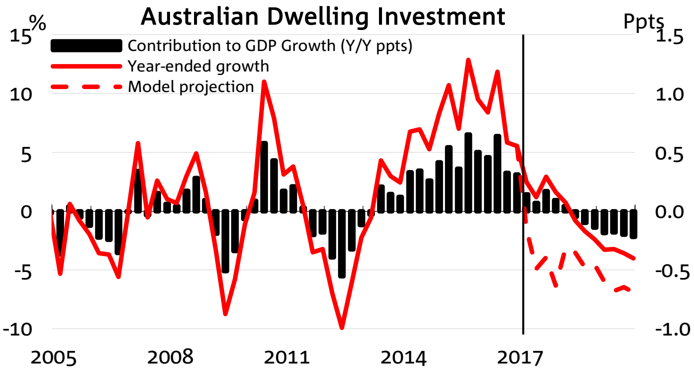
# A LOOK AT AUSTRALIA'S HOUSING CONSTRUCTION CYCLE

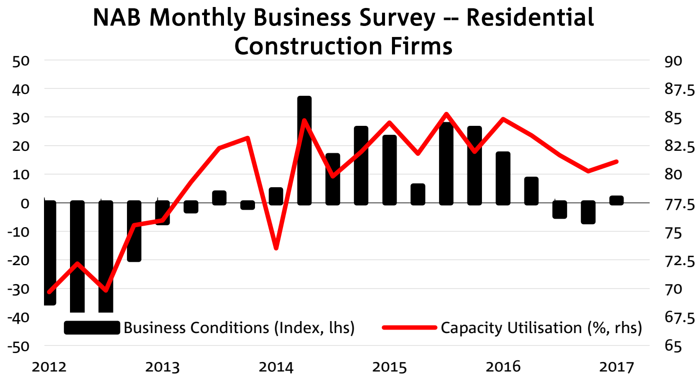
*May 2017*

## THE PEAK IN THE HOUSING CONSTRUCTION BOOM IS APPROACHING. 'OVERSUPPLY' OF APARTMENTS WARRANTS CLOSE MONITORING, ALTHOUGH VARIOUS INDUSTRY CONSTRAINTS WILL PROVIDE AN OFFSET[1]

- Dwelling investment in Australia has made a sizeable contribution to GDP growth in recent years. However, **indications suggest that the construction cycle may soon reach its peak and could detract from economic growth as soon as 2018.** Statistical modelling techniques that take advantage of available information on projects in the construction pipeline, suggest that new commencements could drop more than 13% in 2017, 7% in 2018 and a further 9% in 2019. If so, dwelling construction would fall 4% a year in 2017 and 2018 according to these models. Such an outcome conforms with our expectation for the construction industry to 'self-regulate' the amount of supply coming online. That said, our statistical models predict the (large) pipeline of existing projects to run down much slower than would seem likely in practice. Instead, NAB Economics is forecasting dwelling construction to rise another 2% in 2017, before falling around 1% in 2018 and 3½% in 2019.
- Much has been made of emerging risks in the apartment market. The apartment construction pipeline is at least two times higher than historical norms (relative to population growth) in most states, and prices in some CBD apartment markets (including Melbourne) are already falling. **That said, much commentary in the public domain is overly alarmist. Lower construction approvals, diminished spare construction capacity and tougher credit conditions are likely to slow the rate of completions, and the industy has previously shown capability to self regulate supply.** This is likely to elongate the construction cycle and reduce the risk of a destabilising market correction – although pockets of the market may still experience excess supply.
- On the demand side, the **fundamentals remain quite strong, supported by solid population growth, especially in Victoria, although measures are in place to slow investor and foreign demand**. Indicators of foreign demand are limited, but the NAB Residential Property survey suggests that policies aimed at deterring foreign buyers (including tighter constraints in foreign jurisdictions) are having an impact.In addition, the longevity of the current resilience in investor demand is difficult to gauge. Recent macroprudential policies (mainly targeting interest-only mortgages) are yet to fully take effect, while changes to capital requirements have already been flagged by APRA. The longer-term effictiveness of such policies, however, is still up for debate.
- On balance, **there is a high degree of pent up demand in some markets**, especially Sydney, which combined with expectations for solid popuation growth, should help to soak up much of the new housing stock. That said, **NAB projections see the national housing market becoming (modestly) oversupplied by late 2018** (although the timing varies by state). Additionally, with much of the construction centred in apartments, it remains to be seen whether that aligns with buyer preference, while there are also concerns over the quality of some of the new apartment stock.
- There were a raft of (mainly **supply-side) policies in the 2017-18 Federal Budget**. While these will add to construction activity in the out years, the net impact is expected to be somewhat marginal.



Sources: ABS; NAB Economics



Source: NAB Monthly Business Survey

[1] Herein, the terms 'unit' and 'apartment' are used interchangeably to describe medium-density dwellings.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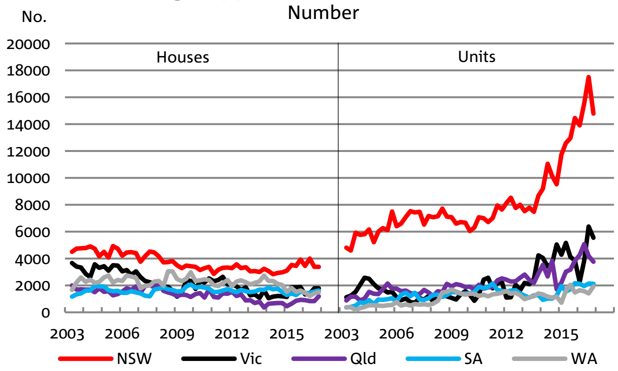
# CONSTRUCTION OUTLOOK

The supply of dwellings in Australia is set to rise appreciably over the coming year or more, but there is a great deal of uncertainty around how the current construction boom will unfold. Will the industry proceed with all the projects they have presently tabled? Will they add more to the pipeline? And, what does it mean in terms of the economy? We discuss in this note how supply concerns have been manifesting in the market, and how most indications tend to suggest that the industry has begun to 'self-regulate' the future supply of dwellings hitting the market. Building approvals have fallen from their peaks, and while the fall in approvals has not been by as much as we had expected, there are signs that projects previously approved are taking longer to commence. This has been particularly apparent for apartments in NSW, where the number of units approved but not commenced has roughly doubled in less than three years (chart) – although as a proportion of total approvals, the share tends to be relatively consistent with historical experience. This trend coincides with reports of growing settlement risk, although seemingly most common in the Melbourne and Brisbane CBD apartment market, as lenders tighten their credit standards.

That said, the NAB Residential Property Survey suggests that developers still see reasonably solid demand for residential projects over the next 12 months. In Sydney and Melbourne, firms see demand for each type of dwelling in both the inner and outer regions on the edge of 'good' to 'very good', although CBD apartments in Melbourne are a notable exception. Outcomes are less upbeat in other capital cities. In Brisbane – where apartment construction activity has also been strong – most segments are only considered to be 'fair', with only middle/outer houses ranked as 'good'. Meanwhile, data compiled by Charter Keck Cramer suggests that sales rates for new developments in Melbourne remains relatively good, with around 95% of projects under construction already sold (up from a little over 60% a decade earlier). These observations could mean that there is still an incentive for developers to expand their projects further, however, that would not gel with recent declines in building approvals. One potential hurdle for developers, however, has been the tightening up of credit conditions for the industry by lenders. In NAB's Quarterly Business Survey, residential construction firms have indicated that it has been more difficult to borrow funds (on balance) since late 2015.

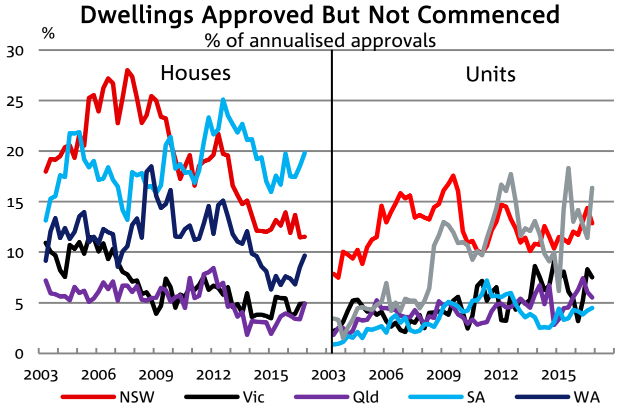
*NAB Economics expects building approvals to track lower from here, realigning with levels more consistent with population growth – the ratio of apartment approvals to population growth has already fallen from its recent peak. Given that view, statistical models developed by NAB economics suggest that dwelling investment should slow considerably (see chart), meaning the pipeline of apartment construction could take quite a number of years to fall back to its long-run trend – estimates are based on a series of equations using population, approvals, commencements, work done, completions and dwellings under construction. However, such a scenario is likely to be a lower bound for the dwelling investment profile given the ongoing strength in the property market and how construction booms have*

**Dwellings Approved But Not Commenced**
Number



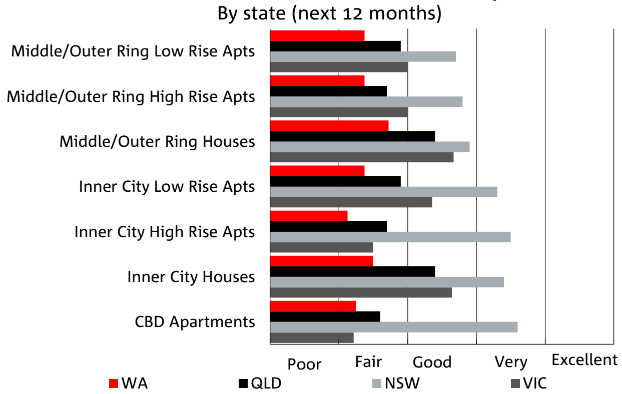

Sources: ABS; NAB Economics

**Dwellings Approved But Not Commenced**
% of annualised approvals



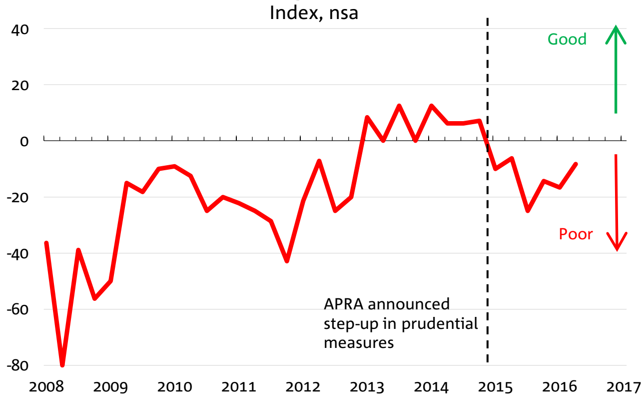

Sources: ABS; NAB Economics

**Demand for new residential developments**
By state (next 12 months)




Sources: NAB Residential Property Survey

**Ease of Borrowing (Resi. Const. Firms)**
Index, nsa




SOURCE: NAB Quarterly Business Survey

*tended to evolve in the past – tighter capacity and credit availability, along with a more cautious approach taken by developers should also cap the amount of newly commenced projects. Still, the pipeline of apartment construction is likely to take a number of years to unwind, and may take a little longer than we have seen in previous construction booms given the much higher proportion of medium-density projects in the pipeline – the early 2000s boom took around 2 years for the apartment construction pipeline to fall back to its long-run (non-linear) trend. That is consistent with NAB economics forecast for dwelling investment to rise a modest 2.1% in 2017, but turning slightly negative (-0.9%) in 2018 and -3.5% in 2019 – bringing the construction pipeline back towards its long-run trend by late 2019.*

Government supply-side measures that were recently announced in the ***Federal Budget*** need to be considered also, although it is still too soon to fully comprehend the impact. Some of the more notable measures included:

- The release of government land.
- Social housing measures (e.g. tax incentives and cheaper debt finance).
- Additional infrastructure spending.
- A 50% cap on foreign investment approvals for new developments.
- Levy imposed of foreign owner of unoccupied property ($5,000 per year).
- Changes to investor tax deductions rules.
- Giving access to voluntary super contributions.
- Incentives for older Australians to downsize.

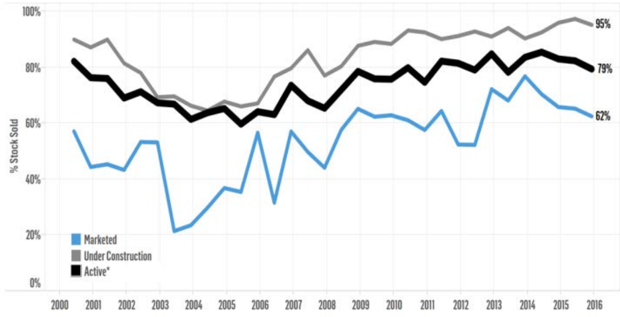
While we will refine our view of these policies over coming months, in reality the situation is complex as, for example, longer-term price responses could complicate the overall impact. Nonetheless, at this juncture the net impact is expected to be modest for residential construction activity. For example, the first land release announced in the Budget (127 hectares of Defence land in Maribyrnong) is said to support up to 6000 new homes, which is equivalent to almost 10% of Victorian dwelling completions in 2016 – although it is likely to be a number of years before these dwellings are built.

Should the construction cycle play out as expected, there needs to be an ongoing shift in household preferences toward apartments to soak up the new housing stock. According to NAB Economics projections, this trend remains fairly consistent with previous experience in NSW, but could be starker in Victoria and especially Queensland, again highlighting the risks involved.

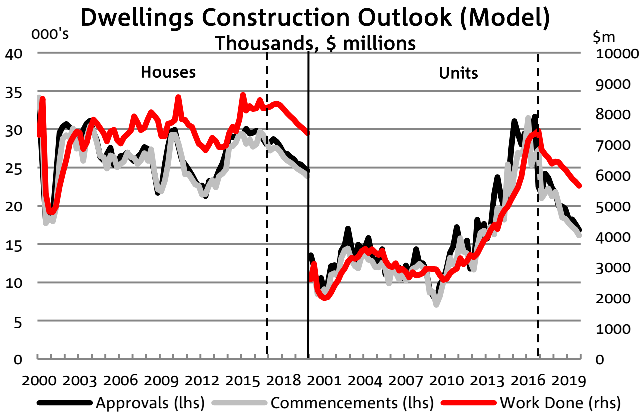
## MARKET DEMAND & SUPPLY CONDITIONS

The Australian housing sector has experienced an extended period of strong **demand**, underpinned by solid economic growth, very strong increases in population, and (until more recent years) a steady decline in average household size. While the big mining states of Queensland and Western Australia experienced large spurts of population growth

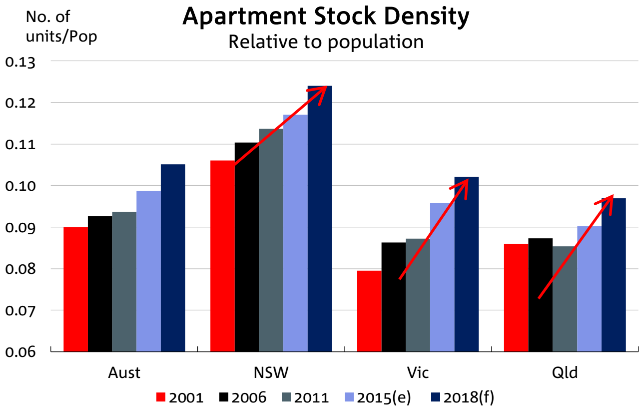
**Estimated Proportion of Stock Sold by Development Status – Total CCR (as at Dec 2016)***



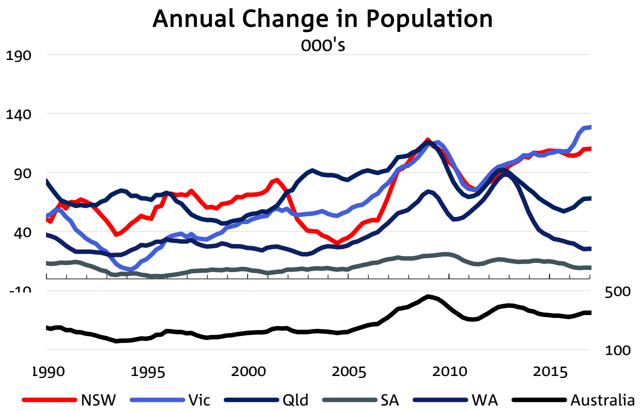

Source: Charter Keck Cramer State of Market Report
* CCR = Central City Region; Under Construction - Projects that have already commenced construction indicated by the tender of a building contract and with preliminary formwork completed; Marketed – Projects that are offered for sale to the general public (local and international purchasers); Active = projects that are Under Construction and Marketed.




Sources: ABS; NAB Economics




Sources: ABS; NAB Economics




Source: ABS

during the mining boom years, it is the larger south-eastern states of NSW and Victoria that are now seeing record (or job prospects in these states have contributed to the strength in population growth, which has included a reversal of interstate migration flows seen during the mining boom years, along with very strong rates of international migration.

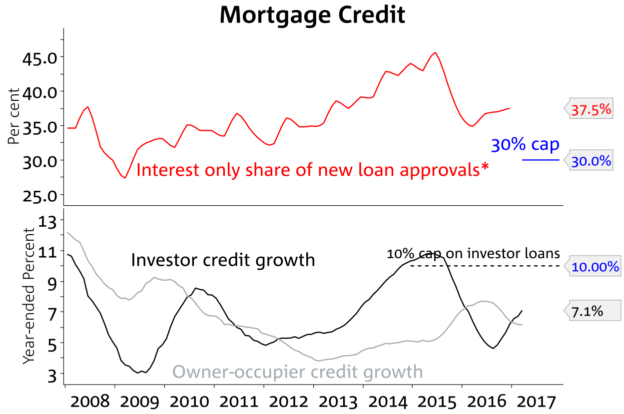
In addition to the underlying demand fundamentals, Australian housing has proven to be a highly sought after asset for investors, both domestic and from abroad. Naturally, part (although not all) of the investor activity has been funded by domestic credit, with investor mortgages growing notable faster than owner-occupied credit between 2012 and 2016. The strength in investor credit was more pronounced in the Sydney and Melbourne housing markets, to the point where investors in NSW accounted for more than half of all housing loan approvals by late 2014 (currently over 40%) – up from around a third in 2011.

Concerns from the regulator (APRA) around the strength of investor credit growth and the quality of AFI mortgage assets prompted a step up in prudential measures, which included the introduction of more stringent guidance on lending practices in late 2014 and a 10% speed limit recommended for investor housing credit, amongst other measures. More recent measures included a cap on the number of interest only loan approvals, which was set at 30% of the total (currently closer to 40%). While the efficacy of prudential measures long-term is constantly up for debate, the near-term impacts tend to be noticeable. Nonetheless, we have lowered our expectations for investor credit growth in response to the prudential measures, as well as credit tightening by banks (including measures tightening criteria for foreign buyers).

Meanwhile, concern over the strength of foreign purchases – and the impact on affordability – has prompted a policy response to cool demand (including hikes in stamp duty and land tax surcharges for foreigners). While available information on foreign demand is extremely limited, the NAB Residential Property Survey attempts to provide a read based on responses from real estate professionals. The results suggest that foreign demand was especially strong for new properties in Victoria, followed by NSW, during the 2014-15 period (earlier in the property market boom). Subsequently, demand appears to have come off notably, while a shift in demand to Queensland/Brisbane in recent years looks to have been short lived.

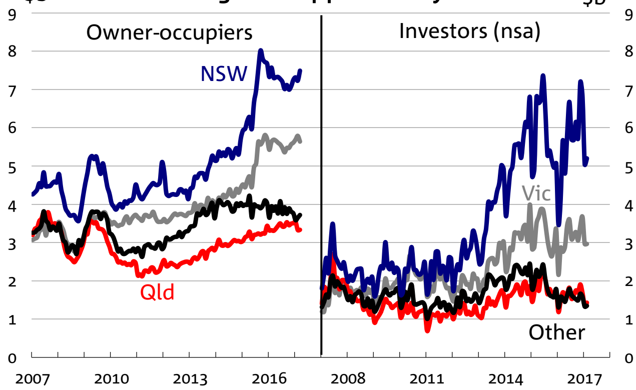
On the **supply** side, solid demand fundamentals and extremely strong capital values growth – mainly in Sydney and Melbourne – have prompted a significant supply response. Residential building approvals rose sharply between 2012 and 2016, reaching a record high. The lift in approvals was most evident in high-density dwellings, which have even surpassed detached house approvals on a number of occasions in recent times – something never previously seen in the data. One question this raises is whether this marks a material shift in demand towards these types of dwellings, or not, given that Australians have traditionally tended to favour detached houses over

**Mortgage Credit**



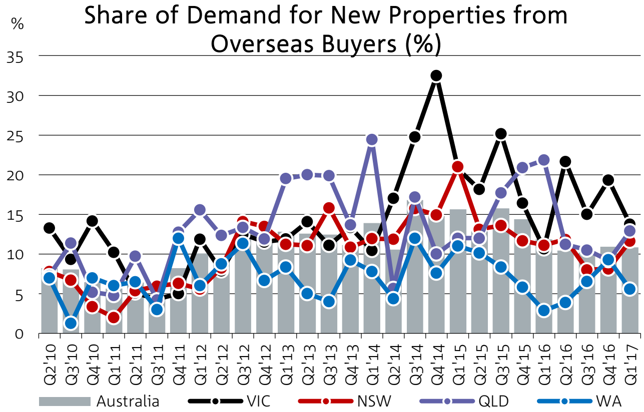

* Calculated on loans of ADIs with $1bn or greater in term loans
Source: National Australia Bank, APRA

**Housing loan approvals by state**




*Owner-occupied includes refinancing
Source: ABS, NAB Economics

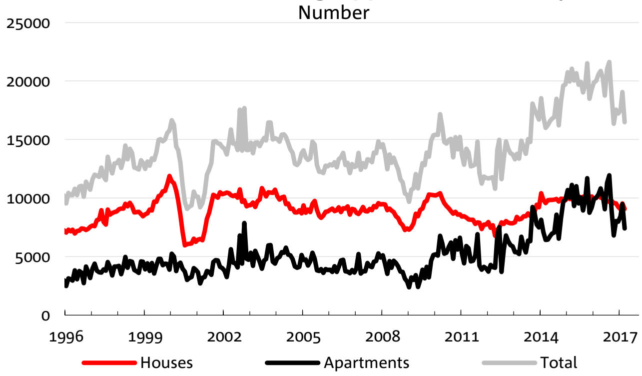
Share of Demand for New Properties from Overseas Buyers (%)




Source: NAB Residential Property Survey

**Residential Building Approvals - Monthly**

Number

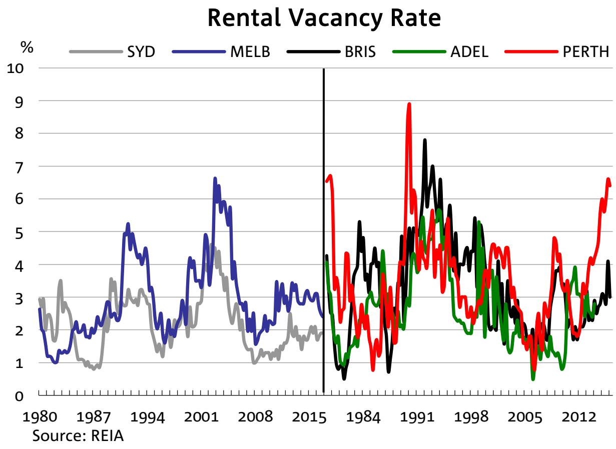


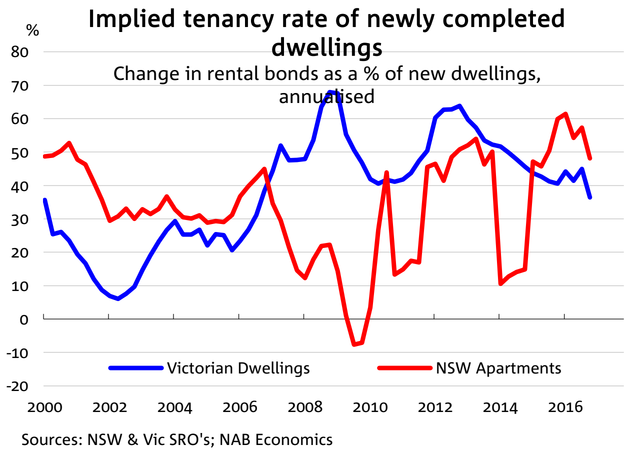

Source: ABS

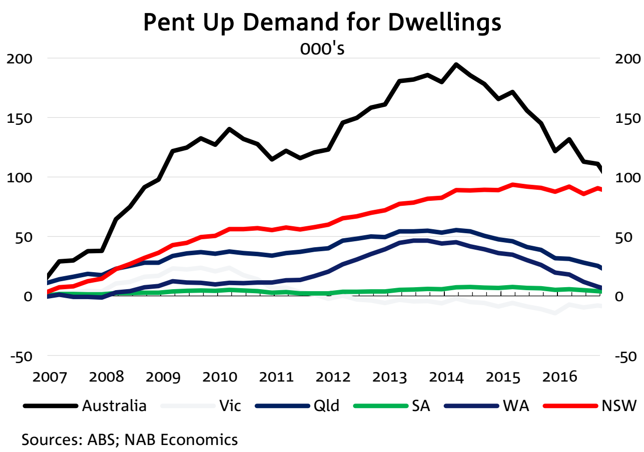
medium-density dwellings – a question that will be explored further in future publications. Nevertheless, mounting concerns over a potential oversupply of apartments has seen the number of approvals drop from its record high, albeit staying at historically elevated levels.

Despite these growing concerns, however, the supply of Australian housing stock has thus far generally failed to meet the needs of the Australian population. Simple measures of the market balance such as rental vacancy rates are close to 3% in Brisbane (a level that suggests an adequately supplied market), but below 3% in both Sydney and Melbourne – Sydney being the lowest at just 1.9%. In contrast, vacancy rates have been much higher in places like Perth, which points to an oversupply. When it comes to the two biggest cities of Sydney and Melbourne, however, there has been growing concern around the number of houses being underutilised (held empty and off market), particularly given the growing significance of foreign buyers in the market – some of which are simply looking for a store of wealth. While such buyers are certainly contributing to demand, with real implications for prices, some might argue that it is an inefficient use of the housing stock and is likely to be much more 'speculative' (and thus volatile) in nature than traditional sources of underlying demand (i.e. population growth). While it is difficult to measure deliberately vacant properties, a proxy can be constructed that compares the number of new rental bonds to the construction of new dwellings. On that basis, the data tend to suggest that fewer newly built properties in Victoria are being rented, which could mean a potential for sharply higher vacancy rates should the properties suddenly re-enter the market – a growing risk in light of the tax on vacant properties announced in this year's Budget.

While vacancy rates are a useful, easily observable and simple to understand indicator of market under/oversupply, they can be heavily influenced by the business cycle, frictional factors or other market failures. Consequently, analysts will often attempt to estimate the level of 'underlying demand', which essentially represents what demand for new houses might have been, given the rate of population growth and observations on household size. Or, as the RBA have put it, such measures show 'the longer-run level of demand, abstracting from shorter-term influences on housing demand related to the business cycle'.[2] This can then be compared to dwelling construction rates to gauge the degree of under/oversupply.



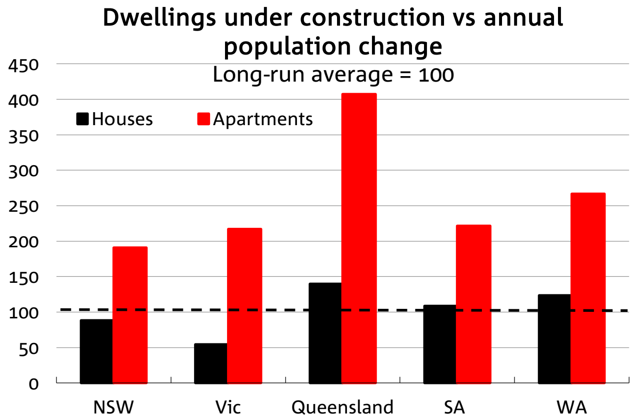

NAB's estimates of underlying demand are suggesting an undersupply of over 100k dwellings in Australia (as of Q3 2016). Much of that is concentrated in NSW/Sydney (85k), followed by Queensland/Brisbane (23k). Victoria is the main exception, posting a slight oversupply of dwellings, however, that was largely the result of post-GFC construction stimulus and likely reflects excess supply in certain geographic regions in the outer suburbs (with many popular suburbs still significantly undersupplied). In 2009-10, the lion's share of the contribution to approvals in detached homes came from the Melton-Wyndham region and Outer Northern Melbourne, while growth in apartment approvals was somewhat more evenly spread. More recently though, supply concerns have shifted to Melbourne CBD apartments, where construction rates have been high – although evidence of significant oversupply has thus far been mixed, with vacancy rates remaining low (and seemingly falling). On a similar (but contrasting) note, even though pent-up demand in Qld remains sizeable according to these estimates, vacancy rates in Brisbane have been a little less favourable. While this might simply reflect the business cycle effects mentioned above, or perhaps the strong influence of inner city suburbs on vacancy rates, it is also worth noting the limitations of underlying demand estimates. In particular, these estimates tend to be highly sensitive to the

[2] https://www.rba.gov.au/publications/bulletin/2015/sep/3.html

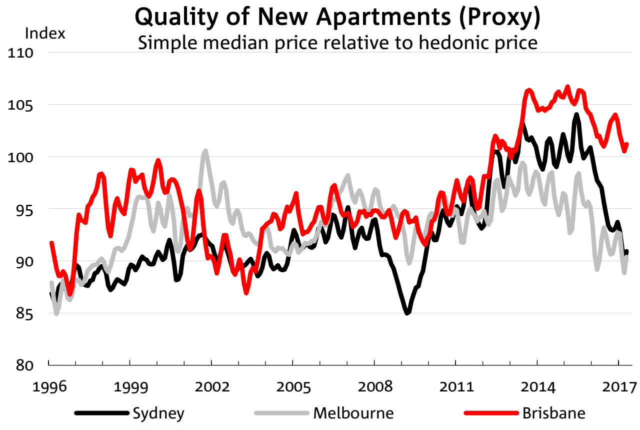
assumptions that are used. Indeed, in previous RBA analysis, variations in the assumptions used created a variation in underlying demand estimates of around 50k dwellings (around 10k for NSW) – NAB's approach appears to fall toward the middle of the range provided by the RBA. It is also worth noting that we have not considered demand from foreign buyers as 'underlying demand' in this analysis. To do so would suggest that pent-up demand, particularly in NSW and Vic, would be larger than indicated here.

**So how does the near-term construction outlook compare to the underlying need for more housing in Australia?** A simple way to look at 'overbuild' is to compare the pipeline of dwelling currently under construction to the annual change in the population. To put the ratio in context, it also helps to compare the level of the ratio to its long-run average (Chart). Breaking this method down by state we can make a couple of observations. Firstly, this simple measure of construction balance suggests there is a noticeable difference between detached houses and apartments. While it tends to indicate an underbuild of detached houses in most states relative to historical norms (Qld and WA being the exception), it also points to significant degree of overbuild in the apartment segment relative to historical norms. Additionally, it suggests that the risk of oversupply is by far the greatest in Qld, where nearly four times as many units are being built to service population growth than has historically been the case (followed by WA and Vic at around 250%). However, such a metric only paints part of the picture. Firstly, it tends to ignore the degree of under or overbuild the market has previously experienced, as well as demographic changes (e.g. household formation rates). In addition to that, it does not account for changes in preference for dwelling types, whether due to necessity (affordability, geography etc) or by choice (such as cultural shifts). The latter point is beyond the scope of this paper, but will be covered at a later date (although we used some simple projections in the outlook section above), while Census data for 2016 (due for release in H2 2017) might shed more light on any shifts in housing demand that are underway.

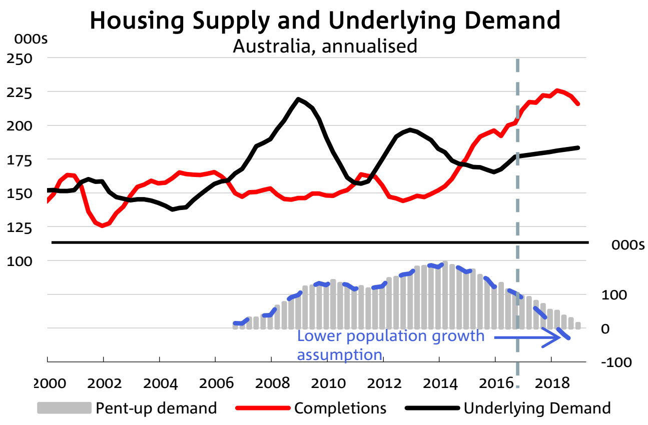
Taking the issue a step further, there seems to be a perception that many new residential developments, especially in the inner city regions, have a small footprint (and are perhaps of lower quality) which may not meet the needs of the average Australian buyer – suggesting a looming flood of unsuitable housing stock into the market. Evidence of this is mixed at best. The average real value of newly commenced apartments looks to have been stable-to-higher in recent years. In contrast, a proxy measure of quality adjustments to the housing stock – based on hedonic (quality adjusted) apartment prices from Corelogic – does point to a notable deterioration, albeit nothing too out of the ordinary. Consequently, this is an issue that warrants continued monitoring.



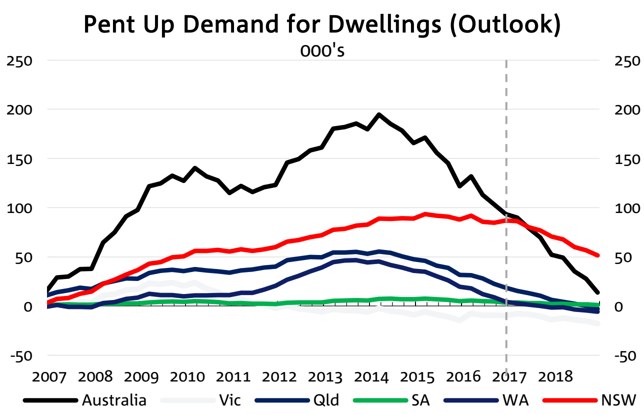
Source; ABS; NAB Economics



Source: NAB Economics; Corelogic



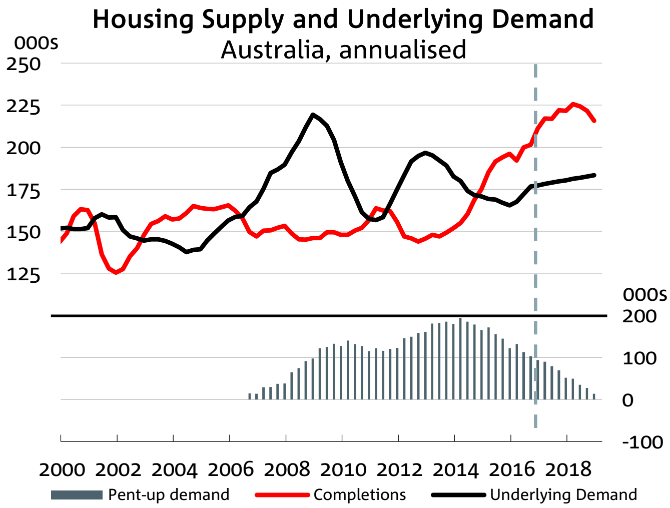
Sources: ABS; NAB Economics

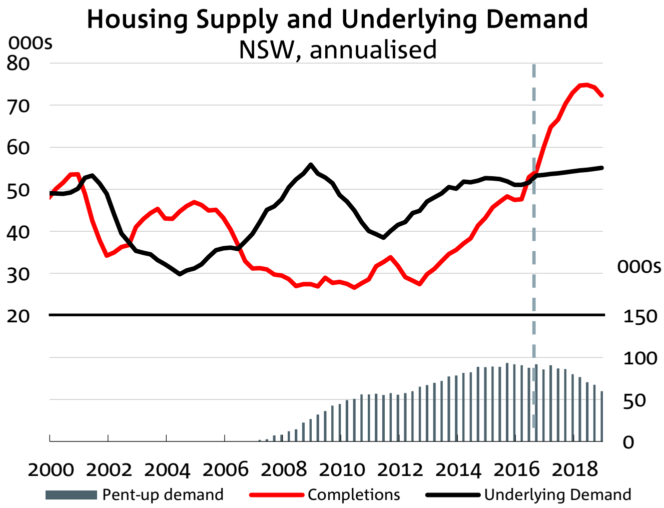


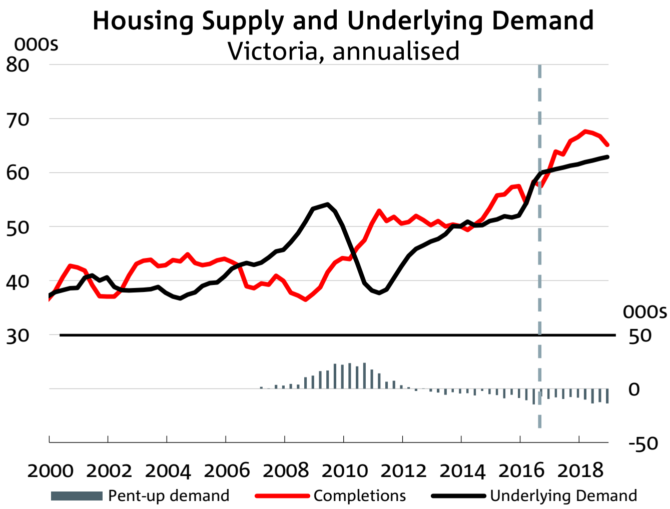
Sources: ABS; NAB Economics

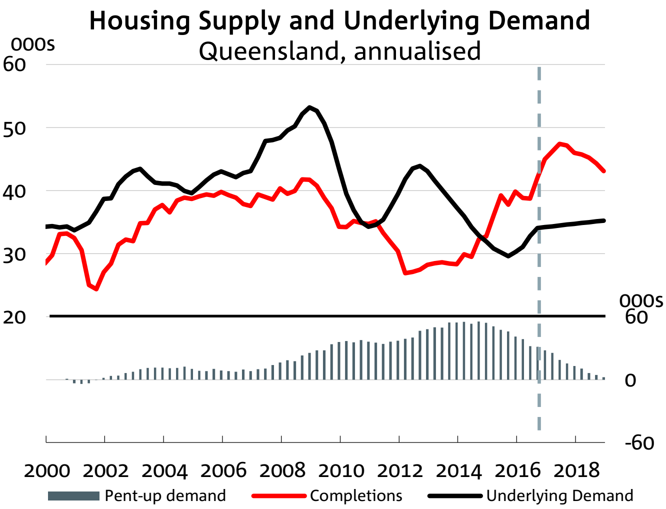
Returning to the supply/demand balance issue more broadly, it is useful to see how any apparent 'over-construction 'of dwellings compares to our estimates of pent-up demand as well as expectations for population growth going forward. Assuming that population growth in Australia remains around the currently elevated levels, a modelling exercise that assumes the pipeline of residential dwellings under construction returns to its pre-boom historical trend, suggests that the housing market will remain undersupplied until late 2018. By state though, our projections suggest that NSW will still have a deficit of housing by late 2018, Queensland will have shifted into a small surplus, while Victoria will have a relatively modest (and steady) oversupply of dwellings (see p7). Naturally, these projections are sensitive to the assumptions made, especially around population growth and completion rates. To highlight this sensitivity, the chart above includes a scenario where population growth returns to the long-run average (rather than staying around currently elevated levels). The result is that the balance shifts into oversupply around a year sooner in late 2017/early 2018 (see the blue broken line).

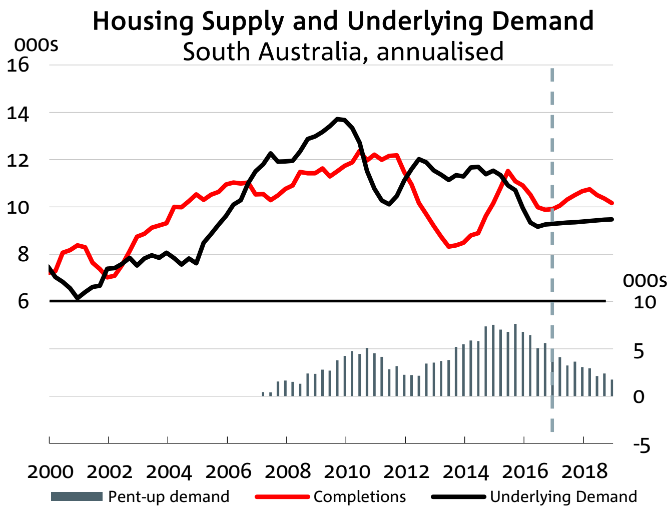
## PENT-UP DEMAND ESTIMATES BY STATES

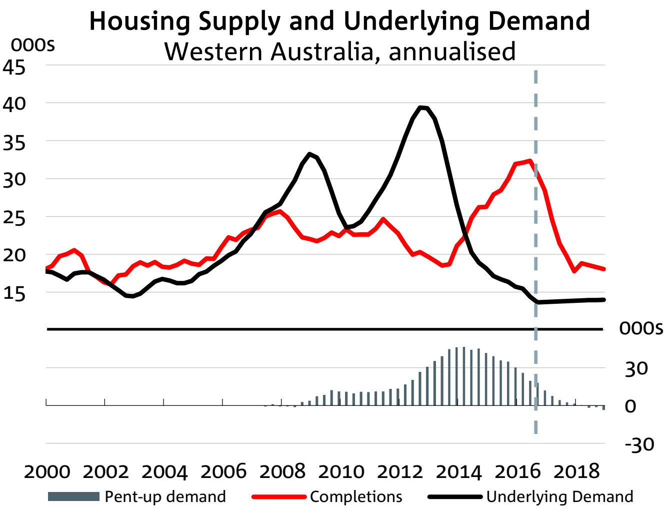


# CONCLUSION

The strong supply response we are seeing in Australian residential property is a trend worth monitoring, but is certainly not completely without merit given the strength of demand fundamentals. Construction rates have failed to keep pace with strong population growth in recent years, contributing to very high levels of pent-up demand, especially in Sydney. Very low interest rates and the relative appeal of dwelling investment (as investors searched for higher returns in the low yield global investment climate of recent years) are only now allowing supply to finally meet that demand. That said, foreign and investor demand has played a larger than usual role in the current cycle, and it is not yet clear to what extent this has amplified the risks to the housing market. It also has an impact on housing affordability, although the current supply response should help in that regard.

While rising supply should work to improve housing affordability, there remain legitimate questions about the suitability of the housing stock that is currently under construction. Some indicators tend to suggest that the 'quality' of the dwellings is not at the same level that Australian buyers are used to, although the evidence is mixed. Additionally, the heavy focus on apartment construction will require a sizeable shift in buyer preferences, with Australian buyers historically favouring detached dwellings. That said, strong population growth (primarily international migration), rising congestion, deteriorating affordability and an ongoing concentration of employment growth in metro areas suggests that a shift in buyer preferences may come by way of necessity. Continued divergence in price growth between detached houses and apartments will also assist in shaping preferences. (For NAB's latest housing price forecasts, please see pages 10-11 of the Q1 NAB Residential Property Survey)

Nevertheless, with concerns rising around potential settlement risks for new developments, particularly as credit conditions are tightened, we are likely to see the construction industry begin to 'self-regulate' the volume of new supply. That would be consistent with past behaviour and can already be seen in the level of new building approvals – although they are yet to fall to the extent that we had expected (and have partially rebounded more recently). In combination with other constraints (diminished spare capacity and tighter financing), we could potentially see the construction cycle become more elongated than previously thought – peaking at a lower level, but holding at elevated levels for longer – which would also help to alleviate over-supply concerns. Our statistical modelling suggests that residential commencements could fall more than 13% in 2017 and a further 7% in 2018 – although some analysts point to a much more significant decline this year. If so, dwelling construction would actually decline by 4% a year in 2017 and 2018 according to these models. That said, our statistical models predict the pipeline of existing projects to run down much slower than would seem likely in practice, so is taken to be more akin to a worst case scenario rather than the most likely path for construction activity. Instead, NAB Economics are forecasts dwelling construction to rise another 2% in 2017, before falling around 1% in 2018.

Should the construction cycle play out as expected, there needs to be an ongoing shift in household preferences toward apartments to soak up the new housing stock. According to NAB Economics projections, this trend will continue to be fairly gradual (thus likely manageable) in NSW, but could be more stark in Victoria and Queensland, again highlighting the risks involved.

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