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**Discussion of  
“Quantitative Easing and Financial Institution  
Risk Taking”**

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# Big Picture

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How (/does) Quantitative Easing Works?

- Expectation channel: changes the economy-wide yield curve
  - The only thing that matters is the duration of the assets.
- Flypaper effect: during the time of disruption in the financial market, Fed can allocate credit to sectors with highest NPV for the economy.
  - The type of assets purchased matters.
- Reach for yield: Induces risk taking by financial intermediaries.
  - Risk taking can mean investing in more risky assets.
  - Or (perhaps more importantly) **taking more risky capital structure**

# This Paper

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- Focuses on mortgage REITs and the differential response of agency-mREITs and non-agency mREITs.
- Non-agency mREITs stock prices reacted more to QE1 and QE3 but not QE2.
- Fed MBS purchases is associated with decline in the assets of agency-mREITs.
- Fed MBS purchases during the QE3 and tapering is associated with a significant decline in equity-to-asset ratio (i.e. increase in leverage) of agency-mREITs.
- Some evidence that both QE and tapering were associated with lower interest rate risk and liquidity risk taking.

# Comments

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- Conceptual framework
- Is the agency/non-agency-mREIT comparison an informative comparison?
- What determined the Fed monthly MBS purchase share?
- Other comments

# Conceptual Framework

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- How does QE induce reach for yield?
- Lower long-term yield
  - All long-term assets will have lower return.
  - Induces financial intermediaries to take either more credit risk or higher leverage to “boost” the (short-term) returns.
- Take away safe assets from the market to induce intermediaries to take more risk.
  - Safe long-term assets have differential lower return.
- It would be super helpful to discuss how composition of assets in QE can affect the reach for yield channel and therefore different intermediaries differently.

# Is the Agency/non-Agency mREIT Comparison Informative?

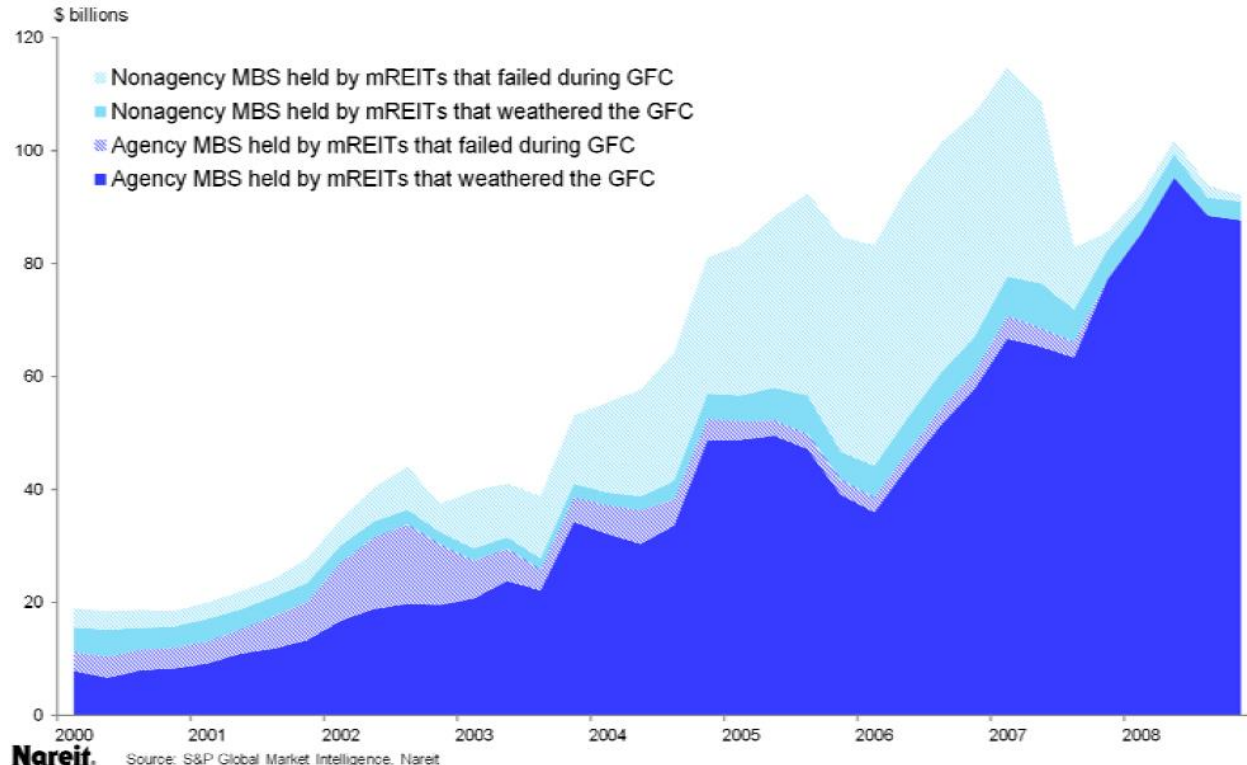
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- What is common about agency and non-agency mREITs?
  - Both of them perform maturity transformation and profit from yield curve slope.
- Differences on the asset side:
  - Agency: exposed to prepayment risk. No credit risk.
  - Non-Agency: exposed to credit risk.
    - Commercial mortgage non-agency: no prepayment risk.
    - Subprime mortgage non-agency: Refinance/prepayment means reduction in interest rate risk.
- Differences on the liability side:
  - Agency mREIT rely significantly more on Repo funding.

# Is the Agency/non-Agency mREIT Comparison Informative?

## Mortgage Assets of Home Financing Mortgage REITs

Most holdings of nonagency MBS were at mREITs that did not survive the crisis.  
Most holdings of Agency MBS were at mREITs that did survive the crisis.

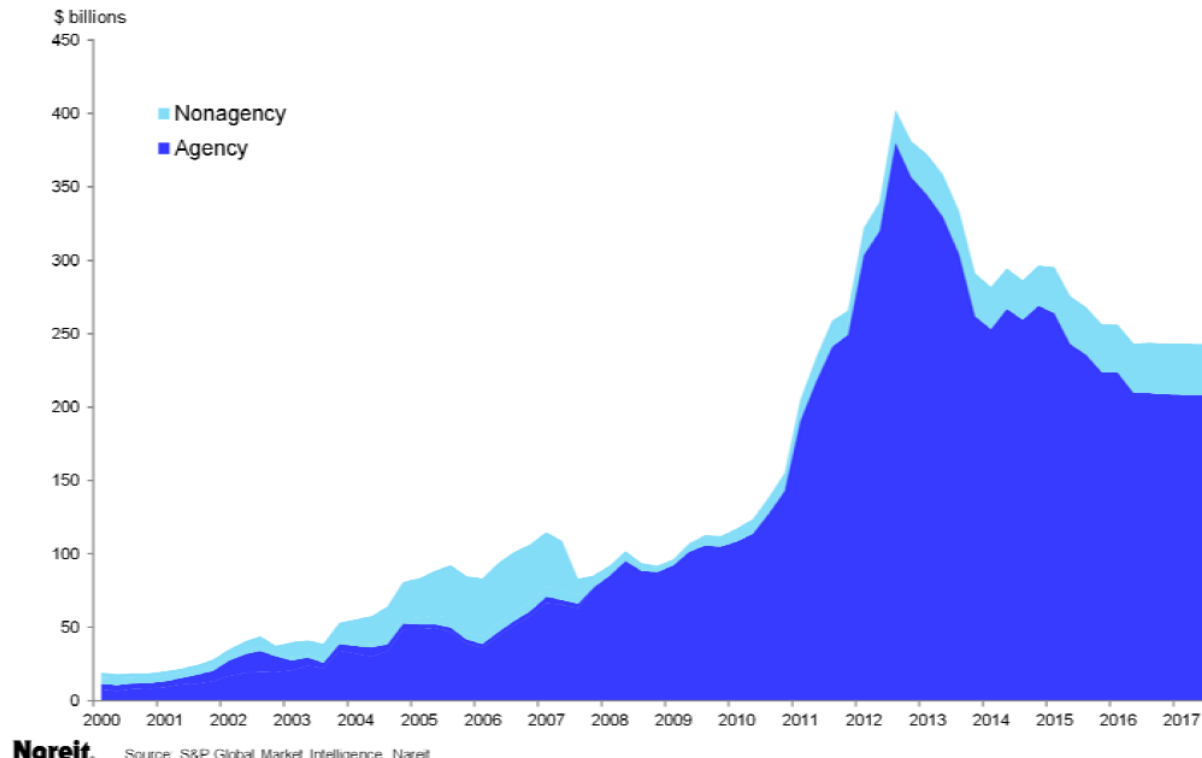


# Is the Agency/non-Agency mREIT Comparison Informative?

- Agency mREITs holding of agency MBS grew by more than 300% between 2010 and 2013.

## Mortgage Assets of Home Financing Mortgage REITs

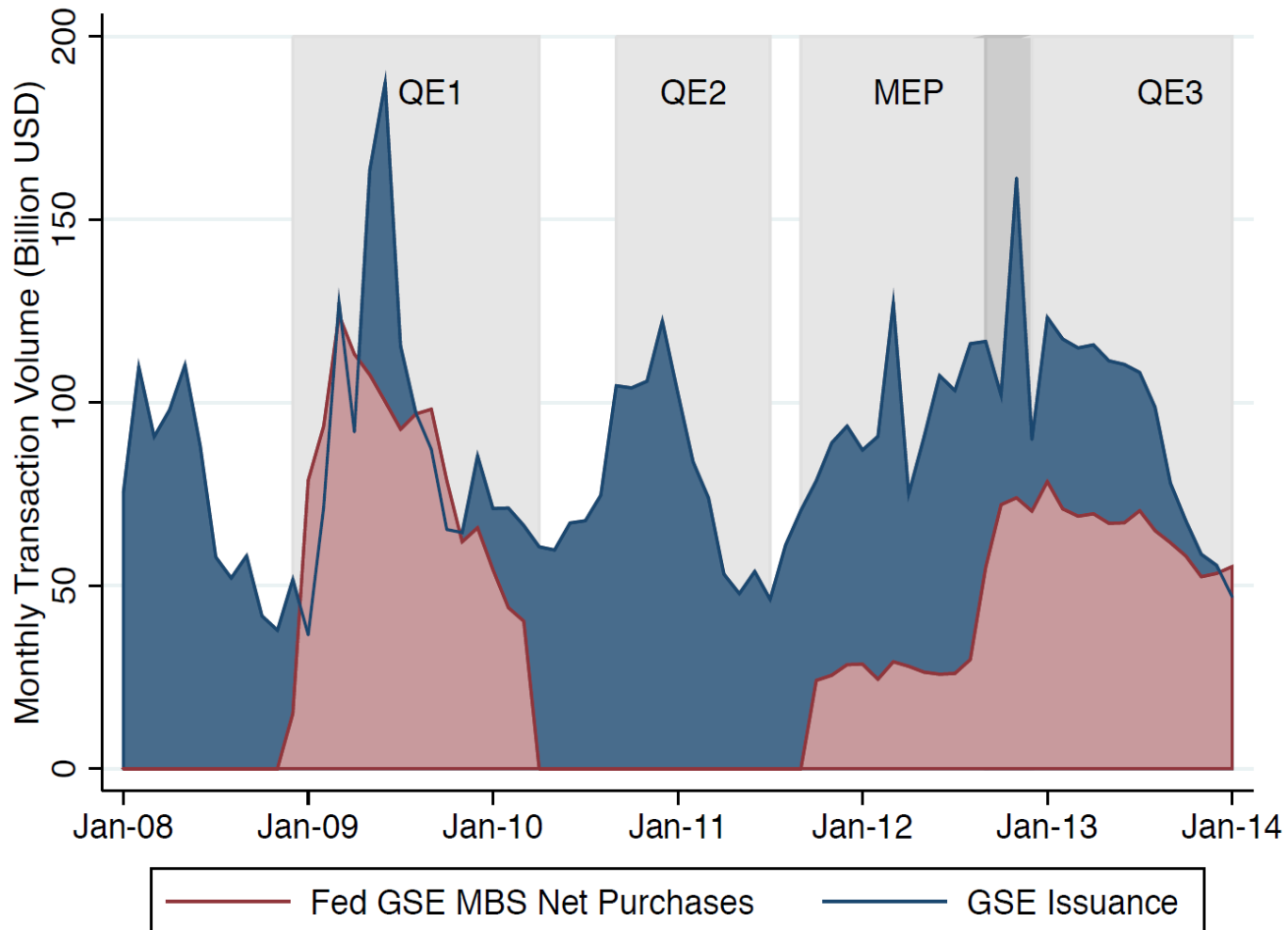
Holdings of Agency MBS rose from less than \$100 billion in 2008 to over \$400 billion in 2012.





# Fed Monthly MBS Purchases

Figure 4. Fed GSE MBS Net Purchases vs. Monthly GSE Issuance



# What determined the Fed monthly MBS purchase Share?

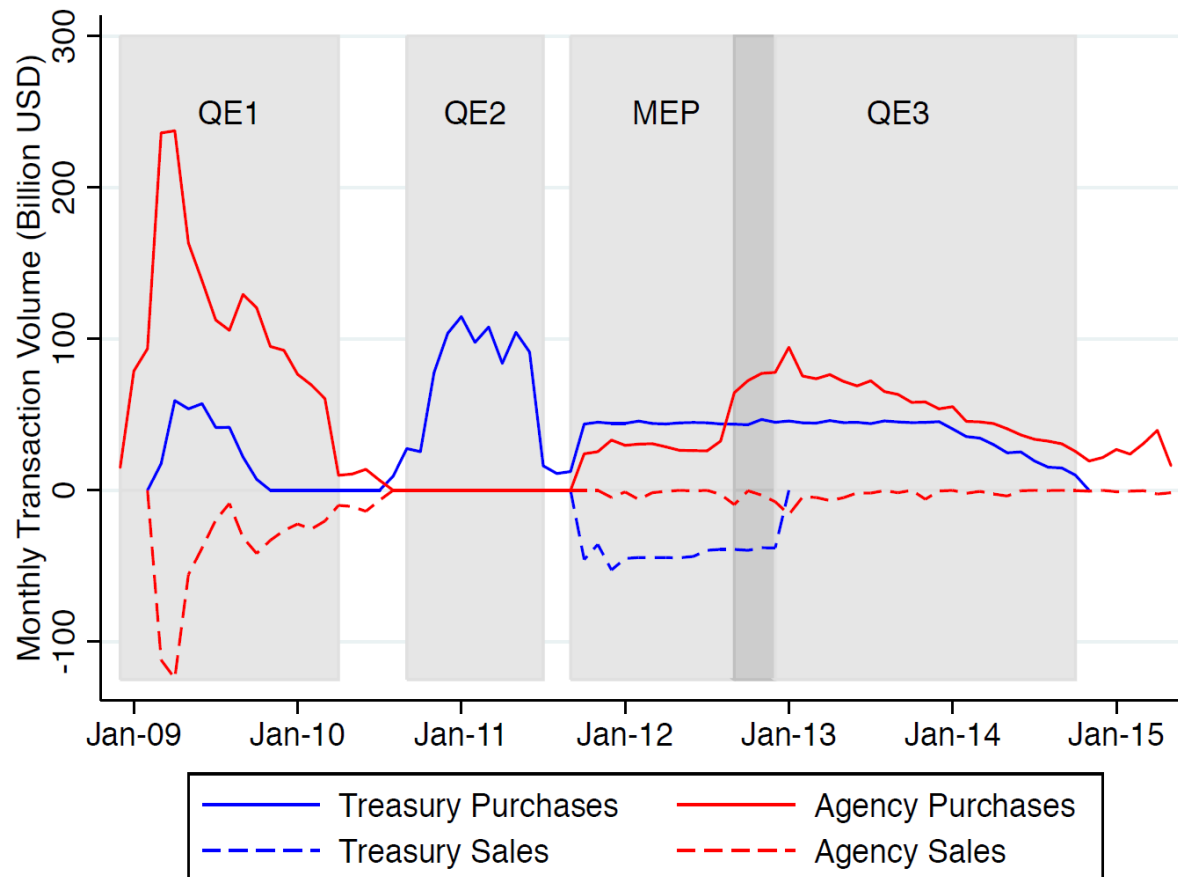
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- During MEP and QE3 (before taper tantrum speech):
  - Mostly constant, around \$40bn/m and \$80bn/m
  - Then all the variation in the Fed share comes movements in total mortgage origination.
- Taper tantrum increased the rates, reduced refis and therefore increased the Fed share significantly. But not because the Fed purchased more.
- What about QE1?

# What determined the Fed monthly MBS purchase Share?

- What about QE1?

Figure 3. Federal Reserve Asset Purchases & Sales (Gross)



# Other Comments

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- Would be better to let the sensitivity of agency and non-agency mREITs to term structure, credit risk and other controls to be different.
- What about Nov 25<sup>th</sup> 2008 announcement for QE1?

# Conclusion

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- Interesting paper on the transmission channel of QE.
- Studies a new channel of QE: the impact of QE on the capital structure.