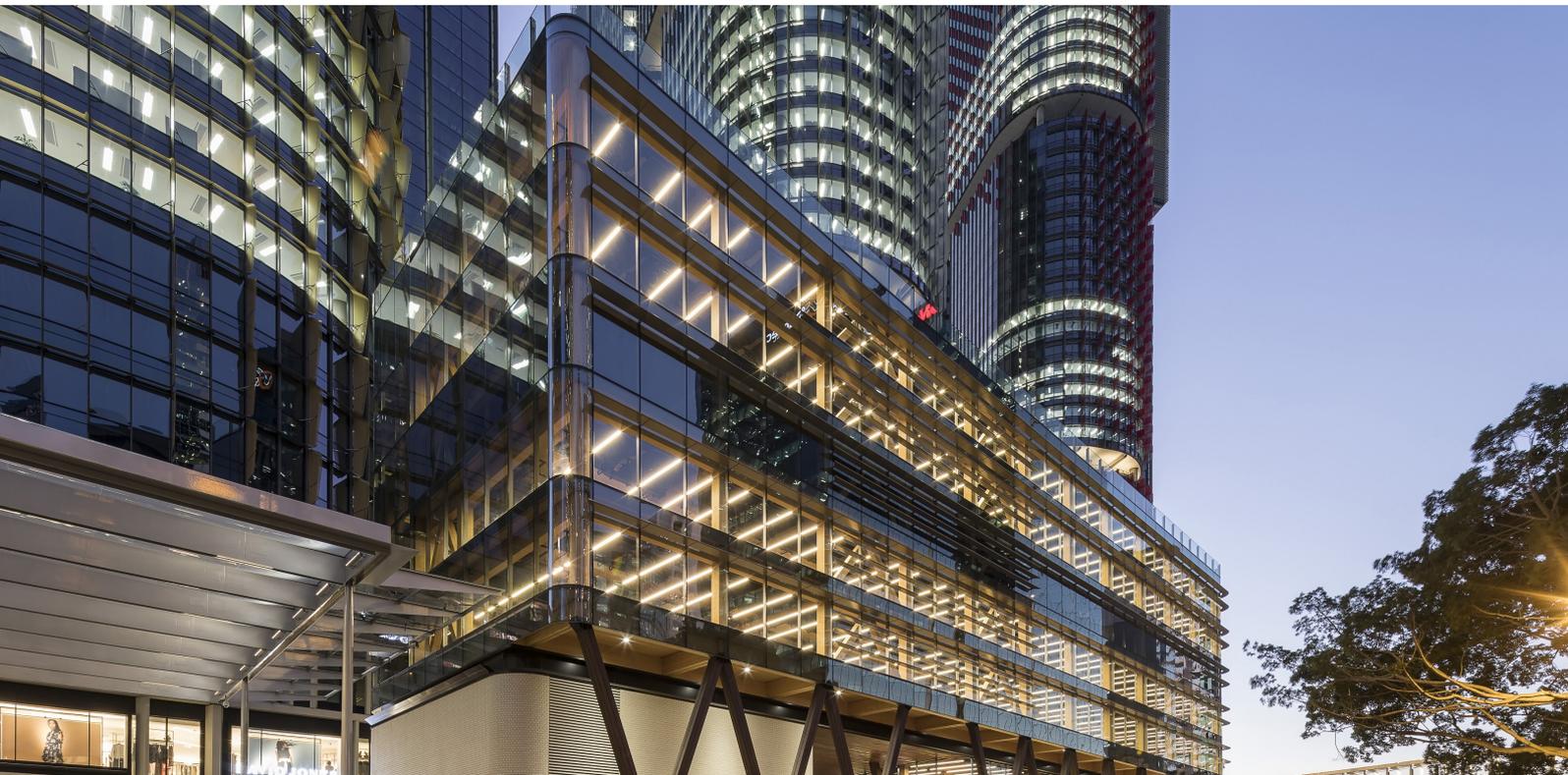




MASTER BUILDERS
A U S T R A L I A



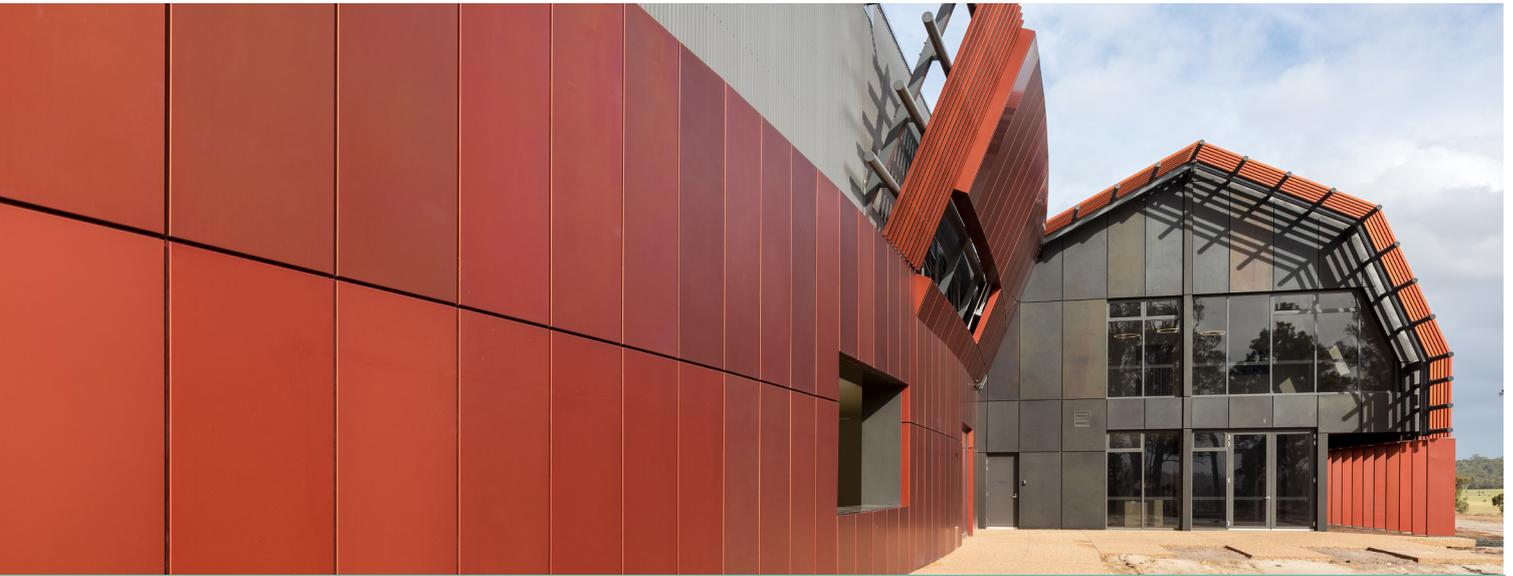
BUILDING & CONSTRUCTION

INDUSTRY FORECASTS

AUSTRALIA

**THE ROARING 2020s?
MBA BUILDING & CONSTRUCTION
FORECASTS TO 2023/24**

AUGUST 2019



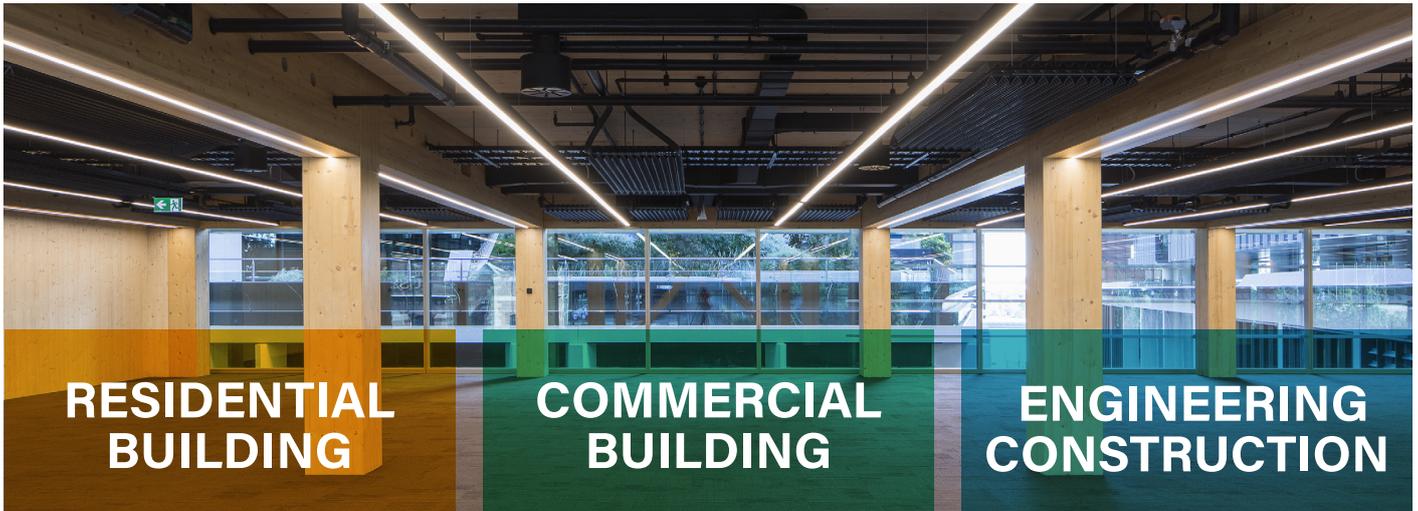
AUSTRALIA 2019 | AUGUST COMMENTARY

The Roaring 2020s? MBA Building & Construction Forecasts to 2023/24

Overall, the performance of construction in Australia over the period to 2023/24 is expected to be rather flat – but there will be considerable variation within the different sectors and geographic markets. The fundamentals of the market – population, employment and interest rates – are sound, but several microeconomic obstacles are holding things back. The volume of construction actually peaked back in 2012/13, and fell by 14.3% until its 2016/17 low point. Some, but by no means all, of the lost ground has since been recovered. Over the medium term, our forecasts see total construction activity gliding lower and the size of the market in 2023/24 is anticipated to be 2.6% smaller than in 2018/19. Government-led projects mean that transport infrastructure will be one of the strongest performers but prospects for new home building are more mixed and some areas of commercial building will be doing it fairly tough.

MBA Forecasts of Total Construction Activity in Australia (Billions of Dollars) and Change on Previous Year (%)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
\$234.78	\$218.50	\$207.95	\$201.30	\$224.68	\$212.85	\$208.37	\$208.41	\$209.06	\$207.81	\$206.88
0.0%	-6.9%	-4.8%	-3.2%	11.6%	-5.3%	-2.1%	0.0%	0.3%	-0.6%	-0.4%



RESIDENTIAL BUILDING



New home building reached its highest level on record during 2015/16. The cyclical nature of home building means that some reversal in activity was inevitable. However, the market has also been hit by the combination of tougher credit conditions, barriers to foreign buyers and falling house prices. We forecast that new dwelling starts will bottom out at about 168,000 during 2020/21 – 28% down on its peak. By the end of the forecast horizon in 2023/24, we anticipate that new home building will have recovered to 187,660 – a gain of 12% on its low point, and still a strong performance by historic standards. Home renovations activity is expected to grow slowly but steadily over the forecast horizon.

COMMERCIAL BUILDING



Commercial building has been something of a star performer over the last couple of years and has recently touched record highs. We anticipate that activity here will break another new high during 2019/20 before reverting to levels more consistent with previous norms. By 2023/24, we project that commercial building activity will have fallen by 9% compared with 2018/19. Office and accommodation building are expected to see the most pain over the next few years while retail, health and transport buildings will buck the trend and return decent gains.

ENGINEERING CONSTRUCTION



Engineering and civil construction never fully recovered from the slump post-mining investment boom. The good news is that a heavy pipeline of Government-led infrastructure work is chugging into operation, and is set to benefit road and rail construction in particular. Our forecasts envisage that engineering and civil construction will peak during 2020/21, representing a 12.5% expansion on 2018/19. Thereafter, the amount of activity is likely to ease lower. While things are looking up for transport work, prospects are likely to be tougher for telecommunications as the NBN comes to a conclusion.

ECONOMIC BACKDROP

Growth Slows as Interest Rates Plumb New Lows



The headline economic figures for Australia's economy present an almost contradictory picture. On the one hand, latest GDP figures indicate that the pace of economic growth dipped to a decade low of 1.8% over the year to March 2019. The other hand tells us that employment creation and generation are still very strong: over the year to June 2019, a total of 296,300 new jobs were created, equivalent to a very brisk growth rate of 2.9%. Encouragingly, the vast majority of the economy's new jobs were full time rather than part-time roles.

One of the most distinctive features of the Australian economy is the way in which population and employment growth almost move in tandem. This is no coincidence: a healthy labour market here makes Australia a more attractive destination for overseas migrants and the inflow responds accordingly. At the same time, Aussies will be less tempted to go overseas to work should the jobs market here be a lucrative one. The employment-population axis continues to hold good: latest figures show that Australia's national headcount increased by 405,000 over the course of 2018 – breaking the 25 million barrier on its way. Curiously, the robust state of labour market demand has not been matched by any acceleration in wage growth at all. This pattern has been replicated across the globe and is something of a puzzle to economists. At the same time, the 1.3% inflation rate in the economy is beneath the lower band of the RBA target.

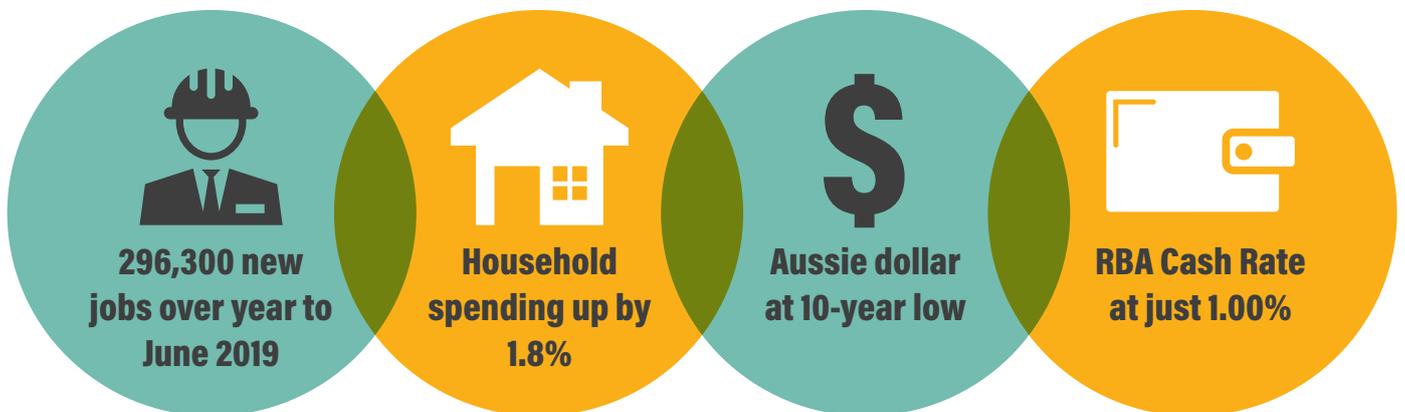
With household consumption being the largest component of economic demand, population growth is the most fundamental building block of economic expansion and in this way, the number of consumers in Australia grew by 1.6% during 2018. In this context, the fact that the volume of household spending grew by only 1.8% over the year to March 2019 is underwhelming. The sluggish pace of consumer demand is one of the central reasons why growth in the economy has become subpar.

At present, the 'hero' in terms of economic demand is government consumption which bolstered the growth rate over the past year, registering an increase of some 5.1% over the past 12 months. In terms of government infrastructure, there is little evidence on the ground that the package of commitments and announcements has yet translated into real and visible activity. When it eventually does, the subsequent boost to economic activity will be welcome – and significant.

The downturn in the housing market which began in 2017 has spread to the wider economy. Over the past two years, house prices have reversed sharply in most major cities while new home building activity has retreated from very high levels. The financial confidence of consumers and small business owners is closely linked to house prices and with a relatively heavy household debt burden, the effect on spending and investment has not been good.

Despite the presence of these challenges, recent months have seen a few bits of positive

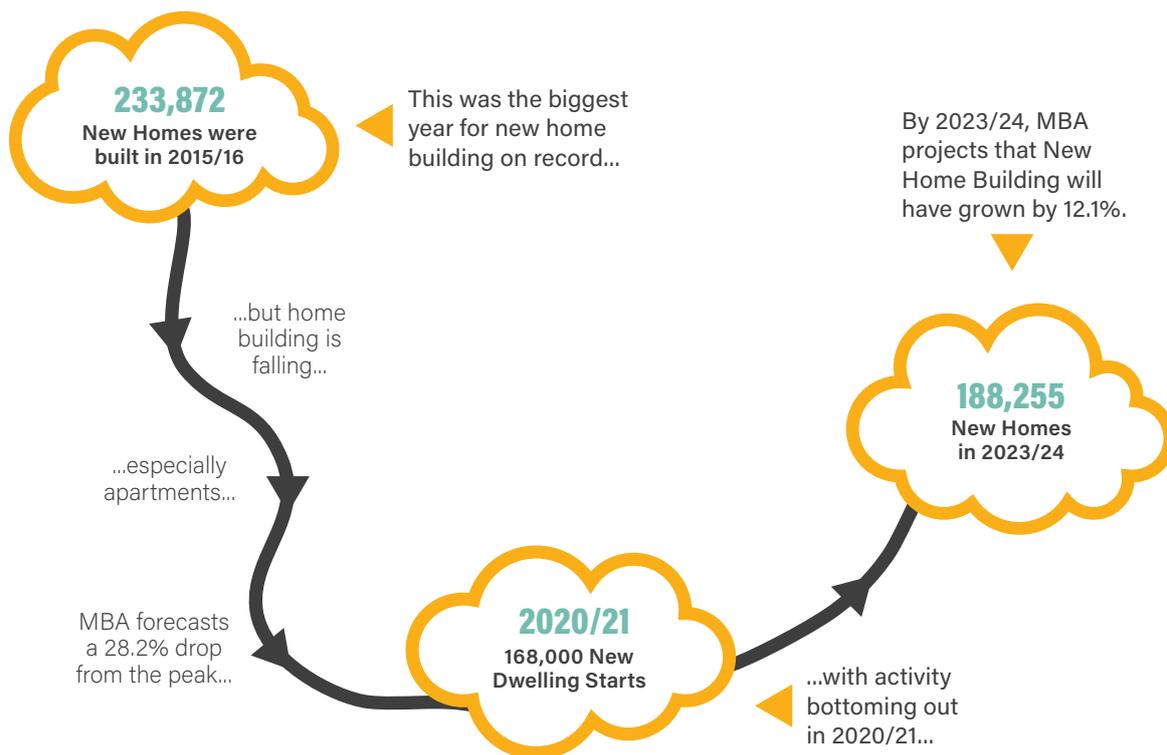
news. May's federal election produced a clear and conclusive outcome, allowing for a package of income tax reductions to be passed in early July; the RBA reduced its official cash rate twice in recent months, bringing the cost of borrowing to a new all-time low of 1.00%; and the First Home Owner Deposit Scheme will kick off in January. All the while, the international backdrop is broadly supportive with the biggest risks currently relating to geopolitical tensions in the Persian Gulf and the escalating trade dispute between China and the US. The increasing likelihood of a disorderly Brexit at the end of October also represents a risk. The value of the Australian dollar is currently low on currency markets and this is actually helpful from the point of view of making this economy more price competitive from the point of view of people, investors and businesses based overseas. The federal budget is expected to return to surplus soon: its ability to remain there will rest on economic growth regaining momentum and sticking to its trend rate over the medium term.



RESIDENTIAL BUILDING

2019 | AUGUST SUMMARY

New home building is currently undergoing a cyclical downturn and we forecast that a trough will be reached during 2020/21 when work on about 168,000 new homes is expected to begin. This would still represent a strong volume of new home building activity by historic standards: solid population growth and very low interest rates mean that underlying demand for new housing remains elevated. We anticipate that new home building output will recover towards 190,000 by the end of our forecast horizon in 2023/24.



MBA Projections for New Home Building Starts and Change on Previous Year

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
184,911	219,245	233,872	221,408	229,494	195,307	173,907	167,962	171,163	179,640	188,255
11.4%	18.6%	6.7%	-5.3%	3.7%	-74.9%	-11.0%	-3.4%	1.9%	5.0%	4.8%

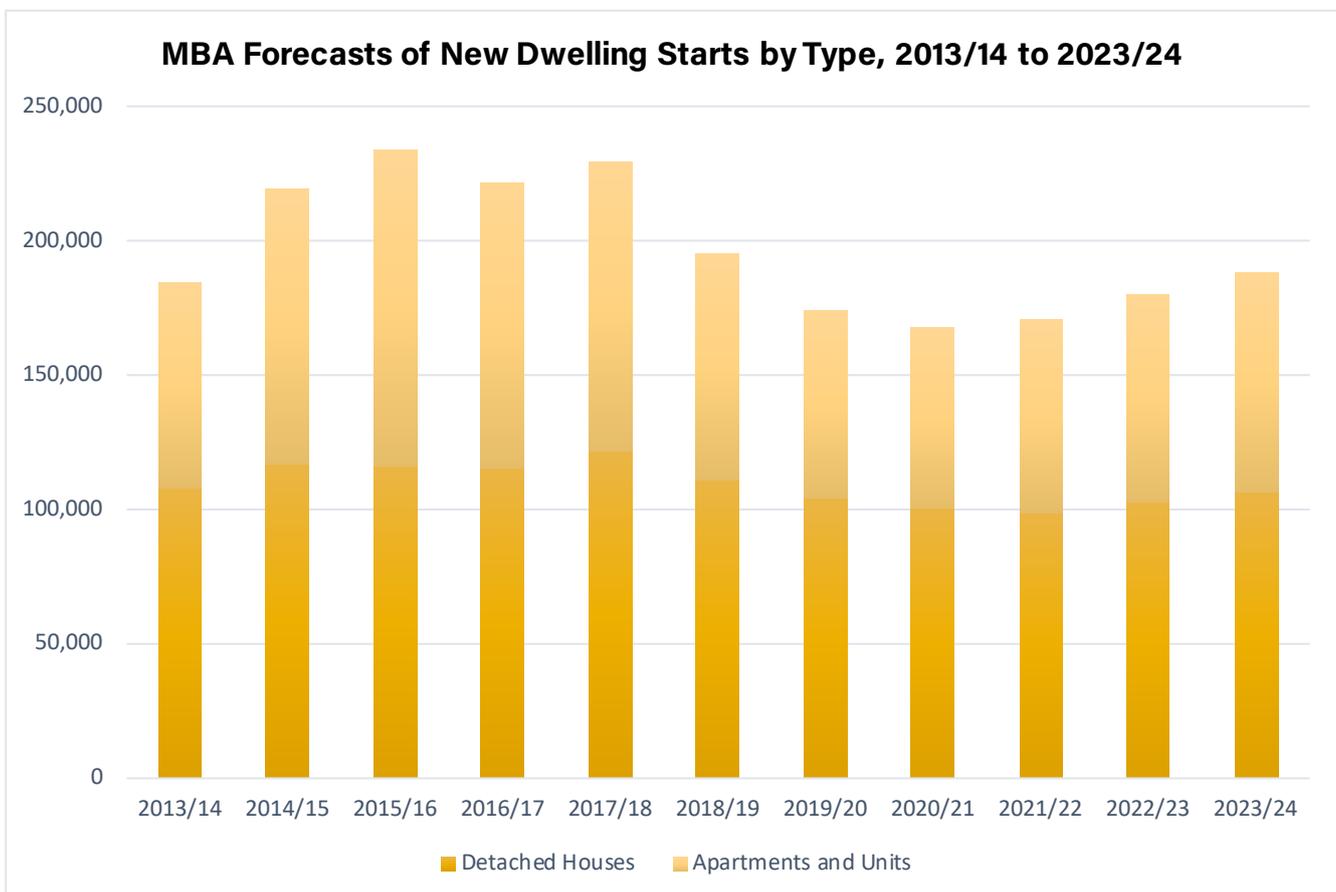
RESIDENTIAL BUILDING

In Retreat, but Recovery on the Horizon

Residential building continues to retreat from the all-time record high of 234,500 reached during the 2016 calendar year. Latest figures for the year to March 2019 indicate that at 209,664, the number of new starts has fallen back by a pretty modest 10.6% so far. Current housing output is still very elevated by historic standards – up until 2014, new home building activity had never breached the key 200,000 threshold in a year, so latest results should be seen as very favourable in that context.

The record level of home building in recent years owes its origin to a remarkable constellation of positive macroeconomic stimuli: interest rates at all-time lows, unprecedented population growth, a solid jobs market and the largely supportive policy environment.

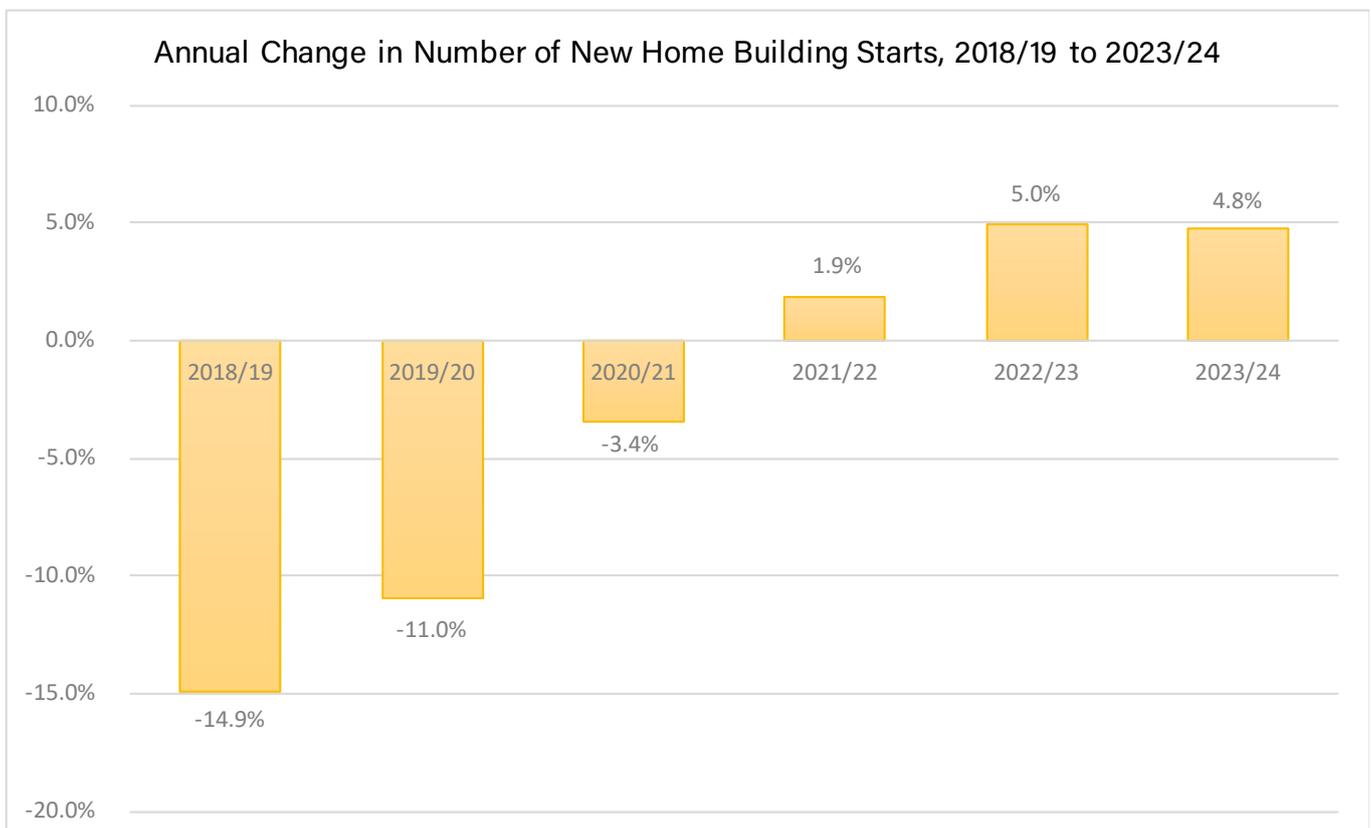
Many of the factors that propelled new home building to such high levels are still in place. During 2018, Australia’s headcount increased by 405,000, equivalent to a 1.6% rate of population growth. Of the gain in population, 250,000 was accounted for by overseas migration. This is an important feature because migrants tend to be concentrated in the 20-40 age group, a cohort which has a strong and immediate impact on housing demand. The creation of 206,300 new jobs in the Australian economy over the year to June 2019 has also had very positive ramifications for housing demand, by simply increasing the number of people eligible for mortgages. Interest rates, already comfortably at record lows, have been cut twice by the RBA in the past couple of months. From the standpoint of residential building, the macroeconomic environment is largely on the favourable side of the ledger.



The disruption to home building activity over the past three years has been more the product of microeconomic rather than macroeconomic issues. First came the APRA-imposed ‘speed limit’ on investor lending which came into effect in early 2015. This was followed by the spread of whopping stamp duty supertaxes on foreign buyers across most states and territories, which effectively shut an important buyer segment out of the market for new homes.

The prospects for residential building in Australia will be determined by the combined interplay between macroeconomic conditions, microeconomic considerations as well as local issues in each of the different geographic markets around the country.

A raft of mostly good news over recent months means that the short-term outlook for residential building has become a bit more positive. The Government’s First Home Loan Deposit Scheme is set to kick off in January 2020, while those employed are already benefitting from the package of medium term income tax cuts passed by Parliament in early July. While house prices are still falling in most markets, the pace of decline looks to have eased over recent months. The RBA’s key interest rate has been cut by 50 basis points since the start of June while APRA has relaxed the rules around mortgage eligibility for home buyers. Enhancements to the Cities Deals are also favourable to prospects for new home building. Less welcome are the recent issues surrounding some highrise buildings and insurance for certifiers – in the absence of a timely and adequate policy response, the decline in high density dwelling starts could deteriorate further.





In the end, two factors will dictate the short-term direction of new home building: house prices and confidence. House prices across Australia fell by another 6.8% over the year to June, with the magnitude of decline in double-digit territory in the two biggest markets of Sydney and Melbourne. As long as price declines remain reasonably sizeable, would-be home buyers are inclined to sit out of the market and delay a recovery in activity. Similarly, developers and home builders are reluctant to advance new projects when there is a risk of their finished product landing in an environment of soft prices and weak demand. Short-term prospects for new home building are also held back by the fragile state of confidence across the Australian economy.

Latest indicators around new home building approvals as well as lending indicate that the short-term outlook is quite weak. The number of new dwelling starts is forecast to fall by 11.0% during 2019/20, driven by a much sharper drop in apartment/unit commencements (-16.8%) compared with detached houses (-6.5%). The 2020/21 financial year is expected to represent the bottoming out point for new home building with a further decline of 3.4% in commencements.

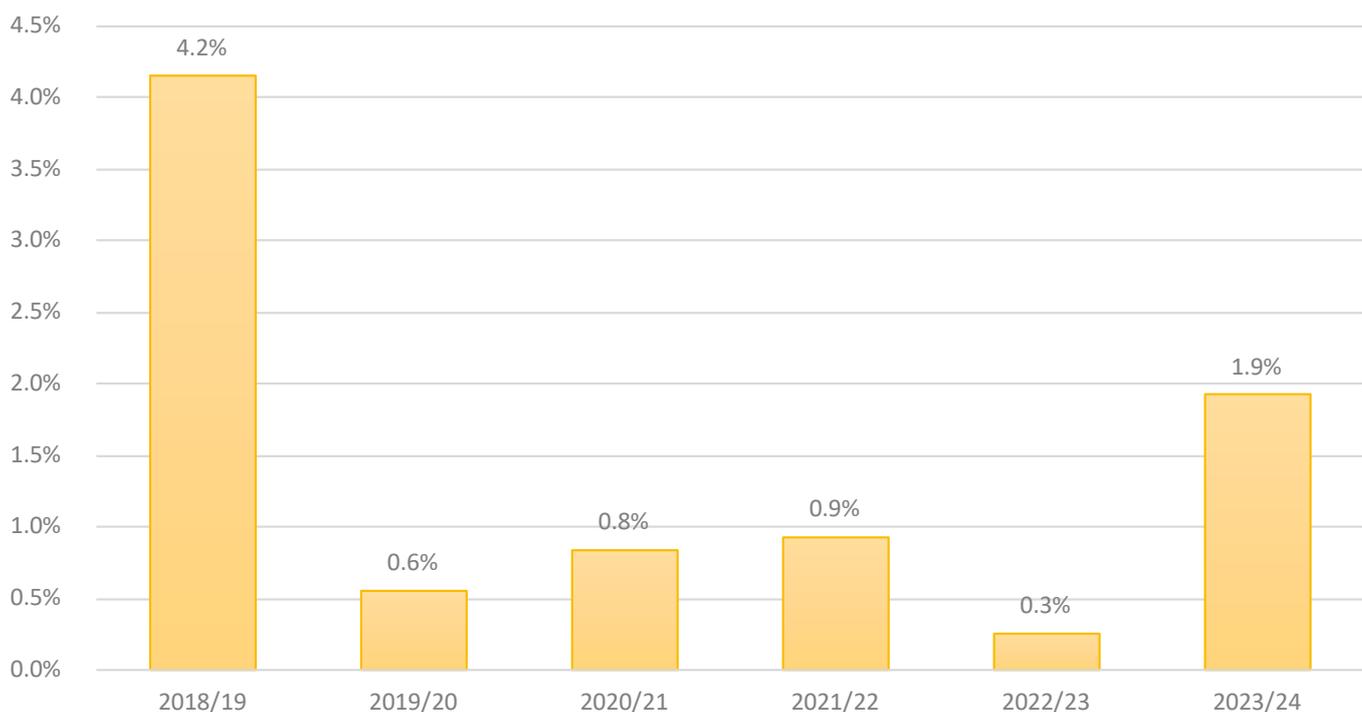
Just as the home building downturn started on the high-density side, there too will the recovery first kick off. During 2021/22, apartment/unit starts are forecast to increase by 5.9% while new detached house starts are projected to ease by another 0.8% during the year. We expect that 2022/23 will be a year of growth on both sides of the market with detached house starts anticipated to grow by 3.4% and apartment/unit commencements expanding by 7.1%. The recovery will be built upon during 2023/24 with growth of 3.8% and 6.2% in detached house and high density starts respectively.

The 2020/21 trough for new home building activity is expected to involve a total of 167,962 commencements, an outturn which would represent a 28.2% reduction on the 2016 peak. In terms of magnitude, this is fairly consistent with the typical pattern of previous downturns in new home building. Compared

with most sectors of the economy, the fluctuations in building activity tend to be very large as it moves through the cycle. Despite the sizeable reduction in activity, it is worth pointing out that low point for new home building of about 168,000 would represent the highest trough that a housing cycle has ever seen. In fact, a number of previous home building peaks have been lower than the trough forecast for 2020/21.

In contrast to new home building which we expect will fall further before recovering, the outlook for home renovations activity is a little bit brighter. Growth in renovations activity is expected to be modest but steady over the forecast horizon to 2023/24. Overall, renovations activity is anticipated to expand by 4.6% over this period – equivalent to about 0.9% per year. Renovations will be helped along by the environment of ultra-low interest rates. Interestingly, the historic pattern of new home building in Australia will work in favour of demand for home renovations work: more new detached houses were built in Australia in the late 1980s than at any other time – either before or since. A disproportionately large portion of home renovations demand tends to be concentrated in detached houses of this vintage. Cue an improved pipeline of renovations work over the next few years. The forecast increase in home renovations work would be larger but for the weakness of consumer demand as well as the depletion of home equity reserves caused by the house price reversal of recent years.

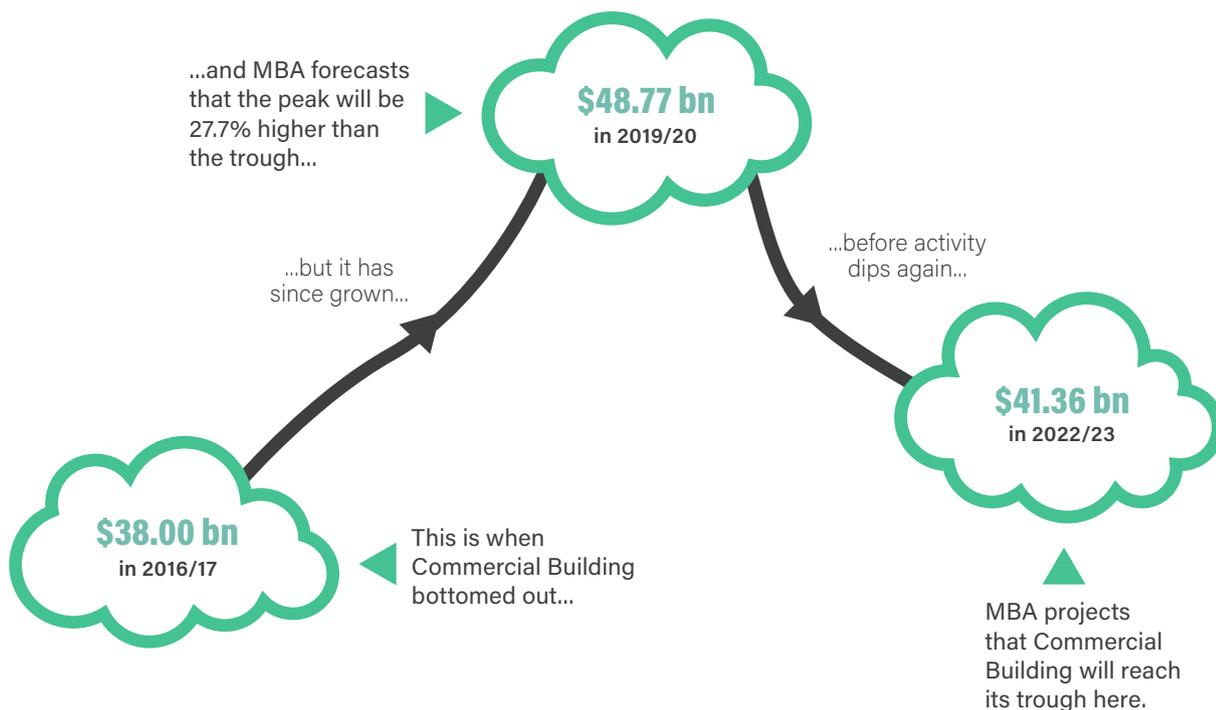
Major Home Renovations Work:
Change compared with Previous Year, 2018/19 to 2023/24



COMMERCIAL BUILDING

2019 | AUGUST SUMMARY

Commercial building activity has been growing strongly and we anticipate that this will continue over the short term thanks to the healthy pace of job creation and exceptionally low financing costs. We forecast that commercial building activity will peak at \$48.47 billion in 2019/20 before undergoing quite a sizeable reversal involving a 15% reduction in activity by the time the trough is reached in 2022/23. Accommodation, education and office building will face the most pain but health, transport building and retail building are all projected to expand.



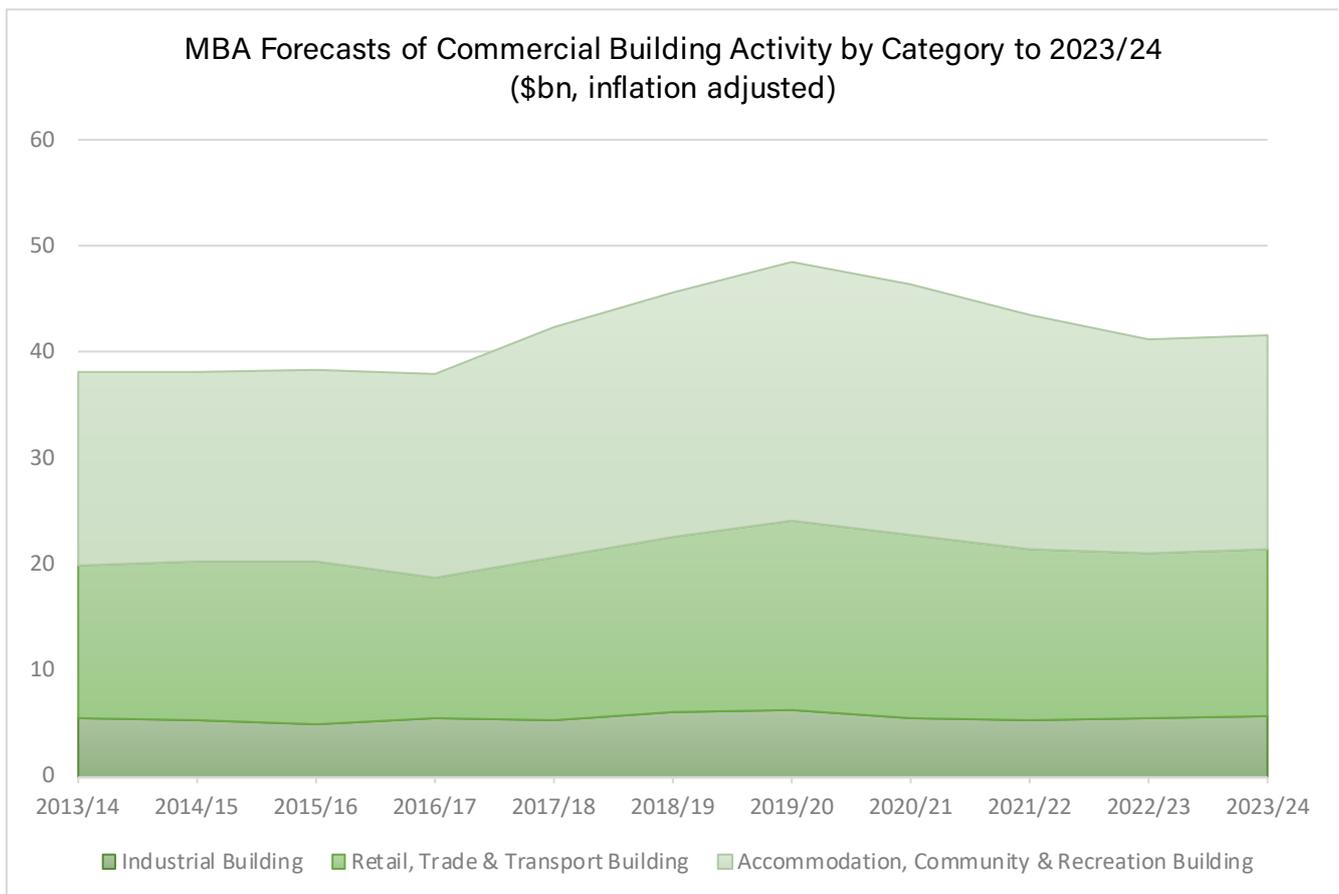
MBA Forecasts of Commercial Building Activity (Billions of Dollars)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
\$38.19	\$38.15	\$38.36	\$38.00	\$42.34	\$45.60	\$48.47	\$46.42	\$43.55	\$41.34	\$41.63
5.3%	-0.1%	0.6%	-0.9%	11.4%	7.7%	6.3%	-4.2%	-6.2%	-5.1%	0.7%

COMMERCIAL BUILDING

Climbing to the Top

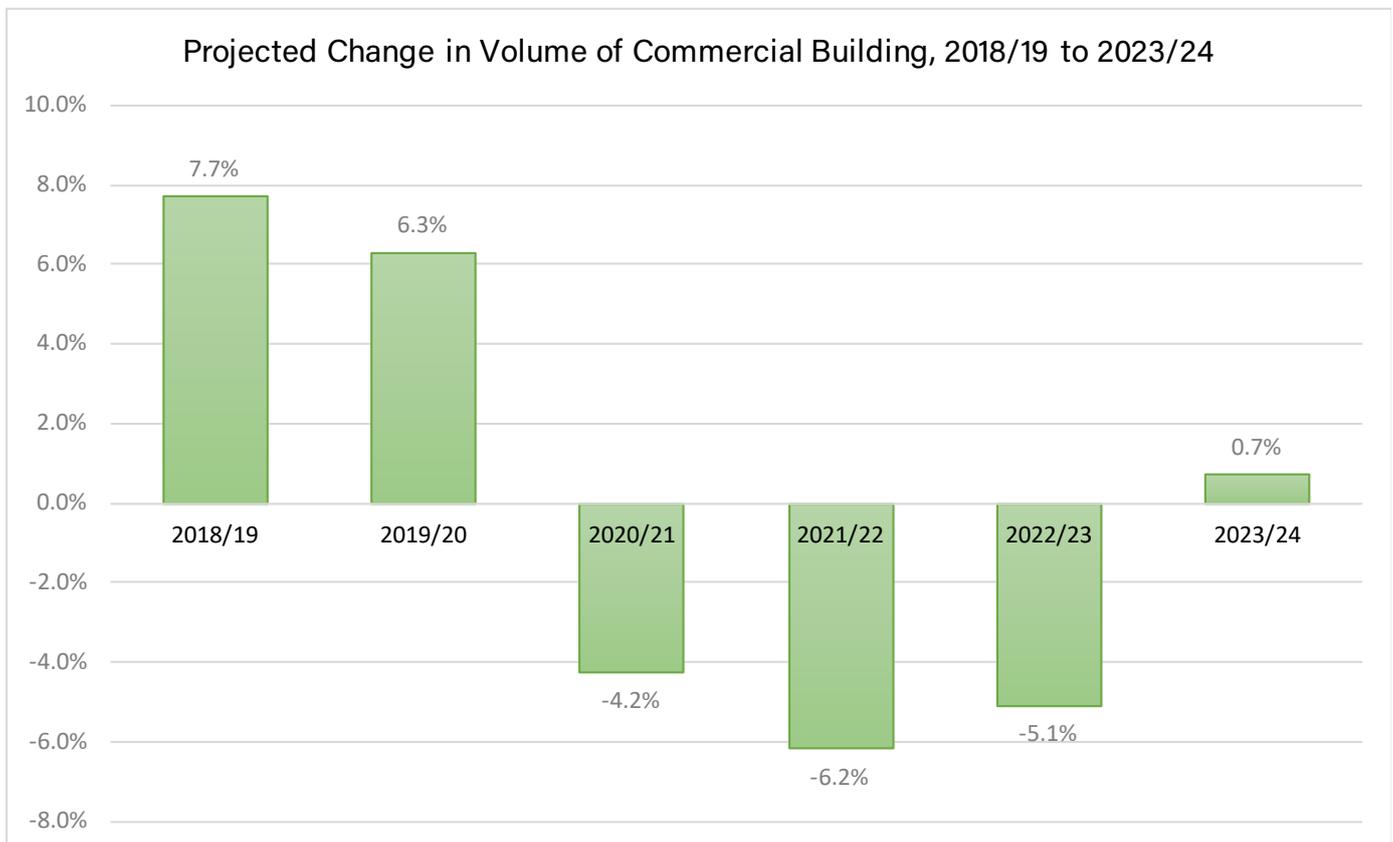
Australia's commercial building sector has recently sparked to life following an extended number of years involving a flatlining of activity. Latest data indicate that over the year to March 2019, the volume of commercial building work done surged to an all-time high of \$43.15 billion. This represents an increase of 3.2% on a year earlier. Compared with the trough in commercial building activity during 2013, the volume of work has risen by a total of 19.3%.



The recent upturn in commercial building activity owes its origin to a number of factors. Employment and population growth have both been strong, and this has boosted the need for all kinds of new buildings like shops, hospitals, schools, offices, cafes, bars, restaurants in addition to 'back end' work like warehouses, factories and wholesale distribution facilities. The long term ageing of Australia's population means that the number of aged care facilities we need is growing all of the time, supporting work in this part of the building sector. Building work related to tourism, such as hotels, is also experiencing a favourable backdrop thanks to continued growth in the global economy and the weakness of the Australian dollar on currency markets – something which makes trips to Australia much more affordable for those visiting from overseas. For all segments of commercial building, the move to even lower interest rates is a clear plus, allowing finance to be sourced at lower cost and expanding the pool of projects which now 'pass the test' in terms of commercial viability.

Within commercial building, there are ‘five pillars’ of activity. In order of size and based on the estimated value of work done during 2017/18, these are: Offices (\$7.23 billion), Education (\$6.53 billion), Retail/ Wholesale (\$6.28 billion), Accommodation (\$3.43 billion) and Entertainment/Recreation (\$3.36 billion). Since the beginning of the decade when commercial building bottomed out, each of these pillars has seen strong gains. Accommodation is the far and away leader here, with the volume of building activity almost trebling since 2012/13. Over the same period, growth was less pronounced but still sizeable in Entertainment/Recreation (+43.2%) as well as Education (+30.4%). Growth was more measured when it came to Retail/Wholesale (+12.5%) and Office building (+10.8%).

We project that commercial building activity will expand by a further 6.3% during the 2019/20 financial year to reach a new record peak. The cyclical nature of commercial building means that the subsequent downturn – triggered by a smaller volume of new job creation and weaker population growth – will be sizeable. We anticipate a 4.2% decline in commercial building activity during 2020/21 with a further fall of 6.2% during 2021/22. The 2022/23 financial year will probably mark the trough for commercial building with activity projected to suffer a reduction of 5.1%. A small expansion of 0.7% during 2023/24 is expected to mark the early stages of a recovery. Altogether, this means that the size of the commercial building market in 2023/24 is anticipated to be 8.7% smaller than in 2018/19.



The slowdown in employment growth means that a 21.1% drop in office building activity over the period to 2023/24 is anticipated to make the largest contribution to the overall decline in commercial building with the 17.3% hit to education building work also expected to take a big bite out of the market. With such a large amount of new accommodation having come on stream over recent years, the amount of building activity in this part of the market is anticipated to revert to volumes more consistent with long term trends. This is forecast to involve a 30.8% reduction in accommodation building work by 2023/24 compared with 2018/19 levels.

Even though commercial building overall is facing a contraction over the medium term, a number of important segments of the market are still expected to see growth. Building work on health facilities is anticipated to expand by 11.4% on 2018/19 levels while work on transport buildings is expected to gain 13.6% by the 2023/24 financial year.

Ten Largest Commercial Building Projects either Committed or Under Construction

Project	Company	State	Cost (\$ million)	Start Date	Likely End Date
1 Barangaroo development	Barangaroo Delivery Authority / Lend Lease / Grocon / Scentre Group / Aqualand	NSW	6,000	2011	2024
2 Western Sydney Airport - Badgerys Creek	Western Sydney Airport Alliance / Australian Federal Government	NSW	5,300	2018	2026
3 Crown Sydney Hotel Resorts, Barangaroo	Crown Ltd	NSW	2,200	2017	Early 2021
4 Wynyard Place Development	Brookfield Property Partners / AMP Capital / UniSuper	NSW	1,900	2017	Sep 2020
5 Melbourne Quarter mixed-use development	Lend Lease	VIC	1,500	2017	2022
6 Merrifield Development	MAB Corporation Pty Ltd / Gibson Property	VIC	1,200	2015	This Year
7 Castle Towers Shopping Centre expansion	Queensland Investment Corporation	NSW	1,083	2019	End 2022
8 ICON Ipswich - Ipswich CBD renewal	Ipswich City Properties / Leighton Properties	QLD	1,000	2011	2020
9 Perth Airport Terminal Upgrade	Perth Airport Pty Ltd	WA	1,000	July 2011	2020
10 Nexus Industrial - intermodal hubs in Dandenong South and Altona	Salta Properties	VIC	1,000	2013	This Year

Source: Deloitte Access Economics [Investment Monitor]

At present there are just over a dozen commercial building projects valued at more than \$1 billion each including the new Western Sydney Airport terminals, the Crown Resort in Sydney, WA's Bunbury Waterfront project and the Ipswich CBD renewal project in Queensland. The full details of these are included in the table above.

The table below summarises the largest commercial building projects across Australia that are either possible or under consideration. The largest of these is the \$7 billion Koo Wee Rup Airport in Victoria, with three major projects in Queensland including the \$5 billion Airlie Beach Resort Development and the Aquis Great Barrier Reef project valued at \$2 billion, similar in value to the proposed Brisbane Live Entertainment Precinct.

Ten Largest Commercial Building Projects either Possible or Under Consideration

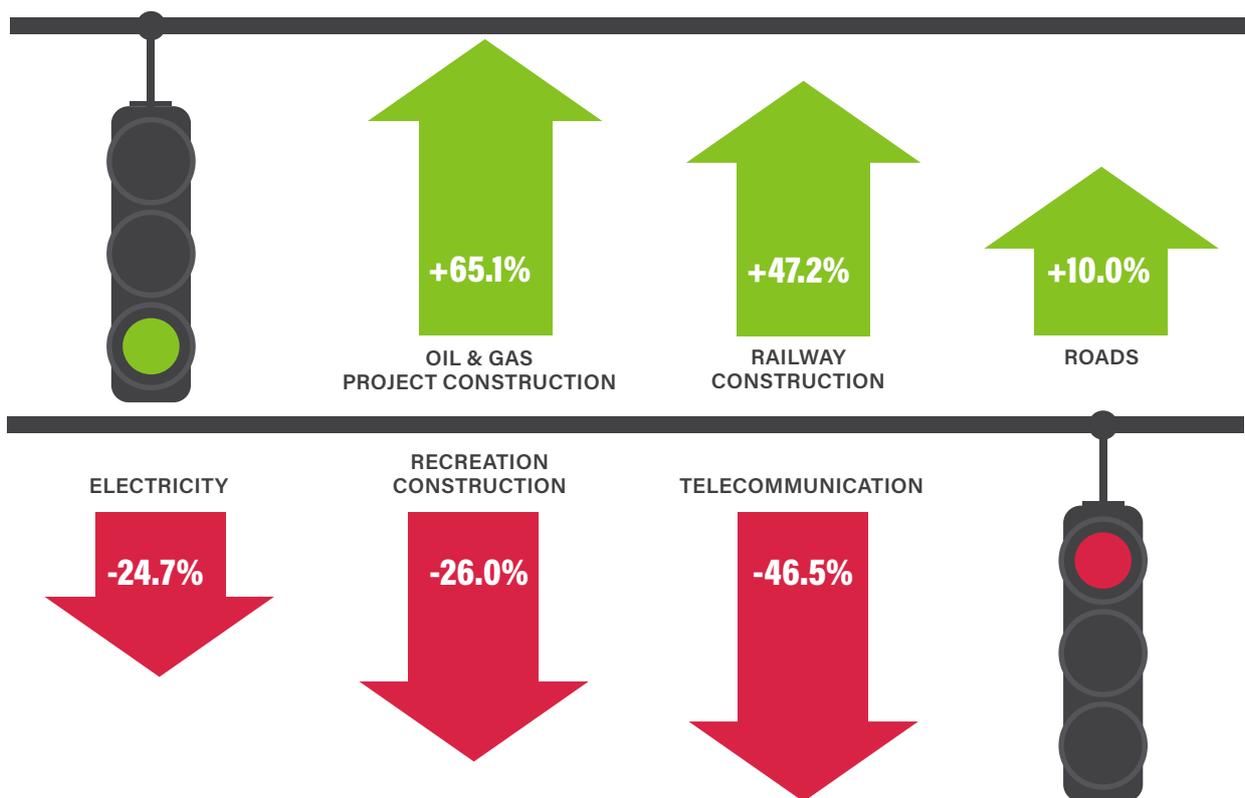
Project	Company	State	Cost (\$ million)	Start Date	Likely End Date
1 Koo Wee Rup Airport	Paragon Premier Investment Fund	VIC	7,000	Proposed	Not currently known
2 Airlie beach resort development	China-Australia Entrepreneurs Association Incorporated	QLD	5,000	Plans announced	Not currently known
3 Aquis Great Barrier Reef Project	Aquis Resort at the Great Barrier Reef Pty Ltd	QLD	2,000	EIS Approved	2020
4 Brisbane Live - new entertainment precinct	AEG Ogden	QLD	2,000	Plans announced	Not currently known
5 New Women's and Children's Hospital (WCH) at the Royal Adelaide Hospital	SA Dept of Health	SA	1,800	Planning underway	2024
6 HumeX business park and homemaker centre	JTX International	VIC	1,700	In planning	Not currently known
7 Mixed-use project at the Jam Factory site on Chapel Street, South Yarra	Newmark Capital	VIC	1,250	Pending investment decision	2023
8 ANZ Stadium redevelopment	NSW Office of Sport	NSW	810	Late 2019	2021
9 Galleria Shopping Centre redevelopment	Vicinity Centres	WA	800	Approved by City of Bayswater	Not currently known
10 Office tower at 80 Ann Street, Brisbane	Mirvac	QLD	800	Planning underway with Suncorp announced as anchor tenant	Not currently known

Source: Deloitte Access Economics [Investment Monitor]

ENGINEERING AND CIVIL CONSTRUCTION 2019 | AUGUST SUMMARY

We expect this to be the biggest winner over the next few years, largely thanks to the ramping up of government-led transport infrastructure projects. The volume of work is anticipated to rise from \$92.42 billion in 2018/19 to \$103.94 billion in 2021/22, a gain of 12.5% with construction relating to road, rail and gas pipelines providing the biggest boost. On the flip side, the volume of work is likely to shrink in a few places like telecommunications and electricity.

MBA forecast Change in Activity: 2023/24 v 2018/19



MBA Forecasts of Engineering & Civil Construction (Billions of Dollars)

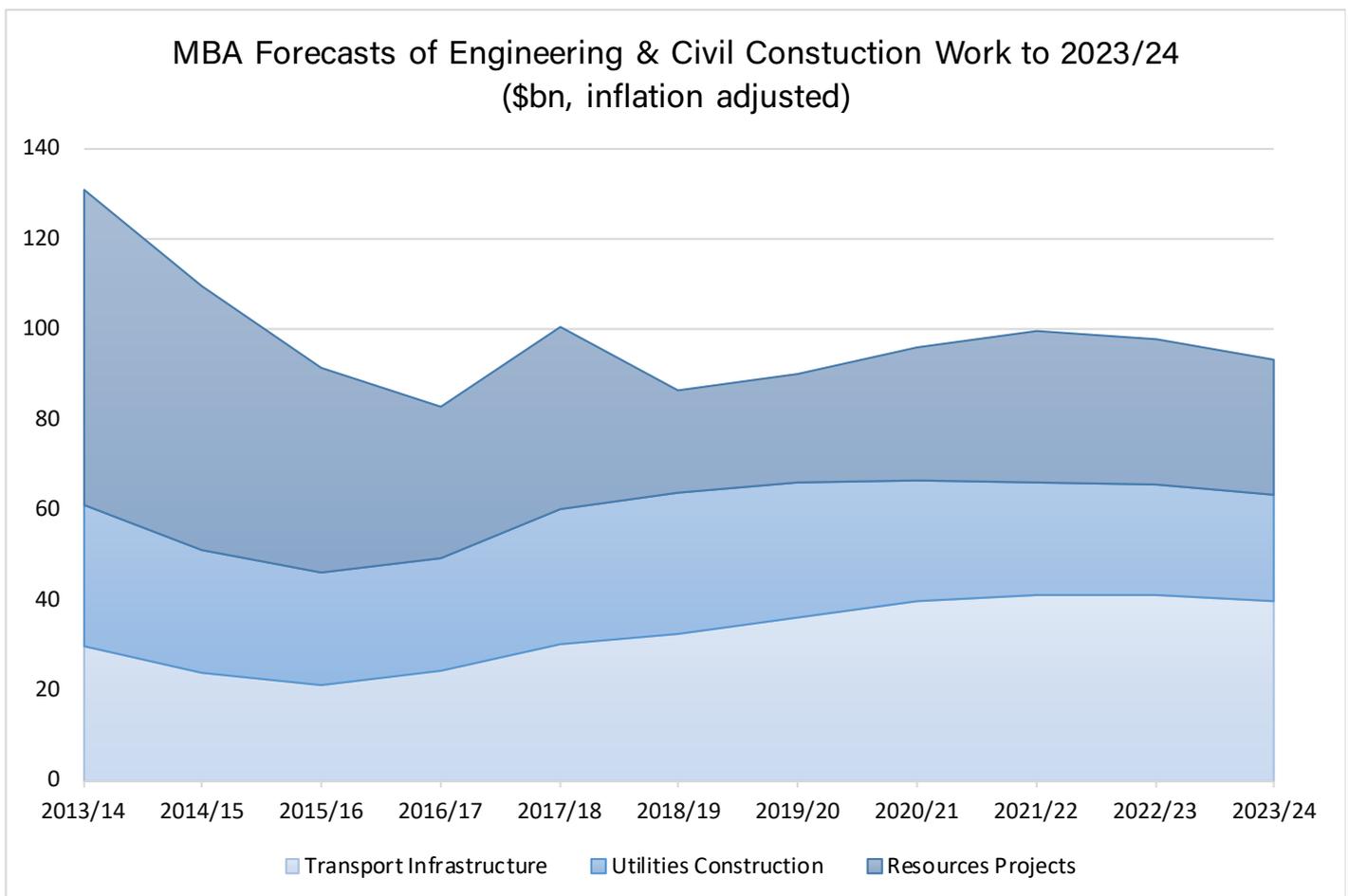
2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
\$137.31	\$114.64	\$96.22	\$87.62	\$105.98	\$92.42	\$94.68	\$100.47	\$103.94	\$102.36	\$97.77
-3.8%	-16.5%	-16.1%	-8.9%	21.0%	-12.8%	2.4%	6.1%	3.5%	-1.5%	-4.5%

ENGINEERING & CIVIL CONSTRUCTION

Prepare for Take Off

Civil and engineering construction activity is a very broad church and includes everything from new road building, the NBN, mining project work, electricity networks, railways and harbours. Collectively, it is still a far cry from the dizzy heights reached earlier in the decade. Latest official data indicate that the volume of engineering construction activity totalled \$89.21 billion over the year to March 2019, a 17.3% reduction on a year earlier. Engineering construction activity had peaked at \$144.1 billion at the height of the mining/natural resources project boom. The current workload is 38% below this high point and what looked like the beginnings of a spirited recovery during 2017 and 2018 has petered out.

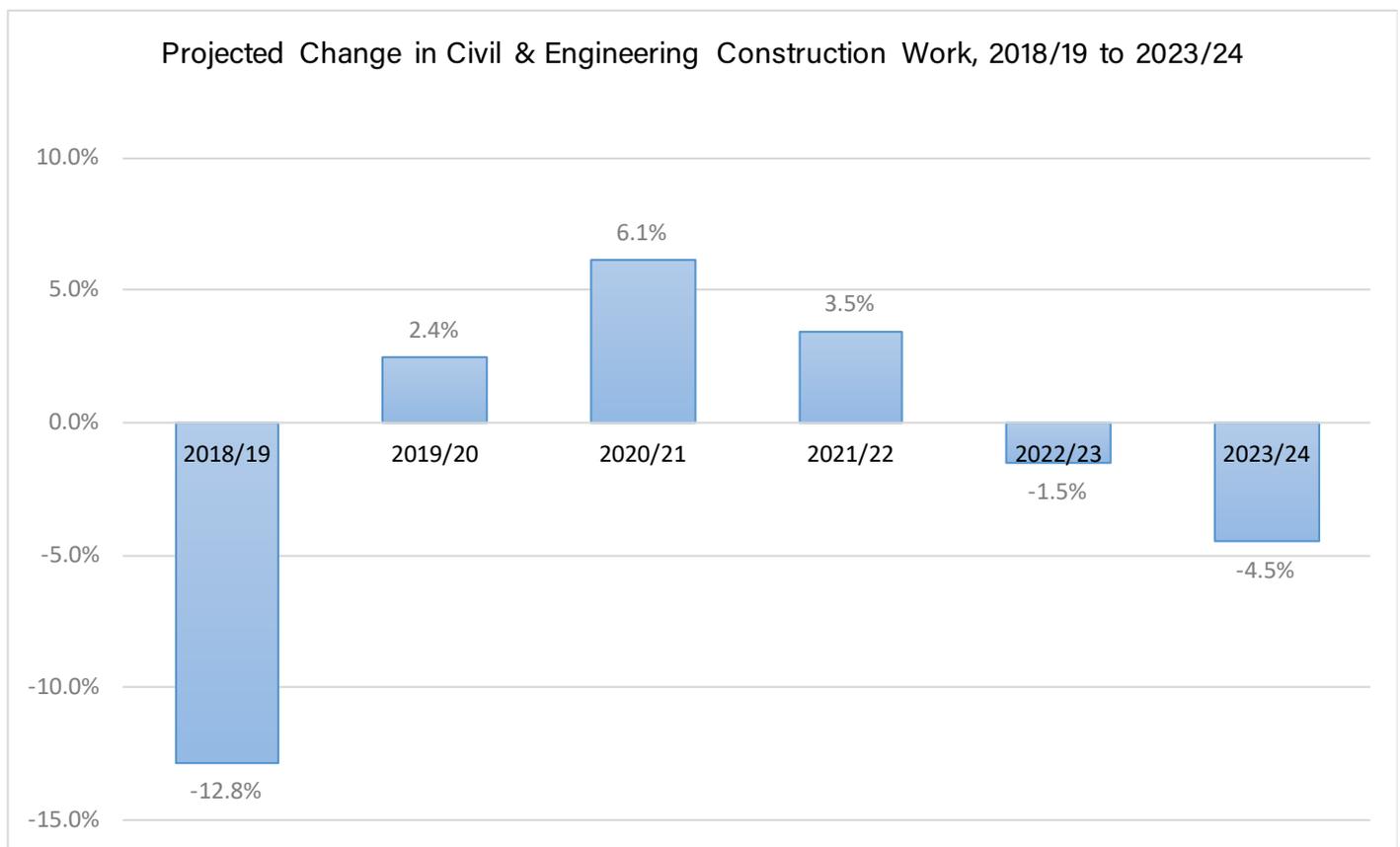
Engineering construction can be grouped into three broad categories. Based on the volume of work done during 2017/18, the largest is Resources construction (\$40.1 billion) with Utilities (\$30.3 billion) and Transport (\$30.0 billion) pretty much neck and neck as regards size. Not surprisingly, resources-related construction has lost the most ground over the past five years. The reversals in both transport and utilities work over the same period have not received as much notice despite being quite significant in size.



The specific areas which have taken the biggest bites out of engineering construction activity over the last few years include coal projects, where the volume of work declined by 67.4% between 2012/13 and 2017/18, a reduction equivalent to \$9.96 billion worth of activity. Harbour construction work fell by 89.7% over this period, with Oil, Gas & Hydrocarbon plant work declining by 17.7%. Projects related to other minerals suffered a reduction of 70.6% over this timeframe.

Not all segments of engineering construction have lost ground since 2012/13. The rollout of the NBN caused telecommunications construction work to expand by 68.7% over this period, adding some \$4.2 billion to construction activity. Road building work has also taken a bigger slice of the pie and its 8.2% gain produced \$1.59 billion worth of additional work.

Looking to the future, the outlook for engineering construction is a reasonably positive one. This will largely be thanks to the roll out of government infrastructure projects over the next few years. Overall, engineering construction activity is projected to expand by 2.4% during 2019/20 followed by an increase of 6.1% in 2020/21. The phasing out of government infrastructure projects will cause activity to dip towards the end of the forecast horizon. Nonetheless, the volume of engineering construction activity done during 2023/24 is anticipated to be 5.8% higher than in 2018/19.



Over the period to 2023/24, transport infrastructure work is forecast to rise by 32.3%, or \$9.68 billion in terms of work. Railway construction will almost double in terms of activity (+84.6%), with an increase in activity valued at \$5.90 billion. Road construction is anticipated to increase by 12.4%, adding \$2.23 billion to the size of the engineering construction market. Other winners over the forecast horizon are expected to include harbours (+146.6%), coal/coal handling (+23.7%) and work on pipelines for transporting gas (+46.9%).

While the next few years look very promising for transport infrastructure projects, some areas of the resources and utilities sectors are looking at a rough few years. By 2023/24, the volume of Oil, Gas & Hydrocarbon plant construction work is forecast to drop by 45.3%, equivalent to a reduction of \$13.10 billion in work done. The ending of work on the NBN scheduled for next year means that telecommunications is set for a 48.2% decline. Both water (-33.4%) and electricity (-9.4%) are also facing substantial reductions in their respective pipelines.

Summarised in the table below are the ten largest engineering construction projects which are either committed or currently under construction. The \$49 billion NBN is by far the largest, although this is nearing completion. Transport projects in the larger cities dominate the current workload and include the WestConnex project in Sydney (\$16.8 billion) and the respective metro projects in Sydney and Melbourne.

Ten Largest Engineering Construction Projects either Committed or Under Construction

Project	Company	State	Cost (\$ million)	Start Date	Likely End Date
1 National Broadband Network	NBN Co	Unallocated	49,000	2011	2020
2 WestConnex project	NSW Roads and Maritime Services	NSW	16,800	Q2 2015	2023
3 Sydney Metro City and Southwest Project	NSW State Rail Authority	NSW	12,000	2018	2024
4 Melbourne Metro Rail Project	Victorian Rail Track	VIC	10,900	Early 2018	End 2025
5 Inland Rail - Melbourne to Brisbane rail link	Australian Rail Track Corporation Ltd	Unallocated	10,000	2018	2025
6 Sydney Metro Northwest	NSW State Rail Authority	NSW	8,279	2014	This Year
7 West Gate Tunnel Project	Transurban	VIC	6,700	2018	Q4 2022
8 Cross River Rail	Qld Dept of Transport and Main Roads	QLD	5,409	2017	2023
9 Pacific Highway Upgrade	NSW Roads and Maritime Services	NSW	4,945	2016	2020
10 South Flank Iron Ore Development	BHP	WA	4,600	2018	2021

Source: Deloitte Access Economics [Investment Monitor]

A number of significant engineering construction projects are listed as possible or under consideration. While the largest of these – the \$16.5 billion North East Link in Victoria – is in the transport space, there is a heavy resources focus here which involves WA’s Scarborough FLNG project (\$15.0 billion), Greater Sunrise Gas in the NT (\$13.0 billion) and Alpha Coal Project (\$10.8 billion).

Ten Largest Engineering Construction Projects either Possible or Under Consideration

Project	Company	State	Cost (\$ million)	Start Date	Likely End Date
1 North East Link	VicRoads	VIC	16,500	2020	2027
2 Scarborough FLNG project	BHP Petroleum / ExxonMobil / Woodside Energy	WA	15,000	FID expected by 2020	2033
3 Greater Sunrise gas development	Woodside (33.44%) / Conoco Phillips (30%) / Shell (26.56%) / Osaka Gas (10%)	NT	13,000	Not currently known	Not currently known
4 Alpha Coal Project	Hancock Prospecting (21%) / GVK (79%)	QLD	10,800	In planning	2022
5 Rail tunnel under Sydney Harbour and CBD	NSW State Rail Authority	NSW	10,400	2020	2028
6 Gorgon LNG project	Gorgon joint venture (Chevron Australia (47%) / Shell (25%) / Mobil (25%) / Osaka Gas (1.25%) / Tokyo Gas (1%) Chubu Electric Power (0.417%))	WA	10,000	Waiting on final decision from Chevron	Not currently known
7 Melbourne Tullamarine Airport Rail link	Commonwealth Government Dept of Infrastructure and Regional Development	VIC	10,000	2022	Not currently known
8 West Pilbara iron ore project	Aurizon / Baosteel	WA	7,400	Pending DFS decision	Not currently known
9 New multi-user deep water iron ore port, Anketell	WA Dept of Planning	WA	7,000	Commonwealth approval granted, start pending JV partner	Not currently known
10 China Stone Coal Project - 270km south of Townsville	Macmines AustAsia	QLD	6,700	EIS in progress	2023

Source: Deloitte Access Economics [Investment Monitor]

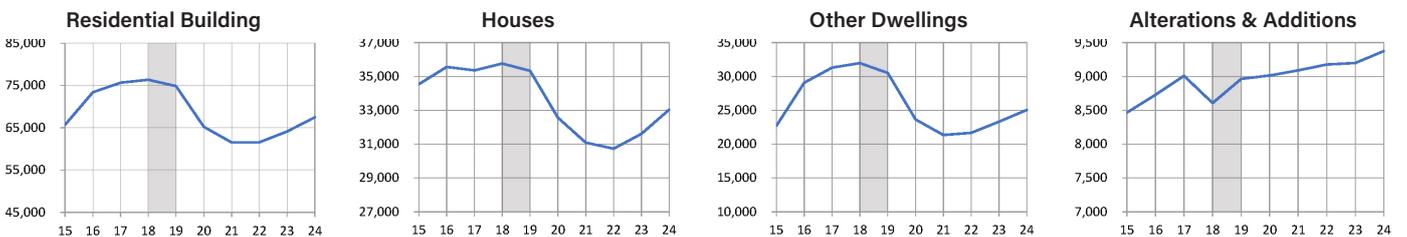
AUSTRALIA 2019 | GRAPHS & TABLES

RESIDENTIAL BUILDING

RESIDENTIAL BUILDING WORK DONE BY SECTOR

\$M, chain volume measures, constant 2016/17 prices - Year Ended June

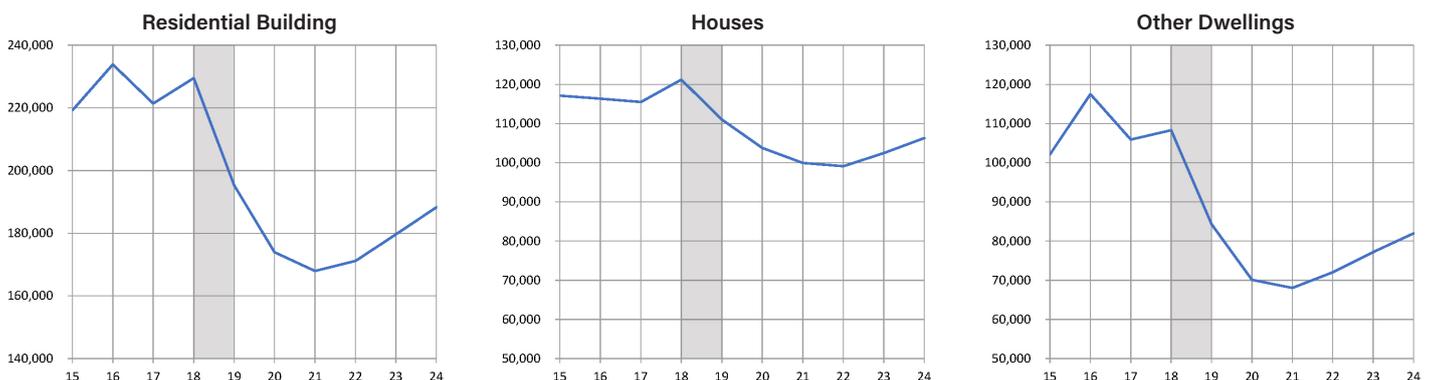
	%ch	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Residential Building		55,470	57,495	53,807	55,685	59,271	65,714	73,371	75,679	76,351	74,829	65,217	61,524	61,570	64,115	67,476
	3.6%	3.6%	-6.4%	3.5%	6.4%	10.9%	11.7%	3.1%	0.9%	-2.0%	-12.8%	-5.7%	0.1%	4.1%	5.2%	
Houses		34,479	33,543	30,308	30,708	31,546	34,539	35,566	35,360	35,766	35,329	32,568	31,085	30,731	31,609	33,042
	6.1%	-2.7%	-9.6%	1.3%	2.7%	9.5%	3.0%	-0.6%	1.1%	-1.2%	-7.8%	-4.6%	-1.1%	2.9%	4.5%	
Other Dwellings		12,780	15,045	14,815	16,867	19,500	22,739	29,076	31,309	31,977	30,535	23,634	21,348	21,663	23,307	25,059
	0.3%	17.7%	-1.5%	13.8%	15.6%	16.6%	27.9%	7.7%	2.1%	-4.5%	-22.6%	-9.7%	1.5%	7.6%	7.5%	
Alterations & Additions		8,685	9,239	8,933	8,250	8,285	8,467	8,729	9,009	8,608	8,965	9,015	9,091	9,175	9,199	9,375
	-0.2%	6.4%	-3.3%	-7.6%	0.4%	2.2%	3.1%	3.2%	-4.5%	4.2%	0.6%	0.8%	0.9%	0.3%	1.9%	



NUMBER OF DWELLING COMMENCEMENTS BY SECTOR

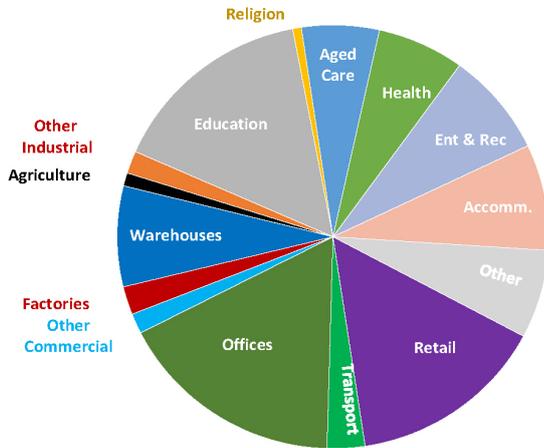
Year Ended June

	%ch	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Residential Building		170,271	162,499	145,350	166,027	184,911	219,245	233,872	221,408	229,494	195,307	173,907	167,962	171,163	179,640	188,255
	28.3%	-4.6%	-10.6%	14.2%	11.4%	18.6%	6.7%	-5.3%	3.7%	-14.9%	-11.0%	-3.4%	1.9%	5.0%	4.8%	
Houses		115,586	100,549	89,837	95,633	107,618	117,124	116,354	115,505	121,206	111,015	103,792	99,930	99,116	102,445	106,297
	24.1%	-13.0%	-10.7%	6.5%	12.5%	8.8%	-0.7%	-0.7%	4.9%	-8.4%	-6.5%	-3.7%	-0.8%	3.4%	3.8%	
Other Dwellings		54,685	61,950	55,513	70,394	77,293	102,121	117,518	105,903	108,288	84,292	70,115	68,032	72,047	77,195	81,958
	38.0%	13.3%	-10.4%	26.8%	9.8%	32.1%	15.1%	-9.9%	2.3%	-22.2%	-16.8%	-3.0%	5.9%	7.1%	6.2%	

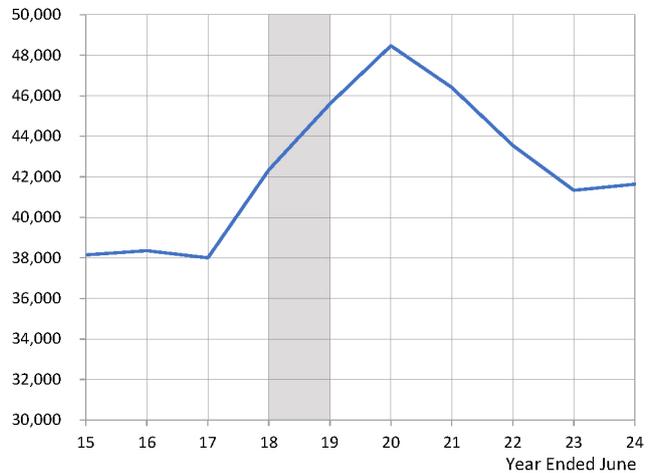


NON-RESIDENTIAL BUILDING

Australia Non-Residential Building Work Done 2017/18



Non-Residential Building (\$M)

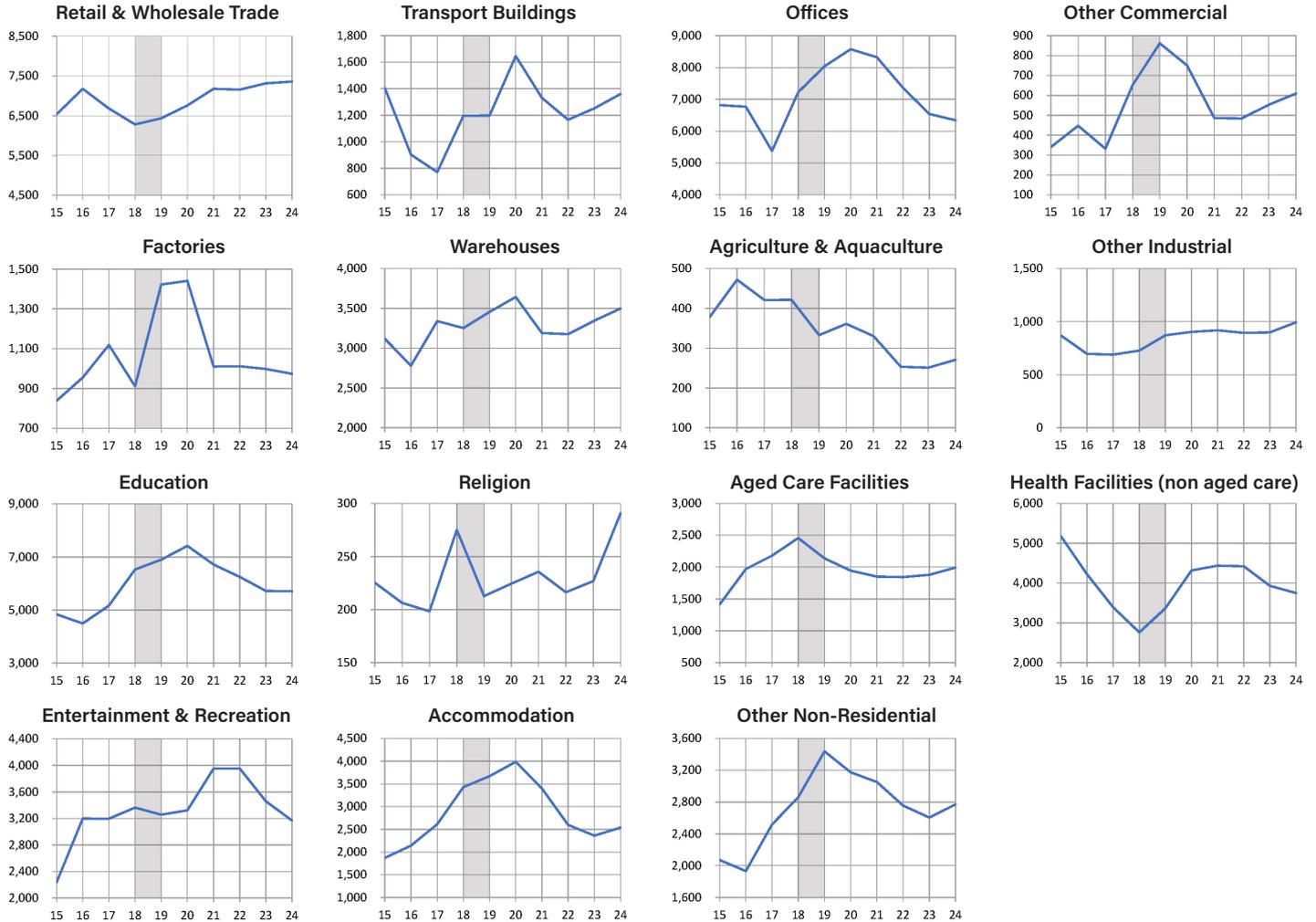


NON-RESIDENTIAL BUILDING WORK DONE BY SECTOR

\$M, chain volume measures, constant 2016/17 prices - Year Ended June

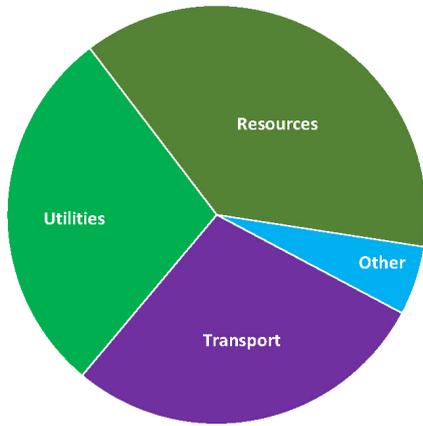
	%ch	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Non-Residential Building		39,449	39,612	36,920	36,283	38,192	38,146	38,361	38,003	42,344	45,599	48,471	46,415	43,548	41,338	41,634
		8.9%	0.4%	-6.8%	-1.7%	5.3%	-0.1%	0.6%	-0.9%	11.4%	7.7%	6.3%	-4.2%	-6.2%	-5.1%	0.7%
Retail & wholesale trade		5,012	5,683	5,946	5,584	6,684	6,538	7,178	6,685	6,282	6,437	6,760	7,178	7,156	7,315	7,359
		-20.6%	13.4%	4.6%	-6.1%	19.7%	-2.2%	9.8%	-6.9%	-6.0%	2.5%	5.0%	6.2%	-0.3%	2.2%	0.6%
Transport buildings		867	709	855	978	1,119	1,407	903	771	1,196	1,198	1,646	1,331	1,166	1,252	1,361
		-17.8%	-18.3%	20.6%	14.4%	14.4%	25.7%	-35.8%	-14.6%	55.1%	0.1%	37.5%	-19.2%	-12.4%	7.4%	8.7%
Offices		6,428	5,981	6,360	6,523	6,275	6,819	6,766	5,379	7,225	8,040	8,574	8,325	7,362	6,541	6,345
		-28.6%	-6.9%	6.3%	2.6%	-3.8%	8.7%	-0.8%	-20.5%	34.3%	11.3%	6.7%	-2.9%	-11.6%	-11.1%	-3.0%
Other commercial		293	300	210	280	397	340	447	332	652	862	750	486	484	552	610
		6.6%	2.2%	-30.0%	33.5%	41.8%	-14.4%	31.5%	-25.8%	96.4%	32.1%	-12.9%	-35.2%	-0.5%	14.2%	10.4%
Factories		1,102	1,059	1,240	1,019	888	838	955	1,119	911	1,422	1,441	1,010	1,012	998	974
		-30.0%	-3.9%	17.1%	-17.8%	-12.8%	-5.7%	13.9%	17.2%	-18.5%	56.0%	1.3%	-29.9%	0.2%	-1.3%	-2.4%
Warehouses		2,003	2,317	2,612	2,478	2,886	3,119	2,779	3,341	3,253	3,456	3,643	3,190	3,176	3,347	3,499
		-31.4%	15.6%	12.8%	-5.1%	16.5%	8.1%	-10.9%	20.2%	-2.7%	6.3%	5.4%	-12.4%	-0.4%	5.4%	4.5%
Agriculture & aquaculture		232	342	253	191	209	378	472	421	422	333	361	331	253	251	271
		-18.2%	47.8%	-26.2%	-24.4%	9.5%	80.8%	24.8%	-10.8%	0.1%	-21.1%	8.4%	-8.4%	-23.3%	-1.0%	7.8%
Other industrial		926	1,180	1,782	2,584	1,445	870	697	689	727	871	903	918	895	899	993
		-20.2%	27.4%	51.0%	45.0%	-44.1%	-39.8%	-19.9%	-1.1%	5.5%	19.8%	3.7%	1.7%	-2.6%	0.5%	10.5%
Education		12,143	11,594	5,867	5,005	5,228	4,840	4,494	5,169	6,528	6,901	7,420	6,718	6,253	5,720	5,709
		201.9%	-4.5%	-49.4%	-14.7%	4.4%	-7.4%	-7.1%	15.0%	26.3%	5.7%	7.5%	-9.5%	-6.9%	-8.5%	-0.2%
Religion		184	247	232	209	264	225	206	198	275	213	224	236	216	227	291
		22.1%	34.6%	-6.3%	-9.5%	26.2%	-14.7%	-8.4%	-3.9%	38.7%	-22.7%	5.5%	5.0%	-8.2%	4.8%	28.1%
Aged care facilities		1,034	813	859	857	1,164	1,412	1,970	2,180	2,457	2,138	1,946	1,850	1,843	1,879	1,994
		-27.4%	-21.4%	5.7%	-0.3%	35.9%	21.3%	39.5%	10.6%	12.7%	-13.0%	-9.0%	-4.9%	-0.4%	2.0%	6.1%
Health facilities (non-aged care)		3,223	3,778	4,550	4,786	5,679	5,180	4,222	3,393	2,760	3,366	4,318	4,439	4,420	3,932	3,750
		41.2%	17.2%	20.4%	5.2%	18.6%	-8.8%	-18.5%	-19.6%	-18.6%	21.9%	28.3%	2.8%	-0.4%	-11.1%	-4.6%
Entertainment & Recreation		2,219	2,318	2,281	2,350	2,344	2,236	3,199	3,195	3,364	3,256	3,323	3,951	3,954	3,460	3,170
		-7.5%	4.4%	-1.6%	3.0%	-0.3%	-4.6%	43.0%	-0.1%	5.3%	-3.2%	2.1%	18.9%	0.1%	-12.5%	-8.4%
Accommodation		1,098	951	1,304	1,179	1,136	1,871	2,139	2,613	3,429	3,670	3,986	3,401	2,600	2,360	2,539
		-26.1%	-13.4%	37.2%	-9.6%	-3.6%	64.6%	14.4%	22.1%	31.2%	7.0%	8.6%	-14.7%	-23.5%	-9.2%	7.6%
Other non-residential		2,684	2,340	2,571	2,259	2,473	2,072	1,932	2,517	2,861	3,437	3,175	3,052	2,757	2,604	2,770
		44.0%	-12.8%	9.8%	-12.1%	9.5%	-16.2%	-6.7%	30.3%	13.7%	20.1%	-7.6%	-3.9%	-9.7%	-5.5%	6.4%

NON-RESIDENTIAL BUILDING CONT.

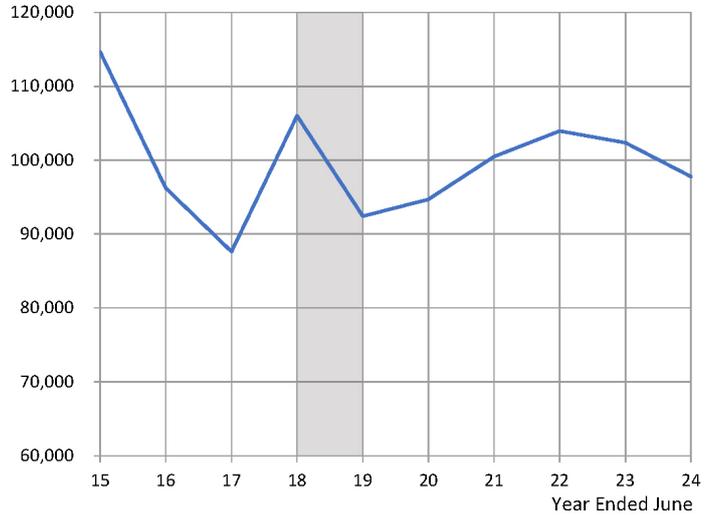


ENGINEERING CONSTRUCTION

Australia Engineering Construction Work Done 2017/18



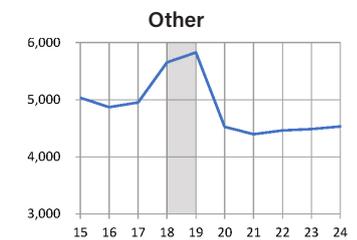
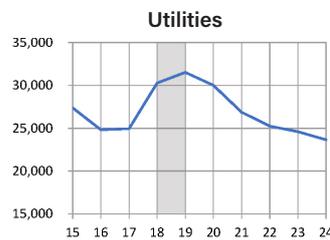
Engineering Construction (\$M)



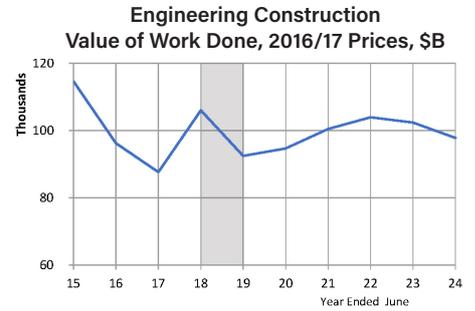
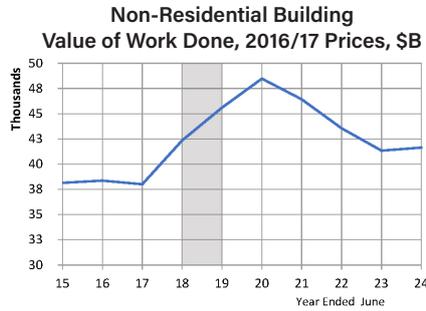
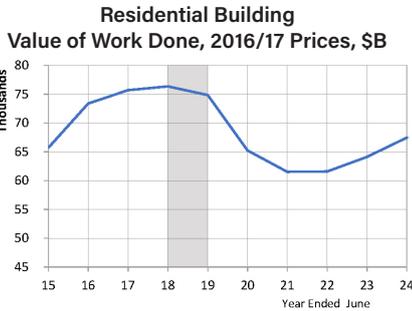
ENGINEERING CONSTRUCTION WORK DONE BY SECTOR

\$M, chain volume measures, constant 2016/17 prices - Year Ended June

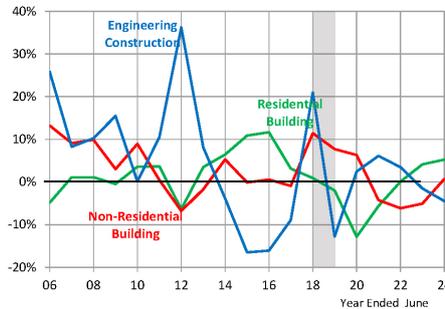
	%ch	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Engineering Construction		87,803	97,020	132,127	142,810	137,312	114,645	96,215	87,617	105,983	92,423	94,677	100,472	103,939	102,360	97,770
		0.1%	10.5%	36.2%	8.1%	-3.8%	-16.5%	-16.1%	-8.9%	21.0%	-12.8%	2.4%	6.1%	3.5%	-1.5%	-4.5%
Transport		26,026	30,540	35,880	36,433	29,557	23,790	21,267	24,301	29,993	32,415	36,185	39,752	40,943	40,975	39,669
		-1.8%	17.3%	17.5%	1.5%	-18.9%	-19.5%	-10.6%	14.3%	23.4%	8.1%	11.6%	9.9%	3.0%	0.1%	-3.2%
Utilities		28,398	28,764	29,547	32,538	31,423	27,374	24,823	24,959	30,285	31,520	30,011	26,876	25,256	24,603	23,659
		3.1%	1.3%	2.7%	10.1%	-3.4%	-12.9%	-9.3%	0.5%	21.3%	4.1%	-4.8%	-10.4%	-6.0%	-2.6%	-3.8%
Resources		28,625	33,497	61,789	66,758	70,028	58,447	45,256	33,406	40,051	22,661	23,954	29,448	33,275	32,296	29,908
		-2.9%	17.0%	84.5%	8.0%	4.9%	-16.5%	-22.6%	-26.2%	19.9%	-43.4%	5.7%	22.9%	13.0%	-2.9%	-7.4%
Other		4,754	4,219	4,911	7,081	6,303	5,034	4,868	4,951	5,654	5,826	4,527	4,396	4,463	4,486	4,534
		13.2%	-11.2%	16.4%	44.2%	-11.0%	-20.1%	-3.3%	1.7%	14.2%	3.0%	-22.3%	-2.9%	1.5%	0.5%	1.1%



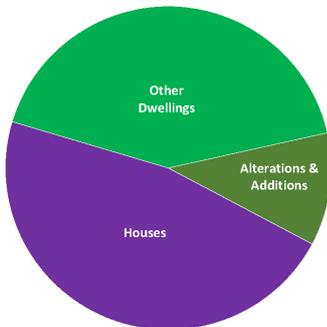
BUILDING & CONSTRUCTION WORK DONE



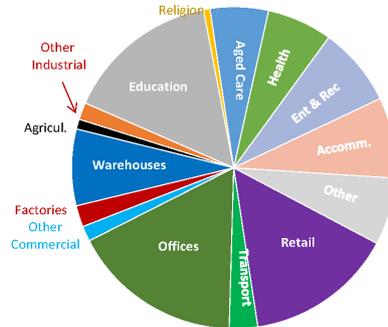
Australia - Building and Construction Work Done
2016/17 Prices, %change



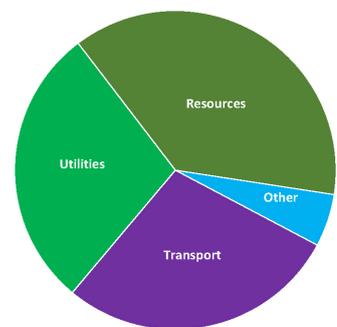
Residential Building Work done
2017/18



Non-Residential Building Work Done
2017/18



Engineering Construction Work Done
2017/18



BUILDING AND CONSTRUCTION WORK DONE

\$M, chain volume measures, constant 2016/17 prices - Year Ended June

	%ch	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Total Building & Construction		222,855	234,777	234,775	218,504	207,947	201,300	224,678	212,851	208,366	208,411	209,057	207,813	206,880
		14.8%	5.3%	0.0%	-6.9%	-4.8%	-3.2%	11.6%	-5.3%	-2.1%	0.0%	0.3%	-0.6%	-0.4%
Residential Building		53,807	55,685	59,271	65,714	73,371	75,679	76,351	74,829	65,217	61,524	61,570	64,115	67,476
		-6.4%	3.5%	6.4%	10.9%	11.7%	3.1%	0.9%	-2.0%	-12.8%	-5.7%	0.1%	4.1%	5.2%
Non-Residential Building		36,920	36,283	38,192	38,146	38,361	38,003	42,344	45,599	48,471	46,415	43,548	41,338	41,634
		-6.8%	-1.7%	5.3%	-0.1%	0.6%	-0.9%	11.4%	7.7%	6.3%	-4.2%	-6.2%	-5.1%	0.7%
Engineering Construction		132,127	142,810	137,312	114,645	96,215	87,617	105,983	92,423	94,677	100,472	103,939	102,360	97,770
		36.2%	8.1%	-3.8%	-16.5%	-16.1%	-8.9%	21.0%	-12.8%	2.4%	6.1%	3.5%	-1.5%	-4.5%

Source: Master Builders Australia, Macromonitor, ABS data.



Separate forecast reports available for all states and territories. All report Data, Tables and Charts are available to order in Excel. Contact: forecasts@masterbuilders.com.au

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