HOUSING PULSE AUGUST 2022.

WESTPAC INSTITUTIONAL BANK

CONTENTS

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EXECUTIVE SUMMARY

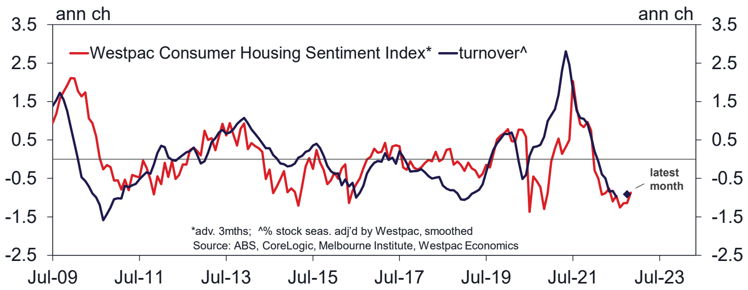
The housing downturn that began at the start of the year has accelerated and broadened over the last three months, driven by a rapid series of large rate rises from the RBA. Markets are now clearly hostage to the tightening cycle. Developments since May point to a more aggressive, front-loaded cycle with the cash rate now expected to rise a further 1.5ppts to 3.35% by Feb 2023. Risk-wise, signs of easing inflation abroad are balanced against an extremely tight labour market and the potential for a rise in inflation expectations.

Our revised rate profile means the expected market correction will come through earlier than previously anticipated. Prices nationally are still expected to fall 16% peak to trough. While large, the main dynamic in the correction is still expected to be around higher rates reducing borrowing capacity rather than a physical oversupply and/or a wave of distressed sales. As such, a prospective policy easing should allow for a modest recovery in prices in 2024.

Our Aug **Housing Pulse** paints a fairly bleak picture of both current conditions and the near term outlook. Corrections are deepening in markets where they were already well-established, and spreading to more markets. Buyer sentiment points to further weakness to come, our composite **Westpac Consumer Housing Sentiment Index** consistent with a further decline in turnover over the rest of 2022. The component detail suggests it may go even lower, especially if we see any loss of confidence around labour markets.

The state detail continues to show three distinct groups: 1) NSW and Vic and Tas, where corrections are well advanced and firmly entrenched; 2) Qld, ACT and most regional parts of the major eastern states, where prices are just starting to dip; and 3) WA and SA where turnover is still riding high and prices are eking out small gains. One positive: declines to date have been proportional to gains in 2020-21. As such, most segments are still sitting on net gains for the cycle.

1. Australia: national housing conditions

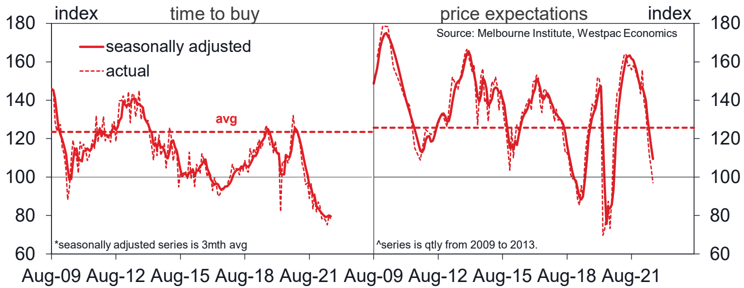


“Markets are now clearly hostage to the tightening cycle.”

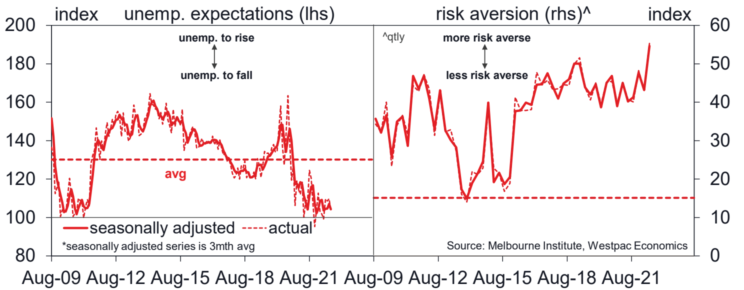
*The **Westpac Consumer Housing Sentiment Index** is a composite measure based on four housing-related components of the Westpac Consumer Sentiment survey. See Appendix on 36 for more details.

OVERVIEW: look out below

2. Consumer sentiment: housing

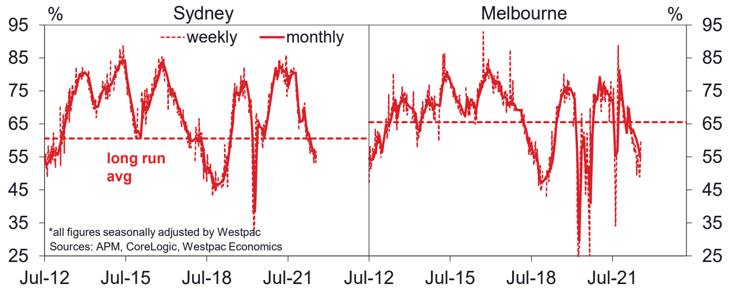


3. Consumer sentiment: jobs & risk aversion

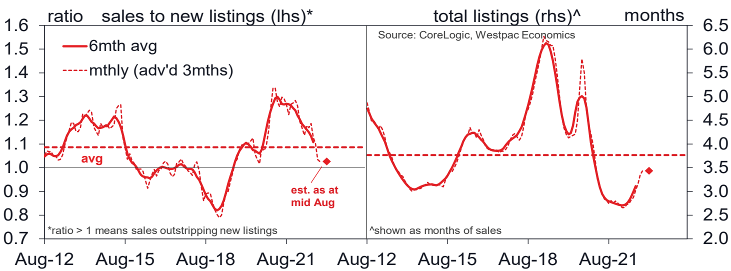


- The correction phase that we first flagged back in July last year and that was starting to show through when our May report went to press is now in full swing. Nationally, turnover is down 18% since the start of the year with prices across the five major capital cities down 2.7% over the three months to July and tracking a 1.5% decline for the current month.
- Housing-related sentiment has continued to weaken, the main driver over the last 3mths being downgraded price expectations and a sharp spike in risk aversion. Assessments of 'time to buy' were already weak, impacted by the sharp deterioration in affordability through the upswing cycle, and continue to track near historic lows. Confidence around jobs is now the only positive in the mix. With price expectations likely to weaken further, any loss of confidence around jobs could see wider housing-related sentiment hit extreme lows.
- Auction markets confirm the weak situation. Clearance rates are below long run averages in both Sydney and Melbourne and understate market stress which is showing through in a high level of pre-auction withdrawals.
- On-market supply is also showing signs of turning. New listings are now running ahead of sales in most markets with the stock of unsold listings now starting to lift, albeit coming from a very tight starting point and with 'on-market' supply still below long run averages.
- As noted, prices have declined nationally, a 0.4% dip in May followed by a 0.9% decline in June and a 1.4% fall in July, Aug currently tracking towards a similarly sized 1.5% decline. That compares to a 0.3% gain over the previous 3mths and average gains of nearly 5% a quarter in 2021. Annual growth has slowed abruptly to 5.2%yr in July and is set to dip into negative in coming months.

4. Auction clearances rates



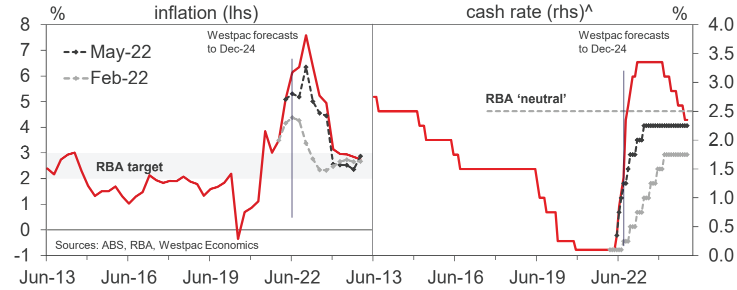
5. Residential property listings



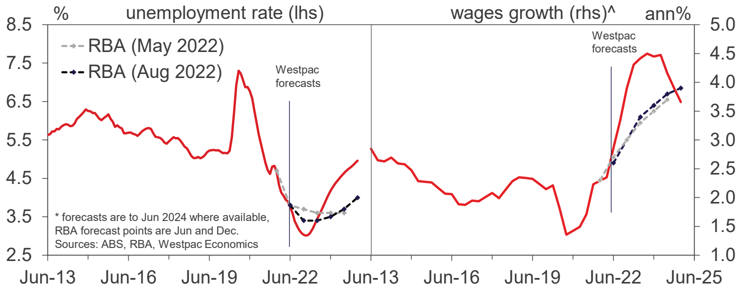
- Nationally, the **Westpac Melbourne Institute 'time to buy a dwelling' index** has stabilised over the last 3mths, edging up 0.9% since May but remaining at a very weak level overall. At 78.2, the latest read is below the 82.1 low seen briefly at the onset of the COVID pandemic, and the 88.2 recorded at the peak of the 2009–10 rate tightening cycle but still slightly above the 70-75 lows seen during the GFC, and the peak of the investor housing boom in late 2003, and well above the record low, 44.8, set in 1989.
- Price expectations continue to be scaled back dramatically, the **Westpac–MI Consumer House Price Expectations Index** falling a further 20% over the 3mths to Aug after a 22% drop over the previous 3mths. At 97.1 the Index is now in outright pessimistic territory below 100, 'pessimists' (those expecting price declines) outnumbering 'optimists' (those expecting gains). The move likely has further to run given actual price falls, the prospect of more rate hikes in coming months, and that the index is still well above previous lows (69.7 in 2020; 60.9 in 2008; and 83.8 in 2005).
- Confidence in the labour market remains strong. The **Westpac Melbourne Institute Unemployment Expectations Index** declined 5.7% over the 3mths to May, an improvement that reverses most of the 6.6% deterioration over the previous 3mths (recall that lower reads mean more consumers expect unemployment to fall in the year ahead). At 103.4, the Index remains in the top 7% of observations historically, the long run average read being 130.
- Risk aversion spiked sharply mid-year hitting a record high in Jun. The **Westpac Consumer Risk Aversion Index** rose from 43 in March to 54 in June, the highest read on measures going back to 1974. Developments since June – rate hikes in particular – are very likely to have entrenched this highly risk averse attitude.

SPECIAL TOPIC: forecast changes

6. Australia: inflation, interest rate outlook

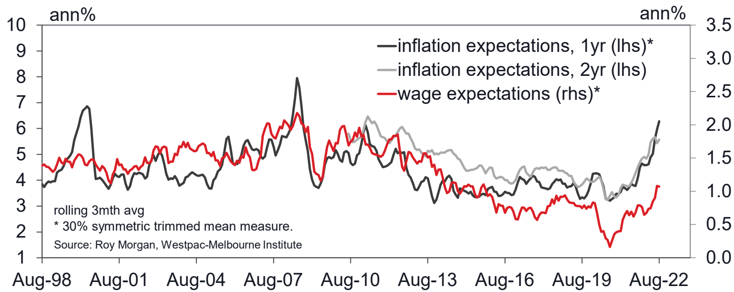


7. Australia: unemployment, wages growth outlook



- The last three months have seen further changes to our forecast profile. Inflation has been stronger and labour markets have tightened more rapidly than expected. Recent commentary from the RBA has also made it clear that it expects a rate above 2.5% – its best estimate of a 'neutral' setting for policy – will be required to ensure inflation returns to target over the medium-term. These shifts led us to adjust our forecasts in late July, the RBA now expected to deliver a more aggressive and front-loaded tightening cycle that takes the cash rate to 3.35% by Feb 2023 (see here for more).
- Note that we see 'neutral' as likely to be more around 2%. However, the urgency of the inflation challenge, the tightness of labour markets, and the still very low starting point for the cash rate (currently 1.85%) means the RBA does not have the luxury of being able to move slowly, or to wait and assess the impact of its moves. It needs to adjust policy quickly and go by its own judgement.
- Note also that we now see scope for eventual rate cuts in 2024, with the RBA now forecast to deliver 100bps of easing once the inflation threat has passed and the degree to which policy has moved above 'neutral' becomes apparent.
- The changed profile for interest rates clearly has implications for the housing market outlook. The further 'front-loading' of rate hikes and higher 'terminal' rate brings forward and accentuates the prospective price decline. With prices already moving lower quickly in Sydney and Melbourne we now see prices nationally declining 6% in calendar 2022 and a further 8% in calendar 2023. This compares to our forecasts of -2% and -8% respectively back in May. The 'peak to trough' decline within this is around 16%, closer to 18% in the case of Sydney and Melbourne.

8. Consumer inflation and wage expectations



9. Dwelling price forecasts

	avg*	2020	2021	2022	2023	2024	comments
Sydney	7.0	2.7	25	-10	-8	1	Rapid correction underway, more sensitive to rate hikes due to stretched affordability.
Melbourne	5.4	-1.3	15	-8	-10	1	Correction underway, more sensitive to rate hikes and migration slowdown.
Brisbane	5.5	3.6	27	2	-6	3	Prices starting to dip but strong fundamentals should see some resilience.
Perth	1.3	7.3	13	2	-4	3	Stalled but less stretched affordability, tight supply, buoyant mining sector supportive.
Adelaide	5.6	5.9	23	8	-6	3	Still seeing strong sales, price gains – less susceptible to rate hikes but will be impacted.
Hobart	7.1	6.1	28	-6	-8	0	Extremely tight but extremely unaffordable. Latter dominating, correction underway.
Australia	5.6	1.8	21	-6	-8	2	Major 'demand-driven' downturn through 2022-23. Steadying on rate cuts in 2024.

All dwellings, Australia is five major capital cities combined measure; *10yr avg. Source: CoreLogic, Westpac Economics

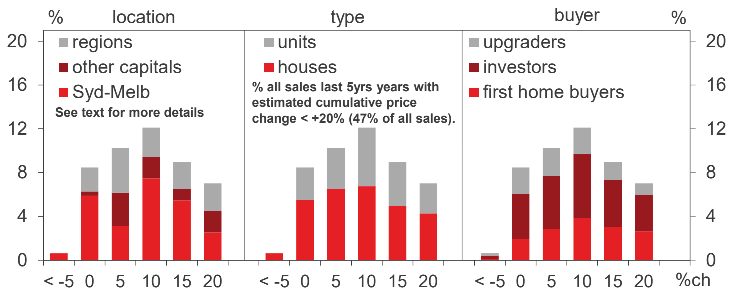
- This profile has been 'tweaked' slightly from the revised view we set out in July, which had a fall of 4% in 2022 and 10% in 2023. The latest change mainly reflects a pull-forward in the timing of the correction, which is coming through particularly quickly in Sydney and Melbourne, with peak to trough declines unchanged from July.
- Note that the main dynamic here is still the reduction in buyers' borrowing capacity from higher rates. 'Selling pressures' are expected to remain limited, reflecting a relatively supportive labour market backdrop, ample buffers in household balance sheets and tight lending standards applied in recent years which should limit the extent of financial distress and associated 'urgent' sales.
- A key risk around our RBA view, and hence our house price view, is the extent to which high inflation starts to feed through to a lift in inflation expectations. The RBA Governor has made it clear that any lift in medium term inflation expectations has a direct, one-to-one bearing on the Bank's assessment of the neutral rate. That is, if medium term inflation expectations rise by half a percentage point then, all else equal, the RBA expects it will need to have a cash rate half a percentage point higher as well.
- So far inflation expectations look reasonably well contained, market-based measures of medium term expectations in particular. For consumers, surveyed measures have lifted sharply but these have a fairly short 1-2yr horizon. Consumer wage expectations may be a better gauge both of ongoing, medium term inflation expectations and the extent to which high inflation is becoming 'embedded' in price setting behaviour. Chart 8 shows these are lifting but so far remain subdued, below the average levels seen historically. This is one inflation 'genie' the RBA absolutely does not want getting out of its bottle.

18. Summary of prudential policy measures

	'Macro' prudential	'Micro' prudential
2015	10% limit on investor loan growth	Tightened serviceability guidelines and improved consistency lenders
2016	–	Tightened serviceability guidelines incl. scaling of minimum expenses.
2017	30% limit on 'interest only' loans	Restrictions on high LVR interest only and investor loans.
2018	Investor loan growth limit removed	Improved collection and verification of expenses, income & existing debt.
2019	'Interest only' limit removed	Removal of 7% minimum 'floor rate' on serviceability assessments.
2020	Capital buffers available to draw	COVID repayment holidays; arrears exempted from capital treatment.
2021	–	COVID measures ended. Serviceability buffer increased from 2.5 to 3%
	Potential measures that have now likely shelved	
2022	Caps on high LVR and DTI loans	Further increase in interest serviceability buffer used in assessments.

Source: APRA, RBA, Westpac Economics

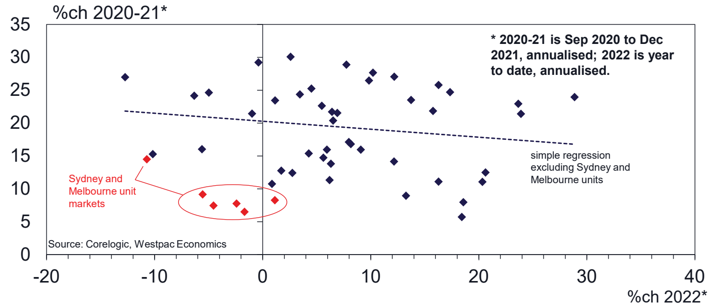
19. Price 'buffers': indicative estimates



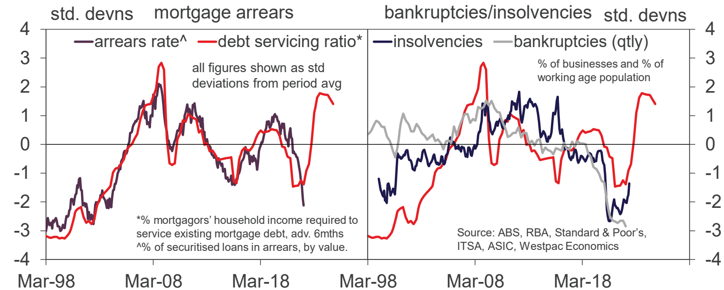
Sources: ABS, CoreLogic, Westpac Economics

- As noted previously, interest rate rises have sidelined macro–prudential policy, tightening cycles being when the effectiveness of previous measures to contain excessive risk–taking are put to the test.
- This shift was set out clearly in the statement following the most recent meeting of the Council of Financial Regulators in June: "The Council will be closely monitoring the effects of rising interest rates on the household sector. Members emphasised the additional resilience provided by the substantial housing equity and payment buffers built up by households since the onset of the pandemic." The reference to particular concerns about the increasing share of loans to borrowers with high debt-to-income ratios from the previous statement in March was dropped. And cyclical risks more generally reportedly took a back seat to other topics in the meeting which focussed more on 'de-banking' (the denial of banking services to particular customers) and developments around crypto assets.
- Our May report also noted that there would still be some routine prudential policy–related changes to loan assessment criteria as benchmarks for basic living expenses were refreshed. With CPI inflation surging to 6.1% over the year to June and wage growth tracking at only 2.6% over the same period, this will be a further squeeze on borrowing capacity assessments on top of the effects from higher mortgage rates. This may also limit financing options for some borrowers, for example recent borrowers with expiring fixed rate periods seeking to refinance onto a new fixed rate loan.
- One issue that may also come to the fore as the correction unfolds is the risk of borrowers moving into 'negative equity', where property values fall below the outstanding value of the loan used to purchase. This can significantly increase both the risk of default and losses that flow from a default.

20. Price gains vs declines



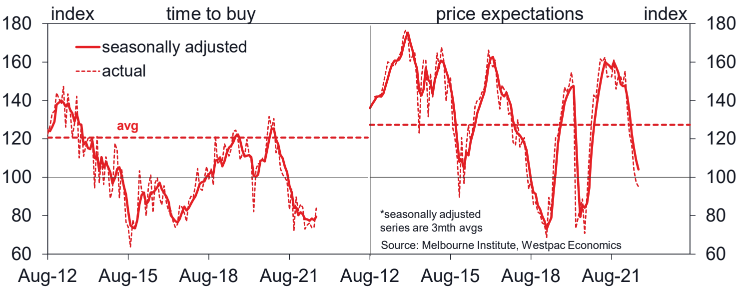
21. Financial distress: selected indicators



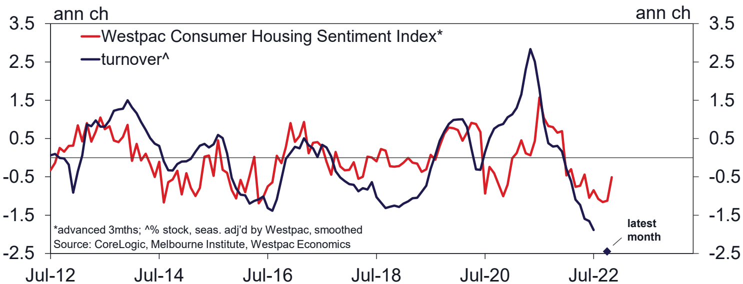
- Chart 19 gives some colour on this. It looks at sales over the last 5yrs at a disaggregated level (houses, units split by city, rest of state) and estimates the cumulative price change since then based on average movements in each segment. For example, 12% of sales show an average appreciation of between 5% and 10%. The chart only shows the portion that has seen net market moves of less than 20% and hence is more at risk of seeing negative equity as prices decline. The first panel breaks estimates down by location, the second by building type and the third shows a rough breakdown by buyer group based on finance approvals each month.
- The breakdown shows about 20% of sales are sitting on net price gains of less than 5%. Just over half of this 'at risk' group is in Sydney and Melbourne, a disproportionate share. Notably, 'units' account for about a third of the 'at risk' group, also a disproportionately high share and suggesting that the vulnerable areas are segments that largely missed out on the big run-up in prices, i.e. Sydney and Melbourne units. Interestingly, the rough breakdown by buyer group suggests first home buyers as a whole are under-represented in the 'at risk' group, again likely due to these buyers being more active in regions and segments that have seen strong price gains and limited declines so far.
- Chart 20 hints at one reason why the 'at risk' portion with low net price gains is small. It shows, for detailed market segments, price declines in 2022 vs the gains during the upturn. The slight negative correlation indicates that, outside of Sydney and Melbourne units, price declines have, to some degree, been proportional to previous gains.
- Data limitations mean this analysis is necessarily crude. However it does suggest the added threat of financial stress emanating from price declines is low and that the focus should be on stresses associated with higher debt servicing.

NEW SOUTH WALES: rapid reversal

22. NSW consumer: housing-related sentiment

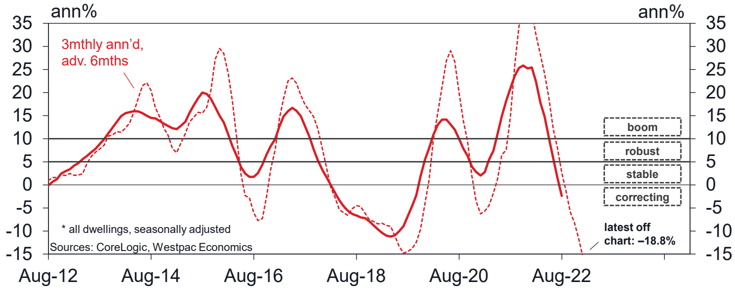


23. NSW housing composite vs turnover



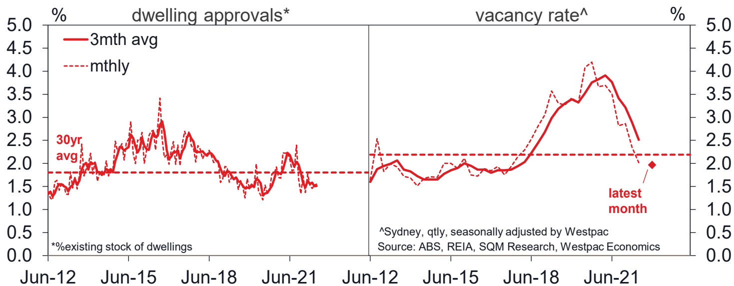
- The NSW housing market is now in the grips of a significant correction phase, turnover down 30% since the start of the year, Sydney dwelling prices already down over 7% and prices starting to dip in regional areas as well. Our sentiment-based indicators point to more weakening near term. With new listings also outpacing sales and unsold stock on the rise, the state is set for a further material decline – our revised forecasts now have Sydney dwelling prices down 10% in 2022 and by a further 8% in 2023.
- The latest price and auction market data has weakness clearly carrying into Aug. Clearance rates are hovering in the 50-55% range in Sydney but pre-auction withdrawals are still running at above 20%. Daily measures are tracking another 2%+ decline for the Aug month.
- The price detail continues to show more abrupt turnarounds for houses and 'top tier' segments in Sydney. Sub-regionally, prices are reversing more quickly in the Eastern Suburbs, Northern Beaches and North Sydney – which outperformed during the boom – but holding up better in the outer western suburbs which lagged on the upturn. Regional slowdowns have been more abrupt for Illawarra and Byron Bay.
- As noted, new listings are now running ahead of sales, by about 8%, with the total stock of listings now above long run averages at nearly four months of sales. The overhang is larger for units, which have had recurring excess on-market supply issues.
- The **NSW Consumer Housing Sentiment index** points to a further significant decline in turnover near term (note that in chart 23 and similar charts for other states both the index and turnover are shown in annual change terms rather than levels). That said, the index is showing tentative signs of stabilising at weak levels rather than moving lower.

24. Sydney dwelling prices



Population: 8.1mn
Net migration: –23k pa
GSP: $634bn (32% Aus)
Dwellings: 3.3mn, $4.1trn
Capital: Sydney

25. NSW: dwelling approvals, vacancy rate

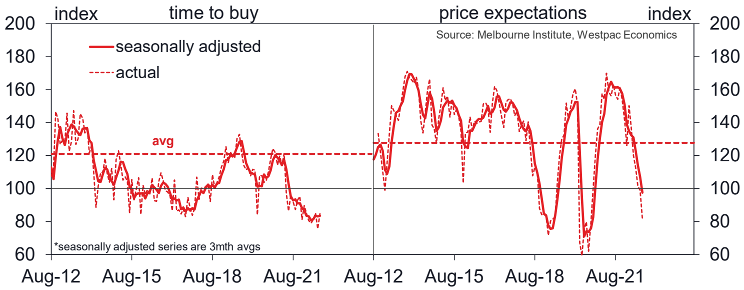


June years	avg*	2019	2020	2021	latest
GSP, ann%	2.3	2.5	–0.6	1.4	n.a.
State final demand, ann%	2.9	2.0	-2.0	3.0	5.6
Employment, ann%	1.6	3.3	-5.6	6.3	2.6
Unemployment rate, %#	5.9	4.6	6.5	5.2	3.6
Population, ann%	1.1	1.1	0.7	0.0	0.1
Dwelling prices, ann%	6.0	–10.1	13.1	14.8	1.5
Rental yield, %#	4.6	3.9	3.5	3.1	3.8
Sales/new listings, ratio#	1.27	1.27	1.19	1.34	0.92
Total listings, mths sales#	2.8	4.1	4.0	2.1	3.9

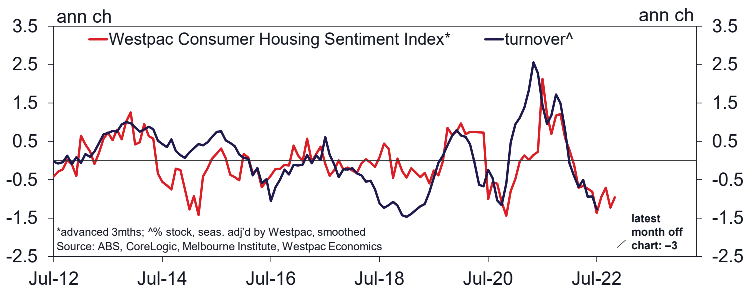
* avg last 25yrs; # June qtr readings
Sources: ABS, CoreLogic, REIA, Westpac Economics

VICTORIA: correction firmly entrenched

26. Vic consumer: housing-related sentiment

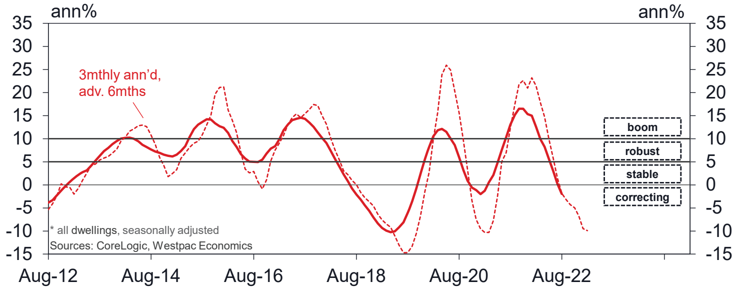


27. Vic housing composite vs turnover



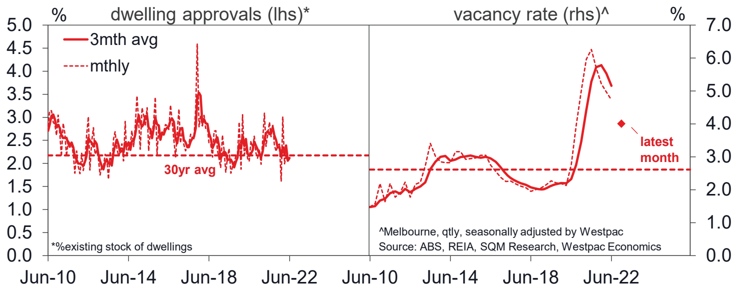
- Vic's housing market is firmly in correction mode. Turnover has fallen by about a third since the start of the year, albeit from a very high starting point late last year (a 14yr high). Melbourne dwelling prices are about 4.5% off their peak already and tracking lower at 1-1.5% a month. Prices in regional areas are also starting to tick lower. With affordability stretched and the physical supply–demand balance still unsupportive in most Melbourne metro areas, prices are now expected to fall 8% in 2022 and a further 10% in 2023.
- Auction markets confirm the soft market. Melbourne clearance rates are holding around 55% in Aug, well below the long run avg of 65%, with pre-auction withdrawals also relatively high.
- The price detail continues to show a fairly uniform picture across tiers and sub–regions although the slowdown has been more abrupt for houses and 'top tier' segments, the latter now also seeing marginally bigger declines. Across sub-regions, Melbourne's North East and Inner South are leading declines, both having outperformed during the upturn, prices steadier in the Inner city. Price growth has stalled abruptly across regional areas, Geelong dipping into outright declines.
- The on–market supply–demand balance has turned quickly with new listings now running over 20% ahead of sales and total listings already well above avg – over six months of sales in the case of units. Melbourne's rental vacancy rate is starting to come down from recent highs but, at above 4%, it is still well above historical averages.
- The **Vic Consumer Housing Sentiment index** points to a continuation of this weakness into the second half of the year, expected follow-on rate hikes yet to impact.

28. Melbourne dwelling prices



Population: 6.6mn
Net migration: –29k pa
GSP: $468bn (23% Aus)
Dwellings: 2.8mn, $2.7trn
Capital: Melbourne

29. Vic: dwelling approvals, vacancy rate

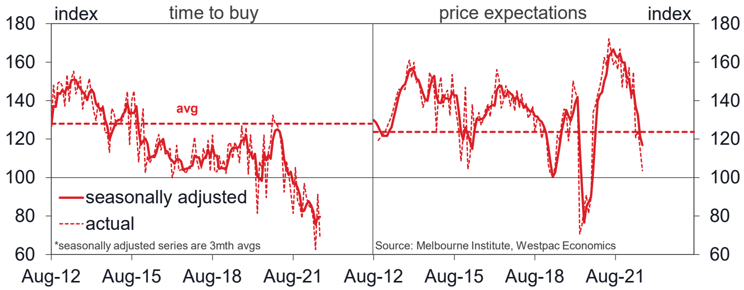


June years	avg*	2019	2020	2021	latest
GSP, ann%	2.9	3.1	0.1	–0.4	n.a.
State final demand, ann%	3.5	3.4	-1.0	–0.6	7.9
Employment, ann%	2.0	3.7	–3.2	4.9	2.7
Unemployment rate, %#	6.3	4.7	6.7	4.9	3.7
Population, ann%	1.5	1.8	1.2	–0.9	–0.1
Dwelling prices, ann%	6.6	–9.2	10.0	7.5	0.2
Rental yield, %#	4.7	4.0	3.8	3.1	3.8
Sales/new listings, ratio#	1.06	0.99	0.89	1.08	0.78
Total listings, mths sales#	3.5	4.7	5.6	3.1	4.6

* avg last 25yrs; # June qtr readings
Sources: ABS, CoreLogic, REIA, Westpac Economics

QUEENSLAND: sudden stop

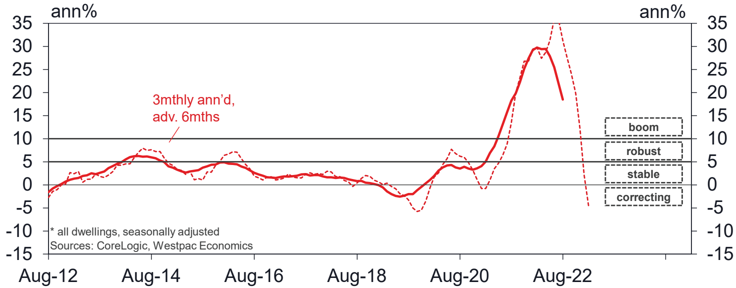
30. Qld consumers: housing-related sentiment



31. Qld housing composite vs turnover

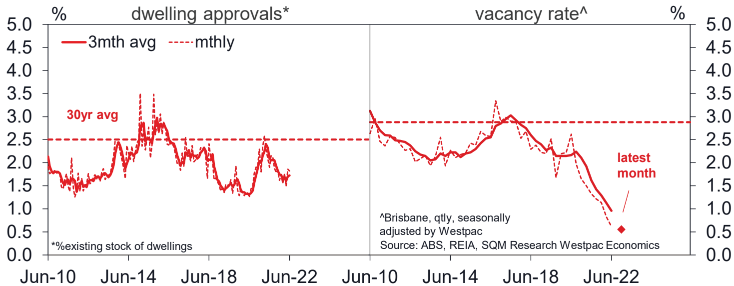
- Qld's housing market has seen an abrupt shift in gear, switching from a vigorous boom that was still in full-swing back in Q1 to what now looks to be the start of a correction phase. Turnover is off 10%, albeit still slightly above long run avg levels. Brisbane prices have swung from monthly gains averaging 2% in the first four months of the year to a 0.8% decline in July, tracking a 1.4% fall in Aug. Sentiment has also soured and is pointing to a further move lower. That said, a super tight supply–demand balance should continue to provide underlying support with prices forecast to hold to a net 2% gain in 2022, and a relatively mild 6% decline in 2023.
- The price detail shows the chill running through the Brisbane market has centred on houses and 'top tier' segments that outperformed through the upturn. The sub-regional picture for the month of July suggests the price hit has been harder for Brisbane's East, and the Sunshine and Gold Coasts, which posted stronger gains through 2020-21. Notably, Brisbane's outer suburbs are still posting 2%+ monthly gains. Further afield, the regions are seeing mixed conditions, the latest month showing more of a slowing in Darling Downs and McKay with Cairns still sustaining decent gains.
- The supply–demand picture remains extremely tight, sales still running well ahead of new listings in Brisbane and the stock of unsold homes still very low for both houses and units. Rental vacancy rates also continue to plumb new lows, sub-0.5% reads suggesting there is basically no empty stock available.
- The **Qld Consumer Housing Sentiment index** suggests the shift in Q2 will continue in Q3, easing some of the pressure for 'on market' supply although this will clearly remain supportive, dampening Qld's downturn.

32. Brisbane dwelling prices



Population: 5.3mn
Net migration: 45k pa
GSP: $369bn (18% Aus)
Dwellings: 2.2mn, $1.7trn
Capital: Brisbane

33. Qld: dwelling approvals, vacancy rate

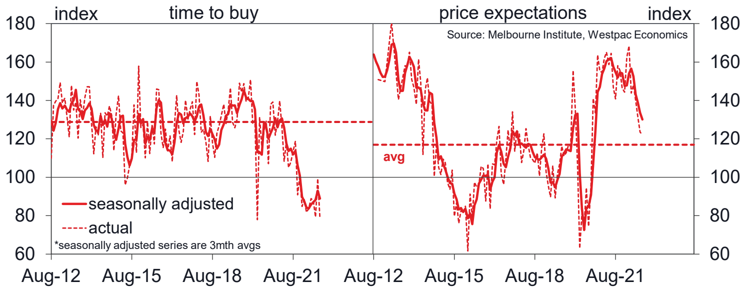


June years	avg*	2019	2020	2021	latest
GSP, ann%	3.6	0.9	-0.6	2.0	n.a.
State final demand, ann%	3.7	0.9	-0.1	4.2	6.6
Employment, ann%	2.3	1.6	-4.5	9.9	4.5
Unemployment rate, %#	6.6	6.3	7.7	5.6	4.2
Population, ann%	1.8	1.7	1.6	0.8	1.4
Dwelling prices, ann%	5.9	-2.6	4.3	13.1	22.0
Rental yield, %#	4.9	5.0	5.4	5.1	5.3
Sales/new listings, ratio#	0.95	0.86	1.06	1.34	1.26
Total listings, mths sales#	5.2	7.0	6.9	2.9	2.6

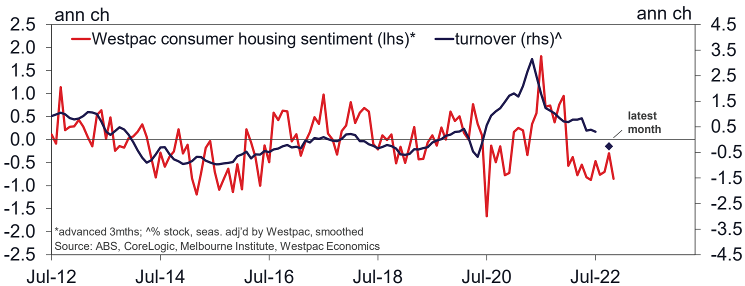
* avg last 25yrs; # June qtr readings
Sources: ABS, CoreLogic, REIA, Westpac Economics

WESTERN AUSTRALIA: adrift

34. WA consumers: housing-related sentiment



35. WA housing composite vs turnover



- The WA housing market continues to lack direction, activity and prices stalling rather than turning down as they have in the major eastern seaboard states. Turnover has held flat at relatively firm levels in 2022 and price growth has slowed but has remained positive, ticking over at about a 2-3% annual pace.

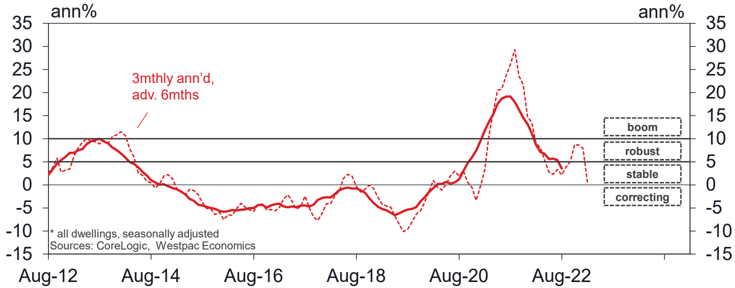
- Sentiment and the interest rate outlook point to a further softening in conditions ahead. However, the state looks well-placed given the economy's high exposure to a relatively buoyant mining sector and the housing market's mix of milder affordability issues and a tight supply-demand balance. All up, we expect Perth prices to finish 2022 up 2%, with a modest 4% decline in 2023.

- The detail continues to shows a very similar pattern across segments and tiers within Perth, units under performing, but only slightly. Most regional areas are holding up better, WA's 'wheat belt' a bit of an exception although the recent surge in global wheat prices following Russia's invasion of Ukraine should be bolstering conditions heading into the Oct harvest season.

- The supply-demand balance remains very tight, sales still running well ahead of new listings and the stock of unsold dwellings well below average. Tightness remains concentrated in houses rather than units. Rental vacancy rates remain very low.

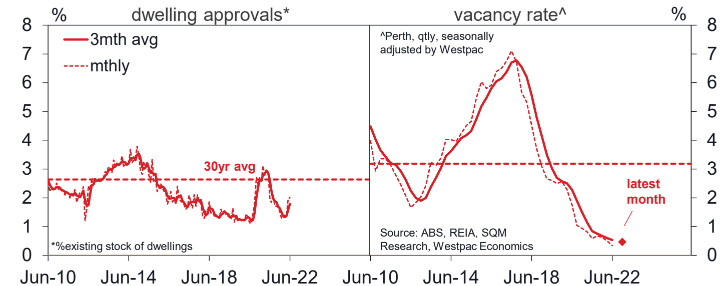
- The **WA Consumer Housing Sentiment index** point to a further pull-back in sales near term. That is likely to also see prices slip into outright declines, although the more muted price gains over the last two cycles and tight supply situation will clearly cushion Perth prices on the downside.

36. Perth dwelling prices



Population: 2.8mn
Net migration: 6k pa
GSP: $321bn (16% Aus)
Dwellings: 1.1mn, $0.7trn
Capital: Perth

37. WA: dwelling approvals, vacancy rate

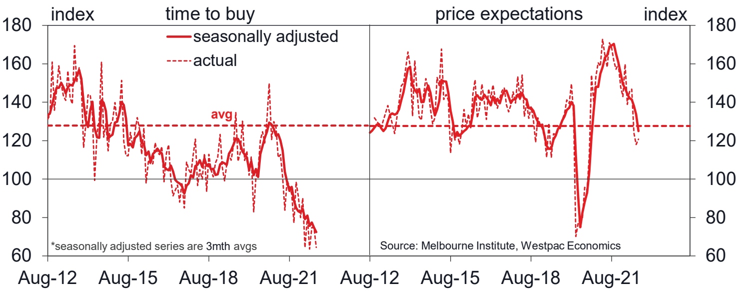


June years	avg*	2019	2020	2021	latest
GSP, ann%	4.0	1.6	1.0	2.6	n.a.
State final demand, ann%	3.5	-1.4	1.2	4.5	7.0
Employment, ann%	2.1	1.0	-4.1	7.6	5.1
Unemployment rate, %#	5.6	5.9	7.5	4.9	3.1
Population, ann%	1.8	1.6	2.0	1.2	1.1
Dwelling prices, ann%#	4.8	-6.2	0.3	18.7	5.4
Rental yield, %#	4.7	4.3	5.1	5.0	5.7
Sales/new listings, ratio#	0.88	0.78	1.02	1.02	1.13
Total listings, mths sales#	6.2	9.1	7.8	4.0	3.2

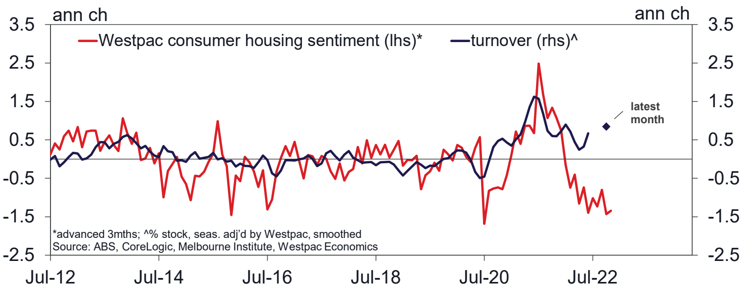
* avg last 25yrs; # June qtr readings
# Note that WA price data has been suspended due to technical issues and is under review.
Sources: ABS, CoreLogic, REIA, Westpac Economics

SOUTH AUSTRALIA: boom cools

38. SA consumers: housing-related sentiment

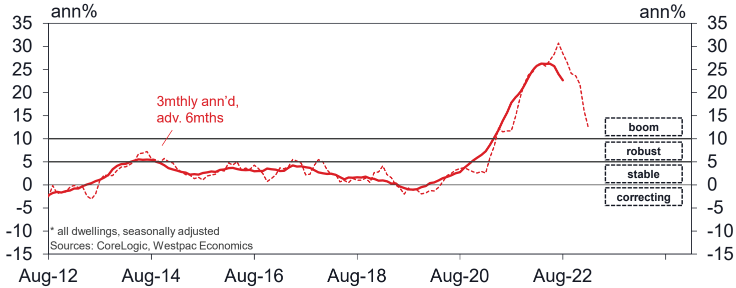


39. SA housing composite vs turnover



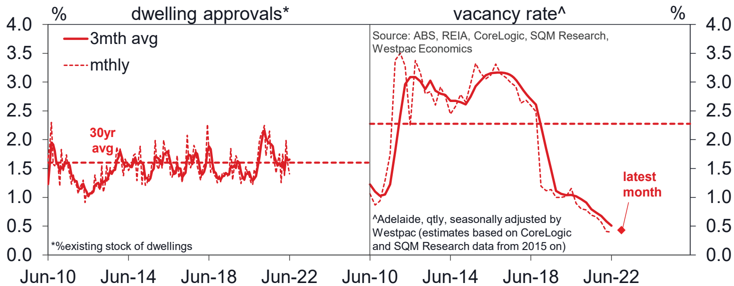
- SA is the only major state housing market still posting price gains, albeit with a clear slowing in momentum from the booming growth at the start of the year. The market looks to be caught between a large shock from interest rate hikes and a very tight supply-demand balance. Rate hikes are expected to eventually push the market into a correction phase later this year. However, tight fundamentals and a less stretched starting point for affordability should see a milder correction overall.
- Notably, turnover has continued to rise over the first half of 2022, posting a robust 13%qtr gain in Q2 to be up 15%yr despite the RBA's moves.
- Buyer sentiment suggests that burst is set to reverse sharply in coming months. The **SA Consumer Housing Sentiment index** has fallen away sharply over the last 3mths – more-so than in other states that were already at weak levels back in May. House price expectations, 'time to buy' assessments and risk aversion have all seen big moves in the state.
- The price detail continues to show quite a uniform performance across sub-regions and tiers, albeit with units (a small portion of the Adelaide market) under-performing. The slowing in momentum to date has been led by 'top tier' properties which had been outperforming up until March.
- The supply side remains extremely tight. Total on-market listings are running below two months of sales – less than half the long run average for stock levels – and rental vacancy rates are tracking around 0.5%.
- Indeed, it seems that if it had not been for the RBA's rapid rate rises, the SA housing market would likely have been entering a sustained period of tight conditions, strong price gains and deepening affordability problems along the lines of that seen in Tasmania for most of the last five years.

40. Adelaide dwelling prices



Population: 1.8mn
Net migration: 1k pa
GSP: $115bn (6% Aus)
Dwellings: 0.8mn, $0.5trn
Capital: Adelaide

41. SA: dwelling approvals, vacancy rate

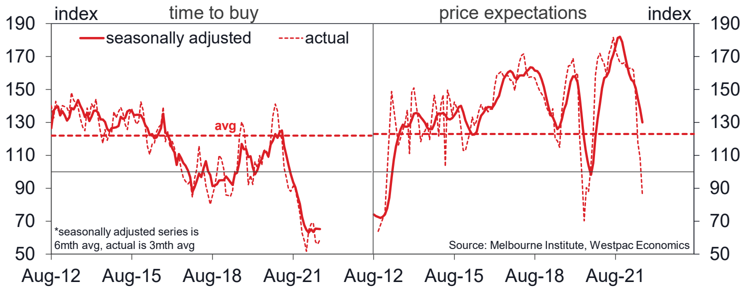


June years	avg*	2019	2020	2021	latest
GSP, ann%	2.3	1.2	-1.0	3.9	n.a.
State final demand, ann%	2.9	1.4	-1.7	4.0	7.0
Employment, ann%	1.1	1.7	-4.7	6.0	2.2
Unemployment rate, %#	6.9	6.0	7.9	5.7	4.5
Population, ann%	0.8	1.3	1.3	0.5	0.5
Dwelling prices, ann%	6.2	-0.3	2.0	13.9	24.0
Rental yield, %#	5.2	5.3	5.2	5.6	5.7
Sales/new listings, ratio#	1.01	1.11	1.36	1.38	1.53
Total listings, mths sales#	4.2	4.4	4.5	2.4	1.8

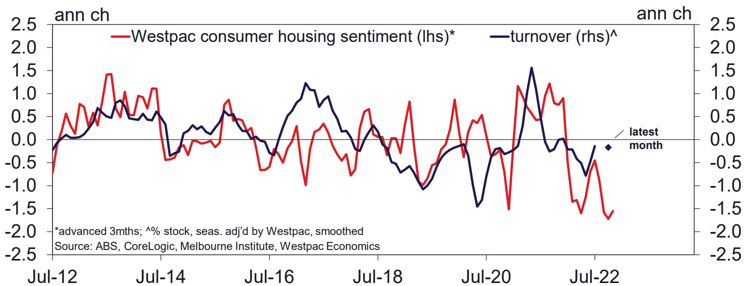
* avg last 25yrs; # June qtr readings
Sources: ABS, CoreLogic, REIA, Westpac Economics

TASMANIA: deepening downturn

42. Tas consumers: housing-related sentiment

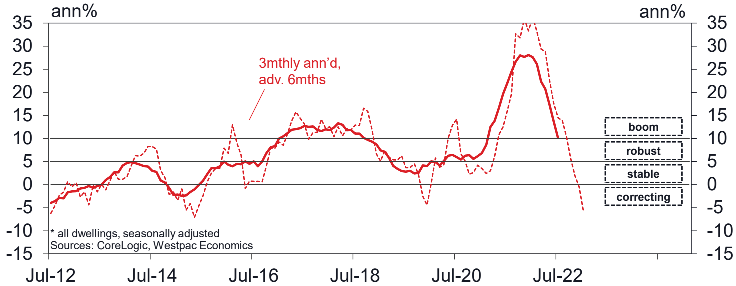


43. Tas housing composite vs turnover



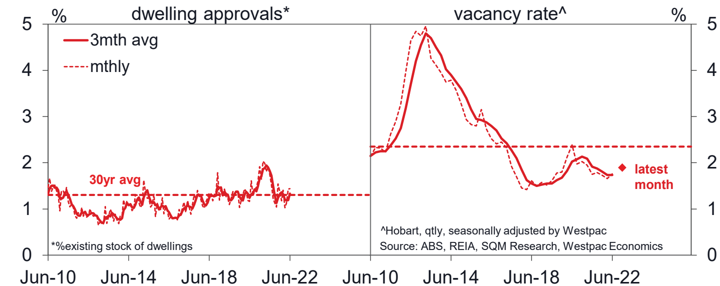
- The Tas housing market is back in contraction mode with deepening downturns in both turnover and prices.
- For a long time now the state's housing market has wrestled with acute supply shortages, an associated long run of strong price gains leading to very stretched affordability, comparable to that seen in NSW and Vic. As in these major states, rate hikes have triggered a sharp drop back in demand that is playing through quickly to prices. While supply is likely to remain tight, the price correction momentum is expected to carry throughout the rest of 2022 and 2023 with calendar year declines of 6% and 8% respectively.
- The price detail shows closely aligned performances across houses, units and price tiers, albeit with the latter continuing to show an 'inverted' performance (low tiers outperforming higher priced tier) consistent with affordability pressures bidding up cheaper properties.
- By sub-region, Hobart's inner areas continue do see the steepest turnaround, regional Tas holding up a lot better, the West and North West in particular.
- The supply situation remains extremely tight but may start to free up a little in coming months. Sales are now trailing behind new listings, which should see the stock of total listings continue to lift towards long run averages, having hit extreme lows in 2021. However, rental vacancy rates remain stuck below 2%, suggesting physical stock is still in short supply.
- The **Tas Consumer Housing Sentiment index** has gapped lower in recent months, with a very clear signal pointing to further declines in the second half of the year.

44. Hobart dwelling prices



Population: 0.6mn
Net migration: 1k pa
GSP: $34bn (2% Aus)
Dwellings: 0.3mn, $175bn
Capital: Hobart

45. Tas: dwelling approvals, vacancy

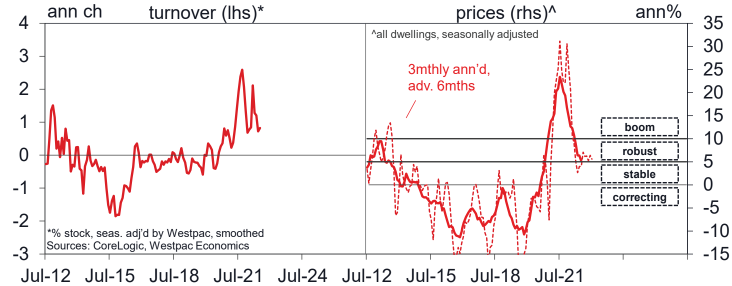


June years	avg*	2019	2020	2021	latest
GSP, ann%	2.3	3.5	0.6	3.8	n.a.
State final demand, ann%	2.6	4.2	-0.7	3.6	8.5
Employment, ann%	1.0	-0.4	-1.1	5.6	1.7
Unemployment rate, %#	7.6	6.6	6.4	5.5	4.2
Population, ann%	0.7	2.3	2.0	0.8	0.8
Dwelling prices, ann%	6.4	2.9	6.4	19.6	13.7
Rental yield, %#	5.8	4.9	5.1	4.2	4.1
Sales/new listings, ratio#	1.00	1.10	1.13	1.27	0.92
Total listings, mths sales#	5.5	3.0	3.6	2.1	3.1

* avg last 25yrs (12yrs for listings); # June qtr readings
Sources: ABS, CoreLogic, REIA, Westpac Economics

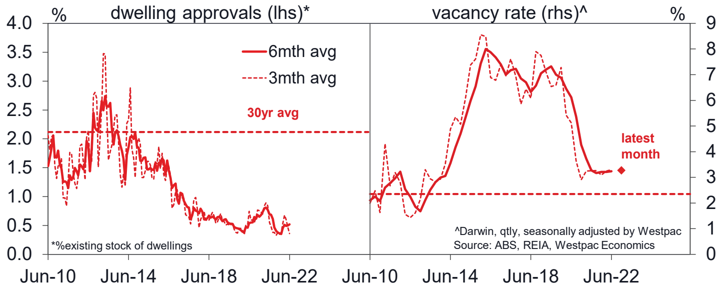
TERRITORIES: NT steady; ACT hikes bite

46. NT: turnover, Darwin dwelling prices



Population: 0.2mn
Net migration: –3k pa
GSP: $26bn (1% Aus)
Dwellings: 0.1mn, $44bn
Capital: Darwin

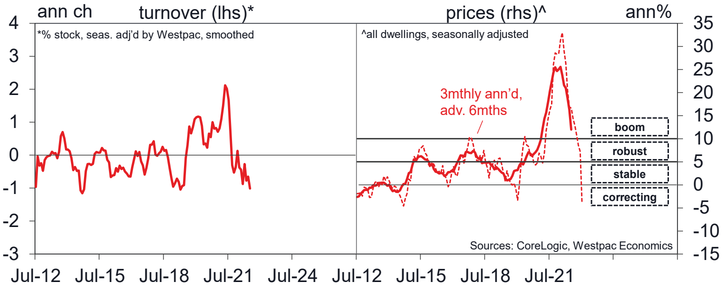
47. NT: dwelling approvals, vacancy rate



June years	avg*	2019	2020	2021	latest
GSP, ann%	3.6	-1.1	6.0	-0.6	n.a.
State final demand, ann%	3.0	-17.0	-5.3	5.9	10.1
Employment, ann%	1.1	-1.9	-1.0	3.9	3.1
Unemployment rate, %#	7.6	6.6	6.2	5.9	4.1
Population, ann%	1.2	-0.1	0.3	0.1	0.1
Dwelling prices, ann%	3.9	-9.5	-1.7	20.9	4.9
Sales/new listings, ratio#	1.11	1.00	1.41	0.95	1.35
Total listings, mths sales#	6.0	8.5	8.6	4.4	3.6

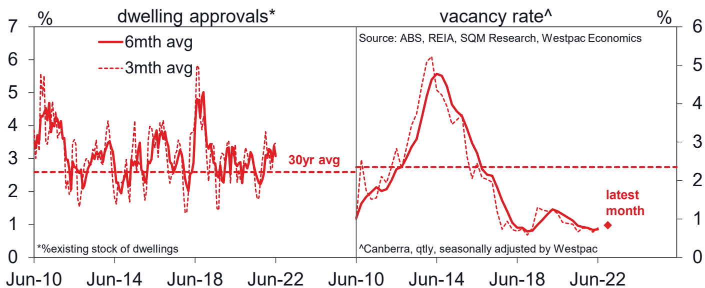
* avg last 25yrs (last 10yrs for listings); # June qtr readings
Sources: ABS, CoreLogic, Westpac Economics

48. ACT: turnover, Canberra dwelling prices



Population: 0.5mn
Net migration: –3k pa
GSP: $43bn (2% Aus)
Dwellings: 0.2mn, $192bn
Capital: Canberra

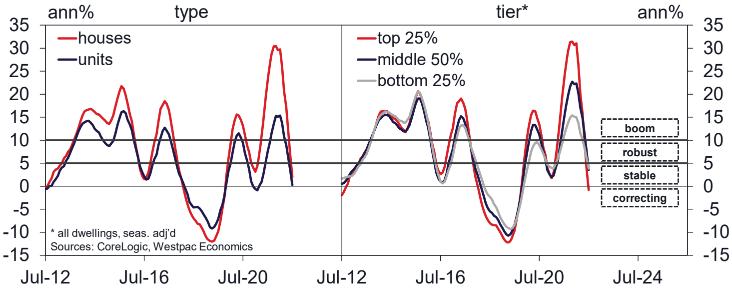
49. ACT: dwelling approvals, vacancy rate



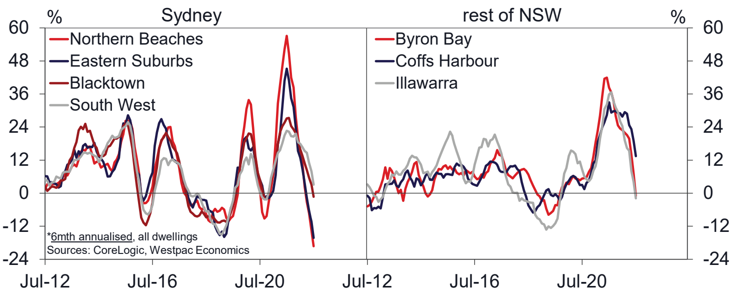
June years	avg*	2019	2020	2021	latest
GSP, ann%	3.7	4.0	3.7	2.8	n.a.
State final demand, ann%	4.0	4.6	3.1	3.0	2.9
Employment, ann%	1.2	0.6	–1.1	3.4	0.1
Unemployment rate, %#	7.6	6.6	6.2	5.9	4.1
Population, ann%	1.5	2.6	2.1	0.6	0.4
Dwelling prices, ann%	6.7	1.5	6.2	18.0	13.4
Sales/new listings, ratio#	1.44	1.06	1.51	1.62	1.20
Total listings, mths sales#	2.6	4.5	3.4	1.7	2.3

* avg last 25yrs (last 10yrs for listings); # June qtr readings
Sources: ABS, CoreLogic, Westpac Economics

50. NSW: Sydney dwelling prices: by type, tier



51. NSW dwelling prices: selected sub-region

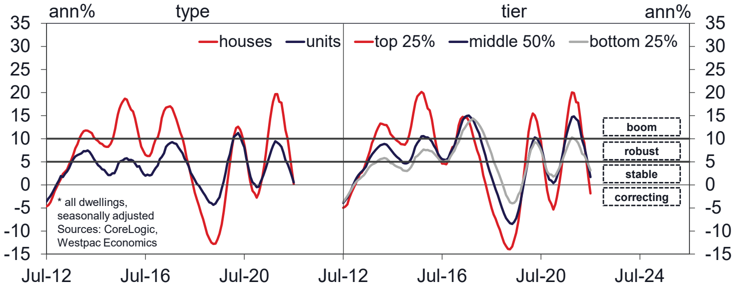


NSW	Sydney	rest of NSW
Population:	5.4mn	2.8mn
Net migration*:	-42k pa	19k pa
Employ (%state):	69%	31%
Dwellings, no.:	2.0mn	1.3mn
Dwellings, value:	$2.4trn	$0.8trn

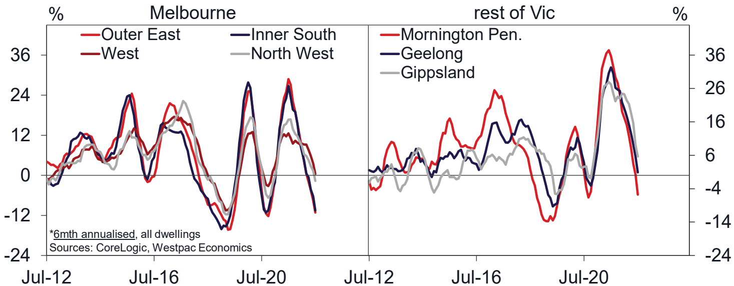
June years	avg^	2019	2020	2021	latest
Sydney					
Employment, ann%	1.8	3.1	-5.7	6.4	3.2
Unemployment rate, %	5.3	4.5	6.5	5.5	3.5
Houses – prices, ann%	6.5	-10.8	14.4	19.3	1.9
– sales/new listings, ratio	1.09	1.25	1.22	1.27	0.91
– total listings, mths sales	3.2	4.0	3.7	1.9	3.5
Units – prices, ann%	5.1	-8.0	10.6	5.1	0.2
– sales/new listings, ratio	1.58	1.33	1.13	1.47	0.95
– total listings, mths sales	2.3	4.1	4.4	2.3	4.3
rest of NSW					
Employment, ann%	1.4	3.9	-5.3	6.1	1.4
Unemployment rate, %	7.1	4.7	6.4	4.3	3.8
Dwelling prices, ann%	6.1	-5.0	3.8	21.1	17.4

* incl. flows within state , year to Jun 2020; ^avg last 25yrs (last 10yrs for listings)
Sources: ABS, CoreLogic, Westpac Economics

52. Vic: Melbourne dwelling prices: by type, tier



53. Vic: dwelling prices: selected sub-regions



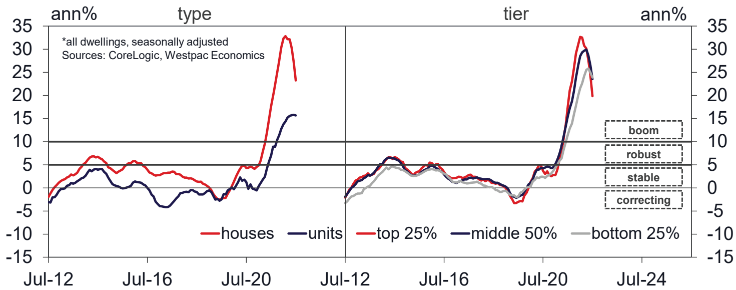
Vic	Melbourne	rest of Vic
Population:	**5.1mn**	**1.6mn**
Net migration*:	**-88k pa**	**13k pa**
Employ (%state):	**79%**	**21%**
Dwellings, no.:	**2mn**	**0.7mn**
Dwellings, value:	**$1.9trn**	**$0.4trn**

June years	avg^	2019	2020	2021	latest
Melbourne					
Employment, ann%	2.3	4.2	-4.4	5.3	3.8
Unemployment rate, %	6.2	5.0	7.4	5.3	3.9
Houses – prices, ann%	7.0	-11.8	10.5	8.8	0.0
– sales/new listings, ratio	1.04	1.05	0.93	1.14	0.82
– total listings, mths sales	3.4	4.3	5.2	2.5	3.8
Units – prices, ann%	5.8	-3.3	9.2	4.6	0.4
– sales/new listings, ratio	1.12	0.89	0.82	0.99	0.72
– total listings, mths sales	3.7	5.7	6.9	4.3	6.3
rest of Vic					
Employment, ann%	1.5	2.2	1.2	3.8	-1.3
Unemployment rate, %	6.7	3.9	4.5	3.9	3.3
Dwelling prices, ann%	5.6	-0.3	4.5	15.9	12.7

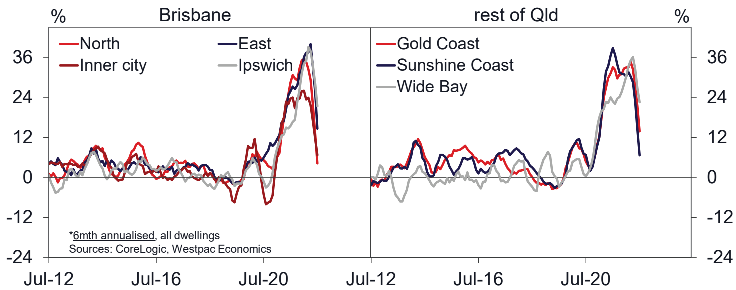
* incl. flows within state, year to Jun 2020; ^avg last 25yrs (last 10yrs for listings)
Sources: ABS, CoreLogic, Westpac Economics

ADDITIONAL MATERIALS: charts and tables, cont.

54. Qld: Brisbane dwelling prices: by type, tier



55. Qld dwelling prices: selected sub-regions

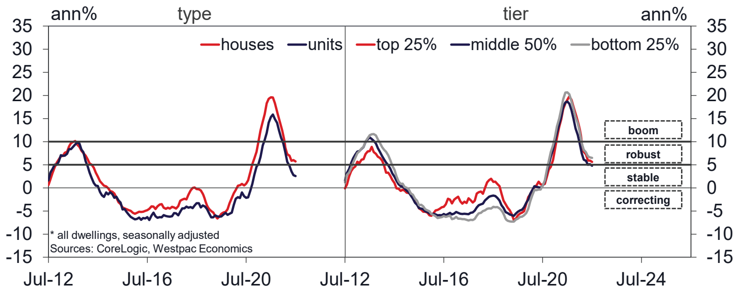


Qld	Brisbane	rest of Qld
Population:	2.6mn	2.6mn
Net migration*:	4k pa	12k pa
Employ (%state):	51%	49%
Dwellings, no.:	1mn	1.1mn
Dwellings, value:	$0.6trn	$0.7trn

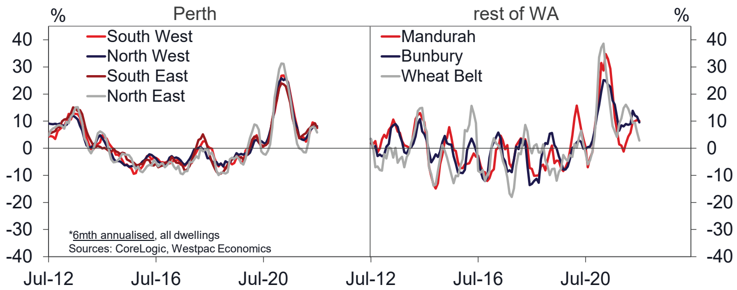
June years	avg^	2019	2020	2021	latest
Brisbane					
Employment, ann%	2.6	1.8	-5.0	10.9	5.2
Unemployment rate, %	6.2	6.2	7.6	5.8	4.1
Houses – prices, ann%	6.3	-2.5	4.8	14.6	23.2
– sales/new listings, ratio	0.88	0.83	1.06	1.27	1.12
– total listings, mths sales	5.4	6.8	6.5	2.7	3.0
Units – prices, ann%	3.7	-2.8	1.8	5.6	15.5
– sales/new listings, ratio	1.49	0.85	0.90	1.40	1.51
– total listings, mths sales	3.9	7.7	8.7	3.2	2.2
rest of Qld					
Employment, ann%	2.2	1.4	-4.1	8.7	3.7
Unemployment rate, %	6.9	6.2	7.5	5.2	4.2
Dwelling prices, ann%	4.9	-2.0	4.4	16.9	18.9

* incl. flows within state, year to Jun 2020; ^avg last 25yrs (last 10yrs for listings)
Sources: ABS, CoreLogic, Westpac Economics

56. WA: Perth dwelling prices: by type, tier



57. WA dwelling prices: selected sub-regions

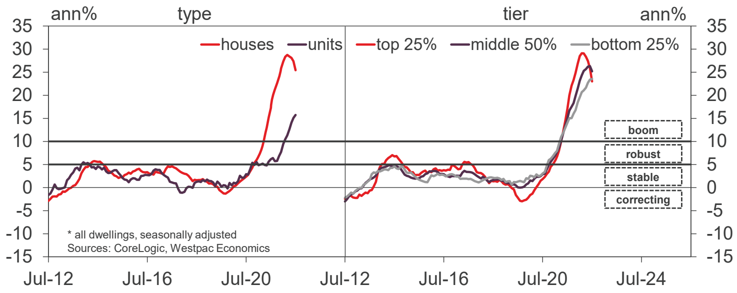


WA	Perth	rest of WA
Population:	**2.1mn**	**0.5mn**
Net migration*:	**1k pa**	**-2k pa**
Employ (%state):	**80%**	**20%**
Dwellings, no.:	**0.9mn**	**0.3mn**
Dwellings, value:	**$0.5trn**	**$0.1trn**

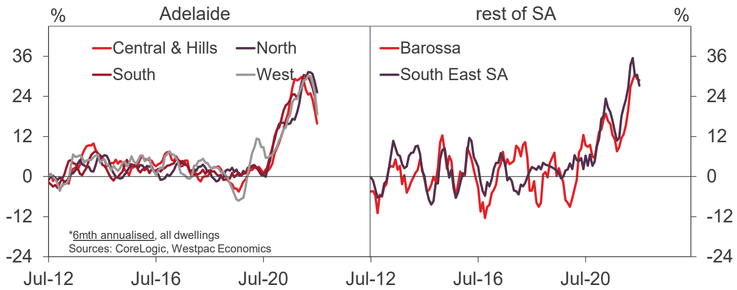
June years	avg^	2019	2020	2021	latest
Perth					
Employment, ann%	2.4	2.1	-3.8	8.6	5.0
Unemployment rate, %	5.8	6.2	7.9	5.0	3.2
Houses - prices, ann%#	5.0	-6.2	0.5	19.3	5.7
- sales/new listings, ratio	0.89	0.78	1.02	1.08	1.23
- total listings, mths sales	6.0	8.5	7.6	3.6	2.7
Units - prices, ann%#	3.8	-6.2	-1.8	14.1	2.5
- sales/new listings, ratio	0.99	0.79	1.01	0.85	0.88
- total listings, mths sales	5.8	10.1	9.5	5.6	4.8
rest of WA					
Employment, ann%	1.4	-2.4	-4.5	4.3	5.6
Unemployment rate, %	5.2	4.8	5.4	4.6	3.0
Dwelling prices, ann%#	3.4	-1.7	-1.1	18.5	8.1

* incl. flows within state, year to Jun 2020; ^avg last 25yrs (last 10yrs for listings).
# Note that WA price data has been suspended due to technical issues and is under review.
Sources: ABS, CoreLogic, Westpac Economics

58. SA: Adelaide dwelling prices: by type, tier



59. SA dwelling prices: selected sub-regions

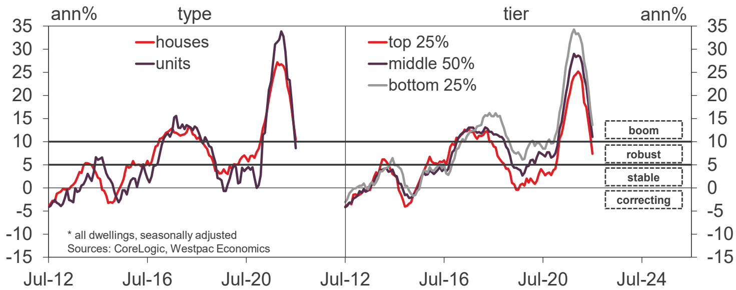


SA	Adelaide	rest of SA
Population:	1.4mn	0.4mn
Net migration*:	-3k pa	1k pa
Employ (%state):	80%	20%
Dwellings, no.:	0.6mn	0.2mn
Dwellings, value:	$0.3trn	$0.1trn

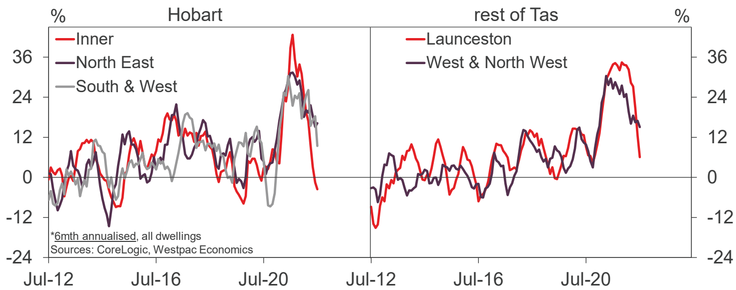
June years	avg^	2019	2020	2021	latest
Adelaide					
Employment, ann%	1.5	2.9	-5.2	6.8	3.5
Unemployment rate, %	7.1	5.8	7.9	5.5	4.3
Houses - prices, ann%	6.3	-0.5	2.0	15.2	25.3
- sales/new listings, ratio	1.03	1.06	1.27	1.34	1.46
- total listings, mths sales	3.9	3.9	4.1	2.2	1.7
Units - prices, ann%	5.6	0.8	2.2	5.6	15.7
- sales/new listings, ratio	1.14	1.15	1.48	1.35	1.76
- total listings, mths sales	4.2	5.1	5.6	3.1	1.8
rest of SA					
Employment, ann%	0.5	-2.5	-2.6	3.6	-2.5
Unemployment rate, %	6.3	6.0	7.1	5.5	4.6
Dwelling prices, ann%	5.2	0.2	2.5	13.7	22.8

* incl. flows within state, year to Jun 2020; ^avg last 25yrs (last 10yrs for listings)
Sources: ABS, CoreLogic, Westpac Economics

60. Tas: Hobart dwelling prices: by type, tier



61. Tas dwelling prices: selected sub-regions



Tas	Hobart	rest of Tas
Population:	238k	303k
Net migration*:	-1k pa	1k pa
Employ (%state):	45%	55%
Dwellings, no.:	102k	147k
Dwellings, value:	$68bn	$63bn

June years	avg^	2019	2020	2021	latest
Hobart					
Employment, ann%	1.5	0.5	-1.8	6.9	-0.4
Unemployment rate, %	6.9	7.0	6.3	5.3	4.0
Houses - prices, ann%	6.5	3.2	7.1	19.2	10.4
- sales/new listings, ratio	0.97	1.07	1.14	1.30	0.88
- total listings, mths sales	5.4	3.0	3.6	1.9	3.3
Units - prices, ann%	5.8	2.1	3.8	21.2	8.7
- sales/new listings, ratio	1.21	1.26	1.08	1.26	1.08
- total listings, mths sales	4.1	2.4	4.2	2.1	3.1
rest of Tas					
Employment, ann%	1.1	-1.1	-0.5	4.6	3.4
Unemployment rate, %	8.0	6.3	6.5	5.7	4.4
Dwelling prices, ann%	6.1	5.5	10.3	20.8	19.1

* incl. flows within state, year to Jun 2020; ^avg last 25yrs (last 10yrs for listings)
Sources: ABS, CoreLogic, Westpac Economics

ECONOMIC and FINANCIAL FORECASTS

Interest rate forecasts

Australia	Latest (19 Aug)	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
Cash	1.85	2.35	3.10	3.35	3.35	3.35	3.35	3.10
90 Day BBSW	2.33	3.05	3.55	3.55	3.55	3.55	3.38	3.13
3 Year Bond	3.47	3.30	3.25	3.20	3.10	2.90	2.80	2.75
3 Year Swap	3.09	2.95	3.00	3.00	2.90	2.70	2.60	2.55
10 Year Bond	3.40	3.20	3.40	3.30	3.10	2.90	2.65	2.50
10 Year Spread to US (bps)	50	40	40	40	40	40	35	30
US								
Fed Funds	2.375	2.875	3.375	3.375	3.375	3.375	3.125	2.875
US 10 Year Bond	2.90	2.80	3.00	2.90	2.70	2.50	2.30	2.20

Exchange rate forecasts

	Latest (19 Aug)	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
AUD/USD	0.6912	0.71	0.73	0.75	0.76	0.77	0.78	0.78
NZD/USD	0.6236	0.64	0.66	0.68	0.69	0.70	0.71	0.71
USD/JPY	136.12	132	132	130	127	125	123	121
EUR/USD	1.0081	1.05	1.09	1.11	1.13	1.14	1.15	1.16
GBP/USD	1.1918	1.23	1.26	1.28	1.30	1.32	1.34	1.35
USD/CNY	6.8059	6.70	6.60	6.50	6.40	6.30	6.20	6.15
AUD/NZD	1.1081	1.11	1.11	1.10	1.10	1.10	1.10	1.10

ECONOMIC and FINANCIAL FORECASTS

Australian economic growth forecasts

	2021	2022				2023	
% change	**Q4**	**Q1**	**Q2**	**Q3f**	**Q4f**	**Q1f**	**Q2f**
GDP % qtr	3.6	0.8	2.0	1.0	0.6	0.4	0.2
%yr end	4.4	3.3	4.5	7.5	4.4	4.0	2.2
Unemployment rate %	4.7	4.1	3.8	3.3	3.0	3.1	3.4
CPI % qtr	1.3	2.1	1.8	1.0	2.5	1.0	0.7
Annual change	3.5	5.1	6.1	6.3	7.6	6.4	5.2
CPI trimmed mean %qtr	1.0	1.5	1.5	1.5	1.2	0.8	0.7
%yr end	2.6	3.7	4.9	5.5	5.8	5.0	4.2

	Calendar years			
	2020	**2021**	**2022f**	**2023f**
GDP % qtr	–	–	–	–
%yr end	-0.7	4.4	4.4	1.0
Unemployment rate %	6.8	4.7	3.0	4.2
CPI % qtr	–	–	–	–
Annual change	0.9	3.5	7.6	3.1
CPI trimmed mean %qtr	–	–	–	–
%yr end	1.2	2.6	5.8	3.0

Consumer sentiment – housing-related measures

		2020	2021			2022					
index*	**avg**	**Dec**	**Mar**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Jul**	**Aug**	**%mth**	**%yr**
'Time to buy a dwelling'												
Australia	119.4	124.2	116.4	96.1	96.7	81.9	78.3	75.1	80.1	78.2	-2.3	-12.0
– New South Wales	115.8	125.6	116.9	100.0	94.0	82.7	73.1	73.7	73.9	83.9	13.6	0.9
– Victoria	115.5	121.8	114.0	86.4	87.3	81.3	80.6	85.2	75.7	84.7	12.0	-7.8
– Queensland	128.0	127.8	114.2	103.1	105.3	78.9	85.6	62.6	91.3	68.9	-24.5	-15.5
– Western Australia	128.8	121.9	126.2	105.1	118.8	84.8	83.6	79.4	99.3	78.3	-21.1	-31.2
– South Australia	127.9	120.6	111.3	83.8	92.2	91.0	64.3	74.8	74.6	64.4	-13.7	-33.0
– Tasmania	122.0	123.9	114.0	92.7	86.5	50.3	88.8	54.3	54.4	67.7	24.4	-32.1
House price expectations												
Australia	125.7	143.7	159.5	157.8	158.0	150.6	139.0	111.1	104.9	97.1	-7.5	-37.7
– New South Wales	127.3	142.8	161.6	152.1	161.0	152.2	135.2	103.8	97.3	95.1	-2.3	-37.5
– Victoria	127.7	136.2	154.2	156.2	154.1	141.4	137.0	101.5	99.0	81.6	-17.7	-48.0
– Queensland	123.7	143.0	162.4	165.2	156.2	160.2	140.5	124.5	115.2	103.6	-10.0	-35.6
– Western Australia	116.9	163.7	161.8	164.4	158.1	144.3	143.8	131.3	123.5	122.1	-1.2	-13.3
– South Australia	127.6	139.8	158.8	158.3	161.5	148.0	138.9	123.9	118.0	120.8	2.3	-28.3
– Tasmania	127.6	168.1	158.2	183.6	165.8	165.7	167.0	100.9	100.1	90.3	-9.8	-48.3

*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

Consumer sentiment – other components

		2020	2021				2022					
index*	**avg**	**Dec**	**Mar**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Jul**	**Aug**	**%mth**	**%yr**
Unemp. expectations												
Australia	130.1	106.3	112.0	108.4	120.5	104.1	101.8	108.5	109.8	103.4	-5.8	-17.0
– New South Wales	129.6	106.4	112.4	98.7	116.9	105.5	101.7	110.3	117.1	100.1	-14.5	-23.9
– Victoria	131.2	111.8	113.0	114.7	124.0	98.8	98.0	106.1	113.3	98.1	-13.4	-17.1
– Queensland	133.2	99.3	116.4	113.5	120.8	113.3	105.8	121.9	106.7	108.3	1.5	-20.6
– Western Australia	128.1	102.5	101.6	109.5	112.5	94.8	94.6	87.7	85.8	110.6	28.9	13.8
– South Australia	135.3	120.8	109.9	114.7	130.8	107.8	123.0	108.0	113.8	113.6	-0.2	-9.1
– Tasmania	138.3	109.2	108.6	118.7	114.4	108.4	109.0	94.3	107.3	115.7	7.8	-5.8
Risk aversion											qtr ch	ann ch
Australia	15.1	39.0	45.0	40.2	41.3	47.7	43.1	54.6	n.a.	n.a.	11.5	13.7
– New South Wales	11.7	38.7	50.8	36.5	34.5	43.4	39.1	54.0	n.a.	n.a.	14.9	18.8
– Victoria	11.0	38.1	40.6	39.9	41.7	51.2	44.5	55.2	n.a.	n.a.	10.8	14.2
– Queensland	12.7	43.6	44.7	42.8	47.8	46.5	45.4	52.9	n.a.	n.a.	7.5	6.7
– Western Australia	7.0	56.8	48.3	55.4	49.5	57.8	51.5	57.9	n.a.	n.a.	6.4	6.4
– South Australia	14.4	29.8	29.7	32.5	38.5	47.5	48.2	56.9	n.a.	n.a.	8.7	20.4
– Tasmania	15.5	29.2	17.8	11.7	52.1	1.7	29.5	38.6	n.a.	n.a.	9.0	-0.1

*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

	2020				2021				2022			
	avg	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Jul	Aug
Dwelling prices, ann%*												
Australia	6.1	8.9	4.9	2.0	4.8	12.4	19.5	21.0	16.3	8.7	5.4	2.8
– Sydney	6.0	13.3	7.7	2.7	5.4	15.0	23.6	25.3	17.7	5.9	1.6	-2.4
– Melbourne	6.6	10.2	3.1	-1.3	0.7	7.7	15.0	15.1	9.8	3.1	0.3	-1.8
– Brisbane	5.9	4.4	3.8	3.6	6.8	13.2	19.9	27.4	29.3	25.6	22.1	18.4
– Perth#	4.8	0.4	3.0	7.3	13.6	18.8	18.1	13.1	7.0	5.8	5.5	5.4
– Adelaide	6.2	2.0	3.6	5.9	8.6	13.9	19.1	23.2	26.3	25.7	24.1	22.7
– Hobart	6.4	6.4	6.4	6.1	12.5	19.6	26.8	28.1	22.3	13.7	10.1	n.a.
Turnover, %stock^												
Australia	5.6	3.3	4.5	5.3	5.8	5.8	5.6	5.9	5.4	4.9	4.8	n.a.
– New South Wales	5.8	3.5	5.0	5.6	6.0	6.0	5.4	5.8	5.0	4.3	4.0	n.a.
– Victoria	4.7	2.8	2.9	4.7	5.1	5.1	4.1	5.4	4.4	4.2	3.6	n.a.
– Queensland	6.6	4.0	5.5	6.3	7.0	7.3	7.5	7.5	6.8	6.6	6.7	n.a.
– Western Australia	6.3	3.2	4.7	5.4	5.4	5.7	5.8	6.1	6.3	6.1	6.1	n.a.
– South Australia	4.6	3.1	4.0	4.3	4.5	4.8	4.7	5.0	4.9	5.4	5.6	n.a.
– Tasmania	5.6	3.6	4.8	4.6	4.9	4.7	4.5	4.6	4.5	4.2	4.4	n.a.

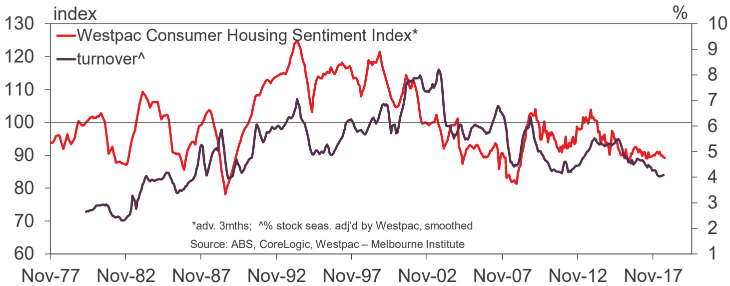
* 'all dwellings' measures, ann% ch, latest is month to date
^ % dwelling stock; most recent months are estimates modeled on preliminary data
# Note that WA price data has been suspended due to technical issues and is under review.
Sources: CoreLogic, ABS, Westpac Economics

Residential property listings

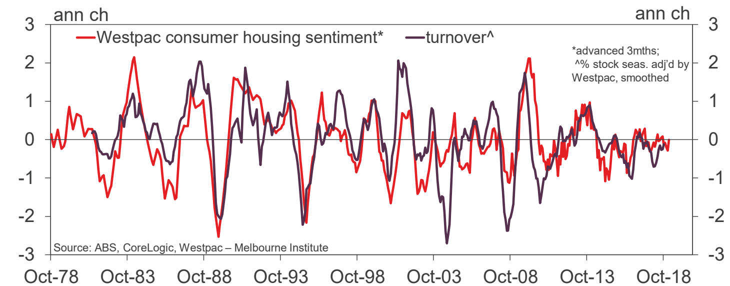
	2020				2021				2022			
	avg	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Jul	Aug
Sales/new listings ratio*												
Australia^	1.09	1.09	1.16	1.34	1.30	1.22	1.28	1.17	1.17	1.10	1.03	1.03
– Sydney	1.27	1.19	1.28	1.60	1.55	1.34	1.52	1.23	1.17	1.06	0.92	0.88
– Melbourne	1.06	0.89	1.08	1.15	1.13	1.08	1.06	1.12	0.97	0.94	0.78	0.75
– Brisbane	0.98	1.06	1.09	1.31	1.29	1.34	1.41	1.28	1.21	1.23	1.26	1.32
– Perth	0.91	1.02	0.98	1.24	1.07	1.02	1.09	1.06	1.17	1.13	1.13	1.21
– Adelaide	1.05	1.36	1.31	1.56	1.34	1.38	1.36	1.46	1.47	1.53	1.53	1.61
– Hobart	1.02	1.13	1.14	1.23	1.24	1.27	1.16	1.11	1.15	0.84	0.92	0.98
Total listings, months of sales*												
Australia^	3.8	5.5	4.2	3.2	2.8	2.8	2.8	2.7	2.8	3.2	3.3	3.4
– Sydney	2.8	4.0	3.0	2.4	2.1	2.1	2.1	2.2	2.6	3.3	3.9	4.2
– Melbourne	3.5	5.6	6.3	3.3	3.0	3.1	3.7	2.9	3.4	3.8	4.6	5.1
– Brisbane	4.9	6.9	5.0	3.9	3.2	2.9	2.5	2.3	2.5	2.6	2.6	2.5
– Perth	5.9	7.8	5.5	4.3	4.0	4.0	3.9	3.6	3.3	3.2	3.2	3.1
– Adelaide	4.0	4.5	3.6	2.9	2.7	2.4	2.3	2.0	1.8	1.8	1.8	1.7
– Hobart	5.1	3.6	3.2	2.8	2.3	2.1	2.0	2.3	2.2	2.9	3.1	3.1

* figures show 3mth avg, readings for most recent months based on sales estimates modeled on preliminary data and latest weekly listings figures.
^ avg since 2007
Sources: CoreLogic, Westpac Economics

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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