Proposed Legacy Securitized Guideline Modifications

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TMRS
Texas Municipal Retirement System

Agenda

I. Current Mandate Review
II. Securitized Market Overview
III. Current Mandate Limitations/Considerations
IV. Recommendation
V. Appendix

Section I

CURRENT MANDATE REVIEW

Original Mandate

- On May 15, 2014 the Board approved staff recommendation to allocate $750 million to legacy (issued prior to 2009) Residential Mortgage Backed Securities (RMBS) and Commercial Mortgage Backed Securities (CMBS).

- The real estate collapse during the financial crisis caused significant price dislocations for RMBS and CMBS securities which created a unique opportunity to **tactically** buy these assets at a deep discount.

- Voya (formerly ING) and Ellington were contracted with to manage these portfolios given their following characteristics:
  1. Detailed monitoring of the underlying assets backing the securitized fixed income.
  2. Deep proficiency supported by strong analytical capabilities to thoroughly assess both underlying assets (loans) and a variety of security structures.
  3. Long and successful track records of investing across the entire securitized market.

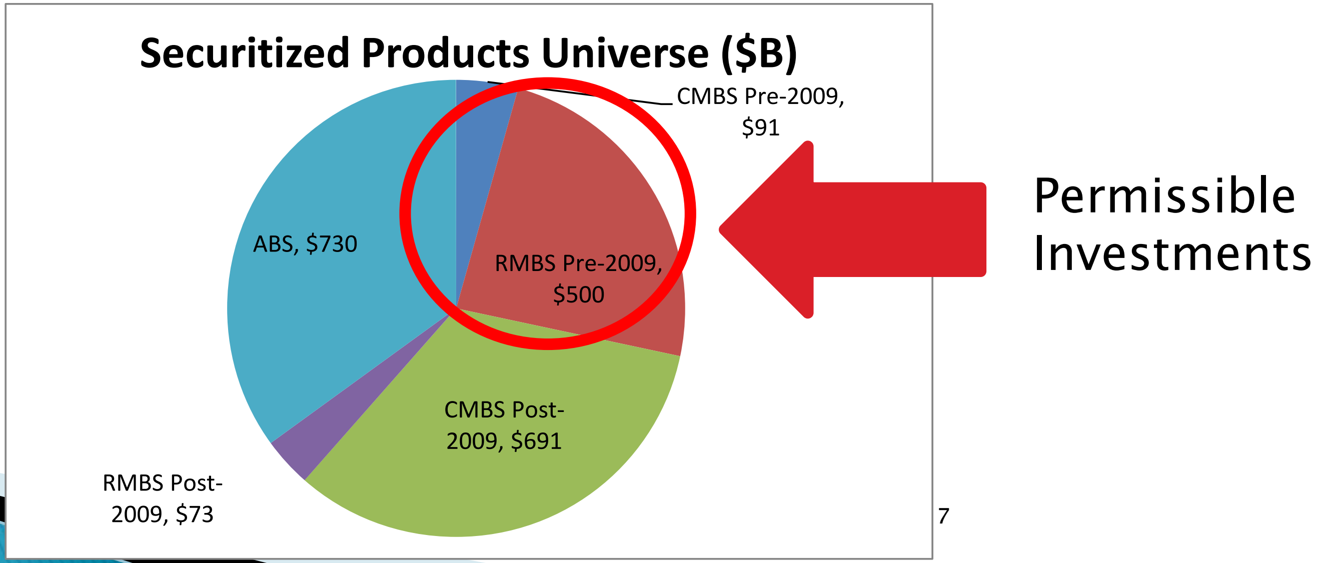
- These mandates were established to **tactically** target a very specific subset of the overall securitized market to capture total return opportunities within a limited investment period.

Original Mandate

- The legacy RMBS and CMBS markets continue to evolve, with a primary implication being the diminished opportunity set of Permissible Investments as prescribed under the original mandate.

- The investable universe of legacy CMBS and RMBS has declined significantly because the loans underlying these securities have been paid off, refinanced or defaulted.

- Legacy securities now represent only 28% of the market opportunity within securitized fixed income as depicted below.



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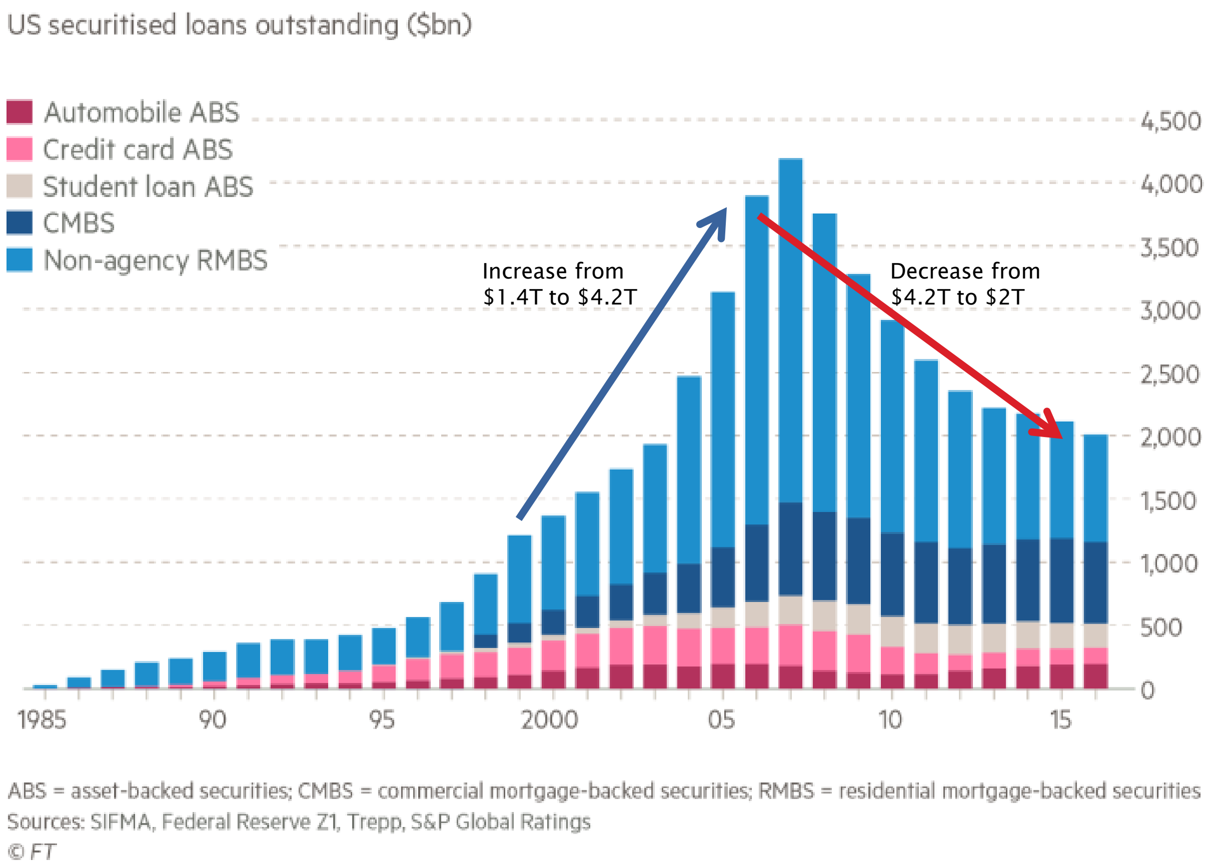
Section II

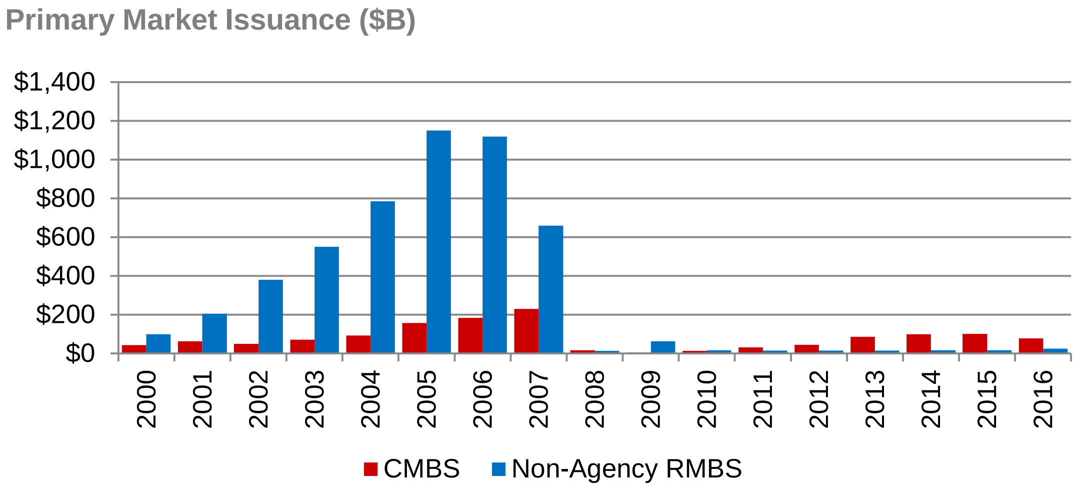
SECURITIZED MARKET OVERVIEW

Securitized Market Dynamics

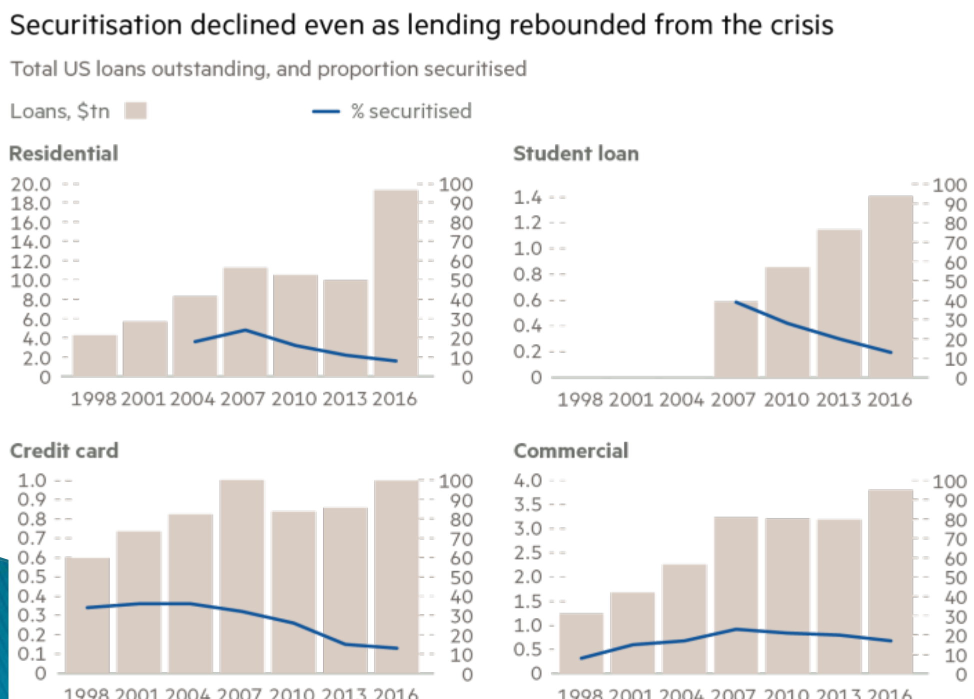


- Outstanding loan securitizations have decreased by over 50% since the peak in 2007.
- The majority of this decrease is related to a significant decline in RMBS issuance combined with prepayments and falling prices for securities.
- CMBS issuance has declined modestly since 2007, however it still represents a significant portion of the current market.

Securitized Market Dynamics



Source: Voya as of March 31, 2017



Source: Financial Times, S&P Global Ratings

- New issuance of CMBS has resumed post crisis, while RMBS has been almost non-existent.
- A significant amount of new issue CMBS has been used to refinance pre-2009 deals.
- Securitization has declined significantly, yet loan originations have reached record highs.
- The securitized market is in the initial stages of recovery as new originators enter the sector.

Section III

CURRENT MANDATE LIMITATIONS/CONSIDERATIONS

Current Tactical Mandate Limitations

- Legacy RMBS/CMBS:
  - Legacy securities continue to be retired and replaced by new issues, depleting the universe of eligible investments.
  - Owning a significant position in the remaining securities could expose the TMRS portfolio to adverse selection bias whereby the underlying loans cannot be refinanced and ultimately result in potential credit impairment.
  - These issues are particularly acute within the Legacy CMBS market.

- The expected return of the strategy has diminished precipitously and must be addressed.

- Diversification under the mandate will continue to decrease, while risks will continue to increase.

Additional Considerations

- Without broadening the guidelines, the probability of achieving the expected return required in the TMRS Strategic Asset Allocation will be reduced.

- Additional costs associated with conducting new searches, liquidity/transaction expenses, lost market opportunity, and implementation slippage must be considered when making the decision to retain our existing managers to invest these mandates.

- Staff considers this approach to be the most efficient, as it minimizes costs and gains a **strategic** exposure to an expansive opportunity set which improves the return profile with added diversification.

Section IV

RECOMMENDATION

Mandate Recommendation

- Staff recommends amending the account guidelines of Ellington Management Group, L.L.C. and Voya Investment Management Co. LLC to revise the scope of permissible investments to include pre and post 2009 CMBS and RMBS along with Asset Backed Securities.

The impact of this recommendation will be to change these allocations from tactical allocations to **strategic** commitments which can remain in the portfolio indefinitely, providing better return profiles and increase diversification.

Section V

APPENDIX: MANAGER RECOMMENDATION (MAY 2014)

Ellington Management Group, LLC

Background

- Founded in 1994 and headquartered in Old Greenwich, CT
- $6B in firm-wide AUM with the overwhelming majority in mortgage-backed securities and their derivatives
- Founder, CEO, and CIO Mike Vranos and several other founding partners and current principals are widely regarded as pioneers in the evolution of the MBS market, credited with having created the structure of some of the common securities in today's market, and having one of the longest histories of mortgage investing in the industry

Investment Management

- Heavy quantitative and statistical approach to mortgage loan and security analysis driven by proprietary interest rate, prepayment, and credit models
- Sophisticated MBS analytics platform which provides in-depth analysis of collateral and its sensitivity to market factors to predict probabilistic outcomes
- Detailed attention to liquidity management and interest rate and credit risks, with historically proven capability to measure input sensitivities across a wide range of scenarios and judiciously employ liquid instruments to mitigate risk
- Robust proprietary infrastructure maintaining detailed information on thousands of financial instruments across many different fixed income security types

Ellington Management Group, LLC

- Risk, Execution, Compliance, Ethics, Service
  - Exemplary well-developed and time-tested risk management and compliance systems, and policies and procedures in place
  - Adherence to IPS guidelines, Compliance Manual, and Code of Ethics tested regularly
  - Appropriate client service and financial reporting capabilities
- Performance
  - Delivered annualized gross return of 9.9% over trailing three year period in the most comparable product to the TMRS mandate
  - Peer leader across time in risk-adjusted measures as evidenced by highest Sharpe Ratio (2.75) among mandate finalist candidates

Voya Investment Management Co. LLC (formerly ING U.S. Investment Management)

- Background
  - Headquartered in New York, NY with Fixed Income Team located in Atlanta, GA
  - $204B in firm-wide AUM with $8B in RMBS/CMBS
  - 40 years of history in asset management with very stable RMBS/CMBS team averaging 12 years of industry experience each and seasoned portfolio managers working together for 15 years at the firm
- Investment Management
  - Strong and balanced team approach to top-down research incorporating macro economic data, relative value, and market technicals resulting from regular interaction with other fixed income sector groups matched with in-depth bottom-up credit research and analysis at the individual security level to generate idea generation
  - Deep surveillance of residential and commercial real estate values and trends that indicate present and future borrower, originator, and servicer behaviors combined with firm understanding of legal interpretations and regulatory impacts
  - Competitive advantage in CMBS collateral analysis through partnership with commercial real estate finance team, which manages $10B in commercial debt, that flows into proprietary credit model
  - Significant counterparty trading volumes in mandate strategy, providing sourcing advantages and cost savings

Voya Investment Management Co. LLC (formerly ING U.S. Investment Management)

- Risk, Execution, Compliance, Ethics, Service
  - Dedicated and clear focus on risk management and compliance, with robust systems, policies and procedures in place
  - Adherence to IPS guidelines, Compliance Manual, and Code of Ethics tested regularly
  - Appropriate client service and financial reporting capabilities
  - ING U.S. honored as a 2014 World's Most Ethical Company by the Ethisphere Institute
- Performance
  - Produced annualized gross return of 10.2% over trailing three year period in the most comparable product to the TMRS mandate
  - Adherence to seeking and obtaining top performance in a risk-adjusted framework as evidenced by the second highest Sharpe Ratio (2.29) among mandate finalist candidates

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