Morgan Stanley

INVESTMENT MANAGEMENT

Global Multi-Asset Viewpoint

Australia Housing Bubble Starting to Deflate

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Australia has indeed been a lucky country, enjoying a 28-year stretch without an official recession.[1] Employment has grown every year since 1994, corporate profits are at a record high, and migration to the land down under has grown every year since 1990 by roughly 140,000 people.[2] But cracks in the facade are beginning to appear.

With ubiquitous prosperity, cheap money, and tax breaks for home owners and investors, the Australian housing market had been on a record tear for nearly 30 years. After rising about 250% from 1989 to the early 2000's, similar to the U.S., Australian home prices then more than doubled by the end of 2017 (even as U.S. home prices crashed and only recently recovered their mid-2000 highs). As a result Australia now sits on top of a housing bubble and, as is usually the case, on top of a credit bubble *(Display 1)*.

The usual outcome of a housing-driven credit bubble is a housing and banking bust. This is what occurred in the past few decades in most countries with similar conditions, such as Japan, the U.S., Spain, the Netherlands, Denmark, Ireland and Greece. The catalyst for the bust is most often higher inflation and higher interest rates, which result in higher mortgage rates. The higher cost of money to purchase homes usually triggers a slowdown in home sales, as first-time home buyers and other purchasers—often speculators—find homes increasingly unaffordable due to the combination of high prices and higher financing costs.

In Australia, consumer price inflation never really rose much after the Global Financial Crisis and has been at or just below the lower end of the 2%-3% target range for nearly five years, so policy rates have been falling for 10 years (save for a brief attempt at normalization

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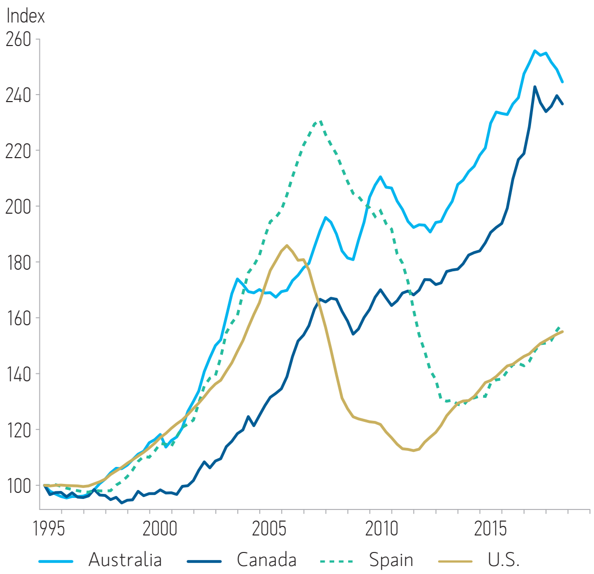
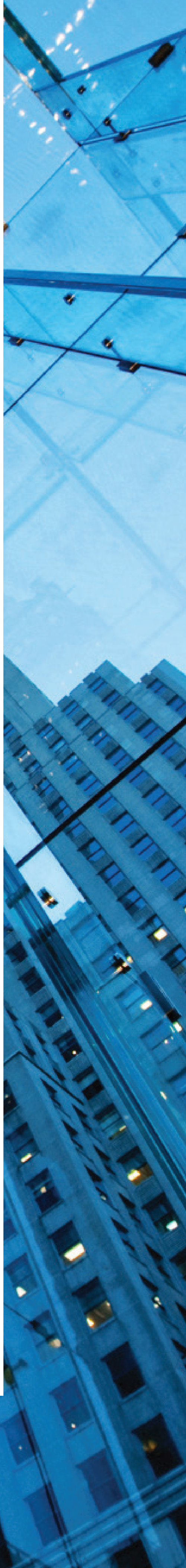
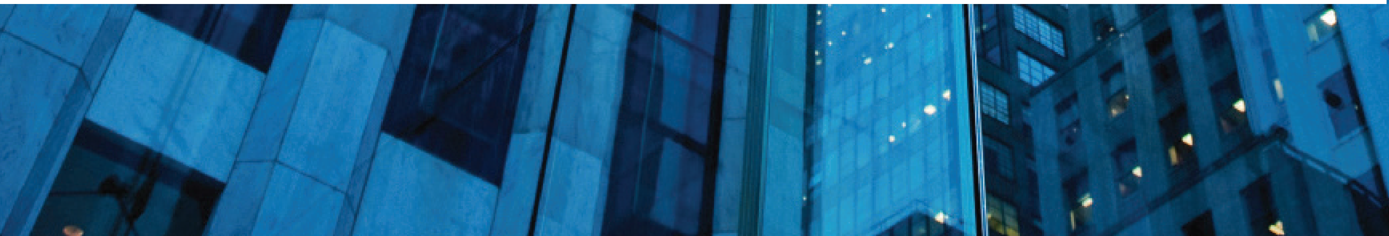
Display 1: **Australia's Housing Bubble Beginning to Deflate**

Australia Home Price Rise Has Exceeded the U.S. & Spanish Bubbles



All expressed in inflation-adjusted returns and indexed to 100 in 1995.
Source: MSIM Global Multi-Asset Team Analysis, BIS, Haver.
Data as of February 28, 2019.



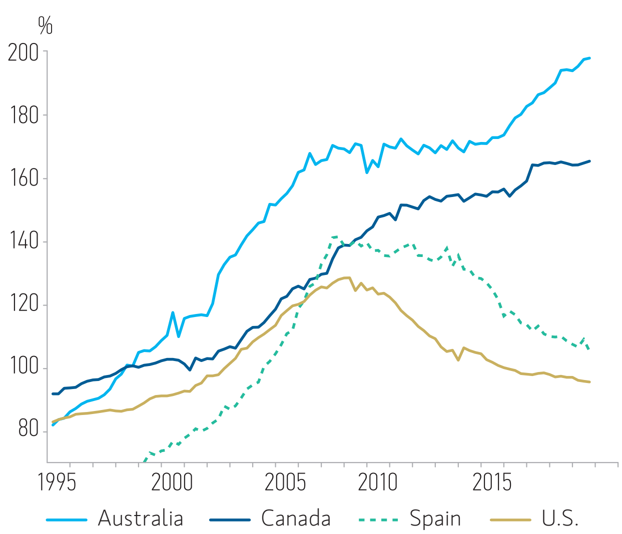


in 2010). However, though the Reserve Bank of Australia (RBA) stayed very accommodative due to quiescent inflation, the regulator (Australian Prudential Regulation Authority, or APRA) became concerned by the type of lending banks were doing and began taking a series of regulatory actions. Cumulatively, these caused a tightening in lending standards and were the catalyst for the beginning of the unwind of Australia's housing and credit bubble.

How big is Australia's housing and credit bubble? By some measures, it is bigger than the bubbles which eventually burst in the U.S., Japan, and Spain and bigger than Canada's and Sweden's which have not (yet) burst. Australian households now owe debt equivalent to 200% of their gross disposable income, higher than the U.S. peak of 130% and Spain's peak of 140% *(Display 2)*. Even in Sweden and Canada, household debt to disposable income is lower than Australia, at 178% and 166%, respectively. According to the Bank of International Settlements (BIS), Australian households spend 16% of their income on debt service—more than almost any other country in the world. In the U.S., on the same BIS measure, households spend half as much (or 8%) of their income on debt service, and Spanish households reached 12% at the peak. Canada and Sweden are high but still only 13% and 11%, respectively.[3] It is clear what Australian households have been doing with the debt they have been piling up: buying homes at higher and higher prices.

Display 2: **Australia Household Debt Reaches an Extreme**

Household Debt as a Percentage of Gross Disposable Income



Source: MSIM Global Multi-Asset Team Analysis, Haver, BIS. Data as of February 28, 2019.

Home prices in Sydney soared 75% in the five years through mid-2017.[4] By the end of 2018, Australian home prices were among the least affordable major markets in the world based on median home price to median household income (at 5.7x nationally, with Sydney at 11.7x), behind only Hong Kong (20.9x) and New Zealand (6.5x). Most other developed countries are in the 3.0x to 5.0x range (with the U.S. for example at 3.5x, Canada at 4.0x and U.K. at 4.8x).[5]

We would argue that a significant portion of the home price and credit explosion in Australia is due to essentially free money (i.e. zero or negative real interest rates) for the past six years. However, despite the staggering growth in household credit (and to a lesser extent, corporate credit)[6] extended by the banking system and home price appreciation close to 10% in each of the last five years, the Reserve Bank of Australia (RBA) implicitly abdicated responsibility for the credit and housing bubbles, as many central banks elsewhere have done (e.g., the Federal Reserve between 2002 and 2006). The central bank decided that, since consumer price inflation was below target, real interest rates should stay at zero or negative levels in order to stimulate consumption and investment. Clearly, central banks can set the price of money but cannot direct where it goes. Eventually, Australia's regulator (APRA) noticed that a lot of the credit extended by banks probably did not meet the basic criteria for prudential lending, namely that borrowers ought to be able to meet interest payments with their income. Instead, households have been making speculative, levered bets on the prices of homes (that they don't live in and hold at a loss).

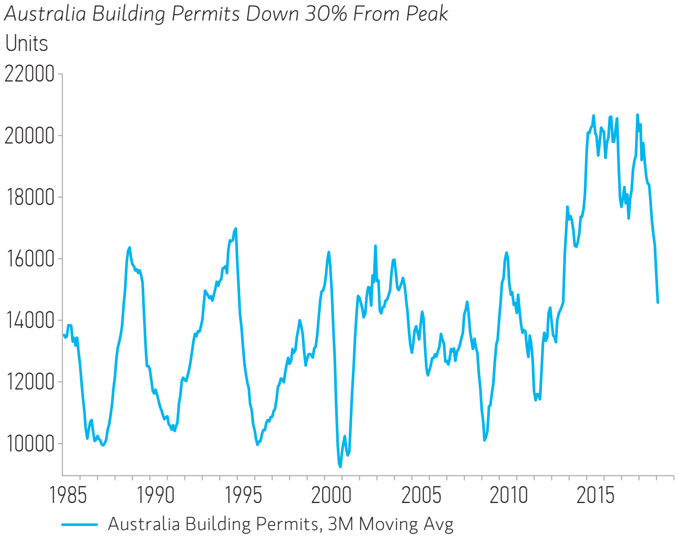
Beginning in 2014, APRA has handed down a variety of regulatory edicts, first limiting growth in loans to "investors", then restricting interest-only loans as a share of new issuance. In response, "investor" loan approvals fell by 40% (declining from nearly 43% of new loan origination at the peak to 30%) and interest-only loans fell 69% (declining from 46% of new loans to 15%), contributing to a drop in total new loan approvals. Although APRA is pulling back on rules limiting investor loans, a new set of rules is in the process of being implemented which will force banks to assess whether borrowers can meet payments on all their borrowings (rather than assessing ability to pay only the mortgage under review by that bank).

In April 2018, APRA informed banks that they must develop internal limits on new lending to borrowers with high debt to income ratios (defined by APRA as >6x). While banks have begun implementing internal limits, they are still underestimating debt to income ratios, as they can only see loans issued by their own bank, but not other banks. A new comprehensive credit reporting (CCR) system is being implemented (aggregating household debt and income data across all banks) which will provide banks with total borrower debt levels. Based on data released during the Royal Commission Review in 2018, 20% of loans examined by APRA were to borrowers with greater than 6x debt to income ratios, and more than 5% of borrowers had ratios over 10x. In addition, another 8% of loans were granted to borrowers who supplied incorrect living expense data; had they provided correct data, they would have been denied the loan. Furthermore, the loans examined were originated between 2015-2016, while it is believed that lending quality since then has deteriorated further. We expect that, as a result, new loans could drop a further 20% as it becomes clear that many borrowers or would-be borrowers with multiple loans outstanding would not meet the new prudential criteria. This would likely cause new loan originations to decline 40% peak to trough and total credit growth would slow to roughly 0% (from over 4% currently).

Thus, in the case of Australia, rather than higher policy rates as in a traditional housing downturn, macroprudential regulatory measures have been the mechanism by which demand for housing has been curtailed. Traditionally, the slowdown in home purchasing activity occurs at a time when new homes are being built at a frenetic pace. Falling demand meets rising supply, increasing inventories -- pushing prices lower. Lower prices further scare off speculators while inventories climb higher. Builders begin to run into cashflow problems, as do real estate speculators, who bought homes on leverage, with financing and maintenance costs exceeding rental payments. Banks seeing rising late payments and delinquencies, as well as collateral values dropping, tighten lending standards and lower credit lines. Fewer new home buyers need furnishings and appliances. Speculators are also consumers and they start cutting back on household goods purchases. Now the housing slowdown has spread to consumption, and businesses feel the pinch: weaker revenues mean weaker profits, and when profits weaken, so does hiring and capital spending. Unemployment rises, incomes weaken and housing purchases fall further, dragging home prices even further down. By now, the authorities have typically realized the housing boom has turned into a bust and are actively trying to cushion the slowdown by cutting policy rates. But banks, now stung by rising non-performing loans and falling collateral values, tighten standards so that mortgage rates are falling but few are able to take advantage of this. Few businesses want to borrow, banks are hesitant to lend, and a vicious cycle takes hold. While housing activity and prices collapse, inventories skyrocket, and all the fraud that accompanies a bubble - the "bezzle" as the late Charles Kindleberger, a pioneer in the study of manias, panics and crashes, used to call it - is exposed. The housing market creates an economy-wide recession. Eventually prices overshoot to the downside so much that houses become attractive to non-levered investors who don't need financing and to first-time home buyers who can now finally afford a new home. The cycle is complete.

Display 3: **Australia Housing Permits Are Crashing As Bubble Deflates**

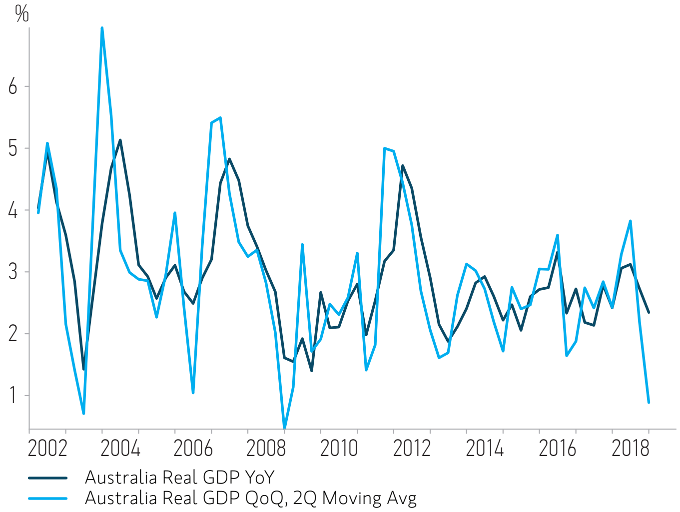
Australia Building Permits Down 30% From Peak



Source: MSIM Global Multi-Asset Team Analysis, Australian Bureau of Statistics. Data as of February 28, 2019.

Display 4: **Housing Slowdown Impacting Broader Economy**

H2 2018 Australia GDP Grew at the Slowest Pace Since 2008



Source: MSIM Global Multi-Asset Team Analysis, Haver. Data as of February 28, 2019.

Australia is now still only in the first stages of its housing down cycle: new mortgage loans are down 20% from the peak and home prices have fallen nearly 10% from the peak eighteen months ago. With permits down 30% *(Display 3)*, builders are already cutting back on construction, which has now detracted from growth for two quarters, after hitting a peak of 4% of the economy in 2Q2018 (nearly a 60-year high). Unfortunately, record supply has just been hitting the market in the past year, right at the time as demand is hitting the skids. With the release of fourth quarter 2018 GDP (+0.7% qoq saar), it is becoming clear that the spill-over into the broader economy is just starting *(Display 4)*. Consumption has now grown at a sub-2% pace for two quarters, half the level of growth of the prior five years. Some of the bigger declines are being seen in car sales, which are now down 11% from the recent high. The spillovers to the employment and broader non-mining capital spending have yet to occur but are around the corner. This will lead to the beginning of the long rise in delinquencies, bad debts and eventual charge-offs.

In our estimation, Australia faces a banking bust which has not yet begun. Before it is over, home prices are likely to correct by 30% peak to trough, with big increases in defaults in mortgage, consumer, and corporate loans.[7] As a result, banks' non-performing loans (NPLs) are likely to at least quintuple, admittedly from near record low levels, to the highest levels since the early-1990s.[8] Banks' profits will ultimately halve or even disappear, dividends will be cut and recapitalization will likely be required for at least some of the banks.

Even though loan growth has slowed to 4.3%, with personal loans already shrinking, Australian banks are still overearning. Their return on equity (ROE) stands at 12.5% vs. 9.5% in the rest of the world *(Display 5)*. A few years ago, ROEs were at 15% but they have held up reasonably well because provisions for bad loans are still at record lows of only 12 basis points of loans. Analysts still expect bank profits of +3-7% for the next few years. This year, with only a modest increase in NPLs from 0.3% to roughly 0.7% on their way to an eventual 2% or higher, we expect provisions to increase from 12 basis points to 60 basis points. This means earnings are likely to be down near 40% in 2019 alone. But this is nowhere near the full extent of provisions likely to be necessary. Ultimately, banks are likely to need to provision 100-200 basis points of loans for a couple of years (note during the U.S. housing crisis, bank provisions rose as high as 350 basis points) causing bank earnings to disappear, and potentially forcing the elimination of dividends.

Display 5: **Australia Banks are Still Overearning**

The End of the Housing Boom Will Structurally Depress Australia Bank Profitability

Source: MSIM Global Multi-Asset Team Analysis, Factset. Data as of February 28, 2019.

With Australia's economy already undershooting potential in the second half of 2018, and the credit and housing bubble unwind further impacting economic growth in 2019, we expect the RBA, despite its protestations to the contrary, to cut interest rates by this summer. As with most central banks in countries suffering a credit and housing bust, the ultimate destination will be zero interest rates, possibly by the end of 2020.

We identify three potential ways to position for the worsening of the housing downturn:

- Overweight or long Australian government bonds (FX-hedged): if policy rates do eventually end up at zero, three year bonds could rally by 100 basis points from current levels of 1.63%.
- Underweight or short Australian banks: Australian banks currently trade at 12x forward earnings per share (EPS), but those earnings embed analyst expectations of +7% and +3% EPS growth in 2019 and 2020, respectively. Based on our analysis (-40% EPS declines over the next 12 months), forward multiples are actually close to 21x (roughly 70% above average). High dividend yields do increase the cost of underweighting / shorting, but given that the banks pay out 75% to 80% of their earnings in dividends, a 40% cut to earnings could mean dividends fall even further as banks seek to preserve capital.
- Underweight or short the Australian dollar. Given Australia's very large mining export sectors, the AUD is a function of both commodity prices (driven by China demand and supply dynamics) and local interest rate spreads relative to the rest of the world. Clearly, rate spreads are likely to go 100-150 basis points against the AUD as the RBA cuts rates, but commodity prices (iron ore in particular), which have historically been the more important driver of AUD, are entirely independent of Australia's domestic economy and monetary policy. As a result, though it is likely to depreciate, the AUD is a more indirect play on the Australian housing downturn.

How can Australia potentially avoid this severe (though relatively classic) downturn? There are a few factors that could moderate or cushion this downturn:

- Even though Australia's household sector is one of the most indebted in the world, its government's balance sheet is pristine, particularly compared to other developed market countries: gross government debt as a percentage of GDP is only 37% according to the BIS (versus 61% in Germany, 86% in the eurozone, 98% in the U.S., and 201% in Japan).[9] This means that the government has a fair amount of room to spend/invest to offset the housing downturn. The only issue is that government spending and investment has already been contributing 100-125 basis points to economic growth in recent years, and increasing that would be inconsistent with current budget plans. However, in a recession, it is likely that budget plans will be revised to include counter-cyclical stimulus.
- Unlike many countries where prior banking busts have forced central banks to drop rates to zero or below, the RBA has some modest room to cut rates to stimulate new lending and lower debt servicing costs for existing borrowers. Unfortunately, it appears that the Governor of the RBA is currently suffering from the same delusion that affected former Federal Reserve Chairman Ben Bernanke (who in 2005 said "…fundamentals are also very strong. We've got a growing economy, jobs, incomes. We've got very low mortgage rates. We've got demographics supporting housing growth. We've got restricted supply in some places […] we've never had a decline in house prices on a nationwide basis."[10] Similarly, RBA Governor Lowe recently noted: "the adjustment in our housing market is manageable for the overall economy […] the housing market is not a financial stability issue. We have not experienced the very loose lending practices that were common in the U.S. before the housing crash there a decade ago").[11] This implies that the RBA will likely lag in its response to a housing and broader

economic slowdown. Despite this, we expect the RBA to cut rates by 50-100 basis points by year-end, likely to zero or near-zero in 2020. This will help to soften the blow from the housing bust but not prevent it.

- As discussed earlier, APRA catalyzed the peak in the housing market by tightening regulations around mortgage loans, particularly to "investors" and highly-levered borrowers (with loans greater than 6x their income). This led to a drop in new home loans. If APRA were to reverse course and allow banks to provide loans to highly-levered borrowers, this might allow for a stabilization (though probably temporary) in new housing loans which would support housing demand and potentially slow the current home price decline. We view this as very unlikely as these tightened regulations were actually long overdue and are in-line with APRA's regulatory mission.

We have chosen to overweight Australian bonds and to also underweight Australian banks, as they are expensive in our opinion, likely to significantly miss analyst earnings expectations, and are still considered defensive by most investors. However, this defensiveness was due to the steadiness of Australia's housing market when, over the past 12 years, the U.S. banking system, the European periphery and commodity prices each collapsed. Now we believe it is unfortunately Australia's housing market's turn.

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FOOTNOTES

1 This is partially a statistical artefact, resulting from the country's enormous mining export sector. Australia actually experienced two "income" recessions, in 2009 and in 2015, when Gross Domestic Income (usually equal to Gross Domestic Product in most countries) suffered commodity price-driven hits.

2 MSIM Global Multi-Asset Team analysis; Parliament of Australia.

3 MSIM Global Multi-Asset Team analysis; Bank of International Settlements, as of 3Q18.

4 MSIM Global Multi-Asset Team; Bloomberg.

5 MSIM Global Multi-Asset Team; 15th Annual Demographia International Housing Affordability Survey: 2019 (Data as of 3rd Quarter 2019).

6 Many corporates fund via the bond market.

7 MSIM Global Multi-Asset Team estimates.

8 MSIM Global Multi-Asset Team estimates; Haver Analytics.

9 MSIM Global Multi-Asset Team analysis; Bank of International Settlements, data as of 3Q18.

10 Bernanke, Benjamin, Chairman of the Council of Economic Advisers. CNBC interview, July 1, 2005.

11 Lowe, Philip, Governor of the RBA. "The Housing Market and the Economy." Address to the AFR Business Summit. Sydney, Australia. March 6, 2019.

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