The Red Book

July 2017

Westpac Institutional Bank

200 years proudly supporting Australia

Contents

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The next issue of the **Red Book** will be released on 20 October 2017. See **Westpac IQ** for regular monthly bulletins on headline series, special questions and other sentiment-related reports.

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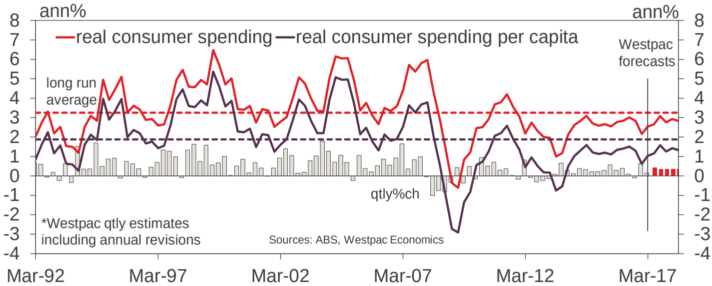
Executive summary

- The **Westpac–Melbourne Institute Consumer Sentiment Index** slipped 2.5% over the last 3mths, a 2.8% decline over May-Jun followed by a slight 0.4% gain in July. At 96.6 the index has moved back into 'cautiously pessimistic' territory.
- A soft Q1 national accounts update, further rises in 'interest only' mortgage rates, speculation about RBA hikes and continued concern about housing have been the main negatives. Indeed, all things considered, sentiment has held up reasonable well.
- The survey detail again points to a complex mix of reactions, particularly to interest rate changes (sentiment rising amongst home owners with a mortgage but falling in sub-groups likely exposed to 'interest only' increases).
- Responses to our extra budget question in May suggest this was viewed as neutral overall. Pre and post budget responses in May also suggests a neutral impact although forward views on family finances were pared back.
- Updated responses on where consumers see the 'wisest place for savings' show risk aversion remains elevated, the proportion nominating 'pay down debt' rising to 24% and the proportion favouring real estate remaining near record lows.
- The **Westpac Risk Aversion Index** held at 43.9 in June near a six year high. Additional sub-group detail suggests freehold home owners and those aged over 55 have driven the most recent lift in risk aversion.
- **CSI±**, our modified sentiment indicator that we favour as a guide to actual consumer spending, also slipped back, a 2% decline since Apr reversing all of the gain over the previous 3mths. The measure continues to point to weak consumer demand near term.
- The sub-index on 'time to buy a major item' has been a relative bright spot, posting a further 2.3% rise since Apr to be up 1%yr, though still below its long run average. Recent data points to significant weather disruptions to durables spending in Q1 that look to have reversed in Q2.
- The 'time to buy a dwelling' index is showing hints of stabilising with a notable 3.1% rally in the Jul month reversing some of the 10% drop over the first half of 2017 and coming despite aforementioned rate rises. Recently announced increases in state government assistance for first home buyers appears to have been a significant boost in Jul. Despite this, the measure continues to point to some further softening in activity over the second half of 2017.
- The **Westpac-Melbourne Institute Consumer House Price Expectations Index** increased 8.6% in Jul, reversing much of the 11.8% fall over the previous two months. Price expectations remain positive and look to be holding up well although the full impact of macro-prudential tightening has yet to come through.
- Confidence around the labour market has been mixed and choppy month to month. The **Westpac-Melbourne Institute Unemployment Expectations Index** has declined 3.1% in April (indicating an improved outlook) but remains stuck in an above average range despite more signs of a significant improvement in actual market conditions.

Consumer spending: slow and unsteady



The Australian consumer mood has slipped back into 'cautiously pessimistic' territory, unsettled by a poor start to the year for economic growth, more 'targeted' interest rate rises and ongoing concerns about where both interest rates and housing markets may be headed next.

The main themes from the **Westpac–Melbourne Institute Consumer Sentiment** survey are familiar – concerns centred around family finances and housing; risk aversion elevated; spending indicators either weak or subdued; and job loss fears still elevated.

What is harder to judge is whether the results are better or worse than might have been expected. On the 'could have been worse' side: the reaction to higher rates for 'interest only' mortgages was muted (sentiment across the wider mortgage belt even lifted) and May's Budget looks to have been a non-event sentiment-wise (a good result given recent years although no doubt disappointing for a government hoping to generate some positivity).

Add to this what appears to be a limited fall-out from increased risk aversion in terms of savings, spending and household balance sheets – and perhaps the picture is not so bad after all.

On the 'could have been better' side though is: a more positive global and business confidence backdrop; interest rates near historical lows; big gains in household net worth; a housing market that has not crumbled in the way many had feared; a dissipating drag from the mining investment downturn; and official labour market estimates showing solid signs of improvement.

Depending on your point of view, the end result – a headline index of 96.6, not overly weak but firmly in the bottom third of results over the last 40yrs – is either a disappointing relapse into negative or a promising sign of resilience. Either way though, it is not sending any encouraging signals about the near term outlook for consumer spending. With the full impact of macro-prudential measures still to play out, the outlook still looks to be 'slow and unsteady'.

The consumer mood: slips back

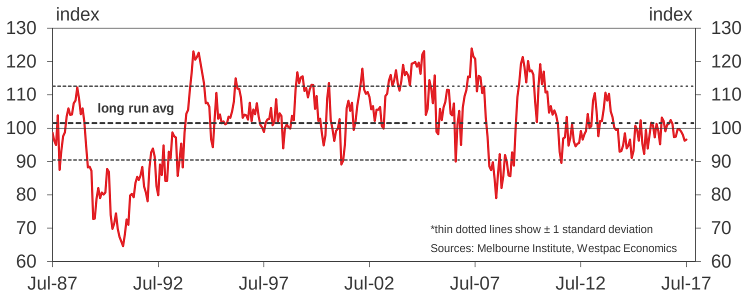
– The **Westpac Melbourne Institute Index of Consumer Sentiment** has slipped 2.5% over the last 3mths, a 2.8% decline over May-Jun followed by a slight 0.4% gain in July. At 96.6 the index has moved back into 'cautiously pessimistic' territory.

– The main drivers through this period have been: a soft Q1 national accounts update; further rises in 'interest only' mortgage rates and media speculation about potential RBA rate hikes; and continued concerns around housing. Indeed, given these negatives, sentiment could easily have seen a much sharper pull back. The Federal budget also appeared to have minimal impact on sentiment (see p10).

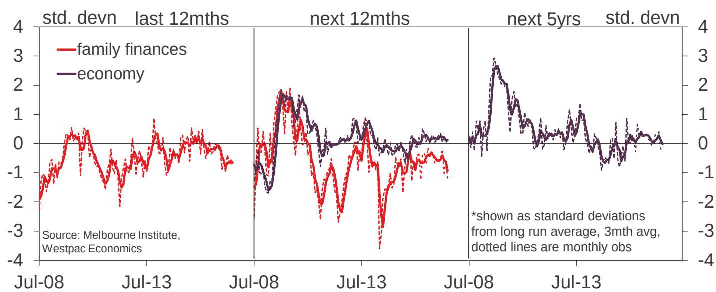
– Component-wise, the decline over the last 3mths has centred on 'finances vs a year ago' (–4.4%), 'finances, next 12mths' (–3.3%); and 'economy, next 5yrs' (–4.4%).

– The sub-group detail again points to a complicated impact from interest rate changes. Note that banks increased rates on 'interest only' mortgages by an average 32bps in late Jun with a slight reduction in rates on standard 'principal and interest' loans. This likely explains why confidence amongst respondents with mortgages was unaffected (actually up +4.8% in Jul) but sentiment in key investor sub-groups such as those aged over 55 fell much more sharply (–15%).

1. Consumer sentiment: 'cautiously pessimistic' again



2. Consumer sentiment: economy vs family finances



– The state breakdown suggests several other factors have also been at play.

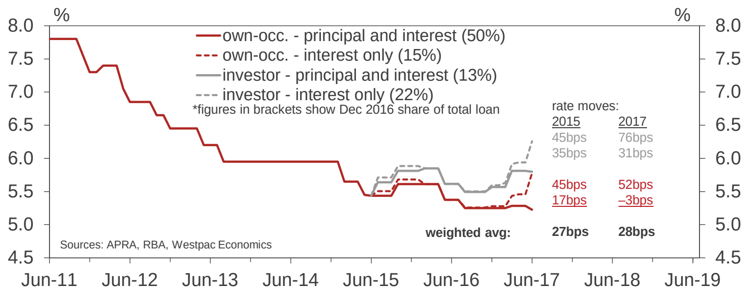
– Sentiment has recovered significantly in NSW (+7% since Apr) and seen a milder decline in Vic (–1.8%). The outperformance likely reflects a milder than feared slowdown in the Sydney and Melbourne housing markets and stronger than expected labour market conditions.

– Note that both the Vic and NSW state government budgets presented relatively upbeat outlooks for state economic prospects and included a variety of new measures aimed at supporting first home buyers.

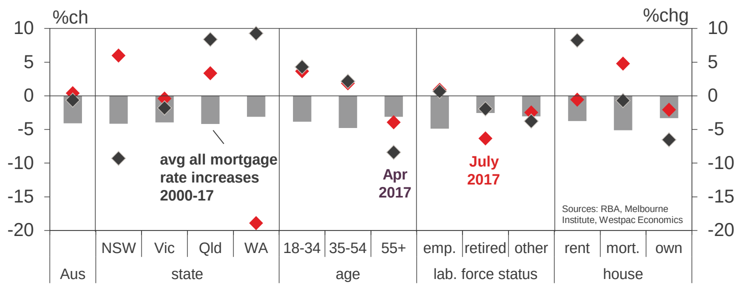
– Sentiment has shown more of a weakening across the mining states.

– Consumer confidence recorded a particularly sharp slump in WA (–23%). While it only covers 11% of consumers and can be volatile month to month, the WA read bears close watching. Improved sentiment across the mining states was a key positive in 2016, lifted by a resurgence in commodity prices. That appeared to get an additional boost from a change of state government in WA in early 2017. Both positives appear to be fading fast with the new government facing difficult budget decisions and commodity prices sliding.

3. Mortgage interest rates: tiering



4. Consumer sentiment by sub-group: interest rate reactions



Sentiment indicators: spending

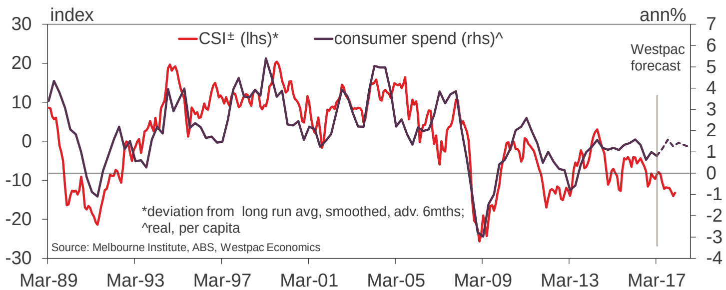
– Our **CSI±** composite combines sub-indexes tracking views on 'family finances' and 'time to buy a major item' with the **Westpac Consumer Risk Aversion Index** and provides a good guide to spending with a lead of about 6mths.

– **CSI±** has also softened over the last 3mths, a 2% decline retracing all of the 1.9% gain between Jan and Apr. At 89.8, the index is 5.6% below its more recent high in Oct and near the lows seen in 2015 and 2012-13. The latest fall-back has centred on views on family finances with assessments of 'time to buy a major item' and risk aversion both improving marginally since Apr.

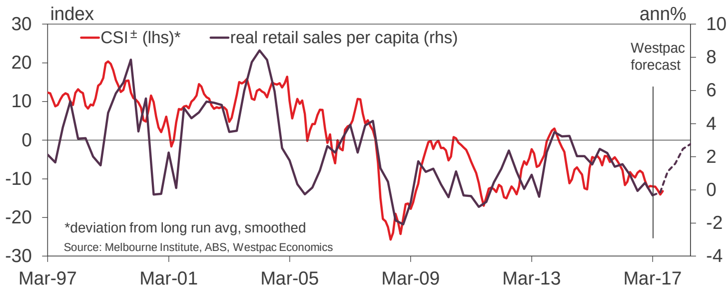
– Current readings of **CSI±** suggest underlying momentum in consumer demand will remain weak through the second half of 2017. That said, getting a firm read on momentum is tricky at the moment due to large swings in labour market conditions and what looks to be significant weather-related volatility.

– The Q1 national accounts showed another mixed result for consumers. Growth in spending was again subdued – albeit not quite as weak as some had feared – and while incomes showed an improvement vs a very weak Q4, annual gains remain disappointing with a lower new savings again required to 'finance' spending.

5. CSI± vs total consumer spending

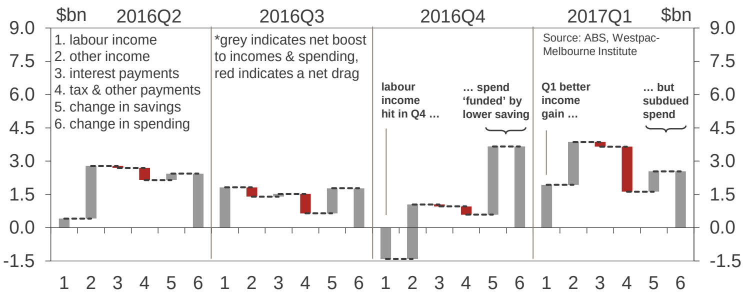


6. CSI± vs retail sales

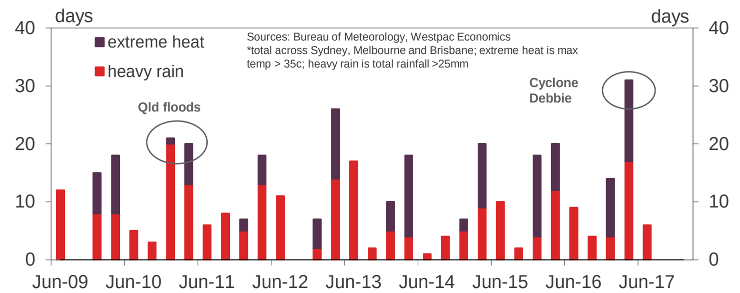


- Total consumption rose 0.5%qtr, a slowdown on Q4's robust 1% gain and more in line with the avg over the previous four quarters. Annual growth slipped back to 2.3%yr from 2.5%yr in Q4. The detail showed flat spending on retail items but a solid rise for vehicle purchases with services spending tracking in line with its 4yr avg.
- Cyclone Debbie had a clear hand in the weakness – spending across the four categories that drove the Q1 slowdown nationally actually contracted 0.6% in Qld. Abnormally wet and hot weather also appeared to impact spending elsewhere, most notably NSW.
- Household incomes had a mixed quarter. Nominal labour income posted a surprisingly strong 1% rebound from Q4's 0.7% contraction. However, annual growth in real disposable income slowed to a dismal 0.4%yr, an outright contraction in per capita terms. The savings ratio fell from 5.1% to 4.7% in Q1.
- Partial measures and indicators point to a better Q2 with retail sales, vehicle sales and business surveys all recording solid gains. A continued lift in employment should also support incomes. That said, its unclear how much of the choppiness is due to disruptions and how price and interest rate rises are impacting.

7. Household disposable income changes decomposed



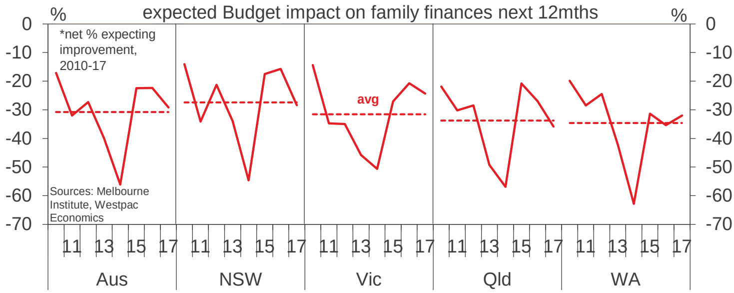
8. Extreme weather conditions: Syd, Melb, Bris



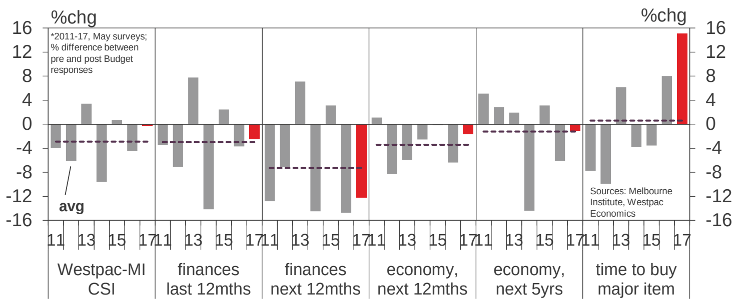
Special topic: Budget reactions

- 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 2017 (those expecting a positive impact minus those expecting a negative one) was –29.2%. That compares to –22.4% last year, –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. As such, the 2017 responses look to be around average but clearly weaker than over the last two years. The proportion of 'don't knows' remained high at 9.7%.
- The main theme in this year's budget was shoring up the government's revenue base (via an increase to the Medicare Levy, a new bank levy and other charges) with expenditure measures relatively limited, focused on small business tax relief, infrastructure investment and securing health and education programmes.
- 'Pre' and 'post' budget survey responses offer some additional clues about how it impacted. While there was no difference in sentiment overall, those surveyed post-budget were markedly more downbeat on their finances ('finances, next 12mths' down 12.2%), moderately more downbeat on the economy but much more positive on 'time to buy a major item'.

9. Westpac-MI Consumer survey: Budget impact

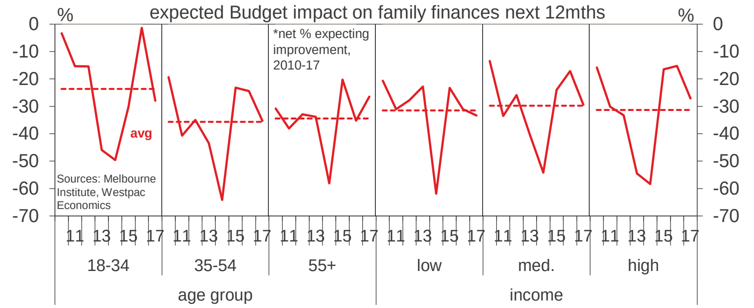


10. Consumer sentiment components: pre & post Budget

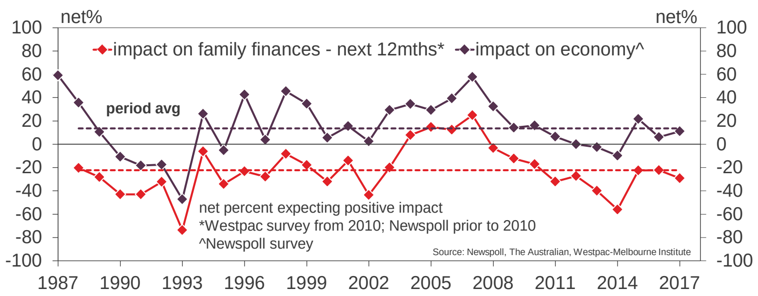


- Some of the muted or even positive immediate reaction from sentiment may reflect 'relief' – that the budget did not include harder hitting measures – rather than outright positives.
- Turning back to the additional question on the expected budget impact on family finances, the state detail shows less negative responses from consumers in Vic. By sub-groups, those aged over 55, males, freehold home owners (i.e. without a mortgage), and those on high incomes were also less negative. That said, those aged over 55 and freehold home-owners were the only sub-groups to record a material improvement vs last year.
- The most negative responses were amongst Qlder's, females, 35-54 year old's and those with a mortgage. Notably the biggest deterioration vs last year was amongst 18-34 year old's – a key age group for prospective first home buyers, suggesting some disappointment around policies aimed at improving housing affordability.
- The direct impact on finances is only one aspect by which a budget can be judged. The pre and post budget responses and other post-budget surveys suggest it was viewed as a fairly 'neutral' factor for the wider economy, a result that is better than the avg read over the last 7yrs.

11. Westpac-MI: Budget impact by age, income



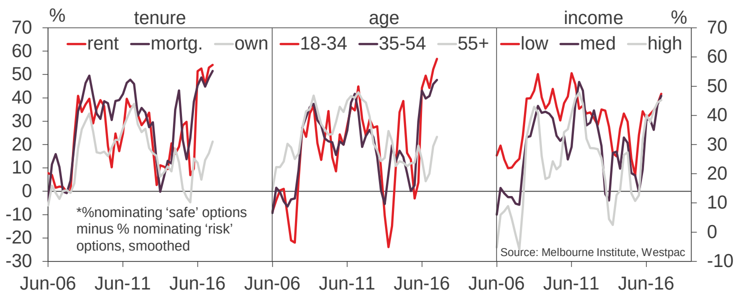
12. Consumers expected Budget impact: finances, economy



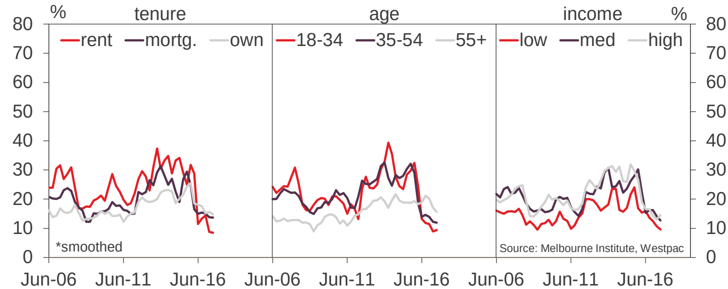
Special topic: savings attitudes

- The Mar, Jun, Sep and Dec surveys include additional questions on the 'wisest place for savings'. Respondents are asked to nominate one of a long list of options that we summarise into: 'super'; 'repay debt'; 'deposits'; 'real estate'; 'shares' and 'other'.
- These categories can be viewed as spanning a spectrum running from safer to riskier options. As such, responses can give us a sense of the degree of risk aversion across the consumer sector. We use responses at a national level to compile the **Westpac Consumer Risk Aversion Index** (p19) which has been a useful guide to a range of risk-related consumer behaviour.
- This issue we take a closer look at the detailed sub-group responses to get a better sense of the drivers of recent shifts. Chart 13 shows risk aversion indexes for selected sub-groups, with charts 14, 15 and 16 showing responses for 'real estate', 'deposits/super' and 'repay debt' respectively across the same groups.
- Nationally, risk aversion rose sharply in 2016 and has remained elevated in 2017, posting another small increase. Notably, whereas the big initial move was led by younger age groups, renters and those with a mortgage, the more recent gain has seen a bigger lift in risk aversion for those aged over 55 and those who own their homes without a mortgage.

13. Consumer risk aversion: selected groups



14. Wisest place for savings: % 'real estate' by selected group



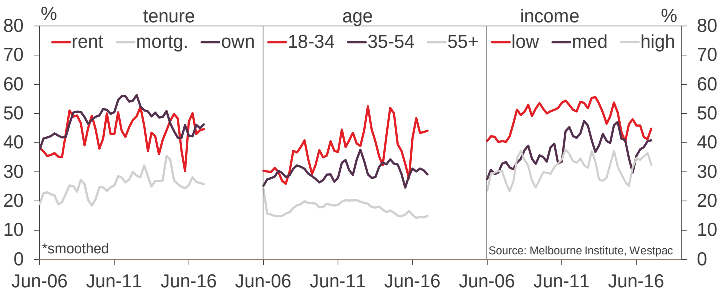
– Real estate is undoubtedly on the nose. Only 13.3% of Australians viewed this as the wisest place for savings in Jun – the second lowest proportion since the survey began in 1974, the lowest being the 11.6% in Mar. The further deterioration over the last year has been marginal but more pronounced for freehold home owners, those over 55 and low income households (noting that the latter will be heavily skewed towards retirees).

– The proportion favouring 'deposits/ super' has been steady around 40% throughout the last year and has held around these levels for most of the post-GFC period.

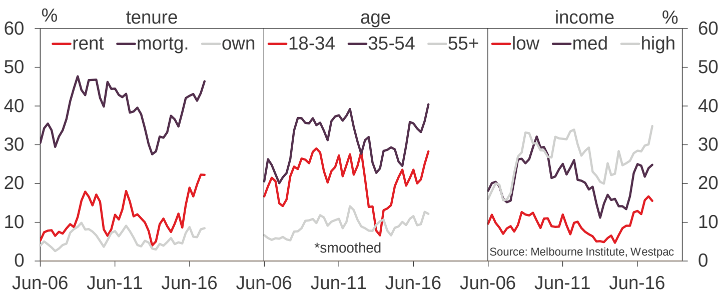
– The sub-group estimates show more volatility on deposits/super making it hard to pinpoint a clear trend. Generally though freehold home owners, and those in older age groups or on higher incomes are less inclined towards these assets.

– Nearly a quarter of Australians favour 'repay debt' as the 'wisest place for savings'. The figure is closer to 45% for the mortgage belt which has driven much of the rise over the last year. Those renting and in younger age groups have also shifted more towards debt repayment (over 55's presumably having less debt to repay). About 35% of high income earners also favour repaying debt.

15. Wisest place for savings: % 'deposits/super' by selected group



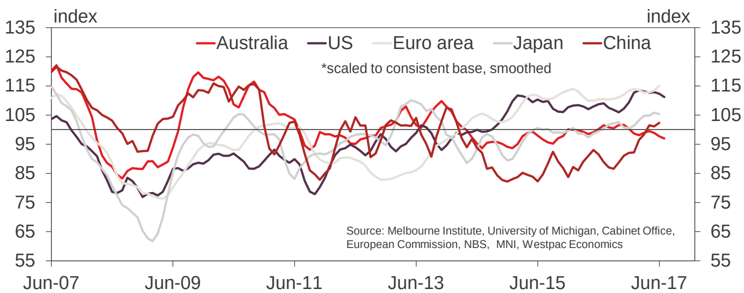
16. Wisest place for savings: % 'repay debt' by selected group



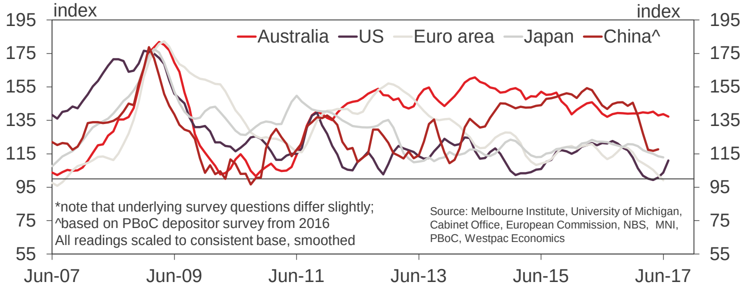
Special topic: global consumer sentiment

- Global economic conditions have shown a noticeable improvement over the last year. The consumer mood also appears to have improved. This section provides an update on similar consumer sentiment measures abroad and our global measure.
- Chart 17 shows sentiment for the major economies and Australia. All measures are scaled so that the average and standard deviation matches the Westpac-Melbourne Institute measure. The picture is striking, whereas sentiment locally is languishing in the mid-90s, abroad it is ranging from equivalent reads of 102 (China), 105 (Japan), 111 (the US) and 115 (Europe).
- Its a similar picture for consumers' labour market views (chart 18). Whereas the Westpac-Melbourne Institute measure at 136 is still above its long run average of 134, measures for the major economies are in the 100-110 range, i.e. implying a significant degree job security.
- Labour market sentiment appears to have improved markedly in China although there is an important caveat here. All measures differ in design but these differences tend to be more significant for labour market measures. Our previous MNI benchmark for China benchmark was also discontinued in 2017, the new measure being from a PBoC survey.

17. Consumer sentiment: Aus vs major economies



18. Consumer unemployment expectations: Aus vs major economies



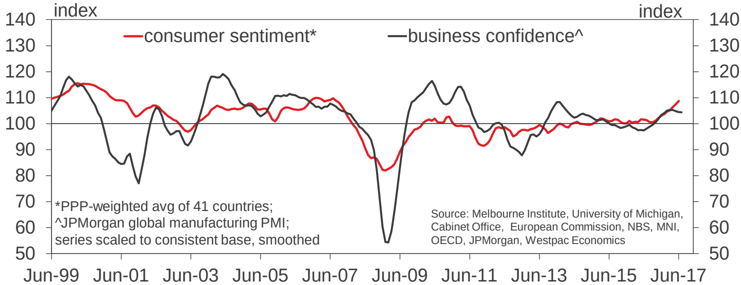
– Chart 19 shows our 'global consumer sentiment' index that combines measures from over 40 different countries accounting for 90% of world GDP. The strength is much clearer on this basis. At 108.8, the global index is at its highest level since Aug 2007 and about 9pts above its post-GFC average.

– Global business confidence has also shown a clear firming over the last year although historical comparisons are not quite as positive. The JPMorgan global manufacturing PMI has been around 104-105 on a comparable basis, near a 3½yr high but below the peaks in 2010-11.

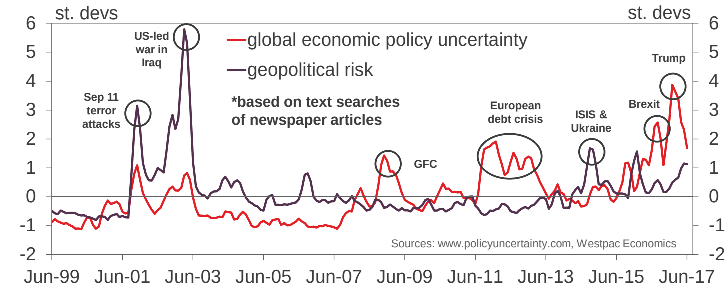
– Interestingly, the lift in both consumer and business confidence has come at a time when other measures suggest the global backdrop has become markedly more uncertain.

– Two of these measures are shown in chart 20: the global economic policy uncertainty index (based on the relative frequency of own-country newspaper articles that contain terms pertaining to the economy policy and uncertainty) and the geopolitical risk index (based on the frequency of terms related to geopolitical tensions). Both indexes are tracking well above their long run averages.

19. Consumer sentiment, business confidence: global measures



20. News-based measures of uncertainty: global



Sentiment indicators: durables, cars

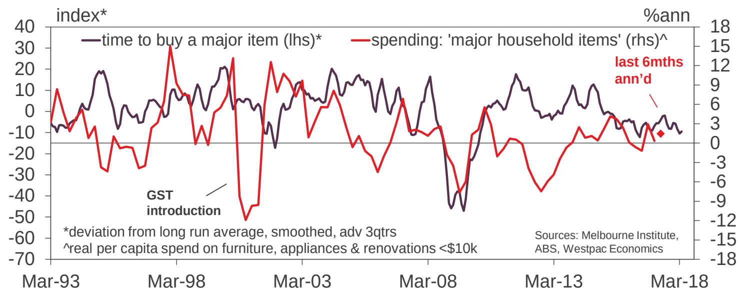
– In contrast to the softer signal from sentiment overall, the 'time to buy a major item' sub-index has firmed in recent months, lifting 2.3% since Apr to be up 1%yr. Despite this, the index remains 5.6pts below its long run average, pointing to positive but subdued growth in per capita spending.

– Durables spending had a weak Q1, recording a 2.4% drop in per capita terms slowing annual growth to just 0.3%yr. Weather disruptions in Qld and NSW appear to account for much of the weakness. Monthly nominal retail sales dipped in Q1 but have shown a strong rebound in Apr-May (up 2.7%).

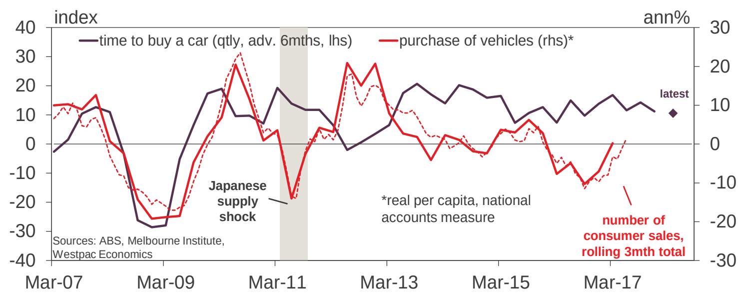
– The sub-index tracking views on 'time to buy a car' has been discontinued from the survey since Jan 2013. We now use the 'time to buy a major item' index to generate estimates on a comparable basis. This lifted 1.1% between Apr and May but with the index still down 1.5% since Oct.

– Actual spending on vehicles looks to be recovering from a significant contraction through mid-2016. The Q1 national accounts showed vehicle purchases up 2.5% in Q1 after stablising in Q4 and falling 8.8% over the previous 12mths. Latest monthly sales point to another 2.5-3% gain for Q2.

21. 'Time to buy major item' vs actual spend



22. 'Time to buy a car' vs vehicle purchases



Sentiment indicators: housing

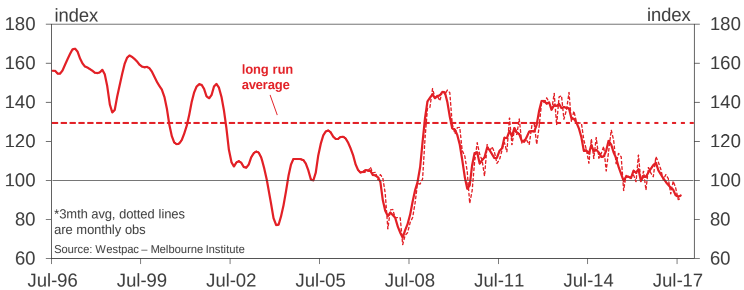
– Conditions in the housing market are starting to show some hints of stabilising. The 'time to buy a dwelling' index lurched lower again in May-Jun but managed to rally 3.1% in Jul. This is the first increase we have seen in 2017, after a cumulative 10% decline over the first half of the year. Moreover, it comes despite further rate increases for 'interest only loans'.

– Recent increases in state government assistance for first home buyers – introduced in NSW, Vic and Qld – appear to have been a factor in the Jul rise with the 'time to buy a dwelling' sub-index for 25–34 year old's surging 36% in the month.

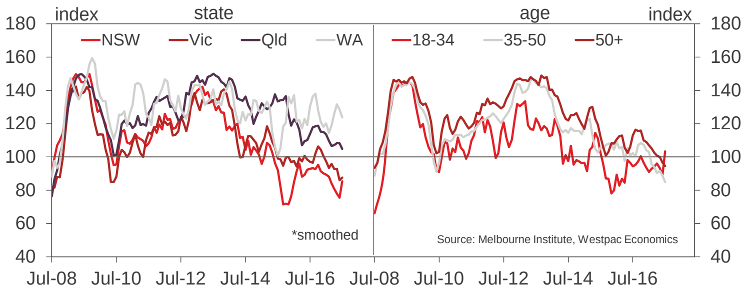
– Some of the lift may also reflect the better than expected performance to date in the key Sydney and Melbourne markets. While most indicators show a clear cooling since the start of the year, the slowdown looks to have been moderate so far. Indeed, wider market turnover has stabilised somewhat over the year to Jun.

– That said, the full impact of macro-prudential tightening has yet to show through. The latest 'time to buy a dwelling' index suggests further softening ahead. For a more detailed state-by-state discussion of the survey's housing market indicators, see our **Housing Pulse** report.

23. 'Time to buy a dwelling'



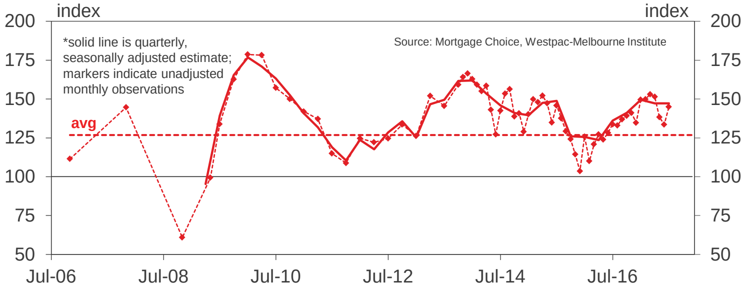
24. 'Time to buy a dwelling' by state, age group



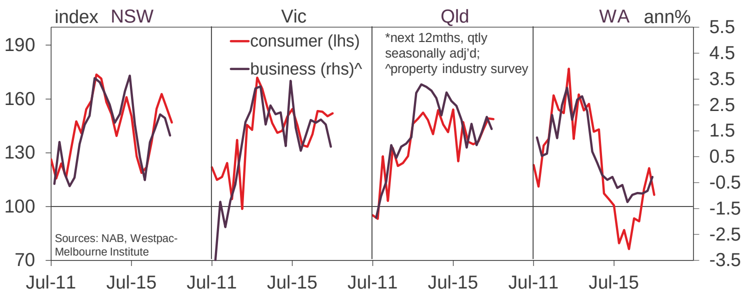
Sentiment indicators: house prices

- The **Westpac Melbourne Institute Consumer House Price Expectations Index** increased 8.6% in Jul, reversing much of the 11.8% fall over the previous two months.
- As noted in previous reports, consumer house price expectations display some seasonality, which we can isolate on a quarterly basis. The Jul observations tend to be slightly more downbeat, likely reflecting the more subdued market conditions through the winter period (auction clearance rates and prices show similar lulls). As such, the resurgence in Jul is a very strong signal that 'underlying' price expectations are holding up.
- Interestingly, the firm reading on consumer price expectations broadly concurs with other survey measures of industry expectations. Chart 26 shows both on a quarterly seasonally adjusted basis for each major state. While price expectations are down across the board, declines are modest with all measures still well above previous lows – Perth being a notable exception (even here though there is a more positive tone than in 2016).
- Of course, as already noted, the full impact of macro-prudential tightening has yet to show through. Given the lags on market reactions and data releases, a full picture is unlikely until Sep-Oct.

25. Westpac-MI House Price Expectations Index



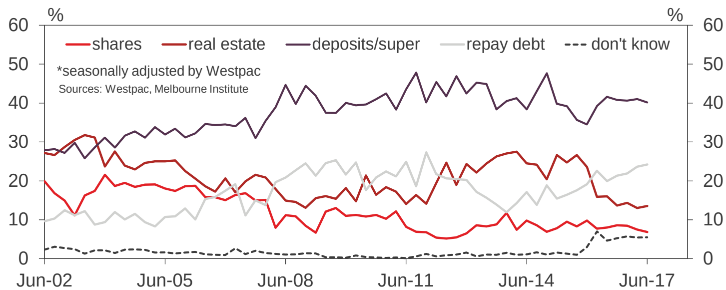
26. House price expectations: consumer vs business



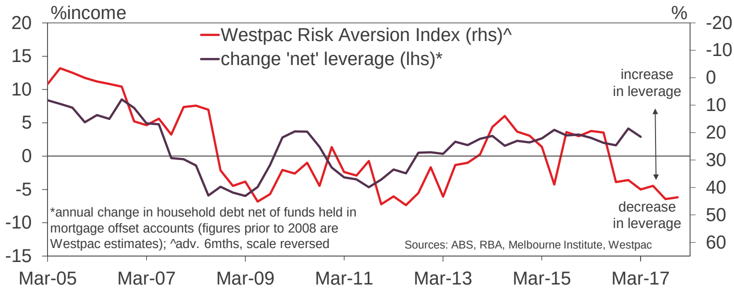
Sentiment indicators: risk aversion

- The June survey included a quarterly update of questions on the 'wisest place for savings' used to construct the **Westpac Consumer Risk Aversion Index**. The results show elevated levels of risk aversion, the Index holding at 43.9 in Jun, vs 44.2 in Mar and 20 at the end of 2015.
- Two out of every three consumers favour 'safe' options – bank deposits, superannuation or paying down debt – over 'riskier' ones such as real estate or shares. The proportion specifically nominating 'pay down debt' remained elevated at 24%. The proportion favouring real estate rose to 13.3% but was coming from a record low 11.6% read in Mar.
- The renewed consumer caution implied by the mix of responses continues to point to higher savings rates and deleveraging although on both counts it is unclear that a shift will come through.
- As noted, the savings ratio has been falling rather than rising (down to 4.7% in Q1 from 6.9% a year ago). While that looks to be due to income pressures than easing risk aversion, there are no signs, even in the state detail, that savings is rising as part of an increase in risk aversion. Similarly the latest data on household balance sheets shows no signs of a return to the deleveraging seen during the risk averse moves in 2008-09 and 2011-12.

27. Consumers: 'wisest place for savings'



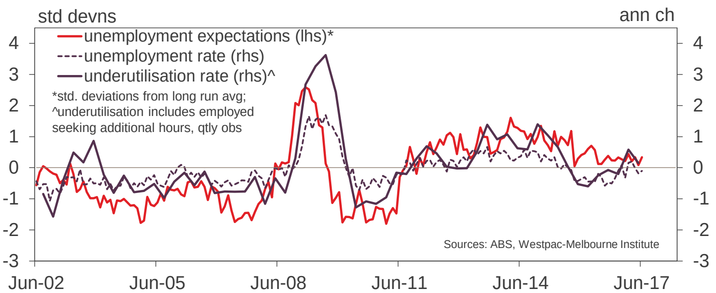
28. Westpac Consumer Risk Aversion Index



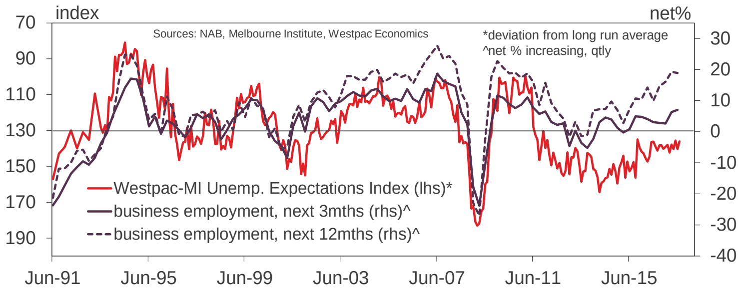
Sentiment indicators: job security

- Confidence around the labour market has been mixed in recent months, improving slightly but with choppy monthly moves. The **Westpac Melbourne Institute Index of Unemployment Expectations** has declined 3.1% since Apr (recall that lower reads mean fewer consumers expect unemployment to rise). At 136, the Index is back at the low end of the narrow 136-145 range it has been stuck in over the last year. The long run avg is 134.
- In contrast, actual labour market conditions have seen a solid improvement, employment rising 154k over the 4mths to Jun and the unemployment rate dropping from 5.9% to 5.6%.
- Other aspects of the labour market that had been notably weaker have also improved over the last 3mths: full-time jobs jumping 111.4k; total hours worked surging 2.1%; retrenchments dropping back sharply and the youth unemployment rate dropping to 13.1% (from 13.7% in Oct). That said, the improvement in 'underutilisation' – a wider measure of slack that includes workers seeking longer hours – is still fairly tentative.
- Private business surveys continue to show strong current momentum. In particular, employment plans for the next 12mths remain at strongly positive levels.

29. Unemployment expectations vs actual conditions



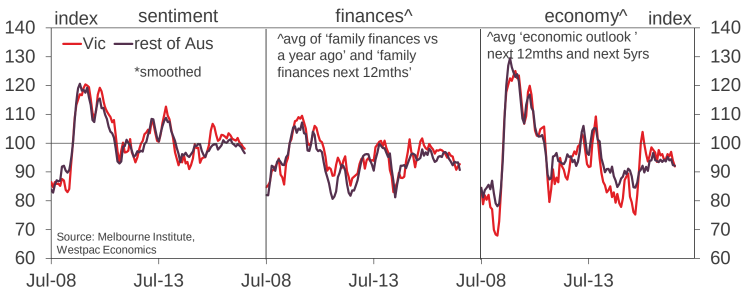
30. Unemployment expectations vs business employment outlook



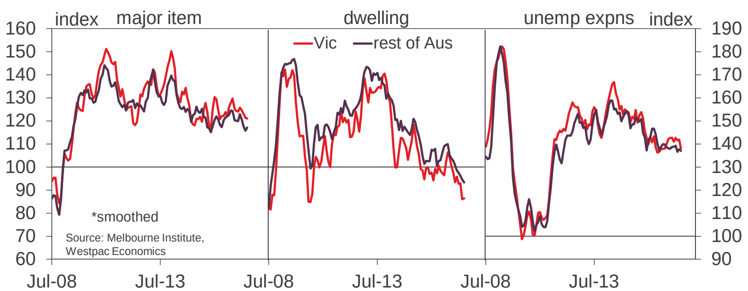
State snapshot: Victoria

- The last time our snapshot looked at Vic, back in Sep last year, the state's consumer mood was unsettled having edged slightly lower over most of 2016 in contrast to a slight firming across the rest of Aus. Since then sentiment across in Vic has tracked in line with the national trend lower, albeit with a slightly stronger overall read that mainly reflects more upbeat views on 'time to buy a major item'.
- The Vic state economy continues to outperform with demand growth lifting again over the last six months. Annual growth is 4.5%, running well above trend and well above the 1.7% pace nationally.
- The state continues to benefit from low exposure to mining sector weakness, very strong population growth, low interest rates; a weaker AUD; and strong job gains in the services sector.
- Sentiment-wise, there is little daylight between any of the Vic sub-indexes and their counterparts for the rest of Aus. The main exceptions is around 'time to buy a dwelling' where Vic consumers are markedly more pessimistic (although sentiment is more positive for non-metro areas). Vic consumers are slightly more risk averse, 'real estate' concerns again to the fore.

31. Consumer sentiment, finances, economy: Vic vs rest of Aus



32. Consumer 'time to buy', unemp exps: Vic vs rest of Aus



Westpac household barometer

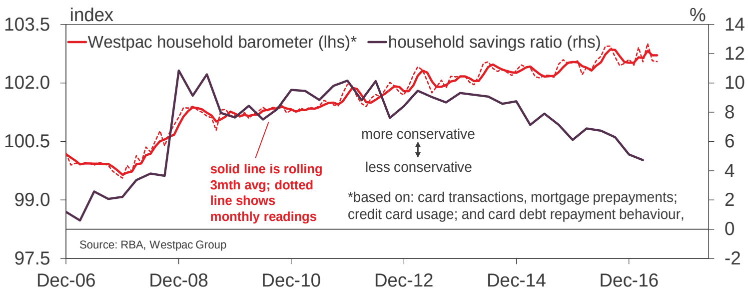
– The **Westpac Household Barometer** draws on a range of data – including system-wide credit and debit card usage from the RBA, and the mortgage repayment behaviour and credit card usage of Westpac customers – to give a broad proxy for consumers' financial behaviour.

– The **Barometer** has been uneven in recent months, likely reflecting some of the factors generating choppy conditions across the wider economy, i.e. weather disruptions in particular. Overall, the measure has nudged up 0.1ppt over the last 3mths, a slight shift to more conservative behaviour.

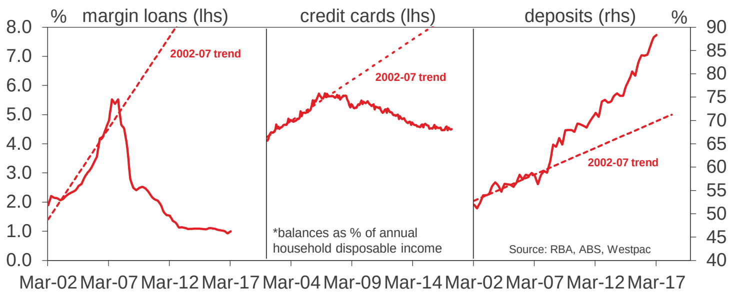
– The **Barometer** continues to point to higher savings rates, broadly consistent with the **Westpac Consumer Risk Aversion Index** although both are moving in the opposite direction to recent declines in actual savings. As such they should be treated as a wider gauge of caution rather than a specific indication of the intense financial and balance sheet adjustments seen during the GFC.

– A variety of system data continues to show consumers taking a restrained approach to their finances. Margin loans, credit card balances and deposit holdings all still showing a clear break from pre-GFC trends.

33. Westpac household barometer



34. Households: margin loans, credit card debt & deposits



Economic and financial forecasts

Interest rate forecasts

	Latest (21 Jul)	Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19
Cash	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
90 Day Bill	1.69	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3 Year Swap	2.11	2.20	2.30	2.50	2.60	2.70	2.80	2.80
10 Year Bond	2.70	2.90	2.95	3.05	3.20	3.35	3.30	3.30
10 Year Spread to US (bps)	44	35	30	15	10	5	0	0
International								
Fed Funds	1.125	1.375	1.375	1.625	1.625	1.875	1.875	1.875
US 10 Year Bond	2.26	2.55	2.65	2.90	3.10	3.30	3.30	3.30
US Fed balance sheet USDtrn	4.52	4.51	4.48	4.42	4.33	4.22	4.10	3.99
ECB Repo Rate	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.30

Exchange rate forecasts

	Latest (21 Jul)	Sep 17	Dec 17	Mar 18	Jun 18	Sep 18	Dec 18	Mar 19
AUD/USD	0.7889	0.74	0.73	0.72	0.69	0.68	0.65	0.65
NZD/USD	0.7423	0.71	0.70	0.69	0.67	0.66	0.64	0.64
USD/JPY	112.04	113	114	115	115	116	116	118
EUR/USD	1.1628	1.13	1.13	1.11	1.10	1.08	1.07	1.06
AUD/NZD	1.0628	1.04	1.04	1.04	1.03	1.03	1.02	1.02

Sources: Bloomberg, Westpac Economics.

Economic and financial forecasts

Australian economic growth forecasts

	2016	2017				2018	
	Q4	Q1	Q2f	Q3f	Q4f	Q1f	Q2f
GDP % qtr	1.1	0.3	0.5	1.1	0.8	0.7	0.7
Annual change	2.4	1.7	1.5	3.0	2.8	3.2	3.4
Unemployment rate %	5.7	5.8	5.6	5.6	5.7	5.9	5.8
CPI % qtr	0.5	0.5	0.6	0.7	0.3	0.4	0.6
Annual change	1.5	2.1	2.4	2.4	2.2	2.1	2.1
CPI underlying % qtr	0.5	0.4	0.5	0.3	0.6	0.7	0.6
ann change	1.5	1.8	1.8	1.7	1.8	2.1	2.1

	Calendar years			
	2015	2016	2017f	2018f
GDP % ann change	2.4	2.5	2.3	3.0
Unemployment rate %	5.8	5.7	5.7	6.2
CPI % ann change	1.7	1.5	2.2	2.4
CPI underlying % ann change	2.0	1.5	1.8	2.3

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.

Consumer data and forecasts

Consumer demand

	2016				2017			
% change	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2f**	**Q3f**	**Q4f**
Total private consumption*	0.8	0.5	0.3	1.0	0.5	0.8	0.7	0.7
annual chg	3.0	2.8	2.2	2.5	2.3	2.6	3.1	2.8
Real labour income, ann chg	2.4	1.8	1.7	0.3	0.0	1.0	0.6	2.4
Real disposable income, ann chg**	2.8	1.8	1.5	1.8	0.4	0.6	0.9	2.1
Household savings ratio	6.9	6.7	6.3	5.1	4.7	4.5	4.1	4.3
Real retail sales, ann chg	3.0	2.4	1.5	2.0	1.2	1.3	2.6	3.1
Motor vehicle sales ('000s)***	933.9	921.6	929.9	915.9	968.6	956.2	964.6	950.6
annual chg	2.0	1.0	-0.8	-1.5	3.7	3.8	3.7	3.8

	Calendar years			
	2015	**2016**	**2017f**	**2018f**
Total private consumption, ann chg*	2.7	2.6	2.7	2.8
Real labour income, ann chg	0.8	1.5	1.0	2.0
Real disposable income, ann chg**	1.1	2.0	1.0	2.2
Household savings ratio, %	7.1	6.3	4.4	3.7
Real retail sales, ann chg	3.2	2.3	2.1	3.9
Motor vehicle sales ('000s)	923.7	925.3	960.0	944.6
annual chg	4.1	0.2	3.7	-1.6

Notes to pages 25 and 26:
* National accounts definition.
** Labour and non-labour income after tax and interest payments.
*** Passenger vehicles and SUVs, annualised
^ Average over entire history of survey.
^^Seasonally adjusted.
Net % expected rise next 12 months minus % expecting fall (wage expectations is net of % expecting wages to rise and % expecting flat/decline).
Note that questions on mortgage rate, house price and wage expectations have only been surveyed since May 2009.

Consumer data and forecasts

Consumer sentiment

	2016				2017	
% change	**avg^**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**
Westpac-MI Consumer Sentiment Index	**101.5**	**102.4**	**101.3**	**97.3**	**97.4**	**99.6**
family finances vs a year ago	89.6	89.1	88.0	86.2	79.7	82.9
family finances next 12 months	107.8	105.2	104.3	102.5	102.8	103.9
economic conditions next 12 months	90.5	96.0	96.6	91.6	93.9	96.6
economic conditions next 5 years	91.0	95.3	94.0	91.6	90.3	91.8
time to buy major household item	127.6	126.5	123.4	114.8	120.4	123.1
time to buy a motor vehicle	124.8	137.4	135.8	131.3	134.3	135.7
time to buy a dwelling	120.8	105.7	100.3	102.9	100.9	93.0
Westpac-MI Consumer Risk Aversion Index^^	**11.7**	**–**	**–**	**39.4**	**–**	**–**
CSI±	**103.0**	**95.1**	**94.0**	**91.0**	**90.5**	**91.8**
Westpac-MI House Price Expectations Index#	**126.9**	**139.2**	**141.1**	**134.8**	**149.6**	**149.9**
consumer mortgage rate expectations#	43.4	–	–	–	–	55.7
Westpac-MI Unemployment Expectations	**129.8**	**138.2**	**140.2**	**139.1**	**138.0**	**142.3**

	2017				
continued	**Mar**	**Apr**	**May**	**Jun**	**Jul**
Westpac-MI Consumer Sentiment Index	**99.7**	**99.0**	**98.0**	**96.2**	**96.6**
family finances vs a year ago	78.5	85.2	82.6	81.4	82.3
family finances next 12 months	103.7	106.2	99.7	102.8	98.4
economic conditions next 12 months	98.1	91.7	95.9	91.3	92.9
economic conditions next 5 years	95.3	92.7	96.6	88.6	87.3
time to buy major household item	122.9	119.3	115.2	117.1	122.0
time to buy a motor vehicle	135.7	133.8	131.7	132.7	135.4
time to buy a dwelling	99.6	96.3	90.0	90.9	93.7
Westpac-MI Consumer Risk Aversion Index^^	**44.2**	**–**	**–**	**43.6**	**–**
CSI±	**90.2**	**91.7**	**88.4**	**89.4**	**89.8**
Westpac-MI House Price Expectations Index#	**153.1**	**151.4**	**138.3**	**133.6**	**145.0**
consumer mortgage rate expectations#	–	–	–	–	–
Westpac-MI Unemployment Expectations	**137.9**	**140.3**	**135.5**	**140.3**	**136.0**

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