August RMBS Hedonic Index Update:

Default rates trending higher while prepayment rates drop sharply…

Coolabah Capital Investments

Key Take-Aways:

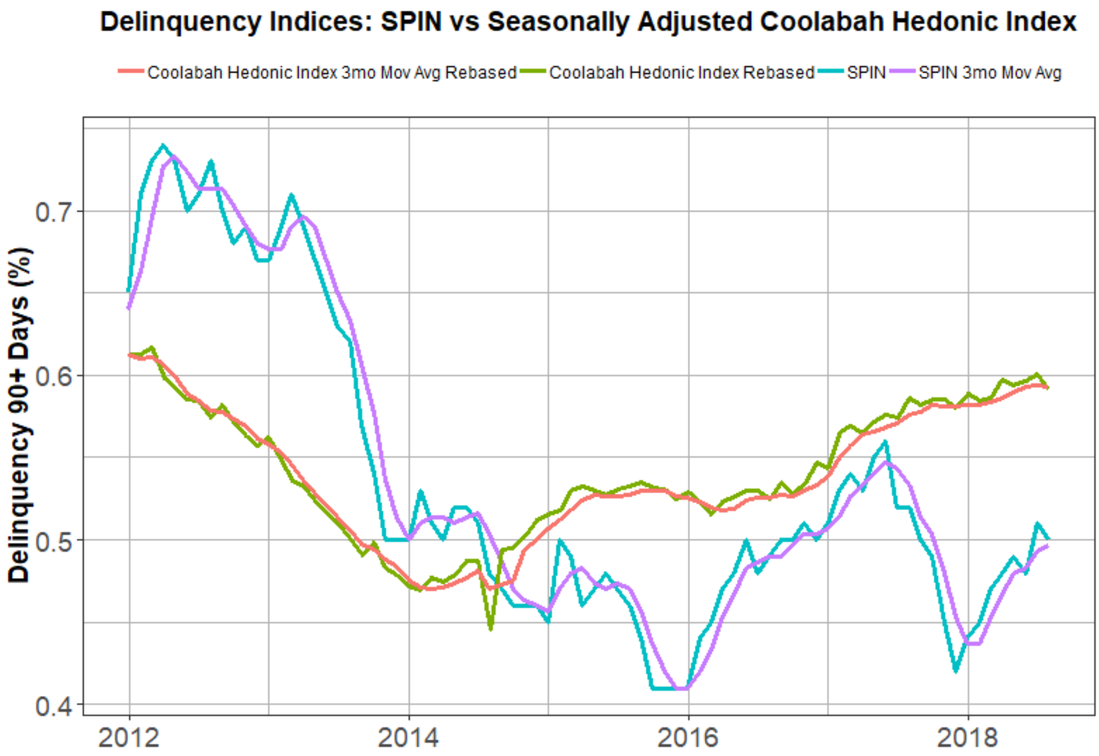
- Contrary to S&P data, Coolabah's globally unique hedonic index of compositionally-adjusted Australian RMBS default rates shows defaults trending higher after controlling for the date of the RMBS issue, the average life of the loans, the average LVRs and geographic biases
- Coolabah has also developed another global first, which is a hedonically-adjusted mortgage prepayment index, which shows Australian prepayments (or CPRs) are slumping sharply lower to the detriment of RMBS investors given this blows out the weighted average life of RMBS bonds
- Since April 2017 Coolabah has argued that Australian house prices would fall by 10%, a forecast recently embraced by ANZ, UBS and PIMCO amongst others. House price falls of 10% or more combined with higher default rates will very seriously threaten the credit ratings on junior RMBS tranches, from the AAA rated ABs and lower. Coolabah believes RMBS spreads are heading wider as this process unfolds over the next 1-2 years
- On the other hand, S&P has recently put Australia's economic risks core on positive trend for an upgrade because house prices are falling and credit imbalances are unwinding. Coolabah believes this will result in the major banks' RAC ratios rising above 10%, earning them SACP upgrades from "a-" to "a", which would in turn upgrade their T2 and AT1 bond ratings to BBB+ and BBB- respectively while reducing by one notch the assumed government support underpinning their senior bonds' AA- ratings (ie, this is also positive for major bank senior)

1. Summary

1.1 Defaults

We have further updated our hedonic regression model to accurately measure RMBS default rates to now control for the geographic biases in the individual RMBS pools, in addition to the standard variables (namely, the time from issue, the weighted-average LVR, and the average loan life). We have also developed another global first, which is a hedonically-adjusted mortgage prepayment index based on domestic RMBS data. (All our analysis pertains to prime RMBS only.)

The chart below shows that compositionally-adjusted (or bias free) Aussie RMBS default rates have been trending higher since 2015 with a noticeable step-up in defaults since 2017. This conflicts with the findings of the S&P SPIN Index, which does not control for the aforementioned biases. S&P also incorrectly distinguishes between arrears and defaults given that legally a borrower is in default under Australian mortgage contracts the moment they miss a repayment. Finally, note that our hedonic RMBS default index is seasonally-adjusted given the extremely strong seasonality that default rates display.



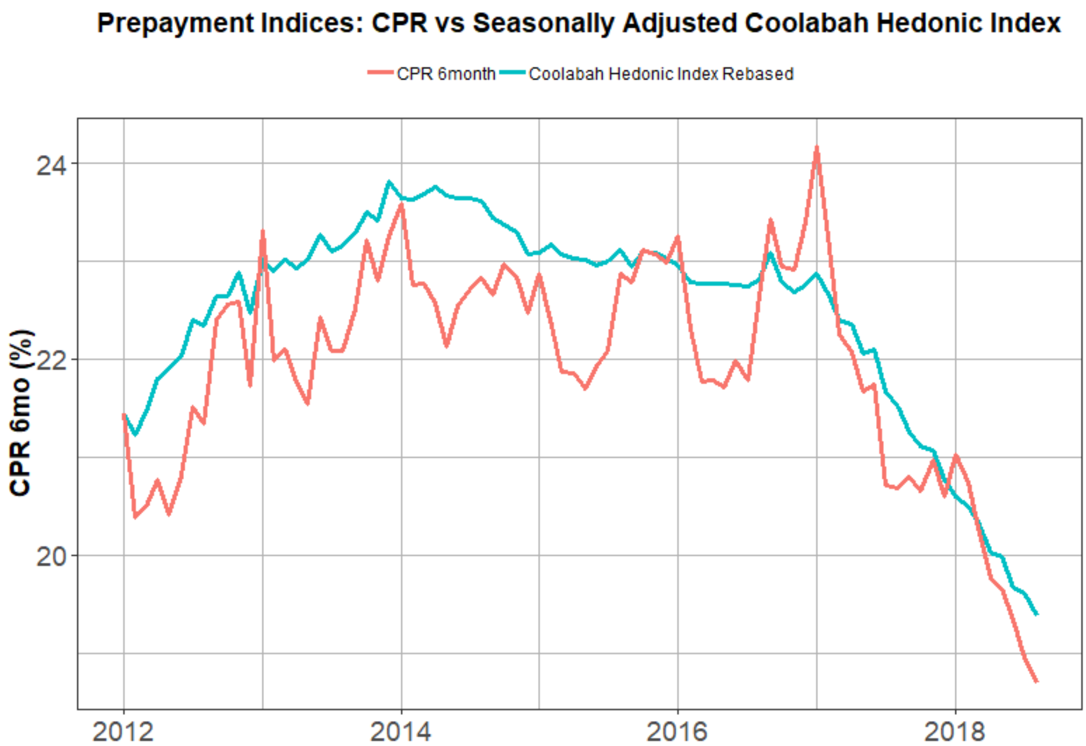
With the Royal Commission increasing the pressure on lenders to comply with a strict definition of Labor's responsible lending laws, APRA enforcing even more conservative credit standards, which it has done since December 2014, and regulatory and compliance costs sky-rocketing, it is likely mortgage rates will head higher while the availability of credit tightens.

This raises the probability that RMBS default rates will continue to trend upwards for the next few years, especially if the RBA decides to start normalising the cash rate at some point over this period. Combined with our long-held forecast for Australian houses prices to fall by 10% or more, which is increasingly being backed by other organisations like ANZ, UBS, and PIMCO, we are currently negative on RMBS as an asset-class. Specifically, we think it is likely that the junior (AB and lower) tranches in recently issued RMBS deals are downgraded by S&P given sensitivity analysis in pre-sale reports showing that these tranches would suffer from multiple notch downgrades if house prices fall by 10% (before accounting for LMI). After LMI we remain confident these downgrades are probable. We also believe it is almost certain that credit spreads on RMBS will more wider across the board.

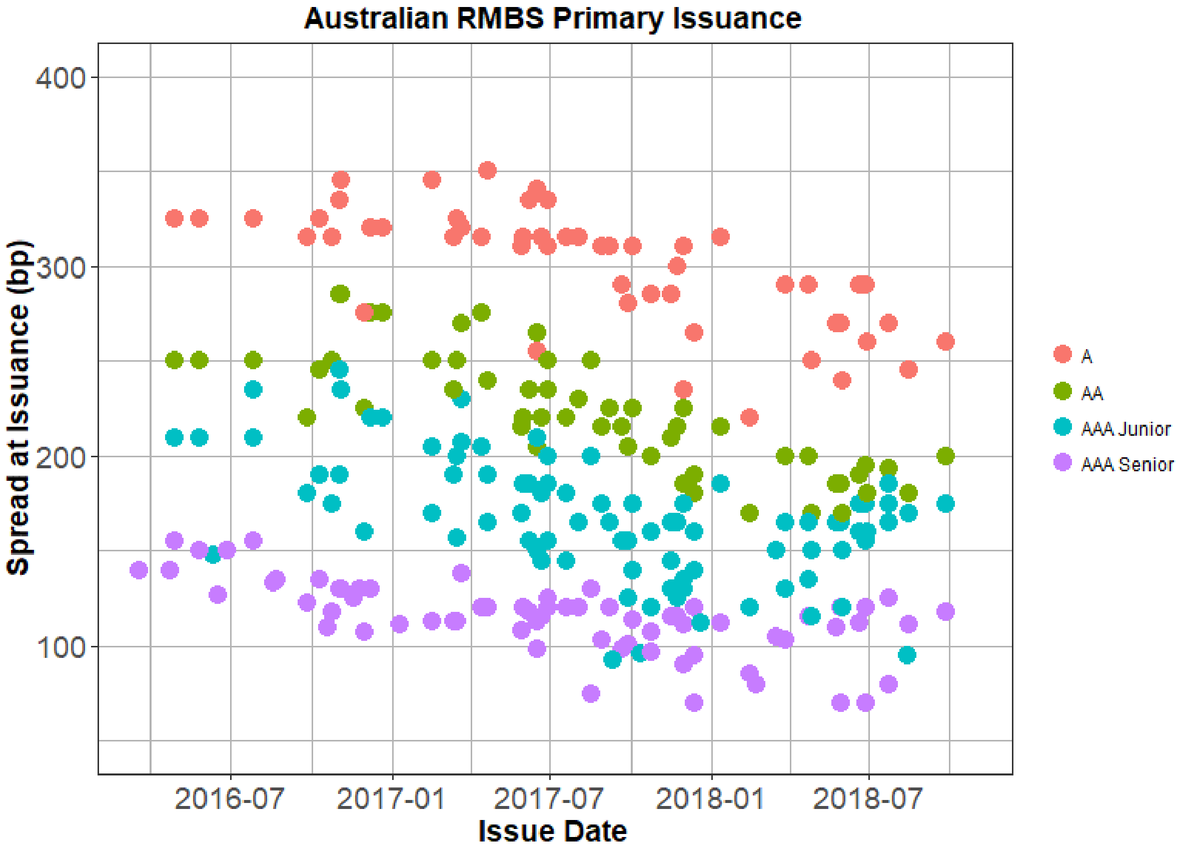
On the other hand, S&P has recently put Australia's economic risks core on positive trend for an upgrade because house prices are falling and credit imbalances are unwinding. Coolabah believes this will result in the major banks' RAC ratios rising above 10%, earning them SACP upgrades from "a-" to "a", which would in turn upgrade their T2 and AT1 bond ratings to BBB+ and BBB- respectively while reducing by one notch the assumed government support underpinning their senior bonds' AA- ratings (ie, this is also positive for major bank senior)

1.2 Prepayments

We have extended our research to apply hedonic regression methods to measuring unscheduled mortgage prepayment rates (or CPRs), which we believe is another first—to the best of our knowledge, hedonic techniques had never been used before to address the problem of removing the biases that afflict measurements of securitised portfolio default rates. Our hedonically- and seasonally-adjusted CPR index, as depicted in the chart below, has fallen dramatically and well below the 22% threshold commonly assumed by RMBS issuers. While prepayment rates have been falling since 2014, a much sharper rate of decline commenced in 2017. Slower prepayment rates will result in the weighted-average life (WAL) of RMBS issues extending, and by doing so adversely alter the credit spreads investors receive as compensation for buying these securities.



1.3 Spreads
We have previously highlighted a curious paradox whereby prime RMBS spreads for the safest AAA rated, A tranches have been increasing while spreads on the riskier AB, B, C and D tranches, which are rated in the AA, A and BBB bands, have been compressing as naïve money chases yield. This is odd given that the aforementioned downgrade risks. There is some tentative evidence in the latest RMBS deals that this paradox may be unwinding, perhaps as a result of our public advocacy of the puzzle. It can be seen that spreads on the most recent vintages of the A and AA rated tranches have started moving higher in lock-step with the safest AAA tranches.



2. Additional Information

Measuring and monitoring the true level of mortgage delinquencies across an economy is essential for asset pricing and financial system stability. Yet public measures of mortgage default risk almost always use simple averages across pools of individual assets, including balance-sheet loans or indices tracking default risk across portfolios of residential mortgage-backed securities (RMBS).

These approaches are, like median house price indices, afflicted by compositional biases that can lead to spurious inferences regarding the direction of default rates. Sources of bias include artificial changes in default rates attributable to: increases in the volume of new loans being written or securitised RMBS added to indices; changes in the proportion of transactions with higher loan-to-value ratios (LVRs); the introduction of less seasoned RMBS transactions with a lower weighted-average loan age; and/or borrower characteristics that have higher probabilities of default (e.g. tilts towards investment borrowers).

To address this problem, we have developed the first known hedonic regression-based indices of mortgage default risk that explicitly control for compositional biases through the models' characteristic-based independent variables. Whereas simple average measures of default rates across securitised loan portfolios have declined in recent years, which suggests that the risk of loss has been declining, our hedonic mortgage default index implies exactly the opposite: that is, compositionally-adjusted default rates have, in fact, been increasing sharply in recent times.

Readers can download a full copy of our research methodology for free here.

Available at SSRN:

https://ssrn.com/abstract=3237169 or http://dx.doi.org/10.2139/ssrn.3237169