

The Resurgence of Non-Agency Residential Mortgages and RMBS

EXECUTIVE SUMMARY

- As a result of what was learned from the financial crisis, the newly originated non-agency residential mortgage loans apply more stringent underwriting criteria today. The new generation of non-prime loans is funded mainly by private lenders, following an “originate to retain” lenders model.
- New issuance of non-agency residential mortgage securitizations is slowly on the rise in recent months, after a lackluster post-crisis start. Heightened regulation, such as the risk retention rule, helped align the interests of originators and investors in new issue, non-agency RMBS.
- Investors who understand the changes in the origination and securitization processes could benefit from the investment opportunities in non-agency whole loans and non-agency RMBS via properly selected investments.

Non-Agency Residential Mortgages in Recent History

Residential mortgage-backed securities (RMBS) are fixed income securities with cash flows that are collateralized by residential mortgages. The securities represent an indirect ownership interest in residential mortgage loans and are secured by the value of the underlying pool of residential mortgages. The two broad categories of RMBS are “agency” and “non-agency.”

- Agency RMBS are issued or guaranteed by the U.S. government or a government-sponsored enterprise (GSE), such as the Government National Mortgage Association (GNMA or Ginnie Mae), Federal National Mortgage Association (FNMA or Fannie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac). GNMA bonds are backed by the full faith and credit of the U.S. government and thus are free from default risk. While FNMA and Freddie Mac securities lack this same backing, the risk of default is negligible.
- Non-agency RMBS are issued by private institutions such as trusts and special purpose vehicles (SPVs). These bonds are not guaranteed by the U.S. government or GSEs. They typically have a more sophisticated subordination structure, which redirects the aggregate principal and interest cash flows of the underlying collateral to the individual RMBS bonds based on a set of rules, which are designed to create tranches with specific risk, coupon, and maturity characteristics.

Non-agency RMBS collateral generally consists of mortgages that do not meet the agencies’ underwriting requirements. Non-conforming mortgages primarily fall into the following types.

Prime Jumbo:

Prime jumbo mortgages are non-agency loans typically because the lending amount exceeds the conforming loan limits. These tend to be high-quality mortgages with high credit scores that, for the most part, comply with agency mortgage underwriting guidelines.

Alternative-A (Alt-A):

Alt-A mortgages are considered more risky than prime but less risky than subprime loans. Typically, Alt-A mortgages are characterized by borrowers with lower credit scores, higher loan-to-value (LTV) and debt-to-income (DTI) ratios, and more investment properties.



Subprime:

Subprime mortgages are extended to borrowers with low credit scores. In general, these borrowers have damaged credit or limited credit history, along with minimal income and asset verification. Due to the higher default risk associated with these borrowers, lenders tend to charge a higher interest rate on subprime loans.

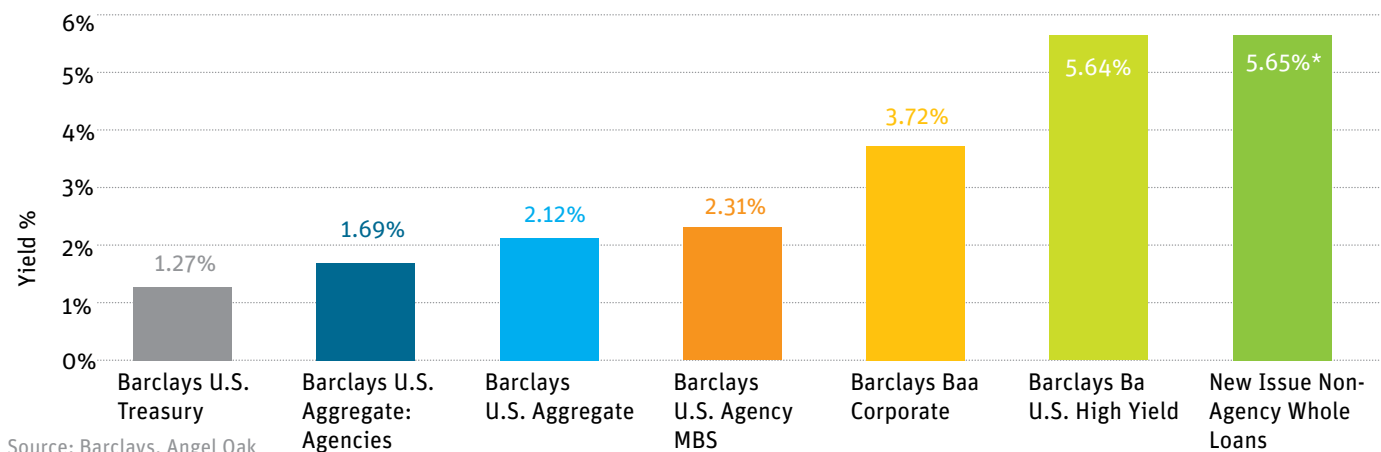
Prior to the financial crisis, issuers and investors were more concerned with the impact of changes in mortgage prepayment rates on non-agency RMBS, resulting in RMBS cash flow volatility, than with the credit quality of the underlying loans. As the market's risk appetite increased, securitization of non-agency mortgages, particularly in the subprime sector, accelerated to meet the increased demand. Since the quantity of high-quality borrowers was limited, lenders matched investor demand by increasing the share of lower-quality loans in the securitizations. The practice came to an abrupt end in 2007, when the peak in financial system leverage and securitization issuance coincided with the bursting of the housing market bubble. Subsequently, the forced deleveraging and rating downgrades drove the collapse of the non-agency RMBS market and sent shockwaves across the securitized markets. The landscape of private sector participants in the securitized markets was reshaped, the regulatory regime was rewritten, and the evaluation of structured credit risk by market participants was forever changed.

Post-Crisis Market Developments

LOW INTEREST RATE ENVIRONMENT

In response to the 2008 credit markets crisis, the Federal Reserve (Fed) intervened in many fixed income markets through a variety of programs such as quantitative easing (QE), which was focused on the U.S. Treasury and agency RMBS markets. The support from the Fed, coupled with the subsequent market recovery, has resulted in historically low yields for government-issued and government-backed securities. In comparison, more credit-sensitive asset classes, such as high-yield corporate bonds and non-agency whole loans, offer higher yields for investors. Chart 1 illustrates the yield differential between various fixed income asset classes.

Chart 1: Yields for Various Fixed Income Asset Classes as of 3/31/2016



Source: Barclays, Angel Oak
*Loss-adjusted return based on 22% VPR, 1.8%CDR, and 26.7% severity.

HEIGHTENED REGULATION

Following the recent housing crisis, numerous regulatory measures were put in place with an aim of increasing transparency and accountability in the mortgage origination process, along with promoting responsible lending.

Signed into law on July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the Dodd-Frank Act) was considered one of the most comprehensive financial reform laws in U.S. history. One key part of the Dodd-Frank Act is the ability-to-repay (ATR) provision, which went into effect on January 10, 2014. For the first time, federal law required lenders to consider certain underwriting criteria and make a good-faith determination that borrowers will have the ability to repay their home loans. The new ATR rules require lenders to consider and verify a number of different underwriting factors, such as a mortgage applicant's assets or income, debt load, and credit history. A creditor must make a reasonable determination that a borrower will be able to pay back the loan. The final rule also requires creditors to retain evidence of compliance with the rule for three years from the loan's consummation. Along with the ATR requirement, the Dodd-Frank Act provided a Qualified Mortgage (QM) definition. The new rule provides QM loan originators with certain liability protection against buybacks, lawsuits, and financial loss. Lenders that choose to originate non-QM loans will not be protected by the QM rule.

Also pursuant to the Dodd-Frank Act, the Consumer Financial Protection Bureau (CFPB) has integrated the mortgage loan disclosures under two federal statutes: the Truth in Lending Act (TILA) and the Real Estate Settlement Procedures Act of 1974 (RESPA). The new TILA-RESPA Integrated Disclosure Rule (TRID) requires that 1) a loan estimate must be delivered or placed in the mail no later than the third business day after receiving the consumer's application, and 2) a closing disclosure must be provided to the consumer at least three business days prior to consummation of the transaction. Mortgage originators will likely spend much of 2016 working their way through the hiccups caused by the October 2015 implementation of TRID. However, most practitioners believe that the disclosure issues are curable and will not have a meaningful impact on loan origination volume in 2016.

Moreover, six federal agencies (Fed, OCC, FDIC, SEC, FHFA, and HUD¹) finalized a risk retention rule in 2014. The rule requires securitization sponsors whose transactions are backed by residential mortgage loans to retain 5% of the credit risk of the securitized assets for at least five years. In place as of December 24, 2015, the new rule is designed to prevent the sellers from casting off risk without repercussion. This new regulation could be a hurdle for players in non-agency RMBS securitization, as the securitizers must have an investment vehicle to retain the required 5%. The risk retention rule encourages the "originate to retain" model.

BETTER TECHNOLOGY SUPPORT

In recent years, the mortgage business has started to see a more rapid adoption of technology. The trend is simultaneously driven by two forces:

1. Pressure on lenders by a new class of technology-savvy borrowers to digitize the mortgage experience and thereby improve the efficiency of the mortgage process
2. The paramount importance of a digitized loan audit trail resulting from a new wave of costly regulatory oversight and compliance standards

Demand for better technology has created higher barriers to entry for new originators. Also, established mortgage companies had to improve their existing systems and create technological solutions. Meanwhile, many web-based services, which were uncommon just a few years ago, expedite the mortgage origination process. For instance, lenders now can file a request for the transcript of a tax return online via Form 4506-T² and receive a response from the IRS in 24 to 48 hours, while the process historically took 10 to 60 days.³ Another example would be the "gap credit report," where any changes in the borrower's credit profile during the 30-day process period can be easily identified. Other widely available web applications, such as Google Maps and centralized public real estate records, also help with collateral verification.

MORE RATIONAL HOME PRICE

A steady increase in home prices in recent years has been an important fundamental factor in the reduction of collateral losses in the RMBS market. The most recent release of the S&P/Case-Shiller U.S. Home Price Index⁴ (Chart 2), in February 2016, showed the strongest gains since July 2014, which were driven by a favorable economic outlook, low interest rates, and a limited inventory of homes for sale.

In December 2015, purchases of new U.S. homes surged to the highest level in 10 months, closing out the best year for housing since 2007.⁵ Meanwhile, the National Association of Home Builders Market Index also rose to the highest level in nearly 10 years. The increase can be attributed to a strong job market, rising consumer confidence, and a moderate improvement in the supply of mortgage credit. Steady home price appreciation should continue to provide support to both legacy and new-issue RMBS.

¹OCC: Office of the Comptroller of the Currency.

FDIC: Federal Deposit Insurance Corporation.

SEC: U.S. Securities and Exchange Commission.

FHFA: Federal Housing Finance Agency.

HUD: U.S. Department of Housing and Urban Development.

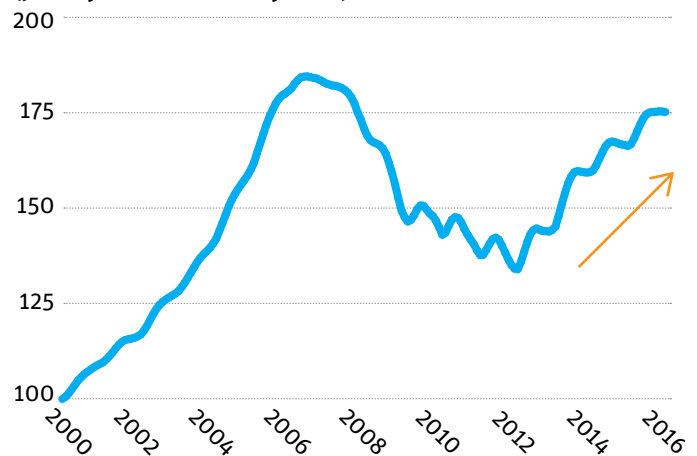
²Form 4506-T is an Internal Revenue Service (IRS) document that is used to retrieve past tax return, W-2, and 1099 transcripts that are on file with the IRS. The document gives permission for a third party to retrieve the taxpayer's data. The taxpayer must sign and date the 4506-T.

³Source: www.4506-transcripts.com.

⁴The S&P/Case-Shiller Home Price Indices are the leading measures of U.S. residential real estate prices, tracking changes in the value of residential real estate nationally.

⁵Source: Bloomberg, "New U.S. Home Sales Surged in December to a 10-Month High," by Shobhana Chandra, 1/27/2016.

Chart 2: S&P/Case-Shiller U.S. Home Price Index (January 2000 to February 2016)



Source: Bloomberg.

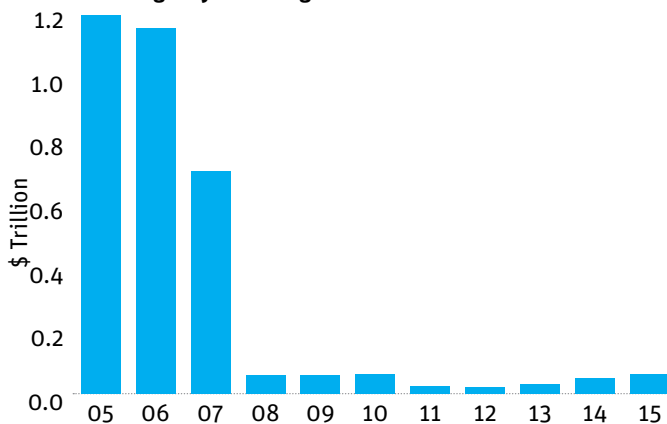
LIMITED NEW NON-AGENCY RMBS SUPPLY

Eight years after the financial crisis, bond issuers, rating agencies, and the government are still struggling to revive the private mortgage bond market. Financial institutions issued \$61.6 billion in non-agency mortgage bonds in 2015, an increase of 14% from 2014, but still only a fraction of the \$1.19 trillion issuance at the peak of the housing boom in 2005 (Chart 3).

In addition, the majority of new issuance is not collateralized by recently originated mortgages, but rather by repackaged non-performing and re-performing loans, underscoring how few new non-agency mortgages are being securitized. Even for the new issuances that are collateralized by new non-agency mortgages, the vast majority of their collateral are prime jumbo loans. In the current challenging yield environment, many new lenders prefer to hold on to the high-yielding, non-prime, non-agency mortgages on their balance sheets until maturity rather than sell or securitize the loans. This makes new non-prime, non-agency mortgages extremely hard to come by.

In addition to the lackluster rate of new issuances, most of the secondary RMBS today consists of 2007 or earlier mortgages. The supply of legacy non-agency RMBS is shrinking by 10% to 15% per annum due to prepayment and amortization.

Chart 3: Non-Agency MBS Origination—2005 to 2015



Source: Inside Mortgage Financial.

New Non-Prime, Non-Agency Residential Mortgages

Since 2008, banks have steered clear of the non-agency mortgage aside from jumbo prime, leaving a segment of financially sound borrowers with limited access to mortgage financing. The vacuum has created an opportunity for private lenders that are willing to offer credit to strong borrowers. These private lenders serve the purpose of providing appropriately priced mortgage loan products to individuals who may not meet all of the qualified mortgage credit requirements. Mainly driven by regulatory requirements, there are distinct differences between legacy non-agency mortgages and the new origination of these loans.

MORE STRINGENT UNDERWRITING GUIDELINES

The most significant change relative to the pre-crisis period has been the tightening of underwriting standards. Having learned from the crisis, new non-agency mortgage lenders have chosen to utilize underwriting standards similar to those used in the late 1990s and early 2000s. These guidelines, while more flexible in some cases, are more stringent than those for Federal Housing Administration (FHA) loans. For instance, new non-agency mortgage underwriting requires borrowers who may have experienced a “credit event” to show substantial assets, to prove their ability to repay, and to provide full documentation. Also, newly originated loans focus on low LTV ratios, with a much more rigorous evaluation of the home backing the mortgage. “Appraisal shopping” has been curtailed in that an appraiser must maintain independence without any influence from anyone in the loan production process.

As shown in Chart 4, newly originated non-agency loans are of better quality in several dimensions compared with those of the pre-crisis period.

Chart 4: Non-Agency Loan Origination: 2006 vs. 2016

| Origination Year | Equity | Avg. FICO | Income | Spreads | Reserves | DTI | Appraisal |
|------------------|---|-----------|----------------------------------|----------------|----------|--|---|
| 2006 | No money down (80/20 or 100% financing) | 580 | Alt-doc/no-doc | 100 bps | No | DTI to 50% (no housing ratio considerations) | Appraisal provided and ordered by loan officer |
| 2016 | Minimum 20% down, all funds sourced, verified, and seasoned | 680 | Full doc; ability to repay (ATR) | 400 to 600 bps | Yes | Greater than 43% DTI requires additional ATR support | Appraisal provided by independent third party and ordered by lender |

Source: Angel Oak.

“ORIGINATE TO SELL” TO “ORIGINATE TO RETAIN”

Prior to the Dodd-Frank Act, non-agency mortgage loan originations in 2006-2007 were underwritten to the “originate to sell” model, with most originators not required to retain any risk or provide representations and warrants (reps and warrants⁶) for their products. This incentivized lenders to lend to borrowers with high LTV ratios, unreliable income verification, and questionable appraisals.

New-generation lenders are adhering to an “originate to retain” model. Most lenders are keeping the loans on their balance sheets, incentivizing lenders to maintain high credit quality. For those that opt to sell the loans, the originator must provide comprehensive reps and warrants to ensure the quality of the loans. In both cases, lenders, particularly non-QM loan originators, are incentivized to maintain high credit quality.

For originators that opt for the securitization route, the new risk retention rule mentioned above would require securitizers to retain an economic interest in the credit risk of the assets they securitize. Risk retention also incentivizes securitizers to monitor and ensure the quality of the assets underlying a securitization transaction through more rigorous underwriting and due diligence practice.

EXPECTED PERFORMANCE

As mentioned earlier, current non-prime, non-agency mortgage loans are very similar to those originated in the late 1990s and early 2000s. Using loans originated in 1998, 1999, and 2000 as proxies, Chart 5 illustrates the base case return scenario for current non-agency mortgage loans.

Chart 5: Non-Agency Mortgage Loan Historical Performance

| FICO Categories | Allocation* | Avg Coupon* | Avg FICO* | Loan-to-Value (LTV)* | Debt-to-Income (DTI)* | Avg Pre-Payment (VPR) [†] | Avg Constant Default Rate (CDR) [†] | Avg Severity [†] |
|-----------------|-------------|-------------|-----------|----------------------|-----------------------|------------------------------------|--|---------------------------|
| >700 FICO | 50% | 6.0% | 710 | 75% | 35% | 24% | 0.6% | 17.5% |
| 640-700 FICO | 35% | 7.5% | 670 | 70% | 35% | 22% | 1.9% | 29.6% |
| < 640 FICO | 15% | 9.0% | 605 | 70% | 35% | 23% | 5.3% | 50.7% |
| Weighted Avg | 100% | 7.0% | 680 | 73% | 35% | 22% | 1.8% | 26.7% |

*Data represents characteristics of loans originated in the non-agency market today. Source: Angel Oak.

[†]Data represents performance of loans originated in 1998, 1999, and 2000. Source: Credit Suisse. Past performance is not indicative of future results.

On a weighted average basis, the average coupon for newly originated non-agency whole loans was estimated to be 7.0%. After taking into consideration prepayment, servicing costs, default rates and recovery rates, estimated yield for these loans is approximately 5.65%.

Non-Agency RMBS Market Outlook

After the crisis, virtually no non-prime, non-agency mortgage loans were securitized until the second half of 2015. Then, the marketplace saw four non-prime, non-agency mortgage-backed securitizations in the U.S.:

- **August 2015** – Lone Star Funds, a Dallas-based private-equity firm, announced a \$72 million bond offering, backed by non-prime loans originated by Caliber Home Loans.
- **November 2015** – Beach Point Capital, a Los Angeles-based hedge fund, priced a \$100 million non-prime mortgage-backed securitization. The fund purchased collateral loans from Citadel Servicing Corp.
- **December 2015** – A hedge fund managed by Angel Oak Capital Advisors, an Atlanta-based asset manager, released a \$150 million deal in non-prime mortgage-backed securities. The loans were purchased from Angel Oak Home Loans, LLC, and Angel Oak Mortgage Solutions, LLC.
- **June 2016** – Lone Star Funds issued another \$162 million non-prime RMBS securitization, rated by DBRS and Fitch ratings. This is the first rated deal backed by post-crisis originations, which included mortgages subject to TRID and loans with TRID exceptions. Again, the collateral loans were purchased from Caliber Home Loans.

⁶“Reps and warrants” is a term used to describe the assertions that a seller makes in a sale agreement. The buyer is relying on the seller to provide a true account of all information and supporting documents to close the transaction.

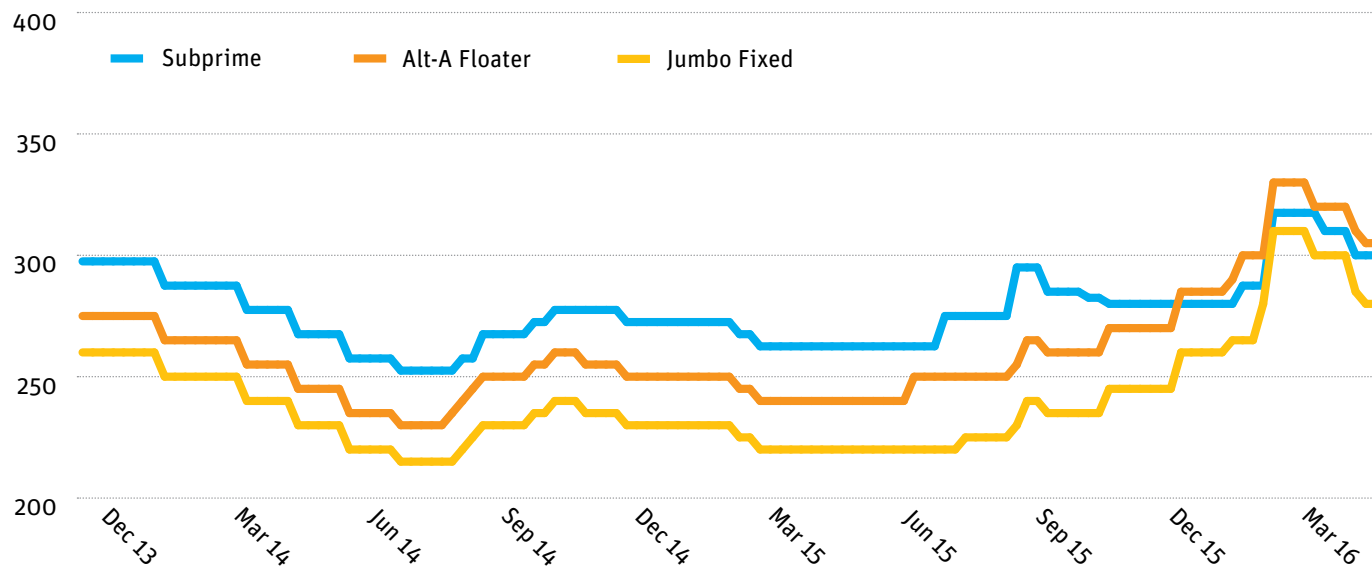
After the success of their initial offerings, these firms may become routine issuers of securitizations backed by non-prime home loans. Other subprime lenders such as Impac Mortgage Corp., First National Bank of America, and Athas Capital Group have returned to the market. However, most of the smaller originators still lack the scale and capability to go to market via a securitization.

The issuance of four non-agency mortgage-backed securities in quick succession suggested that this market is finally thawing despite the liability associated with heightened regulations, a lack of standardization in non-agency mortgage loan origination, and an investor base that remains cautious.

We believe that the market conditions will continue to improve and pave the way for sustainable growth of non-agency securitization in the near term. As the market normalizes, we expect the new non-prime market to grow to approximately \$100 billion over the medium term.

Re-emergence of the new non-agency RMBS issuance may also have a positive impact on the legacy non-agency RMBS, which is currently a \$640 billion market.⁷ Empirical evidence shows that mortgage default rates decline substantially six to seven years after origination and stabilize at a relatively low level thereafter. Nevertheless, eight years after the crisis, the legacy non-agency RMBS still senses the impact of a dislocated credit market. As shown in Chart 6 below, non-agency RMBS spreads widened sharply in recent months, largely for technical, rather than fundamental, reasons. As the new generation of non-agency RMBS seasons and demonstrates stable performance, it may also contribute to positive performance of the legacy non-agency RMBS.

Chart 6: Non-Agency RMBS Spreads (November 2013 to April 2016)



Source: Bank of America Merrill Lynch Global Research.

Conclusion

Public policy has played a key role in the non-agency RMBS market in the post-crisis period, in the form of both accommodative monetary policies and heightened lending regulation. In response, the non-agency mortgage industry reformed with more stringent underwriting standards and more technology-savvy supporting systems. The resulting new generation of non-agency whole loans offers attractive risk-adjusted returns and is poised for further growth. Investors who understand the nuances of the origination and securitization process should benefit from the investment opportunities in non-agency whole loans and non-agency RMBS via properly selected investments.

⁷Source: Bank of America Merrill Lynch Global Research.



Lu Chang, CFA®, FRM, CAIA
Chief Risk Officer, Angel Oak Capital Advisors

Ms. Chang is the Chief Risk Officer at Angel Oak Capital Advisors where she oversees all risk management efforts for the firm. She chairs the firm's Risk Management Committee and Valuation Committee, as well as serves as the secretary of the Investment Committee. Prior to joining Angel Oak, Ms. Chang spent over a decade at Wells Fargo and legacy Wachovia across multiple risk management and investment research functions.

Ms. Chang holds an M.B.A from College of William and Mary, where she graduated with distinction, Beta Gamma Sigma. She holds the Chartered Financial Analyst (CFA®), the Financial Risk Manager (FRM), and the Chartered Alternative Investment Analyst (CAIA) designations.

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