April 16, 2014

United States

The Mortgage Analyst

Credit Strategy Research

Value in low FICO specified pools

Low FICO pools prepay close to HLB, but with a smaller payup

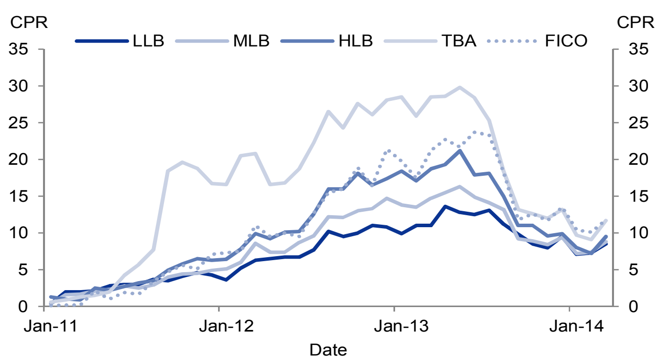
Agency mortgage pools backed by borrowers with low credit scores refinance at lower rates than generic TBA collateral. The slow prepays are due to a combination of high risk-based pricing adjustments charged to the low FICO borrowers, as well as challenges the borrowers face in getting approved for a mortgage. Pools with low average FICO trade with a payup to TBA, but the payup is smaller than loan balance payups (~10 ticks vs. ~23 ticks for $150K loan size for 4.5s). Thus, low FICO pools might offer a cheap source of call protection for investors worried about prepayments.

Low FICO offers extension protection as well as call protection

In addition to the call protection offered by low FICO collateral, the elevated default rates of these pools can provide extension protection in rising rate scenarios. We expect overall default rates for the next few years to remain modest, but low FICO pools will have 1-2 extra CDR per year.

Low FICO pools have prepaid like HLB (150K max loan size) pools in low rate scenarios

Annualized prepay rates, 4.5% coupon 2011 vintage conventional MBS



eMBS and Goldman Sachs Global Investment Research

Charles P. Himmelberg
(917) 343-3218 charles.himmelberg@gs.com
Goldman, Sachs & Co.

Marty Young
(917) 343-3214 marty.young@gs.com
Goldman, Sachs & Co.

Hui Shan
(212) 902-4447 hui.shan@gs.com
Goldman, Sachs & Co.

Chris Henson
(801) 741-5755 chris.henson@gs.com
Goldman, Sachs & Co.

Low FICO pools exhibit slow refinance rates

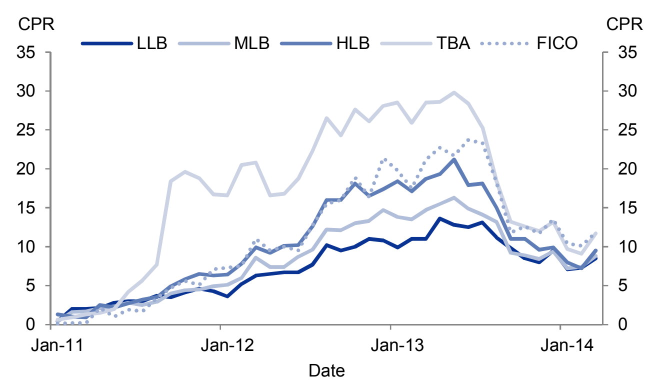
Given the rise in interest rates over the past year and the attendant decline in prepayment rates, MBS investor attention has been focused on extension risk more than refi risk. However, while refi risk has declined, it is not yet ignorable. 4.5% coupon conventional mortgage backed securities trade near $107 and 6.0% coupons near $111, so there are still substantial premiums which can be eroded when borrowers prepay their mortgages at par.

Historically, a common strategy for managing refi risk has been investing in specified pools – bonds backed by mortgages with specific collateral attributes which give rise to lower than average prepayment rates. The most familiar specified pool story is small loan balance: borrowers with low balance loans prepay slowly because they have relatively low economic incentives to lower their mortgage rates. A smaller but growing specified pool strategy is to invest in MBS pools composed of borrowers with low FICO credit scores (see Appendix below for further details on the FICO specified pools market) .

Lower FICO borrowers prepay relatively slowly because of challenges in getting approved for a mortgage, and because they face a disincentive from the upfront loan level pricing adjustments charged by Fannie Mae and Freddie Mac. For example, for 660-679 FICO, 75-80 LTV loans, the Fannie Mae up-front pricing adjustment is 2.5% of loan balance. This fee is charged to the lender, who in turn will typically pass the cost through to the borrower, thus reducing the low FICO borrower's economic incentive to refinance. In addition to their reduced economic incentives, lower FICO borrowers could prepay differently from higher FICO borrowers due to other behavioral or collateral differences. For example, 47% of 2013 vintage borrowers in Freddie Mac pools with FICO above 670 were Third Party Originated (TPO), vs. only 27% for low FICO pools. As TPO loans frequently prepay faster than non-TPO, this contrast will increase the differentiation in high FICO vs. low FICO prepay speeds.

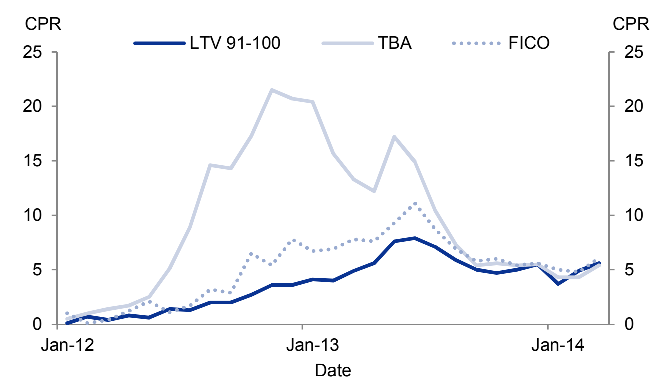
Exhibit 1 compares the 4.5% coupon 2011 vintage prepay speeds for low FICO (660-680 WA) pools vs. loan balance pools: LLB (maximum balance <$85K), MLB (maximum balance $85-$115K), HLB (maximum balance $115-$150K) and TBA. The low FICO pools prepay substantially slower than TBA, almost as slow as HLB. However, the market payup for low FICO pools is smaller than for HLB (~10 ticks vs. 23 ticks for 4.5% coupon, and ~1 tick vs. ~10 ticks for 3.5% coupon). Exhibit 2 similarly compares the prepay speeds of low FICO pools with another specified collateral story, high LTV, for the 3.5% coupon, 2012 vintage. Again, low FICO pools prepay significantly slower than TBA pools. Given the small payups, low FICO pools may be a relatively inexpensive source of MBS call protection.

Exhibit 1: Low FICO pools have prepay rates below that of TBA collateral, closer to HLB
Prepayment rates, 4.5% coupon 2011 vintage 30-year MBS



Source: eMBS and Goldman Sachs Global Investment Research

Exhibit 2: Low FICO pools have prepay rates below that of TBA collateral, closer to high LTV
Prepayment rates, 3.5% coupon 2012 vintage 30-year MBS



Source: eMBS and Goldman Sachs Global Investment Research

Low FICO pools offer extension protection

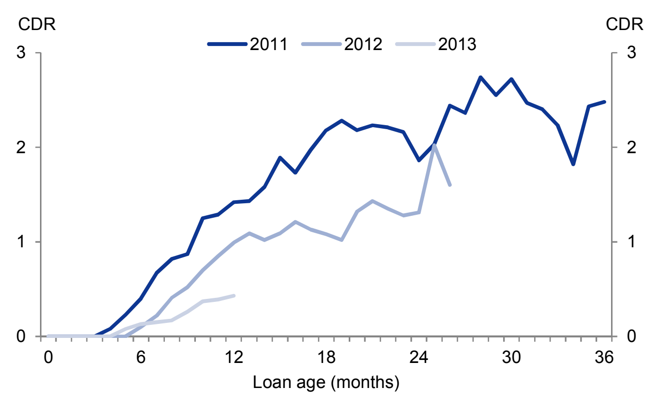
Default rates are 1-2 CDR higher for low FICO pools

In addition to the call protection benefits offered by low FICO pools, these pools also potentially offer extension protection via their elevated default (delinquent loan buyout) rates. Exhibit 3 shows the buyout rates on Freddie Mac 30-year pools with average FICO score less than 670; the 2011 vintage has had buyout rates a little over 2 CDR. Given that high FICO pools have CDRs of less than 0.5 CDR, the incremental prepayment rate from defaulted loan buyouts on low FICO pools translates into a 1-2 CDR differential. Exhibit 4 compares the annualized rate at which high and low credit score loans enter default (120-days delinquent, the point at which GSEs buy non-performing loans out of pools). The low FICO score loan group has had a default rate 1-2 CDR above the high FICO score group, with the exception of the 2008-2012 period of high default incidence.

This estimate of an incremental 2 CDR for low FICO pools is roughly consistent with default rates implied by the GSEs' loan level pricing adjustments. For example, given a duration assumption of 5 years, the 2.5% up-front pricing adjustment for the 660-679 FICO, 75-80 LTV cohort corresponds to an estimated 0.5% in additional credit cost per year (2.5%/5). If the assumed severity (loss given default) rate is 25%, then 0.5% per year in incremental credit cost translates into a 2% per year incremental default rate for these borrowers, relative to the baseline (FICO≥740, LTV ≤ 75). While this reasoning is only approximate, it is suggestive that low FICO translates into an additional 1-2 CDR according to GSE models and pricing.

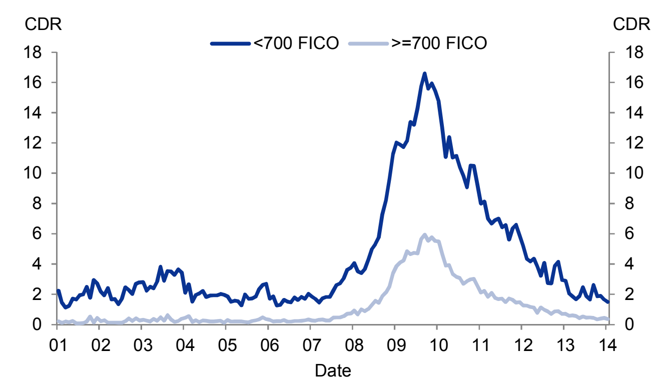
Incremental defaults – prepayments which occur even when borrowers are out-of-the-money for refinancing - are most beneficial for low coupon, low dollar price securities. Our models suggest that additional defaults are highly valuable for 3.5% coupon bonds, slightly beneficial for 4.5% coupon bonds, and detrimental to 5.5% premium priced bonds, in terms of impacts on option adjusted returns.

Exhibit 3: Default rates have been running ~2 CDR for 2011 vintage low FICO pools...
Annualized 6-month moving average buyout rates, Freddie Mac 30-year MBS with average FICO score less than 670 vs. loan age



Source: eMBS and Goldman Sachs Global Investment Research

Exhibit 4: ... low FICO loans have had default rates 1-2 CDR higher than high FICO loans
Annualized rate of entering 120+ days delinquency, Fannie Mae/Freddie Mac 30-year loans with 12-60 months seasoning



Source: Black Knight and Goldman Sachs Global Investment Research

Upside and downside scenarios exist for low FICO specified pools

The exhibits above suggest that low FICO pools offer differentiated prepay behavior vs. TBA, despite having price payups lower than those required for HLB and other specified collateral. Given current pricing and performance, the low FICO pools appear to offer relatively high yields on an option adjusted basis. That said, there are future economic and policy scenarios that could potentially improve or decrease the attractiveness of low FICO specified pools.

One upside scenario for specified pools in general would be for the specialness in MBS dollar rolls to return toward more historically normal levels. Roll specialness hurts the specified market by making it more expensive to hedge specified pools with TBAs, and also by increasing the relative attractiveness to owning generic TBA because of the opportunity to roll the TBA pools. As Federal Reserve purchase volumes continue to decline, TBA roll specialness may also decline, which would be a positive for specified pool payups to TBA.

In addition, any market changes that increase perceptions of refi risk could increase the perceived value of specified pools offering call protection. Such changes could include a downtick in rates, an increase in interest rate implied volatility, or a policy change leading to generally easier refinancability (e.g., introducing a new agency streamlined refi offering).

Other scenarios exist which could render the call protection offered by low FICO pools less rather than more valuable. During 2006, for example, the combination of high house price growth (providing opportunities for cash-out refinancing) and broad availability of affordability products led low FICO in-the-money pools to refinance 5-7 CPR *faster* than high FICO pools. While a complete return to the 2006 environment seems unlikely, incremental movements in that direction (such as reductions to the agency loan-level pricing adjustments) could reduce the differentiation between low FICO and high FICO prepayments, and hence the value of low FICO collateral. As well, any large bearish shock to rates which drives pools out-of-the-money for refinancing would reduce the value of call protection offered by specified collateral.

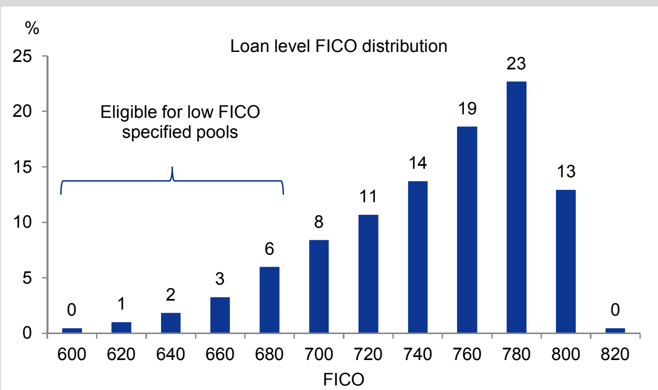
Overall we see the upside and downside risks to low FICO pools as being roughly balanced, but the range of scenarios affecting payups highlights the challenges of investing in specified pools, and perhaps helps explain why these pools appear to be priced cheaply relative to central model scenarios.

Marty Young

Appendix: Low FICO specified pools market

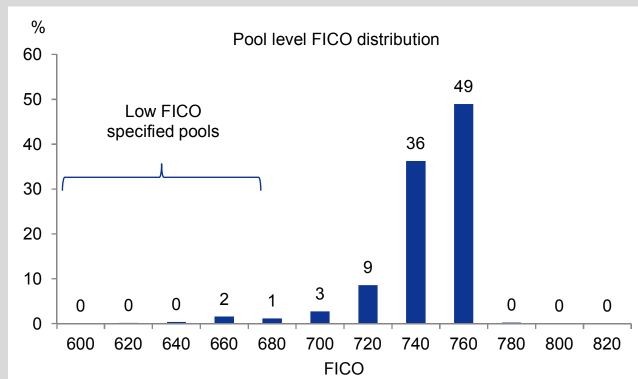
Low FICO specified pools are composed solely of mortgages that have borrower FICO scores below a low threshold (690-700 FICO). Exhibit 5 below shows the distribution of loan level credit scores for 2013 vintage agency pools; less than 15% of mortgage balance has FICO score below 700. Of the subset of low FICO loans, not all are segregated into low FICO specified pools. Exhibit 6 shows the distribution of pool level weighted average FICO scores: the specified pools are concentrated around an average of 660-680 FICO, reflecting their composition from loans with FICO scores roughly between 600 and 700. Per Exhibit 7, the volume of pools issued with low weighted average credit score has been modest but growing.

Exhibit 5: Loan level FICO distribution is concentrated around 760-780…
Distribution of loan level credit scores, Freddie Mac 2013 vintage non-HARP originations



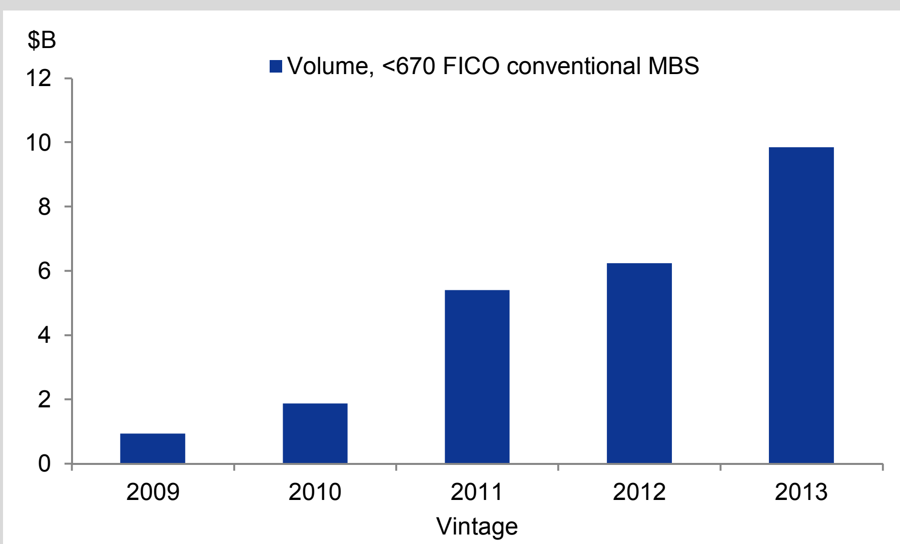
Source: eMBS and Goldman Sachs Global Investment Research

Exhibit 6: …while low FICO specified pools have weighted average credit score around 660-680
Distribution of pool level weighted average credit scores, Freddie Mac 2013 vintage non-HARP MBS



Source: eMBS and Goldman Sachs Global Investment Research

Exhibit 7: Volume of low FICO pools has increased over past five years
Issuance volume, conventional 30-year non-HARP MBS pools with weighted average FICO score below 670, by vintage



Source: eMBS and Goldman Sachs Global Investment Research

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