Housing Pulse

February 2018

Westpac Institutional Bank

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The next issue will be published on 25 May 2018.

Executive summary

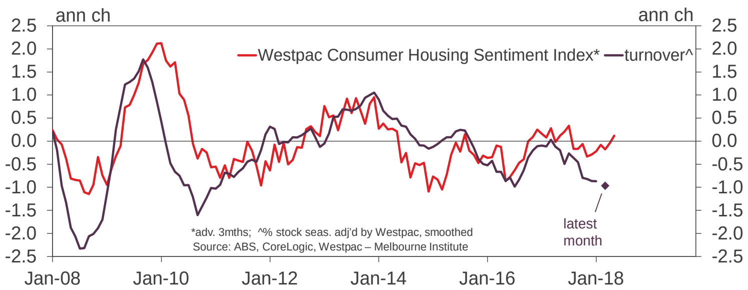
Our first **Housing Pulse** report for the year comes at a pivotal moment for Australia's housing markets. After a significant slowdown in 2017, annual price growth in Sydney is poised to dip into negative for the first time in 5½ years. While most other markets are holding up better, all major states have seen price growth moderate and turnover fall to historically low levels. With many of the factors behind the slowdown still in place – macro-prudential restrictions, weaker foreign buyer demand, stretched affordability, and a lift in new dwelling supply – and policy unlikely to provide a boost, 2018 is shaping as a critical test of the market's resilience.

The **Westpac Housing Consumer Sentiment Index*** continues to point to some stabilisation by mid-2018 although the signal is tentative. Improvement has been driven by less downbeat 'time to buy' assessments and improving job security, partially offset by reduced price expectations and high levels of risk aversion.

Importantly, both signals and performances remain very uneven across states: NSW looks set for more weakness near term with sentiment still decidedly downbeat; Vic continues to see a more moderate slowdown with sentiment pointing to some stabilisation; Qld's market remains sluggish but looks set for a modest improvement; the long awaited recovery in WA is seeing strong positive signals from confidence but a market turn still looks to be some way off; conditions in SA remain lacklustre with activity stalling; and Tas's 'outlier' boom in prices is driving a resurgence in sentiment that points to a strong rebound in activity.

The **special topics** in this month's issue look at consumer expectations for interest rates; mortgage arrears by state; present updated state projections of dwelling completions and sub-regional price measures that highlight some of the different trends within states and major capital cities.

1. Australia: national housing conditions

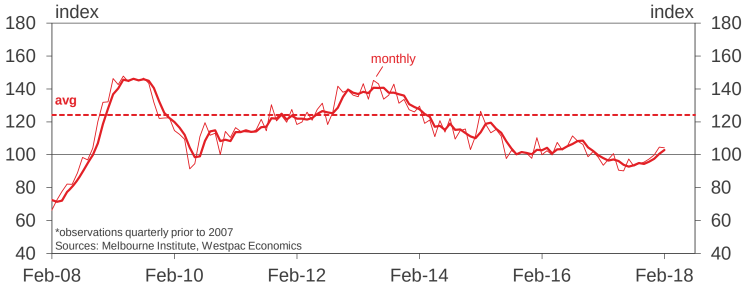


"Westpac Consumer Housing Sentiment Index* continues to point to some stabilisation by mid-2018"

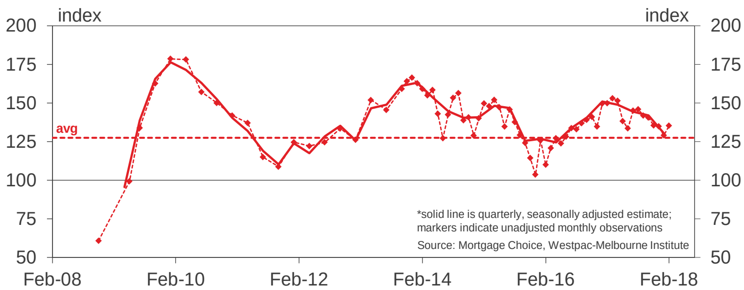
*The **Westpac Consumer Housing Sentiment Index** is a composite measure based on four housing-related components of the **Westpac Consumer Sentiment survey**. See **Appendix** on p31 for more details.

Overview: tentative improvement

2. Westpac–MI 'time to buy a dwelling' index

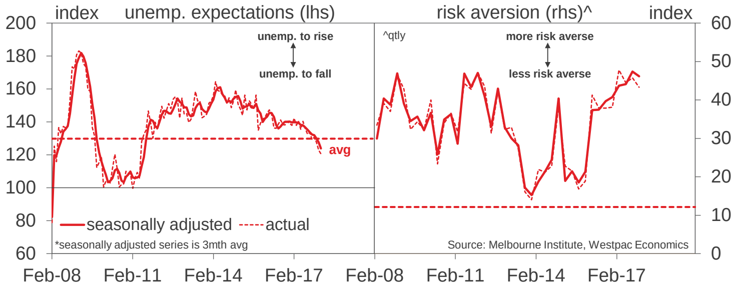


3. Westpac–MI House Price Expectations Index

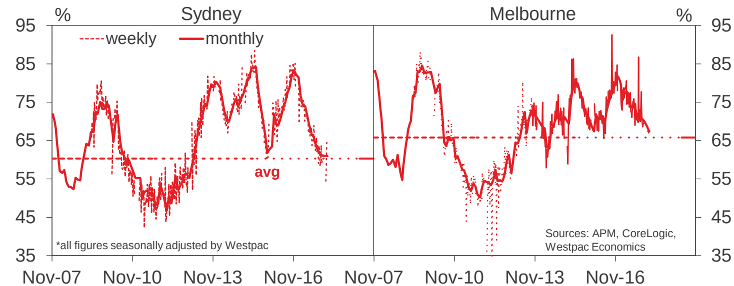


- Australia's housing market continues to move through a significant slowdown. Turnover nationally declined about 15% over 2017 to a 5½yr low. Price growth has also slowed abruptly. In both cases the weakening has centred on the major states – NSW, Vic and Qld – although the slowdown in price growth has been abrupt in the Sydney market and somewhat more pronounced in the Melbourne market.
- Updates have been thin on the ground since our last report in Nov with markets largely closed during the holiday off season. What information is available suggests conditions remain soft. However, the real test will come as auction markets start to re-open. The early signs, from the first four weeks of Feb, suggest clearance rates may be starting to stabilise in Sydney but have seen further softening in Melbourne.
- Sentiment-wise, the last 3mths have seen some improvement with a continued recovery in 'time to buy' assessments and job security. However, risk aversion remains elevated and price expectations have been pared back. Overall, sentiment continues to point to stabilising conditions nationally by mid-2018 although the signal varies greatly state to state.
- Nationally, the **Westpac Melbourne Institute 'time to buy a dwelling' index** has risen a further 7.1% over the last 3mths, to be up 12% from its low in May last year. Despite the gain, the index remains at weak levels overall, the 103.8 read in Feb still well below the long run avg of 120.

4. Consumer sentiment: jobs & risk



5. Auction clearance rates



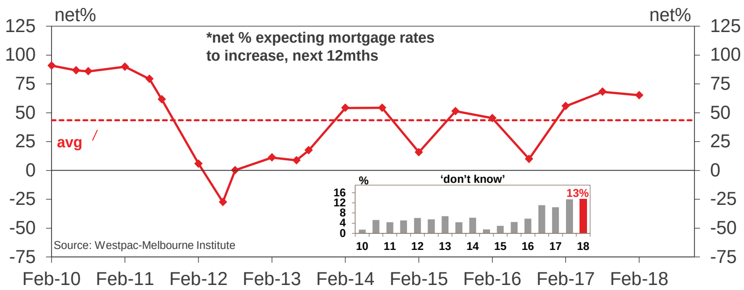
– The **Westpac–MI Consumer House Price Expectations Index** slipped 0.2% over the 3mths to Feb although seasonal effects look to be a positive early in the year suggesting 'underlying' expectations have seen more of a pull back. At 129.1 the index is in line with its long run avg. The biggest pull back continues to come in NSW but with price expectations in Vic also starting to show a notable decline.

– Consumer confidence around the labour market continues to show a steady improvement. The **Westpac Melbourne Institute Unemployment Expectations Index** fell 7.8% over the 3mths to Feb (recall that lower reads mean more consumers expect unemployment to fall in the year ahead). At 120.6, the Index, which can be viewed as a measure of consumers' sense of job security, is now comfortably below its long run avg of 130. That said, views are still not particularly optimistic – over the five years prior to the GFC for example, the index averaged 115.6. The latest shift is being led by strong improvements in the mining states with all state indexes now comfortably below their long run averages.

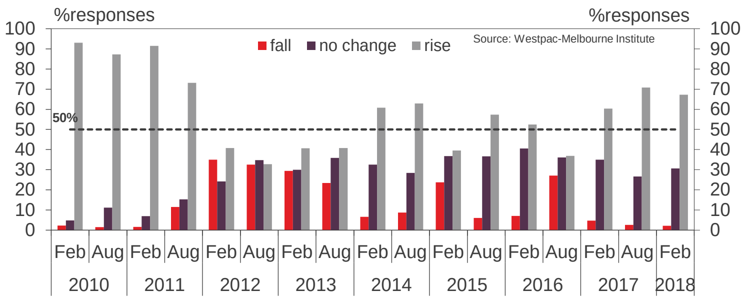
– Consumer attitudes towards risk remain a restraining factor. The **Westpac Consumer Risk Aversion Index** – a proxy based on consumer responses to questions on the 'wisest place for savings' – held at 46.2 in Dec, down only slightly on the 47.4 in Sep which was a record high on readings going back to the mid-70s. The latest reading was also taken before the increased market volatility in Jan-Feb.

Special topic: interest rate expectations

6. Westpac Consumer interest rate expectations

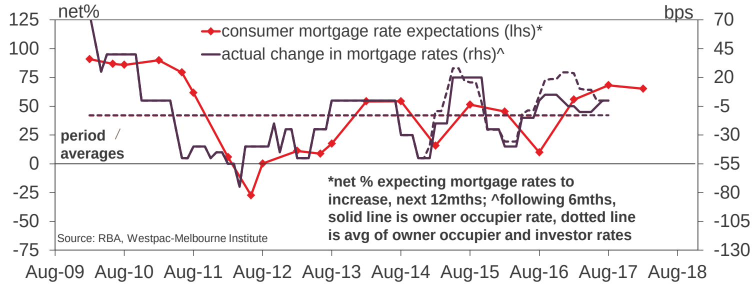


7. Consumer expectations for mortgage rates

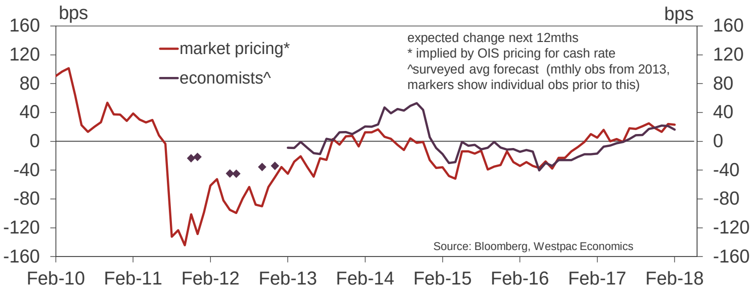


- Interest rates remain a hot button issue for Australian consumers, the mortgage belt in particular. Most recently, the weakening in sentiment in Jun-Sep last year highlighted once again just how sensitive consumers are to actual and prospective rate moves. The period coincided with increased rates on investor and 'interest only' loans following macro-prudential measures from APRA. It also coincided with increased media speculation about the potential for a rate tightening cycle from the RBA. Headline sentiment slid about 4% through mid 2017, registering its lowest read for the year in Aug, with sentiment amongst consumers with a mortgage sinking to an 18mth low. Notably, actual consumer spending also stalled flat in the quarter, showing that, against a backdrop of weak income growth, high debt levels and risking risk aversion, this sort of sentiment pull back can have an immediate impact on spending decisions.
- We get a specific read on consumer views on interest rates from our biannual question on mortgage rate expectations. The Feb update shows that, of those consumers with a view, 67% expect rates to be higher in 12 months; 31% expect rates to be steady and 2% expect further cuts. That compares to 71% expecting higher rates back in Aug, 60% in Feb and just 37% in Aug 2016 – when the RBA last cut the official cash rate.
- The simplest summary measure – the net % expecting rates to rise – declined to 65.1 from 68.2 in Aug, the highest level since Jun 2011, prior to the RBA commencing its current, extended easing cycle. The Feb read is still well above the 43.5 avg since we started running the question in 2010.

8. Mortgage rate changes: actual vs expected



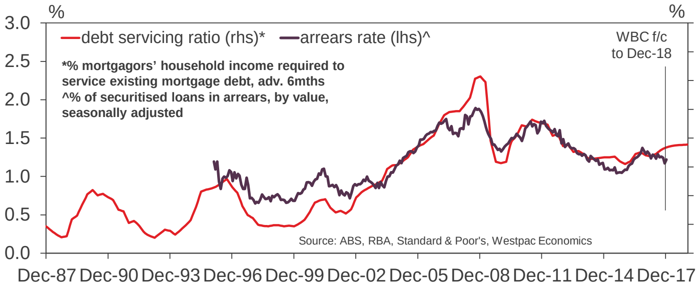
9. Cash rate expectations: market pricing, economists



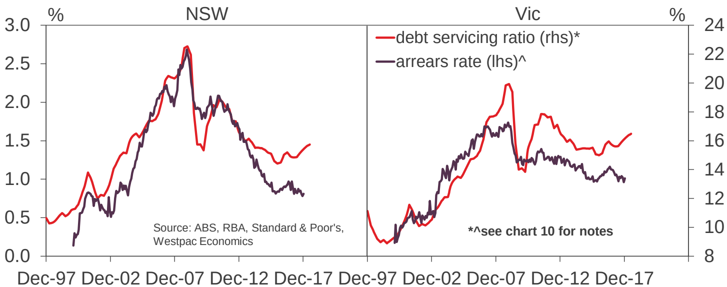
- Taken at face value, the responses still point to a median expected increase of +39bps over the next 12mths – a move that would take the benchmark standard variable mortgage rate from 5.20% to 5.59%.
- It should be noted that there is a clear 'upward bias' to consumers' mortgage rate expectations. As mentioned, the average net % reading is +43.5 over the period we have been running the interest rate expectations question. This is despite the fact that rates have declined more often than they have risen.
- Chart 8 provides some basis for adjusting response to allow for this bias, aligning responses to actual changes in mortgage rates over the following 6mths (the link over long horizons appears to be much more tenuous). It suggests the latest reading may be more consistent with a 10bp rise in mortgage rates over the next year.
- The less hawkish consumer view on interest rates contrasts with market pricing and economist forecasts for the official cash rate. Back in Aug markets were pricing in a 17bp increase in the cash rate by Aug 2018. They are now pricing in a 25bp rise by Feb 2019. Similarly, the average year ahead forecast for the cash rate from surveys of economists has moved from +8bps in Aug to +16bps in Feb.
- In both cases the year ahead view conceals a reduction in nearer term expectations. Markets for example are now pricing in just 8bps in rate rises by Aug 2018. Similarly the average economist forecast is now just +5bps by Aug. Westpac Economics continues to expect no change in official rates over 2018 and 2019.

Special topic: mortgage arrears by state

10. Mortgage arrears vs debt servicing burden



11. Mortgage arrears vs debt servicing: NSW, Vic

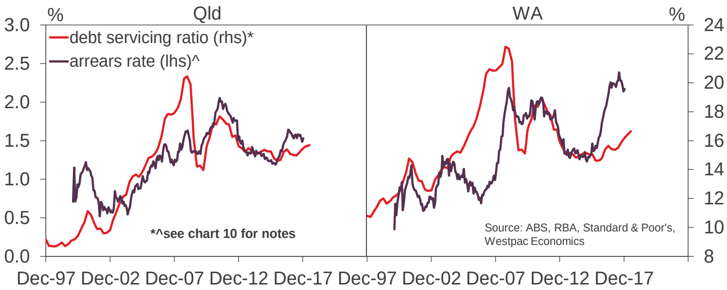


– For most existing home owners there is a degree of optionality when it comes to transacting in the housing market – a decision to sell can usually be delayed quite easily if market conditions look likely to disappoint. The major exception to this are owners struggling to meet their debt servicing obligations. For this group, selling is a more urgent requirement, and in extreme situations may even involve 'forced sales'. Sellers in this situation are typically more prepared to accept lower price offers in order to achieve a sale. Accordingly, when the share of urgent or distressed sellers in a market rises, this often acts as a catalyst for market-wide price declines – this dynamic, coupled with massive physical oversupply, was a key feature of US housing slump in 2007-09.

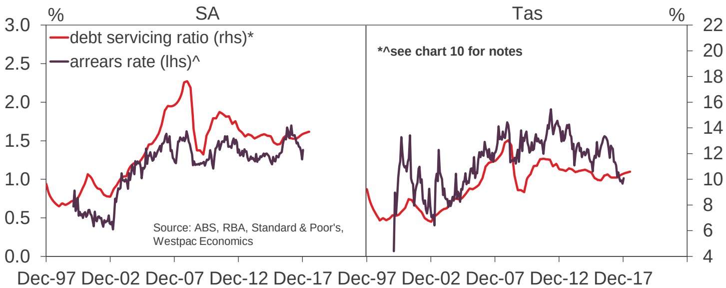
– Mortgage arrears provide a timely indicator of urgent or distressed sales. The most readily available measure for the Australian market is Standard & Poor's SPIN data based on the performance of securitised mortgages. These show the proportion of loans by value that are over 30 days in arrears – in most cases meaning they have missed at least one repayment. The monthly measure goes back to 1996 and is available by state. It should be noted that while this is the best available measure, securitised loans are not always an accurate reflection of the wider 'system' both in terms of mix and performance. Currently for example, 'interest only' loans are likely under-represented in securitised loans.

– Charts 10-14 show arrears rates nationally and by state compared to estimates of the debt servicing ratio for mortgagor households. The comparison helps identify the extent to which shifts in arrears are due to budget pressures vs market specific factors such as oversupply.

12. Mortgage arrears vs debt servicing: Qld, WA



13. Mortgage arrears vs debt servicing: SA, Tas



– The latest data continues to point to benign conditions nationally. As at Dec 2017, the arrears rate was 1.2%, down slightly on 1.3% at the end of 2016, in line with the long run average and well below historical peaks around 1.7-1.9%. Arrears are also tracking a little better than debt servicing estimates suggest, perhaps reflecting the lower share of 'interest only' loans in the securitisation pool. Note that the arrears are shown in seasonally adjusted terms – there is a distinct seasonal 'bump' worth about 0.15ppts over Dec-Jan reflecting post-Christmas financial strains and other factors such as the timing of new loans entering the pool.

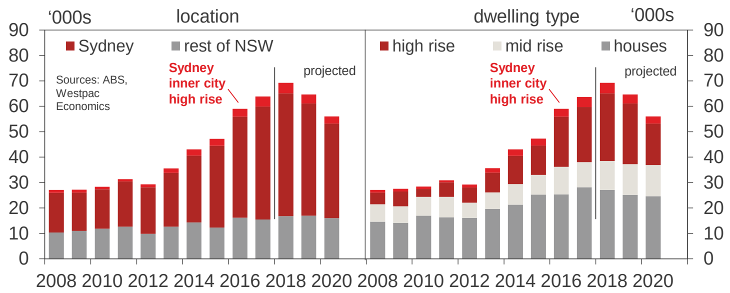
– The picture by state shows even lower arrears in NSW, running at just 0.8%. This is also well below the state's somewhat higher long run average of 1.4%. Arrears were notably higher in NSW through the 2003-07 tightening cycle peak, highlighting both the higher debt servicing load in the state and a range of market specific factors. Vic's arrear rate is slightly below the national rate, at 1% and has tended to be more stable historically. In both cases there look to be few urgent sellers 'testing' the weaker demand environment.

– Arrears rates remain more elevated in Qld (1.5%) and near historic highs in WA (2.2%). While much of this reflects the additional strains of the mining sector downturn, the elevated arrears in WA may also reflect the more difficult housing market conditions in Perth including declining prices and an overhang of stock.

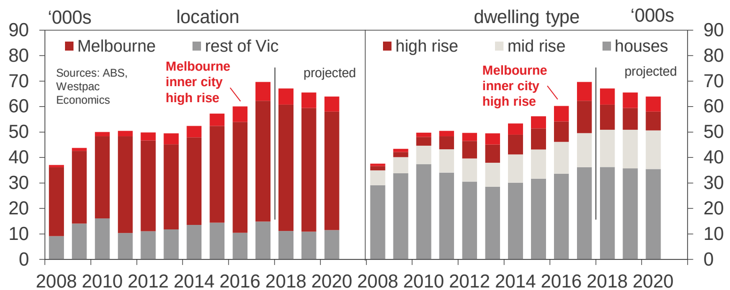
– SA and Tas have both seen the most pronounced declines in arrears over the last year, the former from a high start and the latter to a 12yr low.

Special topic: projected dwelling completions

14. NSW: peaks at 70k in 2018; >40% high rise

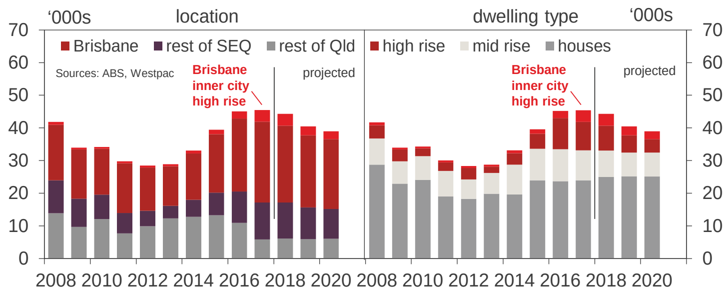


15. Vic: steady around 65k pa incl. 15k pa Melb high rise

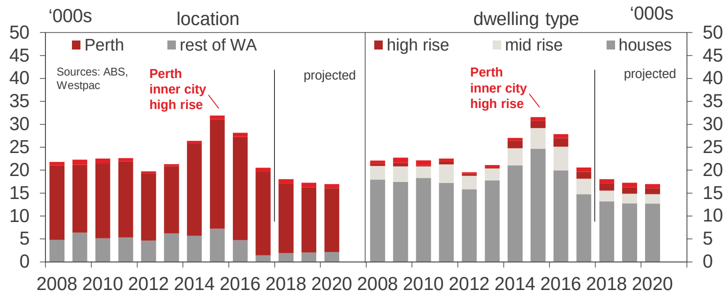


- This month we update projections for dwelling completions published in May last year. These incorporate new information on both the pipeline – data on approvals, starts and completions – and the forward view on high rise projects based on site purchase activity (see our Nov report for more detail).
- Our projections build on detailed analysis of the build times for different dwelling types – averaging 3-6mths for a typical detached house but ranging from 12mths to over 3yrs for 'high rise'. Estimates assume completions times follow the average distribution seen historically.
- The projections also require some forecast path for new dwelling approvals. For this we use high rise site purchases as a guide for high rise approvals – with the additional state detail used to refine state estimates. For non high rise segments we assume a 10% decline in NSW and flat approvals elsewhere with both NSW and Vic expected to see some lift in favour of medium density dwellings.
- All projections should be treated as indicative in nature with the main aim of the exercise being to get a better sense of the timing and magnitude of the high rise building cycle.
- Our updated estimates point to annual completions holding above 200k nationally in 2018 with the slowdown in approvals only impacting gradually from 2019 with completions falling 5-6% that year and 6-7% in 2020. Even with this profile, completions in year three are still likely to be 20-25% above the avg over the first half of the decade.

16. Qld: moderating back below 40k pa, 85% in SEQ



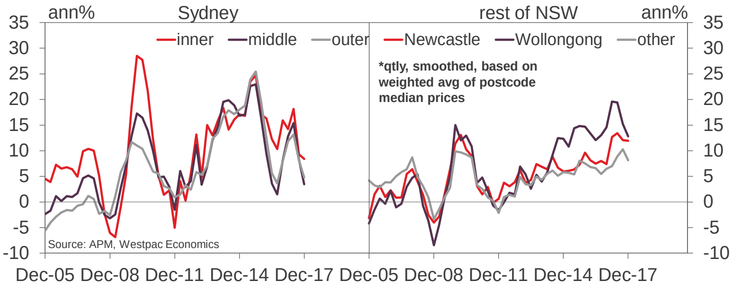
17. WA: pipeline tracking towards 15yr lows



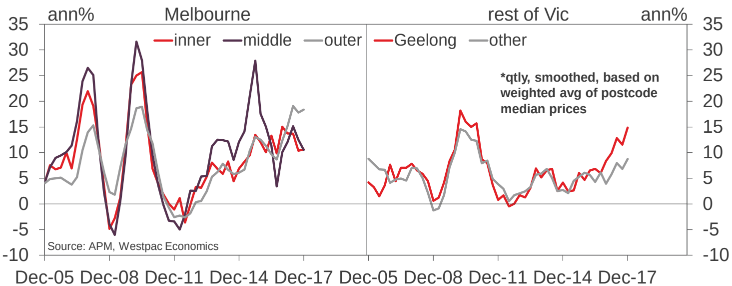
- While the broad thematics remain similar to last year, the updated projections show more of a contrast across states.
- NSW is still set to see the largest increase in dwellings with over 130k completions over the next 2yrs – double the pace prior to the boom. Over 75% of these are in Sydney with 40% in 'high rise' projects. The concentration in 'inner city' areas remains much lower than for Melbourne and Brisbane. Projections suggest NSW will see a sharper drop off in 2020 as the wind back in high rise accelerates.
- Vic now looks to be facing into a more sustained high level of completions with a milder wind down in activity. Approvals were surprisingly strong through late 2017. Site purchases also showed a revival in 2016-17 suggesting the high rise segment will hold up for longer. The state continues to show a much heavier concentration in inner city high rise work: completions set to run at over 6k a year over the next 3yrs accounting for over 40% of all high rise completions in the state.
- Qld continues to face into a weaker near term profile with the pipeline of projects already shrinking 11% in 2017. Completions are likely to track back below 40k a year by 2020. While that is high relative to the 5yrs post GFC its on a par with completions in the 5yrs prior to the 2008.
- High rise activity is less of a factor for WA, with the assumed flat profile for non high rise approvals the main driver of projected completions, which track at around 16-18k a year over the next 3yrs.

Special topic: sub-regional price measures

18. NSW: slowdown sharpest in mid & outer Sydney

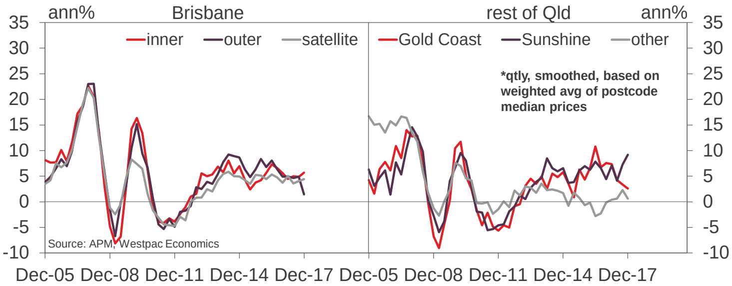


19. Vic: outer Melb and regional areas strengthening

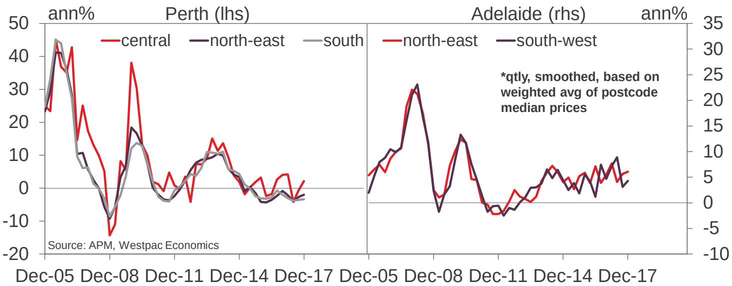


- City and state price measures often conceal a wide variation in performances across different segments. Previous reports have highlighted divergent trends across houses and units, an issue we will be revisiting in our May report. For the record, the 2017 slowdown has been much more pronounced for houses, particularly in NSW. The RBA has also highlighted how the recent price cycle in Sydney and Melbourne has been bigger for more expensive properties. In this special topic we drill down to finer geographic levels, looking at how prices are performing across different parts of the major capital cities and in regional areas.
- The price series in charts 18-21 draw on detailed data on median dwelling prices and sales covering over 2500 different postcodes across Australia. While the measures are cruder, more volatile and less timely than the benchmark measures used elsewhere in this report, they provide a useful gauge of relative performances.
- For NSW, the postcode detail points to a sharper slowdown in Sydney and particularly across Sydney's middle and outer ring suburbs (broadly speaking, from 10-25k, and 25k+ out from the city centre). Note that 'unit' price growth (i.e. apartments) has been steadier through 2017 but is somewhat weaker across the middle ring suburbs, stalling flat for the year.
- The more granular detail shows a much fairly uniform slowdown across Sydney's middle and outer suburbs with a more varied and volatile performance in the inner ring. Within the inner ring areas the main outperformance has been across the eastern suburbs and inner west.

20. Qld: mixed, both within SEQ & across rest of state



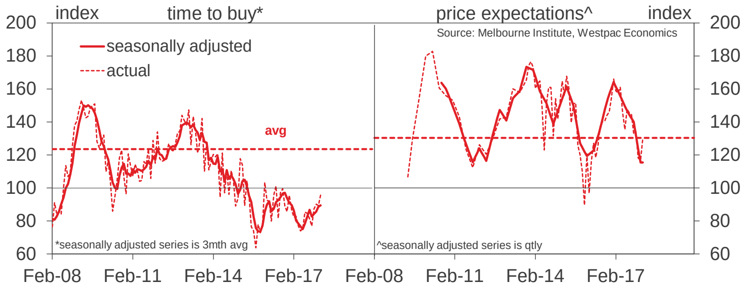
21. WA & SA: central Perth, north east Adelaide firmer



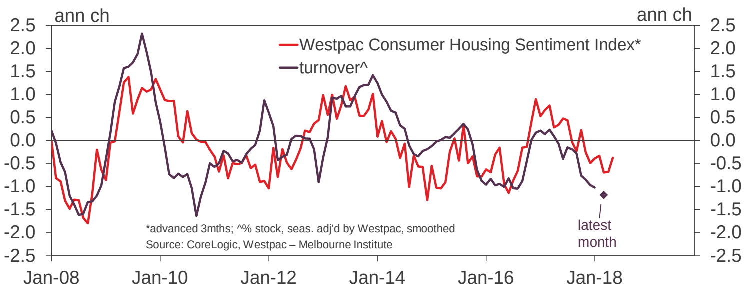
- Price growth in NSW's regional centres is now outperforming Sydney.
- For Vic, the Melbourne detail shows a strong acceleration in outer ring suburbs partially offsetting mild slowdowns in the inner and middle ring suburbs. The lift in the outer ring has centred on the city's northern fringes. That in turn suggests the wider Melbourne market may be seeing a mismatch of supply with current construction concentrated in the inner city areas but low levels of building seeing unmet demand across other metropolitan areas. Notably, regional Vic is also seeing strong price gains, Geelong in particular. Interestingly, separate measures for 'units' show moderating price growth in the inner ring but an acceleration in the middle and outer ring suburbs.
- The Qld price detail shows a wide variation both across Brisbane and the wider state. We split Brisbane into 'inner', 'outer' and 'satellite' areas – each being somewhat farther flung than the Sydney and Melbourne rings definitions. This shows softening price growth in the outer suburbs but steadier gains elsewhere. Across the wider 'south-east Qld' metro area the Gold Coast is showing some cooling but the Sunshine Coast is seeing continued strength. For units, prices are showing steady slippage in Brisbane's inner areas and flat-lining in the Gold Coast but rising steadily in the Sunshine Coast. Price performances vary greatly across regional Qld.
- The detail for Perth shows a more volatile picture for central areas which are currently seeing slight price gains. For Adelaide, sub-regions are seeing similar price performances, having slowed a touch in 2017.

New South Wales: weak near term view

22. NSW consumers: housing–related sentiment



23. NSW housing composite vs turnover



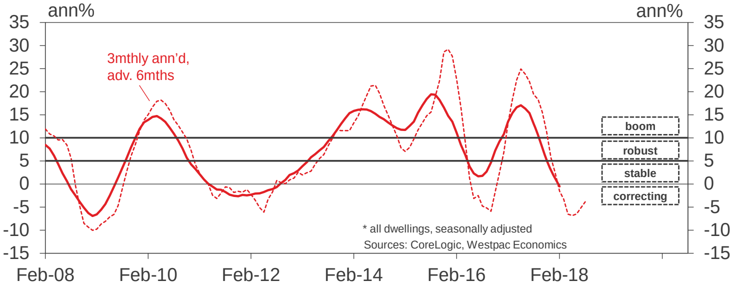
– After registering the sharpest slowdown in 2017, the NSW housing market looks set for more weakness over the first half of 2018. Annual price growth in Sydney has stalled flat and is likely to dip into slight negative territory in Feb, a dramatic slowdown on the 17% pace as at May last year. Early signs from Sydney's auction market suggest conditions may be stabilising somewhat although sentiment suggest conditions will remain weak near term.

– The **NSW Consumer Housing Sentiment index** has continued to firm slightly but remains at a weak level, down on a year ago. The index suggests coming months will still see turnover down on a year ago, although the pace of decline may moderate (note that in chart 22 and similar charts for other states both the index and turnover are shown in annual change terms rather than levels). Annual turnover was down 5.4% in 2017 vs 2016 but declined at a 17% annualised pace over the second half of the year.

– NSW consumers' 'time to buy' assessments have continued to improve, from a very weak starting point. However house price expectations have dropped away to be well below average to now be on par with readings seen during previous price corrections. Other component shifts have been marginal with a slight improvement in consumers' unemployment expectations (which remain relatively positive) negated by a slight lift in risk aversion (which remains elevated).

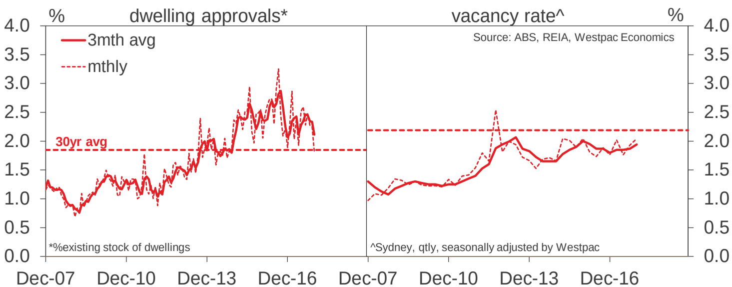
– Around supply, rental vacancy rates remain tight at 2% across Sydney but are starting to show hints of a rise in some areas, 'middle ring' suburbs in particular.

24. Sydney dwelling prices



Population: 7.9mn
Net migration: 84k pa
GSP: $558bn (33% Aus)
Dwellings: 3.1mn, $2.8trn
Capital: Sydney

25. NSW: dwelling approvals, vacancy rates

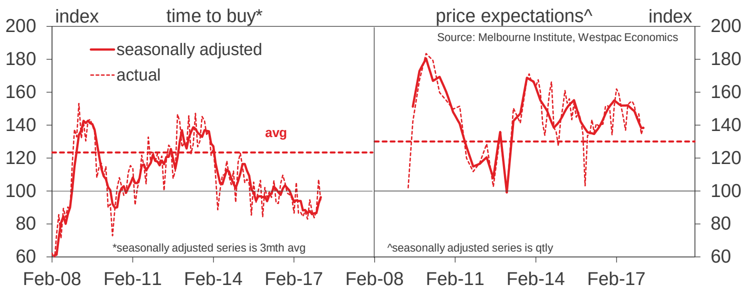


June years	avg*	2015	2016	2017	2018^
GSP, ann%	2.7	2.8	3.9	2.9	n.a.
State final demand, ann%	3.2	3.4	4.4	3.3	3.3
Employment, ann%	1.6	2.1	3.4	0.9	3.4
Unemployment rate, %#	6.5	5.8	5.2	4.7	4.9
Population, ann%	1.1	1.5	1.5	1.6	1.6
Dwelling prices, ann%	6.4	17.1	2.3	16.3	-0.5
Rental yield, %#	4.6	3.8	3.8	3.7	4.0

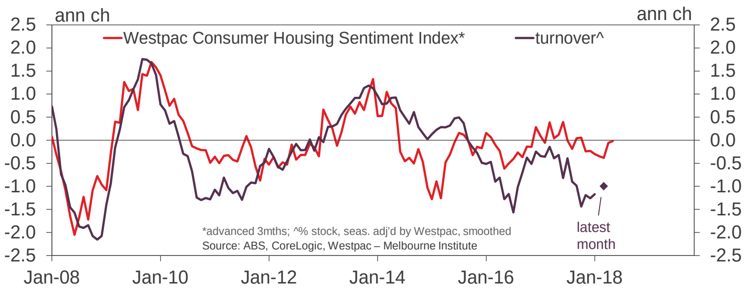
* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Victoria: more signs of resilience

26. Vic consumers: housing–related sentiment



27. Vic housing composite vs turnover



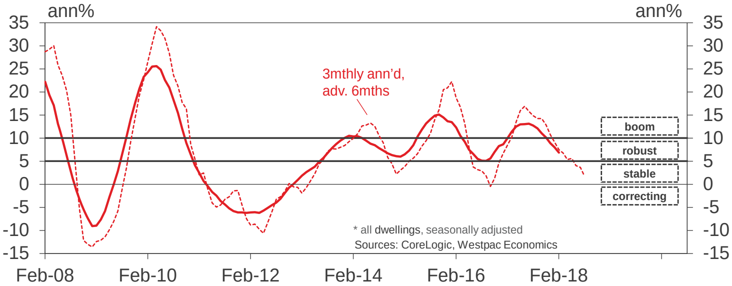
– Despite a clear slowdown, Vic's housing market held up reasonably well through 2017. Turnover pulled back sharply, down over 10% for the full calendar year, but the slowdown in price growth has been gentle. Indeed at 7.5%yr, annual dwelling price growth in the Melbourne market is now the clear outperformer of the major state capitals (Hobart takes the honours once smaller capitals are included).

– The **Vic Consumer Housing Sentiment index** has improved over the last 3mths, pointing to stabilising activity in coming months. Assessments of 'time to buy' have lifted 11.5% since Nov. Vic consumers' unemployment expectations have also improved significantly. Against this, risk aversion has risen and price expectations have softened.

– Early indications from auction markets have been on the soft side. Melbourne clearance rates declined in 2017, but at a milder pace than Sydney and holding at above avg levels. Results from the Feb month to date suggest the 2018 season has opened a touch softer again, although clearance rates are still above avg.

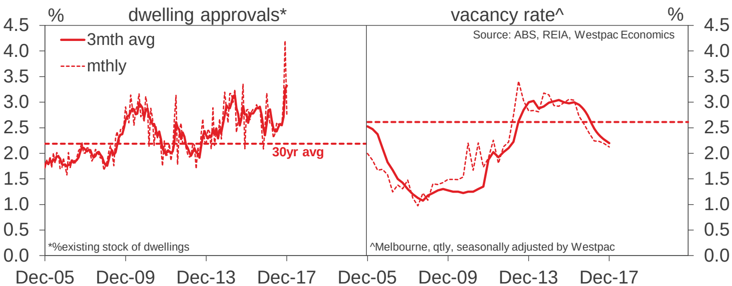
– Melbourne's inner city apartment construction boom still looks to be having minimal impact. It is likely contributing to shifts in the relative performance of inner and outer ring suburbs (see p12). However, the slowdown in price growth in 2017 has been led by houses with unit price growth holding at a steady pace (indeed, annual price growth across houses and units has converged). Rental vacancy rates also suggest the construction boom is not affecting rental supply, with rates tracking towards tight 2% levels city-wide.

28. Melbourne dwelling prices



Population: 6.3mn
Net migration: 104k pa
GSP: $399bn (24% Aus)
Dwellings: 2.6mn, $1.9trn
Capital: Melbourne

29. Vic: dwelling approvals, vacancy rates

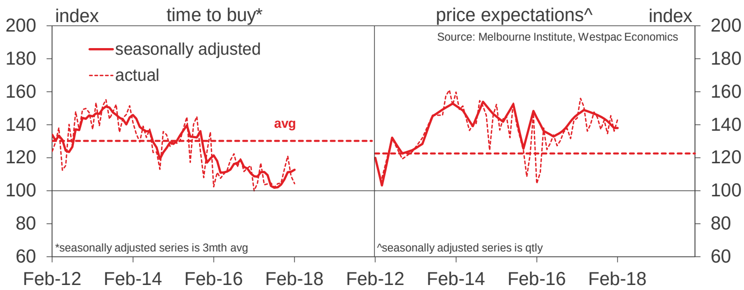


June years	avg*	2015	2016	2017	2018^
GSP, ann%	3.2	2.9	3.5	3.3	n.a.
State final demand, ann%	3.7	3.2	4.0	3.9	3.9
Employment, ann%	2.0	3.5	3.0	3.8	3.1
Unemployment rate, %#	6.9	6.1	5.7	6.0	5.7
Population, ann%	1.4	2.2	2.4	2.3	2.3
Dwelling prices, ann%	6.9	11.9	6.6	13.0	6.8
Rental yield, %#	4.6	3.8	3.9	4.0	4.0

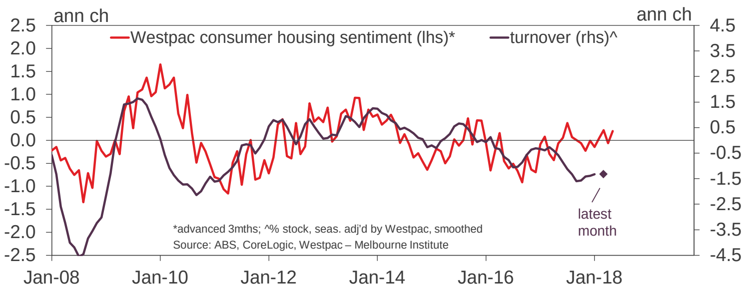
* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Queensland: sentiment points to recovery

30. Qld consumers: housing-related sentiment

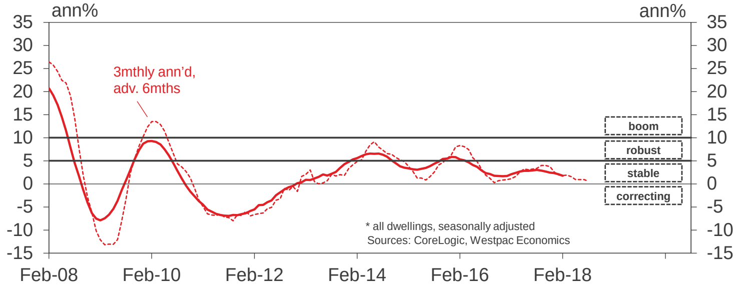


31. Qld housing composite vs turnover



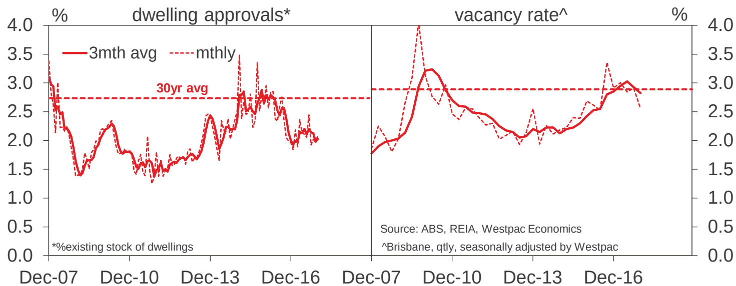
- The Qld housing market continues to see sluggish conditions in most areas. While some weak areas are starting to show signs of stabilising – unit price growth in the Brisbane market in particular – and buyer sentiment continues look supportive for a near term stabilisation, the market lacks direction with price growth overall barely keeping pace with inflation.
- The **Qld Consumer Housing Sentiment index** has improved marginally over the last 3mths and is again pointing to a slight lift in turnover near term. The improvement is reasonably broad based but led by a big improvement in unemployment expectations (–16% vs Nov) amid clearer signs that the state's labour market is starting to improve. Qld consumers' assessments of 'time to buy' have also lifted (up 3.3% vs Nov) and risk aversion has eased.
- Brisbane rental vacancy rates have tightened notably to be back at 2.6% city-wide. The detail shows a lift in vacancies across inner suburbs has been more than offset by declines elsewhere. Rental markets remain very tight across the Gold and Sunshine Coasts (vacancy rates <2%). Vacancies are also falling across regional areas – back down to around 4% in mining areas that peaked at 8.5% in early 2016, and tightening to sub-2% levels in tourism-driven Cairns.
- With tight rental markets and new construction cycling lower near term, a continued pick up in Qld's population growth could see housing markets firm quickly.

32. Brisbane dwelling prices



Population: 4.9mn
Net migration: 49k pa
GSP: $309bn (18% Aus)
Dwellings: 2.0mn, $1.0trn
Capital: Brisbane

33. Qld: dwelling approvals, vacancy rates

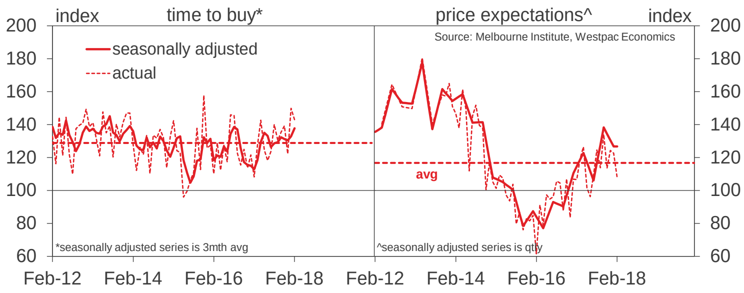


June years	avg*	2015	2016	2017	2018^
GSP, ann%	4.0	1.2	2.6	1.8	n.a.
State final demand, ann%	4.2	-3.1	-1.4	2.0	2.0
Employment, ann%	2.4	0.0	0.8	1.8	4.4
Unemployment rate, %#	7.0	6.2	6.3	6.2	6.0
Population, ann%	2.0	1.3	1.3	1.6	1.6
Dwelling prices, ann%	4.6	3.5	3.7	2.8	1.8
Rental yield, %#	4.8	4.6	4.8	4.9	5.0

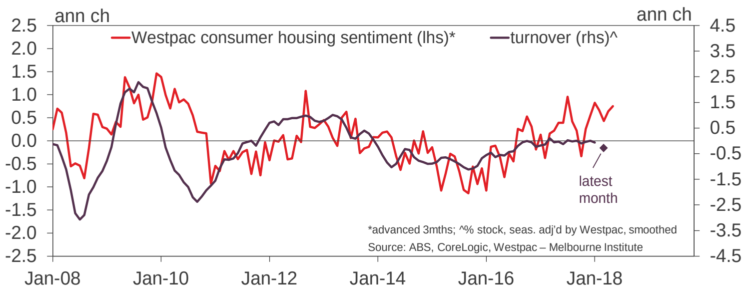
* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Western Australia: optimism builds

34. WA consumers: housing–related sentiment

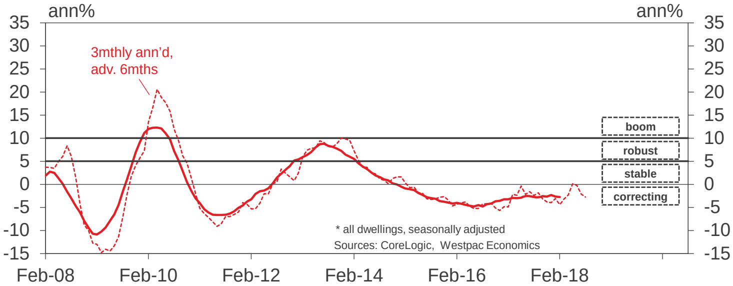


35. WA housing composite vs turnover



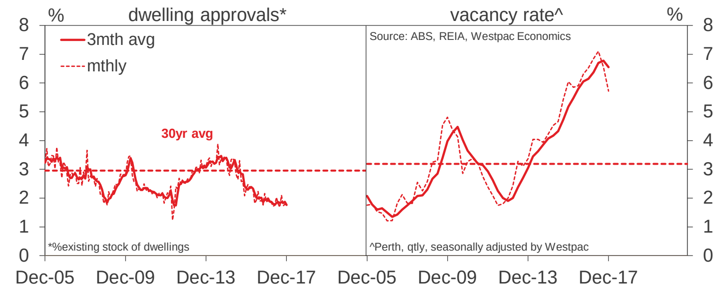
- WA's housing market continues to show signs of a long awaited recovery with confidence strengthening and broadening, incomes finally improving and even some indications that the large overhang of vacant dwellings is starting to reduce. Despite this, prices have yet to stabilise and it may be a while yet before the more positive backdrop translates into a sustained recovery.
- The **WA Consumer Housing Sentiment index** continues to give a very positive signal. Assessments of 'time to buy' have lifted back towards recent cycle highs, and although the state's newfound optimism around price expectations has been pared back, consumers' unemployment expectations have gone from strength to strength (WA consumers are now slightly more positive on the outlook for labour market conditions than their interstate peers). Risk aversion has also eased slightly.
- Rental vacancy rates showed a notable drop in the Dec quarter to 5.5% in non seasonally adjusted terms from a peak of 7.3% mid year. Although seasonal variations have likely exaggerated the move, this is the most convincing decline since vacancy rates started tracking sharply higher in late 2012. Interestingly, unit price growth has also improved materially after recording a more pronounced fall over the 2yrs year to mid 2017. While this is promising, the road back to a balanced market may still be a long one. Even at the current pace of improvement, vacancy rates are likely to still be in the 4-5% range by the end of 2019.

36. Perth dwelling prices



Population: 2.6mn
Net migration: 1k pa
GSP: $233bn (14% Aus)
Dwellings: 1.1mn, $0.6trn
Capital: Perth

37. WA: dwelling approvals, vacancy rates

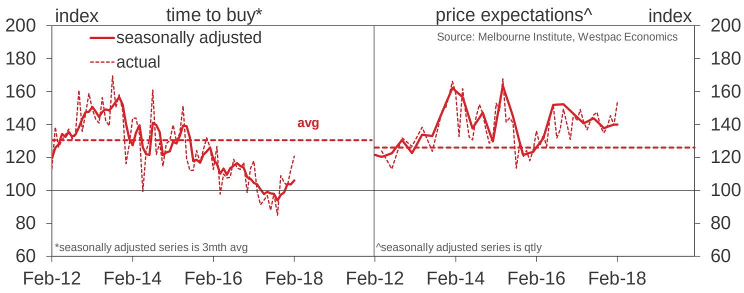


June years	avg*	2015	2016	2017	2018^
GSP, ann%	4.5	2.7	1.0	-2.7	n.a.
State final demand, ann%	4.2	-2.8	-4.0	-7.4	-7.4
Employment, ann%	2.4	1.0	-1.1	1.0	2.8
Unemployment rate, %#	6.2	5.7	5.8	5.6	6.0
Population, ann%	1.8	0.8	0.6	0.8	0.8
Dwelling prices, ann%	5.2	-2.3	-4.8	-2.5	-2.7
Rental yield, %#	4.7	4.5	4.3	3.9	3.8

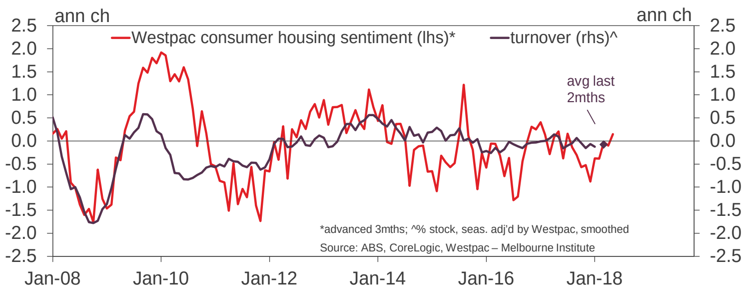
* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

South Australia: lacklustre conditions

38. SA consumers: housing–related sentiment

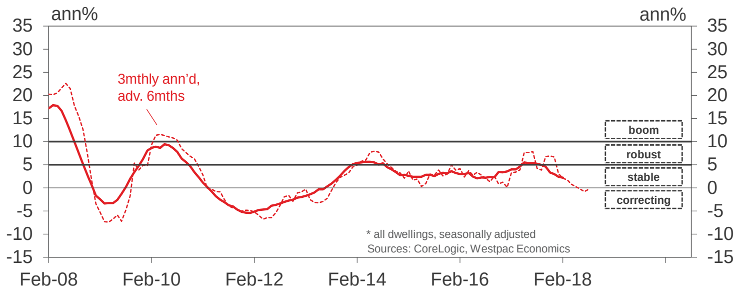


39. SA housing composite vs turnover



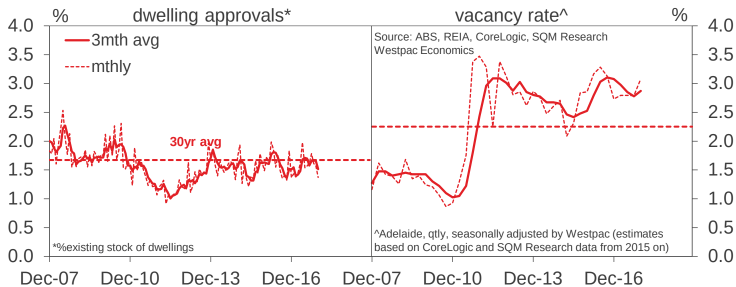
- Despite a notable lift in buyer sentiment, housing market conditions have deteriorated in South Australia with price growth continuing to show signs of stalling flat.
- Annual growth in Adelaide dwelling prices has slowed to just over 2% with prices essentially unchanged over the last 6mths. Turnover is down slightly on a year ago – all in all a lacklustre market.
- Despite this, buyer sentiment has shown a definite improvement on the weak reads seen through the middle of last year. The **SA Consumer Housing Sentiment index** has risen materially since Aug and is now pointing to a lift in turnover in coming months.
- Consumer assessments of 'time to buy' have surged over 12% since Aug last year, although readings remain below long run averages. Price expectations have also lifted slightly. Risk aversion has also eased although it remains elevated by historical standards.
- Notably, SA unemployment expectations have posted a strong improvement as well with Feb marking the best jobs outlook the state's consumers have reported in nearly 7yrs. SA's labour market has seen a material improvement over the last year, the unemployment rate declining from around 7% at the start of 2017 to 6% currently.

40. Adelaide dwelling prices



Population: 1.7mn
Net migration: 5k pa
GSP: $102bn (6% Aus)
Dwellings: 0.8mn, $0.3trn
Capital: Adelaide

41. SA: dwelling approvals, vacancy rates

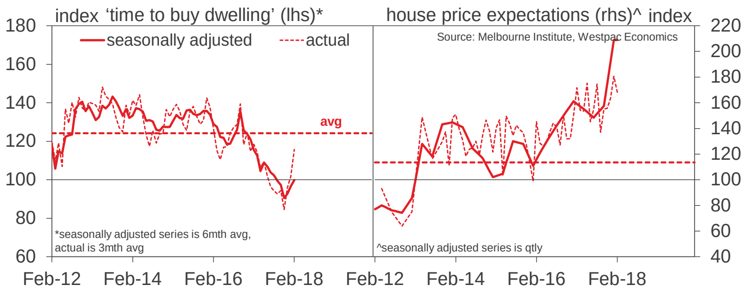


June years	avg*	2015	2016	2017	2018^
GSP, ann%	2.3	1.3	0.3	2.2	n.a.
State final demand, ann%	2.9	2.4	1.1	2.6	2.6
Employment, ann%	1.1	0.3	0.7	1.0	1.5
Unemployment rate, %#	7.4	7.7	6.9	6.9	6.0
Population, ann%	0.7	0.8	0.7	0.6	0.6
Dwelling prices, ann%	4.5	2.8	2.1	5.4	2.2
Rental yield, %#	5.2	4.4	4.1	4.5	4.7

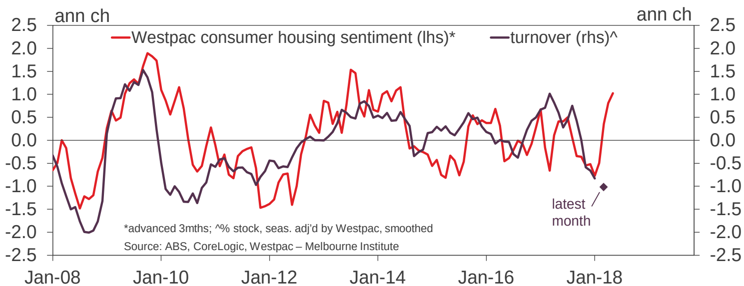
* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Tasmania: price boom generating heat

42. Tas consumers: housing–related sentiment

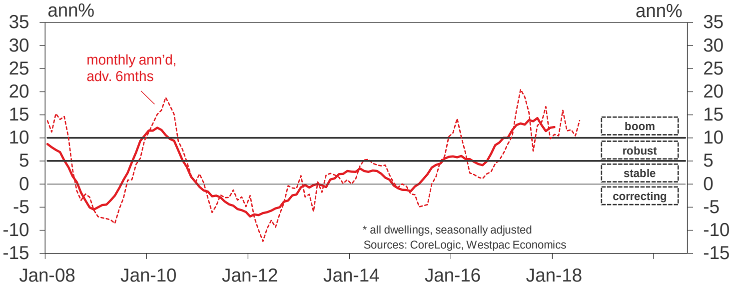


43. Tas housing composite vs turnover



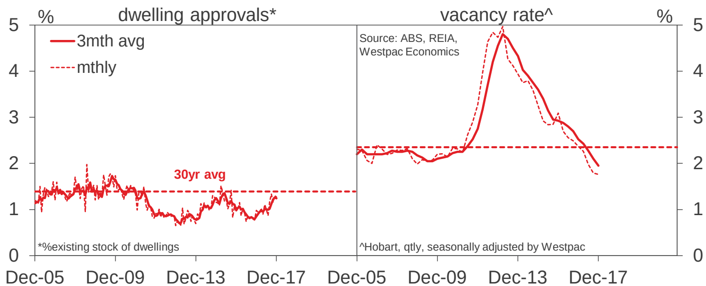
- Tas's housing market remains a notable outlier with price gains accelerating strongly in 2017. The market is considerably smaller than the 'mainland' states – about a third of the size of the next smallest state, SA and about a tenth of size of the major states, NSW, Vic and Qld. It also tends to see slower, more volatile growth in economic activity and population. In turn this has typically seen dwelling price growth weaker than the rest of the nation. Hobart prices have seen average gains of 5%yr over the last 25yrs compared to 6.1% across Australia's major capital cities and 6.5-7% for Sydney and Melbourne. Hence the last year has been a very unusual one with Hobart dwelling prices surging 12.3% in 2017 while prices nationally rose just 4.3%yr.
- The strong price gains have created clear tension with deteriorating affordability on the one hand but more optimistic price expectations giving a boost at the same time. The **Tas Consumer Housing Sentiment index** suggests the latter is becoming the dominant driver with a sharp lift in price expectations lifting the index back into positive over the last 6mths. It suggests turnover should post a solid rebound in coming months.
- Hobart continues to see sharp falls in rental vacancy rates as well suggesting gains are getting fundamental support from a tight supply-demand balance and comparatively strong rental yields. Past housing and economic cycles have not always ended well in Tas but the current upturn looks set to continue for a while yet.

44. Hobart dwelling prices



Population: 0.5mn
Net migration: 2k pa
GSP: $29bn (2% Aus)
Dwellings: 0.2mn, $0.1trn
Capital: Hobart

45. Tas: dwelling approvals, vacancy rates



June years	avg*	2015	2016	2017	2018^
GSP, ann%	2.1	1.1	1.3	1.1	n.a.
State final demand, ann%	2.5	1.7	3.0	2.2	2.2
Employment, ann%	1.0	0.9	-1.0	3.5	2.8
Unemployment rate, %#	8.2	6.9	6.4	5.8	5.7
Population, ann%	0.4	0.3	0.4	0.6	0.6
Dwelling prices, ann%	5.0	1.1	4.8	12.9	12.2
Rental yield, %#	5.8	4.9	4.8	5.4	5.0

* avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings
Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Economic and financial forecasts

Interest rate forecasts

	Latest (23 Feb)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19	Sep 19
Cash	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
90 Day Bill	1.77	1.77	1.78	1.78	1.78	1.78	1.78	1.78
3 Year Swap	2.20	2.30	2.30	2.40	2.50	2.50	2.50	2.60
10 Year Bond	2.86	2.90	2.90	3.00	3.20	3.20	3.20	3.20
10 Year Spread to US (bps)	-7	10	0	-10	-15	-30	-20	-20
International								
Fed Funds	1.375	1.625	1.875	2.125	2.125	2.375	2.625	2.625
US 10 Year Bond	2.93	2.80	2.90	3.10	3.35	3.50	3.40	3.40
US Fed balance sheet USDtrn	4.41	4.39	4.30	4.19	4.07	3.96	3.83	3.74
ECB Repo Rate	-0.40	-0.40	-0.40	-0.40	-0.40	-0.20	0.00	0.00

Exchange rate forecasts

	Latest (23 Feb)	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19	Sep 19
AUD/USD	0.7830	1.75	1.75	1.75	1.75	1.75	1.75	1.75
NZD/USD	0.7303	1.90	1.90	1.90	1.90	1.90	1.90	2.05
USD/JPY	106.86	2.10	2.10	2.20	2.30	2.40	2.55	2.70
EUR/USD	1.2308	3.00	3.10	3.20	3.35	3.40	3.45	3.50
AUD/NZD	1.0722	20	20	10	0	-10	5	10

Sources: Bloomberg, Westpac Economics.

Economic and financial forecasts

Australian economic growth forecasts

	2017			2018			
	Q2	**Q3**	**Q4f**	**Q1f**	**Q2f**	**Q3f**	**Q4f**
GDP % qtr	0.9	0.6	0.6	0.6	0.6	0.7	0.6
Annual change	1.9	2.8	2.5	2.8	2.4	2.4	2.5
Unemployment rate %	5.6	5.5	5.5	5.5	5.5	5.5	5.4
CPI % qtr	0.2	0.6	0.6	0.5	0.4	0.9	0.4
Annual change	1.9	1.8	1.9	1.9	2.1	2.4	2.1
CPI underlying % qtr	0.5	0.4	0.4	0.5	0.5	0.5	0.5
ann change	1.8	1.9	1.9	1.9	1.8	1.9	2.0

	Calendar years			
	2016	**2017f**	**2018f**	**2019f**
GDP % ann change	2.4	2.5	2.5	2.5
Unemployment rate %	5.7	5.5	5.4	5.3
CPI % yr	1.5	1.9	2.1	1.9
CPI underlying % yr	1.5	1.9	2.0	1.9

Calendar year changes are (1) period average for GDP, employment and unemployment, terms of trade (2) through the year for inflation and wages.
* GDP & component forecasts are reviewed following the release of quarterly national accounts.
** Business investment and government spending adjusted to exclude the effect of private sector purchases of public sector assets.

Housing market data

Consumer sentiment – housing–related measures

		2016			2017				2018			
index*	**avg**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Sep**	**Dec**	**Jan**	**Feb**	**%mth**	**%yr**
‘Time to buy a dwelling’												
Australia	122.3	103.7	109.3	102.9	99.6	90.9	95.2	100.6	106.7	103.8	–2.7	11.6
– New South Wales	120.2	101.1	99.6	95.6	82.8	75.5	81.3	90.1	89.3	95.8	7.2	16.3
– Victoria	118.6	92.7	109.6	98.0	105.2	84.6	94.7	88.3	107.0	93.4	–12.7	7.8
– Queensland	130.3	112.5	114.3	113.8	104.6	104.1	104.4	121.0	109.0	104.4	–4.2	4.4
– Western Australia	128.9	117.4	122.7	113.8	127.4	118.2	130.4	122.2	149.9	143.0	–4.6	32.1
– South Australia	130.5	107.6	113.7	98.6	99.6	96.9	85.0	102.8	112.5	120.8	7.4	2.5
– Tasmania	124.2	113.2	117.5	136.2	124.2	101.9	97.0	131.3	108.1	107.8	–0.3	16.3
House price expectations												
Australia	126.5	128.3	137.0	134.8	153.1	133.6	141.9	135.0	129.1	135.3	4.8	–9.7
– New South Wales	130.3	125.6	140.6	154.7	157.5	135.5	144.5	118.2	116.8	130.0	11.3	–18.2
– Victoria	130.1	139.6	151.3	134.1	159.5	137.0	154.6	146.9	134.5	138.7	3.1	–14.3
– Queensland	122.6	128.7	130.5	131.6	156.0	140.5	137.2	145.5	136.2	143.3	5.3	–0.4
– Western Australia	116.7	94.8	104.5	83.6	119.2	96.3	113.8	124.3	122.6	107.7	–12.2	1.0
– South Australia	126.0	144.2	136.8	131.0	149.1	142.2	138.6	145.4	139.5	153.4	10.0	7.8
– Tasmania	126.0	137.5	127.0	131.9	154.2	145.3	137.1	163.5	180.7	168.1	–7.0	–2.1

*indexes based on net balance of % assessing ‘good time to buy’/’house prices to rise’ and % assessing ‘bad time to buy’/’house prices to decline’
Sources: Melbourne Institute, Westpac Economics

Housing market data

Consumer sentiment – other components

		2016			2017				2018			
index*	**avg**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Sep**	**Dec**	**Jan**	**Feb**	**%mth**	**%yr**
Unemp. expectations												
Australia	129.8	136.2	138.4	139.1	137.9	140.3	133.6	127.6	122.8	120.6	-1.8	-15.2
– New South Wales	129.5	132.0	132.5	127.5	128.1	137.2	127.2	124.9	119.2	122.9	3.1	-9.8
– Victoria	130.9	136.6	136.1	142.6	137.7	138.3	137.0	127.8	128.6	120.6	-6.2	-16.6
– Queensland	133.0	139.0	141.9	139.2	147.4	139.9	135.3	123.6	121.6	116.2	-4.5	-14.5
– Western Australia	127.6	140.7	148.2	148.9	127.5	144.2	128.0	127.6	111.0	119.1	7.3	-21.0
– South Australia	134.0	141.0	149.0	155.7	165.3	154.0	155.2	145.1	140.6	123.0	-12.5	-23.7
– Tasmania	**138.7**	**140.4**	**147.5**	**146.5**	**152.6**	**130.8**	**117.9**	**136.2**	**103.5**	**138.4**	**33.8**	**-7.2**
Risk aversion											**qtr ch**	**ann ch**
Australia	12.1	37.5	39.7	40.8	43.7	44.1	47.4	46.2	n.a.	n.a.	-1.2	3.5
– New South Wales	8.3	29.7	25.2	42.0	34.2	36.2	39.1	39.3	n.a.	n.a.	0.3	2.5
– Victoria	6.8	40.5	43.2	36.7	43.6	50.5	44.7	51.7	n.a.	n.a.	7.0	10.4
– Queensland	8.1	42.2	47.4	50.3	50.3	48.3	52.2	43.7	n.a.	n.a.	-8.5	-6.5
– Western Australia	0.9	41.2	53.5	28.0	61.2	50.4	63.5	57.0	n.a.	n.a.	-6.5	6.8
– South Australia	9.9	52.0	43.7	50.6	49.2	44.1	59.7	53.4	n.a.	n.a.	-6.3	3.8
– Tasmania	13.4	29.7	22.2	37.2	37.6	41.3	27.5	27.7	n.a.	n.a.	0.2	-9.7

*indexes based on net balance of % assessing 'unemployment to rise' and % assessing 'unemployment to fall'; ^measure based on responses to 'wisest place for savings' question.
Sources: Melbourne Institute, Westpac Economics

Housing market data

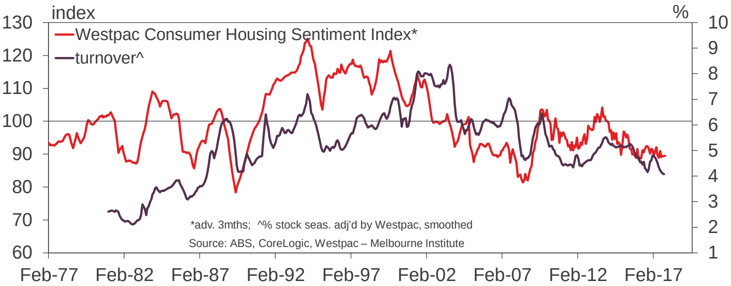
Dwelling prices and turnover

		2015	2016				2017				2018	
%	avg	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Jan	Feb
Dwelling prices, ann%*												
Australia	6.2	10.5	6.8	2.8	2.6	6.4	10.1	11.1	8.5	4.3	3.2	-100.0
– Sydney	6.4	14.8	8.4	2.2	2.8	9.2	15.5	16.4	10.5	3.1	1.3	-0.5
– Melbourne	6.9	13.7	10.5	6.5	5.1	8.3	11.4	13.0	12.1	8.9	8.0	6.9
– Brisbane	4.6	5.9	5.1	3.7	2.1	1.7	2.4	2.8	2.9	2.4	2.1	1.8
– Perth	5.2	-4.0	-4.1	-4.9	-4.4	-3.5	-2.9	-2.6	-2.9	-2.3	-2.6	-2.7
– Adelaide	4.5	3.7	3.0	2.0	2.4	3.4	4.0	5.4	5.0	3.0	2.4	2.2
– Hobart	5.0	6.0	6.0	4.7	4.9	9.1	11.7	12.8	14.3	12.3	12.4	n.a.
Turnover, %stock^												
Australia	5.8	5.0	4.8	4.9	4.8	4.9	4.8	4.4	4.4	4.0	4.0	n.a.
– New South Wales	5.7	5.0	4.9	5.0	4.9	5.2	5.1	4.6	4.7	4.2	4.1	n.a.
– Victoria	5.9	5.6	5.2	5.3	5.4	5.3	5.1	4.5	4.5	4.1	4.0	n.a.
– Queensland	6.7	5.8	5.5	5.5	5.4	5.4	5.2	4.6	3.9	4.0	3.9	n.a.
– Western Australia	6.3	3.7	3.5	3.6	3.6	3.5	3.6	3.5	3.6	3.5	3.4	n.a.
– South Australia	4.8	4.3	4.3	4.4	4.2	4.2	4.3	4.2	4.2	4.2	4.1	n.a.
– Tasmania	5.3	4.7	4.4	4.7	4.7	5.2	5.5	5.0	5.1	4.5	4.5	n.a.

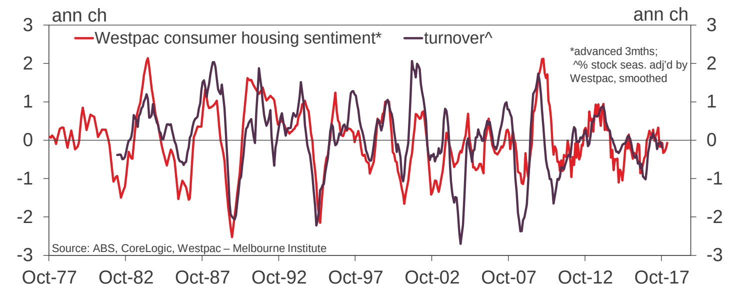
* 'all dwellings' measures, ann% ch, latest is month to date
^ % dwelling stock; most recent months are estimates modelled on preliminary data
Sources: CoreLogic, ABS, Westpac Economics

Appendix

Westpac Consumer Housing Sentiment Index: full series



Westpac Consumer Housing Sentiment Index: cycles



The **Westpac Consumer Housing Sentiment Indexes** presented in this report are composite measures based on a weighted combination of four indexes from the **Westpac–Melbourne Institute Consumer Sentiment survey**.

Two of these are 'primary' components with a higher weight that relate directly to consumer perceptions of housing market conditions: the **Westpac–Melbourne Institute 'time to buy a dwelling' index** and the **Westpac–Melbourne Institute House Price Expectations Index**. The remaining 'supplementary' components, with lower weights, relate to consumer assessments of job security – the **Westpac–Melbourne Institute Unemployment Expectations Index** – and risk appetite – the **Westpac Risk Aversion Index**.

Each of these components is seasonally adjusted, converted to a consistent base and combined using fixed weights determined by historical regression analysis. Note that the house price expectations component is only available from 2009 on – a re-weighted composite based on the remaining measures is used for earlier periods.

The resulting composite measures provide significant insight into housing market conditions both nationally and at the individual state level. The national index has over 40yrs of history and a clear lead indicator relationship with a variety of housing market metrics. The index is particularly good at picking turning points in housing market turnover – correctly anticipating every major upswing and downturn since 1980 with a lead of around three months (four once the timeliness of sentiment updates is included).

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