

Comparing US and Australian Residential Mortgage Delinquencies through the Bubbles and Their Aftermaths

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Perhaps the most commonly cited argument for Australia – after participating in the synchronized global house price bubble – not participating in the synchronized popping is that “we did not have significant subprime lending”.

I have stated in my previous paper “Australia’s House Price Bubble and Forecast for Brisbane House Prices” that I consider this argument to be flawed. The definition of “subprime” is fairly loose in any case. And, on the ground in Australia, it is clear to everybody that credit flowed plentifully and there are frequent anecdotes of people on meagre incomes (eg pensions) obtaining large mortgages through “prime” channels.

To augment my earlier paper, I have been attempting to track down data on residential mortgage delinquency rates in Australia to compare with the US experience, and with movements in house prices. This has proved challenging – it is important to ensure that methodologies are consistent to ensure that you are actually comparing apples with apples. I am unaware of any published research of this type.

I found the Fitch Ratings website excellent for this task. I was unable to obtain raw data, but I found two very useful graphs – 1) of US residential mortgage delinquencies for each category of loan (“prime”, “subprime”, and “Alt-A” which is essentially between the two) (Slump 2008); and 2) of Australian residential mortgage delinquencies grouped by period of delinquency (McCarthy et al. 2008).

The graph of US mortgages (upper graph in Figure 1) is of monthly defaults – undefined, but presumably 90+ day delinquent loans – for each of prime, subprime and Alt-A mortgage types. I have indicated on this graph the point in time at which the Case-Shiller 20 city index peaked. Note that between late 2001 and early 2006, delinquency for subprime loans generally fell – the rate for Alt-A was much lower, and though difficult to tell with this scale, probably followed a similar path – and prime stayed low.

It is very important to note that, while it is obvious from this graph that the uptick in delinquency commenced around July 2006, if the X axis finished at this point (in other words, if this graph were prepared in late 2006) there would be very little indication that a strong uptick was about to occur (just put a sheet of paper over the graph at the arrow for an interesting exercise).

The graph of Australian delinquencies (lower graph in Figure 2) is of 30+, 60+ and 90+ day delinquent loans on Australian residential mortgages. The source data, at March 2008, included 947,000 loans with an outstanding value of \$160 billion, thus representing about 17% by value of the total housing loan stock in Australia.

In contrast to the US, Australian delinquencies showed a general uptrend between mid 2003 and early 2007. Interestingly, there was a slight dip at the end of 2007, but an uptick in early 2008 is clearly discernible. Between 1 October 2007 and 31 March 2008, the Australian 30+ day mortgage

delinquency rate increased from 1.56% to 1.88% and the 90+ day delinquency rate increased from 0.68%.to 0.73%. That represents a 20% increase in the 30+ day delinquency rate. Neither the overall figure nor the 60+ day delinquency rate is stated in the paper. However, inspection of the graph shows that 60+ day rate at March 2008 was just over 1%, so the Australia’s overall delinquency rate was at least 3.3%.

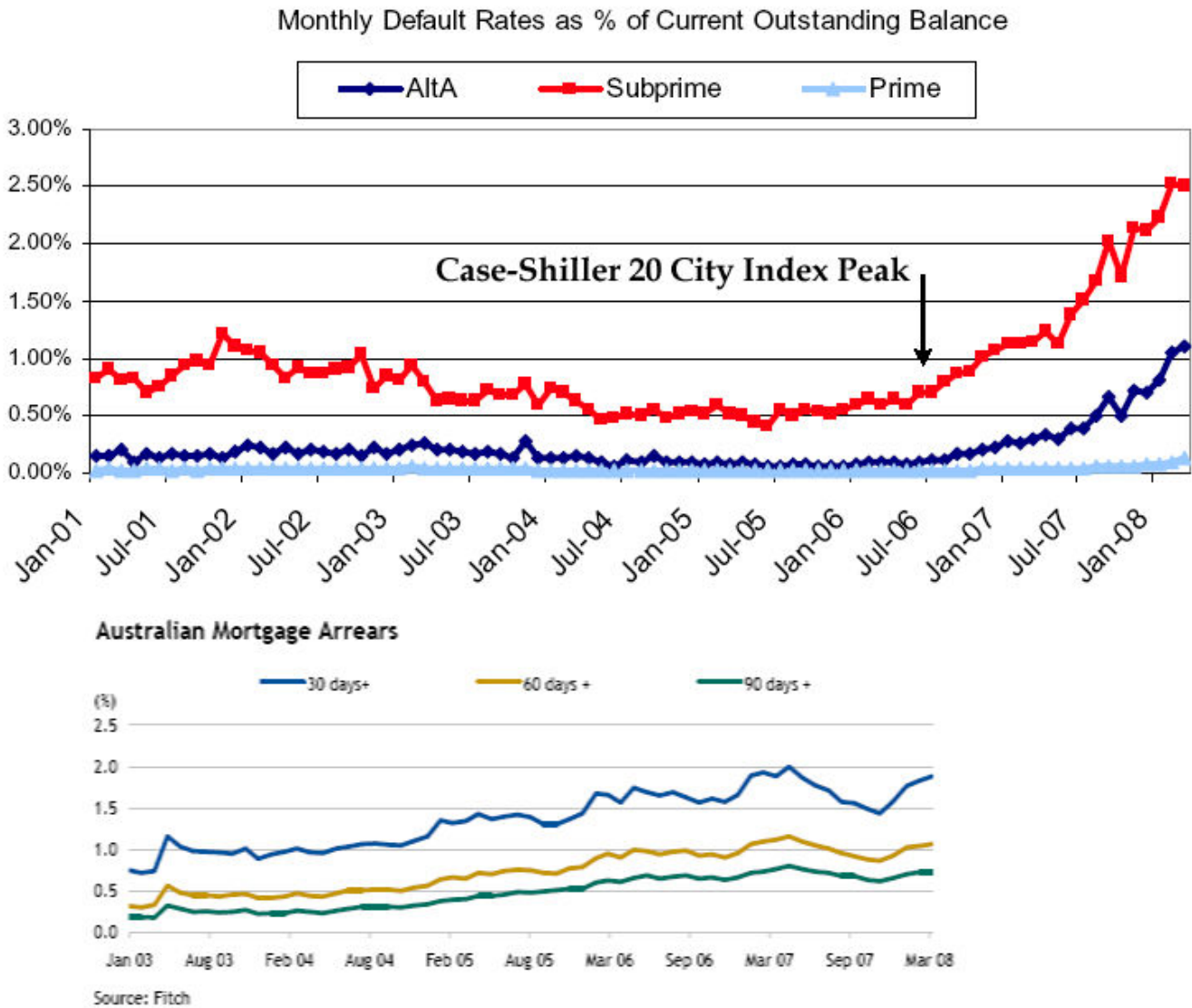


Figure 1 – Two graphs of mortgage delinquency rates reproduced from two separate Fitch Ratings reports. See text for details.

As I was unable to obtain raw data to construct my own graphs, I overlaid the Australian graph on the US graph. Conveniently, the Y axis scale bars had the same periodicity so I was able to align the grid lines. On the X axis, I aligned the peak of the Case-Shiller 20 city index, at June 2006, on the US graph with March 2008 on the Australian graph (the putative peak of the Australian market – similarly to my modeling of Brisbane house prices which is reproduced below for further comparison). The X axis date labels were replaced with numbers denoting quarters relative to the peak. The resultant image is Figure 2.

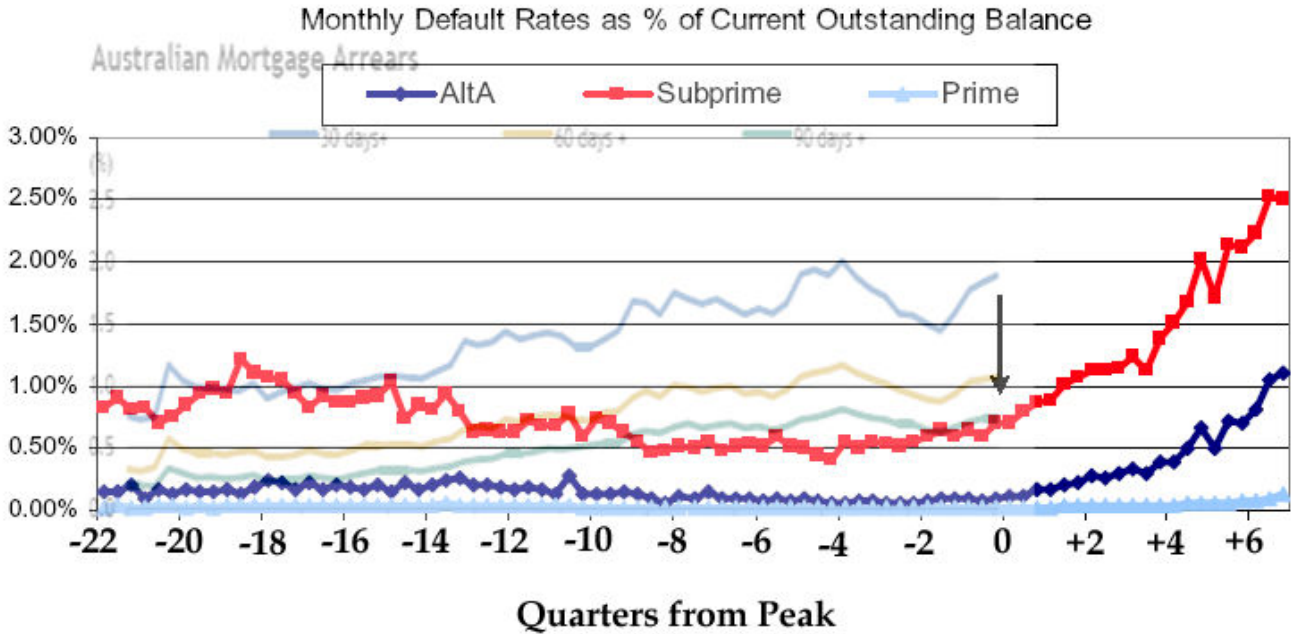


Figure 2 – Overlay of the two graphs in Figure 1 comparing US and Australian residential mortgage delinquency rates.

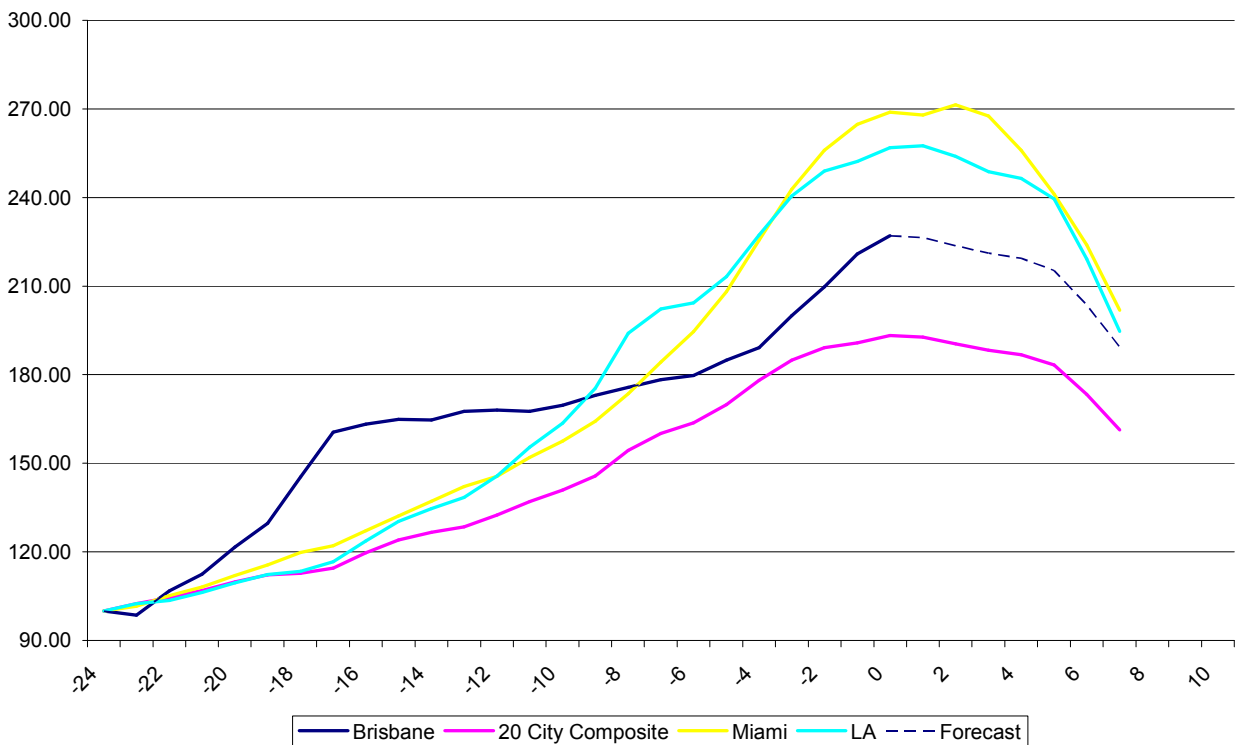


Figure 3 – Forecast of Brisbane house price movements after the putative peak in March 2008 by modeling against US house price movements (from earlier paper “Australia’s House Price Bubble and Forecast for Brisbane House Prices”)

The Australian paper by McCarthy et al. (2008) is a very useful paper because it lists the delinquency rate for each postcode in Australia to build up a regional, state and country picture. At the postcode level, it is not surprising that the highest rates of delinquency were in western Sydney, the highest rate being 6.7%. The top 10 postcodes all had delinquency rates of 5% or more, and 9 were in NSW with the other being Helensvale in South East Queensland.

The authors also ranked Australian regions – which had sufficient data to make meaningful comparisons – in terms of mortgage performance. To get an idea of the spread and rate of increase of delinquency in each state, I calculated the proportion of regions in each state in which the delinquency rate increased by 20% or more in the half year to March 2008. The results for the states with more than 5 regions included in the data set are presented in Table 1.

State	Proportion of Regions
NSW	11/16 (69%)
Qld	7/14 (50%)
Vic	2/13 (15%)
All States	30/54 (56%)

Table 1. Proportion of regions within each state where the delinquency rate increased by 20% or more in the half year to March 2008.

The authors plotted the mortgage performance of each state and found NSW to have the highest delinquency rate, and WA to have the lowest (at just below 1.5%), but the performance of WA was deteriorating rapidly.

Conclusions

The data for Australian mortgages presented by McCarthy et al. (2008) is clearly stated as being based on the value of mortgages. The US data (Slump 2008) are also based on the value of loans, so the comparison is indeed like to like. What is not evident in Slump (2008), however, is how they defined “monthly default rate” – whether they have included all loans which have defaulted at least once (i.e. 30+, 60+ and 90+ day delinquent loans), or just 90+ day delinquent loans. Comparison to another Fitch Ratings paper by Gephart et al. (2007), discussed below, suggests that the data used for this graph are for 90+ day delinquent loans.

A different Fitch Ratings paper (Curran and Rulla 2008) states of the US market “The seasonally adjusted delinquency rate for mortgage loans on one- to four-unit residential properties stood at 6.35% of all loans outstanding at the end of the first quarter of 2008 on a seasonally adjusted basis, up 53 basis points from the fourth quarter of 2007, and up 151 basis points from one year ago, according to the MBA’s National Delinquency Survey.” (Curran and Rulla 2008). Therefore, the delinquency rate increased 31% from 4.84% at the end of first quarter 2007 (9 months after the peak in the Case-Shiller 20 city index).

Based on my calculations herein, this compares with a non-seasonally adjusted delinquency rate for Australia of approximately 3.3% at March 2008, the putative peak of the housing cycle.

An even earlier Fitch Ratings study, by Gephart et al. (2007), found that at December 2006 – 3 months after the peak in the Case-Shiller 20 city index – a fraction over 1% of all US residential mortgages were seriously delinquent which they defined as 90+ days delinquent or in foreclosure.

There is no directly comparable figure for Australia delinquency herein because a) 3 months post the putative Australian market peak would be June 2008 (and there are no data published as yet), and b) the US figure also includes mortgages in foreclosure (and it is not discernible what proportion these make up.)

However, the data do indicate that the 90+ day delinquency rate of Australian residential mortgages at the putative peak of the market was no more than 25% less than the 90+ day delinquency rate of all US residential mortgages 3 months after their market had peaked.

Moreover, and perhaps more concerning, is the fact that the overlaid graphs indicate that **the 90+ day delinquency rate of Australian residential mortgages is roughly equivalent to that for subprime loans in the US at the same stage of the housing cycle (i.e. the house price peak).**

The high level of Australian delinquency already at the presumptive peak of the housing market is at odds with regular public statements from senior staff of large Australian banks.

It will be extremely interesting to see how Australian residential mortgage delinquency rates progress as the bubble continues to pop. Given the deteriorating economic outlook, and the fact that mortgage borrowers have had variable interest rates increased by over 100 and 150 basis points over the last 6 and 12 months, respectively – due to RBA movements in the cash rate and the credit crisis induced bank raisings – and with additional tightening in lending standards, it is highly likely that we will witness an escalation in delinquency rates.

The following is from McCarthy et al. (2008):

“Property prices in New South Wales, and in particular Sydney, stalled at the end of 2003 and this coincided with a rising missed payment rate for this market. The most pronounced property price declines occurred in South West Sydney, where property prices fell as much as 30%. In these circumstances, highly geared borrowers have few options when they get into difficulty, as refinancing or sale of the security property becomes more difficult. This pattern appears to be evident in Western Australia over recent months, where property prices are falling leading to distressed borrowers being unable to refinance or sell the property to repay the loans in full.

Fitch is of the view that rising property prices have masked the true performance of Australian residential mortgage loans and that the experience in South West Sydney - and more recently, Western Australia - provides a window to what performance may look like in circumstances of falling or static property markets.”

This brief study suggests:

- 1) Contrary to bank employee statements, there is no evidence to suggest that Australian lending standards through the housing bubble were any better than in the US. In fact, given the high level of delinquency at the peak of the housing market, in the fullness of time they may be shown to have been inferior to the US;

- 2) As a consequence, there is no empirical evidence based on loan quality, as assessed by delinquency rates, to support the contention that Australian house prices can not decline at the same rate as, or at a greater rate than that, experienced in the US; and
- 3) Likely house price declines in Australia will present a very significant challenge to the profitability of Australian banks.

I will conclude with a sobering quote from an August 2006 Fitch Ratings paper (Baily 2006), just after the peak of the Chase-Shiller 20 city index:

“Despite rising rates and the cooling housing market, performance on outstanding loans generally remains strong as reflected in the rating actions to date in 2006. Across the prime, Alt-A, and subprime sectors, upgrades have outnumbered downgrades by approximately a 4:1 ratio this year.”

Addendum

Those with a subscription to AFR online may wish to check out the article “Fannie and Freddie weigh heavily on markets” by Anthony Hughes in the Australian Financial Review on 14 July 2008. A table in that article shows that “single family loans that are 3 months or more past due date” started 2007 at around 0.6% (rising to be just under 1% at end of 2007). This adds further support to the conclusions reported herein.

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