Comments on "Unconventional Monetary Policy and Risk-Taking: Evidence from Agency Mortgage REITs"

By Scott Frame and Eva Steiner

Atlanta Fed and Cornell

Discussed by Yongheng Deng

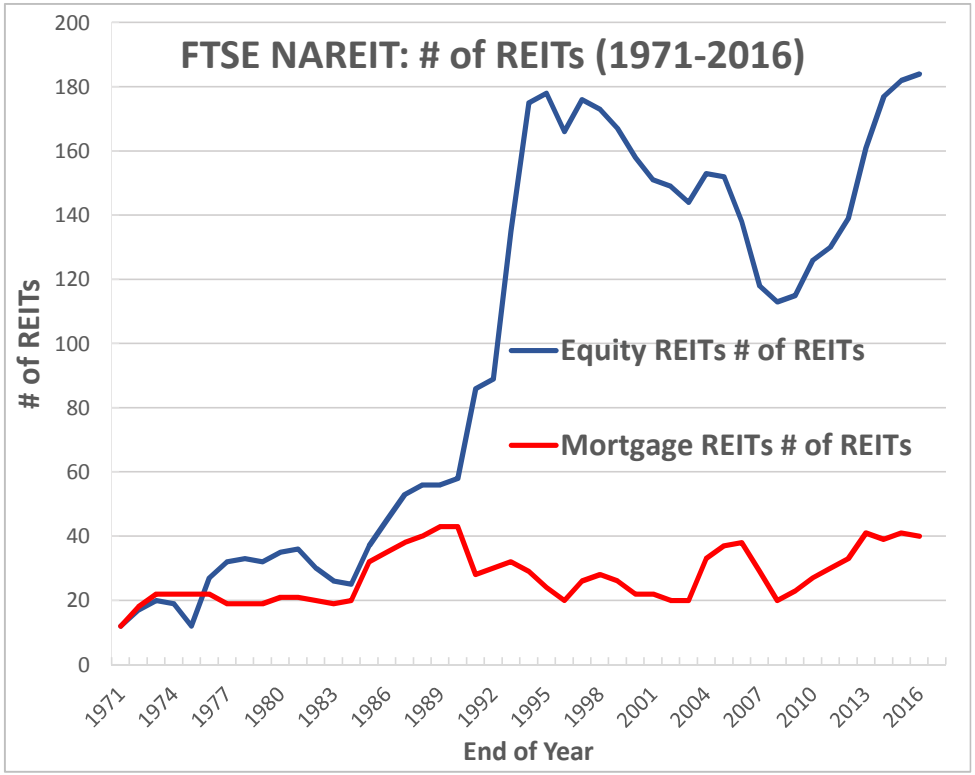
National University of Singapore

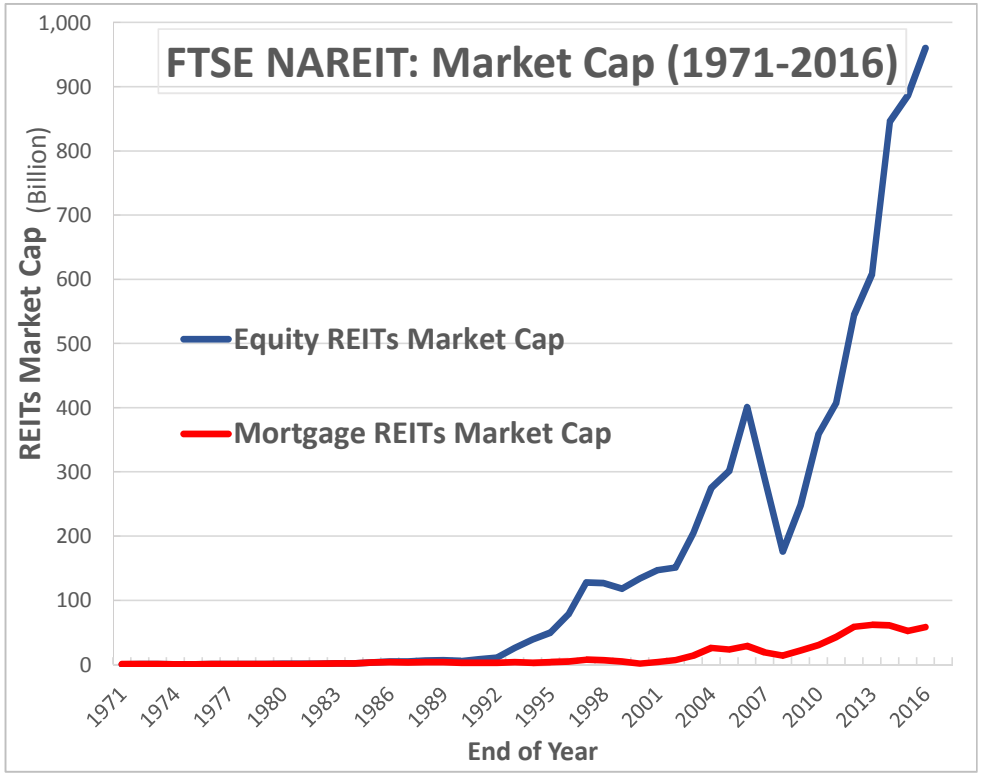
What is the paper about?

- Study the impacts of the unconventional monetary policy (QE1, QE2, MEP, QE3, Tapering) to the Agency Mortgage REITs market
- Study the growth of the Mortgage REITs in terms of total assets and equity issuance
- Study the relationship between Agency Mortgage REITs risk-taking and unconventional monetary policy
- First paper to empirically analyze Agency Mortgage REITs
- First paper to study the relationship between UMP and risk-taking by the financial institutions who are holding the Agency Mortgage REITs

The background of US REITs Market

Equity REITs vs. Mortgage REITs





The background of US REITs Market

Equity REITs vs. Mortgage REITs

- Equity REITs dominates the US REITs market since early 1990's (there are 224 Equity REITs by the end of 2016, with market cap over $1 trillion)
- Mortgage REITs invest in residential and commercial mortgages (whole loans), as well as RMBS and CMBS.
- Agency RMBS constitute the bulk of assets held by Mortgage REITs today. However, residential Mortgage REITs also may invest in private-label RMBS and non-agency mortgage loans.
- As of March 31, 2017, there were 21 listed residential Mortgage REITs with a market capitalization of $45.9 billion and 13 listed commercial Mortgage REITs with a market capitalization of $15.1 billion.
- 12 of residential Mortgage REITs are Agency Mortgage REITs, average market cap is $24.2 billion during 2005-2015.

The Agency Mortgage REIT Business Model and Risks

- The Agency Mortgage REITs hold agency mortgage loans and agency RMBS on their balance sheets, and fund these investments with equity and debt capital. Their general objective is to earn a profit from their net interest margin.
- Agency Mortgage REITs have virtually no credit risk (by the nature of agency securities, which are guaranteed by Fannie, Freddie and Ginnie; and by over-collateralization).
- However, these instruments are very long-term, hence subject to significant amount of interest rate risks (the level and slope of the term structure).
- Prepayment Risks and Rollover Risks.
  - The duration gap between mortgage REITs assets and liabilities requires that they roll over their short-term debt before the maturity of their assets.
  - Their ability to do so depends on the condition of the underlying assets market, the liquidity and smooth functioning of the short-term debt markets, including the repo market.

The key takeaways

- Agency Mortgage REITs growth was inversely associated with Federal Reserve activity in the Agency MBS market (the crowding-out effect)
- Agency Mortgage REITs seemingly reduced their interest rate hedging during the initial stage of QE (the risk-taking channel of monetary policy).
- The trend later reversed after the central bank resumed Agency MBS purchases during QE3 and through their tapering of such purchase.

Comments

- The authors are interested in learning about changes in the behavior of Agency MREITs during the late-2000s, and the extent to which their behavior responded to changes in the monetary policy environment
  - Analysis based on OLS regression using 238 firm-quarter event history observations over the period of 2005-2015
  - The OLS regression structure based on firm-quarter event history observations ignores the firm behavior changes due to UMP shocks
  - Can we add interactions of UMP shocks instead of the dummies for the shocks
  - Can adopt Steven Kamin's pre-UMP vs. post-UMP shocks scatter plots to capture the firm behavioral changes
  - Alternatively, may adopt Regression Discontinuity approach to capture the behavior shift in response to UMP shocks

Comments

- The growth, repurchasing, and risk-taking behavior of the MREITs may be related to the agency MBS market conditions, can we know more about the underlying Agency RMBS performance data? Can we link the underlying Agency RMBS information to the MREITs growth, repurchasing, and risk-taking behavior?
- Can we link the underlying asset market fundamentals, e.g., HPI, volatilities of the local housing markets, the heterogeneity of these variation across markets, and conditioning on these fundamentals when look into the MREITs behavioral changes in response to the UMP shocks

Comments

- Do we know who are the investors of the 12 Agency MREITs with $24.2 billion underlying Agency RMBS
- Do we know anything about the $1 trillion+ Agency Debt and RMBS purchased and held by the Federal Reserves
- Can we benchmark the behavior of $24.2 billion Agency RMBS held by 12 Agency MREITs with $1 trillion+ Agency RMBS portfolio held by the Federal Reserves
- Can we compare the 12 Agency MREITs performance (dividends, returns, volatilities, etc.) with the rest of non-Agency Mortgage REITs in the US REITs market (22 non-Agency Residential MREITs $22 billion, 13 non-Agency Commercial MREITs $15 billion)
- Compare with 224 Equity REITs ($1 trillion+) in the US REITs market

Comments

- Table 9 reports Agency MREITs hedging intensity is negatively related to the three interest rate control variables – 3 month Tbill, term structure slope and option-adjusted spread.
- Agency MREITs reduced their use of interest rate derivatives during QE1, QE2, and MEP; but ramped-up during QE3.
- Do we observe similar pattern in the underlying Agency RMBS market?
- Why risk-taking channel of UMP observed in QE1, QE2, and MEP but not QE3?