domestic and international economy with information about the projected share of construction activity by sector and by region. The outlook for expenditure is supplemented by Cordell Connect's project database – a repository for the building and construction project pipeline.

The forecasts start with the latest available evidence from the Australian Bureau of Statistics in *Residential Building*, *Non-Residential Building* and *Engineering Construction*. Detailed data is available for twenty sub-sectors. The regional analysis splits Australia-wide projections by state and territory, capital cities and 'rest of state'.

Quarterly forecasts are produced for the medium term outlook while annual projections are provided for the next ten years to 2027-28.

The forecasts are projections of the future. They are based on statistics which are themselves estimates and which are subject to constant revision. Noise or error is inherent in the estimates of expected outcomes. They reflect the views of the ACIF CFC based on the information that is to hand.

## Construction Forecasting Council

The ACIF forecasts are produced by industry for industry. Industry insight is injected into the forecasts through ACIF's Construction Forecast Council (CFC).

Both the wealth of professional experience of CFC members and the unique insight their respective organisations offer ensures that ACIF Forecasts are credible and provide robust projections for the industry in Australia.

<b>Bob Richardson, Chair</b>	Xmirus
<b>Nerida Conisbee, Deputy Chair</b>	REA Group
<b>Kerry Barwise</b>	FTI Consulting
<b>Alex Sinickas</b>	Arup
<b>Andrew Scott</b>	Morgan Stanley
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<b>Geordan Murray</b>	HIA
<b>Greg Milford</b>	WSP
<b>James Shang</b>	CoreLogic
<b>Kevin Toohey</b>	Toohey Consulting
<b>Mike O'Shea</b>	MBMPL
<b>Peter Downes</b>	Outlook Economics
<b>Tim Reardon</b>	HIA

## Forecast Sectors and Asset Types

Residential Building	Non-Residential Building	Engineering Construction
<ul style="list-style-type: none"><li>■ New Houses</li><li>■ New Other Residential (Apartments and Townhouses)</li><li>■ Large Alterations and Additions</li><li>■ Other (Mainly Small Alterations and Additions)</li></ul>	<ul style="list-style-type: none"><li>■ Accommodation</li><li>■ Education</li><li>■ Entertainment and Recreation</li><li>■ Health and Aged Care</li><li>■ Industrial</li><li>■ Miscellaneous</li><li>■ Offices</li><li>■ Other Commercial</li><li>■ Retail and Wholesale Trade</li></ul>	<ul style="list-style-type: none"><li>■ Roads</li><li>■ Bridges, Railways and Harbours</li><li>■ Electricity and Pipelines</li><li>■ Water and Sewerage</li><li>■ Telecommunications</li><li>■ Heavy Industry including Mining</li><li>■ Recreation and Other</li></ul>



**To make successful business decisions,  
you need the right information.**



**It's right here. Now.**

ACIF Forecasts are powered by the industry's own  
Construction Forecasting Council, publishing  
reliable forecasts since 2002 for benefit, not its own profit.

**Strengthen your business with credible, relevant data.**

ACIF Forecasts include 10 year forecasts for:  
Work Demand + Major Projects from Cordell Information  
+ Labour Forecasts + Construction Cost Index

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# Forecast Highlights

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## Residential Building

The residential property market is in a downturn. Key developments include:

- Falls in house prices in the larger capital cities, especially in Sydney and Melbourne, have intensified over recent quarters. The fall in house prices has spread to most Australian capital cities.
- Credit growth continues to drop for investors as well as for owner occupiers.
- Prospective home owners are becoming nervous about buying in a falling market.
- Deteriorating market conditions have encouraged builders to withdraw or defer plans for development of new projects. New dwelling approvals are falling, with particularly deep falls being recorded for *New Other Dwellings* (apartments and townhouses).
- The ACIF Major Projects Database shows a sustained downtrend in the number and value of new building projects entering into the construction pipeline.

*Residential Building* activity is already in decline. A contraction of 1.5% is expected this year (2018-19), bringing the value of work done to \$103 billion (in 2016-17 prices). The factors listed above are expected to drive steeper falls in *Residential Building* activity in 2019-20 and 2020-21. The value of building work is projected to fall to \$91 billion by 2020-21.

## Non-Residential Building

In contrast to the market situation in *Residential Building*, *Non-Residential Building* is midway through a growth phase. Developments in this market includes the following:

- Expanded business investment in *Accommodation*, *Offices*, and *Other Commercial* buildings has buoyed *Non-Residential Building* activity.
- Public sector investment is also supporting growth especially in *Education*, Defence and other community facilities.
- New projects are being added to the *Non-Residential Building* pipeline, although growth in the value of *Non-Residential* approvals has flattened out.

The value of *Non-Residential Building* work grew by 11% last year to reach \$42 billion. The forecasts factor in further growth in *Non-Residential Building* activity, although the rate of growth will taper off over the next three years.

## Engineering Construction

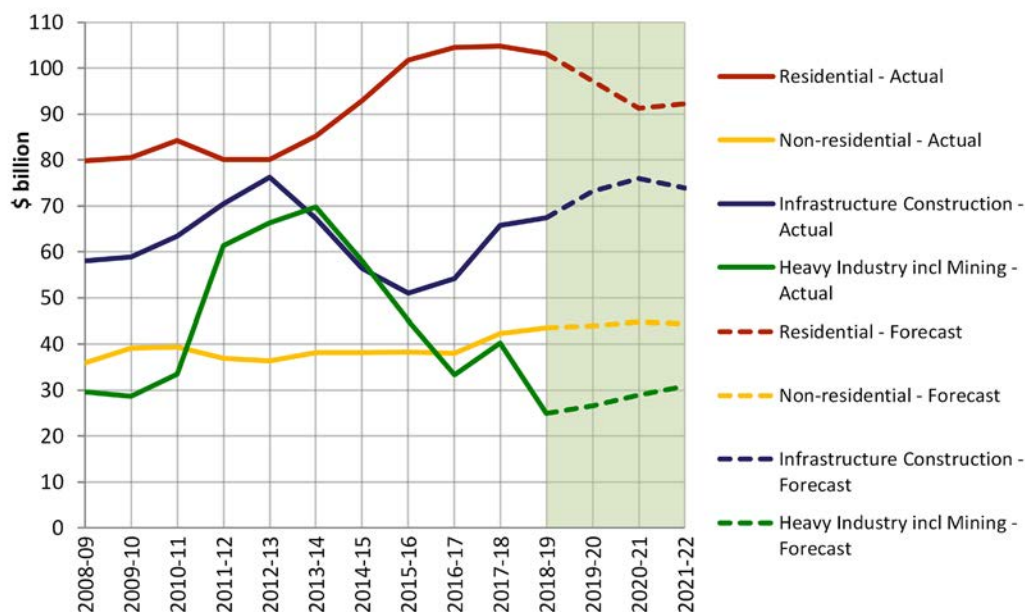
Infrastructure construction activity is continuing to surge:

- The Australian Government has flagged its plans to invest \$100 billion over ten years in transport infrastructure across Australia.
- There are significant infrastructure projects underway and under planning in most states across Australia. The NSW Government has a \$87 billion capital program over the years to 2021-22 which includes many large transport and water infrastructure projects.
- Victoria's "Big Build" involves a \$57 billion commitment to road and rail projects.
- There are many new major projects being added to an already solid pipeline of *Infrastructure Construction* projects in the ACIF Major Projects Database. The largest subcategories in terms of project value are in *Bridges*, *Railways* and *Harbours*, followed by *Electricity* and *Pipelines*.
- The only subsector recording a contraction in activity is *Telecommunications* where the rollout of the NBN is now approaching completion.

Work done in *Engineering Construction* grew by 21% last year to reach \$67 billion. Continued strong growth is forecast this year and next, raising work done to \$76 billion in 2020-21. *Heavy Industry including Mining* is expected to see a reduction of \$11 billion in the value of work done this year reflecting the completion of very large resource development projects in Western Australia and the Northern Territory.

# Forecast Highlights

Higher commodity prices have rekindled investor interest in a number of resource projects around Australia. There has been a rebound in the number and value of major projects in *Heavy Industry including Mining* activities that have been added to the construction pipeline over the last year. The forecasts project that work done in this activity will recover next year and grow at between 6-8% per annum over the next two years.



## Building and Construction Work Done (\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC

Building and construction work in aggregate will fall this year reflecting the dip in *Residential Building* and the final year of falls in *Heavy Industry including Mining* due to the end of the mining boom. Activity will fall by 5% to \$239 billion in 2018-19.

## Building and Construction Activity in Summary

	2017-18	Forecast 2018-19	Forecast 2019-20	Forecast 2020-21
	Actual (\$ billion)	Forecast (\$ billion)		
Residential Building	104.8	103.2	97.3	91.3
Non-Residential Building	42.3	43.6	44.0	44.7
Engineering Construction	65.7	67.5	73.2	76.0
Heavy Industry Including Mining	40.3	25.0	26.6	28.9
<b>Total</b>	<b>253.1</b>	<b>239.2</b>	<b>241.1</b>	<b>240.9</b>
	% change (YoY)	% change (YoY)		
Residential Building	0.2	-1.5	-5.8	-6.1
Non-Residential Building	11.4	2.9	1.0	1.7
Engineering Construction	21.2	2.7	8.5	3.7
Heavy Industry Including Mining	20.5	-38.0	6.6	8.5
<b>Total</b>	<b>10.0</b>	<b>-5.5</b>	<b>0.8</b>	<b>-0.1</b>

Note: "YoY" = Year on Year percentage change comparing performance in one year to the previous year.

Source: ABS and ACIF CFC

# Forecast Highlights

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The level of total building and construction work is projected to stabilise and hover around \$240 billion a year over the next two-to-three years. This projection is based on the expectation that the emerging declines in *Residential Building* activity will be close to fully offset by continuation of the current uptick in *Non-Residential Building* activity combined with continuation of surging *Infrastructure Construction* activity. In short, the ACIF CFC views that the outlook for building and construction activity in the next two-to-three years will be finely balanced.

Employment in building and construction activities is expected to lose 29,000 jobs this year, with the total falling to 1.15 million jobs. Job losses in building and construction activities have been concentrated in Western Australia, Queensland and the Northern Territory which have been driven by the completion of major mining and resources development projects in those states. Job losses are now being seen in New South Wales and Victoria as *Residential Building* activity in those states slips into decline.

Construction employment is projected to hover around 1.15 million jobs into the next three-to-four years. This reflects expectations that workers displaced from the cyclical downturn in *Residential Building* activity will be largely soaked up through burgeoning *Infrastructure Construction* activity and (to a lesser extent) continuation of the upturn in *Non-Residential Building* activity.

The industry is concerned about a number of key risks to the outlook:

- A downturn in the global economic outlook stemming from rising protectionist sentiment, disruptions to global trade, financial market volatility and uncertainty in the pace of increases in global interest rates.
- In the domestic economy, the outlook for improvements in overall business investment is subject to some uncertainty and while there are good reasons to expect a recovery in mining and related investment the speed and magnitude of the recovery is uncertain.
- A further decline in dwelling investment (that is, *Residential Building* activity) prompted by further falls in house prices or a general economic downturn, could lead to even weaker household sentiment, lower consumption and slower growth in employment, wages and output growth.
- Financial markets are foreshadowing that the next change in official interest rates will be down. There is significant uncertainty around the ability of banks and other financial institutions to pass on the full effect of interest rate cuts. It is not clear if continuation of more disciplined lending policies by the banks would neutralise reductions in interest rates.
- Delay or deferment in the rollout of significant infrastructure investment plans held by Commonwealth and State Governments, would derail growth in this activity that is needed to offset the significant contraction that is forecast in *Residential Building*.
- There are significant risks in the stable outlook for employment in building and construction activity in the medium term. The decline in *Residential Building* may free up more labour than can be soaked up in *Engineering Construction* activity. There are also significantly different skills requirements in the different types of building and construction activities which may result in mismatches - that is, job shortages in some skills categories and labour shortages in others.
- Further policy measures to decrease immigration could lead to lower growth in domestic demand, lower demand for dwellings and lower GDP growth.





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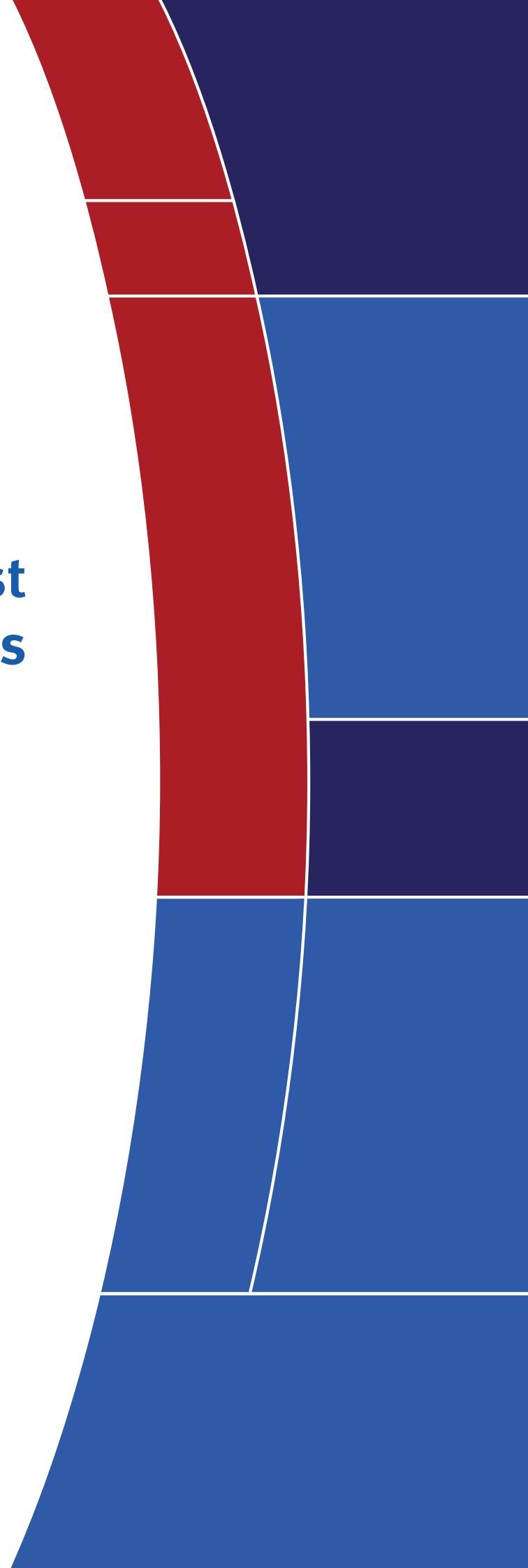
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Our **Insights.** Your **Story.**





# Forecast Foundations



# Forecast Foundations

The ACIF Construction Market Forecasts are founded on a comprehensive economic model providing 'top down' information and detailed 'bottom up' information about building and construction activity obtained from industry. This section summarises how the forecast foundations are changing and reshaping the outlook.

## The International Economic Outlook Has Softened

A slump in Asian import volumes towards the end of 2018 is a worrying development. The trade war between the US and China, may explain some of this. In any case, ongoing trade tensions remain a risk.

Forecast downgrades by the IMF and OECD point to concerns about falling global demand. Recent developments have been fairly mixed from Australia's point of view. Australia is not particularly exposed to slowing growth in Europe (or Turkey or Argentina), which has been the focus of the downgrades. Partial indicators for the US and a number of emerging market economies in the Asia Pacific Region have been reasonably good. The latest projections for China are for growth to stabilise in 2019 (due to a combination of the lower exchange rate, lower oil prices, and recent stimulus measures). Close examination of the details for the global outlook point to a gradual decline in global growth rather than a sharp fall.

The outlook for Australia is now more dependent upon changes in commodity prices rather than trade volumes. Recent developments are reasonably favourable for Australia. Prices for Australia's key export commodities are holding up well. Iron ore prices are trading in the high \$US80's, and LNG export prices have also been surprisingly high. Oil prices are falling and global bond yields are also falling, and somewhat remarkably for this stage of the cycle, still negative in real terms. This has helped to lower domestic bond yields which have dropped by 70 basis points over the last four months. Lower oil prices reduce headline inflation adding to real household income, while lower bond yields support equity prices offsetting the sag in household wealth from falling house prices.

Higher corporate tax revenue from mining profits is providing a significant boost to the Australian Government's Budget. As a result, the underlying cash balance now looks very close to registering a budget surplus in 2018-19.



Economic Growth In Australia's Major Trading Partners



Real Long Term Interest Rates and World Inflation

Source: AUSM

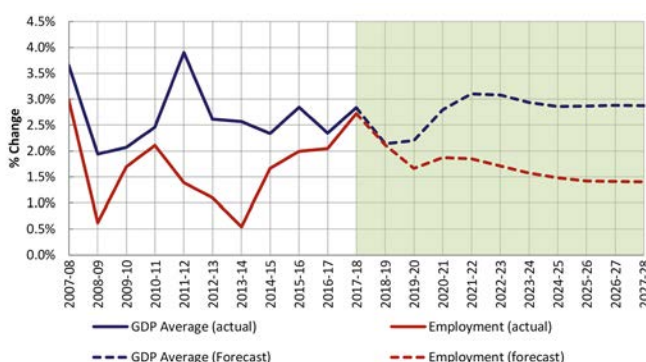
# Forecast Foundations

## Australian Economic Conditions Are Also Softening

The main factors slowing economic growth and moderating employment growth in Australia are domestic in origin. Growth in household consumption is weakening reflecting stubbornly low income growth. Previous strong growth in government infrastructure spending and the pick-up in non-mining, non-residential construction has peaked and will be contributing less to growth in the next two-to-three years. In both cases the level of activity will continue at high levels, but they are no longer contributing to growth as much as they did in previous years.

At the same time the down-turn in dwelling investment and farm output are subtracting from growth, while falling house prices will have a negative impact on household wealth acting to end the falls in household saving that were previously sustaining consumption growth. Meanwhile, despite slow wage growth and historically low interest rates, non-mining business investment is projected to grow relatively slowly.

GDP growth is expected to dip to 2.1% in 2018-19 and to hold at 2.2% in 2019-20. GDP growth is expected to recover to around 3% in the medium term when cycles in mining investment and dwelling investment have fully bottomed out and these activities will cease to be a drag on growth and return to making contributions to growth.

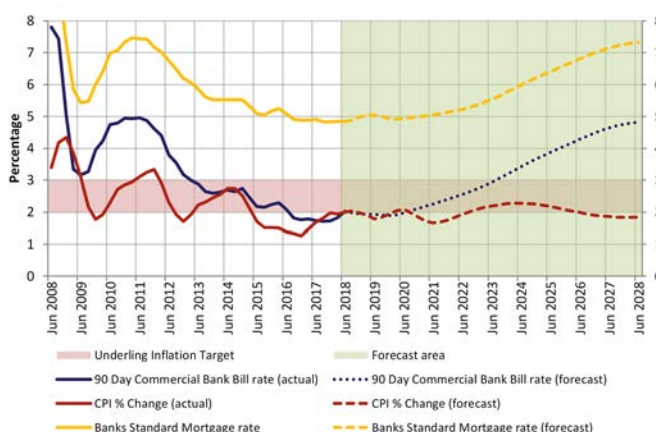


### Growth in GDP and Employment

Source: ABS and ACIF CFC

## CPI and Interest Rates

Softer demand and low incomes growth are reflected in reductions in the projected inflation rate into the next two-to-three years. Headline inflation (the CPI) is now expected to drop to the lower end of the RBAs targeted 2-3% band, and drop below it in some quarters over the next two-to-three years. 'Official' interest rate settings are not expected to change over the remainder of this year and well into next year.



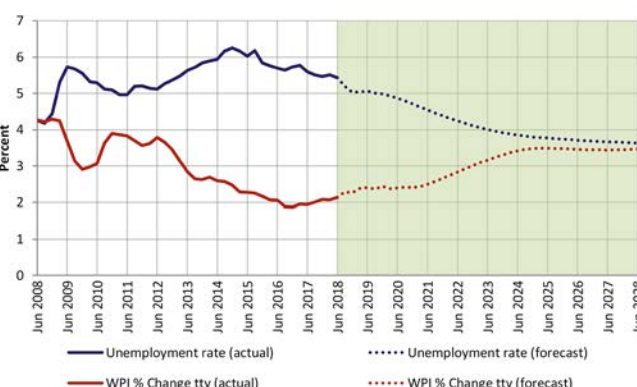
### CPI and Interest Rates

Source: ABS and ACIF CFC

# Forecast Foundations

## Unemployment and Wages Growth

Even though output growth is expected to moderate in the next few years it is expected to be enough to generate employment growth necessary to continue to gradually erode the pool of unemployment and underemployment. Modest wages growth is suppressing household consumption which is a drag on growth, but this is also shoring up continued growth in employment.



### Unemployment Rate and Wages Growth

Source: ABS and ACIF CFC

## Recent Economic Performance and Forecasts

	Actual 2017-18	Forecast 2018-19	Forecast 2019-20	Forecast 2020-21
GDP Average (% change yoy)	2.8	2.1	2.2	2.8
Unemployment Rate (% Year end)	5.4	5.1	4.9	4.5
Wage Price Index (% yoy)	2.1	2.3	2.4	2.4
CPI Inflation (% yoy)	2.0	1.8	2.1	1.7
90 Day Bank Bill (% Year end)	2.0	1.9	2.0	2.3
10-year Treasury Bond (% Year end)	2.7	2.4	2.2	2.2
Exchange Rate (\$US/\$A Year end)	0.76	0.72	0.72	0.72

Note: "yoy" = year-on-year. "Year end" = value at 30 June

Source: ABS, AUSM and ACIF CFC

## Components of Expenditure and GDP (a)

	Actual 2017-18	Forecast 2018-19	Forecast 2019-20	Forecast 2020-21
Household Consumption (% change)	2.8	2.0	2.0	2.5
Dwelling Investment (% change)	0.1	-1.5	-5.8	-6.1
Private Business Investment (% change)	8.6	-0.1	5.3	7.0
- Underlying Private Business Investment by Industry (% change)	6.0	-1.0	5.0	6.8
- Mining Investment (% change)	-3.9	-7.0	6.6	8.5
- Non-Mining Business Investment (% change)	9.6	3.6	3.5	3.7
Private Final Demand (% change)	3.4	1.3	1.9	3.6
Public Final Demand (% change)	3.2	3.6	2.8	2.3
- Government Consumption (% change)	3.7	3.5	2.9	2.8
- Public Investment (Underlying) (% change)	7.9	7.4	3.6	1.3
<b>Gross National Expenditure (% change)</b>	<b>3.4</b>	<b>1.4</b>	<b>2.0</b>	<b>3.4</b>
Exports of Goods and Services (% change)	4.0	4.4	4.7	2.6
Imports of Goods and Services (% change)	7.0	0.8	3.9	5.2
- Net Exports (% contribution)	-0.6	0.8	0.2	-0.5
<b>Real Gross Domestic Product (Average) (% change)</b>	<b>2.8</b>	<b>2.1</b>	<b>2.2</b>	<b>2.8</b>

Note: (a) Real, based on Chain Volume Measures (CVM), 2015–16 reference year

Source: ABS and ACIF CFC

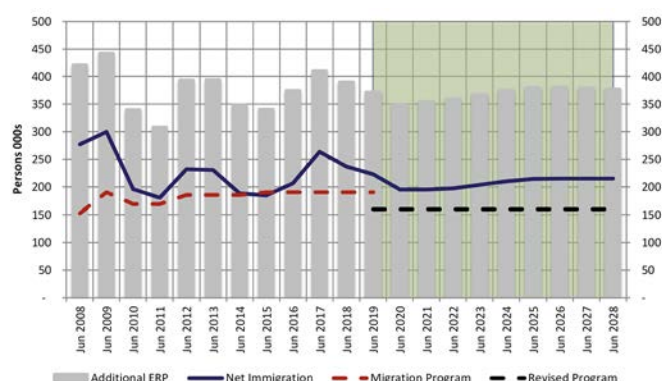
# Forecast Foundations

## Population Growth Is Slowing

Australia's resident population has grown to 25 million at the end of 2017-18. There were 390,000 additional residents last year. 237,000 of the additional residents them were from Net Overseas Migration (NOM). NOM is generally higher than the Commonwealth Government's immigration program reflecting the arrival of students and others on temporary visas.

The government has recently tightened up immigration arrangements. It has replaced skilled worker visas (the 457s) with tighter regulations. Visas requirements for students and partners have been tightened. Fees for visa applications have been raised.

The forecasts have not factored in recent announcements about plans to reduce the immigration cap from 190,000 to 160,000 persons per year. As noted above, the immigration program does not bind actual NOM from year to year. But the forecasts do factor in a drop in NOM such that it will be kept to levels that are in line with the lowest seen over the last decade, reflecting an extension of recent trends in NOM.



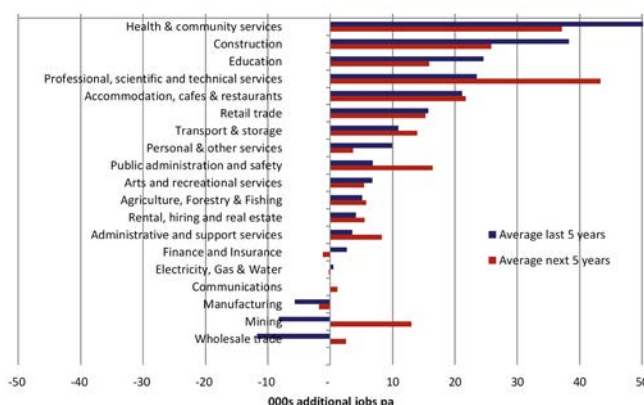
**Population Growth and Immigration**  
(persons, '000s)

Source: ABS, AUSM and ACIF CFC

## Employment Trends Point to Ongoing Structural Change

The largest growth in employment over the last five years has been in services industries including health and community services, education, and professional, scientific and technical services. Job numbers have fallen in manufacturing, mining and wholesale trade.

The forecasts reflect a continuation of the economic shift towards services. Reconfiguration of supply chains and logistics in emerging digital economy is expected to lift job growth in areas such as public administration and safety, administrative and support services, wholesale trade and transport and storage. Some employment growth is expected in tourism related activities including accommodation, cafes and restaurants.



**Growth in Employment by Industry**  
(additional jobs, 000s)

Source: ABS and ACIF CFC



# Forecast Foundations

## Changes in the ACIF Major Projects Database

Information about major construction projects is obtained from Cordell Connect, an online database of fully researched construction, infrastructure and building project information for the Australian construction market operated by CoreLogic.

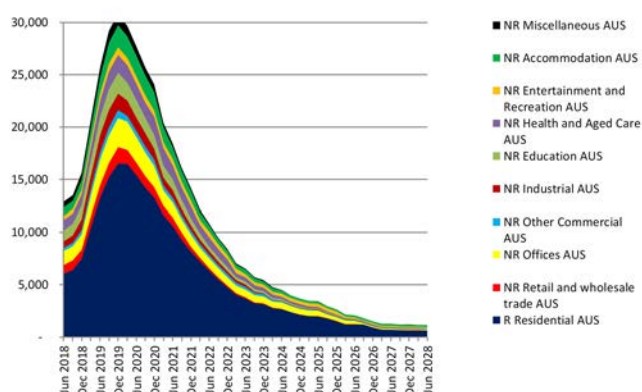
Projects that are greater than or equal to \$20 million in value in current prices are identified in the ACIF Major Projects Database. The ACIF Major Projects Database can be searched by subscribers to ACIF's online dashboard. The projects are sorted into ACIF's categories, and by state and by project status. Some summary notes describing the project are also recorded, including the expected start of work, as well as a project ID number. The project ID can be used to obtain fuller information that is available about a project from Cordell Connect.

Currently, there are 7,165 active projects in ACIF's Major Projects Database. Active projects include all projects that have not been identified as having been deferred or abandoned. The combined value of all of the active projects in the database is \$1,696 billion. The combined value of building activity in *Residential* and *Non-Residential Building* projects in the Major Projects Database peaks at around \$31 billion in September 2019. The combined value of building activity in *Engineering Construction* activity is \$33 billion in September 2020.

Of course, there is no guarantee that all of the active projects in the Major Projects Database will proceed and projects do languish for some time in the database and are eventually marked as deferred or having been abandoned.

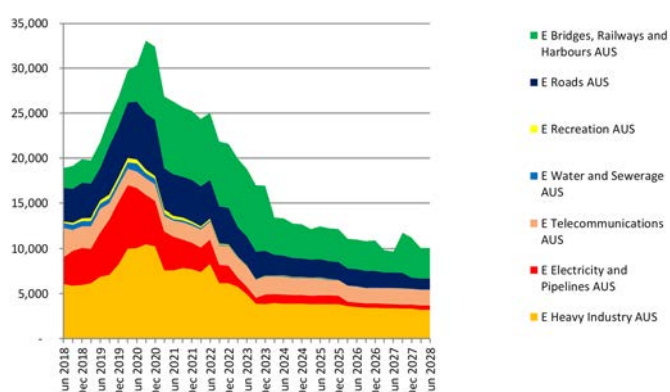
Tracking the entry of building and construction projects in ACIF's Major Projects Database can provide guidance and insight into what is happening in construction markets. Continuing the downtrend seen in recent years the number of active projects added to the ACIF Major Projects Database increased by 594 over the six months to April 2019. This is well down from the peak in project numbers of 1,500 in October 2016. The fall in project numbers over the last three years is concentrated in *Residential Building*. The number of new projects being added to the database in *Non-Residential Building* and in *Engineering Construction* have been relatively stable over the last two years.

The value of projects entering the database also decreased over the last six months, falling from \$110 billion to \$93 billion over the period to April 2019. The fall in the value of projects being added to the database over the last three years is most apparent in *Residential Building*.



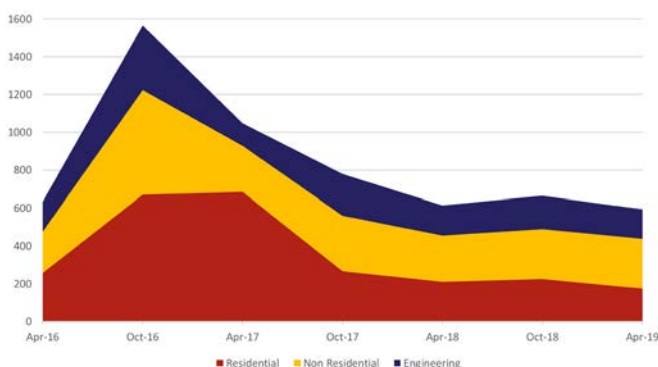
**The Value of Residential and Non-Residential Building Projects in the Major Projects Database**  
(\$ million, current prices)

Source: ACIF Major Projects Database and CoreLogic



**The Value of Engineering Construction Projects in the Major Projects Database**  
(\$ million, current prices)

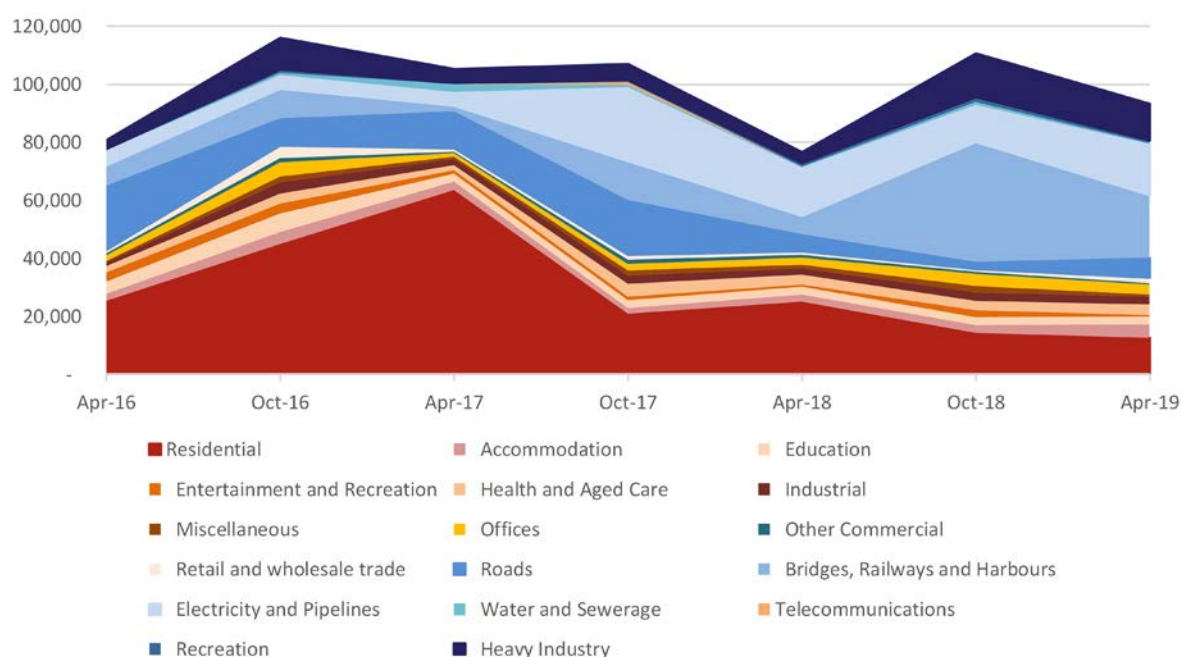
Source: ACIF Major Projects Database and CoreLogic



**The Number of Projects Added to the Major Projects Database**

Source: ACIF Major Projects Database and CoreLogic

# Forecast Foundations



## The Value of Projects Added to the Major Projects Database (\$ million, current prices)

Note: Value in current prices.

Source: ACIF Major Projects Database and CoreLogic

## Key Risks in the Major Foundations of the ACIF Forecasts

- A downturn in the global economic outlook stemming from rising protectionist sentiment, financial market volatility and uncertainty in the pace of increases in global interest rates remains as a key risk.
- In the domestic economy, the outlook for improvements in overall business investment is subject to some uncertainty and while there are good reasons to expect a recovery in mining and related investment the speed and magnitude of the recovery is uncertain.
- A further moderation of activity in dwelling investment (that is *Residential Building* activity), prompted by further falls in house prices or a general economic downturn, could lead to even weaker household sentiment, lower consumption and slower growth in employment, wages and output growth.
- Financial markets are foreshadowing that the next change in official interest rates will be down. There is significant uncertainty around the ability of banks and other financial institutions to pass on the full effect of interest rate cuts.
- Delay or deferment in the rollout of significant infrastructure investment plans held by Commonwealth and State Governments, would reduce one of the few clear sources of growth in the outlook at present.
- Further policy measures to decrease immigration could lead to lower growth in domestic demand, lower demand for dwellings and lower GDP growth.

# Forecast Foundations

## Additions to the Major Projects Database (by number of projects and value of projects)

	6 months to October 2018		6 months to April 2019	
	No. of Projects	Value (\$ million)	No. of Projects	Value (\$ million)
<b>Residential Building</b>	<b>225</b>	<b>14,287</b>	<b>174</b>	<b>12,709</b>
Residential	225	14,287	174	12,709
<b>Non-Residential Building</b>	<b>263</b>	<b>22,115</b>	<b>265</b>	<b>20,616</b>
Accommodation	33	2,687	29	4,621
Education	46	2,769	40	2,747
Entertainment and Recreation	14	2,554	10	436
Health and Aged Care	40	3,081	42	3,696
Industrial	41	2,850	46	2,781
Miscellaneous	24	2,248	14	640
Offices	28	4,190	55	3,292
Other Commercial	17	699	9	674
Retail and Wholesale Trade	20	1,036	20	1,729
<b>Engineering Construction</b>	<b>177</b>	<b>74,347</b>	<b>155</b>	<b>60,064</b>
Roads	27	2,575	39	6,927
Bridges, Railways and Harbours	32	40,983	15	21,544
Electricity and Pipelines	48	12,990	39	17,593
Water and Sewerage	8	870	9	421
Telecommunications	1	107	0	-
Recreation and Other	15	1,609	10	695
Heavy Industry including Mining	46	15,213	43	12,886
<b>Total</b>	<b>665</b>	<b>110,749</b>	<b>594</b>	<b>93,389</b>

Note: Value in current prices.

Source: ACIF Major Projects Database and CoreLogic

The number of new projects in the *Residential Building* category fell sharply to 174 from 225 over the last six months. This is now at the lowest level seen over the last three years (which is the period over which ACIF has been recording these statistics).

The number of new major projects in *Non-Residential Building* increased marginally over the last six months. The largest number of *Non-Residential Building* projects added to the database is in *Offices*. There is also a lift in the number of *Industrial* and *Health and Aged Care* projects entering the database. Falls in project numbers in *Education* and *Other Commercial* suggests that the recent surge in activity in those sectors is drawing to a close.

Some 155 new *Engineering Construction* projects were added to the database over the last six months. These projects have a combined value of \$60 billion. The 'infrastructure boom' is helping to sustain *Engineering Construction* project numbers and value. While the number and value of new projects in *Bridges, Railways and Harbours* fell compared to those recorded in to October 2018, the surge in value in the previous period was always going to be hard to repeat. At \$62 billion, the combined value of new additions in *Bridges, Railways and Harbours* over the last year indicates that interest in this category of construction activity is currently at a very high level. The additions relate to very large rail projects, particularly urban rail transport projects. The Sydney Metro Western Sydney Airport and the Parramatta Light Rail Stage 2 are at the top of the list of major projects added to the database over the six months to April 2019. There is also growth in other infrastructure categories such as in *Roads* and in *Electricity and Pipelines* offsetting falls recorded last October.

The April 2019 update to the Major Projects Database continues to point to significant levels of interest in construction activity in *Heavy Industry including Mining*. Project numbers increased by 43 over the six months to April 2019, which is down slightly from the relatively high number seen in October 2018.

# Forecast Foundations


The combined value of new projects in *Heavy Industry including Mining* added over the last year of \$28 billion is two-to-three times more than the value of projects added over the last two-to-three years. This points to stabilisation in the downside of this activity following the end of the mining construction boom and also to the beginning of a solid recovery in this construction activity.

Details about all of the projects counted here (and all of the other major projects) can be examined by accessing the ACIF Major Projects Database that is available via the Customised Forecasts Dashboard at [www.acif.com.au/dashboard](http://www.acif.com.au/dashboard).

## Top 30 Largest Projects added to the ACIF Major Projects Database

Project Name	Category	CoreLogic Project ID	State	Status	Start Date	Value (\$ million)
Sydney Metro, Western Sydney Airport	Bridges, Railways and Harbours	7378519	NSW	Early	Feb 2024	15,000
Asian Renewable Energy Hub	Electricity and Pipelines	7327462	WA	Possible	Oct 2023	9,900
Niwest Joint Venture Nickel Project	Heavy Industry	7331270	WA	Early	Jan 2020	5,312
Sydney Gateway Road Project	Roads	7347467	NSW	Early	Nov 2021	2,400
St Yves Estate	Residential	7381848	SA	Early	Feb 2022	2,400
The Star Gold Coast Masterplan	Accommodation	7341117	QLD	Early	Nov 2021	2,000
Robertstown Solar Farm	Electricity and Pipelines	7379539	SA	Possible	Feb 2020	1,170
Parramatta Light Rail Stage 2	Bridges, Railways and Harbours	7353862	NSW	Early	Dec 2023	1,000
Half Moon Bay Cairns	Accommodation	7369989	QLD	Possible	Jan 2024	1,000
Marandoo Iron Operations Phase 2	Heavy Industry	908044	WA	Commenced	Jul 2011	900
Ranger Mine Rehabilitation	Heavy Industry	7382826	NT	Early	Feb 2024	830
Rockhampton Ring Road	Roads	7375957	QLD	Possible	Jan 2023	800
Melbourne Quarter East Tower Building	Residential	7345495	VIC	Commenced	May 2018	750
Royal Prince Alfred Hospital	Health and Aged Care	7392826	NSW	Early	Mar 2022	750
Baroota Pumped Hydro & Solar Project	Electricity and Pipelines	7374773	SA	Possible	Jan 2020	700
Bruce Highway Upgrade - Caboolture-Bribie Island	Roads	7384515	QLD	Possible	Oct 2020	662
Bungama Solar Farm	Electricity and Pipelines	7379785	SA	Possible	Feb 2020	650
Hills of Gold Wind Farm	Electricity and Pipelines	7331648	NSW	Early	Oct 2020	600
Port of Newcastle FLNG Import Terminal	Bridges, Railways and Harbours	7393153	NSW	Possible	Mar 2021	585
WA-356-P Julimar & Brunello Gas Project	Heavy Industry	542414	WA	Commenced	Oct 2013	500
Latrobe University Bundoora Campus	Education	7336359	VIC	Early	Oct 2022	500
University of Sydney Western Sydney Campus	Education	7341086	NSW	Early	Apr 2023	500
Walcha Energy Project	Electricity and Pipelines	7345972	NSW	Early	Nov 2020	500
Flemington 2036	Residential	7349336	NSW	Possible	Nov 2022	500
Regional Fast Train Network	Bridges, Railways and Harbours	7357051	NSW	Early	Dec 2025	500
Otway Offshore Gas Project	Heavy Industry	7362610	VIC	Early	Aug 2019	500
Wellcamp Cannabis Production Facility	Industrial	7384729	QLD	Early	Aug 2020	500
Sydney Central Precinct	Bridges, Railways and Harbours	7393540	NSW	Possible	Mar 2021	500
Hastings Hydrogen Pilot Plant	Heavy Industry	7383501	VIC	Early	Feb 2020	496
New Maitland Hospital Stage 2	Health and Aged Care	7355378	NSW	Possible	Dec 2019	460
The Hive Townsville	Residential	7369623	QLD	Possible	Jan 2021	450
Solar River Project Stage 2	Electricity and Pipelines	7376997	SA	Early	May 2020	450

Source: ACIF Major Projects Database and CoreLogic



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An abstract graphic design featuring a large, curved red band that sweeps from the top left towards the bottom right. To the right of this band, there are several rectangular blocks of different shades of blue, arranged in a way that suggests a grid or a series of steps. The background is white.

# The Big Picture



# The Big Picture

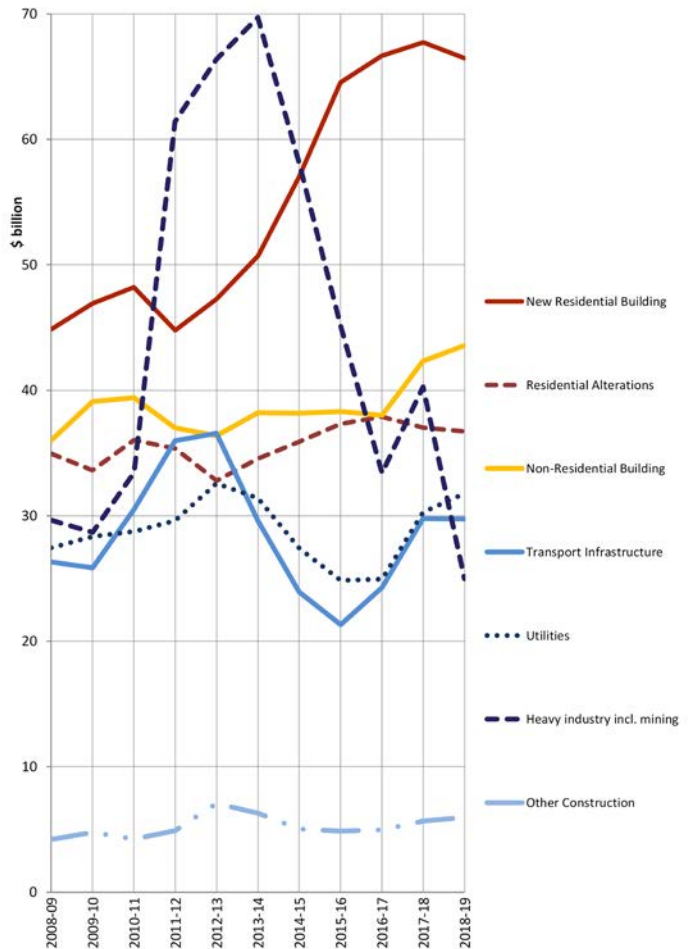
## Where Has the Work Been in Building and Construction?

While the amount of building work done in *New Residential Buildings* (houses and other dwellings) has begun to fall, this activity remains the leading source of work for the building industry. The recent drop-off in *New Residential Building* work underlines the point that, just like the 'mining boom', the building of new housing is not immune to business cycles.

*Non-Residential Building* work surged last year and this type of building activity is the second largest source of work for the building industry.

Construction work in transport infrastructure and in utilities has rebounded over the last year or so on the back of strengthened public investment in roads, rail, ports and airports as well as in energy and water and sewerage facilities.

Work done in *Heavy Industry including Mining* 'spiked' last year given the finalisation of very large resource projects in Western Australia and the Northern Territory. Work done has resumed its deep dive back to levels of activity seen at the beginning of the last decade.



**Building and Construction Work Done**  
(CVM, 2016-17 prices, \$ billion)

Source: ABS and ACIF CFC

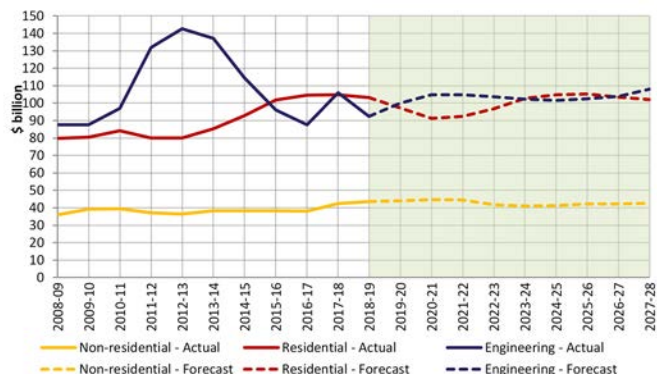
# The Big Picture

## Where Will the Work Come from Next?

*Residential Building* includes the building of new dwellings and small and large scale alterations and additions to existing dwellings. The deterioration in market fundamentals in the residential property market will drive a significant contraction in *Residential Building* activity over the next two years. Activity is projected to fall by 1% this year and by 5% in 2019-20 bringing it to \$94 billion.

The recovery in *Non-Residential Building* activity that started last year drove an increase in the value of work done to \$42 billion. Momentum from the previous year's approvals will support continued growth this year driving activity to \$43 billion in 2018-19.

*Engineering Construction* activity draws together transport infrastructure, utilities, *Heavy Industry including Mining* and other construction activities. Work done increased sharply last year (2017-18) to reach \$106 billion. The final falls in *Heavy Industry including Mining* following the end of the mining boom's investment phase will drag down growth in *Engineering Construction* activity this year despite gains made from strong growth in infrastructure construction activities. *Engineering Construction* activity will fall to \$92 billion this year (2018-19). *Engineering Construction* activity will recover lost ground with the continuation of the infrastructure investment surge over the next three-to-four years and the value of work done will be raised to hover between \$103-105 billion.



**Value of Work Done by Category**  
(CVM, 2016-17 prices, \$ billion)

Source: ABS and ACIF CFC

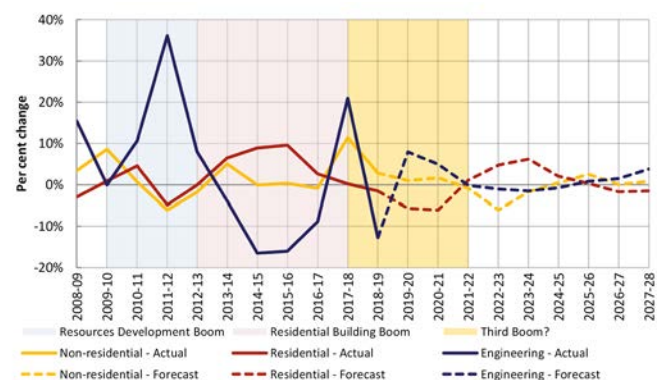
## Cycles in Types of Building and Construction Work

The forecasts project the continuation of cycles that are deeply imbedded in building and construction activities. The cycles are not synchronised, but they do seem to follow the pattern of the last decade where one of the three categories typically moves in the opposite direction of the other two for a time.

What is different about the next cyclical phase in building and construction activity is that two building categories are in an upphase in the next few years. The strong rebound in *Engineering Construction* is being joined by an ongoing uptick in *Non-Residential Building* activity. This is arriving just in time to offset the deepening decline in *Residential Building* activity.

The net effect of the cycles that are impacting on building and construction activity is that total or aggregated activity is expected to fall this year and then hover around current levels over the next four years.

It is important to dig deeper into the data that underpins these forecasts and examine the forecasts in all of the types and subcategories in building and construction activity in order to confirm how the upswing that is expected in areas such as infrastructure spending is offset by the expected downturn in activities such as *Residential Building*.



**Change in Work Done**  
(CVM, 2016-17 prices, % change)

Source: ABS and ACIF CFC

# The Big Picture

## Building and Construction Work Done by Type (CVM, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	85,292	92,917	101,843	104,553	104,772	103,193	97,250	91,342	92,329	96,735
Non-Residential Building	38,197	38,168	38,318	38,003	42,343	43,563	44,006	44,750	44,408	41,712
Engineering Construction	137,051	114,441	96,161	87,617	105,984	92,480	99,858	104,852	104,744	103,739
<b>Total Construction</b>	<b>260,540</b>	<b>245,527</b>	<b>236,322</b>	<b>230,174</b>	<b>253,099</b>	<b>239,237</b>	<b>241,114</b>	<b>240,944</b>	<b>241,482</b>	<b>242,186</b>
	% change (YoY)					% change (YoY)				
Residential Building	6.5	8.9	9.6	2.7	0.2	-1.5	-5.8	-6.1	1.1	4.8
Non-Residential Building	5.1	-0.1	0.4	-0.8	11.4	2.9	1.0	1.7	-0.8	-6.1
Engineering Construction	-3.9	-16.5	-16.0	-8.9	21.0	-12.7	8.0	5.0	-0.1	-1.0
<b>Total Construction</b>	<b>0.6</b>	<b>-5.8</b>	<b>-3.7</b>	<b>-2.6</b>	<b>10.0</b>	<b>-5.5</b>	<b>0.8</b>	<b>-0.1</b>	<b>0.2</b>	<b>0.3</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

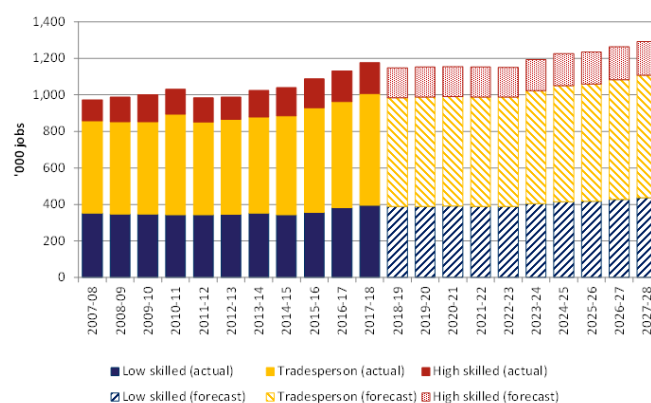
## Building and Construction Employment

Employment in building and construction activities is expected to fall to 1.1 million jobs this year. This accounts for 9.2% of expected employment across the Australian economy in 2018-19.

Job losses in building and construction activities have been concentrated in Western Australia, Queensland and the Northern Territory which have been driven by the completion of major mining and resources development projects in those states. Job losses are now being seen in New South Wales and Victoria as the *Residential Building* activity slips into decline.

The flat employment outlook in building and construction activity into the medium term reflects the expectations that further falls in employment in *Residential Building* will be largely soaked up with burgeoning infrastructure construction activity and continuation of the current upturn in *Non-Residential Building* activity.

There are significant risks below the surface of this balanced outlook for employment in building and construction activity. *Residential Building* activity is traditionally more labour intensive than *Engineering Construction* which is typically capital intensive (and import intensive). The decline in *Residential Building* may free up more labour than can be soaked up in *Engineering Construction* activity. There are also significantly different skills requirements in the different types of building and construction activities which may result in mismatches – that is, job shortages in some skills categories and labour shortages in others.



**Construction Industry Employment by Skill**  
(‘000 persons)

Source: ABS and ACIF CFC

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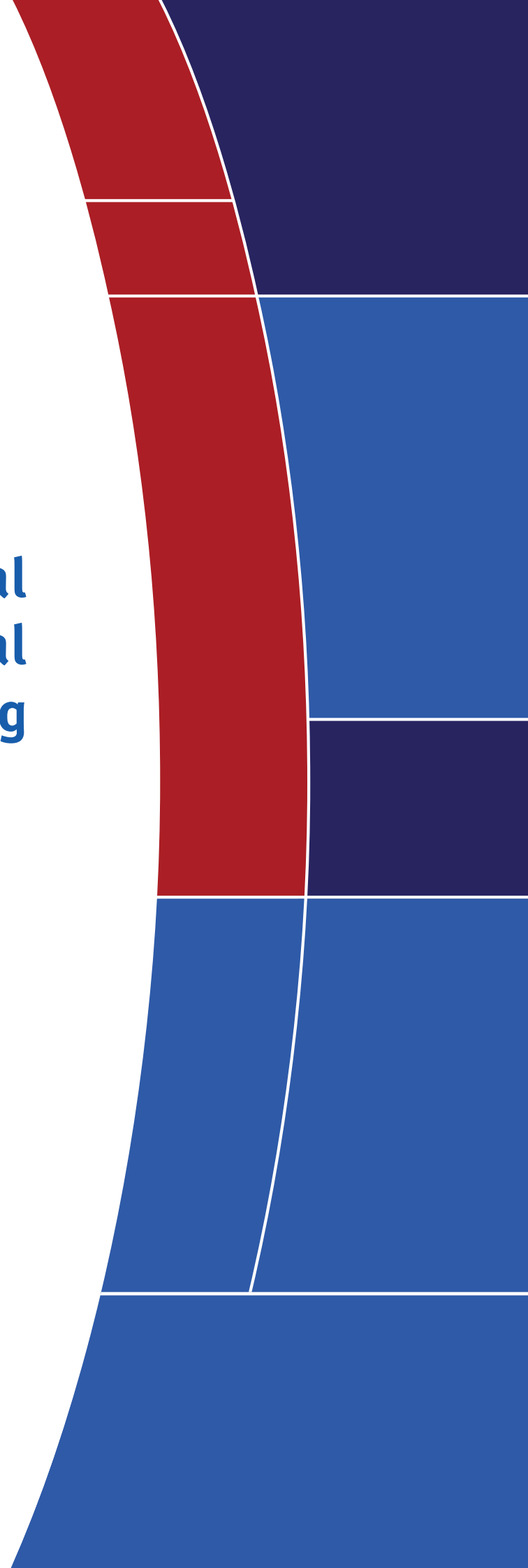
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# **National Residential Building**





# National Residential Building

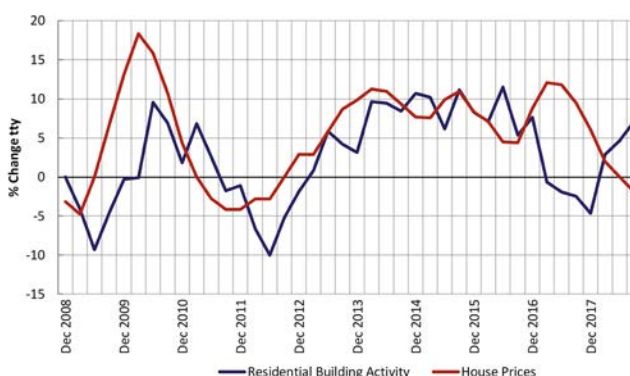
## Drivers of Change

The downturn in the demand for housing is becoming more firmly entrenched:

- House prices fell by 10% in Sydney, 3% in Melbourne and 4% in Perth over the last year. Prices have increased in some cities (Hobart and Adelaide).
- Falls in unit prices have been spread more widely across all of the capital cities over the last year, although the Australia wide average was a fall of 4%.
- Foreign investors in residential property have been largely squeezed out of the market.
- Lending growth to investors, especially in higher risk interest only loans, was closed down for a period last year. Expectations about falling capital gains, and possible tax increases on capital gains, is suppressing the return of investors to the market.
- The withdrawal of investor demand, from domestic as well as overseas investors, is having a pronounced effect on inner city apartment markets in Sydney, Melbourne and Brisbane. Pre-sales targets are becoming harder to achieve and a significant contraction of projects in the development pipeline is underway.
- Risk aversion about buying in a falling market and increased difficulties in obtaining credit from financial institutions including banks, brokers and other lenders is constraining occupier demand, particularly first home buyer demand.
- Falls in auction clearance rates and new listings, and extended period of time that property is listed on the market all point to the arrival at a low point in turnover, impeding the churn of upgraders and downsizers into new dwellings.
- The direction of further changes in immigration pose a significant risk factor in the outlook for *Residential Building* activity.
- Changes in official interest rates, the rates that banks charge on a standard mortgage, and constrained credit growth for home buyers are a major source of uncertainty in the outlook for *Residential Building* activity.

## Residential Building Activity

Changes in house prices and *Residential Building* activity have been linked over the last decade. Recent falls in house prices and housing wealth may place a drag on consumption growth. Fears about buying in a falling market will feed into reduced demand for new dwellings.



### Leading Indicators - Residential Building Activity and House Prices

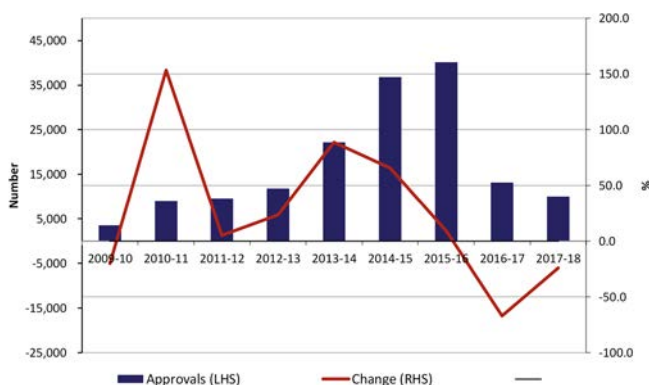
(seasonally adjusted, dwellings and index)

Source: ABS

# National Residential Building

## Residential Real Estate Approvals

Increased stamp duty and other state and federal taxes on foreign purchasers, the introduction of foreign investment application fees, tightened credit availability and increased restrictions on capital outflows in home countries, especially in China, curbed foreign investor inflows. Foreign Investment Review Board (FIRB) approvals for residential investment are at their lowest levels since 2009.



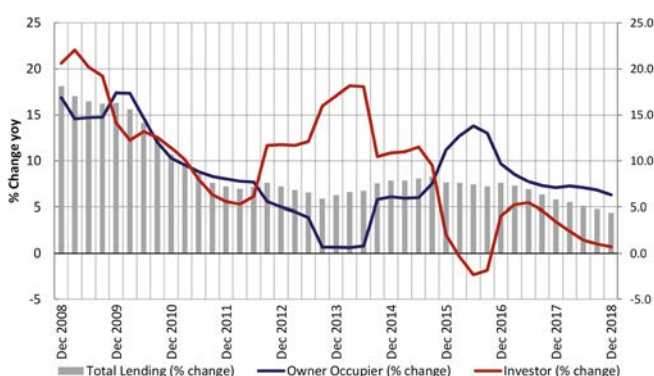
### Leading Indicators - FIRB Residential Real Estate Approvals

Source: FIRB

## Changes in Bank Lending

A surge in risky lending to investors in residential property was addressed through a range of macro-prudential controls that placed emphasis on quantitative controls over lending rather than prices. Investors withdrew from the market and reduced their demand for credit.

Owner occupiers then re-entered the residential property markets and lending to them increased. Deepening falls in property prices may have chilled sentiment and reduced the demand for credit from both investors and owner occupiers over the last year. The recent application of stricter lending standards may also be functioning as a home loan 'credit squeeze'.



### Leading Indicators - Changes in Bank Lending

Source: RBA

## Approvals and Commencements

Residential Building approvals have slipped into a sharp decline over the end of 2018. Approvals fell by 6% (year-on-year) landing at 212,000 dwellings for 2018 as a whole. Commencements tend to lag approvals and they rose by 3% to 220,000 dwellings over the year to December 2018.



### Leading Indicators - Approvals and Commencements ('000 dwellings, seasonally adjusted)

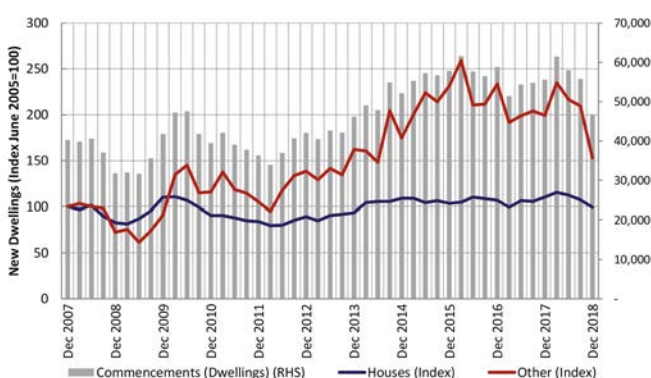
Source: ABS

# National Residential Building

## Commencements

The recent fall in commencements is most pronounced in the building of *New Other Dwellings* (especially in multi-story apartments). This subsector of *Residential Building* activity has been very volatile over this cycle. Macro-prudential controls over lending to investors and the stricter enforcement of controls on foreign buyers provided a jolt to the market for new apartments in 2016 and 2017. Significant falls in unit prices is making achievement of pre-sales requirements very difficult. Developers and builders are facing significant constraints in their access to finance. Further falls in commencements in this subcategory are in the pipeline.

New house commencements are also falling with the application of stricter credit controls and fears about buying in a falling market, but the drop has been relatively modest so far.



### Leading Indicators - Commencements: House and Other Dwellings

(seasonally adjusted, dwellings and index)

Source: ABS

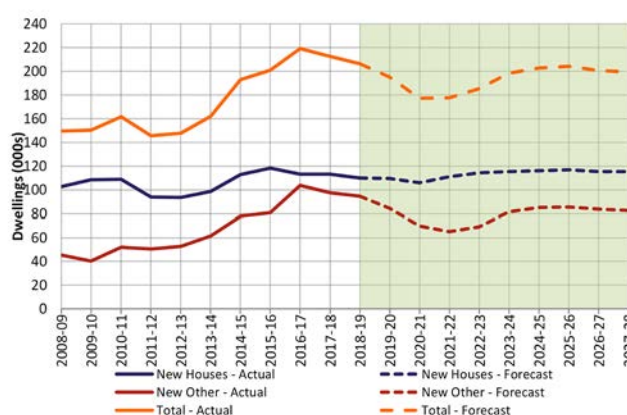
## Dwelling Completions

Completions are trending down and fell to 213,000 dwellings in 2017-18. The significant decline in demand in the housing market has already forced the housing supply industry to wind back planned investment.

Building activity in *New Other Residential* (especially apartments) experienced the most rapid ramp up of activity over the recent business cycle and it is the subsector that felt the policy measures to constrain lending to investors and to eject foreign investors most keenly. It is to be expected that the contraction will cut deeply into the activity that saw the highest increases. Completions in *New Other* dwellings are projected to drop to around 65,000 per annum over the period to 2021-22. This represents a 37% reduction from peak-to-trough.

The outlook for *New Houses* involves a less dramatic cyclical adjustment. While approvals and commencement data point to falls in completions in *New Houses*, they are not expected to be unduly severe. Completions are expected to fall to 106,000 per annum by 2020-21. This would represent a fall of 10% from peak-to-trough in the building of *New Houses*.

The deepening market correction will push completions down to around 178,000 dwellings per annum by 2020-21. This represents loss of between 19-20% of the level of completions achieved at the peak of the cycle. Completions will recover in the medium term given projections of sustained population growth, continued increases in employment and moderate growth in incomes.



### Leading Indicators - Dwelling Completions ('000 dwellings)

Source: ABS and ACIF CFC

# National Residential Building

## Dwelling Completions by Subsector ('000 dwellings)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual Completions (thousand dwellings)					Forecast (thousand dwellings)				
New Houses	99	113	118	113	113	110	110	106	111	114
New Other Residential	62	78	81	104	98	95	84	70	65	69
Alterations and Additions	2	2	2	2	2	2	1	1	1	2
<b>Total</b>	<b>162</b>	<b>193</b>	<b>201</b>	<b>219</b>	<b>213</b>	<b>206</b>	<b>195</b>	<b>177</b>	<b>178</b>	<b>185</b>
	% change (YoY)					% change (YoY)				
New Houses	5.4	14.3	4.8	-4.3	0.0	-2.7	-0.5	-3.2	4.5	3.1
New Other Residential	16.8	26.4	3.7	28.6	-6.0	-2.8	-11.1	-17.0	-6.7	6.2
Alterations and Additions	36.0	30.2	-14.0	12.8	-21.4	-18.1	-7.0	2.4	3.7	3.8
<b>Total</b>	<b>9.8</b>	<b>19.0</b>	<b>4.1</b>	<b>9.1</b>	<b>-3.1</b>	<b>-2.9</b>	<b>-5.4</b>	<b>-9.1</b>	<b>0.1</b>	<b>4.3</b>

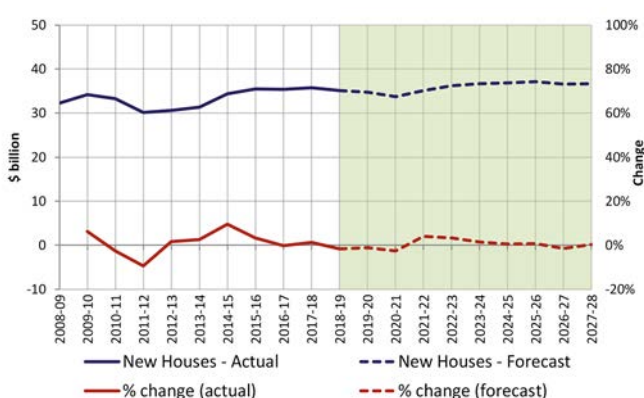
Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

## New Houses

The value of work done in building *New Houses* is projected to fall by 1.8% to \$35 billion over 2018-19. Further falls are expected to apply over the next two years, but they are expected to be relatively mild, pushing work done to \$34 billion by 2020-21.

Steady growth is expected to prevail in the medium to longer term reflecting a continuation of steady, if unspectacular, growth in the economy, further reductions in unemployment, modest growth in household incomes, and continued population growth.



**Value of Work Done - New Houses**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Apartments and Townhouses

Building activity in *New Other Residential* (or 'apartments and townhouses') is expected to fall by 2% over the year to 2018-19 with work done landing at \$31 billion. Concerns about falls in unit prices and the prospect of capital losses rather than gains and constraints on the availability of finance has purged investors from this sector.

Deep falls in the level of activity are expected to prevail over the next two-to-three years, dragging the forecast of work done down to \$21 billion in 2021-22.

Demand for *New Other Residential* dwellings will eventually recover, especially if unemployment does not spike up in the next few years and given continued population growth in Australia's largest capital cities.



**Value of Work Done - Apartments and Townhouses**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

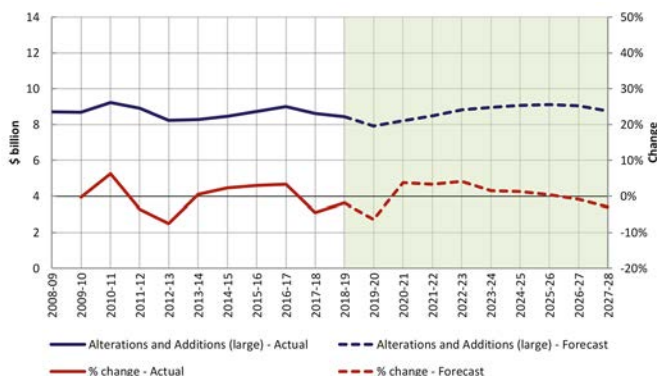


# National Residential Building

## Large Alterations and Additions

*Large Alterations and Additions* (which require development approval) experienced a significant decline of 4.5% in 2017-18, reversing a long run of growth over recent years. It seems that this sector of activity succumbed to householder concerns about softening house prices in key cities, modest income growth and relatively high household debt levels, which has constrained access to credit for alterations and additions work.

The outlook for continued house price falls and constrained credit growth will continue to place a drag on this subsector of building activity. Work done in this subsector is expected to see further declines over the next two years.

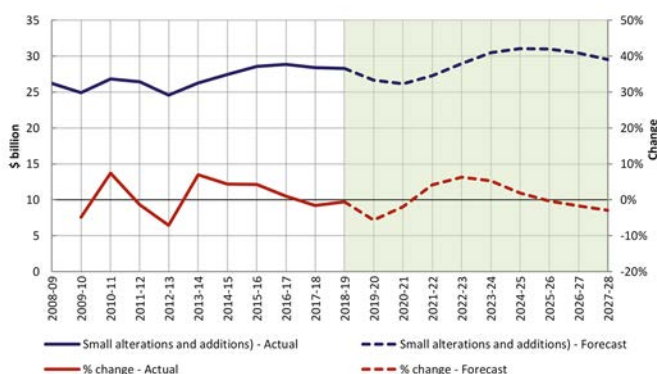


**Value of Work Done - Large Alterations and Additions**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Small Alterations and Additions

Work done in *Other Residential Building* (mainly small alterations and additions) also fell last year (2017-18) by 1.6% to arrive at \$28 billion. Building work in this subsector involves a wide range of building activities including kitchen renovations, pools and landscaping, as well as owner occupied provided spending. It is likely that the value of work in this activity is influenced by the availability of credit and the value of dwellings and further falls are projected over the next two-to-three years given market developments.



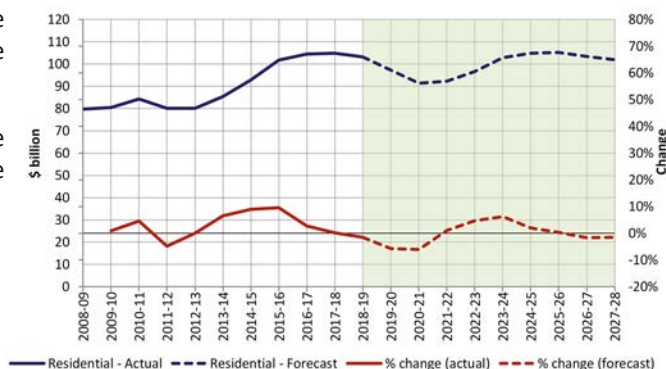
**Value of Work Done - Small Alterations and Additions**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Residential Building Total

*Residential Building* activity peaked at the height of the housing boom in 2016-17 when the value of work done reached \$105 billion.

Activity is now clearly on the down side of a cycle. The cyclical decline is expected to drag the value of work done down to around \$91 billion by 2020-21.



**Value of Work Done - Residential Building Total**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC



# National Residential Building

## Value of Work Done - Residential Building (\$ million, 2016-17 prices and % change)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Value of Work Done (CVM, \$ million)					Forecast (\$ million)				
New Houses	31,378	34,378	35,486	35,360	35,765	35,138	34,710	33,770	35,094	36,214
New Other Residential	19,346	22,640	29,044	31,309	31,977	31,341	27,959	23,199	21,492	22,717
Alterations & Additions (Large)	8,276	8,467	8,718	9,009	8,607	8,446	7,906	8,207	8,481	8,827
Other (Alterations & Additions)	26,292	27,432	28,596	28,875	28,423	28,268	26,676	26,166	27,263	28,977
<b>Residential Building</b>	<b>85,292</b>	<b>92,917</b>	<b>101,843</b>	<b>104,553</b>	<b>104,772</b>	<b>103,193</b>	<b>97,250</b>	<b>91,342</b>	<b>92,329</b>	<b>96,735</b>
	% change (YoY)					% change (YoY)				
New Houses	2.6	9.6	3.2	-0.4	1.1	-1.8	-1.2	-2.7	3.9	3.2
New Other Residential	15.9	17.0	28.3	7.8	2.1	-2.0	-10.8	-17.0	-7.4	5.7
Alterations & Additions (Large)	0.5	2.3	3.0	3.3	-4.5	-1.9	-6.4	3.8	3.3	4.1
Other (Alterations & Additions)	7.0	4.3	4.2	1.0	-1.6	-0.5	-5.6	-1.9	4.2	6.3
<b>Residential Building</b>	<b>6.5</b>	<b>8.9</b>	<b>9.6</b>	<b>2.7</b>	<b>0.2</b>	<b>-1.5</b>	<b>-5.8</b>	<b>-6.1</b>	<b>1.1</b>	<b>4.8</b>

Note: "YoY" = year-on-year


Source: ABS and ACIF CFC

# National Residential Building

## Top 30 Residential Building Projects in the Major Projects Database

Project Name	CoreLogic Project ID	State	Status	Start Date	Value (\$ million)
Wilton Junction New Town Masterplan	1690743	NSW	Early	Mar 2022	7,000
Port Adelaide Waterfront Redevelopment	2133977	SA	Early	Dec 2030	6,000
Springfield Central Gardens Area 5B	7183927	QLD	Possible	Feb 2019	6,000
Nelson Cove (Former Moolap Salt Works Site)	2001518	VIC	Early	Jun 2019	4,000
Riverlea Country Township Town Centre	1676965	SA	Early	Jan 2023	3,500
Belmont Park Racecourse Residential Redevelopment	1769955	WA	Possible	Sep 2019	3,500
Wilton North Precinct	7218519	NSW	Early	Mar 2022	3,500
Former Maribyrnong Defence Site Redevelopment	244581	VIC	Early	Apr 2021	2,500
Bushmead Residential Subdivision Remaining Stages	1630176	WA	Possible	May 2018	2,400
Yarrabilba Masterplanned Community	420924	QLD	Commenced	Oct 2017	2,400
St Yves Estate	7381848	SA	Early	Feb 2022	2,400
Dry Creek Residential & Industrial Subdivision Development	1736850	SA	Possible	Dec 2030	2,200
Windemere Development	7100988	VIC	Possible	Jul 2019	1,900
Communities Plus - Ivanhoe Estate At Macquarie Park	6821302	NSW	Early	Mar 2020	1,790
University of Canberra Campus Development	6902391	ACT	Early	May 2020	1,700
Mount Atkinson Mixed Use Precinct	7134279	VIC	Possible	May 2020	1,700
Western Edge Master Planned Residential Subdivision/Urban Development	1640891	WA	Early	Apr 2018	1,500
Carrington Road Mixed Development	7163950	NSW	Early	Mar 2022	1,300
Moonee Valley Racecourse Redevelopment	1478029	VIC	Possible	Jun 2019	1,250
Eden Village Township Expansion	1823621	SA	Firm	Mar 2019	1,225
Spirit Mixed Development	991811	QLD	Possible	Dec 2018	1,200
Collins Wharf 2 & Collins Wharf 3 Residential Towers (Docklands Precinct)	7114149	VIC	Possible	Dec 2019	1,200
Melbourne Square Mixed Use Development	444044	VIC	Possible	Oct 2020	1,000
Southbank Waterfront Redevelopment	1081750	QLD	Early	Dec 2018	1,000
Merrifield Masterplanned Community	1448104	VIC	Possible	Jan 2018	1,000
Fishermans Bend Urban Renewal Project	1453292	VIC	Early	Jan 2020	1,000
Lara West Precinct Structure Plan & Lara West Growth Area Masterplan	1659664	VIC	Possible	Feb 2020	1,000
Ingles Street Mixed Use Development (Sandridge) Fishermans Bend Redevelopment	2085164	VIC	Possible	Oct 2019	1,000
Rockbank Precinct Master Planned Community	7019789	VIC	Possible	Dec 2018	1,000
Better Neighbourhoods Logan	7059302	QLD	Possible	Apr 2018	1,000

Source: ACIF Major Projects Database and CoreLogic



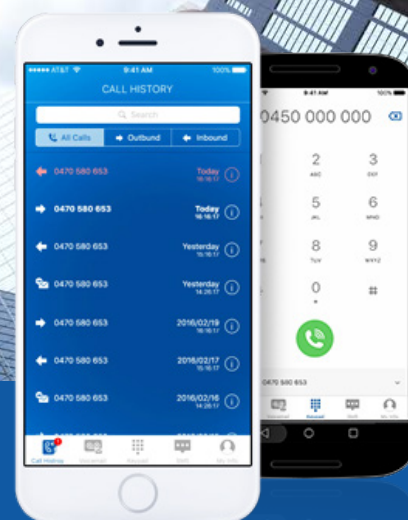
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# **National Non-Residential Building**



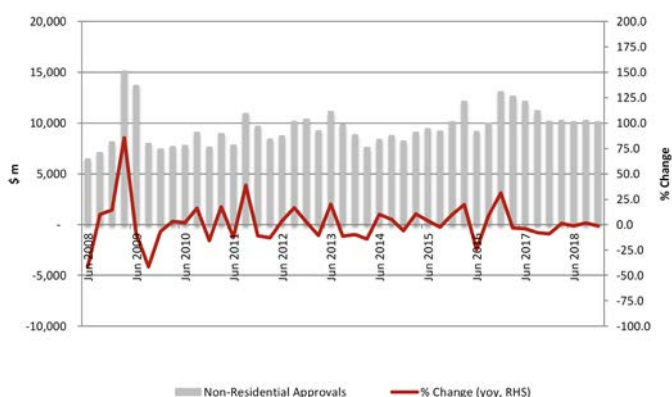


# National Non-Residential Building

## Non-Residential Building Approvals

The value of *Non-Residential Building* approvals fell 1.3% in real terms in the quarter to December 2018. The value of approvals over the year to December 2018 fell to \$42 billion from a difficult to repeat surge of \$47 billion in 2017.

Additions to the ACIF Major Projects Database in *Non-Residential Building* decreased from \$22 billion in October 2018 to \$20 billion in April 2019. This also points to a tailing off in *Non-Residential Building* activity, from very high levels seen earlier.



**Leading Indicators - Non-Residential Approvals**  
(\$ million, CVM seasonally adjusted and % change)

Source: ABS 8731.0

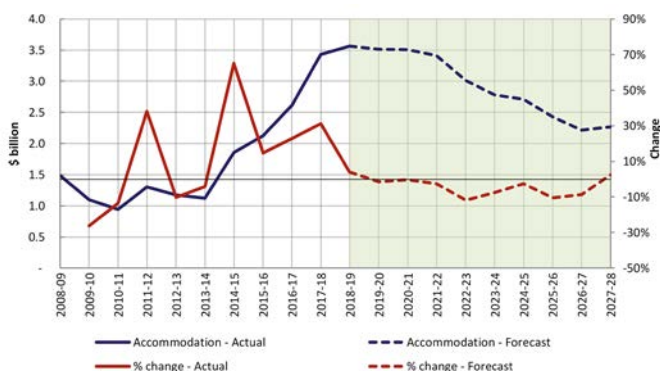
## Accommodation

Work done in *Accommodation* is projected to rise to \$3.6 billion over the year to June 2018, sustaining a five year surge in this building activity.

Growth in *Accommodation* building work is linked to continued growth in international arrivals and steadily increasing domestic business travel. Buoyant international student numbers are also boosting demand for student accommodation facilities.

Additions to the Major Projects Database in *Accommodation* rose to have a value of \$4.6 billion in the April 2019 update. Many of these projects, such as the Star Gold Coast Masterplan (a \$2 billion dollar project), Half Moon Bay Cairns, Good Luck Plaza Blacktown, Vibe hotel and office Chatswood, Oriordan Street commercial development (Sydney), and the ANZAC park east redevelopment, are being built within a large scale mixed use development, combining accommodation with commercial, cultural, institutional or entertainment uses. Where the hotel or accommodation is the larger part of the development plan projects have been categorised as being *Accommodation*.

The forecasts factor in a tailing off in *Accommodation* building work in the medium to longer term.



**Value of Work Done - Accommodation**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC



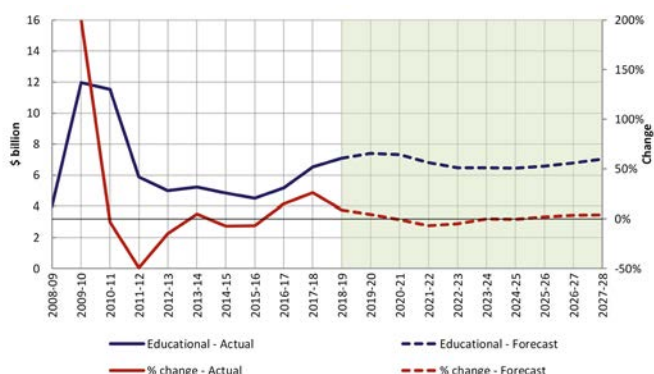
# National Non-Residential Building

## Education

*Education* is a rapidly growing service export industry. Rapid growth in international student numbers in Higher Education, VET and non-award courses is adding to the need to invest in education institutions. Population growth is also raising demand for places in educational institutions. Building activity in *Education* has grown to meet these needs over recent years, rising to \$6.5 billion last year (2017-18), an increase of 26%.

Growth in the numbers of *Education* projects and their value is levelling out. The value of new educational projects added to the Major Projects Database stayed at \$2.7 billion over the last six months, the same as the value of additions to the database over the earlier half of the last year.

*Education* building activity is projected to grow again this year reflecting growth in approvals and new additions to the building pipeline in previous years, but the rate of growth is expected to moderate, falling to 8.7%. The level of activity will peak in 2019-20 when work done is expected reach \$7.4 billion.



### Value of Work Done - Education

(\$ billion, 2016-17 prices and % change)

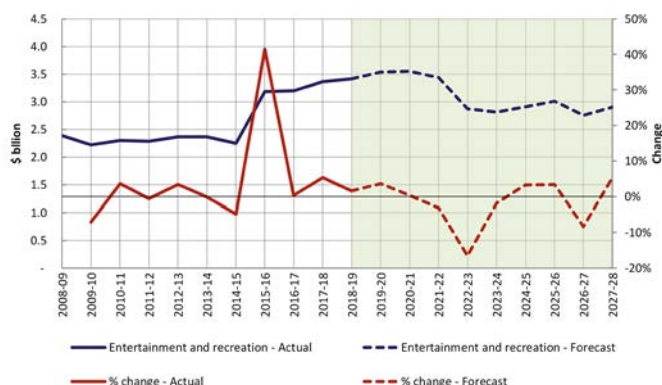
Source: ABS and ACIF CFC

## Entertainment and Recreation

Building activity in *Entertainment and Recreation* rose by 5% to reach \$3.4 billion last year (2017-18).

This category of building activity experienced a step up in the level of activity and the number of significant projects in the development pipeline in 2015-16. There are a significant number of relatively large projects under construction at the moment including the Queens Wharf Redevelopment in Brisbane, and the Crown Hotel and Casino project in Sydney. Key projects added to the Major Projects Database over the last year include the Southbank Arts Precinct Project in Melbourne, the Western Sydney Theme Park – Worlds of Wonder in Sydney and the extension of the Museum of Old and New (MONA) in Hobart.

Approvals for *Entertainment and Recreation* point to expenditure on this activity hovering around \$3.5 billion. This May 2019 ACIF forecasts project modest growth in work done in *Entertainment and Recreation* being sufficient to reach a plateau at \$3.5 billion in 2020-21.



### Value of Work Done - Entertainment and Recreation

(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

# National Non-Residential Building

## Health and Aged Care

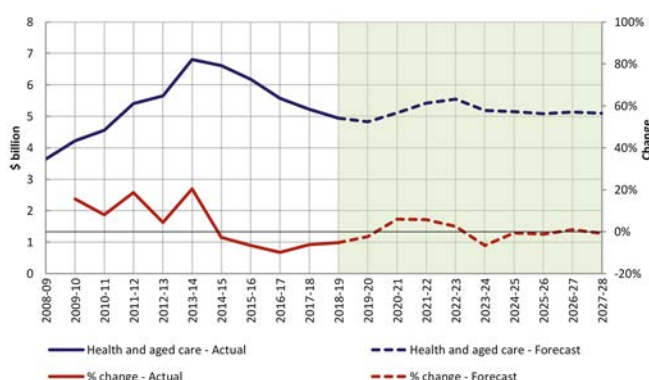
*Health and Aged Care* building work done continued its downtrend in 2017-18, falling by 7% to \$5.1 billion.

Major health facilities including large hospital projects are entering into the construction pipeline. Projects that appear as additions to the Major Projects Database in April 2019 include Royal Prince Alfred Hospital in Sydney and the new Maitland Hospital Stage 2. These projects join the Liverpool Health and Academic Precinct in Sydney, the Royal Melbourne Hospital, and the Herston Quarter Health Precinct redevelopment masterplan in Queensland, the Sunshine Coast University Hospital in Queensland and Westmead Hospital in Sydney which entered the database in October 2018.

While smaller in size per project there are a relatively large number of aged care facilities entering the Major Projects Database. Aged care facilities now account for a little over half of the value of work done in the *Health and Aged Care* subcategory of building activity.

The number and value of new *Health and Aged Care* projects added to the Major Projects Database rose marginally over the six months to April 2019. The value of additional projects over the last year has risen to \$6.8 billion – which is comparable to the level of activities reached in the subcategory's peak (in 2013-14). These indicators prompt a rebound in work done in this subcategory once allowances have been made for the lag in time between receiving an approval or entering the Major Projects Database and the commencement of building activity.

Building work in this category is expected to continue to dip to \$4.9 billion over 2018-19, and then recover and grow to reach \$5.5 billion by the end of the next five years (2022-23).



**Value of Work Done - Health and Aged Care**  
(\$ billion, 2016-17 prices and % change)

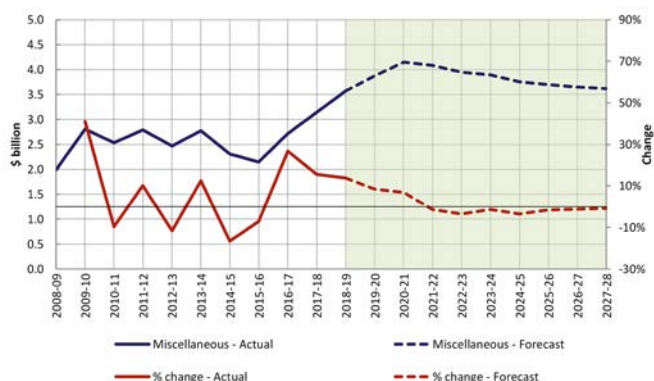
Source: ABS and ACIF CFC

# National Non-Residential Building

## Industrial

*Industrial* building work suffered a setback last year falling by 4.7% to \$5.3 billion. Activity is projected to settle to \$5.2 billion this year (2018-19). Additions to the Major Projects Database indicate that there is interest in development of *Industrial* projects. There were 87 projects added to the Major Projects Database over the last twelve months. The value of additional projects added over the last twelve months in this category rose to \$5.6 billion.

Projects added to the Major Projects Database over the last six months include: Wellcamp cannabis production facility (QLD), Cooper Street industrial hub (VIC), Light Horse interchange business hub overall concept & stage 1 (NSW), Logos logistics & intermodal estate Villawood (NSW), Metcash distribution centre (SA), Townsville state development area acceleration project (QLD), Intellicentre 3 (NSW), Coles distribution facility (QLD), Interlink Strathfield (NSW), Orica warehouses Banksmeadow (NSW), TAE aerospace turbine engine maintenance facility (QLD), Amazon data centre Eastern Creek (NSW). The projections factor in an increase in this activity from current levels to around \$5.5 billion spread out over the two years to 2020-21.



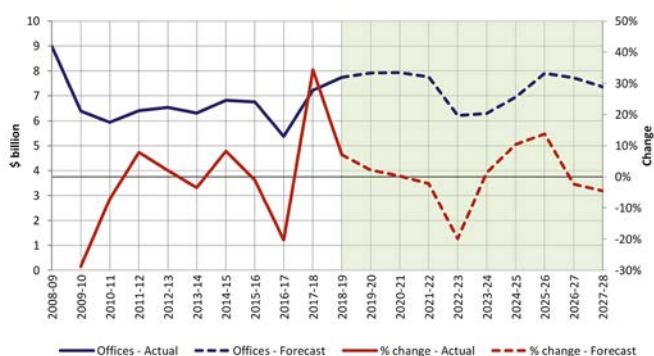
**Value of Work Done - Industrial**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Offices

Office building activity is surging. The value of work done increased by 34% to reach \$7.2 billion last year (2016-17). The value of office building projects that entered the major projects over the last twelve months increased to \$7.5 billion.

It is notable that a number of mixed-use developments that combine *Offices* with other uses such as retail, civic buildings (which are sometimes categorised under *Miscellaneous*) are difficult to assign to any one classification. The \$1.4 billion Eagle Street Pier Redevelopment in Brisbane is an example of a project that involves a premium business and leisure destination. The \$8 billion Western Sydney Aerotropolis – World Trade Centre proposal involves development of a mini city including buildings to house health, education, research, advanced manufacturing facilities, an aerospace institute, a business district that will include accommodation, conference and meeting venues, and a freight and logistics hub. For now, the largest single use in these large projects has been deemed to be offices. The classification of this building activity will improve as more information comes to hand about specific building projects.



**Value of Work Done - Offices**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

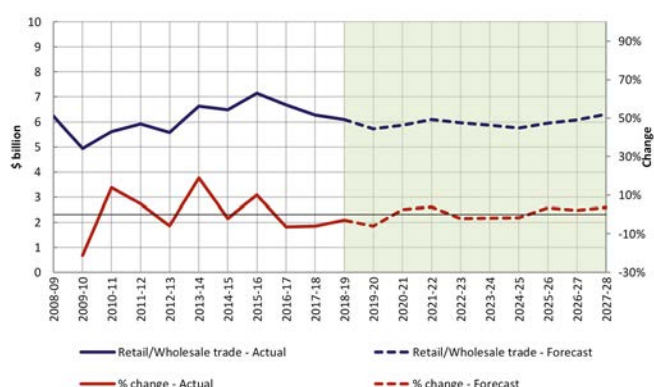
Work done to build *Offices* is forecast to increase by 7%, to \$7.7 billion this year (2018-19). Growth is expected to be sustained into 2019-20, although the rate of growth will moderate to 2.2%, which will be sufficient to push work done to exceed \$7.9 billion. Growth in this activity is very volatile and busts regularly follow booms. The ongoing upturn is projected to eventually run out of momentum within three years.

# National Non-Residential Building

## Retail and Wholesale Trade

Building activity in *Retail and Wholesale Trade* has declined over the last two years and further falls are in prospect. Retail sales have faced significant challenges over recent years reflecting subdued growth in household income and household consumption expenditure. Retail outlets have also faced challenges stemming from the disruption caused by the entry of online competition.

Recent approvals data points to a decline in the value of investment in *Retail and Wholesale Trade* building projects. The number and value of additions to the Major Projects Database points to a fairly subdued outlook. The forecasts factor in further contractions in the value of building activity in this subcategory being carried into this year and next.



**Value of Work Done - Retail and Wholesale Trade**  
(\$ billion, 2016-17 prices and % change)

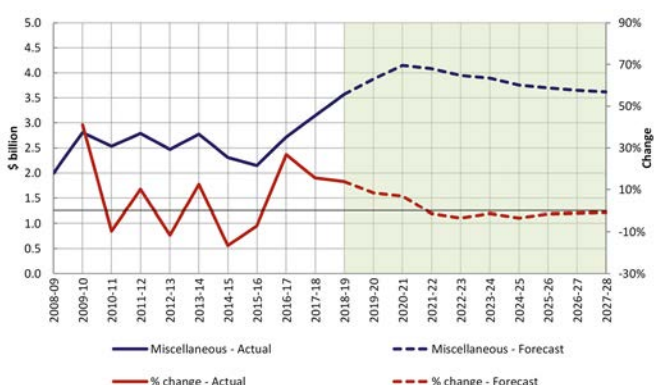
Source: ABS and ACIF CFC

## Miscellaneous

*Miscellaneous* building activity is dominated by defence projects, prisons, religious buildings and community facilities. Activity in this type of building work grew by 16% last year to reach \$3.1 billion.

The leading indicators suggest that activity in this category of building will continue to expand this year and next. 38 new projects with a combined value of \$2.9 billion were added to the Major Projects Database over the last twelve months. Key projects include Silverwater Correctional Complex (MRRC), Future submarine program (FSB) early works stage 1, HMAS Stirling, Defence high performance computing centre, Armidale Courthouse & Police Complex, Bourke Street Police Station Melbourne East, RAAF bases Pearce, Gin Gin, East Sale and Oakey Army Aviation Centre.

Work in this building category is forecast to increase by 14% to \$3.5 billion this year. Growth is expected to be sustained into the medium term, raising activity levels to \$4.1 billion by 2020-21.



**Value of Work Done - Miscellaneous**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

# National Non-Residential Building

## Non-Residential Building Total

The value of work done in *Non-Residential Building* rose by 11% last year to reach \$42 billion. The projections for many *Non-Residential Building* subcategories reflect expectations that the recovery in business investment will carry over into this year and the next, although the rate of growth is expected to moderate.

The outlook for this sector is being shaped by changes being experienced in the Australian economy and in the community at large. The rising importance of services is reflected in the need for health facilities and *Education* buildings. An aging population is driving the need for additional aged care facilities. The competitiveness of Australian providers of education service exports, and in tourism and accommodation is raising demand for building solutions to support these capabilities. Altered retail and industrial supply chains require new investment in building of *Industrial* and other commercial buildings. New technologies and intensified competition for the attention of customers is forcing a resizing of *Retail and Wholesale Trade* building needs. The combined effect of these changes will drive further increases in *Non-Residential Building* activity into the medium term, raising activity to between \$43-45 billion a year.



**Value of Work Done - Non-Residential Building Total**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Value of Work Done - Non-Residential Building (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Value of Work Done (CVM, \$ million)					Forecast (\$ million)				
Accommodation	1,124	1,855	2,129	2,614	3,428	3,565	3,514	3,505	3,413	3,011
Educational	5,221	4,836	4,506	5,169	6,523	7,090	7,386	7,324	6,800	6,462
Entertainment and Recreation	2,364	2,250	3,183	3,194	3,362	3,414	3,538	3,551	3,439	2,868
Health and Aged Care	6,805	6,617	6,179	5,572	5,224	4,946	4,831	5,115	5,413	5,543
Industrial	5,440	5,236	4,930	5,571	5,311	5,227	5,358	5,483	5,539	5,850
Miscellaneous	2,775	2,311	2,144	2,717	3,140	3,573	3,876	4,147	4,087	3,947
Offices	6,306	6,827	6,756	5,381	7,228	7,742	7,911	7,929	7,755	6,210
Other Commercial	1,533	1,749	1,348	1,102	1,854	1,911	1,861	1,823	1,859	1,845
Retail and Wholesale Trade	6,629	6,487	7,144	6,683	6,273	6,095	5,730	5,874	6,102	5,975
<b>Non-Residential Building</b>	<b>38,197</b>	<b>38,168</b>	<b>38,318</b>	<b>38,003</b>	<b>42,343</b>	<b>43,563</b>	<b>44,006</b>	<b>44,750</b>	<b>44,408</b>	<b>41,712</b>
	% change (YoY)					% change (YoY)				
Accommodation	-4.2	65.1	14.8	22.8	31.1	4.0	-1.4	-0.3	-2.6	-11.8
Educational	4.7	-7.4	-6.8	14.7	26.2	8.7	4.2	-0.8	-7.2	-5.0
Entertainment and Recreation	-0.1	-4.8	41.4	0.4	5.3	1.5	3.6	0.4	-3.2	-16.6
Health and Aged Care	20.5	-2.8	-6.6	-9.8	-6.2	-5.3	-2.3	5.9	5.8	2.4
Industrial	-14.3	-3.8	-5.8	13.0	-4.7	-1.6	2.5	2.3	1.0	5.6
Miscellaneous	12.5	-16.7	-7.2	26.7	15.6	13.8	8.5	7.0	-1.4	-3.4
Offices	-3.4	8.3	-1.0	-20.4	34.3	7.1	2.2	0.2	-2.2	-19.9
Other Commercial	21.5	14.1	-23.0	-18.2	68.3	3.1	-2.6	-2.1	2.0	-0.7
Retail and Wholesale Trade	18.9	-2.1	10.1	-6.4	-6.1	-2.8	-6.0	2.5	3.9	-2.1
<b>Non-Residential Building</b>	<b>5.1</b>	<b>-0.1</b>	<b>0.4</b>	<b>-0.8</b>	<b>11.4</b>	<b>2.9</b>	<b>1.0</b>	<b>1.7</b>	<b>-0.8</b>	<b>-6.1</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC




# National Non-Residential Building

## Top 30 Non-Residential Building Projects in the Major Projects Database

Project Name	Category	CoreLogic Project ID	State	Status	Start Date	Value (\$ million)
Central To Eveleigh Urban Renewal	Offices	1787401	NSW	Early	Nov 2018	10,000
Western Sydney Aerotropolis Centre	Offices	7269595	NSW	Early	May 2018	8,000
Aura Estate Master Planned Community	Other Commercial	1007044	QLD	Possible	Nov 2016	5,000
East Werribee Employment Precinct	Offices	1693924	VIC	Firm	Dec 2019	4,000
Queens Wharf Redevelopment	Entertainment & Recreation	1847785	QLD	Possible	Mar 2022	3,000
Sydney Science Park - Penrith - Overall Project	Offices	1922342	NSW	Early	Jun 2021	2,500
Barangaroo South - Crown Sydney Hotel Resort	Accommodation	1654383	NSW	Commenced	Mar 2018	2,400
Royal Melbourne Hospital	Health and Aged Care	982939	VIC	Early	Nov 2020	2,000
Brisbane Live Indoor Entertainment Arena	Entertainment & Recreation	1847808	QLD	Early	Mar 2020	2,000
Murdoch University Eastern Precinct	Education	6879951	WA	Early	Jan 2020	2,000
The Star Gold Coast Masterplan	Accommodation	7341117	QLD	Early	Nov 2021	2,000
Humex Centre	Retail and Wholesale Trade	2126477	VIC	Possible	Dec 2019	1,700
Westport Project	Industrial	110156	WA	Early	Aug 2019	1,500
Eagle Street Pier Redevelopment	Offices	7235490	QLD	Early	Feb 2020	1,400
Herston Quarter Health Precinct Redevelopment	Health and Aged Care	1964900	QLD	Possible	Jul 2019	1,100
Pacificus Tourism Project	Accommodation	788277	QLD	Possible	Aug 2019	1,000
Jewel Mixed Use Development	Accommodation	1487948	QLD	Commenced	Apr 2016	1,000
The Canning Bridge Activity Centre	Offices	1581258	WA	Early	Dec 2017	1,000
Collins Arch	Offices	1636045	VIC	Commenced	Jul 2017	1,000
University Of Canberra Bruce Campus	Education	1827914	ACT	Early	Mar 2019	1,000
Western Sydney Theme Park	Entertainment & Recreation	6802947	NSW	Early	Apr 2021	1,000
Southbank Arts Precinct	Entertainment & Recreation	7280121	VIC	Early	Oct 2021	1,000
Half Moon Bay Cairns	Accommodation	7369989	QLD	Possible	Jan 2024	1,000
Waterford Estate - Toolern - Further Stages	Retail and Wholesale Trade	752722	VIC	Possible	Jan 2017	960
Sydney Metro City & Southwest Walk	Other Commercial	7066466	NSW	Firm	Oct 2018	955
Sunshine Coast University Hospital	Health and Aged Care	665054	QLD	Commenced	Oct 2012	940
Yaroomba Beach Village & The Westin Resort	Accommodation	616265	QLD	Possible	May 2019	900
Westmead Hospital - Central Acute Services	Health and Aged Care	1866751	NSW	Firm	Nov 2017	900
Bowen Space Centre	Industrial	7240465	QLD	Early	Apr 2020	900
RAAF New Air Combat Capability	Miscellaneous	1093649	NT	Possible	Feb 2016	800
RAAF Facilities New Air Combat Capability	Miscellaneous	1093767	NSW	Commenced	Nov 2014	800

Source: ACIF Major Projects Database and CoreLogic



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# **National Engineering Construction**



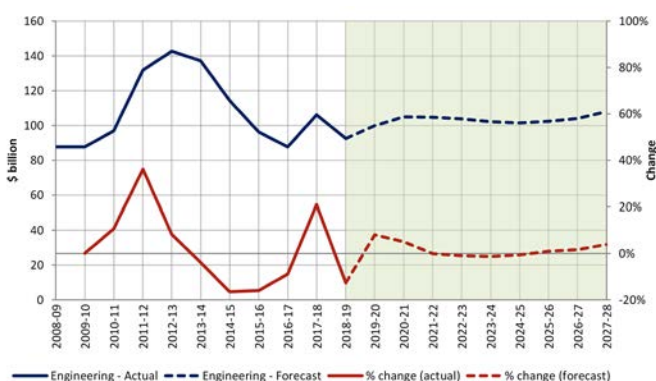
# National Engineering Construction

## Engineering Construction Total

Significant and sustained increases in construction of transport infrastructure and in utilities is underway. The Commonwealth Government is rolling out its \$100 billion infrastructure package. State government infrastructure investment programs, particularly those of New South Wales and Victoria are adding significantly to the work in hand.

Meanwhile the recent 'spike' in *Heavy Industry including Mining* due to one off factors is dropping out of the base and construction activity in this category is expected to return to growth, albeit at a less frenetic pace than seen over the mining boom. The only major drag on growth in *Engineering Construction* is expected to be in *Telecommunications* where the rollout of the NBN is well into its downhill run.

Work done in *Engineering Construction* is expected to grow at a healthy 8% in 2019-20, driving a recovery in the level of activity to \$100 billion. While growth will taper off it will still be sufficient to raise sustain activity at around \$104 billion each year over the next three-to-four years.



**Value of Work Done - Engineering Construction Total**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Engineering Construction Activity in Summary (\$ billion, 2016-17 prices and % change)

	Actual 2017-18	Forecast 2018-19	Forecast 2019-20	Forecast 2020-21
Infrastructure Construction (\$ billion)	65.7	67.5	73.2	76.0
Heavy Industry Including Mining Construction (\$ billion)	40.3	25.0	26.6	28.9
<b>Total (\$ billion)</b>	<b>106.0</b>	<b>92.5</b>	<b>99.9</b>	<b>104.9</b>
Infrastructure Construction (% change)	21.2	2.7	8.5	3.7
Heavy Industry Including Mining Construction (% change)	20.5	-38.0	6.6	8.5
<b>Total (% change)</b>	<b>21.0</b>	<b>-12.7</b>	<b>8.0</b>	<b>5.0</b>

Source: ABS and ACIF CFC

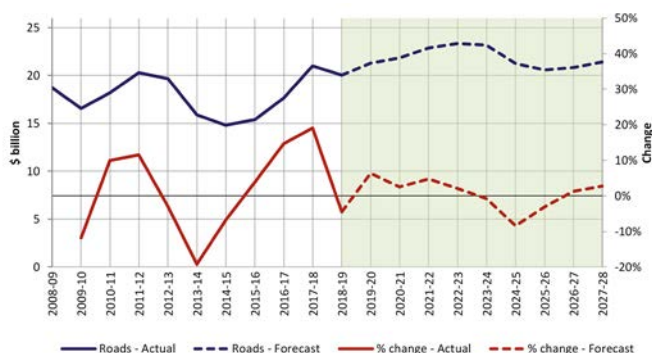


# National Engineering Construction

## Roads

Construction activity in *Roads* grew by 19% in 2017-18, lifting work done to \$21 billion. Some 39 new *Roads* projects, with a combined value of \$7 billion, were added to the Major Projects Database over the last six months, more than doubling the increase in the previous six months. Recent additions include: Sydney Gateway road project (NSW), Rockhampton Ring Road (QLD), Bruce Highway upgrade - Caboolture-Bribie Island road to Steve Irwin Way (QLD), National Highway from Cairns to Smithfield (QLD), Barwon Heads road duplication (VIC), Main South road duplication stages 1 & 2 (SA), Mulgoa road upgrade (NSW), Mamre road & Erskine park road upgrade (NSW), Mitchell freeway roadworks (WA), Hall road upgrade (VIC).

Road projects feature in the list of the Top 30 *Engineering Construction* projects in the Major Projects Database. Some of the airport projects, such as the Melbourne Airport (third runway) project, are counted as *Roads* where the ABS classifies runway pavement within construction of *Roads*. There are some reports that the outturn cost of some particularly large road projects, especially those that involve tunnelling in urban areas, are rising beyond background rate of inflation. This may reflect emerging capacity constraints, particularly in skilled workers. Entry and exit of large scale road projects produces volatility in the expanded road building project pipeline. Activity is projected to consolidate at around \$20 billion this year (2018-19) and then resume underlying growth, pushing activity to between \$21-22 billion a year over the next four years.



### Value of Work Done - Roads

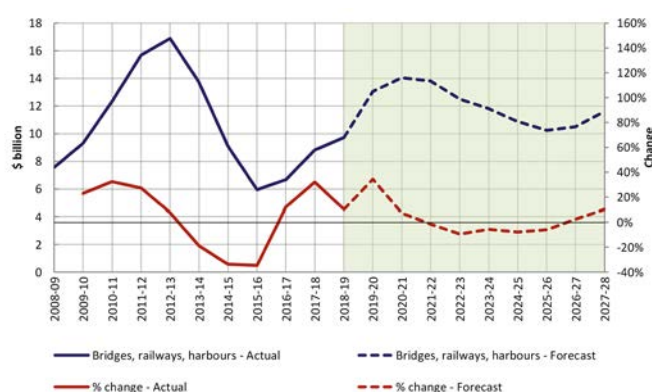
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Bridges, Railways and Harbours

Construction of *Bridges, Railways and Harbours* grew by 32% in 2017-18, and the value of work done rose to \$9 billion over the year. This is the second year of double digit growth in this activity which reflects the implementation of extensive rail transport infrastructure investment plans across Australia.

There were 15 projects with a combined value of \$21 billion added to the Major Projects Database over the last six months. Most of those were large scale rail infrastructure projects including: Sydney Metro, Western Sydney Airport (NSW), Parramatta Light Rail Stage 2, Regional Fast train network (NSW), Sydney Central precinct (NSW), Inland Rail Gowrie to Kagaru (QLD), Union road rail level crossing removal - Belgrave/Lilydale line (VIC), Australian Inland Rail Expressway Illabo to Stockinbingal (NSW), Flinders Link project (SA). This category also includes harbours and ports. Recent additions to the Major Projects database include: Port of Newcastle FLNG import terminal (NSW) and the Port Augusta Port Facility (SA) projects. Construction work to be done in Bridges, Railways and Harbours is projected to increase over the next four years, reaching a peak of around \$14 billion by 2021-22.



### Value of Work Done - Bridges, Railways and Harbours

(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC



# National Engineering Construction

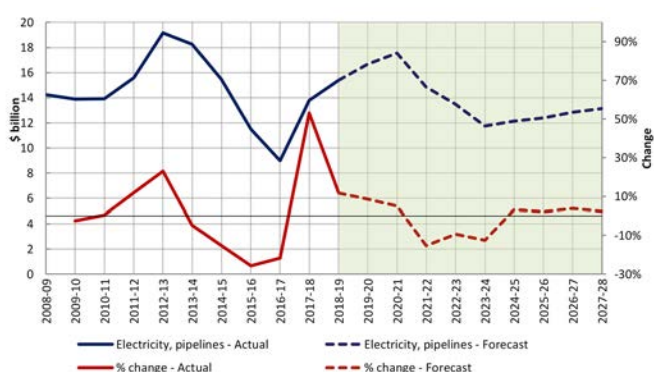
## Electricity and Pipelines

*Electricity and Pipelines* construction activity is booming. It expanded by 53% last year (2017-18) to reach \$14 billion. This activity is focused on raising the sustainability of energy supplied and improving the reliability of energy supply. There are 371 *Electricity and Pipelines* projects in the Major Projects Database. This lists many renewable electricity supply options including Snowy 2.0 and many smaller pumped hydro projects, multiple wind generation projects, solar farms several being of a very large scale, and large-scale batteries. Proposals to build new large-scale coal burning base load generation plants are absent from the list. There are some peak-load, gas fired stations.

There were 39 projects with a value of \$17 billion added to the Major Projects Database over the six months to April 2019. The combined value of all projects added over the last year is \$30 billion, which is more than double the amount of work done in this category of construction activity last year.

Some of the largest projects added to the Major Projects Database list over the last six months include: the Asian Renewable Energy Hub (WA), Robertstown solar farm (SA), Baroota pumped hydro & solar project (SA), Bungama solar farm (SA), Hills of gold wind farm (NSW) and the Walcha energy project (NSW).

Construction of Gas pipelines has been a major driver of growth in this category of construction in the recent past. Gas pipeline projects added to the Major Projects Database in the last six months include: Mount Barker gas pipeline (SA), Beyondie sulphate of potash project - gas pipeline (WA) and the Pluto Northwest Shelf interconnector pipeline (WA). Strong growth over the next two years will raise activity to peak at \$17.5 billion in 2019-20.



**Value of Work Done - Electricity and Pipelines**  
(\$ billion, 2016-17 prices and % change)

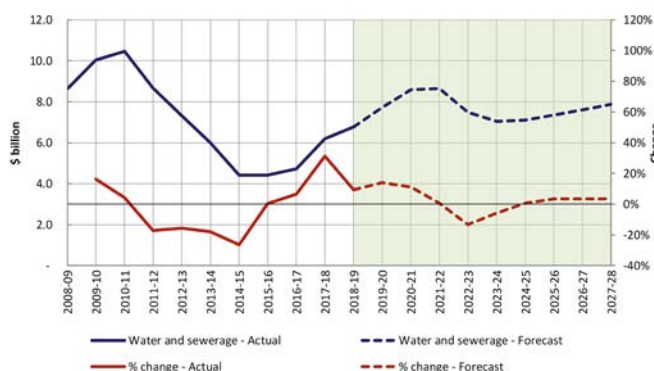
Source: ABS and ACIF CFC

## Water and Sewerage

Work done in *Water and Sewerage* construction activity rose by 31% to reach \$6.2 billion last year (2017-18). There are 118 *Water and Sewerage* projects in the Major Projects Database at present with a combined value of \$12 billion. They span urban water and waste water, as well as development and upgrade of major rural water and irrigation schemes.

There were nine projects added to the Major Projects Database over the last six months, indicating that the construction pipeline in this activity is still increasing.

Further strong growth of around 10% or more is expected over each of the next three years. This is expected to drive activity to a peak of \$8.6 billion in 2021-22.



**Value of Work Done - Water and Sewerage**  
(\$ billion, 2016-17 prices and % change)

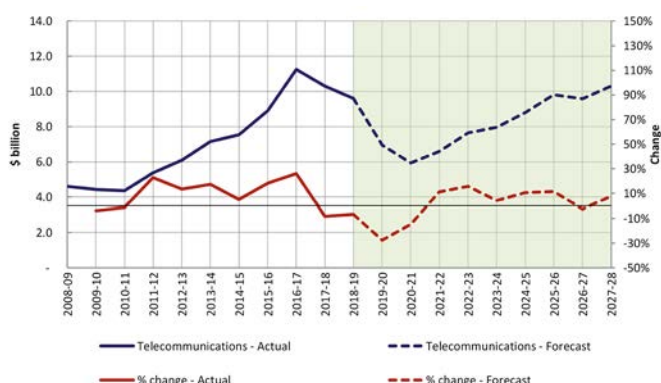
Source: ABS and ACIF CFC

# National Engineering Construction

## Telecommunications

Work in *Telecommunications* construction activity fell by 8% last year to reach \$10 billion. This is in line with indications from the NBN Co. that it is on the 'downhill stretch' in rolling out the National Broadband Network and work done in *Telecommunications* construction activity is now in decline.

Construction activity is expected to rebound in the medium term with the rollout of the 5G wireless network.



**Value of Work Done - Telecommunications**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

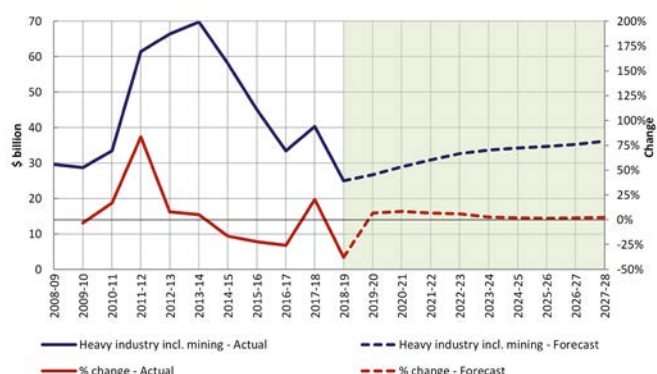
## Heavy Industry Including Mining

Work done in *Heavy Industry including Mining* rebounded with a 20% increase last year. Most of this increase was recorded in Western Australia and relates to the installation of Prelude (a floating LNG facility) and the completion of other large scale projects, such as Ichthys in the Northern Territory. Activity will drop down to underlying levels over this year (2018-19) – estimated to be around \$25 billion.

Meanwhile, there has been a resurgence in interest in *Heavy Industry including Mining* activity over the last year or so reflecting sustained increases in key commodity prices in global markets. There were 89 projects with a value of \$28 billion added to the Major Projects Database over the last twelve months.

Key examples of the projects added in the last six months include: Niwest joint venture nickel project - utilities & reagents (WA), Marandoo iron operations phase 2 (WA), Ranger mine rehabilitation (NT), Wa-356-p julimar & brunello gas project (WA), Otway offshore gas project (VIC), Hastings hydrogen pilot plant (VIC), Gabinantha nickel copper project (WA), Townsville refinery expansion (QLD), Townsville battery materials refinery (QLD), Kathleen valley lithium tantalum project (WA), Surat basin joint venture gas project - project atlas (QLD).

The forecasts factor in a reasonably firm renewal in the level of work done in *Heavy Industry including Mining* in the medium term. This will push activity up to between \$30-33 billion per annum after four-to-five years.



**Value of Work Done - Heavy Industry Including Mining**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

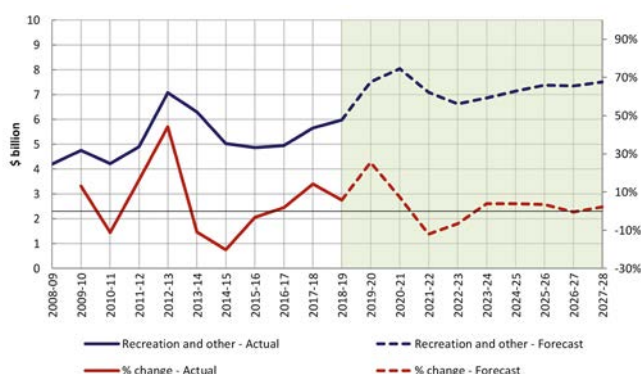
# National Engineering Construction

## Recreation and Other

Construction in *Recreation and Other* projects often involves building large scale stadiums which tend to be very 'lumpy'. The time series of actual work done over the last decade reveals many short term spikes in growth when projects enter and exit the series. The last spike was in 2017-18 when activity grew by 14% to \$6 billion.

There are currently 67 projects in the Major Projects Database with a combined value of \$6.3 billion. These include the Western Sydney Stadium, the North Queensland Stadium and the rebuilding of the Olympic Stadium and the Sydney Football Stadium and the Melbourne Park Redevelopment Stage 3 - Rod Laver Arena refurbishment (VIC), Marvel Stadium, and a number of foreshore and park developments including Kurilpa riverfront renewal redevelopment (QLD), Urangan harbour precinct (QLD), and the Cottesloe foreshore precinct redevelopment (WA).

The firm pipeline of projects is expected to drive a further increase in activity into the near-to-medium term, raising activity to \$8 billion in 2020-21.



**Value of Work Done - Recreation and Other**  
(\$ billion, 2016-17 prices and % change)

Source: ABS and ACIF CFC

## Value of Work Done - Engineering Construction (\$ million, 2016-17 prices and % change)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Value of Work Done (CVM, \$ million)					Forecast (\$ million)				
Roads	15,897	14,809	15,379	17,630	20,984	20,037	21,304	21,828	22,871	23,347
Bridges, Railways, Harbours	13,720	9,096	5,943	6,669	8,804	9,712	13,051	14,025	13,814	12,514
Electricity and Pipelines	18,262	15,470	11,506	8,996	13,783	15,386	16,697	17,545	14,857	13,458
Water and Sewerage	6,001	4,414	4,428	4,722	6,192	6,782	7,727	8,588	8,650	7,494
Telecommunications	7,159	7,529	8,905	11,241	10,300	9,606	6,946	5,925	6,586	7,635
Heavy Industry incl. Mining	69,714	58,094	45,134	33,410	40,269	24,980	26,631	28,895	30,880	32,678
Recreation and Other	6,298	5,029	4,866	4,949	5,651	5,977	7,503	8,047	7,086	6,614
<b>Engineering Construction</b>	<b>137,051</b>	<b>114,441</b>	<b>96,161</b>	<b>87,617</b>	<b>105,984</b>	<b>92,480</b>	<b>99,858</b>	<b>104,852</b>	<b>104,744</b>	<b>103,739</b>
	% change (YoY)					% change (YoY)				
Roads	-19.2	-6.8	3.8	14.6	19.0	-4.5	6.3	2.5	4.8	2.1
Bridges, Railways, Harbours	-18.8	-33.7	-34.7	12.2	32.0	10.3	34.4	7.5	-1.5	-9.4
Electricity and Pipelines	-4.7	-15.3	-25.6	-21.8	53.2	11.6	8.5	5.1	-15.3	-9.4
Water and Sewerage	-17.9	-26.4	0.3	6.6	31.1	9.5	13.9	11.1	0.7	-13.4
Telecommunications	17.4	5.2	18.3	26.2	-8.4	-6.7	-27.7	-14.7	11.2	15.9
Heavy Industry incl. Mining	5.0	-16.7	-22.3	-26.0	20.5	-38.0	6.6	8.5	6.9	5.8
Recreation and Other	-10.9	-20.2	-3.2	1.7	14.2	5.8	25.5	7.3	-11.9	-6.7
<b>Engineering Construction</b>	<b>-3.9</b>	<b>-16.5</b>	<b>-16.0</b>	<b>-8.9</b>	<b>21.0</b>	<b>-12.7</b>	<b>8.0</b>	<b>5.0</b>	<b>-0.1</b>	<b>-1.0</b>

Note: "YoY" = year-on-year


Source: ABS and ACIF CFC

# National Engineering Construction

## Top 30 Engineering Construction Projects in the Major Projects Database

Project Name	Category	CoreLogic Project ID	State	Status	Start Date	Value (\$ million)
East Coast Of Australia High Speed Rail Network	Bridges, Railways & Harbours	1489919	-	Early	Aug 2027	114,000
Iron Boomerang Project	Bridges, Railways & Harbours	1697318	QLD	Early	Jul 2020	55,000
Perth-Darwin National Highway	Roads	41985	WA	Possible	Jun 2019	40,000
Melbourne Metro 2	Bridges, Railways & Harbours	7318640	VIC	Early	Sep 2040	23,000
Browse Basin FLNG Project	Heavy Industry inc. Mining	367811	WA	Early	Jun 2021	20,000
Sydney Metro, Western Sydney Airport	Bridges, Railways & Harbours	7378519	NSW	Early	Feb 2024	15,000
North East Link	Roads	1207104	VIC	Early	Jan 2020	16,500
Adelink Tram Network	Bridges, Railways & Harbours	6876657	SA	Early	Dec 2022	15,000
Sydney Metro, City & Southwest	Bridges, Railways & Harbours	7001775	NSW	Commenced	Jun 2017	12,000
Roy Hill Iron Ore Project - Stages 1 & 2	Bridges, Railways & Harbours	1090202	WA	Commenced	Sep 2015	10,000
Australian Inland Rail Expressway	Bridges, Railways & Harbours	2070194	-	Early	Apr 2020	10,000
Melbourne Airport Rail Link	Bridges, Railways & Harbours	7184380	VIC	Early	Jun 2028	10,000
Suburban Rail Loop	Bridges, Railways & Harbours	7311078	VIC	Early	Aug 2022	10,000
Asian Renewable Energy Hub	Electricity and Pipelines	7327462	WA	Possible	Oct 2023	9,900
Melbourne Metro Rail Project	Bridges, Railways & Harbours	1148378	VIC	Commenced	Jan 2018	9,000
Proposed F6 Extension - Southconnex	Roads	7093294	NSW	Early	Aug 2018	9,000
Sydney Metro , West	Bridges, Railways & Harbours	1195598	NSW	Firm	Feb 2011	8,000
Gippsland Windfarm	Electricity and Pipelines	7098403	VIC	Early	Dec 2020	8,000
Doncaster Rail Link	Bridges, Railways & Harbours	1474607	VIC	Early	Mar 2025	7,000
Melbourne Airport (Third)	Roads	1827798	VIC	Early	Oct 2030	7,000
Snowy Mountains Scheme 2.0	Electricity and Pipelines	7063003	NSW	Early	Nov 2019	7,000
Melbourne South East International Airport	Roads	7114062	VIC	Early	Jun 2019	7,000
Western Distributor Project/West Gate Tunnel	Roads	2098451	VIC	Commenced	Jan 2018	6,700
Alpha Coal Project	Heavy Industry inc. Mining	418162	QLD	Possible	Jul 2020	6,500
Sino Iron Ore Operations	Heavy Industry inc. Mining	453383	WA	Commenced	Aug 2012	6,000
China Stone Coal Project	Heavy Industry inc. Mining	1645451	QLD	Possible	Jul 2020	6,000
West Gate Tunnel Project	Roads	7078756	VIC	Firm	Dec 2017	5,500
Cross River Rail	Bridges, Railways & Harbours	2164941	QLD	Possible	Oct 2017	5,400
Niwest Joint Venture Nickel Project	Heavy Industry inc. Mining	7331270	WA	Early	Jan 2020	5,313
Western Sydney Airport - Badgerys Creek	Roads	324515	NSW	Commenced	Jun 2018	5,300

Source: ACIF Major Projects Database and CoreLogic



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# **State and Territory Overview**

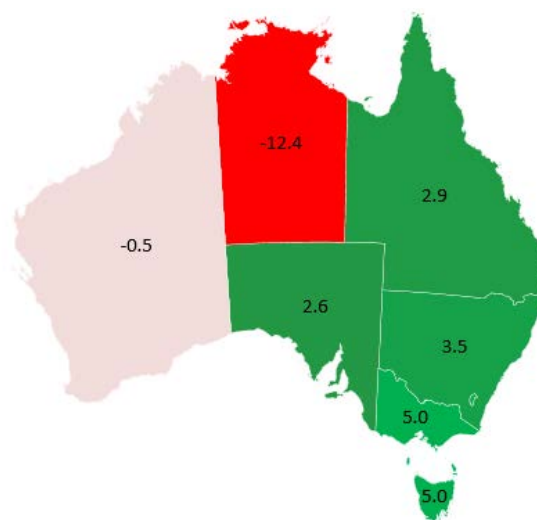
# State and Territory Overview

## Economic Drivers of Change

The southern and eastern states are experiencing strong growth. Victoria and Tasmania turned in 5% growth in State Final Demand over the year to December 2018. Growth in New South Wales reached a respectable 3.5% over 2018.

Western Australia and the Northern Territory are in a contractionary phase shrinking State Final Demand by 0.5% and 2.8% respectively in 2018.

Structural change in the Australian economy and demographic factors are driving this divergence in growth. The drag on growth from the end of the mining and resources development boom is most notable in the north and west of Australia. The shift in business investment towards non-mining activities is favouring the southern and eastern states. New South Wales and Victoria, the largest and most populous states, are benefiting from increases in government consumption and in public investment. The governments of these states also have significant fiscal resources at this time, reflecting in part solid gains in stamp duty from the recent surge in house prices.



**Economic Growth in 2018**  
(% change in state final demand)

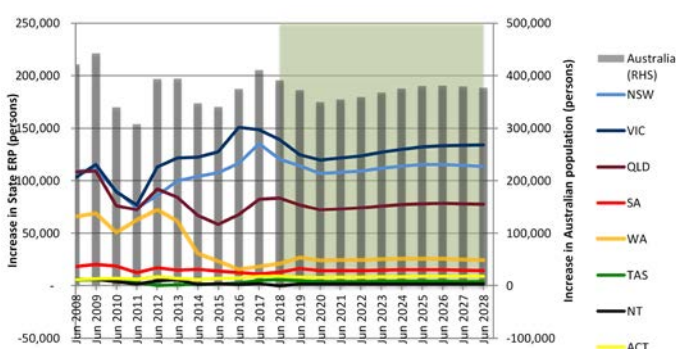
Source: ABS 5206.0

## Changing Demographics

The more populous states on the eastern seaboard are attracting the most growth in residents. Victoria has had the largest growth in terms of the resident numbers (estimated at 139,000 additional residents), followed by New South Wales (120,000) in 2017-18.

Queensland, Western Australia and the Northern Territory saw a strong surge in population growth at around the time of the mining boom.

The forecasts project that Victoria, New South Wales and Queensland will hold their current share of additional residents, while the numbers of additional residents will shrink over the next three-to-four years. Population growth is expected to recover in Western Australia, although this is not expected to match the rates achieved last decade.



**Population Growth in the States**  
(persons)

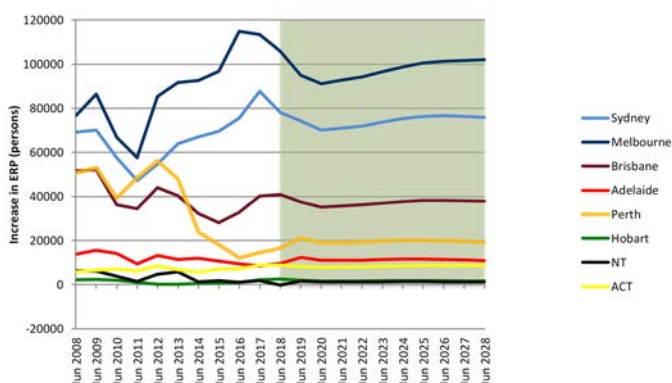
Source: ABS and ACIF CFC

# State and Territory Overview

## Changing Demographics - Capital Cities

The numbers of additional residents in Melbourne and Sydney is now tailing off and additions are expected to continue to fall over the next two-to-three years. It should be noted that even after this run down in growth, Melbourne is projected to house an additional 90,000 people or more each year while the increase in Sydney will be 70,000 people or more.

Rapid growth in Melbourne and Sydney has placed pressure on livability and increasing calls for concerted investment in urban infrastructure, especially in transport networks.



**Population Growth in the Capital Cities**  
(persons)

Source: ABS and ACIF CFC

## Additions to the Major Projects Database (by state, type, and number)

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
	Count	Count	Count	Count	Count	Count	Count	Count
<b>Residential Building</b>	<b>12</b>	<b>75</b>	<b>2</b>	<b>26</b>	<b>3</b>	<b>3</b>	<b>39</b>	<b>14</b>
Residential	12	75	2	26	3	3	39	14
<b>Non-Residential Building</b>	<b>4</b>	<b>92</b>	<b>5</b>	<b>38</b>	<b>15</b>	<b>4</b>	<b>79</b>	<b>28</b>
Accommodation	3	12	0	3	2	3	4	2
Education	0	16	1	7	3	1	8	4
Entertainment and Recreation	0	5	0	0	1	0	4	0
Health and Aged Care	0	17	0	4	1	0	9	11
Industrial	0	19	0	9	1	0	17	0
Miscellaneous	0	3	1	1	2	0	4	3
Offices	1	10	2	9	3	0	24	6
Other Commercial	0	3	1	3	0	0	0	2
Retail and Wholesale Trade	0	7	0	2	2	0	9	0
<b>Engineering Construction</b>	<b>2</b>	<b>36</b>	<b>5</b>	<b>27</b>	<b>13</b>	<b>0</b>	<b>23</b>	<b>49</b>
Roads	2	6	1	12	1	0	6	11
Bridges, Railways and Harbours	0	7	0	1	3	0	2	2
Electricity and Pipelines	0	14	2	3	8	0	9	3
Water and Sewerage	0	2	0	3	1	0	1	2
Telecommunications	0	0	0	0	0	0	0	0
Recreation and Other	0	5	1	1	0	0	2	1
Heavy Industry including Mining	0	2	1	7	0	0	3	30
<b>Total</b>	<b>18</b>	<b>203</b>	<b>12</b>	<b>91</b>	<b>31</b>	<b>7</b>	<b>141</b>	<b>91</b>

Source: ACIF Major Projects Database and CoreLogic

# State and Territory Overview

## Changes in the Major Projects Database in the States and Territories

Looking at the additions to the Major Projects Database recorded over the last six months can provide some insight into what is changing in the building and construction market in each of the Australian states and territories. One simple way to do this is to count the number of major projects that has arrived over the last six months as an indicator of the level of interest in building and construction activity.

The number of *Residential Building* projects that have been added to the Major Projects Database over the last six months is falling and falls have been recorded in most of the states and territories over the last six months. The distribution of new projects across the states and territories is broadly in line with the population base. The state with the largest number of additional *Residential Building* projects is New South Wales, followed by Victoria.

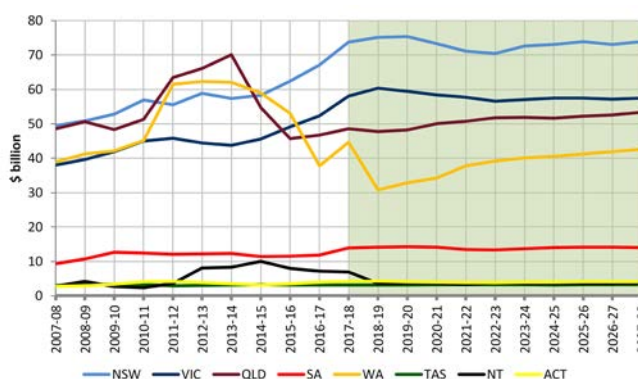
*Non-Residential Building* projects were added to the database in every state over the last six months. New South Wales has attracted the largest number of new major projects in *Non-Residential Building*, which probably reflects its status as the state with the largest economy and the largest population base. Victoria has attracted the largest number of new projects in *Accommodation, Offices* and in *Retail and Wholesale Trade*.

*Engineering Construction* projects have been added to the Major Projects Database in most states over the last six months. The table points to an extension of the recent surge in infrastructure investment concentrated in the larger eastern seaboard states (that is, New South Wales, Victoria and Queensland). The largest number of *Electricity and Pipelines* projects are in New South Wales. Queensland is hosting the largest number of new projects in *Roads*. The thirty *Heavy Industry including Mining* projects added to the Major Projects Database in Western Australia is a leading indicator of an imminent recovery in mining and resources development in that state.

## Building and Construction Activity Comparisons

The building and construction industries continue to follow the shift in economic activity to the south and east of Australia.

The surge in building and construction work done in New South Wales and Victoria is now losing momentum and activity is levelling out. Queensland and Western Australia have lost their former lead with the end of the mining and resources development boom. The significant upturn in building activity in the Northern Territory peaked at the time of the boom in resources development, but it is now also in decline.



**Total Building and Construction Work Done by State**  
(\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC



# State and Territory Overview

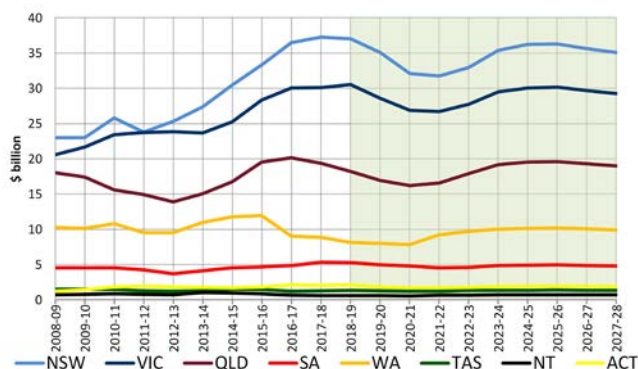
## Residential Building Activity Comparisons

The states have been at different stages in the residential building market cycle over recent years. Work done in *Residential Building* peaked three years ago in Western Australia and the Northern Territory. Activity in Queensland peaked two years ago.

Rapid population growth in Victoria has sustained strong growth in the demand for housing throughout most of the last decade. New South Wales had a significant backlog of unmet housing demand at the start of the last decade that was filled by a substantial upturn in the building of new dwellings. The large amount of work in the pipeline has sustained a two-to-three year plateau as opposed to the normally sharp peak in *Residential Building* activity.

Falls in recent house prices and the demand for housing is catching up with the housing supply industry. A downturn in the business cycle will dominate the outlook for *Residential Building* activity in most states from this year. This will deepen over the next two-to-three years with the largest adjustments occurring in New South Wales and Victoria.

The outlook for *Residential Building* in the states in the long run is expected to be shaped by a return to growth given continuation of growth in employment and population.



**Residential Building by State**  
(\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC

## Dwelling Completions by State and Territory

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual Completions (thousand dwellings)					Forecast (thousand dwellings)				
NSW	39	48	53	64	65	65	61	53	51	52
VIC	50	56	59	66	66	65	62	56	55	56
QLD	30	40	39	48	44	39	38	35	35	39
WA	25	29	32	24	19	18	17	17	21	22
SA	9	12	10	10	11	11	10	10	9	9
TAS	2	2	3	2	2	3	2	2	2	2
NT	2	2	2	1	1	1	1	1	1	1
ACT	4	5	3	4	5	4	4	3	3	3
States										
	% change (YoY)					% change (YoY)				
NSW	18%	22%	12%	19%	2%	1%	-7%	-13%	-3%	2%
VIC	1%	11%	5%	13%	0%	-1%	-5%	-9%	-2%	3%
QLD	4%	32%	-2%	24%	-9%	-11%	-3%	-8%	1%	10%
WA	34%	14%	13%	-27%	-21%	-6%	-2%	-2%	25%	5%
SA	8%	29%	-14%	-1%	8%	4%	-6%	-6%	-12%	2%
TAS	-12%	29%	7%	-19%	9%	10%	-4%	-3%	-11%	2%
NT	51%	11%	-22%	-36%	-33%	-14%	14%	-13%	31%	6%
ACT	-11%	5%	-31%	32%	7%	-7%	-13%	-12%	-3%	3%

Note: "YoY" = year-on-year

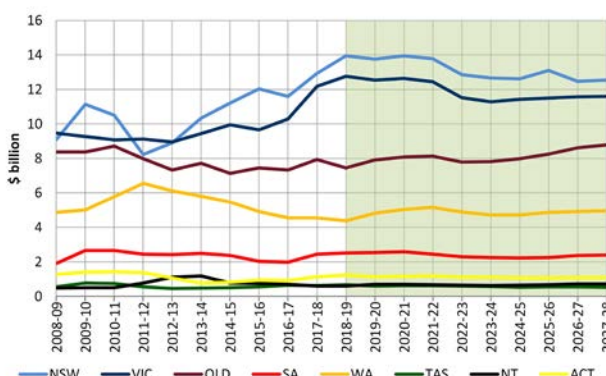
Source: ABS and ACIF CFC

# State and Territory Overview

## Non-Residential Building Activity Comparisons

New South Wales and Victoria dominate *Non-Residential Building* activity. Rapid growth in the population base in these states is driving increases in demand for key services which is in turn driving the need to build or expand *Non-Residential Buildings*.

The ongoing upturn in *Non-Residential Building* is expected to spread out across most states and territories in the projections for the next two-to-three years.

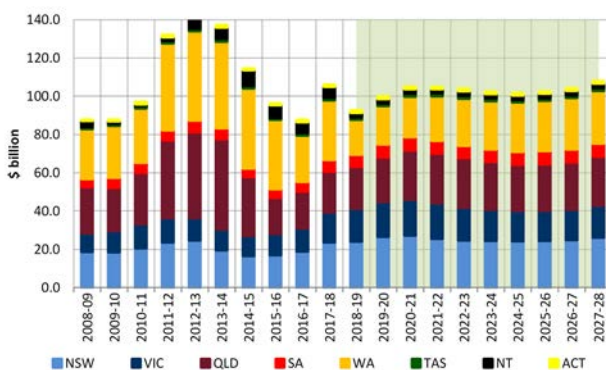


**Non-Residential Building By State**  
(\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC

## Engineering Construction Activity Comparisons

Queensland and Western Australia dominated *Engineering Construction* activity over the last decade reflecting their role in the mining and resources boom. The infrastructure boom is driving a lift in *Engineering Construction* activity in New South Wales and Victoria in the next several years.



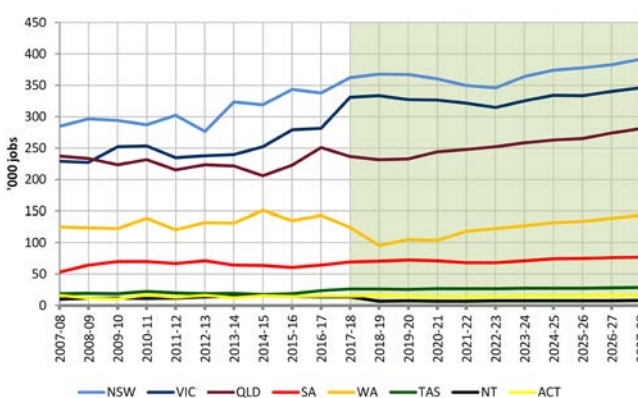
**Engineering Construction by State**  
(\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC

## Building and Construction Employment in the States and Territories

The downturn in *Residential Building* and construction is exerting downward pressure on employment in building and construction in the larger states on the eastern seaboard. Growth in *Infrastructure Construction* and the uptick in *Non-Residential Building* activity in New South Wales and Victoria is expected to mostly offset these job losses. Employment in these states is then expected to travel 'sideways' or experience modest falls over the next three-to-four years.

Meanwhile, there is a much more profound downturn in construction employment in Queensland, Western Australia and the Northern Territory. These states are still dealing with the completion of the mega projects that drove the mining and resources boom as well as falls in employment spilling over from now well established declines in *Residential Building* work. The recovery in *Heavy Industry including Mining* will contribute towards a recovery in employment in building and construction in Western Australia and Queensland in the medium term.



**Construction Industry Employment in the States**  
('000 persons)

Source: ABS and ACIF CFC



## State-by-State Outlook

# Australian Capital Territory

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State Final Demand (SFD) in the Australian Capital Territory (ACT), which is a measure of total spending by households, business and governments, grew by 4.1% in 2018. The ACT is continuing to diversify its economic base. The national Government's share of total demand in the ACT economy has fallen from 44.7% of the economy in December 2011, to 41.3% as of December 2017. Significant growth in services exports (especially in education), construction and reasonable growth in household consumption, given increases in wages, are contributing to growth in demand and economic activity.

The relatively strong economic environment supported growth in employment in the ACT. The 2018-19 budget papers observed that some 10,000 jobs were created in Canberra over the year to end 2017. Employment grew by 0.8% the year to March 2019, with unemployment averaging 3.5% over the same period. Employment growth is forecast to return to trend growth of 1.5% in the medium term. Given the diversification of the ACT's economic base, those jobs have been in a broad range of industries including retail, healthcare, telecommunications, as well as employment in administrative services, reflecting the role played by Canberra as the seat of Government accommodating much employment in the Australian Public Service.

Growth in both construction and household consumption is being supported by strong population growth in the ACT. The resident population is estimated to have grown by 1.9% over the year to September 2018.

The residential property market in the ACT has been fairly resilient to the downturn affecting the national residential property market at present. Residential property prices in Canberra increased by 1.8% over 2018 and dwelling approvals grew over most of 2018, although the year was finished off with an ominous 34% decline in the December quarter.

*Non-Residential Building* is showing particularly strong growth recently. The strong pipeline of work in hand in *Non-Residential Building* activity is reflected in the long list of projects in the ACIF Major Projects Database in the ACT. Projects include: University Of Canberra Bruce Campus - Overall Project; The Australian Forum Complex; the new SPIRE Centre at the Canberra Hospital; Canberra Casino Redevelopment; Development of the Constitution Place precinct; Australian War Memorial; Immigration & Customs Hub; ANU Union Court Precinct Revitalisation; ACT Law Courts. Establishment by the University of NSW of a new tertiary campus in Canberra would add a significant lift to education spending, contributing to further growth in education service exports.

Government spending is expected to support *Engineering Construction* activity, with projects such as the commencement of Stage 2 of Light Rail (Civic to Woden) and upgrades to the Monaro Highway.



# Australian Capital Territory

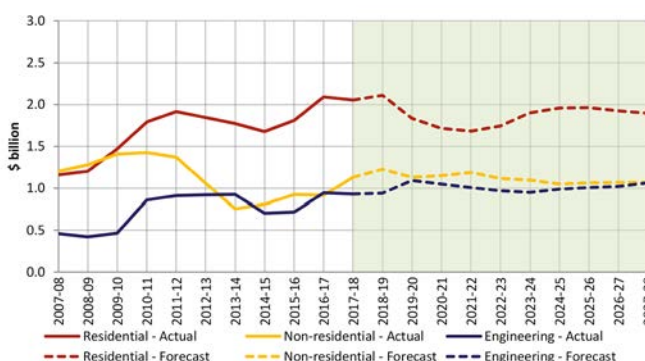
## ACT Building Activity Comparisons

Total building and construction activity in the Australian Capital Territory grew by 4.1% to \$4.1 billion in 2017-18. Growth was due to a 23.5% increase in *Non-Residential Building* activity which dominated dips in *Residential Building* and *Engineering Construction* activity. The increase in approvals data suggests that the previously expected decline in *Residential Building* will be delayed for a year. The weakening residential market will eventually catch up with the ACT and falls in all four *Residential Building* sub-categories are forecast in 2019-20, resulting in a 13.0% contraction in that year.

*Non-Residential Building* activity is expected to consolidate in 2018-19, before returning to growth in line with the underlying economy.

*Engineering Construction* work is expected to return to growth in 2018-19. Increases in *Roads* and *Electricity and Pipelines* will only be partially offset by falls in *Bridges, Railways and Harbours*, and *Telecommunications*.

Total building and construction activity is expected to grow by 4.0% in 2018-19, before a sustained period of contraction in the medium term as two of three categories are predicted to have negative growth between 2019-20 and 2022-23.



## ACT Building and Construction Aggregates (\$ billion, 2016-17 prices)

Source: ABS and ACIF CFC

## ACT Value of Work Done by Type (\$ million, 2016-17 prices)

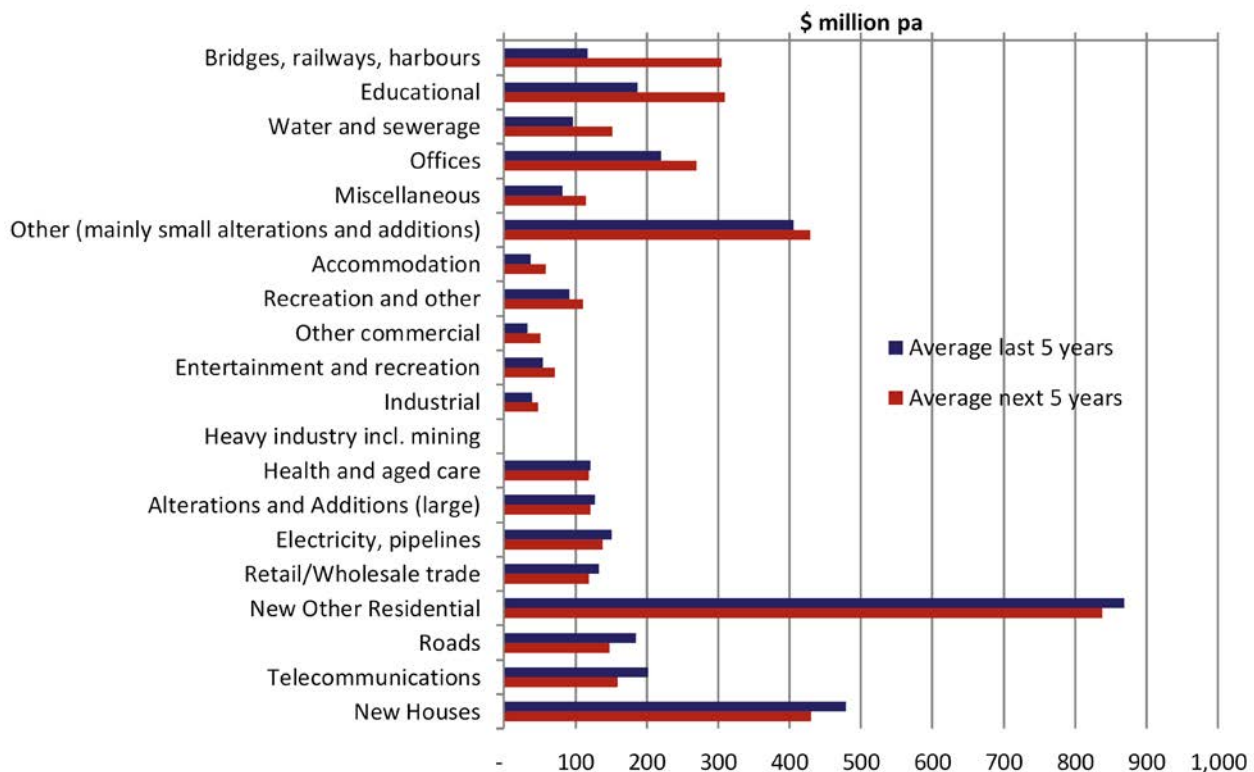
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	1,773	1,679	1,808	2,092	2,051	2,112	1,836	1,714	1,681	1,745
Non-Residential Building	753	807	927	915	1,130	1,224	1,129	1,149	1,187	1,116
Engineering Construction	926	704	715	944	931	941	1,091	1,050	1,007	970
<b>Total Construction</b>	<b>3,453</b>	<b>3,189</b>	<b>3,450</b>	<b>3,951</b>	<b>4,112</b>	<b>4,277</b>	<b>4,056</b>	<b>3,913</b>	<b>3,874</b>	<b>3,831</b>
	% change (YoY)					% change (YoY)				
Residential Building	-3.8	-5.3	7.7	15.7	-2.0	3.0	-13.0	-6.7	-2.0	3.9
Non-Residential Building	-28.7	7.0	15.0	-1.3	23.5	8.3	-7.8	1.8	3.3	-6.0
Engineering Construction	0.8	-24.0	1.6	32.0	-1.4	1.1	16.0	-3.7	-4.1	-3.6
<b>Total Construction</b>	<b>-9.6</b>	<b>-7.6</b>	<b>8.2</b>	<b>14.5</b>	<b>4.1</b>	<b>4.0</b>	<b>-5.2</b>	<b>-3.5</b>	<b>-1.0</b>	<b>-1.1</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

# Australian Capital Territory

## ACT Changes in Building and Construction Activity



### ACT Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

*Bridges, Railways and Harbours* is the biggest 'winner' in the ACT. Winning in this context is where work done over the next five years is expected to be larger than work done in the last five years. Work on the second stage of the light rail network will maintain activity at elevated levels into the medium term.

Other forecast winners include *Education*, *Water and Sewerage*, *Offices*, and *Miscellaneous* buildings (where some public sector buildings including defence establishments are often located). This reflects continuation of growth patterns in the ACT economy and the structural shift to services as well as the ACT's role as the nation's capital.

The two biggest subsectors of building activity in the ACT, *New Other Residential* (apartments and townhouses) and *New Houses* are both expected to be 'losers'. Losing in this context is where work done over the next five years is expected to be smaller than work done in the last five years. There are six other subsectors that are predicted be losers, the two largest being *Roads* and *Telecommunications*.

# Australian Capital Territory

## ACT Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	544	554	404	445	447	472	402	450	407	421
New Other Residential	697	757	798	1,072	1,021	1,066	893	743	732	754
Alterations and Additions (Lrg)	123	127	137	127	122	122	114	119	123	129
Other (Alterations & Additions)	409	240	469	449	460	452	428	403	419	442
<b>Non-Residential Building</b>										
Accommodation	30	76	20	29	34	105	49	45	48	46
Education	128	151	185	167	306	390	302	296	290	265
Entertainment and Recreation	35	37	47	67	87	61	73	74	82	69
Health and Aged Care	108	76	145	193	82	89	114	124	126	142
Industrial	41	34	35	33	53	67	39	42	46	46
Miscellaneous	56	101	97	72	86	83	117	124	123	125
Offices	251	176	182	203	287	310	269	279	277	216
Other Commercial	23	37	45	26	31	31	44	42	61	77
Retail and Wholesale Trade	81	119	171	127	165	89	121	122	133	130
<b>Engineering Construction</b>										
Roads	267	272	157	117	108	135	137	143	153	170
Bridges, Railways and Harbours	18	19	18	215	318	283	376	330	297	239
Electricity and Pipelines	270	140	114	143	85	128	147	157	128	129
Water and Sewerage	103	54	131	86	110	121	155	164	169	149
Telecommunications	157	166	202	257	230	183	158	135	148	172
Heavy Industry inc. Mining	1	1	0	0	1	0	0	0	0	0
Recreation and Other	110	51	92	125	79	90	117	122	111	112
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	-10.0	1.7	-27.0	10.0	0.7	5.6	-15.0	12.0	-9.6	3.5
New Other Residential	-7.4	8.7	5.3	34.4	-4.7	4.3	-16.2	-16.8	-1.4	3.0
Alterations and Additions (Lrg)	-13.2	4.0	7.4	-7.3	-4.0	-0.1	-6.1	4.0	3.4	4.9
Other (Alterations & Additions)	18.8	-41.3	95.2	-4.3	2.6	-1.8	-5.3	-5.9	3.9	5.5
<b>Non-Residential Building</b>										
Accommodation	-53.6	150.5	-73.7	43.4	19.3	207.3	-53.3	-8.7	7.6	-3.4
Education	-47.0	18.3	22.2	-9.3	82.5	27.6	-22.6	-1.8	-2.2	-8.5
Entertainment and Recreation	-7.9	7.7	25.6	43.1	30.1	-30.2	20.3	1.7	10.3	-15.2
Health and Aged Care	-23.4	-29.5	90.0	32.6	-57.3	8.3	27.8	8.6	2.0	12.2
Industrial	-2.6	-17.3	3.3	-6.2	61.3	26.2	-41.0	6.9	8.9	-0.2
Miscellaneous	37.0	78.3	-3.2	-26.3	19.2	-3.0	40.9	5.7	-0.2	1.2
Offices	-25.3	-29.9	3.6	11.4	41.4	8.0	-13.2	3.9	-0.7	-22.2
Other Commercial	-71.8	60.9	21.4	-43.3	21.5	0.2	41.8	-4.6	44.0	25.3
Retail and Wholesale Trade	15.4	45.7	44.1	-26.0	30.3	-45.9	36.0	0.9	8.9	-2.5
<b>Engineering Construction</b>										
Roads	-12.2	1.9	-42.4	-25.3	-7.8	24.9	1.6	3.9	7.0	11.2
Bridges, Railways and Harbours	1,278.2	10.0	-6.8	1,094.8	48.2	-11.0	33.0	-12.4	-9.9	-19.5
Electricity and Pipelines	66.3	-48.2	-18.4	25.3	-40.8	51.2	14.8	6.4	-18.0	0.4
Water and Sewerage	-51.6	-47.4	142.9	-34.3	27.1	10.3	27.7	5.9	3.5	-12.2
Telecommunications	28.8	5.9	21.9	27.1	-10.5	-20.3	-13.7	-14.7	9.6	16.1
Heavy Industry inc. Mining	86.6	-44.3	-100.0	-	-	-62.4	22.2	-47.6	29.9	-8.3
Recreation and Other	-4.7	-53.6	80.3	35.9	-36.8	13.5	30.3	4.6	-9.3	0.6

# New South Wales

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State Final Demand grew by 3.5% in 2018. The current transition in the sources of growth will see the economy supported less by household consumption and dwelling investment and more by business investment and exports. Business investment is supported by favourable trade conditions, due to increasing economic integration with Asia, reasonable international growth, and elevated commodity prices. Drought conditions are expected to have a negative impact on growth in 2018-19.

The deterioration of the housing market is negatively impacting consumer spending and dwelling approvals faster and with greater magnitude than expected. Housing prices in Sydney are down more than 10% from the peak in mid-2017, falling 7.8% in 2018. Dwelling approvals are down 13.6% across the state for the year to February 2019.

Public investment is providing a significant boost to the economy. The substantive \$87.9 billion four year capital program involving large transport infrastructure initiatives such as Westconnex, NorthConnex and Sydney Metro, as well as the expansion of services such as the National Disability Insurance Scheme (NDIS), is expected to maintain momentum for growth in New South Wales.

Population growth for the year to September 2018 was 1.5%, and the New South Wales Government forecasts growth to continue at around 1.5%. Much of the growth has been through increases in Net Overseas Migration, including arrivals of overseas students.

The labour market is expected to continue to operate at around full-employment, with unemployment averaging 4.5% the year to March 2019. Employment has increased by 2.6% through the year to March 2019, corresponding with a near record high participation rate of over 65%, led by women. These conditions are forecast to lead to accelerating wages growth.

There are concerns about the response of households to continued falling house prices, particularly when household debt levels are high and income growth is modest. In addition, there is a risk that both residential and non-residential construction fall simultaneously, amplifying the negative impact on growth in the economy and employment in the following years.



# New South Wales

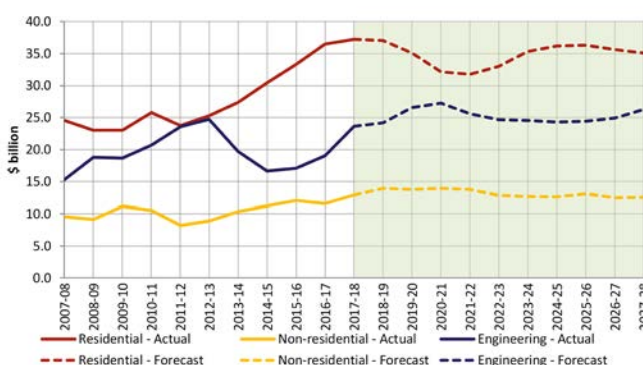
## NSW Building Activity Comparisons

Total building and construction activity in New South Wales grew by a substantial 9.9% in 2017-18, continuing four years of growth. All three sectors of building and construction work achieved growth, topped by *Engineering Construction* with a 23.9% rise.

Growth in *Engineering Construction* reflects double digit growth in all sectors except *Telecommunications* (which experienced a contraction given the winding down in the rollout of the NBN). Overall growth in *Engineering Construction* is forecast to continue in the medium term.

*Non-Residential Building* activity experienced an 11.5% uptick in 2017-18, marked by significant growth in *Education*, *Offices* and *Other Commercial* subsectors. Overall growth in *Non-Residential Building* activity is forecast to remain strong in 2018-19, before dropping off in the medium term.

*Residential Building* activity is expected to decline in the medium term, becoming a significant drag on total building and construction activity. As *Non-Residential Building* and *Engineering Construction* activity lose momentum, total building and construction activity is forecast to enter a period of negative growth beginning in 2020-21.



## NSW Building and Construction Aggregates (\$ billion)

Source: ABS and ACIF CFC

## NSW Value of Work Done by Type (\$ million, 2016-17 prices)

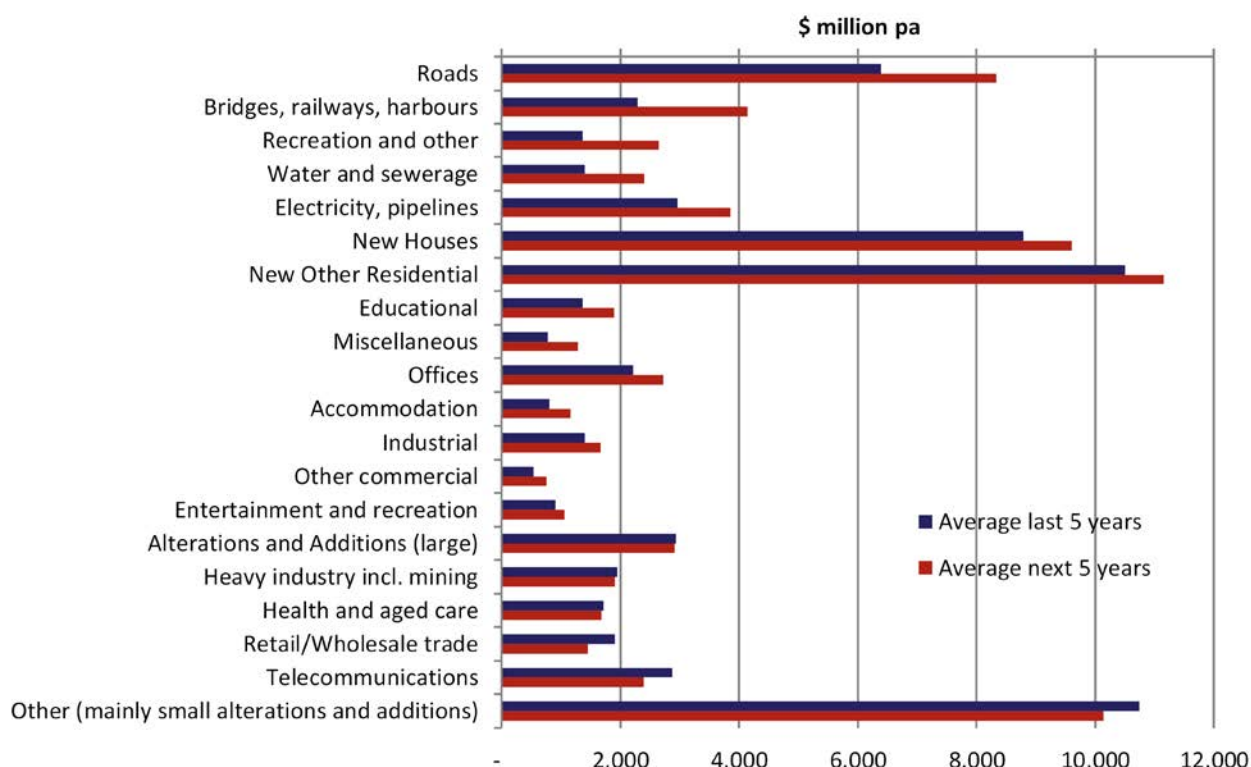
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	27,375	30,453	33,312	36,480	37,249	37,044	35,056	32,132	31,758	32,981
Non-Residential Building	10,339	11,201	12,037	11,594	12,926	13,955	13,762	13,943	13,766	12,859
Engineering Construction	19,708	16,679	17,054	19,061	23,620	24,160	26,602	27,274	25,611	24,655
<b>Total Construction</b>	<b>57,422</b>	<b>58,333</b>	<b>62,403</b>	<b>67,135</b>	<b>73,795</b>	<b>75,160</b>	<b>75,420</b>	<b>73,349</b>	<b>71,135</b>	<b>70,495</b>
	% change (YoY)					% change (YoY)				
Residential Building	8.3	11.2	9.4	9.5	2.1	-0.5	-5.4	-8.3	-1.2	3.9
Non-Residential Building	16.2	8.3	7.5	-3.7	11.5	8.0	-1.4	1.3	-1.3	-6.6
Engineering Construction	-20.4	-15.4	2.3	11.8	23.9	2.3	10.1	2.5	-6.1	-3.7
<b>Total Construction</b>	<b>-2.6</b>	<b>1.6</b>	<b>7.0</b>	<b>7.6</b>	<b>9.9</b>	<b>1.8</b>	<b>0.3</b>	<b>-2.7</b>	<b>-3.0</b>	<b>-0.9</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

# New South Wales

## NSW Changes in Building and Construction Activity



### NSW Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

All but six of the various building and construction subsectors in New South Wales are projected to be 'winners'. Infrastructure construction categories, such as *Roads* and *Bridges, Railways and Harbours* are at the top of the list of winners. *New Houses* and *New Other Residential Building* activity are both significant 'winners', reflecting the large amount of work that is locked in to the construction pipeline and will be completed in the next couple of years (before the cyclical downturn that is expected begins to bite).

The biggest projected 'losers' are *Other* (mainly small alterations and additions) and *Telecommunications*. Minor downturns are expected for *Alterations and Additions*, *Heavy Industry including Mining*, *Health and Aged Care*, and *Retail and Wholesale Trade* is expected to see experience some downsizing reflecting the shift to online sales and the downhill run in the rollout of the NBN will lead to a sizable decline in *Telecommunications* construction activity.

# New South Wales

## NSW Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	7,291	8,274	8,737	9,705	9,925	9,996	9,595	9,310	9,435	9,671
New Other Residential	6,787	7,982	10,992	12,716	14,044	14,083	12,828	10,204	9,231	9,397
Alterations and Additions (Lrg)	2,659	2,926	2,906	3,198	2,997	2,885	2,801	2,857	2,941	3,066
Other (Alterations & Additions)	10,638	11,271	10,676	10,860	10,284	10,081	9,833	9,762	10,150	10,846
<b>Non-Residential Building</b>										
Accommodation	400	799	783	976	1,057	1,129	1,246	1,237	1,151	1,025
Education	1,578	1,286	1,089	1,092	1,781	2,030	1,937	1,937	1,852	1,723
Entertainment and Recreation	723	772	1,284	821	929	1,193	1,120	1,053	1,038	860
Health and Aged Care	1,487	1,703	1,680	1,998	1,692	1,675	1,540	1,664	1,712	1,784
Industrial	1,237	1,267	1,120	1,766	1,623	1,644	1,636	1,673	1,646	1,728
Miscellaneous	604	640	642	912	1,066	1,247	1,245	1,352	1,330	1,274
Offices	1,908	2,257	2,592	1,942	2,368	2,727	2,866	2,887	2,810	2,308
Other Commercial	381	520	527	449	793	771	782	740	743	712
Retail and Wholesale Trade	2,021	1,958	2,322	1,639	1,618	1,538	1,389	1,399	1,485	1,444
<b>Engineering Construction</b>										
Roads	5,556	4,861	6,142	7,005	8,403	7,774	7,981	8,179	8,582	9,137
Bridges, Railways and Harbours	1,759	1,884	2,168	2,400	3,219	3,687	4,483	4,455	4,378	3,691
Electricity and Pipelines	4,090	2,925	2,112	2,276	3,426	3,604	4,417	4,534	3,517	3,158
Water and Sewerage	1,308	1,051	1,293	1,424	1,907	2,148	2,346	2,605	2,626	2,267
Telecommunications	2,284	2,520	2,894	3,401	3,280	3,295	2,212	1,886	2,108	2,431
Heavy Industry inc. Mining	3,426	2,245	1,282	1,172	1,603	1,655	2,141	2,172	1,828	1,751
Recreation and Other	1,285	1,193	1,163	1,383	1,782	1,997	3,020	3,444	2,573	2,218
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	3.9	13.5	5.6	11.1	2.3	0.7	-4.0	-3.0	1.3	2.5
New Other Residential	19.5	17.6	37.7	15.7	10.4	0.3	-8.9	-20.5	-9.5	1.8
Alterations and Additions (Lrg)	0.2	10.0	-0.7	10.1	-6.3	-3.7	-2.9	2.0	3.0	4.3
Other (Alterations & Additions)	7.2	6.0	-5.3	1.7	-5.3	-2.0	-2.5	-0.7	4.0	6.9
<b>Non-Residential Building</b>										
Accommodation	22.9	99.7	-2.1	24.6	8.3	6.9	10.4	-0.8	-6.9	-11.0
Education	18.5	-18.5	-15.3	0.3	63.1	14.0	-4.6	0.0	-4.4	-7.0
Entertainment and Recreation	4.4	6.8	66.3	-36.1	13.2	28.4	-6.1	-6.0	-1.4	-17.1
Health and Aged Care	34.2	14.5	-1.4	19.0	-15.3	-1.0	-8.1	8.1	2.9	4.2
Industrial	0.6	2.4	-11.6	57.7	-8.1	1.3	-0.5	2.3	-1.6	5.0
Miscellaneous	0.5	6.0	0.2	42.1	16.9	17.0	-0.1	8.6	-1.7	-4.2
Offices	7.3	18.3	14.8	-25.1	22.0	15.1	5.1	0.8	-2.7	-17.9
Other Commercial	53.7	36.2	1.4	-14.8	76.7	-2.7	1.4	-5.3	0.3	-4.1
Retail and Wholesale Trade	27.7	-3.1	18.6	-29.4	-1.3	-5.0	-9.6	0.7	6.2	-2.8
<b>Engineering Construction</b>										
Roads	-23.4	-12.5	26.3	14.1	20.0	-7.5	2.7	2.5	4.9	6.5
Bridges, Railways and Harbours	-14.6	7.2	15.0	10.7	34.1	14.5	21.6	-0.6	-1.7	-15.7
Electricity and Pipelines	-12.7	-28.5	-27.8	7.7	50.6	5.2	22.6	2.6	-22.4	-10.2
Water and Sewerage	-12.7	-19.7	23.1	10.1	33.9	12.6	9.3	11.0	0.8	-13.6
Telecommunications	10.4	10.3	14.8	17.5	-3.6	0.5	-32.8	-14.8	11.8	15.3
Heavy Industry inc. Mining	-37.7	-34.5	-42.9	-8.6	36.8	3.3	29.3	1.4	-15.8	-4.2
Recreation and Other	-24.1	-7.2	-2.5	18.9	28.9	12.0	51.3	14.0	-25.3	-13.8

# Northern Territory

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State Final Demand declined by 12.4% through to December 2018, reflecting a decline in construction investment with the impending completion of the Ichthys LNG project.

The transition of the Ichthys project from construction to the less labour intensive operational phase is driving a softening in the labour market. This is also affecting employment growth, which fell by 3.0% the year to March 2019. Unemployment averaged 4.4% over the same period. Employment is expected to grow below the long-term trend over the next three-to-four years, with a shift from the construction sector as the main driver to an increased reliance on general growth across other industries in the NT including the tourism, education services, agricultural and defence sectors.

The population of the Northern Territory declined by 0.2% for the year up to 30 September 2018, as workers who moved to the Northern Territory to work on the Ichthys project depart. The population is expected to return to its underlying growth rate in 2019.

Dwelling approvals were down 8.6% the year to February 2019. Residential property prices in Darwin decreased by 3.5% in 2018. Vacancy rates in Darwin continue to be the highest of the capital cities at 7.1% in the December quarter of 2018.

Many new non-residential buildings were put in place especially in the greater Darwin area to support the needs of the enlarged workforce involved in the construction of major projects. Building activity has been on a downtrend since 2013-14 and falls in the value of *Non-Residential Building* approvals suggests that building work is likely to fall again in 2018-19, although there are some bright spots such as *Accommodation*, *Education* and *Other Commercial* activities where some growth will be realised.



# Northern Territory

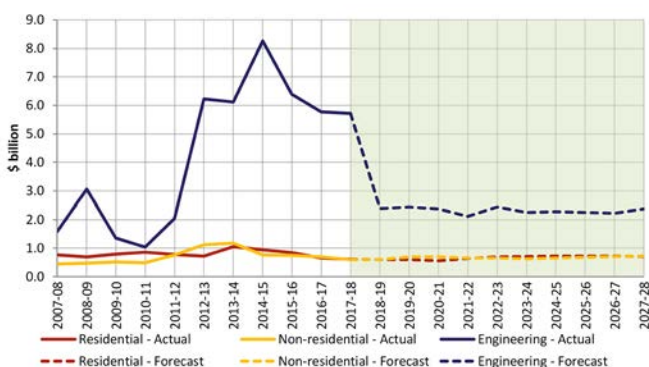
## NT Building Activity Comparisons

Total building and construction activity in the Northern Territory fell by 2.8% in 2017-18, with all three sectors experiencing declines. This is the third year running of declining activity.

*Engineering Construction* activity has peaked and is expected to fall from \$5.7 billion to around \$2 billion over the next year.

*Residential Building* activity fell 6.8% in 2017-18, the fourth year straight of negative growth that is forecast to continue until at least 2020-21. Similarly, *Non-Residential Building* activity fell by 14.6%, and is forecast to return to growth in 2019-20 due to a significant uptick in *Miscellaneous* building activity (includes defence).

Total building and construction activity is forecast to drop 48.4% in 2018-19, before returning to relatively steady levels over the medium term.



**NT Building and Construction Aggregates**  
(\$ billion)

Source: ABS and ACIF CFC

## NT Value of Work Done by Type (\$ million, 2016-17 prices)

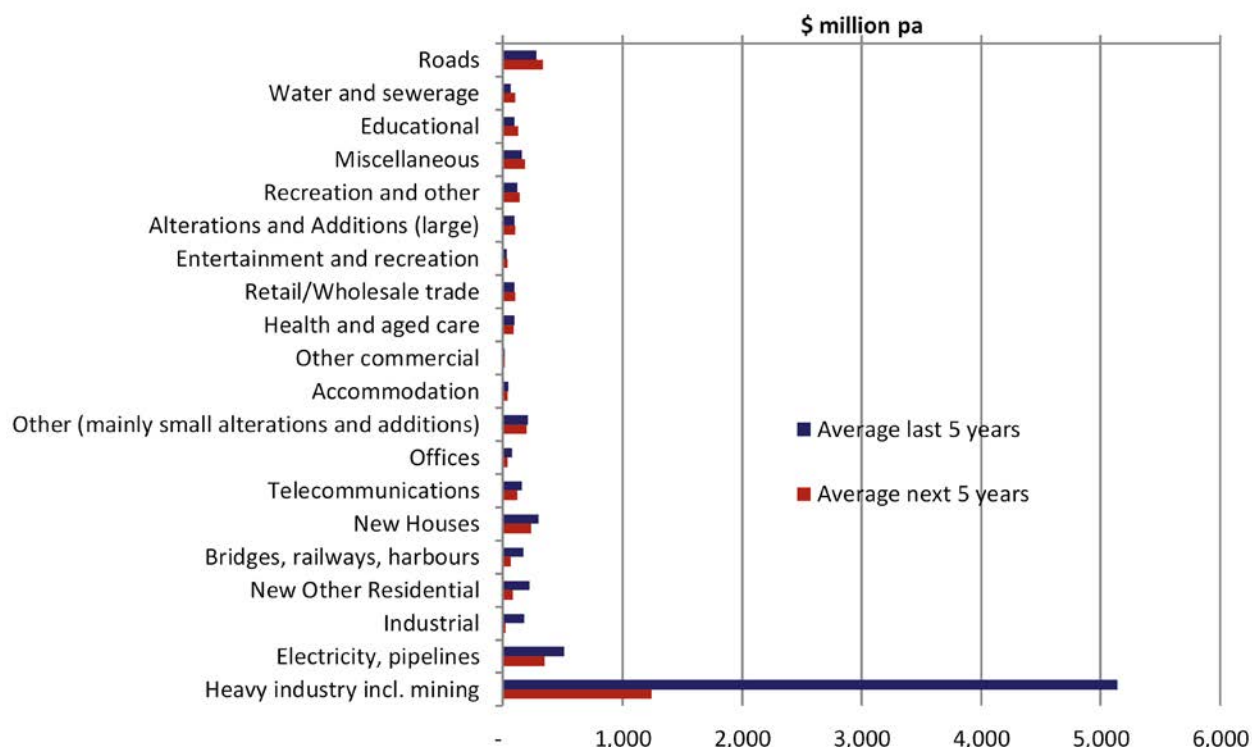
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	1,044	947	850	650	606	595	594	551	644	687
Non-Residential Building	1,174	761	745	699	597	590	698	687	658	652
Engineering Construction	6,109	8,263	6,394	5,764	5,710	2,390	2,441	2,375	2,110	2,447
<b>Total Construction</b>	<b>8,327</b>	<b>9,971</b>	<b>7,990</b>	<b>7,114</b>	<b>6,913</b>	<b>3,575</b>	<b>3,732</b>	<b>3,613</b>	<b>3,412</b>	<b>3,786</b>
	% change (YoY)					% change (YoY)				
Residential Building	43.5	-9.2	-10.2	-23.5	-6.8	-1.8	-0.2	-7.3	17.0	6.6
Non-Residential Building	5.2	-35.1	-2.1	-6.1	-14.6	-1.2	18.3	-1.5	-4.3	-0.8
Engineering Construction	-2.0	35.2	-22.6	-9.9	-0.9	-58.1	2.1	-2.7	-11.1	16.0
<b>Total Construction</b>	<b>3.1</b>	<b>19.7</b>	<b>-19.9</b>	<b>-11.0</b>	<b>-2.8</b>	<b>-48.3</b>	<b>4.4</b>	<b>-3.2</b>	<b>-5.5</b>	<b>10.9</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

# Northern Territory

## NT Changes in Building and Construction Activity



### NT Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

By far the biggest subsector is *Heavy Industry including Mining*, which is predicted to have the greatest decrease in the value of work done over the next five years as construction of the Ichthys project is wound up. This fall will also drag down other subsectors that were previously supporting the resource development activity in the territory such as *Electricity and Pipelines*, *Industrial* and *New Other Residential Building* which was expanded to house the workforce.

If you look closely, you can see that there are also expected 'winners' in the Northern Territory. Investment in infrastructure through construction of *Roads* and *Water and Sewerage* activity are at the head of the list of 'winning' sectors as they are expected to gain work over the next five years compared to the average of work done in the last five years. Expended public investment in *Education* buildings is another 'winner' at the top of the list.

# Northern Territory

## NT Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	305	325	351	271	220	200	221	199	265	282
New Other Residential	436	312	201	79	83	61	100	76	91	100
Alterations and Additions (Lrg)	74	84	90	109	114	111	92	99	102	105
Other (Alterations & Additions)	229	226	208	191	189	224	181	178	187	200
<b>Non-Residential Building</b>										
Accommodation	55	94	42	6	24	37	40	30	39	40
Education	101	73	109	105	77	125	140	129	122	131
Entertainment and Recreation	35	35	16	37	52	44	40	46	44	32
Health and Aged Care	68	48	104	162	88	59	96	101	98	102
Industrial	342	237	194	83	42	16	25	13	17	30
Miscellaneous	381	73	60	130	162	151	203	214	184	174
Offices	87	147	59	31	50	37	42	46	45	33
Other Commercial	48	9	4	4	9	28	8	8	8	7
Retail and Wholesale Trade	57	45	157	142	93	93	103	100	100	103
<b>Engineering Construction</b>										
Roads	210	266	274	292	342	309	318	322	344	368
Bridges, Railways and Harbours	697	32	19	45	52	72	60	61	59	54
Electricity and Pipelines	362	1,633	88	37	450	305	339	388	382	337
Water and Sewerage	55	64	79	39	88	98	97	106	114	97
Telecommunications	95	137	229	233	115	120	135	106	113	139
Heavy Industry inc. Mining	4,568	5,995	5,582	5,004	4,551	1,340	1,355	1,251	961	1,316
Recreation and Other	122	134	123	114	113	147	138	139	137	136
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	-0.9	6.6	8.0	-22.9	-18.7	-9.4	10.7	-10.1	33.1	6.5
New Other Residential	73.0	-28.5	-35.4	-60.7	4.6	-26.7	64.9	-24.2	20.2	9.7
Alterations and Additions (Lrg)	-6.2	13.6	7.2	21.4	4.6	-2.9	-17.3	7.4	3.4	3.0
Other (Alterations & Additions)	158.9	-1.2	-8.2	-8.1	-1.1	18.5	-19.1	-1.9	5.1	7.2
<b>Non-Residential Building</b>										
Accommodation	30.0	71.8	-55.0	-86.0	303.7	52.6	8.9	-24.8	29.9	2.7
Education	73.7	-27.8	49.7	-3.5	-26.7	62.1	12.6	-8.4	-5.0	7.5
Entertainment and Recreation	65.0	1.6	-54.1	125.6	43.2	-15.5	-9.3	14.7	-4.9	-27.3
Health and Aged Care	45.9	-29.0	116.2	55.6	-45.6	-32.8	62.7	5.2	-3.1	4.3
Industrial	-23.6	-30.8	-17.9	-57.3	-49.8	-60.9	55.7	-48.2	31.7	71.3
Miscellaneous	-8.7	-80.8	-18.6	118.2	24.5	-6.8	34.5	5.6	-13.9	-5.4
Offices	76.7	68.9	-60.2	-46.3	58.4	-25.7	12.9	11.2	-3.3	-26.9
Other Commercial	787.3	-81.5	-52.2	-14.1	152.7	203.0	-70.2	-5.9	0.6	-9.0
Retail and Wholesale Trade	104.6	-21.1	249.3	-9.4	-34.4	0.2	10.4	-2.9	0.3	2.5
<b>Engineering Construction</b>										
Roads	25.2	26.7	2.8	6.5	17.1	-9.5	2.8	1.5	6.7	6.9
Bridges, Railways and Harbours	-39.2	-95.4	-40.0	134.2	13.5	39.1	-16.5	2.1	-3.4	-8.5
Electricity and Pipelines	91.5	351.0	-94.6	-57.4	1,102.4	-32.3	11.3	14.3	-1.4	-11.8
Water and Sewerage	-55.0	16.6	22.7	-50.9	126.1	11.6	-0.9	9.6	6.9	-14.8
Telecommunications	82.7	44.5	66.3	1.8	-50.8	4.9	11.9	-20.9	6.2	22.9
Heavy Industry inc. Mining	24.7	31.2	-6.9	-10.4	-9.0	-70.6	1.1	-7.6	-23.2	37.0
Recreation and Other	-86.3	9.4	-7.7	-7.2	-1.1	29.7	-6.3	1.2	-1.3	-0.9

# Queensland

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State Final Demand grew by 2.9% during 2018. Growth is being driven by improved fundamentals reflected in a rebound in business investment as well as a recovery in coal exports following the pause caused by Cyclone Debbie. Economic growth is expected to be nudged higher overall in 2018-19, with growth in household consumption gaining momentum supported by moderate growth in employment (and reductions in unemployment) and with somewhat belated and gradual increases in incomes and wages.

Queensland's population grew by 1.7% over the year to September 2018 and is now estimated at over five million. Growth is projected to steady at around 1.8% over the next ten years.

Employment growth for the year to March 2019 was 1.8%, with the average unemployment rate at 6.1% over the same period.

Substantial investment in transport, health and education infrastructure, from both the public and private sectors, is planned and funded. Increases in construction work are already apparent.

A downturn in residential property markets in Queensland is also apparent. Residential property prices in Brisbane fell by 0.3% and dwelling approvals across the state were down 14.1% over the year to February 2019.



## QLD Building Activity Comparisons

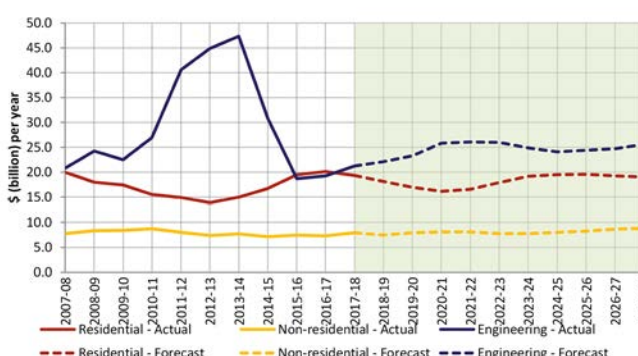
Total building and construction activity increased by 3.9% in 2017-18 to \$48.6 billion. Significant increases in *Non-Residential Building* and *Engineering Construction* activity were offset by a contraction in *Residential Building* activity.

The decline in *Residential Building* activity is forecast to deepen and carry over through to 2020-21. This contraction started with a 19.3% reduction in *New Other Residential* (apartments and townhouses) last year and it will extend to every other *Residential Building* subcategory in 2018-19 and 2019-20.

*Non-Residential Building* activity grew in 2017-18 after a small drop the year prior and is expected to fall again in 2018-19. All subsectors except *Education* activity are expected to fall in 2018-19 and then return to growth in 2019-20 barring *Retail and Wholesale Trade*.

Further strong growth in *Engineering Construction* activity is expected, mainly through continued investment in major infrastructure projects. The growth drivers will more than offset the declining activity in *Telecommunications*.

Total building and construction activity is forecast to decrease in 2018-19, before returning to growth in the medium term to reach \$51.7 billion in 2022-23.



## QLD Building and Construction Aggregates (\$ billion)

Source: ABS and ACIF CFC

## QLD Value of Work Done by Type (\$ million, 2016-17 prices)

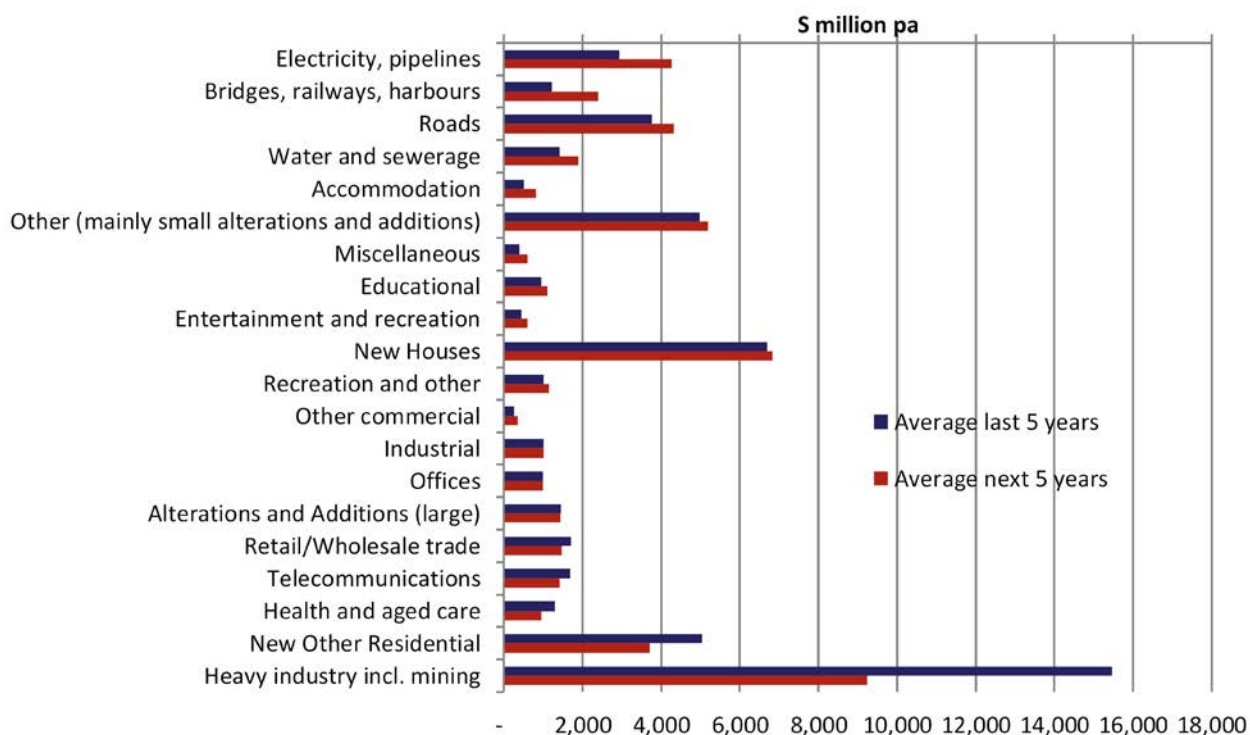
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	15,019	16,731	19,510	20,170	19,376	18,199	16,951	16,190	16,563	17,924
Non-Residential Building	7,708	7,129	7,454	7,330	7,933	7,462	7,918	8,081	8,129	7,792
Engineering Construction	47,336	30,926	18,710	19,251	21,284	22,105	23,345	25,832	26,114	26,029
<b>Total Construction</b>	<b>70,063</b>	<b>54,786</b>	<b>45,674</b>	<b>46,750</b>	<b>48,592</b>	<b>47,766</b>	<b>48,214</b>	<b>50,102</b>	<b>50,806</b>	<b>51,745</b>
	% change (YoY)					% change (YoY)				
Residential Building	8.0	11.4	16.6	3.4	-3.9	-6.1	-6.9	-4.5	2.3	8.2
Non-Residential Building	5.0	-7.5	4.6	-1.7	8.2	-5.9	6.1	2.1	0.6	-4.1
Engineering Construction	5.5	-34.7	-39.5	2.9	10.6	3.9	5.6	10.7	1.1	-0.3
<b>Total Construction</b>	<b>6.0</b>	<b>-21.8</b>	<b>-16.6</b>	<b>2.4</b>	<b>3.9</b>	<b>-1.7</b>	<b>0.9</b>	<b>3.9</b>	<b>1.4</b>	<b>1.8</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

# Queensland

## QLD Changes in Building and Construction Activity



### QLD Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

The biggest 'winners' over the next five years are in infrastructure construction, including *Electricity and Pipelines*, *Bridges, Railways and Harbours*, *Roads*, and *Water and Sewerage*.

*Heavy Industry including Mining* was by far the biggest subsector over the last five years and is predicted to be the largest 'loser,' contracting by almost the total size of the second biggest subsector, *New Houses*. Other 'losers' such as *New Other Residential* and *Telecommunications* are subject to declines that have already started.

## QLD Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	6,094	6,460	6,828	7,012	7,095	6,609	6,813	6,696	6,915	7,121
New Other Residential	3,305	4,324	6,007	6,376	5,147	4,504	3,884	3,184	3,065	3,876
Alterations and Additions (Lrg)	1,369	1,419	1,546	1,448	1,511	1,497	1,331	1,392	1,454	1,511
Other (Alterations & Additions)	4,251	4,528	5,129	5,334	5,623	5,589	4,923	4,917	5,129	5,416
<b>Non-Residential Building</b>										
Accommodation	257	318	450	546	909	777	818	838	878	778
Education	940	1,028	748	1,010	969	1,018	1,214	1,180	1,056	1,034
Entertainment and Recreation	244	208	607	522	625	524	632	635	633	569
Health and Aged Care	1,903	1,178	1,476	931	942	863	947	931	991	1,032
Industrial	1,251	891	816	1,133	971	903	978	1,053	1,036	1,076
Miscellaneous	392	305	303	384	542	529	555	631	638	618
Offices	891	1,102	1,041	854	1,079	966	1,025	1,030	1,051	841
Other Commercial	218	329	210	238	300	299	350	354	356	380
Retail and Wholesale Trade	1,612	1,770	1,802	1,711	1,595	1,585	1,400	1,430	1,489	1,465
<b>Engineering Construction</b>										
Roads	4,472	3,272	3,005	3,718	4,373	4,127	4,198	4,310	4,378	4,640
Bridges, Railways and Harbours	1,304	1,446	1,089	1,299	952	1,240	2,005	2,861	2,966	2,918
Electricity and Pipelines	4,783	2,711	1,829	1,762	3,593	3,845	4,492	4,901	4,399	3,686
Water and Sewerage	2,000	1,414	1,003	1,204	1,432	1,545	1,885	2,116	2,103	1,836
Telecommunications	1,338	1,249	1,546	2,215	2,035	1,770	1,348	1,162	1,277	1,471
Heavy Industry inc. Mining	32,489	19,705	9,048	8,165	7,978	8,567	8,229	9,309	9,825	10,321
Recreation and Other	949	1,129	1,189	889	921	1,012	1,189	1,173	1,167	1,156
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	0.7	6.0	5.7	2.7	1.2	-6.9	3.1	-1.7	3.3	3.0
New Other Residential	29.2	30.8	38.9	6.1	-19.3	-12.5	-13.8	-18.0	-3.7	26.5
Alterations and Additions (Lrg)	1.1	3.7	8.9	-6.3	4.4	-0.9	-11.1	4.6	4.4	3.9
Other (Alterations & Additions)	7.9	6.5	13.3	4.0	5.4	-0.6	-11.9	-0.1	4.3	5.6
<b>Non-Residential Building</b>										
Accommodation	1.4	23.8	41.6	21.5	66.4	-14.6	5.3	2.4	4.8	-11.4
Education	-9.4	9.3	-27.2	34.9	-4.1	5.1	19.2	-2.9	-10.4	-2.1
Entertainment and Recreation	-20.0	-14.7	191.6	-14.1	19.7	-16.2	20.7	0.6	-0.4	-10.1
Health and Aged Care	34.1	-38.1	25.4	-36.9	1.2	-8.5	9.7	-1.7	6.5	4.2
Industrial	4.7	-28.7	-8.4	38.9	-14.4	-7.0	8.3	7.7	-1.7	3.9
Miscellaneous	-19.2	-22.2	-0.5	26.7	40.9	-2.4	4.9	13.7	1.3	-3.2
Offices	-26.8	23.7	-5.6	-18.0	26.4	-10.5	6.1	0.4	2.1	-20.0
Other Commercial	-22.6	50.9	-36.1	13.2	26.4	-0.5	17.1	1.1	0.8	6.6
Retail and Wholesale Trade	40.2	9.8	1.8	-5.0	-6.8	-0.7	-11.7	2.1	4.1	-1.6
<b>Engineering Construction</b>										
Roads	-15.0	-26.8	-8.1	23.7	17.6	-5.6	1.7	2.7	1.6	6.0
Bridges, Railways and Harbours	-16.7	10.9	-24.7	19.2	-26.7	30.2	61.7	42.7	3.7	-1.6
Electricity and Pipelines	-5.4	-43.3	-32.5	-3.7	103.9	7.0	16.8	9.1	-10.2	-16.2
Water and Sewerage	-19.8	-29.3	-29.1	20.0	19.0	7.9	22.0	12.3	-0.6	-12.7
Telecommunications	16.8	-6.6	23.8	43.2	-8.1	-13.1	-23.8	-13.7	9.8	15.2
Heavy Industry inc. Mining	14.0	-39.3	-54.1	-9.8	-2.3	7.4	-3.9	13.1	5.5	5.0
Recreation and Other	11.6	18.9	5.3	-25.2	3.6	9.9	17.5	-1.3	-0.6	-0.9

# South Australia

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State Final Demand grew by 2.62% in 2018, maintaining an improvement over previous years of low or no growth. Employment growth has been lower than the national rate at 1.5% for the year to March 2019, whilst the unemployment rate has continued to decrease, averaging 5.7% over the same period. Declines in production and employment in manufacturing have been offset by growth in services especially in health care and education.

Population growth for the year to September 2018 was 0.8%, continuing the trend of low growth over the last decade.

Dwelling approvals were down 3.4% the year to February 2019, whilst residential property prices for Adelaide increased by 1.5% in 2018.

# South Australia

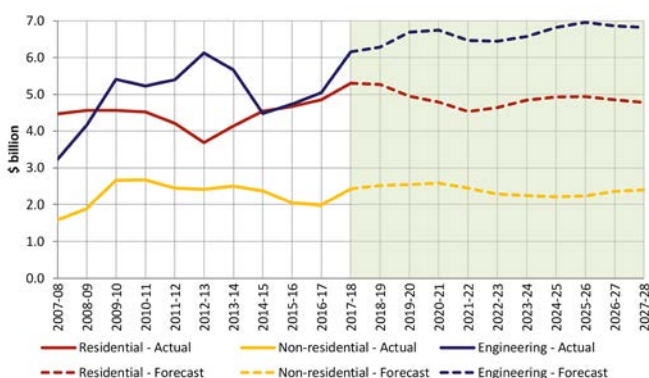
## SA Building Activity Comparisons

Total building and construction activity experienced substantial growth of 16.9% in 2017-18, with high growth in all three sectors.

Increases in all four subsectors led to growth in *Residential Building* activity of 9.2% in 2017-18. A contraction is forecast for the medium term, as the effects of the cyclical downturn are felt.

Both *Non-Residential Building* and *Engineering Construction* activity grew by over 20% in 2017-18 and are forecast to continue rising until at least 2020-21. Last year's growth was led by expansion in all subsectors except for *Health and Aged Care* and *Telecommunications*.

Total building and construction activity is projected to grow by around 1% in each of the next two years. The sustained downturn in *Residential Building* is expected to drag total building and construction work to be done into a decline in the medium term.



## SA Building and Construction Aggregates

(\$ billion)

Source: ABS and ACIF CFC

## SA Value of Work Done by Type (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	4,139	4,547	4,675	4,857	5,305	5,269	4,947	4,791	4,533	4,634
Non-Residential Building	2,497	2,374	2,036	1,981	2,427	2,516	2,543	2,583	2,440	2,282
Engineering Construction	5,664	4,478	4,731	5,048	6,161	6,290	6,696	6,749	6,473	6,448
<b>Total Construction</b>	<b>12,300</b>	<b>11,398</b>	<b>11,442</b>	<b>11,886</b>	<b>13,893</b>	<b>14,075</b>	<b>14,187</b>	<b>14,124</b>	<b>13,446</b>	<b>13,364</b>
	% change (YoY)					% change (YoY)				
Residential Building	12.3	9.9	2.8	3.9	9.2	-0.7	-6.1	-3.1	-5.4	2.2
Non-Residential Building	3.4	-4.9	-14.2	-2.7	22.5	3.7	1.1	1.6	-5.5	-6.5
Engineering Construction	-7.6	-20.9	5.7	6.7	22.0	2.1	6.5	0.8	-4.1	-0.4
<b>Total Construction</b>	<b>0.6</b>	<b>-7.3</b>	<b>0.4</b>	<b>3.9</b>	<b>16.9</b>	<b>1.3</b>	<b>0.8</b>	<b>-0.4</b>	<b>-4.8</b>	<b>-0.6</b>

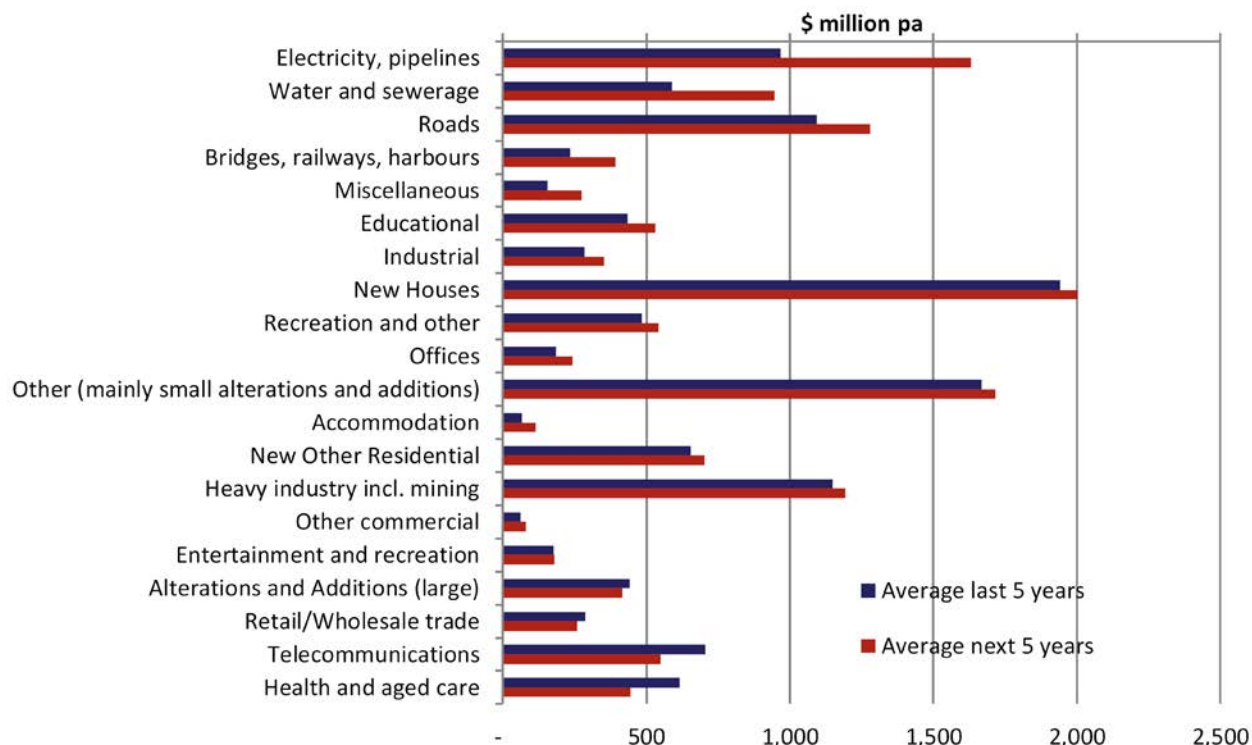
Note: "YoY" = year-on-year

Source: ABS and ACIF CFC



# South Australia

## SA Changes in Building and Construction Activity



### SA Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

The big 'winners' in South Australia over the next five years are *Electricity and Pipelines*, *Water and Sewerage*, *Roads*, and *Bridges, Railways, and Harbours*. These categories represent significant investment in infrastructure construction over the coming five years.

*Residential Building* categories such as *New Other* (mainly small alterations and additions) and *New Houses* appear in the middle sections of the list of winners despite an expected cyclical downturn, because growth is projected to resume from around the middle of the next five years. Some of this growth could be in major projects such as the Port Adelaide Rejuvenation project or the Eden Village Township Expansion.

There are only four 'losers' in the coming five-year period, including *Health and Aged Care*, *Telecommunications*, *Retail and Wholesale Trade*, and *Alterations and Additions*. *Health and Aged Care* is on the list of 'losers', reflecting the point that the completion of the Royal Adelaide Hospital and UniSA Centre for Cancer Biology held more value than projects currently in the pipeline. These include projects such as the New Children's Hospital stage 2, and the new Adelaide Women's Hospital.

# South Australia

## SA Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	1,766	2,001	1,883	1,957	2,095	2,087	2,053	1,970	1,921	1,973
New Other Residential	504	594	633	657	884	964	847	752	467	472
Alterations and Additions (Lrg)	442	450	440	437	440	430	392	413	427	421
Other (Alterations & Additions)	1,428	1,502	1,720	1,806	1,886	1,787	1,656	1,656	1,717	1,768
<b>Non-Residential Building</b>										
Accommodation	74	38	36	66	116	135	134	132	98	65
Education	518	297	428	424	509	516	598	549	508	484
Entertainment and Recreation	286	134	139	127	192	215	183	181	181	134
Health and Aged Care	668	926	571	545	366	376	432	452	472	493
Industrial	239	300	271	250	360	408	335	353	332	334
Miscellaneous	100	139	95	145	292	228	246	294	308	295
Offices	232	214	144	105	232	257	293	293	209	157
Other Commercial	59	55	37	70	78	83	84	82	74	71
Retail and Wholesale Trade	321	272	315	250	282	298	238	247	259	250
<b>Engineering Construction</b>										
Roads	1,124	1,001	882	1,128	1,326	1,142	1,212	1,264	1,357	1,421
Bridges, Railways and Harbours	403	92	96	186	392	311	406	415	371	454
Electricity and Pipelines	906	640	800	1,040	1,449	1,718	1,896	1,851	1,425	1,266
Water and Sewerage	664	396	647	542	691	866	958	1,001	1,012	891
Telecommunications	499	661	794	858	705	677	541	449	495	585
Heavy Industry inc. Mining	1,355	1,256	1,135	873	1,126	1,106	1,127	1,194	1,250	1,287
Recreation and Other	713	431	376	421	472	470	558	575	564	544
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	12.5	13.3	-5.9	3.9	7.1	-0.4	-1.7	-4.0	-2.5	2.7
New Other Residential	38.6	17.9	6.5	3.8	34.6	9.1	-12.2	-11.1	-37.9	0.9
Alterations and Additions (Lrg)	8.2	1.9	-2.3	-0.6	0.6	-2.3	-8.8	5.3	3.6	-1.5
Other (Alterations & Additions)	6.2	5.2	14.5	5.0	4.4	-5.2	-7.4	0.0	3.7	3.0
<b>Non-Residential Building</b>										
Accommodation	48.0	-48.9	-4.7	82.5	76.0	16.4	-0.6	-1.1	-25.6	-34.4
Education	13.3	-42.8	44.2	-1.0	20.2	1.4	15.8	-8.1	-7.4	-4.8
Entertainment and Recreation	-4.4	-53.2	4.0	-9.0	51.2	12.4	-15.0	-1.4	-0.0	-25.8
Health and Aged Care	22.3	38.6	-38.3	-4.6	-32.9	2.8	14.8	4.6	4.4	4.4
Industrial	5.4	25.2	-9.4	-8.0	44.3	13.3	-17.8	5.3	-6.1	0.7
Miscellaneous	-40.9	39.3	-31.6	52.5	101.1	-22.0	7.9	19.6	4.9	-4.3
Offices	-11.7	-7.7	-33.0	-27.0	121.7	10.5	14.1	0.1	-28.9	-24.8
Other Commercial	-37.8	-6.8	-33.0	90.6	12.1	6.4	1.0	-2.7	-9.5	-3.5
Retail and Wholesale Trade	3.6	-15.3	16.0	-20.6	12.7	5.6	-20.0	3.6	4.8	-3.3
<b>Engineering Construction</b>										
Roads	-13.2	-10.9	-11.9	27.8	17.6	-13.9	6.1	4.3	7.4	4.8
Bridges, Railways and Harbours	-54.3	-77.3	5.4	93.2	110.3	-20.7	30.5	2.4	-10.8	22.6
Electricity and Pipelines	-19.7	-29.3	24.9	30.1	39.4	18.5	10.3	-2.4	-23.0	-11.1
Water and Sewerage	-17.9	-40.3	63.3	-16.3	27.5	25.4	10.6	4.5	1.0	-12.0
Telecommunications	52.5	32.4	20.1	8.0	-17.9	-3.9	-20.1	-17.1	10.2	18.2
Heavy Industry inc. Mining	36.9	-7.3	-9.6	-23.1	29.0	-1.8	1.9	6.0	4.7	2.9
Recreation and Other	1.7	-39.5	-12.9	12.1	12.0	-0.5	18.8	3.2	-1.9	-3.7

# Tasmania

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Tasmania's economy has continued to perform well, with State Final Demand increasing by 5.0% in 2018. Key drivers of growth have been moderate increases in household consumption, business investment and significant increases in public consumption and investment.

Above trend population growth of 1.1% for the year to September 2018 has supported recent growth in demand. The labour market has cooled, with employment for the year to March 2019 falling by 0.4%, with unemployment averaging 6.2% over the same period.

Residential property prices for Hobart increased by 9.6% in 2018, and dwelling approvals for Tasmania were up 14.2% over the year to February 2019.

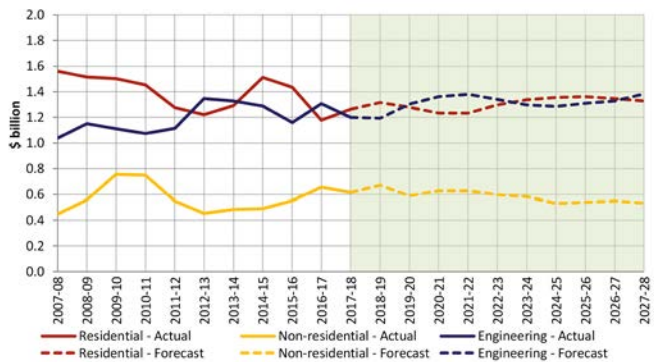
## TAS Building Activity Comparisons

Tasmanian building and construction activity fell by 2.0% in 2017-18, as *Non-Residential Building* and *Engineering Construction* activity both experienced a decline.

*Residential Building* activity returned to growth in 2017-18 after two years of contraction and is expected to rise again in 2018-19. Factors such as an Australia-wide reduction in the availability of credit are expected to drive a dip in activity in 2019-20, but this will be relatively modest given signs of strength in underlying demand in Tasmania.

The value of *Non-Residential Building* activity fell by 6.1% in 2017-18, where falls in *Accommodation, Education*, and *Other Commercial* activity were offset by growth in all other subsectors. Growth is predicted to return to all subsectors except *Entertainment and Recreation*, and *Other Commercial* in 2018-19 which may result in an expansion of 9.3%.

*Engineering Construction* is expected to fall again in 2018-19, driven by a significant fall in *Water and Sewerage* activity. Significant activity in *Bridges, Railways and Harbours*, and *Heavy Industry including Mining* is predicted to lead *Engineering Construction* to growth in 2019-20.



## TAS Building and Construction Aggregates (\$ billion)

Source: ABS and ACIF CFC

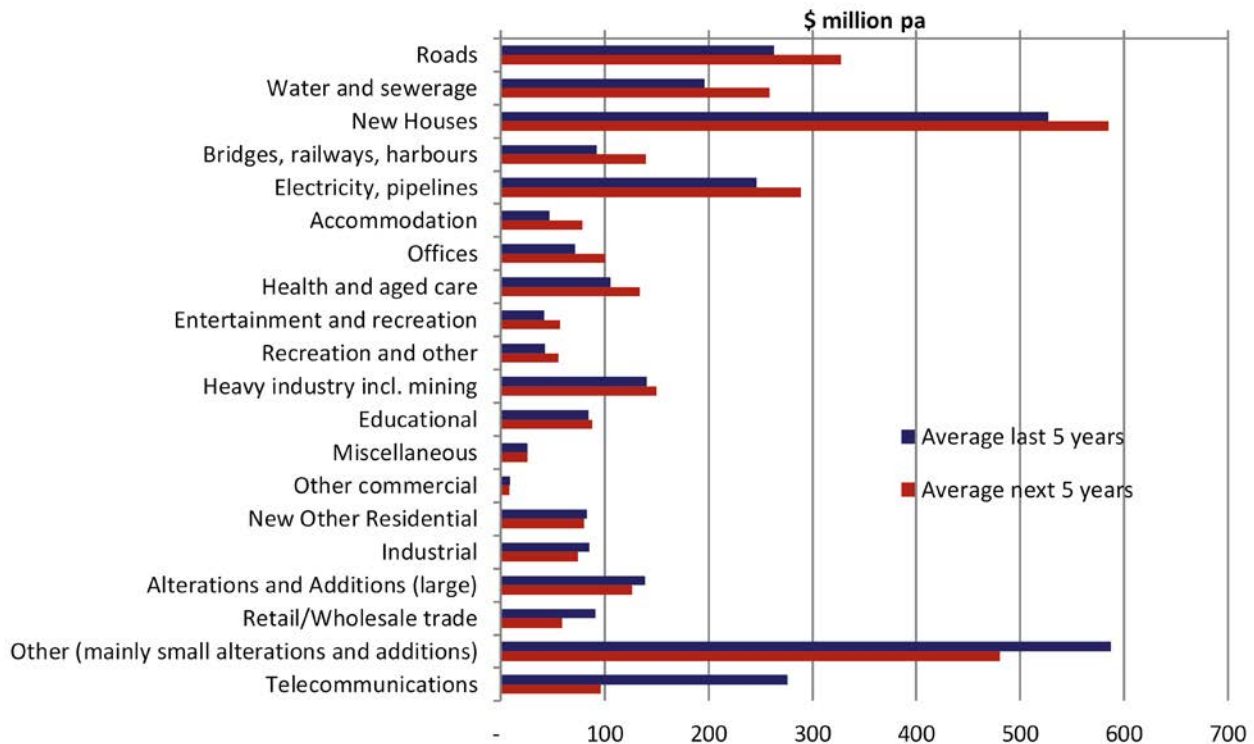
## TAS Value of Work Done by Type (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	1,291	1,511	1,435	1,180	1,263	1,315	1,278	1,234	1,232	1,299
Non-Residential Building	483	491	551	655	615	671	589	628	627	598
Engineering Construction	1,327	1,289	1,161	1,305	1,200	1,194	1,304	1,363	1,379	1,339
<b>Total Construction</b>	<b>3,102</b>	<b>3,291</b>	<b>3,146</b>	<b>3,140</b>	<b>3,078</b>	<b>3,180</b>	<b>3,171</b>	<b>3,225</b>	<b>3,239</b>	<b>3,236</b>
	% change (YoY)					% change (YoY)				
Residential Building	5.7	17.0	-5.0	-17.8	7.0	4.1	-2.8	-3.5	-0.1	5.4
Non-Residential Building	6.9	1.6	12.2	18.9	-6.1	9.1	-12.2	6.7	-0.2	-4.6
Engineering Construction	-1.5	-2.9	-10.0	12.5	-8.1	-0.5	9.1	4.5	1.2	-2.9
<b>Total Construction</b>	<b>2.7</b>	<b>6.1</b>	<b>-4.4</b>	<b>-0.2</b>	<b>-2.0</b>	<b>3.3</b>	<b>-0.3</b>	<b>1.7</b>	<b>0.4</b>	<b>-0.1</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

## TAS Changes in Building and Construction Activity



### TAS Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

Infrastructure construction predominates in the list of the winners over the next five years in Tasmania, including *Roads*, *Water and Sewerage*, and *Bridges, Railways and Pipelines*. *New Houses* is a 'winner' that is expected to hold up well despite the national downturn in *Residential Building* activity.

The sectors that are expected to see the largest losses in the value of work to be done are *Retail and Wholesale Trade*, *Other* (mainly small alterations and additions) and *Telecommunications* (reflecting completion of the NBN).



## TAS Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	421	581	581	491	560	638	619	581	535	552
New Other Residential	61	86	85	68	115	78	89	96	68	68
Alterations and Additions (Lrg)	153	141	141	131	126	127	119	123	128	134
Other (Alterations & Additions)	656	703	628	489	462	472	451	434	501	544
<b>Non-Residential Building</b>										
Accommodation	9	18	43	104	59	74	66	76	86	92
Education	66	76	84	133	64	76	94	100	78	90
Entertainment and Recreation	29	28	34	43	74	69	56	59	56	42
Health and Aged Care	66	42	90	154	173	192	103	122	126	124
Industrial	96	119	89	57	63	69	74	71	76	81
Miscellaneous	54	27	11	13	22	22	23	28	29	25
Offices	43	58	81	81	93	96	110	110	108	76
Other Commercial	14	8	8	9	6	5	10	9	8	8
Retail and Wholesale Trade	106	114	111	61	62	69	53	51	59	60
<b>Engineering Construction</b>										
Roads	226	293	231	290	273	289	309	324	346	370
Bridges, Railways and Harbours	98	81	71	130	84	95	154	168	156	125
Electricity and Pipelines	319	243	217	215	238	288	307	324	272	256
Water and Sewerage	158	188	162	159	313	226	241	277	307	241
Telecommunications	324	266	323	365	101	99	98	66	84	134
Heavy Industry inc. Mining	163	165	128	116	130	123	148	153	161	164
Recreation and Other	40	53	29	30	62	75	47	52	54	50
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	-7.6	37.9	-0.0	-15.4	14.1	13.9	-3.0	-6.2	-7.8	3.1
New Other Residential	-16.5	42.2	-1.0	-19.9	68.4	-32.4	14.5	8.2	-29.0	-0.1
Alterations and Additions (Lrg)	-1.2	-8.3	0.3	-7.0	-4.2	0.7	-6.2	3.5	3.9	5.2
Other (Alterations & Additions)	22.1	7.2	-10.7	-22.1	-5.6	2.3	-4.5	-3.8	15.5	8.6
<b>Non-Residential Building</b>										
Accommodation	-25.2	108.6	138.5	142.5	-42.7	24.4	-10.0	14.4	13.1	6.8
Education	-28.9	16.0	10.8	57.9	-52.0	18.8	23.7	6.8	-21.9	14.6
Entertainment and Recreation	-14.3	-2.9	18.0	28.0	71.4	-6.5	-19.0	6.4	-5.1	-24.6
Health and Aged Care	60.8	-37.3	116.6	71.2	12.0	10.9	-46.2	18.5	3.4	-1.8
Industrial	-0.4	23.8	-25.7	-35.9	11.4	8.4	7.7	-3.3	5.8	6.6
Miscellaneous	111.2	-49.3	-61.5	20.7	69.6	1.6	3.0	26.2	1.5	-13.8
Offices	-12.2	34.0	39.7	-0.6	14.4	3.1	15.0	0.3	-1.7	-30.1
Other Commercial	-20.9	-39.4	-3.1	15.3	-39.8	-10.5	100.4	-13.5	-7.3	3.7
Retail and Wholesale Trade	26.3	7.2	-2.1	-45.1	1.3	11.8	-23.5	-3.0	15.0	2.2
<b>Engineering Construction</b>										
Roads	20.9	29.9	-21.2	25.6	-5.9	5.9	6.6	5.0	6.8	7.0
Bridges, Railways and Harbours	26.5	-17.5	-12.3	84.2	-35.6	13.6	61.7	9.0	-6.8	-19.8
Electricity and Pipelines	-25.8	-23.8	-10.9	-0.7	10.7	21.1	6.4	5.5	-15.9	-6.1
Water and Sewerage	-28.3	18.7	-13.6	-1.8	96.3	-27.7	6.9	14.8	10.7	-21.5
Telecommunications	15.2	-18.0	21.7	12.9	-72.2	-2.7	-0.3	-33.3	27.8	60.4
Heavy Industry inc. Mining	83.2	1.5	-22.4	-9.3	11.4	-5.5	20.9	3.4	5.1	1.7
Recreation and Other	-36.5	33.8	-46.2	3.0	108.8	20.9	-37.3	11.6	2.9	-7.5

The Victorian economy continues to perform well. State Final Demand grew 5.2% over the year to December 2018, maintaining its position well above the national average of 2.5%. Victoria's economic growth is being driven by business investment, household consumption and public demand.

Over the year to the September 2018 quarter, the population grew by 2.2%. This was driven by net overseas migration, adding 84,800 persons over the year and accounting for 35.3% of national net overseas migration.

Victoria's employment growth of 4.1% the year to March 2019 is well above population growth, and the unemployment rate of 4.8% is below trend.

Dwelling approvals were down 9.2% the year to February 2019. Housing market continues to soften, with the residential property prices falling by 6.4% in 2018. The weakness in Victoria's housing market is weighing on consumer and home buying sentiment, despite the strong labour market conditions.

Public investment is expected to continue to contribute to growth in the economy, with government infrastructure investment forecast to average \$10.1 billion a year over the period to 2021-22. The raft of major infrastructure projects and other public investment activities has been dubbed "Victoria's Big Build" and it includes major projects such as the Suburban Roads Upgrade, the Monash Freeway Upgrade – Stage 2, and completion of projects already underway such as the Metro Tunnel, West Gate Tunnel Project and Level Crossing Removal Program.

Business investment is forecast to grow modestly over the forward estimates. Non-residential construction is expected to contribute to growth, underpinned by solid demand and low capital costs.

"Victoria's Big Build" relies on a large, highly skilled workforce with expertise in all aspects of building and construction to ensure that projects are delivered on time and on cost. Increased demands on the building and construction workforce is coming at a time when other states – particularly New South Wales and Queensland – are also making significant investment in infrastructure and will be competing with Victoria for skilled workers.

There is a significant downside risk that the significant expansion in infrastructure and other building projects in Victoria, without measures to increase the supply of skilled workers, will encounter bottlenecks and suffer delays and unexpected cost increases.

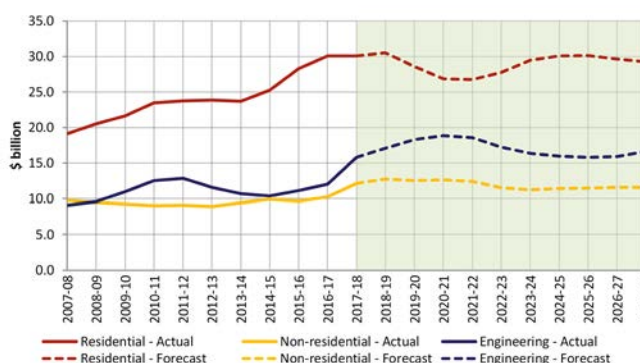
## VIC Building Activity Comparisons

Victorian building and construction activity grew by 10.9% in 2017-18 to \$58.1 billion. Growth was driven by a surge in *Engineering Construction* of 31.4% supported by an 18.5% increase in *Non-Residential Building*. *Residential Building* appeared to peak in 2017-18 achieving modest growth of 0.2%, after being the main source of growth in Victorian building and construction activity over the previous four years.

The combination of tightened controls over foreign investors, credit constraints, and the tapering off of the rush of immigration into Melbourne have halted growth in *Residential Building* activity. *Residential Building* activity is expected to hover at elevated levels over the remainder of this year. Steep falls are expected in the following two-to-three years, driven by significant drops in work done in *New Other Residential* (apartments and townhouses) activity.

*Non-Residential Building* activity is expected to grow in 2018-19 by 5.0%, led by expansions in *Miscellaneous* (includes defence) and *Offices*.

*Engineering Construction* growth will continue to record strong growth of between 7-8% over the next two years. Growth will occur across all subsectors except for *Telecommunications* (where the rollout of the NBN is tapering off) and in *Recreation and Other*.



## VIC Building and Construction Aggregates (\$ billion)

Source: ABS and ACIF CFC

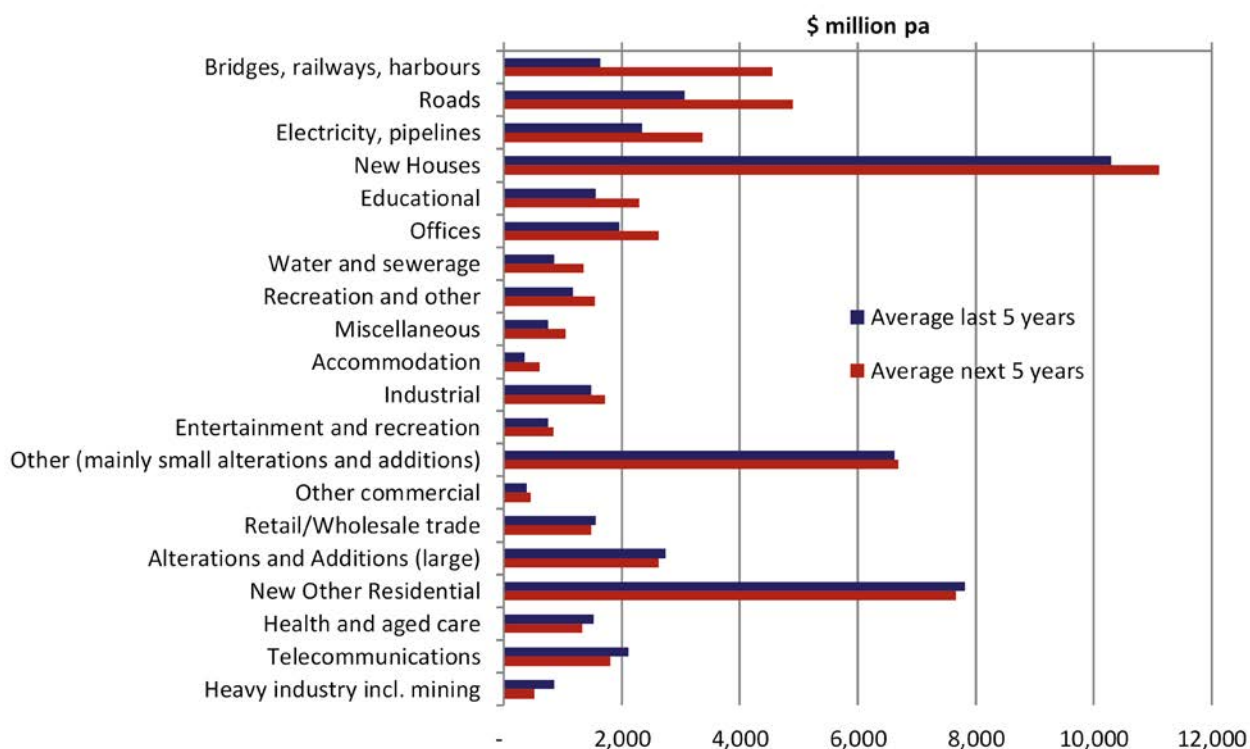
## VIC Value of Work Done by Type (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	23,676	25,257	28,325	30,064	30,092	30,502	28,583	26,880	26,728	27,758
Non-Residential Building	9,429	9,950	9,669	10,277	12,174	12,769	12,546	12,651	12,449	11,522
Engineering Construction	10,720	10,390	11,152	12,026	15,802	17,112	18,331	18,853	18,587	17,273
<b>Total Construction</b>	<b>43,824</b>	<b>45,597</b>	<b>49,146</b>	<b>52,367</b>	<b>58,068</b>	<b>60,383</b>	<b>59,461</b>	<b>58,384</b>	<b>57,764</b>	<b>56,553</b>
	% change (YoY)					% change (YoY)				
Residential Building	-0.8	6.7	12.1	6.1	0.1	1.4	-6.3	-6.0	-0.6	3.9
Non-Residential Building	5.3	5.5	-2.8	6.3	18.5	4.9	-1.7	0.8	-1.6	-7.4
Engineering Construction	-7.8	-3.1	7.3	7.8	31.4	8.3	7.1	2.8	-1.4	-7.1
<b>Total Construction</b>	<b>-1.4</b>	<b>4.0</b>	<b>7.8</b>	<b>6.6</b>	<b>10.9</b>	<b>4.0</b>	<b>-1.5</b>	<b>-1.8</b>	<b>-1.1</b>	<b>-2.1</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

## VIC Changes in Building and Construction Activity



### VIC Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

Infrastructure categories *Bridges, Railways and Harbours*, *Roads*, and *Electricity and Pipelines* are the biggest 'winners' over the next five years in Victoria. *Bridges, Railways and Harbours* is expected to see the largest gain in activity in the next five years reflecting the high priority given to investment in rail transport projects such as the ongoing Melbourne Metro and the very large scale of the recently announced Melbourne Metro 2 project. Construction of *Roads* is also a major winner reflecting continued work on Western Distributor and the high priority expected to be given to projects such as the M80 Ring Road upgrade.

*New Houses* are fourth on the list of 'winners' because the projected cyclical downturn in *Residential Building* activity is not expected to bite deeply into work in this subcategory and it will sustain some growth over most of the next five years.

There a number of 'losers' in the forecasts for Victoria, but their losses are relatively small compared to the 'winners'.

## VIC Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	8,816	9,614	10,706	11,052	11,333	11,533	11,166	10,670	10,924	11,230
New Other Residential	5,935	6,763	8,310	8,754	9,317	9,405	8,300	7,263	6,596	6,767
Alterations and Additions (Lrg)	2,769	2,666	2,685	2,937	2,666	2,639	2,460	2,597	2,668	2,790
Other (Alterations & Additions)	6,156	6,214	6,624	7,321	6,775	6,924	6,658	6,350	6,539	6,972
<b>Non-Residential Building</b>										
Accommodation	173	193	225	429	708	756	577	610	586	501
Education	1,257	1,251	1,287	1,701	2,266	2,334	2,398	2,423	2,223	2,077
Entertainment and Recreation	809	645	408	885	979	848	848	925	875	707
Health and Aged Care	1,449	1,936	1,613	1,173	1,413	1,300	1,208	1,284	1,442	1,419
Industrial	889	1,535	1,579	1,663	1,716	1,643	1,712	1,703	1,718	1,810
Miscellaneous	900	742	704	750	658	988	1,103	1,074	1,051	1,021
Offices	1,947	1,779	1,935	1,639	2,505	2,930	2,800	2,725	2,598	2,067
Other Commercial	482	467	302	211	483	558	448	415	423	403
Retail and Wholesale Trade	1,525	1,404	1,615	1,827	1,445	1,412	1,454	1,492	1,532	1,518
<b>Engineering Construction</b>										
Roads	1,934	2,948	2,857	3,270	4,304	4,407	4,969	5,100	5,351	4,655
Bridges, Railways and Harbours	1,612	956	1,211	1,460	2,921	3,483	4,888	5,074	4,886	4,450
Electricity and Pipelines	2,597	2,054	2,356	2,042	2,662	3,645	3,524	3,643	3,117	2,952
Water and Sewerage	918	711	729	725	1,167	1,167	1,303	1,475	1,518	1,298
Telecommunications	1,715	1,712	1,918	2,525	2,696	2,483	1,646	1,427	1,608	1,824
Heavy Industry inc. Mining	876	1,102	1,022	793	447	452	484	512	515	592
Recreation and Other	1,069	906	1,060	1,211	1,605	1,476	1,516	1,623	1,592	1,502
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	-6.0	9.0	11.4	3.2	2.5	1.8	-3.2	-4.4	2.4	2.8
New Other Residential	2.2	14.0	22.9	5.3	6.4	0.9	-11.8	-12.5	-9.2	2.6
Alterations and Additions (Lrg)	3.2	-3.7	0.7	9.4	-9.2	-1.0	-6.8	5.6	2.7	4.6
Other (Alterations & Additions)	2.6	0.9	6.6	10.5	-7.5	2.2	-3.8	-4.6	3.0	6.6
<b>Non-Residential Building</b>										
Accommodation	-25.8	11.7	16.7	90.7	65.2	6.7	-23.6	5.7	-3.9	-14.6
Education	1.2	-0.4	2.9	32.1	33.2	3.0	2.7	1.1	-8.3	-6.6
Entertainment and Recreation	16.8	-20.3	-36.7	116.7	10.7	-13.4	-0.1	9.1	-5.4	-19.2
Health and Aged Care	32.4	33.6	-16.7	-27.3	20.4	-8.0	-7.1	6.3	12.3	-1.6
Industrial	-20.4	72.8	2.9	5.3	3.2	-4.2	4.2	-0.5	0.9	5.3
Miscellaneous	91.9	-17.5	-5.1	6.5	-12.2	50.1	11.6	-2.6	-2.1	-2.9
Offices	-4.2	-8.6	8.8	-15.3	52.9	16.9	-4.4	-2.7	-4.7	-20.4
Other Commercial	76.6	-3.3	-35.2	-30.3	129.2	15.5	-19.8	-7.3	1.8	-4.8
Retail and Wholesale Trade	-15.3	-7.9	15.1	13.1	-20.9	-2.3	3.0	2.6	2.7	-0.9
<b>Engineering Construction</b>										
Roads	-29.6	52.5	-3.1	14.5	31.6	2.4	12.7	2.6	4.9	-13.0
Bridges, Railways and Harbours	11.6	-40.7	26.7	20.6	100.1	19.2	40.3	3.8	-3.7	-8.9
Electricity and Pipelines	-13.0	-20.9	14.7	-13.3	30.4	37.0	-3.3	3.4	-14.4	-5.3
Water and Sewerage	-10.9	-22.5	2.6	-0.5	60.9	-0.0	11.7	13.2	2.9	-14.5
Telecommunications	14.7	-0.2	12.0	31.6	6.8	-7.9	-33.7	-13.3	12.7	13.4
Heavy Industry inc. Mining	-23.7	25.9	-7.3	-22.4	-43.7	1.1	7.3	5.7	0.7	14.9
Recreation and Other	37.0	-15.3	17.0	14.2	32.6	-8.0	2.7	7.0	-1.9	-5.7



# Western Australia

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The GSP of Western Australia grew by 1.9% in real terms in 2017-18, after six years of declining growth due to the end of the construction phase of the resources boom. The return to growth is sponsored by an expansion in export volumes following the entry into the production phase of many large resource development projects.

The Western Australia Government's Mid-year Financial Projections forecast real GSP growth of 3.0% in 2018-19, with the domestic economy, primarily household consumption, expected to take over from exports as the major driver of growth from 2019-20.

Total employment rose 0.02% through the year to March 2019, whilst the unemployment rate averaged at 6.2% over the same period. Recent improvements in employment growth have been driven by a diverse range of industries, many of which are in the non-resource sector of the economy (and most of which are the services sector such as in tourism, education, health care).

The number of dwelling approvals fell by 15.6% over the year to February 2019, continuing the response to weakening demand and evidence of spare capacity in the housing market. Residential property prices in Perth fell by 2.5% in 2018.

Population growth for the year to September 2018 was 0.9% and is forecast to rise to 1.2% in 2018-19. The net decline from interstate migration is expected to taper off and natural increase is expected to be the primary driver of growth into the medium term.

# Western Australia

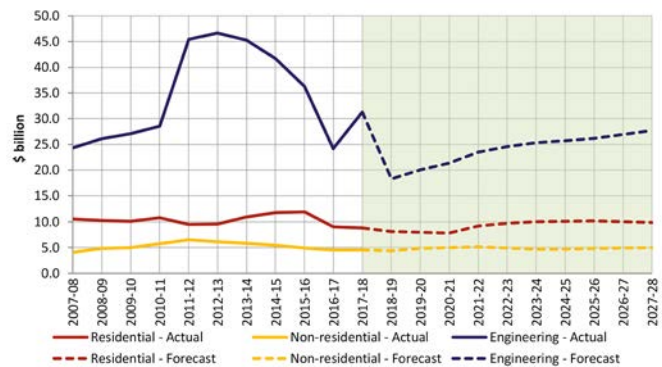
## WA Building Activity Comparisons

Total building and construction activity in Western Australia grew by 18.0% to \$44.6 billion in 2017-18. A spike in growth in *Engineering Construction* was offset by slight falls in *Residential Building* and *Non-Residential Building* activity.

*Engineering Construction* is forecast to return to underlying levels after the one-off spike drops away. The drop in *Heavy Industry including Mining* will subtract \$12.9 billion from activity this year. There has been renewed interest in *Heavy Industry including Mining* projects with significant numbers of new projects are being added to the Major Projects Database. This points to a return to growth in the medium term.

*Residential Building* activity is forecast to contract for the next three years as the effects of the cyclical downturn are felt. *Residential Building* activity will eventually recover and grow, given the recovery in population growth and reasonable growth in employment.

*Non-Residential Building* activity is expected to continue falling in 2018-19, before recovering in the medium term. Overall building and construction activity is forecast to fall by 31.1% in 2018-19, but it will return to growth over the medium term.



## WA Building and Construction Aggregates (\$ billion)

Source: ABS and ACIF CFC

## WA Value of Work Done by Type (\$ million, 2016-17 prices)

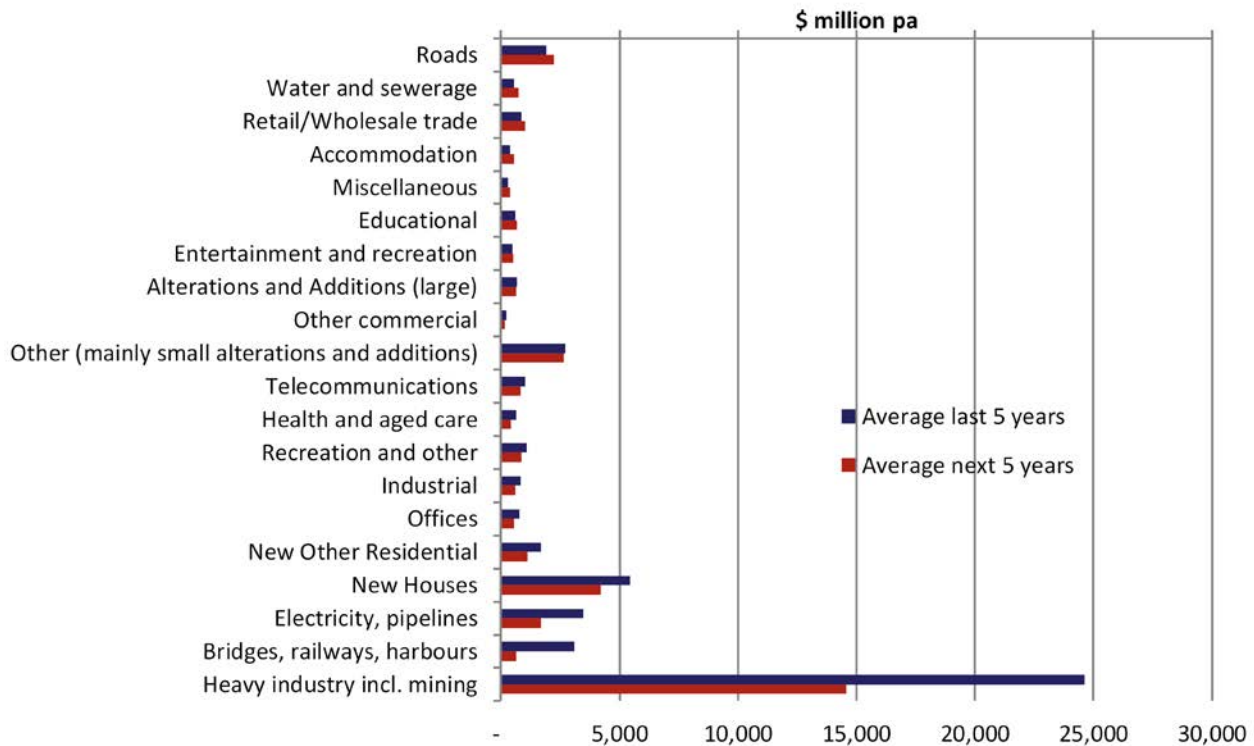
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual (\$ million)					Forecast (\$ million)				
Residential Building	10,975	11,792	11,928	9,060	8,830	8,157	8,004	7,850	9,191	9,706
Non-Residential Building	5,813	5,456	4,898	4,552	4,542	4,375	4,821	5,028	5,152	4,891
Engineering Construction	45,261	41,714	36,244	24,218	31,277	18,288	20,049	21,356	23,462	24,579
<b>Total Construction</b>	<b>62,049</b>	<b>58,962</b>	<b>53,070</b>	<b>37,830</b>	<b>44,648</b>	<b>30,821</b>	<b>32,874</b>	<b>34,234</b>	<b>37,805</b>	<b>39,176</b>
	% change (YoY)					% change (YoY)				
Residential Building	14.9	7.4	1.2	-24.0	-2.5	-7.6	-1.9	-1.9	17.1	5.6
Non-Residential Building	-5.1	-6.1	-10.2	-7.1	-0.2	-3.7	10.2	4.3	2.5	-5.1
Engineering Construction	-3.1	-7.8	-13.1	-33.2	29.1	-41.5	9.6	6.5	9.9	4.8
<b>Total Construction</b>	<b>-0.5</b>	<b>-5.0</b>	<b>-10.0</b>	<b>-28.7</b>	<b>18.0</b>	<b>-31.0</b>	<b>6.7</b>	<b>4.1</b>	<b>10.4</b>	<b>3.6</b>

Note: "YoY" = year-on-year

Source: ABS and ACIF CFC

# Western Australia

## WA Changes in Building and Construction Activity



### WA Changes in Building and Construction Activity (\$ million)

Source: ABS and ACIF CFC

Dominating this chart is *Heavy Industry including Mining*, which is expected to be a 'loser' in terms of work to be done in building and construction activity over the next five years compared to the work done in the last five years. *Heavy Industry including Mining* is the single largest building and construction subcategory and activity is expected to fall by \$12.7 billion next year as construction activity in many very large resource development projects were completed last year, and the next wave of projects are not as large or will take some years to ramp up activity. *Bridges, Railways and Harbours*, and *Electricity and Pipelines* are 'losers' of a smaller scale, whilst *New Houses* and *New Other Residential* reflect the downturn in the housing market.

The largest expected 'winners' in Western Australia include infrastructure construction subsectors *Roads* and *Water and Sewerage*. Other winners include *Retail and Wholesale Trade*, *Accommodation*, *Miscellaneous* (includes defence), *Education*, and *Entertainment and Recreation*.

# Western Australia

## WA Value of Work Done by Subsector (\$ million, 2016-17 prices)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Residential Building</b>	<b>Value of Work Done (CVM, \$ million)</b>					<b>Forecast (\$ million)</b>				
New Houses	6,140	6,569	5,996	4,427	4,088	3,602	3,841	3,895	4,692	4,964
New Other Residential	1,622	1,821	2,018	1,587	1,365	1,181	1,019	880	1,240	1,282
Alterations and Additions (Lrg)	687	655	773	620	631	635	598	609	638	670
Other (Alterations & Additions)	2,525	2,747	3,142	2,426	2,745	2,739	2,547	2,466	2,620	2,790
<b>Non-Residential Building</b>										
Accommodation	127	320	530	460	521	554	583	537	526	465
Education	634	675	575	537	552	601	703	710	670	659
Entertainment and Recreation	203	390	648	694	425	460	587	577	530	454
Health and Aged Care	1,056	709	499	416	468	392	391	437	446	447
Industrial	1,345	854	826	586	484	477	558	573	669	747
Miscellaneous	288	284	233	311	314	325	385	430	423	415
Offices	946	1,094	723	527	613	420	506	557	656	512
Other Commercial	308	325	214	96	153	135	134	173	186	187
Retail and Wholesale Trade	905	806	650	926	1,012	1,011	972	1,033	1,045	1,005
<b>Engineering Construction</b>										
Roads	2,108	1,895	1,831	1,810	1,855	1,853	2,181	2,187	2,360	2,586
Bridges, Railways and Harbours	7,830	4,585	1,270	934	866	542	679	662	702	582
Electricity and Pipelines	4,935	5,124	3,990	1,482	1,880	1,852	1,574	1,748	1,617	1,674
Water and Sewerage	795	536	383	542	485	611	742	844	802	716
Telecommunications	747	817	999	1,388	1,138	979	808	694	754	879
Heavy Industry inc. Mining	26,837	27,625	26,936	17,286	24,435	11,738	13,147	14,303	16,340	17,247
Recreation and Other	2,009	1,132	835	776	617	712	918	918	888	897
<b>Residential Building</b>	<b>% change (YoY)</b>					<b>% change (YoY)</b>				
New Houses	17.9	7.0	-8.7	-26.2	-7.7	-11.9	6.6	1.4	20.5	5.8
New Other Residential	35.4	12.2	10.8	-21.4	-14.0	-13.5	-13.7	-13.6	40.8	3.4
Alterations and Additions (Lrg)	-9.6	-4.7	18.0	-19.7	1.8	0.6	-5.9	1.9	4.8	5.0
Other (Alterations & Additions)	5.8	8.8	14.4	-22.8	13.2	-0.2	-7.0	-3.2	6.3	6.5
<b>Non-Residential Building</b>										
Accommodation	-34.4	151.9	65.9	-13.3	13.2	6.4	5.3	-7.9	-2.0	-11.6
Education	19.8	6.4	-14.7	-6.7	2.8	8.8	17.0	1.0	-5.6	-1.7
Entertainment and Recreation	-28.3	91.9	66.0	7.0	-38.8	8.3	27.6	-1.6	-8.1	-14.3
Health and Aged Care	-15.7	-32.9	-29.6	-16.6	12.5	-16.2	-0.1	11.7	1.9	0.2
Industrial	-32.4	-36.5	-3.3	-29.0	-17.4	-1.5	17.1	2.6	16.7	11.7
Miscellaneous	11.4	-1.5	-17.9	33.7	0.9	3.6	18.4	11.6	-1.6	-2.0
Offices	17.6	15.6	-33.9	-27.2	16.4	-31.5	20.6	9.9	17.9	-22.0
Other Commercial	18.9	5.6	-34.1	-55.2	59.6	-11.8	-0.4	28.7	7.4	0.5
Retail and Wholesale Trade	63.7	-11.0	-19.4	42.4	9.4	-0.1	-3.9	6.3	1.2	-3.8
<b>Engineering Construction</b>										
Roads	-14.0	-10.1	-3.4	-1.1	2.5	-0.1	17.7	0.3	7.9	9.6
Bridges, Railways and Harbours	-19.4	-41.4	-72.3	-26.4	-7.3	-37.4	25.4	-2.6	6.0	-17.1
Electricity and Pipelines	8.9	3.8	-22.1	-62.9	26.9	-1.5	-15.0	11.1	-7.5	3.5
Water and Sewerage	-14.2	-32.6	-28.6	41.7	-10.5	26.0	21.4	13.7	-5.0	-10.8
Telecommunications	22.8	9.4	22.2	38.9	-18.0	-13.9	-17.5	-14.1	8.6	16.6
Heavy Industry inc. Mining	1.4	2.9	-2.5	-35.8	41.4	-52.0	12.0	8.8	14.2	5.6
Recreation and Other	1.7	-43.7	-26.3	-7.0	-20.5	15.4	29.0	0.0	-3.2	0.9



# Specialist Reports

Detailed Expert Commentary  
from Industry Leaders



## Australia's pipeline of approved construction projects continues to grow, but a lower proportion of projects are moving to the construction stage.

The value of new projects added to the construction pipeline hit a historic high of \$35 billion in February 2019 before dropping to just \$9.5 billion in March, which is approximately 75% of the five-year median value of new projects and considered very low. All sectors recorded lower numbers except mining which recorded a 58% increase at the national level, largely driven by applications lodged for WA and NT.

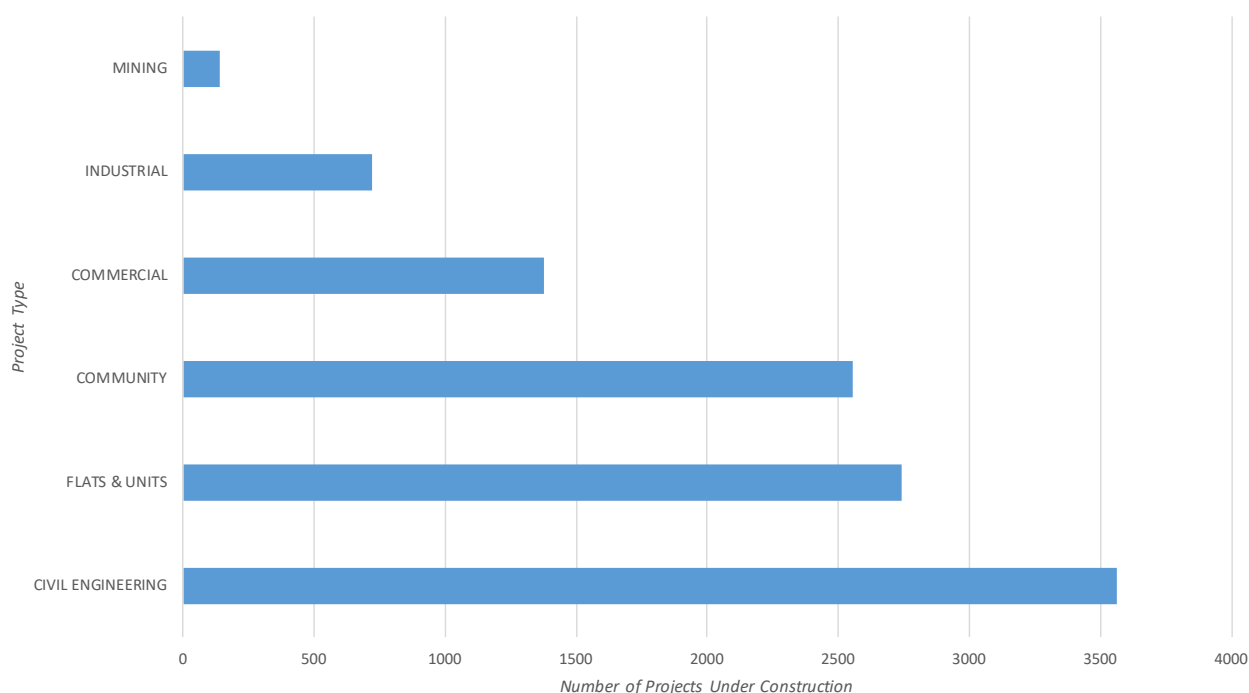
Projects transitioning from 'approved' into the construction phase have been subdued since September 2018 with results showing projects entering the build stage currently sitting at approximately 50% of the five-year median in terms of both number and value. While the number of projects moving into the build stage slipped by 17% in March, the value of projects rose by 23%. Of the 506 projects recorded as moving into construction, all sectors fell except apartment and unit construction which recorded an increase due to activity in this sector in Victoria.

Large projects are likely facing challenges obtaining finance, especially in the residential multi-unit sector, while also there may be some uncertainty related to the potential for a change in the federal government and global uncertainty that could be acting as a barrier to large financial commitments.

While activity across the major projects sector eases, the cost of building residential housing has continued to trend higher, albeit not quite as rapidly as previous years.

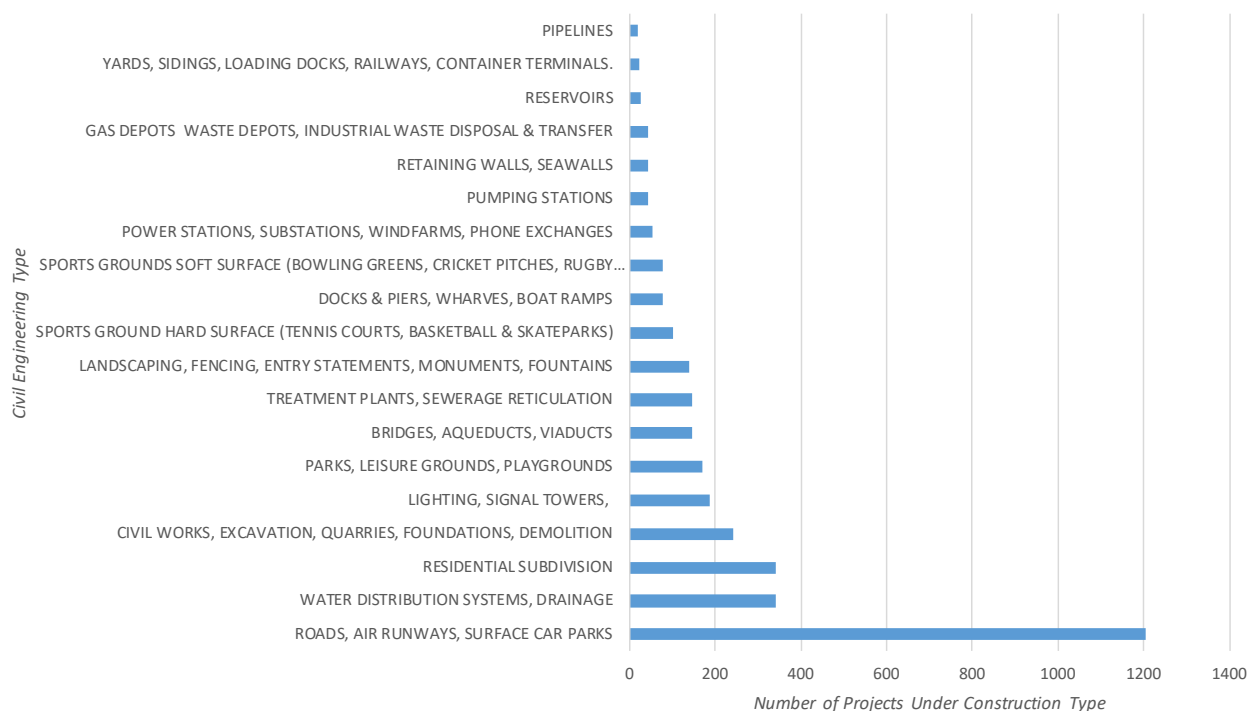
CoreLogic's Cost of Construction Index which tracks the rate of change in residential construction costs indicates the divergence between the National CHIP index and growth in CPI that has been entrenched since 2003, may be starting to ease. Heavy sustained investment in infrastructure projects for NSW and VIC continue to put upwards pressure on construction costs while WA and SA both show a decrease in the cost of residential construction.

Figure 1: Types of Projects Under Construction



The infrastructure boom that commenced in 2018 continues to be the dominant broad use type for projects that commenced construction in the last twelve months followed by community projects. Looking ahead to 2020, based on currently recorded planned commencement dates, civil engineering projects account for the largest percentage of work planned, signalling a continuation of the nationwide infrastructure boom which should help to support economic activity and jobs growth as well as cushion the effects of a residential construction downturn.

Figure 2: Project Under Construction by Civil Engineering Type



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# Appendices

# Appendix A: Data and Forecast Methodology

## Data Provenance

These forecasts take into account data and other information available up to the middle of April 2019. Of particular importance are the historical data or 'actuals' published by the ABS (Australian Bureau of Statistics), including:

- "Building Activity, Australia, Dec 2018", ABS Cat No. 8752.0, released 10 April 2019;
- "Engineering Construction Activity, Australia, Dec 2018", ABS Cat No. 8762.0, released 27 March 2019; and
- "Australian National Accounts: National Income, Expenditure and Product, Jun 2018" ABS Cat No. 5206.0 released 6 March 2019.

The value of work done in the ACIF forecasts are reported in Chain Volume Measures (that is in real value terms or in constant prices) instead of nominal values (current prices). The reference year for CVM in the May 2019 Forecasts is 2016-17.

There are changes in the actuals (or history) and forecasts reported in this edition of the ACIF Forecasts.

The figures reported for Australia in the ACIF forecasts are the sum of the States and Territories and there are sometimes discrepancies between this and the estimates for Australian as a whole published by the ABS.

## Forecast Building and Construction Asset Types and Sub-Sectors

Residential Building	Non-Residential Building	Engineering Construction
<ul style="list-style-type: none"><li>■ New Houses</li><li>■ New Other Residential (Apartments and Townhouses)</li><li>■ Large Alterations and Additions</li><li>■ Other (Mainly Small Alterations and Additions)</li></ul>	<ul style="list-style-type: none"><li>■ Accommodation</li><li>■ Education</li><li>■ Entertainment and Recreation</li><li>■ Health and Aged Care</li><li>■ Industrial</li><li>■ Miscellaneous</li><li>■ Offices</li><li>■ Other Commercial</li><li>■ Retail and Wholesale Trade</li></ul>	<ul style="list-style-type: none"><li>■ Roads</li><li>■ Bridges, Railways and Harbours</li><li>■ Electricity and Pipelines</li><li>■ Water and Sewerage</li><li>■ Telecommunications</li><li>■ Heavy Industry including Mining</li><li>■ Recreation and Other</li></ul>

## Forecast Methodology

The ACIF Forecasts are prepared using 'top down' and 'bottom up' analytical frameworks.

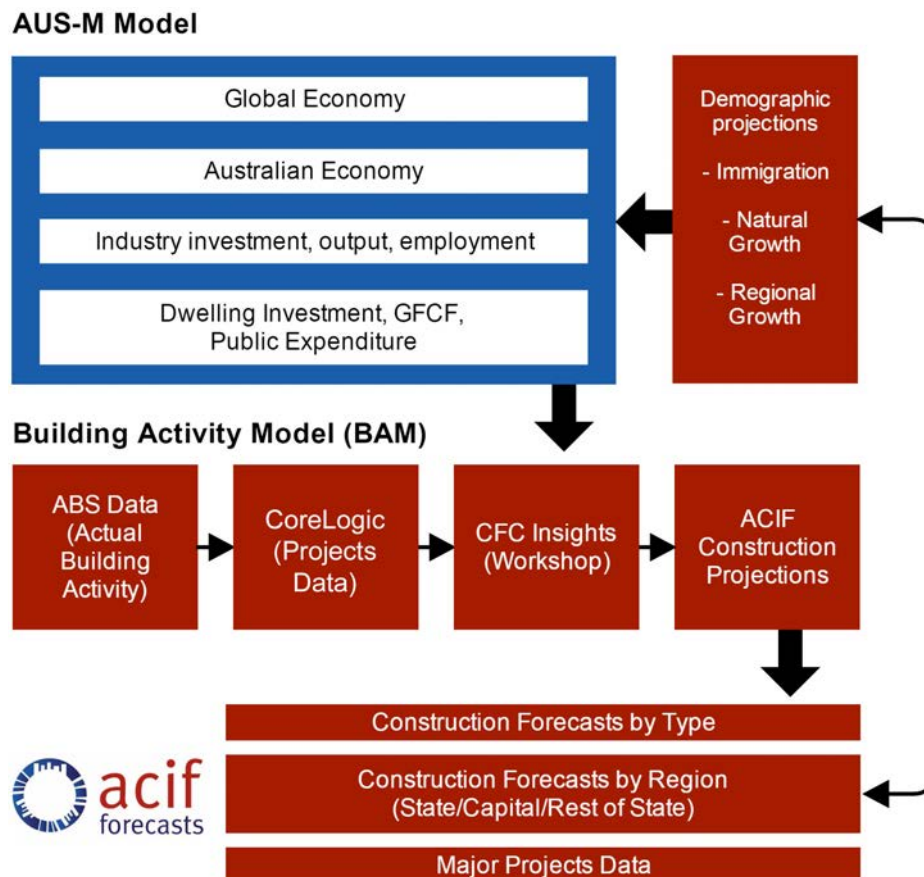
The 'top down' framework starts with the preparation of economic forecasts. These are compiled through the use of the AUS-M model that is operated by Outlook Economics. The AUS-M model is a large quarterly time series structural model of the Australian economy. It is based on the TRYM model, originally developed by the Australian Treasury. AUS-M builds on TRYM by incorporating input-output based demand systems and more industry and commodity detail. In terms of common labels, AUS-M is a modern Keynes-Klein-style model, to which Computable General Equilibrium features have been added.

Forecasts for the global and the Australian economy are prepared. The forecasts include information about policy settings, including fiscal and monetary policies, as well as supply and demand, investment, trade, capital and labour markets, and changes in prices. A high level of industry detail is also provided in the AUS-M forecasts, spanning investment, output, employment and prices. The key elements of the national accounts that relate to construction are tracked in detail, which is very helpful when projecting changes in construction expenditure which is largely a portion of Gross Fixed Capital Formation and public sector spending and investment.

AUS-M also involves considerable information about demographic change in Australia. Information is tracked about natural growth, net immigration and net internal migration.

# Appendix A: Data and Forecast Methodology

The Building Activity Model (BAM) draws together ‘bottom up’ information tracking actual construction projects and actual construction spending and employment over the recent past in considerable industry and geographic detail. Data is sourced from the ABS National Accounts and Buildings Approval data, and CoreLogic. The BAM identifies the share of investment in the asset types that make up the residential and *Non-Residential* building and *Engineering Construction* sectors by construction type and subcategories and across Australia, by state, by capital city and by the rest of state. The ABS asset type definitions are included in the Appendix to this report.



Additional bottom up information is factored into the ACIF forecasting methodology with the involvement of the Construction Forecasting Council (CFC). The CFC review and vary the initial results of the BAM through the conduct of forecasting workshops. It is notable that the CFC input is used to adjust the shares of activity between activity and over time based on discussion between industry experts and the forecasting team. This provides flexibility to respond to cyclical and industry specific factors while also preserving the overall integrity of the agreed macro-economic projections.



## Appendix B: Major Project Stages

Definitions for the codes included in the CoreLogic data provided in the 'Projects' forecast tool in the Customised Forecasts Dashboard are below.

<b>Early</b>	<p>The project could fall under one of the following CoreLogic Early Planning reporting stages:</p> <ul style="list-style-type: none"> <li>■ Rezoning Application</li> <li>■ Preliminary Enquiries to Council</li> <li>■ Site Acquisition</li> <li>■ Feasibility Study</li> </ul>
<b>Possible</b>	<p>The project falls into one of the following stages:</p> <ul style="list-style-type: none"> <li>■ Sketch Plans</li> <li>■ DA Submitted/Approval</li> <li>■ DA Refused</li> <li>■ Working Drawings</li> <li>■ Tenders for Consultants/Development</li> <li>■ Tenders for Design/Construct</li> </ul>
<b>Registrations</b>	<ul style="list-style-type: none"> <li>■ Expression of Interest (EOI) is released on the project</li> <li>■ Companies interested in tendering the particular project are submitting their EOI</li> <li>■ Tender documents become available, so interested companies can familiarise themselves with the conditions of tendering, the advertised selection criteria, the specifications, and the conditions of contract, especially the clauses dealing with delivery and price variations, before deciding whether they are suitable or not.</li> </ul>
<b>Firm</b>	<p>The project is at one of the following CoreLogic Tender reporting stages</p> <ul style="list-style-type: none"> <li>■ Building Application/Approval</li> <li>■ Contract under negotiation</li> <li>■ Tenders Called/List of Tenderers</li> <li>■ Lowest Tenderers named. No Tender Accepted. Tenders Closed</li> <li>■ Also includes projects where the contract has been let but construction has not commenced and projects where site preparation is in progress.</li> </ul>
<b>Deferred</b>	<p>The project has stalled for an unusual amount of time. The period of time may vary and can range from a couple of months at tender stage to years at the planning stage. Project can be deferred indefinitely.</p>
<b>Abandoned</b>	<p>Projects final reported with no end date</p> <p>The project is not going ahead and will not reappear in its present form. Projects can be abandoned at any stage of development e.g. planning or tender stage.</p>
<b>Finished (i.e. no further info) in Planning</b>	<p>Projects final reported with no end date</p> <p>The project can no longer be followed-up e.g. contacts are no longer involved, architect may not have heard from client and DA has expired, site sold to undisclosed developer, no further application in council.</p>
<b>Finished (i.e. no further info) in Construction</b>	<p>Projects final reported with end date</p> <p>Construction was found to be completed at time of call.</p>

## Appendix C: Building and Construction Types

ACIF Type	ABS Category	Description
<b>Residential Building</b>		
<b>New Houses</b>	New Houses	A house is a detached building predominantly used for long-term residential purposes and consisting of only one dwelling unit. Thus, detached 'granny flats' and detached dwelling units (such as caretakers' residences) associated with Non-Residential buildings are defined as houses for the purpose of these statistics.
<b>New Other Residential</b>	New Other Residential Building	A new 'other residential' building is a building other than a house primarily used for long-term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes blocks of flats, home units, attached townhouses, villa units, terrace houses, semi-detached houses, maisonettes, duplexes, apartment buildings, etc.)
<b>Large Alterations and Additions</b>	Alterations and Additions to Residential Buildings	Building activity carried out on existing buildings, which may result in the creation of almost new dwelling units. This includes adding to or diminishing floor area, altering the structural design of a building and adding rigid components which are integral to the functioning of the building. It also includes converting a Non-Residential building to a residential building, e.g. conversion of a warehouse to residential apartments. Conversion is considered to be a special type of alteration. 'Conversions, etc.' are the number of dwelling units created as part of alterations and additions to, or conversions of, existing residential or Non-Residential buildings and as part of the construction of Non-Residential building. 'Conversions, etc.' are included in the total number of dwelling units. However, while the value of conversions is included in the value of alterations and additions to residential buildings, the value of new dwelling units associated with Non-Residential buildings is included in the value of Non-Residential buildings.
<b>Other (Mainly Small Alterations and Additions)</b>	Private dwelling investment that has not been counted within residential building	Small alterations and additions include additions and extensions, internal renovations to kitchens, bedrooms, attics, living room areas, insulation, in-ground swimming pool, outside building, landscape contractor, other outside improvements. It includes work done by builders or contractors, interior designers, landscape designers etc. This series is not separately identified in ABS Building Activity publication but is estimated as the part of private dwelling investment expenditure published in the ABS Quarterly National Accounts that are not accounted for in the residential building statistics.

## Appendix C: Building and Construction Types

ACIF Type	ABS Category	Description
<b>Non-Residential Building</b>		
<b>Non-Residential Building</b>	Non-Residential Building	A Non-Residential building is primarily intended for purposes other than long-term residential purposes.
<b>Accommodation</b>	Short-Term Accommodation Buildings	Accommodation includes buildings primarily providing short-term or temporary accommodation. It includes self-contained, short-term apartments (e.g. serviced apartments); hotels (predominantly accommodation), motels, boarding houses, cabins and other short-term accommodation not elsewhere classified (e.g. migrant hostels, youth hostels, lodges).
<b>Education</b>	Education Buildings	Education buildings include those used in the provision or support of educational services, including group accommodation buildings (e.g. classrooms, school canteens, dormitories).
<b>Entertainment and Recreation</b>	Entertainment and Recreation Buildings	Entertainment and recreation includes buildings used in the provision of entertainment and recreational facilities or services (e.g. libraries, museums, casinos, sporting facilities).
<b>Health and Aged Care</b>	Health Buildings, Aged Care Facilities	Health buildings include those used in the provision of non-aged care medical services (e.g. nurses quarters, laboratories, clinics). Aged care facilities include buildings used in the provision or support of aged care facilities, excluding dwellings (e.g. retirement villages). Includes aged care facilities with and without medical care.
<b>Industrial</b>	Factories and other secondary production buildings, Warehouses, Agricultural and Aquacultural Buildings, Other Industrial Buildings NEC*	Industrial buildings are used for warehousing and the production and assembly activities of industrial establishments, including factories and plants. Factory buildings include those that house, or are associated with, production and assembly processes of intermediate and final goods. Warehouse buildings are primarily used for storage of goods, excluding produce storage. Agriculture/aquaculture buildings include those that house, or are associated with, agriculture and aquaculture activities, including bulk storage of produce (e.g. shearing shed, grain silo, shearers' quarters).
<b>Miscellaneous</b>	Religious buildings, other Non-Residential Buildings NEC*	Miscellaneous Non-Residential building includes religious buildings used for or associated with worship, or in support of programs sponsored by religious bodies (e.g. church, temple, mosque, church hall, dormitories).
<b>Offices</b>	Offices	Office buildings include those primarily used in the provision of professional and business services (e.g. accountancy, engineering, insurance and banking/finance) and public administration.
<b>Other Commercial</b>	Transport buildings, Commercial buildings NEC*	Buildings primarily occupied with or engaged in commercial trade or work intended for commercial trade that have not been classified as Retail trade, Warehouses, Industrial or Miscellaneous. This category also includes buildings that support transport activities or primarily used in the provision of transport services including passenger transport buildings (e.g. passenger terminals), non-passenger transport buildings (e.g. freight terminals), commercial car parks (excluded are those built as part of, and intended to service, other distinct building developments) and other transport buildings not elsewhere classified.
<b>Retail/Wholesale Trade</b>	Retail and wholesale trade buildings	Retail/wholesale trade buildings include those primarily used in the sale of goods to intermediate and end users.

## Appendix C: Building and Construction Types

ACIF Type	ABS Category	Description
<b>Engineering Construction</b>		
<b>Roads</b>	Roads	Roads, highways and subdivisions include parking areas; cycle paths; airport runways; pedestrian and vehicle overpasses; traffic lights; roundabouts; associated road drainage works; street and highway lighting; road resurfacing, kerbing and guttering, road tunnels.
<b>Bridges, Railways and Harbours</b>	Bridges, Railways and Harbours	Railways include tracklaying; overhead power lines and signals; platforms; tramways; tunnels for underground railways; fuel hoppers. Bridges includes those for the support of roads, railways, causeways and elevated highways. Harbours include boat and yacht basins; breakwaters; retaining walls; docks and piers; terminals; wharves; dredging works; marinas.
<b>Electricity and Pipelines</b>	Electricity and Pipelines	Electricity generation, transmission and distribution includes construction of power stations; substations; hydro-electric generation plants; associated work i.e. towers; chimneys; transmission and distribution lines. Pipelines include oil and gas pipelines; urban supply mains for gas; pipelines for refined petroleum products, chemicals, foodstuffs, etc.
<b>Water and Sewerage</b>	Water and Sewerage	Sewerage includes sanitary and storm sewers; sewage treatment plants; storm water drains; drainage systems. Water includes dams; weirs; reservoirs; embankments for water diversion; water pipelines; mains and treatment plants; flood prevention and erosion; aqueducts; water conduits; systems conveying water to residences, commercial and industrial establishments.
<b>Telecommunications</b>	Telecommunications	Telecommunications include mobile phone, radio, television, microwave and radar transmission towers; telephone lines and underground cables; coaxial cables.
<b>Heavy Industry Including Mining</b>	Heavy Industry Including Mining	This category includes the construction of production, storage and distribution facilities; refineries; pumping stations; construction of mines; construction of chemical plants; blast furnaces; steel mills; other industrial processing plants; ovens.
<b>Recreation and Other</b>	Recreation and Other	Recreation includes golf courses; playing fields; racecourses; stadiums; swimming pools; landscaping; park construction.

Note: "NEC" = not elsewhere classified



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