

## **How to Evaluate Mortgage Security Risks**

Most third party mortgage pool and security valuation methods involve the gathering of historical prepayment information, followed by consideration of recent performance and the economic environment, and then an analysis considering various stress scenarios. Usually the emphasis is on past performance rather than the actions of issuers or sellers that contribute to future performance. That is the weakness in our current system. Sure there are issues regarding motivations in how rating agencies are compensated or which buyer or research firm has the most experienced talent but in my mind the evaluation process could be different. Sellers have for years “arbitrated” ratings by determining which loans could be packaged in a security to achieve a certain rating. Of course most times this means putting loans into transactions that meet but do not significantly exceed ratings thresholds. In evaluating new issues, due diligence on recent changes in product and underwriting guidelines, current methods of producing loans, and risk and monitoring practices specific to target products are the “devils in the details” musts. On secondary transactions where the pools are finalized the “stress” tests to determine return of principal need to be more granular than that of the rating agencies yet easily understood by mortgage bond purchasers. Structured finance ratings unfortunately are a decedent of corporate ratings while mortgage buyers are more concerned about “the return of my principal than the return on my principal” to coin Will Roger’s phrase.

### **The Mortgage Buyer’s Mindset**

The mortgage buyer has traditionally felt that mortgage securities are safer than corporate issues of the same rating. The BBB case is interesting as it is the tipping point between investment grade and non-investment status yet the BBB credit spreads for mortgage securities during most periods were considerable tighter than corporate counterparts. Mortgage participants felt that pool diversification and historical performance warranted lower yields even though the ratings were same as higher yielding fixed income securities. Expectations of mortgage investors were different from the onset, the secondary market for residential mortgage products started with the forming of the GSE’s which in some fashion expressed a government backing. That initial guarantee market, at least in my mind, set the expectation for structured mortgage products to be higher in safety than corporate counterparts. Of course that all changed in 2008-2009 as nearly all security classes in structured mortgage products faced potential principal write downs. We believe that investment grade structured bonds, specifically AAA and AA, need to be more granular in terms of the probability of principal return while the remaining investment grade and non-investment grade bonds need to more closely approximate corporate loss expectancy. This type of analysis should help renew buyer interest in the non-agency structured transactions.

## **New Issue Transactions**

A stronger emphasis needs to be put on the issuer/seller's origination and packaging of loans into securities in terms of due diligence on recent product and underwriting changes, sales methods, and risk monitoring. Unfortunately delinquencies and ultimate defaults are much like the lagging unemployment rate when used as a measure to predict economic cycles. As product and underwriting guidelines "widen" the loan and subsequent pool characteristics suffer. Combined loan to value ratios, credit scores, and documentation, to name a few, if relaxed, change a loan product's risk. That was never more evident from 2004 to 2007. As production declined underwriting guidelines were relaxed. Buyer's bought into the notion of "layered" risk or the concept that multiple combinations of high risk attributes will not necessarily result in multiplicative risk. That of course was wrong. Now some of the problems can be associated with a bad economy and lower home prices, but how much can be attributed to wider standards? See ["The Subprime Mortgage Meltdown: Quantifying the Causes"](#) by Nick Krsnich September 2009.

Enhanced front-end due diligence allows a buyer to better determine if recent loans still should be grouped as prime, alternative A, or subprime. That brings up another issue: why bother grouping securities into broad product groups? The more important issue is the attributes of the pool in question rather than categorizing according to currently favored market segments. In fact, who knows if the future non-agency market will be alt-A, subprime, or some other product grouping so why categorize at all? In 2004-2007 I saw the attributes of subprime mortgages looking very similar to past GNMA production but even worse 50% of the loans had reduced documentation. GNMA past delinquencies have always been in the 20-30% range so if you add reduced documentation should we be surprised that subprime products have 30-40% delinquencies? Alt-A mortgages characterized by reduced documentation are nothing new. In the early 1990's bank originators struggled with this product and they didn't attach second liens or qualify borrowers at low interest rates like 2004-2007. Does that mean you don't originate these products? Maybe so, but if they are produced you need to make sure you are getting paid for the expected risk and the expected risk includes all known origination practices.

## **Secondary Market Securities**

What is everyone asking now? What did AAA mean from 2004-2007? Can I trust my or industry bond analysis? Ratings should be viewed as guidelines; buyers need to perform bond analysis that best quantifies their risk appetite. This means updating all loan data to the current market, running scenarios assuming full default and full severity, and evaluating structure, insurance, origination, and loan servicing. When we look at non-agency RMBS and CDO securities we focus on likely return of principal first and expected rate of return second. While we don't categorize our findings in rating's terms here is what it might look like:

Rank 1 – there is no chance of principal loss as a government guarantee is implied. Acts of war or nature are not considered in any of our ranks. We also assume that contract law will not be violated.

Rank 2 – the security structure is such that 100% default and 100% severity conditions will not result in a principal loss.

Rank 3 – in considering the worst economic scenarios to date there is a high probability that principal will be returned. This category assumes no credit for market diversification or non-correlation in that all markets deteriorate in unison.

Rank 4 – in considering the worst economic scenarios to date there is a high probability that principal will be returned. Credit is given for non-correlated markets and diversified asset pools.

Rank 5 – in considering the worst economic scenarios to date there is a 0 – 10% chance of principal loss.

Rank 6 – in considering the worst economic scenarios to date there is a 10 – 20% chance of principal loss.

Rank 7 – in considering the worst economic scenarios to date there is a 20-50% chance of principal loss.

Rank 8 – in considering the worst economic scenarios to date there is a 50-100% chance of principal loss.

Rank 9 – an investor can only expect to collect accrued interest

Rank 10 – an investor should expect no cash return.

How would the current ratings scheme map to the ranks above? Rank 1 is only for government guaranteed investments hence above AAA. Ranks 2-4 and a portion of 5 would equate to AAA. Rank 5 and 6 would be the remaining investment grades. Rank 7-10 would be non-investment grade or speculative. The point being that we better address the needs of the mortgage buyer who seeks more detail in the upper categories and hopefully will price lower bond risk similar to other fixed income markets.

## **Conclusion**

Taking from the movie A Few Good Men, you need someone “on the wall” watching out for your interests. While we don’t suggest types like Col. Nathan R. Jesse and Lt. Jonathan Kendrick (played by Jack Nicholson and Kiefer Sutherland, respectively) we do recommend that you modify your due diligence and views to anticipating risks rather than extrapolating past performance. Those modifications should include: change the emphasis to issuer/originator practices, be more granular when you think about ratings in

higher classes, focus on the attributes of loans and pools and not market product categorization, and when using history look at all analogous historical performance no matter the product that fits the current issuer environment.

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