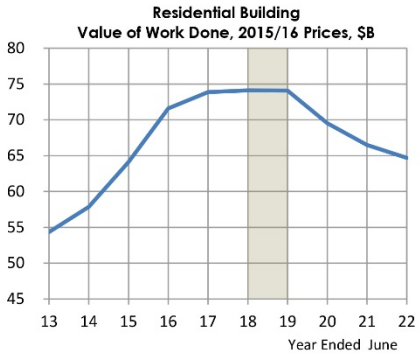
January 2019

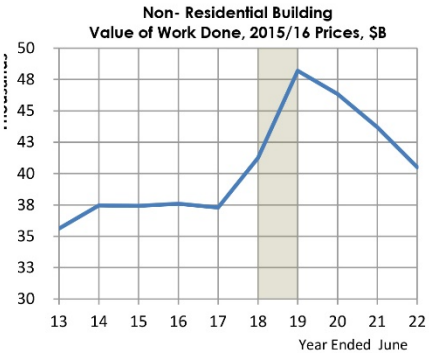
AUSTRALIA COMMENTARY – OVERVIEW WITH ECONOMIC BACKDROP

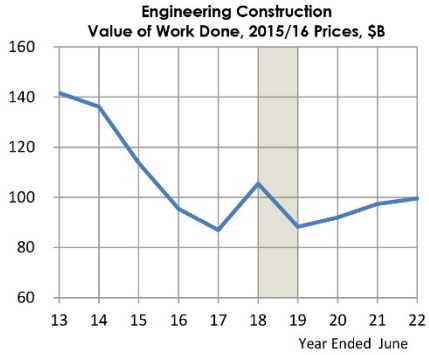
Residential Building: Residential building is coming under pressure from a number of sources and will continue to retreat from record highs over the forecast horizon to 2022/23.

Non-Residential Building: has gathered momentum over the last couple of years but will probably step back a bit to levels more consistent with long term trend.

Engineering Construction: Finally appears to have bottomed out in the aftermath of the mining investment downturn. Government-led infrastructural work is driving a modest turnaround.







- The total volume of construction activity in Australia is estimated to have increased by 11.4% to $220.8 billion during 2017/18, with engineering construction seeing the strongest increase.
- Australia's economic situation is fundamentally sound with healthy gains in full-time employment, robust population growth and interest rates close to record lows.
- However, a couple of significant challenges emerged during 2018. The commencement of the Royal Commission has contributed to a credit crunch. Last year also saw substantial falls in Sydney and Melbourne house prices and these declines are likely to continue in 2019. It is likely that these two factors will have the largest influence on residential building activity over the near term.
- New dwelling commencements across Australia peaked at a record high of 233,900 during the 2015/16 financial year. Activity will fall consistently over the next number of years and decline to 175,900 starts in 2022/23 – 25% lower than peak. Apartment and unit building will take a much bigger hit than the detached house side of the market.
- Non-residential building had been stagnant over recent years but expanded by 10.6% during 2017/18 and is enjoying another strong year of growth with a 16.8% increase expected. However activity is likely to drift lower over the medium term.
- Engineering construction endured a torrid number of years in the aftermath of the mining investment slump. Government-led infrastructure work has helped steady the ship a little. Growth will be quite modest during the early years of the 2020s and it will be a long time before engineering construction work returns to the highs reached earlier this decade.

BUILDING AND CONSTRUCTION WORK DONE

$m, chain volume measures, constant 2015/16 prices – Year Ended June

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total Building & Construction	219,833	231,622	231,494	215,268	204,684	198,161	220,837	210,521	207,912	207,645	204,768	201,662
%ch	15.0%	5.4%	-0.1%	-7.0%	-4.9%	-3.2%	11.4%	-4.7%	-1.2%	-0.1%	-1.4%	-1.5%
Residential Building	52,516	54,349	57,850	64,137	71,611	73,881	74,111	74,068	69,539	66,508	64,693	63,538
%ch	-6.4%	3.5%	6.4%	10.9%	11.7%	3.2%	0.3%	-0.1%	-6.1%	-4.4%	-2.7%	-1.8%
Non-Residential Building	36,236	35,619	37,464	37,422	37,597	37,287	41,250	48,198	46,337	43,702	40,509	39,635
%ch	-6.5%	-1.7%	5.2%	-0.1%	0.5%	-0.8%	10.6%	16.8%	-3.9%	-5.7%	-7.3%	-2.2%
Engineering Construction	131,081	141,654	136,181	113,709	95,476	86,993	105,476	88,255	92,036	97,435	99,566	98,489
%ch	36.1%	8.1%	-3.9%	-16.5%	-16.0%	-8.9%	21.2%	-16.3%	4.3%	5.9%	2.2%	-1.1%

Source: Master Builders Australia, Macromonitor, ABS data.

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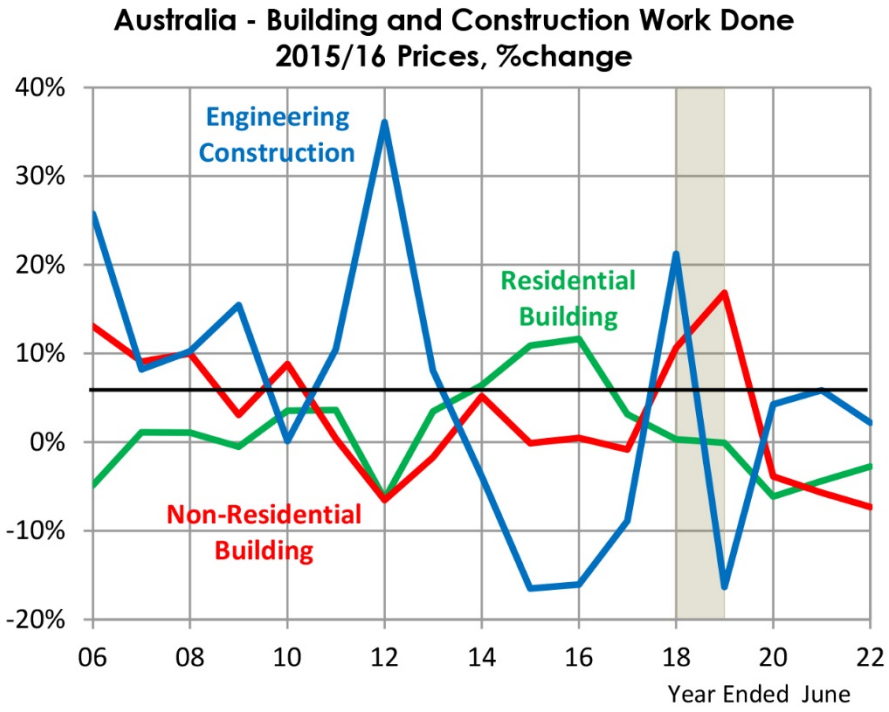
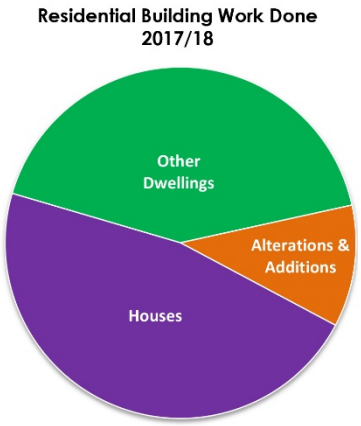
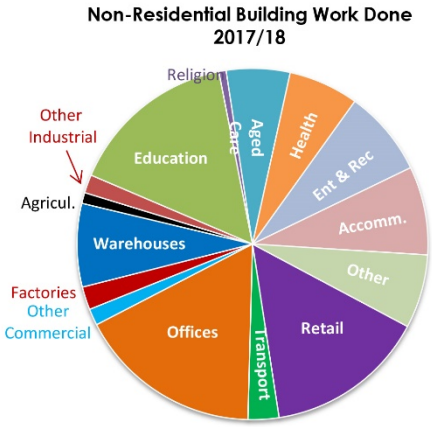
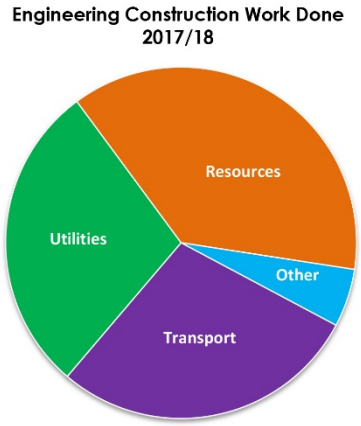


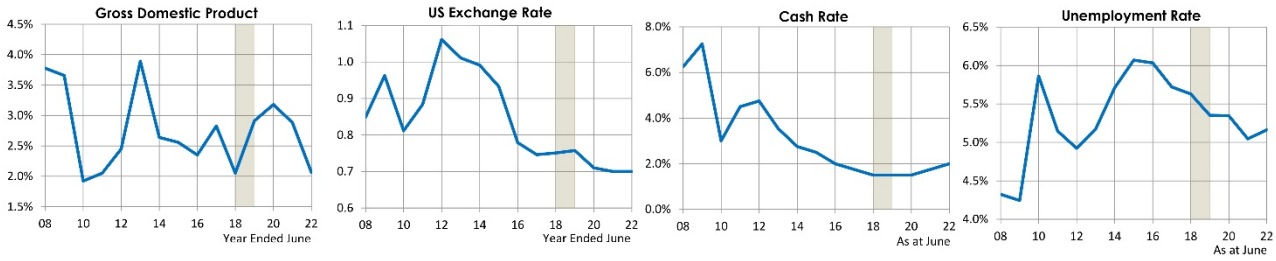






January 2019

BACKDROP: AUSTRALIA'S ECONOMY IS FUNDAMENTALLY SOUND



Overall, Australia's economy is performing reasonably well. Latest figures indicate that the economy grew by 2.8% over the year to the September 2018 quarter. This is below, but close to, the economy's trend rate of growth and does indicate some degree of softness. The main areas of underperformance include household consumption and pockets of investment activity. Exports and government spending are amongst the strongest areas of the economy – the former includes the effect of extensive infrastructural investment activity in the public sector. Exports are benefitting from the competitive exchange rate of the Australian dollar and continued expansion in most parts of the global economy.

Perhaps the most visible sign of strength in the Australian economy is in the labour market. The unemployment rate has drifted down to 5.0%, the lowest since early 2012. The volume of job creation is very substantial by any standard: over the year to November 2018, a total of 285,700 new jobs were created of which over 180,000 were full time. The structure of Australia's labour market means that rapid job creation results in larger inflows of net migration from overseas. Australia outperformed nearly all other advanced economies in the decade following the onset of the GFC: this caused population growth to accelerate over the past ten years with the demand for housing increasing very significantly. Accompanied by the move to an environment of record low interest rates, the effect was to propel new home building activity to levels never before seen.

The largely favourable economic conditions can also be gauged through the federal government's budgetary position. At the time of the May 2018 Budget, it was anticipated that an underlying cash deficit of $14.5 billion would be recorded during the 2018/19 financial year. This was revised down to $5.2 billion at the time of MYEFO in December 2018 and with a surplus of $4.1 billion now expected for 2019/20. For each year out to 2021/22, the budgetary position is now expected to be stronger than was predicted last May.

On balance, Australia's economy is projected to continue moving in the right direction over the short term at least. The pace of GDP growth is likely to accelerate above the crucial 3% threshold, meaning that the rate of unemployment can be expected to fall further below 5% over the course of 2019 and into 2020. At the same time, price pressures in the economy will remain modest: the headline rate of inflation is expected to stay close to 2% - well within the target band.

ECONOMIC FORECASTS

		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Gross Domestic Product	year %ch	2.6	2.4	2.8	2.1	2.9	3.2	2.9	2.1	1.6	2.1
Employment	year %ch	.6	1.8	1.9	2.2	2.9	2.5	2.3	1.5	1.3	1.1
Unemployment Rate	per cent	6.1	6.0	5.7	5.6	5.4	5.3	5.0	5.2	5.4	5.4
US Exchange Rate	USD/AUD	.93	.78	.75	.75	.76	.71	.70	.70	.70	.70
Cash Rate	as at June	2.5	2.0	1.8	1.5	1.5	1.5	1.8	2.0	2.3	2.3
Standard Housing Variable Rate	as at June	6.0	5.5	5.4	5.3	5.2	5.3	5.6	5.8	6.1	6.1

Source: Macromonitor

January 2019

RESIDENTIAL BUILDING: UNDER PRESSURE ON A FEW FRONTS

Residential building activity comprises both new home construction as well as major renovations work. In volume terms, it is estimated to have reached a record high during the 2017/18 financial year thanks to a rebound in new home building activity. Over the past decade, there has been considerable divergence in the performance of the new dwelling construction compared with major renovations activity: renovations has struggled while new home building soared to its highest level on record.

New dwelling starts across Australia reached an all-time high during the 2015/16 financial year with work on a total of 233,900 new homes being commenced over that 12-month period. New home building had bottomed out at 145,400 during the 2011/12 financial year in the aftermath of the GFC. The unprecedented upturn in new home building activity was the result of a confluence of factors, including substantial migration-driven population growth, the move to an environment of record-low interest rates, largely healthy economic conditions and the increased attractiveness of Australia to foreign real estate investors.

After its record high during 2015/16, new dwelling starts fell backwards by 5.3% in 2016/17 but recovered by 3.1% in 2017/18 with 228,200 new starts being recorded, still a very elevated volume of new home building by historic standards. During 2017/18, detached houses accounted for 120,600 new starts with apartments/units commencements numbering 107,700 during the year. One of the features of the upturn in new home building activity between 2012 and 2017 was the strong role played by the apartment/unit segment. Detached houses have traditionally accounted for the clear majority of new homes built in Australia. Apartment/unit starts more than tripled from 38,400 during 2008/09 to 117,500 in 2016/15: significantly, this was the very first time that apartment/unit building exceeded detached house starts in a 12-month period. Even though total new home building activity reached unprecedented levels in recent years, detached house building did not manage to eclipse the all-time high achieved during the 1988/89 financial year.

The remarkable rise in apartment/unit building over the past decade owes its origin to a few factors. First, the increase in demand for housing has been concentrated in markets like Sydney and Melbourne where the supply of fresh, affordable land for new detached houses is very tight. Higher density housing provision in the form of apartments has been the obvious response to this situation. Longer term factors are also at play: household sizes today are smaller than in previous generations and this makes apartment living more viable from the point of view of families with children. The increased importance of migrants from Asian countries, where high density living is the norm in urban areas, has also contributed to a shift in tastes towards apartment living.

Over the past 18 months, the economic climate from the point of view of new home building has cooled considerably. Although fundamental features of the economy like the labour market and overall economic activity has remained pretty solid, the mood music has dimmed in a few places. Strong house price gains in Sydney and Melbourne occurred between 2012 and 2017, but prices have now gone into reverse in both markets. House prices in Sydney have fallen in every month since August 2017, and are now about 11% below their peak – a decline that is larger than that which happened during the GFC. When it comes to new home building activity, price falls are a major game changer. Potential home buyers are rewarded with a lower price by delaying their purchase and this postponement of demand weakens the market. At the same time, builders and developers are dissuaded from delivering new projects amidst the less favourable financial calculus caused by falling prices. For larger developments with longer completion timescales, particularly those in the apartment space, an environment of falling prices magnifies the risks of settlement issues at completion stage. Accordingly, high density home building is more badly affected by price reductions in the local market.

It is worth digging a little deeper in terms of assessing why prices have started to fall in key markets. The commencement of the Royal Commission's work during 2018 has been followed by something of a credit crunch with lenders erecting tougher hurdles to homebuyers wishing to engage with the market. This has seen less credit being made available to Australia's housing market, with prices and activity suffering. Foreign purchasers were an important pillar of demand for apartment building in the first half of the current decade. Activity here has been stifled by imposition by state governments of heavy stamp duty surcharges on

foreign buyers which has made participation in the housing market unviable for many: at one stage, the purchase of the average Sydney apartment attracted over $90,000 in transaction taxes alone for a foreign buyer.

Against a more challenging backdrop, we forecast that new home building will decline steadily over the next few years. From 228,200 starts in 2017/18, we anticipate that new home building is expected to fall by 7.9% during 2018/19 to 210,200 with a further decline of 6.1% taking activity to 197,500 in 2019/20. Further modest declines over following years are expected to bring new dwelling starts to a low of 175,900 in 2022/23, which by then will be the weakest performance in a decade.

Unsurprisingly, apartment/unit building will bear the brunt of the reduction in new home commencements. From 107,700 new starts in 2017/18, apartment/unit building is projected to fall by 30.1% by 2022/23. Detached houses will see a less severe reduction, with commencements projected to fall by 16.6% over the same timeframe.

While new home building activity has tested record highs over recent years, home renovations activity has had a more difficult time. The volume of major renovations peaked at $9.0 billion during the 2010/11 financial year but has experienced major declines in three of the past seven years. During the 2017/18 financial year, major renovations work was still 7.7% below its peak of seven years earlier.

On the surface, recent years should have been terrific for the home renovations market: record low interest rates, expanding reservoirs of home equity in key areas and a fairly healthy jobs market in most places. The unimpressive performance of major renovations work reflects a few factors: in a growing number of cases, major renovations jobs have been replaced by knock-down rebuild work on older houses. The age profile of the housing stock has also worked against demand for renovations work: renovations activity tends to be concentrated in detached houses of the 30-35 year age group. House building activity in the late 1970s and early 1980s was relatively depressed. This means that the stock of houses in need of renovation was relatively small over the years from 2010.

Encouragingly, latest GDP results indicate that total home renovations activity (including both major and minor jobs) reached a 14-year high during the September 2018 quarter, with the volume of work estimated to be 11.0% larger than 12 months earlier. Ironically, this may be due to the tighter credit conditions in place since the start of the Royal Commission. Some homeowners are unable to secure finance for moving house and are instead staying put in their current homes and undertaking renovations work as well. In terms of the medium term outlook for home renovations work, the record levels of detached house building during the late 1980s will offer considerable scope for expansion in renovations activity in the first half of the 2020s decade. This will support the achievement of modest but steady growth in Australia's renovations market over the coming years.

AUSTRALIA GRAPHS & TABLES – RESIDENTIAL BUILDING

AUSTRALIA – RESIDENTIAL BUILDING WORK DONE BY SECTOR

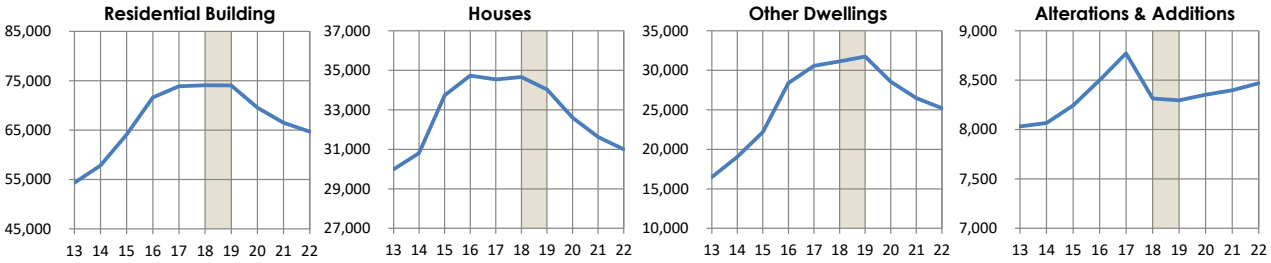
$M, chain volume measures, constant 2015/16 prices – Year Ended June

	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
Residential Building	54,140	56,116	52,516	54,349	57,850	64,137	71,611	73,881	74,111	74,068	69,539	66,508	64,693	63,538
%ch	3.6%	3.6%	-6.4%	3.5%	6.4%	10.9%	11.7%	3.2%	0.3%	-0.1%	-6.1%	-4.4%	-2.7%	-1.8%
Houses	33,674	32,760	29,600	29,990	30,809	33,732	34,735	34,538	34,657	34,028	32,609	31,625	31,004	30,741
%ch	6.1%	-2.7%	-9.6%	1.3%	2.7%	9.5%	3.0%	-0.6%	0.3%	-1.8%	-4.2%	-3.0%	-2.0%	-0.8%
Other Dwellings	12,473	14,683	14,459	16,462	19,031	22,192	28,377	30,571	31,139	31,744	28,578	26,485	25,221	24,313
%ch	0.3%	17.7%	-1.5%	13.8%	15.6%	16.6%	27.9%	7.7%	1.9%	1.9%	-10.0%	-7.3%	-4.8%	-3.6%
Alterations & Additions	8,457	8,997	8,698	8,033	8,068	8,244	8,499	8,772	8,315	8,296	8,352	8,397	8,468	8,484
%ch	-0.2%	6.4%	-3.3%	-7.6%	0.4%	2.2%	3.1%	3.2%	-5.2%	-0.2%	0.7%	0.5%	0.8%	0.2%

Source: Master Builders Australia, Macromonitor, ABS data.

AUSTRALIA – RESIDENTIAL BUILDING WORK DONE BY SECTOR

$M, chain volume measures, constant 2014/15 prices – Year Ended June



AUSTRALIA – NUMBER OF DWELLING COMMENCEMENTS BY SECTOR

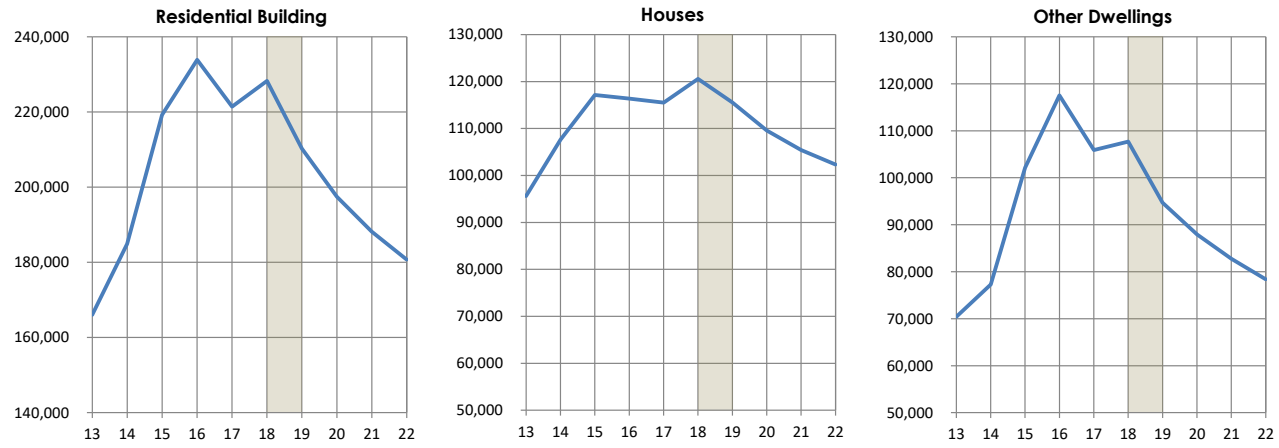
Year Ended June

	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
Residential Building	170,271	162,499	145,350	166,027	184,911	219,245	233,872	221,408	228,247	210,250	197,496	188,157	180,719	175,938
%ch	28.3%	-4.6%	-10.6%	14.2%	11.4%	18.6%	6.7%	-5.3%	3.1%	-7.9%	-6.1%	-4.7%	-4.0%	-2.6%
Houses	115,586	100,549	89,837	95,633	107,618	117,124	116,354	115,505	120,554	115,558	109,545	105,411	102,330	100,630
%ch	24.1%	-13.0%	-10.7%	6.5%	12.5%	8.8%	-0.7%	-0.7%	4.4%	-4.1%	-5.2%	-3.8%	-2.9%	-1.7%
Other Dwellings	54,685	61,950	55,513	70,394	77,293	102,121	117,518	105,903	107,693	94,691	87,951	82,746	78,389	75,308
%ch	38.0%	13.3%	-10.4%	26.8%	9.8%	32.1%	15.1%	-9.9%	1.7%	-12.1%	-7.1%	-5.9%	-5.3%	-3.9%

Source: Master Builders Australia, Macromonitor, ABS data.

AUSTRALIA – NUMBER OF DWELLING COMMENCEMENTS BY SECTOR

Year Ended June



AUSTRALIA – NUMBER OF DWELLING COMMENCEMENTS BY SECTOR BY STATE

Year Ended June

	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
NEW SOUTH WALES														
Residential Building	33,222	32,309	30,827	42,377	47,595	57,746	69,693	74,417	70,843	62,982	58,830	55,196	51,961	49,738
%ch	38.0%	-2.7%	-4.6%	37.5%	12.3%	21.3%	20.7%	6.8%	-4.8%	-11.1%	-6.6%	-6.2%	-5.9%	-4.3%
Houses	17,646	16,040	15,594	18,951	22,155	25,309	27,466	29,458	30,390	27,495	25,901	24,481	23,407	22,611
%ch	30.8%	-9.1%	-2.8%	21.5%	16.9%	14.2%	8.5%	7.3%	3.2%	-9.5%	-5.8%	-5.5%	-4.4%	-3.4%
Other Dwellings	15,576	16,269	15,233	23,426	25,440	32,437	42,227	44,959	40,453	35,487	32,929	30,715	28,554	27,127
%ch	47.2%	4.4%	-6.4%	53.8%	8.6%	27.5%	30.2%	6.5%	-10.0%	-12.3%	-7.2%	-6.7%	-7.0%	-5.0%
VICTORIA														
Residential Building	54,955	59,113	50,568	50,794	51,521	64,946	68,591	64,027	75,900	69,347	63,953	58,475	53,997	50,826
%ch	31.1%	7.6%	-14.5%	0.4%	1.4%	26.1%	5.6%	-6.7%	18.5%	-8.6%	-7.8%	-8.6%	-7.7%	-5.9%
Houses	37,977	34,889	30,134	28,009	29,462	32,357	35,574	35,760	38,387	38,748	36,167	34,041	31,760	30,155
%ch	24.2%	-8.1%	-13.6%	-7.1%	5.2%	9.8%	9.9%	0.5%	7.3%	0.9%	-6.7%	-5.9%	-6.7%	-5.1%
Other Dwellings	16,978	24,224	20,434	22,785	22,059	32,589	33,017	28,267	37,513	30,600	27,786	24,434	22,237	20,672
%ch	49.6%	42.7%	-15.6%	11.5%	-3.2%	47.7%	1.3%	-14.4%	32.7%	-18.4%	-9.2%	-12.1%	-9.0%	-7.0%
QUEENSLAND														
Residential Building	35,278	29,296	28,464	30,259	36,767	45,341	49,738	44,370	41,558	40,297	39,296	39,329	39,824	40,986
%ch	19.7%	-17.0%	-2.8%	6.3%	21.5%	23.3%	9.7%	-10.8%	-6.3%	-3.0%	-2.5%	0.1%	1.3%	2.9%
Houses	24,601	19,439	18,164	18,898	20,457	23,332	23,567	24,542	25,946	24,524	23,638	23,099	23,345	24,370
%ch	20.4%	-21.0%	-6.6%	4.0%	8.2%	14.1%	1.0%	4.1%	5.7%	-5.5%	-3.6%	-2.3%	1.1%	4.4%
Other Dwellings	10,677	9,857	10,300	11,361	16,310	22,009	26,171	19,828	15,612	15,772	15,658	16,230	16,479	16,616
%ch	18.3%	-7.7%	4.5%	10.3%	43.6%	34.9%	18.9%	-24.2%	-21.3%	1.0%	-0.7%	3.7%	1.5%	0.8%
SOUTH AUSTRALIA														
Residential Building	12,314	10,967	9,148	8,992	11,153	10,628	11,279	10,834	12,922	11,654	10,432	9,137	8,275	7,580
%ch	1.4%	-10.9%	-16.6%	-1.7%	24.0%	-4.7%	6.1%	-3.9%	19.3%	-9.8%	-10.5%	-12.4%	-9.4%	-8.4%
Houses	9,681	8,258	6,939	6,529	8,307	7,780	7,687	7,656	8,219	7,915	7,326	6,466	5,909	5,438
%ch	3.7%	-14.7%	-16.0%	-5.9%	27.2%	-6.3%	-1.2%	-0.4%	7.4%	-3.7%	-7.4%	-11.7%	-8.6%	-8.0%
Other Dwellings	2,633	2,709	2,209	2,463	2,846	2,848	3,592	3,178	4,703	3,739	3,106	2,671	2,366	2,141
%ch	-6.3%	2.9%	-18.5%	11.5%	15.6%	0.1%	26.1%	-11.5%	48.0%	-20.5%	-16.9%	-14.0%	-11.4%	-9.5%
WESTERN AUSTRALIA														
Residential Building	25,502	20,981	17,861	24,854	29,638	31,732	25,513	19,784	18,245	16,840	16,796	18,080	19,079	19,514
%ch	37.3%	-17.7%	-14.9%	39.2%	19.2%	7.1%	-19.6%	-22.5%	-7.8%	-7.7%	-0.3%	7.6%	5.5%	2.3%
Houses	20,078	17,055	14,729	19,024	23,097	23,609	18,098	14,453	13,552	12,447	12,381	13,411	14,281	14,661
%ch	35.3%	-15.1%	-13.6%	29.2%	21.4%	2.2%	-23.3%	-20.1%	-6.2%	-8.2%	-0.5%	8.3%	6.5%	2.7%
Other Dwellings	5,424	3,926	3,132	5,830	6,541	8,123	7,415	5,331	4,693	4,392	4,415	4,669	4,798	4,852
%ch	45.4%	-27.6%	-20.2%	86.1%	12.2%	24.2%	-8.7%	-28.1%	-12.0%	-6.4%	0.5%	5.7%	2.8%	1.1%
TASMANIA														
Residential Building	3,221	3,064	2,268	1,917	1,962	2,842	2,443	2,177	2,821	2,861	2,634	2,308	2,008	1,772
%ch	9.2%	-4.9%	-26.0%	-15.5%	2.3%	44.9%	-14.0%	-10.9%	29.6%	1.4%	-7.9%	-12.4%	-13.0%	-11.8%
Houses	2,570	2,198	1,740	1,528	1,643	2,333	2,043	1,758	2,292	2,508	2,236	1,933	1,664	1,449
%ch	5.2%	-14.5%	-20.8%	-12.2%	7.5%	42.0%	-12.4%	-14.0%	30.4%	9.4%	-10.9%	-13.6%	-13.9%	-12.9%
Other Dwellings	651	866	528	389	319	509	400	419	529	353	399	376	344	323
%ch	28.9%	33.0%	-39.0%	-26.3%	-18.0%	59.6%	-21.4%	4.8%	26.3%	-33.2%	12.9%	-5.8%	-8.4%	-6.2%
NORTHERN TERRITORY														
Residential Building	1,358	1,663	1,620	2,333	2,040	1,959	1,539	994	972	766	869	1,056	1,247	1,401
%ch	36.1%	22.5%	-2.6%	44.0%	-12.6%	-4.0%	-21.4%	-35.4%	-2.2%	-21.2%	13.4%	21.5%	18.1%	12.3%
Houses	830	798	841	821	880	868	888	734	608	635	687	765	810	843
%ch	22.4%	-3.9%	5.4%	-2.4%	7.2%	-1.4%	2.3%	-17.3%	-17.2%	4.5%	8.2%	11.3%	5.9%	4.0%
Other Dwellings	528	865	779	1,512	1,160	1,091	651	260	364	131	182	291	437	558
%ch	65.0%	63.8%	-9.9%	94.1%	-23.3%	-5.9%	-40.3%	-60.1%	40.0%	-64.0%	38.8%	59.8%	50.2%	27.7%
AUSTRALIAN CAPITAL TERRITORY														
Residential Building	4,425	5,106	4,595	4,499	4,235	4,052	5,073	4,803	4,987	5,502	4,685	4,575	4,327	4,123
%ch	67.6%	15.4%	-10.0%	-2.1%	-5.9%	-4.3%	25.2%	-5.3%	3.8%	10.3%	-14.9%	-2.4%	-5.4%	-4.7%
Houses	2,203	1,869	1,696	1,872	1,616	1,538	1,031	1,143	1,160	1,285	1,209	1,214	1,153	1,103
%ch	66.1%	-15.2%	-9.3%	10.4%	-13.7%	-4.8%	-33.0%	10.9%	1.5%	10.8%	-5.9%	0.4%	-5.1%	-4.3%
Other Dwellings	2,222	3,237	2,899	2,627	2,619	2,514	4,042	3,660	3,827	4,217	3,476	3,361	3,174	3,020
%ch	69.1%	45.7%	-10.4%	-9.4%	-0.3%	-4.0%	60.8%	-9.5%	4.6%	10.2%	-17.6%	-3.3%	-5.6%	-4.9%
AUSTRALIA														
Residential Building	170,271	162,499	145,350	166,027	184,911	219,245	233,872	221,408	228,247	210,250	197,496	188,157	180,719	175,938
%ch	28.3%	-4.6%	-10.6%	14.2%	11.4%	18.6%	6.7%	-5.3%	3.1%	-7.9%	-6.1%	-4.7%	-4.0%	-2.6%
Houses	115,586	100,549	89,837	95,633	107,618	117,124	116,354	115,505	120,554	115,558	109,545	105,411	102,330	100,630
%ch	24.1%	-13.0%	-10.7%	6.5%	12.5%	8.8%	-0.7%	-0.7%	4.4%	-4.1%	-5.2%	-3.8%	-2.9%	-1.7%
Other Dwellings	54,685	61,950	55,513	70,394	77,293	102,121	117,518	105,903	107,693	94,691	87,951	82,746	78,389	75,308
%ch	38.0%	13.3%	-10.4%	26.8%	9.8%	32.1%	15.1%	-9.9%	1.7%	-12.1%	-7.1%	-5.9%	-5.3%	-3.9%

Source: Master Builders Australia, Macromonitor, ABS data.

January 2019

NON-RESIDENTIAL: LEADING THE CHARGE

In contrast to residential building, the non-residential side of the market largely stagnated for much of the 2010s decade, but it has recently rediscovered its momentum and activity in this area is again expanding. In volume terms, non-residential building activity had peaked in 2010/11 at $38.8 billion before contracting by 8.1% to $35.6 billion in 2012/13. Over subsequent years, activity was flat but a 10.6% expansion in 2017/18 brought the volume of work to a new all-time high of $41.3 billion.

The short term outlook for non-residential building is a very favourable one with the activity expected to expand by a further 16.8% in the 2018/19 financial year overall to reach $48.2 billion in value. This will represent a high point for non-residential, however: activity is expected to move backwards again in the opening years of the 2020s decade.

Non-residential building is composed of three broad categories and the chart below illustrates the relative importance of each. During the 2017/18 financial year, non-residential building totalled $41.3 billion. Of this, $14.9 billion related to commercial building (36.2% of the total), following by $5.2 billion worth of industrial building (12.5% of the total). More than half (51.4%) of non-residential building fell outside of the commercial and industrial classifications and relates to a broad mixture of building in the areas of health, education, aged care, tourism and recreation. As the structure of the economy has changed, the importance of this part of the building sector has increased.

During 2017/18, the value of commercial building activity is estimated to have expanded strongly by 15.5% to reach $14.9 billion. Further growth of some 13.6% is expected to have occurred by the end of the 2018/19 financial year, bringing the value of activity to $17.0 billion. Office and retail building work account for the vast bulk of commercial building. Work on the retail side tends to be most affected by population growth with office building changing in response to employment.

Over the last two years, both factors have worked in the sector's favour. However, both employment and population growth are unlikely to be sustained at present rates. Challenges are also presented to commercial building by continued changes in how business is done in Australia: online shopping will take the heat out of retail building requirements. The increased scope and cost effectiveness of flexible and remote working arrangements means that employment gains do not generate as much office building work as before.

The volume of industrial building activity is much smaller than commercial: structural change in the economy is the culprit with more and more of Australia's production needs being met through imports. Between its peak in 2012/13 and its low point in 2015/16, the volume of industrial building work done in Australia shrank by 21.7%. It's not all bad news though, and a fightback is underway with activity bouncing back by 13.0% in 2016/17 and growth of 31.2% anticipated to occur during the current financial year.

As the chart below shows, the lion's share of industrial building work done relates to factories and warehouses. Structural change has meant that factory building is in long term decline, although there has been a bit of a reprieve recently thanks to Australia's improved international competitiveness against the backdrop of steadily strengthening conditions in the global economy.

While warehouse building is anticipated to peak at $4.0 billion in this financial year, its medium/long term prospects are better than for factories given that warehouses form an integral part of the supply chain for both domestically-produced as well as imported goods. Over time, warehouse building activity will tend to move in line with general population growth and household consumption patterns.

Outside of commercial, industrial and residential, there was still another $21 billion worth of building work done across Australia during 2017/18. This related to a wide set of activities including health, education, tourism and recreation. Of these, education was the single largest ($6.4 billion), followed by accommodation building ($3.4 billion), entertainment/recreation ($3.3 billion) and health facilities ($2.7 billion).

The future prospects for building activity in these areas vary considerably. Sectors like health and education are very dependent on public funding as well as the general population growth rate. The substantial outlays involved in projects in these areas as well as the lengthy lead times means that the connection between population growth and actual work done is neither direct nor

immediate. In the case of education, the demand for new building work is being influenced positively by the substantial numbers of university students travelling to Australia from overseas in order to receive a high-quality English-language education at third level.

For building related to entertainment, recreation and accommodation, the strong performance over the past five years has been influenced by greater numbers of foreign tourists visiting Australia due to the more competitive exchange rate of the Australian dollar and the increased disposition of Chinese and Indian residents to travel overseas for leisure purposes. The weakening of the Australian dollar has also influenced the holiday choices of Australians by making overseas trips less financially viable: the domestic tourism scene has reaped some of the benefits.

MAJOR NON-RESIDENTIAL PROJECTS – AUSTRALIA

Under Construction or Committed

Project	Company	Cost ($ billion)	Likely Completion Date	State
Barangaroo Development	Barangaroo Delivery Authority / Lend Lease / Grocon / Scentre Group / Aqualand	$6.00	2024	New South Wales
Western Sydney Airport - Badgerys Creek	Western Sydney Airport Alliance / Australian Federal Government	$5.30	2026	New South Wales
Collins Square	Kuok Group / Lang Walker	$2.50	Oct 2018	Victoria
Crown Sydney Hotel Resort	Crown Ltd	$2.20	Early 2021	New South Wales
Wynyard Place	Brookfield Property Partners / AMP Capital / UniSuper	$1.90	Sep 2020	New South Wales
Melbourne Quarter mixed-use development	Lend Lease	$1.50	2022	Victoria
Merrifield development	MAB Corporation Pty Ltd / Gibson Property	$1.20	2019	Victoria
Macquarie Park commercial precinct	John Holland	$1.00	2019	New South Wales
ICON Ipswich	Ipswich City Properties / Leighton Properties	$1.00	2020	Queensland
Perth Airport Upgrade	Perth Airport Pty Ltd	$1.00	2020	Western Australia

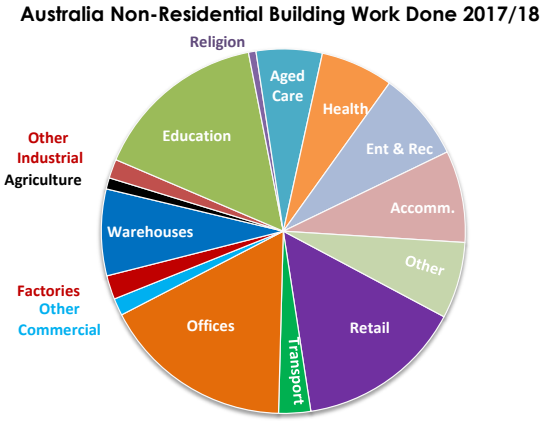
Source: Deloitte Access Economics

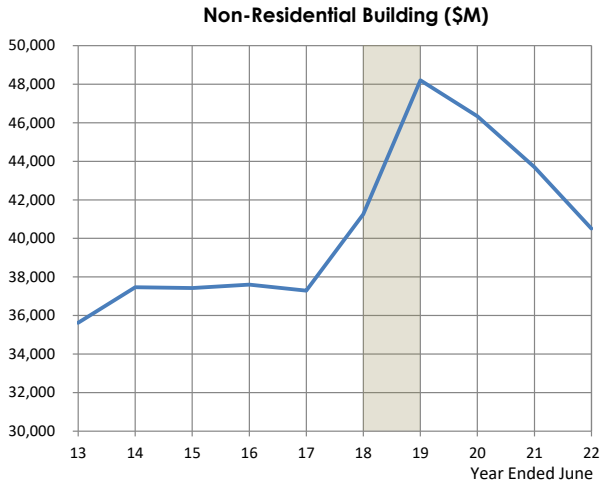
Possible or Under Consideration

Project	Company	Cost ($ billion)	Likely Completion Date	State
Koo Wee Rup Airport	Paragon Premier Investment Fund	$7.00	na	Victoria
Airlie beach resort development	China-Australia Entrepreneurs Association Incorporated	$5.00	na	Queensland
Aquis Great Barrier Reef Project	Aquis Resort at the Great Barrier Reef Pty Ltd	$2.00	2020	Queensland
Brisbane Live	AEG Ogden	$2.00	na	Queensland
Humex mixed use development	JTX International	$1.70	2018	Victoria
Project at the Jam Factory site	Newmark Capital	$1.25	2020	Victoria
ANZ Stadium redevelopment	NSW Office of Sport	$0.81	2021	New South Wales
Galleria Shopping Centre redevelopment	Vicinity Centres	$0.80	na	Western Australia
Office tower at 80 Ann Street, Brisbane	Mirvac	$0.80	na	Queensland
Liverpool Health and Academic Precinct redevelopment	NSW Ministry of Health	$0.74	2026	New South Wales

Source: Deloitte Access Economics

AUSTRALIA GRAPHS & TABLES – NON-RESIDENTIAL BUILDING





AUSTRALIA - NON-RESIDENTIAL BUILDING WORK DONE BY SECTOR

$M, chain volume measures, constant 2015/16 prices – Year Ended June

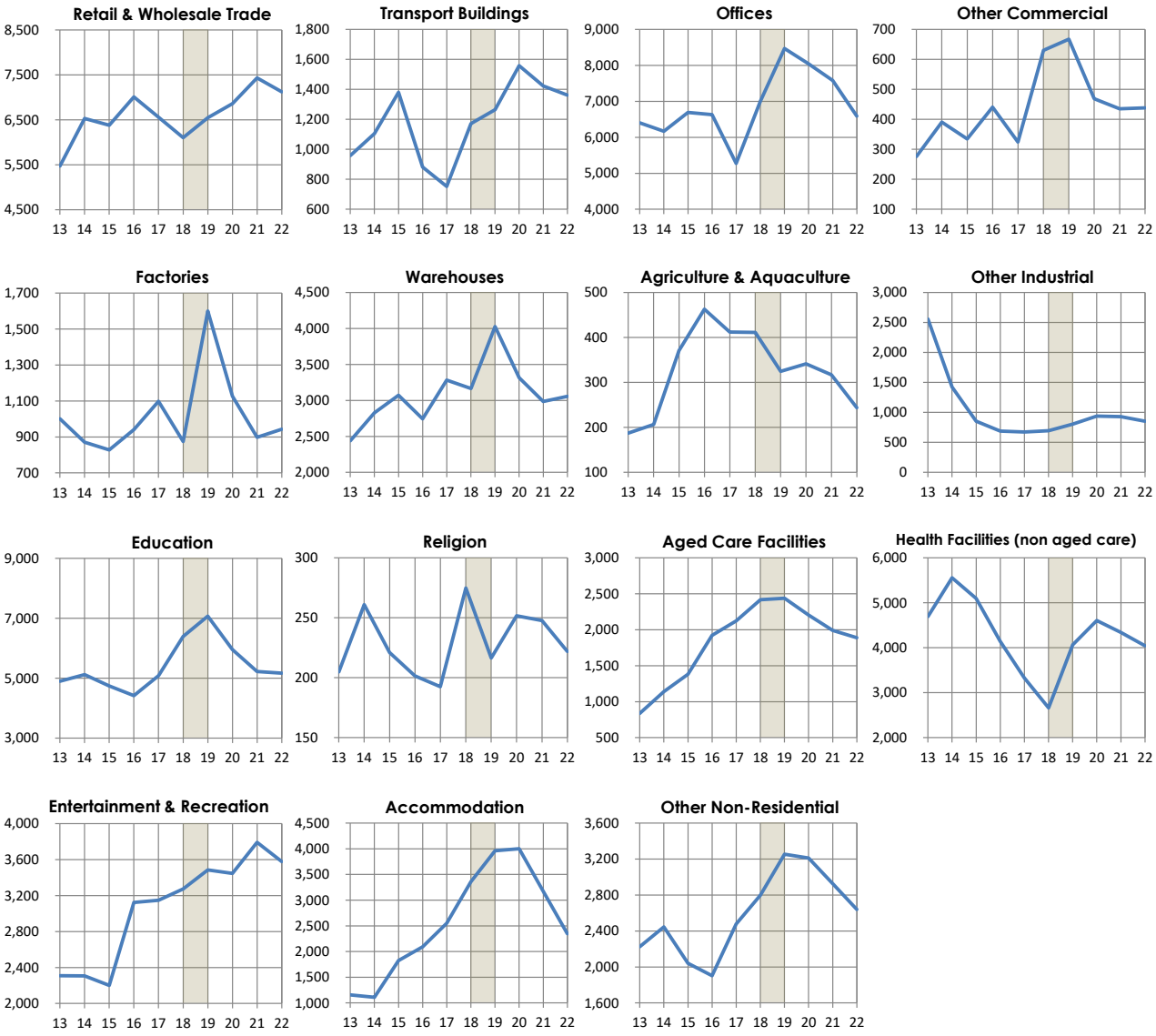
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Non-Residential Building	38,608	38,768	36,236	35,619	37,464	37,422	37,597	37,287	41,250	48,198	46,337	43,702	40,509	39,635
%ch	8.8%	0.4%	-6.5%	-1.7%	5.2%	-0.1%	0.5%	-0.8%	10.6%	16.8%	-3.9%	-5.7%	-7.3%	-2.2%
Retail & wholesale trade	4,903	5,553	5,823	5,474	6,532	6,381	7,010	6,559	6,105	6,548	6,861	7,435	7,127	7,090
%ch	-20.7%	13.2%	4.9%	-6.0%	19.3%	-2.3%	9.9%	-6.4%	-6.9%	7.3%	4.8%	8.4%	-4.1%	-0.5%
Transport buildings	849	692	839	958	1,105	1,380	881	752	1,172	1,264	1,559	1,423	1,362	1,295
%ch	-17.4%	-18.5%	21.2%	14.3%	15.3%	24.9%	-36.1%	-14.7%	55.9%	7.9%	23.3%	-8.7%	-4.3%	-4.9%
Offices	6,287	5,848	6,250	6,402	6,169	6,693	6,630	5,276	7,008	8,470	8,043	7,579	6,592	6,246
%ch	-28.8%	-7.0%	6.9%	2.4%	-3.6%	8.5%	-0.9%	-20.4%	32.8%	20.9%	-5.1%	-5.8%	-13.0%	-5.3%
Other commercial	285	293	205	276	391	335	441	324	630	668	469	435	439	458
%ch	6.8%	2.7%	-29.9%	34.4%	41.5%	-14.3%	31.7%	-26.4%	94.3%	5.9%	-29.8%	-7.2%	0.8%	4.3%
Factories	1,079	1,039	1,217	1,001	870	828	941	1,098	875	1,600	1,127	898	943	923
%ch	-30.0%	-3.7%	17.1%	-17.8%	-13.0%	-4.9%	13.7%	16.7%	-20.3%	82.9%	-29.6%	-20.3%	5.0%	-2.1%
Warehouses	1,971	2,273	2,570	2,438	2,829	3,072	2,744	3,284	3,165	4,026	3,315	2,987	3,057	3,308
%ch	-31.2%	15.4%	13.1%	-5.1%	16.0%	8.6%	-10.7%	19.7%	-3.6%	27.2%	-17.7%	-9.9%	2.3%	8.2%
Agriculture and aquaculture	229	340	248	187	206	371	463	412	411	325	342	317	244	241
%ch	-18.0%	48.6%	-27.2%	-24.4%	10.1%	79.8%	24.8%	-11.0%	-0.1%	-21.0%	5.1%	-7.2%	-23.1%	-1.2%
Other industrial	918	1,172	1,762	2,557	1,424	854	687	672	696	803	940	930	854	845
%ch	-19.5%	27.7%	50.3%	45.1%	-44.3%	-40.0%	-19.5%	-2.2%	3.6%	15.3%	17.0%	-1.1%	-8.1%	-1.1%
Education	11,871	11,353	5,755	4,900	5,123	4,745	4,420	5,087	6,399	7,070	5,960	5,226	5,171	5,174
%ch	201.5%	-4.4%	-49.3%	-14.9%	4.5%	-7.4%	-6.8%	15.1%	25.8%	10.5%	-15.7%	-12.3%	-1.1%	0.1%
Religion	181	242	227	205	261	221	202	193	275	216	252	248	222	233
%ch	22.2%	34.0%	-6.4%	-9.7%	27.4%	-15.3%	-8.8%	-4.4%	42.7%	-21.2%	16.2%	-1.6%	-10.4%	4.9%
Aged care facilities	1,010	793	840	839	1,139	1,381	1,921	2,123	2,418	2,439	2,205	1,992	1,889	1,904
%ch	-27.4%	-21.5%	5.9%	-0.2%	35.8%	21.3%	39.2%	10.5%	13.9%	0.9%	-9.6%	-9.6%	-5.2%	0.8%
Health facilities (non-aged care)	3,158	3,696	4,456	4,693	5,555	5,095	4,140	3,329	2,662	4,066	4,607	4,341	4,045	3,736
%ch	40.9%	17.0%	20.6%	5.3%	18.4%	-8.3%	-18.7%	-19.6%	-20.1%	52.8%	13.3%	-5.8%	-6.8%	-7.6%
Entertainment & Recreation	2,177	2,265	2,241	2,309	2,307	2,201	3,123	3,148	3,274	3,486	3,446	3,794	3,579	3,362
%ch	-7.6%	4.1%	-1.1%	3.0%	-0.1%	-4.6%	41.9%	0.8%	4.0%	6.5%	-1.1%	10.1%	-5.7%	-6.1%
Accommodation	1,079	931	1,281	1,154	1,109	1,826	2,090	2,552	3,361	3,963	4,003	3,172	2,346	2,313
%ch	-26.3%	-13.8%	37.6%	-9.9%	-3.9%	64.6%	14.5%	22.1%	31.7%	17.9%	1.0%	-20.8%	-26.0%	-1.4%
Other non-residential	2,611	2,277	2,522	2,225	2,445	2,041	1,903	2,478	2,799	3,254	3,211	2,926	2,641	2,508
%ch	44.6%	-12.8%	10.8%	-11.8%	9.9%	-16.5%	-6.8%	30.2%	12.9%	16.2%	-1.3%	-8.9%	-9.8%	-5.0%

Source: Master Builders Australia, Macromonitor, ABS data.

January 2019

AUSTRALIA NON-RESIDENTIAL BUILDING WORK DONE BY SECTOR

$M, chain volume measures, constant 2015/16 prices – Year Ended June



January 2019

ENGINEERING CONSTRUCTION: OUT OF THE DOLDRUMS

Engineering construction activity is still a long way off the heights achieved during the mining and natural resources investment boom during the early years of this decade. As the chart below illustrates, the volume of engineering construction activity peaked at $141.7 billion during the 2012/13 financial year. During 2017/18, engineering construction activity was worth $105.5 billion which was 21.2% higher than the previous year but still 25% lower than the peak earlier in the decade. Engineering construction is currently benefitting from the substantial portfolio of government infrastructure investment, particularly in the area of transport.

MBA forecasts for aggregate engineering construction activity are shown in the chart below. Following the big bump up in engineering construction activity during 2017/18, activity will return to its medium term trajectory in 2018/19 causing a 16.3% reduction during the year. Thereafter, three solid years of growth will ensue with growth of 4.3% in 2019/20, 5.9% in 2020/21 and 2.2% in 2021/22. This will bring the volume of engineering construction to $99.6 billion.

Engineering construction is made up of four broad categories of activity. Based on the performance during 2017/18, the largest of these categories is resources ($39.6 billion) with utilities ($30.2 billion) and transport ($30.0 billion) being very close in size. In addition to these three categories, there was $5.6 billion worth of engineering construction work done in other areas during the 2017/18 financial year.

Transport engineering construction grew by some 24.0% to $30.0 billion during 2017/18 and currently represents one the industry's strongest suits. The continued roll out of government-led infrastructure work will benefit the sector over the medium term with activity projected to grow by another 17.3% during 2018/19 and 11.0% in 2019/20. Overall, the volume of transport engineering activity in 2022/23 is projected to be 36.4% larger than in 2017/18.

Within transport engineering activity, roads easily account for the largest share of the total ($21.0 billion), followed distantly by railways ($7.0 billion). Both of these areas are set for significant expansion over the forecast horizon with road construction anticipated to rise by 19.0% over the period to 2022/23 and railway construction projected to grow by 78.7% over the same period.

Utilities engineering activity saw a very strong increase of 21.8% during the 2017/18 financial year bringing the value of activity to $30.2 billion for the 12 month period. This represented the busiest year for utilities investment since 2012/13. During 2018/19 overall, a further expansion of 6.1% is forecast before the amount of investment starts to move backwards again. Overall, we forecast that the volume of utilities investment will contract by 18.7% by 2022/23 compared with 2017/18 levels.

During 2017/18, electricity ($11.8 billion) accounted for the largest share of utilities construction activity followed by telecommunications ($10.27 billion). Considerably smaller portions of activity took place in water ($3.8 billion), wastewater ($2.5 billion) and gas pipelines ($2.0 billion).

Over the forecast horizon to 2022/23, the volume of utilities engineering work is anticipated to drop back in aggregate. However, the amount of work on gas pipelines is expected to buck this trend and increase by 56.8% by 2022/23. Electricity work is projected to fall back by 2.6% with the winding down of the NBN causing telecommunications to decline by 48.2%.

Despite notching up growth of 25.7% during 2017/18, resources construction remains a shadow of its former self having experienced a run of severe contractions over the period between 2014/15 and 2016/17. From 2019/20 onwards, resources work is projected to expand strongly and consistently – but that's after a rocky 2018/19 financial year in which activity will shrink by another 60.9% as a result of the conclusion of construction work relating to the Icthys gas field project in the NT which had involved about $45 billion in work overall.

Over recent years, oil/gas related construction has comprised the bulk of resources-related construction work. During 2017/18, the value of investment here was valued at $28.7 billion which represented over 70% of total resources investment for the year. By 2022/23, the volume of work is projected to shrink in most areas including oil/gas (-53.4%) and bauxite/aluminia/aluminium (-34.7%). Work relating to coal/coal handling is projected to buck this pattern with an increase of 18.5% anticipated to occur over this timeframe.

Engineering construction outside of transport, utilities and resources was valued at $5.6 billion during 2017/18 with almost all of this total relating to work in the recreation sector ($4.5 billion). The volume of recreation work done increased by 18.5% during the 2017/18 financial year and is expected to grow by another 3.3% during 2018/19 overall.

MAJOR ENGINEERING CONSTRUCTION PROJECTS - AUSTRALIA

Under Construction or Committed

Project	Company	Cost ($ billion)	Likely Completion Date	State
National Broadband Network	NBN Co	$49.00	2020	All
WestConnex project	NSW Roads and Maritime Services	$16.80	2023	New South Wales
Prelude LNG project	Shell (67.5%) / Inpex Oil & Gas (17.5%) / Kogas (10%) / CPC Corp (5%)	$12.00	2018	Western Australia
Sydney Metro City and Southwest Project	NSW State Rail Authority	$12.00	2024	New South Wales
Melbourne Metro Rail Project	Victorian Rail Track	$10.90	End 2025	Victoria
Sydney Metro Northwest	NSW State Rail Authority	$8.28	1H 2019	New South Wales
West Gate Tunnel Project	Transurban	$6.70	Q4 2022	Victoria
Cross River Rail	Qld Dept of Transport and Main Roads	$5.41	2023	Queensland
Pacific Highway Upgrade	NSW Roads and Maritime Services	$4.95	2020	New South Wales
South Flank iron ore development	BHP	$4.60	2021	Western Australia

Source: Deloitte Access Economics

Possible or Under Consideration

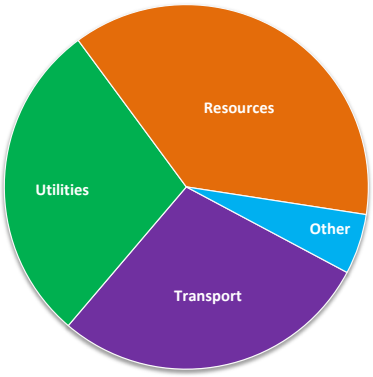
Project	Company	Cost ($ billion)	Likely Completion Date	State
Carmichael Coal Project	Adani Mining Pty Ltd	$16.50	2020	Queensland
North East Link freeway	VicRoads	$16.50	2027	Victoria
Greater Sunrise gas development	Woodside (33.44%) / Conoco Phillips (30%) / Shell (26.56%) / Osaka Gas (10%)	$13.00	na	Northern Territory
Sydney Metro West Rail Tunnel	NSW State Rail Authority	$10.40	2024	New South Wales
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%))	$10.00	na	Western Australia
Melbourne Tullamarine Airport Rail link	Commonwealth Government Dept of Infrastructure and Regional Development	$10.00	na	Victoria
Scarborough FLNG project	BHP Petroleum / ExxonMobil / Woodside Energy	$10.00	2033	Western Australia
Melbourne to Brisbane rail link	Australian Rail Track Corporation Ltd	$10.00	2030	Unallocated
China First Coal Project	Waratah Coal	$8.80	2022	Queensland
Alpha Coal Project	Hancock Prospecting (21%) / GVK (79%)	$8.20	2021	Queensland

Source: Deloitte Access Economics

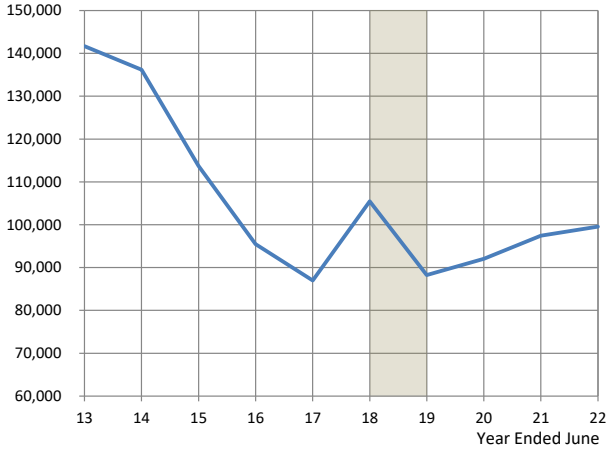
January 2019

AUSTRALIA GRAPHS & TABLES – ENGINEERING CONSTRUCTION

Australia Engineering Construction Work Done 2017/18



Engineering Construction ($M)



AUSTRALIA - ENGINEERING CONSTRUCTION WORK DONE BY SECTOR

$M, chain volume measures, constant 2015/16 prices – Year Ended June

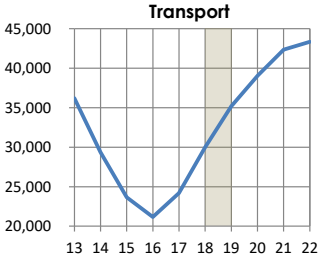
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Engineering Construction	87,194	96,321	131,081	141,654	136,181	113,709	95,476	86,993	105,476	88,255	92,036	97,435	99,566	98,489
%ch	0.1%	10.5%	36.1%	8.1%	-3.9%	-16.5%	-16.0%	-8.9%	21.2%	-16.3%	4.3%	5.9%	2.2%	-1.1%
Transport	25,900	30,383	35,674	36,214	29,383	23,660	21,174	24,199	30,013	35,193	39,048	42,361	43,342	40,923
%ch	-1.8%	17.3%	17.4%	1.5%	-18.9%	-19.5%	-10.5%	14.3%	24.0%	17.3%	11.0%	8.5%	2.3%	-5.6%
Utilities	28,232	28,582	29,357	32,317	31,205	27,185	24,662	24,802	30,212	32,043	29,215	26,587	24,980	24,550
%ch	3.1%	1.2%	2.7%	10.1%	-3.4%	-12.9%	-9.3%	0.6%	21.8%	6.1%	-8.8%	-9.0%	-6.0%	-1.7%
Resources	28,343	33,167	61,178	66,099	69,338	57,870	44,810	33,078	39,614	15,478	19,455	24,103	26,793	28,540
%ch	-2.9%	17.0%	84.5%	8.0%	4.9%	-16.5%	-22.6%	-26.2%	19.8%	-60.9%	25.7%	23.9%	11.2%	6.5%
Other	4,718	4,189	4,872	7,025	6,255	4,994	4,830	4,915	5,638	5,542	4,317	4,384	4,451	4,475
%ch	13.2%	-11.2%	16.3%	44.2%	-11.0%	-20.2%	-3.3%	1.8%	14.7%	-1.7%	-22.1%	1.5%	1.5%	0.5%

Source: Master Builders Australia, Macromonitor, ABS data.

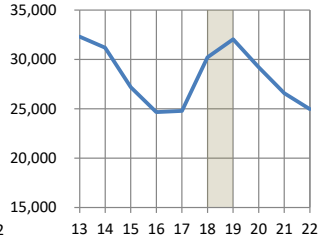
AUSTRALIA - ENGINEERING CONSTRUCTION WORK DONE BY SECTOR

$M, chain volume measures, constant 2015/16 prices – Year Ended June

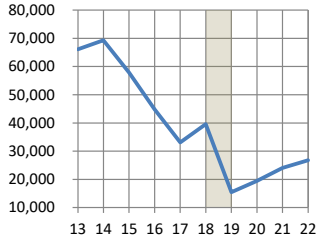
Transport



Utilities



Resources



Other