Housing Pulse

May 2018

Westpac Institutional Bank



Contents

Executive summary	3	Summary & forecast tables	
		Economic & financial forecasts	26
Overview: stabilising but susceptible	4	Housing market data	27
Special topics:		Appendix	31
Budget reactions	6		
Prudential policy update	8		
Incidence of price declines	10		
Housing sentiment by income group	12		
State by state			
New South Wales: correction continues	14		
Victoria: tilting towards price declines	16		
Queensland: stalled, confidence lacking a spark	18		
Western Australia: weak recovery emerging	20		
South Australia: flat-lining amid mixed signals	22		
Tasmania: no slowing in 'contrarian boom'	24		

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Executive summary

Our last Housing Pulse highlighted a modest improvement in buyer sentiment that suggested turnover in Australia's housing markets would stabilise by mid-year. Three months on and turnover is showing tentative signs of leveling out. However, the outlook is not particularly promising. Buyer sentiment has failed to build on earlier gains and is still weak overall. Activity remains near historic lows with prices continuing to edge lower in Sydney, Melbourne and Perth.

As at May, the Westpac Housing Consumer Sentiment Index* still points to stabilisation and some slight firming in activity heading into the second half of the year, supported by less downbeat reads on 'time to buy' and improving job security. However, the positive signal is not strong and looks susceptible in an environment of declining prices, a softer labour market and with the prospect of some further tightening in mortgage lending criteria.

Conditions remain uneven across states. For NSW, the last 3mths has seen a material correction continue with at best tentative signs of stabilisation. After a resilient performance in 2017, Vic's slowdown is deepening with prices set to tip over into correction in coming months. Qld's market remains flat, losing momentum despite a relatively positive sentiment backdrop and more conducive affordability mix. The WA market is edging closer to recovery although it remains weak. For SA sentiment is relatively positive, turnover is up but price gains have slowed. Meanwhile, Tas's contrarian boom is showing no signs of slowing.

The special topics in this month's issue look at the Federal Budget impact on sentiment; recent developments in prudential policy; the incidence of price declines in the current correction compared to previous price cycles; and buyer sentiment across different income groups.

1. Australia: national housing conditions

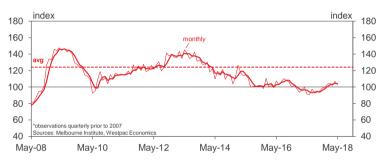


"The Westpac Consumer Housing Sentiment Index* still points to stabilisation but the signal is not strong and looks susceptible ..."

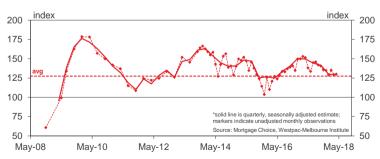
*The Westpac Consumer Housing Sentiment Index is a composite measure based on four housing-related components of the Westpac Consumer Sentiment survey. See Appendix on p31 for more details.

Overview: stabilising but susceptible

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



3. Westpac-MI House Price Expectations Index

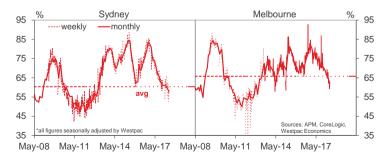


- Australia's housing market continues to move through a correction. Despite some firming in buyer sentiment, and a tentative stabilisation in turnover, activity remains weak and prices have slipped lower, led by reversals in the previously strong NSW and Vic markets.
- After falling over 10% in 2017, turnover across the major capital cities slipped a further 3% in early 2018, the 3mths to March marking the weakest quarter for sales since 1996. Monthly data suggests some stabilisation in Feb-Apr. However, auction markets, which also stabilised somewhat earlier in the year, have shown renewed weakness in May with clearance rates moving below long run averages in both Sydney and Melbourne.
- Prices nationally are now down 2% from their Sep peak. The rate of decline has moderated a little over the last three months but is still running at a 2.5-3% annual pace. Sydney continues to see a more material correction (-4.5% from peak) although the pace of declines has accelerated notably in Melbourne. Both of these markets have still outperformed over a 2yr horizon. Likewise, houses (-2.8%) and the top 25% of properties by value (-5.5%) have recorded larger price corrections but have still outperformed over the last two years as a whole.
- Sentiment-wise, the last 3mths have seen most housing-related indicators track sideways.
- Nationally, the Westpac Melbourne Institute 'time to buy a dwelling' index has slipped 1.8% since Feb. It is still up strongly on last year's low (+12.6%) but at a very weak level by historical standards, 18% below its long run average.

4. Consumer sentiment: jobs & risk



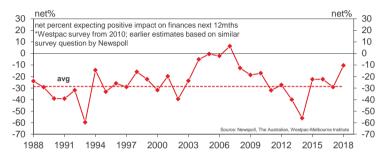
5. Auction clearance rates



- The Westpac-MI Consumer House Price Expectations Index declined 4.3% over the 3mths to May although most of this looks to be the unwinding of a seasonal effect at the start of the year, with 'underlying' seasonally adjusted expectations down only slightly (0.3%) from a lower starting point. At 129.1 the index is a touch above its long run avg of 126.5. Price expectations remain much weaker in NSW and are below average in Vic.
- The Westpac Melbourne Institute Unemployment **Expectations Index** declined a further 0.5% over the 3mths to 120 in May, a 7yr low (recall that lower reads mean more consumers expect unemployment to fall in the year ahead). The index, which can be viewed as a measure of consumers' sense of job security, remains comfortably below its long run average of 130 with the biggest improvements over the last year coming in the mining states. That said, the more modest improvement over the last 3mths bears watching given the slowdown in jobs growth since the start of 2018 and an associated flattening out in the unemployment rate which had previously been seeing a gradual decline. More generally, other components of sentiment point to pressures on family finances, likely reflecting both the weakness in wages growth and falling house prices.
- Consumer attitudes towards risk have improved but remain a restraining factor. The Westpac Consumer Risk Aversion Index a proxy based on consumer responses to questions on the 'wisest place for savings' eased from 45.5 in Dec to 40.3 in Mar, the lowest read since late 2016 but still an elevated reading (the long run average since 1974 is 12.1).

Special topic: Budget reactions

6. Consumers: 2018 Budget relatively well-received

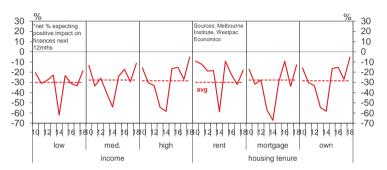


7. Consumers: expected Budget impact by state

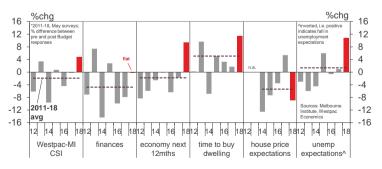


- Every year since 2010 our May survey has included an extra question specifically on the expected impact of the Federal Budget on family finances. The 'net percent' reading for 2018 (those expecting a positive impact minus those expecting a negative one) was -10.4%. That compares favourably to -29.2% last year, -22.4% in 2016, -22.5% in 2015, -56% in 2014, -40% in 2013, and a 'high' of -17% in 2010. Note that every assessment so far has seen 'negatives' outnumber 'positives' suggesting a negative bias to responses.
- Previous responses to a similar question in the annual Newspoll budget survey confirm this negative tendancy with an average read of about -28.5%. Judged against this, the -10.4% this year indicates the 2018 Budget was relatively well-received with the best response since 2007.
- Just over 10% of consumers expected the Budget to improve their finances; 58% expected no change; 19% expected it to worsen their finances and 13% reported 'don't know'.
- Note that the long time frame on the Budget's centrepiece - the 7yr personal income tax plan - and the lump sum refund approach to near term tax relief may also have dampened responses. In practise, the planned reductions in tax will not impact family finances until beyond the next tax year.
- The state detail shows Budget assessments were much less negative in Vic and Tas with net reads that were barely negative at all (-3% and -4% respectively).
 Consumers in WA (-22%) and SA (-17%) were more negative, both recording better reads in previous years.

8. Consumers: expected Budget impact by sub-group



9. Consumer sentiment: pre and post Budget



- The 7yr personal income tax plan included temporary increases in tax offsets for low and middle income earners near term, followed by shifts in thresholds and then the elimination of the 37.5c bracket altogether in 2024-25. A planned ½c increase to the Medicare Levy from last year's budget was also scrapped. While the plan was pitched as a boost for low and middle income earners, the detailed survey responses show a more positive reception amongst middle and high income earners.
- We can also get some idea of the Budget impact by contrasting the wider sentiment responses of those surveyed 'pre' and 'post' Budget. These show a significant 4.9% lift in sentiment, again suggesting the announcement was well received. Interestingly, rather than expectations for family finances, the main driver of the turnaround was a big rise in expectations for the economy, the '12mth outlook' component surging 9.4%. The implication seems to be that consumers expect tax cuts to be a significant positive for the economy overall but to have limited impact on their own finances.
- Turning more specifically to housing related components, post budget survey responses were more positive on 'time to buy a dwelling' and 'unemployment expectations' but more negative on the outlook for house prices. Given the Budget had few measures directly relating to housing, the mix suggests negative news around house prices during the week may have had a significant offsetting negative effect on sentiment. In terms of the **Westpac Housing Sentiment Index** composite used in this report, the moves net out as a slightly more positive near term signal.

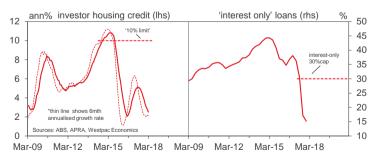
Special topic: prudential policy update

10. Summary of prudential policy measures

	'Macro' prudential	'Micro' prudential
2015	10% limit on investor loan growth	Tightened serviceability assessments and improved consistency across lenders, including minimum assessment 'floor' interest rates >7%; serviceability assessment buffers >2% and applied to both new and existing debt.
2016	-	Tightened serviceability assessments including estimates of credit card repayments; scaling of benchmark measures of minimum expenses; discounts to estimates of uncertain/variable income
2017	30% limit on share of 'interest only' loans	Lenders to place strict limits on high LVR interest only loans and continue to restrain lending to high risk segments
2018	10% limit on investor loan growth removed	Lenders to develop limits on share of new loans with high debt to income levels, improve collection of information on expenses, and strengthen controls on verifying existing debt

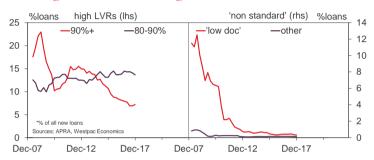
Source: APRA, Westpac Economics

11. Macro-prudential targets

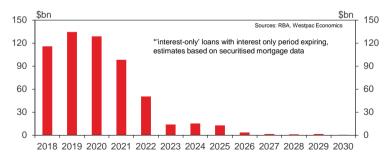


- Prudential policy measures continue to have a significant impact on Australia's housing markets. Two rounds of 'macro-prudential' tightening in 2015 and 2017, both of which targeted investor activity and were accompanied by 'micro-prudential' measures, have proven to be very successful in curbing new lending and taming markets that were seen to be at risk of overheating. While market conditions are now softer and some 'macro-prudential' guides are being removed the latest guidance from APRA to lenders points to some further 'micro-prudential' tightening in credit conditions in coming months.
- Table 10 sets out the key elements of macro and micro measures in recent years. The highest profile measures have been macro - the 10% limit on investor credit growth introduced in 2015 and the 30% cap on the share of 'interest only' (10) loans introduced in 2017. Micro-prudential measures have tended to be more detailed, mainly relating to how lenders assess loan serviceability.
- Latest data shows both macro targets are being met comfortably with investor credit growth running at just 2.5%yr and IO loans making up just over 15% of new loans (the share of the stock of oustanding loans is also on track to be below 30% in 2018). In both cases, lenders have introduced 'tiered' mortgage rates with higher rates for investor and IO loans to achieve lending targets. Rates on standard 'principal and interest' (P&I) loans for investors, and IO loans for owner occupiers are now 60bps above P&I loans for owner occupiers. Rates on investor IO loans are 105bps above this benchmark

12. 'High risk' loan categories



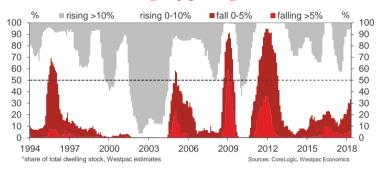
13. 'Interest-only' loan resets*



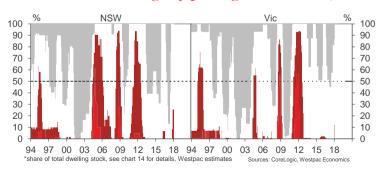
- In Apr, APRA, Australia's banking regulator announced the removal of the 10% investor credit growth limit. More specifically, the limit will no longer apply to lenders that have: 1) complied with the benchmark over the last 6mths; 2) implemented the guidelines on serviceability assessments; and 3) committed that "lending practices will be strengthened where necessary".
- The last condition points to what is likely to be another incremental tightening in credit conditions. Expanding on this, APRA noted there is "more to do to strengthen the assessment of borrower expenses and existing debt commitments, and the oversight of lending outside of policy." Lenders are expected to improve the collection and verification of expense and debt information from new borrowers, and to develop policies to set limits on loans with high debt to income levels.
- While it is difficult to assess their overall impact, these measures will likely: slow the loan approval process, reduce assessed borrowing capacity to some extent; and make it more difficult for 'marginal' or riskier borrowers to obtain finance.
- The extent of this effective tightening in credit conditions is a key risk for the housing market outlook in 2018-19. There are also lingering risks around earlier macro-prudential measures. The RBA estimates that \$120bn of IO loans will be rolling over to P&I terms each year or the next 3yrs. Its detailed assessment suggests the transition can be made reasonably comfortably. However, if it is not and if the tightening in credit conditions proves to be more substantial, the mix could see a further material weakening in housing markets.

Special topic: incidence of price declines

14. Share of dwellings by price growth: Australia

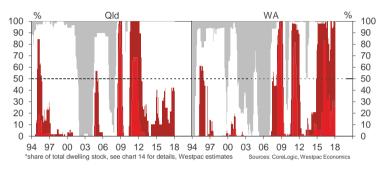


15. Share of dwellings by price growth: NSW, Vic

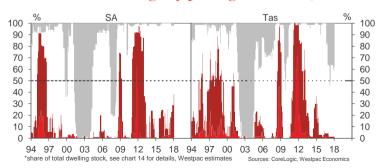


- The current decline in dwelling prices has now eclipsed the 2015-16 correction in terms of scale - the 2% decline nationally since Sep outstripping the 1.6% fall seen just over two years ago. However, it remains shallow by historical standards. The incidence of price declines also remains narrowly based. Indeed, rather than the typical pattern seen during the major cyclical declines associated with major interest rate tightening cycles, the current correction looks more like that seen in the mid-2000s, when the Sydney market experienced a downturn that mostly bypassed other markets.
- The most detailed level for which we have prices measured consistently on our preferred basis - the CoreLogic hedonic series - is a split by 'dwelling type' (houses, units), 'property value' (lowest 25%, middle 50%, top 25%), state, and 'capital city vs rest of state'. Using Census figures on the dwelling stock as benchmarks we can generate estimates of the share of dwellings experiencing different rates of price change.
- Chart 14 shows estimates of the share of properties nationally recording price declines (in red, with bright red indicating falls of over 5%yr), steady/robust growth (white, indicating price growth of 0-10%yr) and price booms (grey, indicating growth of over 10%yr). Currently, a third of all properties are recording price declines with just under 6% recording falls of over 5%yr. Notably, while the incidence of declines is wider than in 2015–16, the share of properties experiencing rapid declines is somewhat lower (it peaked at just under 10% in 2015–16). The more substantial price corrections in 2010–12, 2008–09, 2004 and 1994–96 saw over half of all properties record annual price declines.

16. Share of dwellings by price growth: Qld, WA



17. Share of dwellings by price growth: SA, Tas

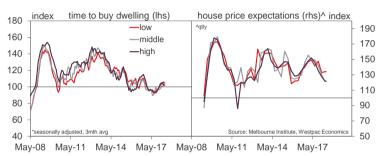


- Charts 15, 16 and 17 present the same analysis for each of the states.
- NSW has recorded the biggest rise in the incidence of price declines since the current downturn began, with just over a 25% of properties now experiencing falls vs none six months ago. To date annual declines have been confined to middle and 'top tier' houses although the incidence of falls is likely to rise near as several other Sydney segments are on the cusp of declines. Prices are more resilient across the board in regional NSW which accounts for nearly 40% of the state's dwellings stock.
- Vic has fewer instances of price falls with just one segment - Melbourne 'top tier' houses - recording declines and accounting for 12% of all properties n the state. In contrast to NSW, Vic is still seeing some segments recording double-digit price growth, most notably 'bottom tier' houses in the Melbourne market.
- While the current slowdown is concentrated in NSW and Vic, the mining states are still recording a materially higher incidence of price declines. Nearly 40% of Qld properties are seeing annual price falls, although the pace of declines in Brisbane units has moderated, the main source of weakness now houses ex Brisbane which account for 40% of the state's dwellings. In WA, the entire state continues to see price declines although for most this is 'slippage' rather than 5%+ annual falls.
- The SA market has recorded a lift in the incidence of price declines since 2017 with regional houses weakest but Adelaide's middle and 'top tier' units also dipping.
 Tas has virtually no segments recording falls - instead close to 40% of properties are seeing 10%+ price growth.

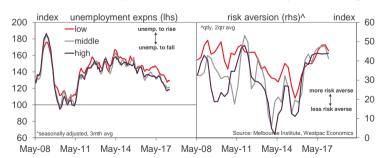
Housing pulse May 2018

Special topic: housing sentiment by income group

18. 'Time to buy', price expectations by income group

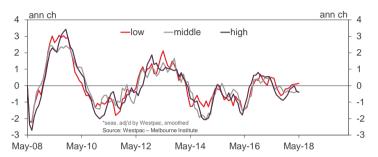


19. 'Time to buy', price expectations by income group

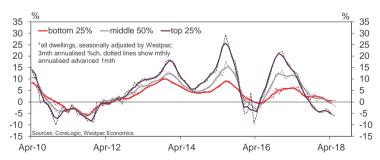


- The market correction since Sep 2017 has been notable so far for the more pronounced declines in 'top tier' properties. Whereas prices nationally are down 2%, prices for the top 25% of properties by value are tracking towards a 5%+ correction. That in turn followed a substantial outperformance during the 2016-17 surge. The sentiment-based measures in this report focus on state level estimates which do a good job capturing the idiosyncrasies of different geographic markets. In this special topic we explore income-based measures to see if there is an overarching theme affecting different market tiers that the state breakdowns may be missing.
- The Westpac-MI Consumer Sentiment survey provides detailed breakdowns of each index across a range of demographic factors including income. In this analysis we group responses into three broad categories: 'low' with income <\$60k, 'middle' with income of \$60-100k; and 'high' with incomes over \$100k a year. Note that although the bands are fixed, they are wide enough to be relatively unaffected by wage inflation over the periods considered (longer and/or finer level comparisons would ideally use definitions that allow ranges to drift over time). It should also be noted that the low income band will likely capture retirees, and that the income bands more generally will also tend to reflect sentiment across particular age-groups and states (e.g. over half of households in NSW fall into the 'high income' category).</p>
- The income breakdown shows, unsurprisingly, sentiment overall tends to rise with incomes with an average lift of 8-9ppts moving up bands. Most recently high income consumers were very upbeat at the start of 2018 but optimism has cooled as the year has progressed.

20. Housing sentiment composite by income group



21. Dwelling prices: by property value



- Turning to housing-related sentiment questions, the most surprisingly aspect of income group measures of 'time to buy a dwelling' is the lack of variation. Whereas state indexes currently differ by 20-30ppts, the wedge between high, middle and low income groups is barely 2-3ppts at the moment. Deviations have been somewhat more pronounced in the past, high income groups showing a notably larger swing through 2015 and 2016, suggesting macro-prudential measures and subsequent rate cuts were more of an influence for this group.
- House price expectations show more variation with high and middle income consumers more downbeat than those on low incomes. The wedge is currently worth 10ppts - a substantial gap but again not as wide as currently being seen across state measures.
- The other key influences on housing sentiment are unemployment expectations and risk aversion. On the former, low income households are understandably warier about job security with a 10% gap opening since mid 2016. Risk aversion is also a little more elevated amongst those on low incomes although hat has tended to be the case since 2008 with the latest readings perhaps more notable for the sustained high readings on risk aversion for those on higher incomes.
- Chart 20 shows housing sentiment composite indexes for each income group on the same basis as the measures used elsewhere in this report. They point to firming conditions for 'low income' segments but a renewed weakening for 'high income' ones. However, how much this reflects themes over and above statespecific trends remains unclear.

Housing pulse May 2018

New South Wales: correction continues

22. NSW consumers: housing-related sentiment

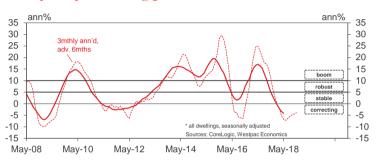


23. NSW housing composite vs turnover



- The NSW housing market more specifically, the Sydney market - continues to move through a price correction despite some improvement in sentiment and turnover. Sydney dwelling prices have now declined 4.5% from their peak in July last year. Monthly updates hint at some moderation in the pace of declines, although the signal is not convincing. Latest figures from Sydney's auction market suggests a stabilisation in the first quarter of 2018 has given way to a renewed decline with clearance rates dropping below long run averages in Apr-May.
- The NSW Consumer Housing Sentiment index firmed slightly over the 3mths to May and is now pointing to a further moderation in the pace of turnover decline (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). The index suggests activity should more or less stabilise by Sep. Turnover has shown signs of leveling out after a 10% decline in 2016-17 with a notable lift in the Apr month.
- NSW consumers' 'time to buy' assessments continue to show a gradual improvement from a very weak starting point in mid 2017. However price expectations remain decidedly less upbeat, holding near the lows seen in previous price corrections. Other component shifts have been slightly positive with both unemployment expectations and risk aversion easing a touch.
- On supply, rental vacancy rates are showing clearer signs of lifting, pushing above 2% for the first time since 2013.
 City-wide vacancies are still tight but middle ring rental markets look closer balance with vacancies nearer to 3%.

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

4.0 % dwelling approvals*	vacancy rate^ % 4.0
4.0 —3mth avg	Source: ABS, REIA, Westpac Economics 4.0
3.5 -	- 3.5
3.0 -	- 3.0
2.5	/ - 2.5
2.0 - 30yr avg	2.0
1.5	- 1.5
1.0	- 1.0
0.5 -	- 0.5
0.0 **existing stock of dwellings	^Sydney, qtly, seasonally adjusted by Westpac 0.0
Mar-08 Mar-11 Mar-14 Mar-17 Ma	r-08 Mar-11 Mar-14 Mar-17

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	3.9	3.8	2.9
Employment, ann%	1.6	2.1	3.4	0.9	4.0
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%	6.3	17.0	2.3	16.4	-4.2
Rental yield, %#	4.6	3.7	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: tilting towards price decline

26. Vic consumers: housing-related sentiment

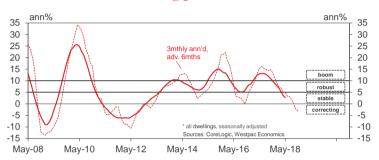


27. Vic housing composite vs turnover



- Despite holding up reasonably well through 2017, particularly compared to NSW, the Vic housing market has seen a clear softening in 2018 with prices now clearly tracking towards a correction. The slowdown has been concentrated in 'top tier' properties with price growth for the top 25% of dwellings by value essentially stalling flat but the bottom 25% still recording double-digit price growth. Turnover remains soft although the pace of decline is showing tentative signs of moderating.
- The Vic Consumer Housing Sentiment index has firmed slightly since Feb and continues to point to stabilising conditions. Assessments of 'time to buy' have recovered all of the weakness seen in 2017 but remain well below long run averages. Vic consumers' unemployment expectations have posted another sharp improvement, May marking the best read in seven years. Risk aversion has also eased significantly, to the best level since 2015. However, against this, price expectations have been pared back markedly to a 5½yr low, and sustaining below average reads for the first time since 2011-12.
- Despite the firmer signals from sentiment, auction markets have seen further declines, the more or less continuous slide in clearance rates that began at the start of 2017 carrying into mid 2018, taking the market to below average levels for the first time since 2014.
- Melbourne's rental market remains unambiguously tight with vacancy rates slipping to around 2%. This is despite a surge in apartment completions which have lifted from around 11k a year two years ago to 17k a year currently. Completions are expected to remain at this pace in 2018, lifting to around 19k a year in 2019-20.

28. Melbourne dwelling prices





Population: 6.4mn Net migration: 104k pa GSP: \$399bn (24% Aus) Dwellings: 2.6mn, \$1.9trn

Capital: Melbourne

29. Vic: dwelling approvals, vacancy rates



2018^
n.a.
4.7
2.2
5.4
2.4
2.7
4.0

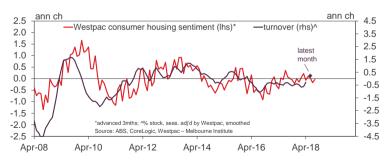
^{*} avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Queensland: stalled, confidence lacking a spark

30. Qld consumers: housing-related sentiment

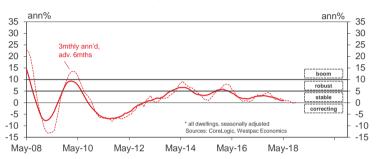


31. Qld housing composite vs turnover



- Qld's housing market remains sluggish with turnover slowly stabilising but price growth nearly dead flat. While the correction in Brisbane unit prices has continued to moderate, price gains for detached houses have more or less stalled. Buyer sentiment remains relatively supportive, as does relative affordability, particularly compared to Sydney and Melbourne. The market clearly lacks a spark though and looks likely to see further drift near term.
- The Qld Consumer Housing Sentiment index has deteriorated slightly over the last 3mths but continues to point to a stabilisation in turnover in coming months. Assessments of 'time to buy' are broadly unchanged since Feb - subdued at below average levels but above the national read. Price expectations are also broadly unchanged, holding above average levels despite disappointing price gains in recent months.
- The main source of weakness since Feb has been around unemployment expectations and risk aversion.
- Brisbane rental vacancy rates have continued to tighten slightly, holding a touch below long run averages citywide. Notably, Brisbane high rise dwelling completions likely peaked in late 2017 and should start to taper off in 2018. particularly over the second half of the year.
- Across the rest of Qld, rental vacancy rates remain extremely low across the Gold and Sunshine Coasts (both well below 2%) and have shown a significant decline in mining regions - vacancies across Gladstone– Mackay-Rockhampton dipping below 4% for the first time since 2012 after peaking near 9% in early 2016.

32. Brisbane dwelling prices



Qld

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	-3.6	-1.2	2.8	3.0
Employment, ann%	2.4	0.0	0.8	1.8	4.0
Unemployment rate, %#	7.0	6.2	6.3	6.2	6.2
Population, ann%	2.0	1.3	1.3	1.6	1.7
Dwelling prices, ann%	4.4	3.5	3.7	2.8	0.9
Rental yield, %#	4.8	4.5	4.8	4.9	5.2

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

Western Australia: weak recovery emerging

34. WA consumers: housing-related sentiment

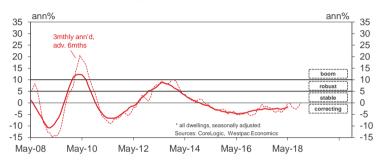


35. WA housing composite vs turnover



- A weak, tentative recovery finally looks to be coming through in the WA housing market. Price slippage has continued to moderate with turnover finally lifting off very low levels.
- Buyer sentiment has been more mixed in recent months but still looks supportive. Importantly, rental vacancy rates are showing a clear improvement. The overhang of dwelling stock will still likely take a few years to absorb but the momentum is looking more positive.
- The WA Consumer Housing Sentiment index has retraced since Feb and is now pointing to stabilisation rather than strong gains. The bullish assessments of 'time to buy' at the start of the year have been pared significantly and bullish price expectations have also been pared back a touch. Risk aversion has also lifted a touch.
- However, WA consumers' unemployment expectations have continued to improve markedly with job security now significantly better than in other states.
- Perth's rental vacancy rate is now back near 5%, a marked improvement on the 7.3% peak in mid-2017.
 However, even if it continues to drop ½ppt a quarter, it will take another year and a half to get back below long run average levels, and longer still to become 'tight'.
- Notably, across the detailed segments, Perth units in the 'bottom 25%' of properties by value are the closest to seeing annual price growth lift out of negative with the segment posting a 1.5% gain since Aug.

36. Perth dwelling prices



WA

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%	4.3	-2.2	-4.7	-7.2	-1.8
Employment, ann%	2.4	1.0	-1.1	1.0	2.1
Unemployment rate, %#	6.2	5.7	5.8	5.6	6.5
Population, ann%	1.8	0.8	0.6	0.8	0.9
Dwelling prices, ann%	5.1	-2.3	-4.8	-2.5	-1.7
Rental yield, %#	4.7	4.5	4.3	3.9	3.6

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

South Australia: flat-lining amid mixed signals

38. SA consumers: housing-related sentiment

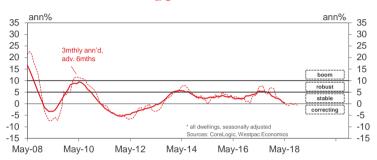


39. SA housing composite vs turnover



- The SA housing market is giving off somewhat mixed signals. Despite relatively positive signals on buyer sentiment and some lift in turnover price growth has slowed markedly over the last year, essentially stalling flat.
- The price detail for Adelaide shows slowing momentum across the spectrum but notable weakness in units, the top 25% by value in particular. With vacancy rates looking fairly benign and wider market turnover up 5.5% over the last six months, the mix suggests there may be specific factors impacting this market subsegment.
- The SA Consumer Housing Sentiment index continues to point to a continued pick up with a material lift in momentum over the last 3mths.
- Consumer assessments of 'time to buy' have dipped back a bit since Feb but price expectations have lifted significantly, to the highest level since 2016. Risk aversion has also eased although it remains elevated by historical standards.
- SA consumers' unemployment expectations have sustained the improvement seen earlier in the year.
 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 5.9% 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

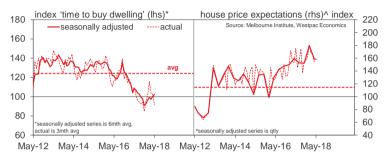


June years	avg*	2015	2016	2017	2018^
GSP, ann%	2.3	1.3	0.3	2.2	n.a.
State final demand, ann%	2.9	1.8	1.2	3.2	4.5
Employment, ann%	1.1	0.3	0.7	1.0	2.7
Unemployment rate, %#	7.4	7.7	6.9	6.9	5.9
Population, ann%	0.7	0.8	0.7	0.6	0.6
Dwelling prices, ann%	4.5	2.8	2.1	5.4	0.4
Rental yield, %#	5.2	4.4	4.1	4.5	4.9

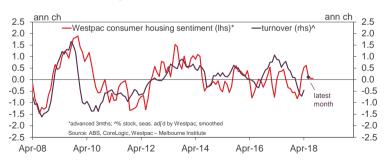
^{*} avg last 25yrs; ^ latest available estimate, GSP is Westpac forecast; # June qtr readings Sources: ABS, CoreLogic, APM, Residex, Westpac Economics

Tasmania: no signs of slowing in 'contrarian boom'

42. Tas consumers: housing-related sentiment



43. Tas housing composite vs turnover



- Tas's housing market remains the exception nationally with its two year boom showing no real signs of slowing. The Tas 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 the major states. It also tends to see slower, more volatile growth in economic activity and population, and underperform on price growth. Hence the sustained surge since 2016 is very unusual.
- The state's 'moment in the sun' is showing no real signs of ending. Hobart dwelling prices are up 12.7% over the year to Apr and are up nearly 30% since the market began to take off 2½ years ago..
- The Tas Consumer Housing Sentiment index suggests turnover is rebounding somewhat after a moderation last year. However, the signal has moderated since the start of the year as 'time to buy' assessments pull back in the face of stretched affordability and price expectations have eased from extreme highs. Risk aversion has also lifted a little. Against this, job security has seen a large sustained improvement, suggesting momentum has good support.
- Rental markets look to be very tight. At around 1.5%,
 Hobart's rental vacancy rate is at the lowest levels in
 the base part of 15yrs. 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	1.4	2.7	1.8	3.9
Employment, ann%	1.0	0.9	-1.0	3.5	2.0
Unemployment rate, %#	8.2	6.9	6.5	5.8	6.0
Population, ann%	0.4	0.3	0.4	0.6	0.7
Dwelling prices, ann%	5.0	1.1	4.8	12.9	11.7
Rental yield, %#	5.8	4.9	4.8	5.4	4.7

^{*} 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

Tirecrese race for ecases	Latest (25 May)	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19	Sep 19	Dec 19
Cash	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
90 Day Bill	1.94	1.98	1.98	1.94	1.90	1.88	1.86	1.85
3 Year Swap	2.23	2.30	2.40	2.50	2.50	2.50	2.60	2.70
10 Year Bond	2.79	2.80	2.90	3.05	3.20	3.10	3.10	3.00
10 Year Spread to US (bps)	-20	-20	-20	-30	-30	-40	-30	-20
International								
Fed Funds	1.625	1.875	2.125	2.125	2.375	2.625	2.625	2.625
US 10 Year Bond	2.99	3.00	3.10	3.35	3.50	3.50	3.40	3.20
US Fed balance sheet USDtrn	4.34	4.28	4.17	4.05	3.94	3.81	3.72	3.63
ECB Repo Rate	-0.40	-0.40	-0.40	-0.40	-0.40	-0.30	-0.30	-0.20

Exchange rate forecasts

	Latest (25 May)	Jun 18	Sep 18	Dec 18	Mar 19	Jun 19	Sep 19	Dec 19
AUD/USD	0.7564	0.75	0.75	0.74	0.72	0.72	0.70	0.70
NZD/USD	0.6925	0.69	0.68	0.67	0.65	0.65	0.64	0.65
USD/JPY	109.55	110	111	112	114	113	112	110
EUR/USD	1.1710	1.17	1.17	1.16	1.15	1.16	1.18	1.20
AUD/NZD	1.0923	1.09	1.10	1.10	1.11	1.11	1.09	1.08

Sources: Bloomberg, Westpac Economics.

Economic and financial forecasts

Australian economic growth forecasts

	2017			2018			
	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f
GDP % qtr	0.8	0.7	0.4	0.8	0.7	0.5	0.6
Annual change	2.0	2.9	2.4	2.7	2.7	2.5	2.7
Unemployment rate %	5.6	5.5	5.5	5.5	5.5	5.5	5.5
CPI % qtr	0.2	0.6	0.6	0.4	0.4	0.8	0.4
Annual change	1.9	1.8	1.9	1.9	2.2	2.4	2.1
CPI underlying % qtr	0.6	0.4	0.5	0.5	0.6	0.4	0.5
ann change	1.8	1.9	1.9	2.0	2.0	2.0	2.1

	Calendar years										
	2016	2017	2018f	2019f							
GDP % qtr/yr avg	2.6	2.3	2.7	2.5							
Unemployment rate %	5.7	5.5	5.5	5.6							
CPI % yr	1.5	1.9	2.1	1.9							
CPI underlying % yr	1.5	1.9	2.1	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										
index*	avg	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Apr	May	%mth	%yr
'Time to buy a dwelling'												
Australia	122.4	109.3	102.9	99.6	90.9	95.2	100.6	104.5	104.0	101.1	-2.8	12.3
- New South Wales	120.2	99.6	95.6	82.8	75.5	81.3	90.1	104.6	94.3	93.2	-1.2	25.9
- Victoria	118.6	109.6	98.0	105.2	84.6	94.7	88.3	100.3	99.9	101.3	1.4	16.4
- Queensland	130.3	114.3	113.8	104.6	104.1	104.4	121.0	104.7	115.3	109.2	-5.2	5.5
- Western Australia	128.9	122.7	113.8	127.4	118.2	130.4	122.2	123.5	125.0	118.5	-5.2	-4.8
- South Australia	130.5	113.7	98.6	99.6	96.9	85.0	102.8	96.7	104.9	99.9	-4.8	6.1
- Tasmania	124.2	117.5	136.2	124.2	101.9	97.0	131.3	94.5	105.6	75.0	-29.0	-26.2
House price expectations												
Australia	126.5	137.0	134.8	153.1	133.6	141.9	135.0	129.6	130.1	129.4	-0.5	-6.4
- New South Wales	129.9	140.6	154.7	157.5	135.5	144.5	118.2	115.8	118.7	120.6	1.6	-17.1
- Victoria	129.8	151.3	134.1	159.5	137.0	154.6	146.9	141.1	129.2	140.4	8.7	-2.9
- Queensland	122.9	130.5	131.6	156.0	140.5	137.2	145.5	136.2	138.7	130.9	-5.6	-3.8
- Western Australia	116.8	104.5	83.6	119.2	96.3	113.8	124.3	113.7	125.2	116.7	-6.8	14.8
- South Australia	126.6	136.8	131.0	149.1	142.2	138.6	145.4	141.4	154.2	132.6	-14.0	-3.1
- Tasmania	126.6	127.0	131.9	154.2	145.3	137.1	163.5	166.4	152.7	152.6	-0.1	-12.9

^{*}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										
index*	avg	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Apr	May	%mth	%yr
Unemp. expectations												
Australia	129.8	138.4	139.1	137.9	140.3	133.6	127.6	121.8	125.7	120.0	-4.5	-11.5
- New South Wales	129.5	132.5	127.5	128.1	137.2	127.2	124.9	124.5	127.2	121.3	-4.6	-10.9
- Victoria	130.9	136.1	142.6	137.7	138.3	137.0	127.8	118.4	121.3	115.4	-4.9	-18.4
- Queensland	133.0	141.9	139.2	147.4	139.9	135.3	123.6	119.2	127.6	125.8	-1.4	-0.3
- Western Australia	127.6	148.2	148.9	127.5	144.2	128.0	127.6	117.7	115.7	111.7	-3.4	-8.1
- South Australia	134.0	149.0	155.7	165.3	154.0	155.2	145.1	135.4	150.0	126.4	-15.7	-14.3
- Tasmania	138.7	147.5	146.5	152.6	130.8	117.9	136.2	116.8	105.8	103.8	-1.8	-30.6

Risk aversion											qtr ch	ann ch
Australia	12.1	39.6	40.3	44.4	44.0	47.3	45.5	40.3	n.a.	n.a.	-5.1	-3.8
- New South Wales	8.3	25.1	41.8	34.6	36.2	38.9	39.1	35.5	n.a.	n.a.	-3.6	-0.1
- Victoria	6.8	43.0	35.9	44.6	50.5	44.4	50.5	35.3	n.a.	n.a.	-15.2	-13.3
- Queensland	8.1	47.5	49.7	51.0	48.2	52.3	42.7	44.3	n.a.	n.a.	1.5	-4.9
- Western Australia	0.9	53.9	27.3	61.1	50.8	64.0	56.2	58.2	n.a.	n.a.	2.0	4.0
- South Australia	9.9	43.7	50.5	49.7	43.9	59.5	53.1	47.5	n.a.	n.a.	-5.6	1.7
- Tasmania	13.4	22.1	37.8	36.6	41.7	27.5	28.5	34.4	n.a.	n.a.	5.9	-5.6

^{*}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

		2016										
%	avg	Feb	May	Aug	Nov	Feb	May	Aug	Nov	Feb	Mar	Apr
Dwelling prices, ann%*												
Australia	6.1	8.5	3.8	2.1	5.1	8.8	11.4	9.7	5.5	2.0	0.8	-0.4
- Sydney	6.3	11.0	3.7	1.8	7.3	13.5	17.1	13.0	5.0	-0.5	-2.1	-3.4
- Melbourne	6.9	12.3	7.5	5.1	7.0	10.0	13.0	12.7	10.1	6.9	5.3	3.7
- Brisbane	4.4	5.3	4.1	2.3	1.7	2.1	2.9	3.0	2.4	1.8	1.3	0.9
- Perth	5.1	-3.9	-4.7	-4.9	-3.6	-3.1	-2.9	-2.8	-2.6	-2.7	-2.4	-2.3
- Adelaide	4.5	3.0	2.4	2.2	3.5	3.9	5.5	5.2	3.4	2.2	1.7	0.8
- Hobart	5.0	5.8	5.4	4.1	8.5	10.0	13.1	13.6	11.5	13.1	13.0	n.a.
Turnover, %stock^												
Australia	5.7	4.8	4.5	4.5	4.7	4.7	4.4	4.3	4.3	4.1	4.1	n.a.
- New South Wales	5.6	4.7	4.5	4.6	4.9	4.8	4.5	4.5	4.3	4.1	4.1	n.a.
- Victoria	5.7	5.1	4.5	5.0	4.9	4.9	4.6	4.6	4.4	4.3	4.1	n.a.
- Queensland	6.7	5.6	5.3	5.2	5.4	5.2	4.9	4.9	4.9	4.6	4.6	n.a.
- Western Australia	6.4	3.8	3.4	3.5	3.5	3.6	3.3	3.4	3.5	3.5	3.5	n.a.
- South Australia	4.6	3.9	3.8	3.9	3.9	3.9	3.9	3.8	3.9	4.0	4.0	n.a.
- Tasmania	5.3	4.7	4.5	4.5	5.1	5.5	5.3	5.3	5.2	4.9	4.9	n.a.

^{* &#}x27;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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34

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