GNMA Liquidity and Counterparty Risk

GNMA Conference on Managing Value and Liquidity in Mortgage Servicing

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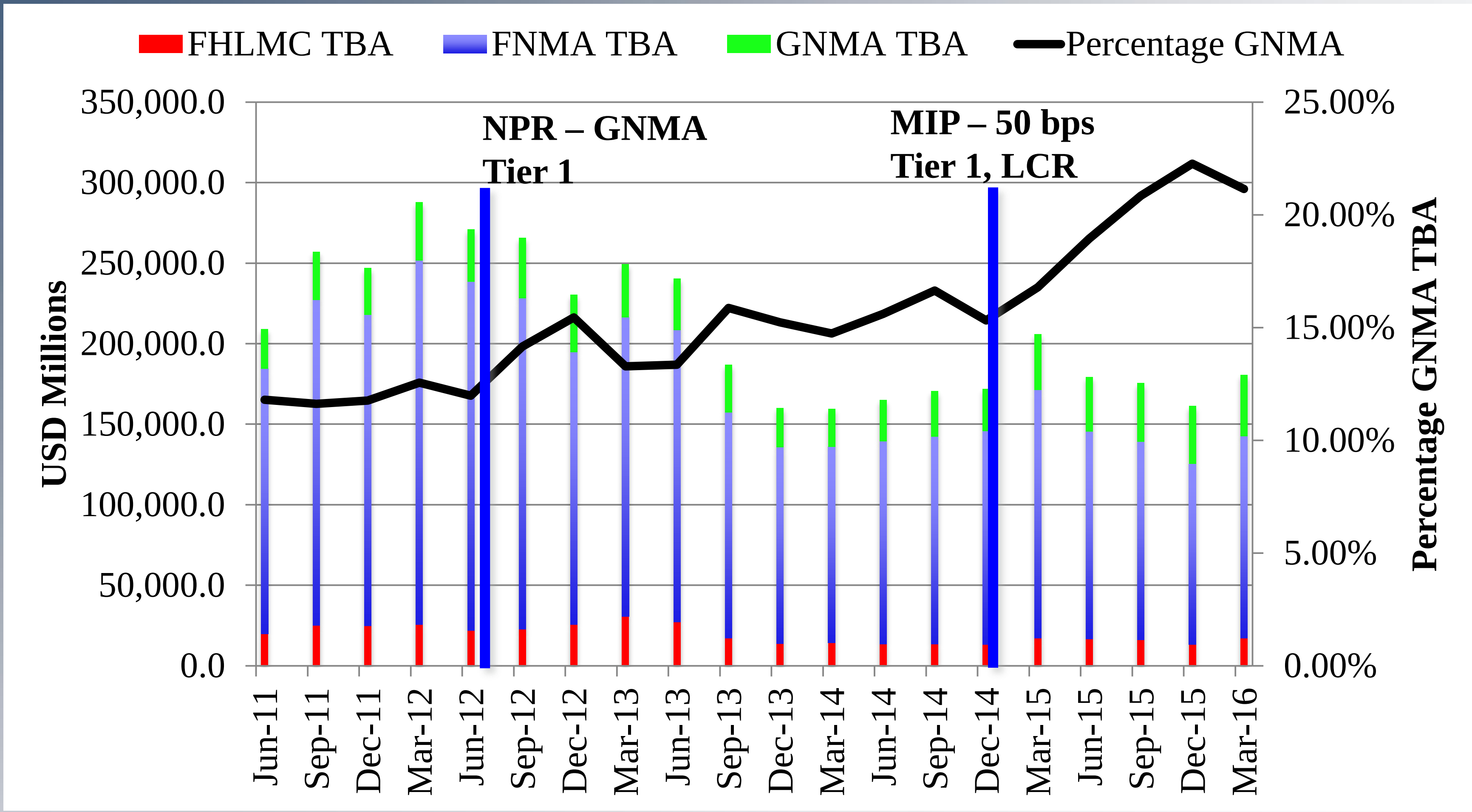
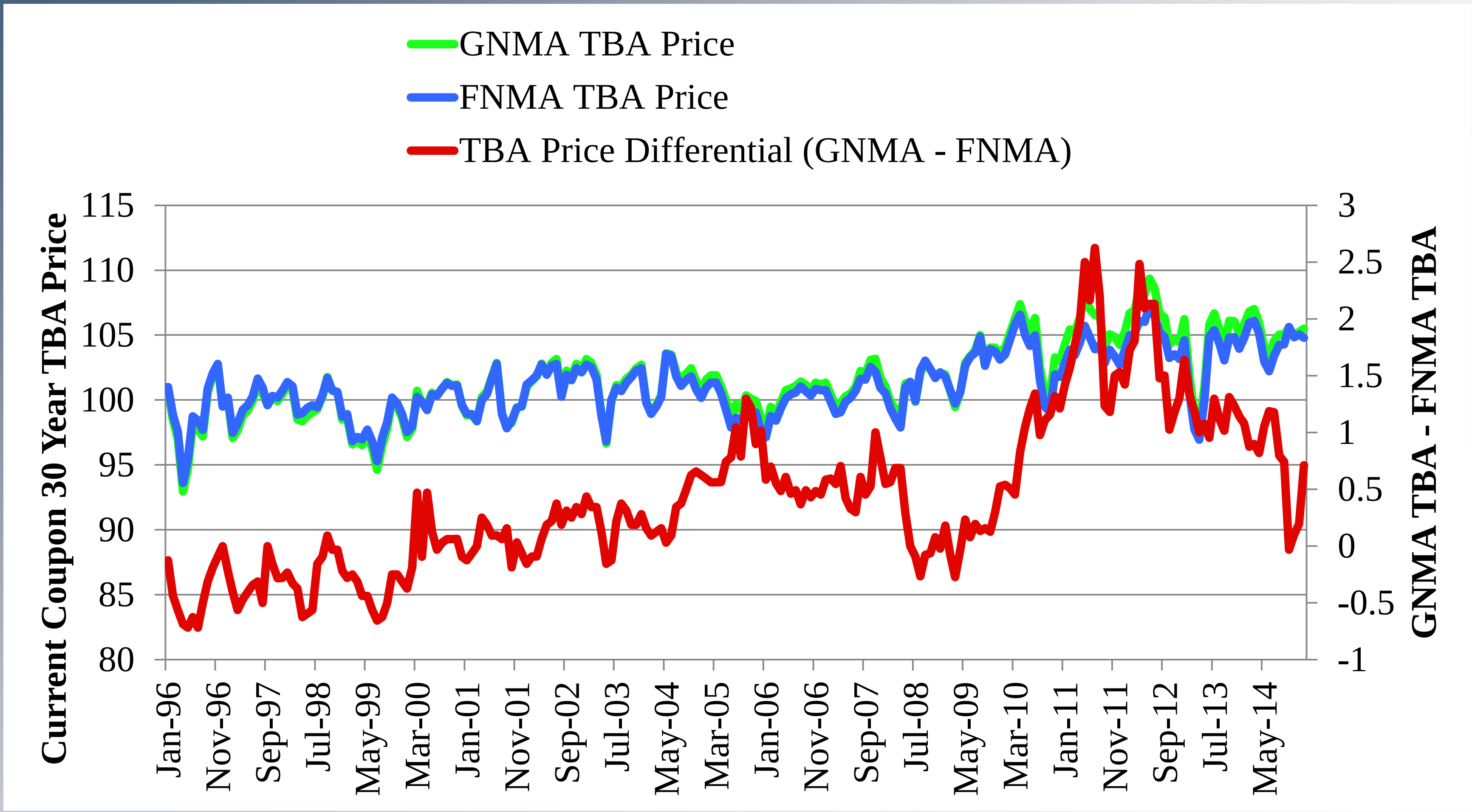
Regulatory Effects on GNMA TBA Volume



Source: SIFMA

Pricing differentials between GNMA and FNMA TBA



Source: Citigroup Yieldbook

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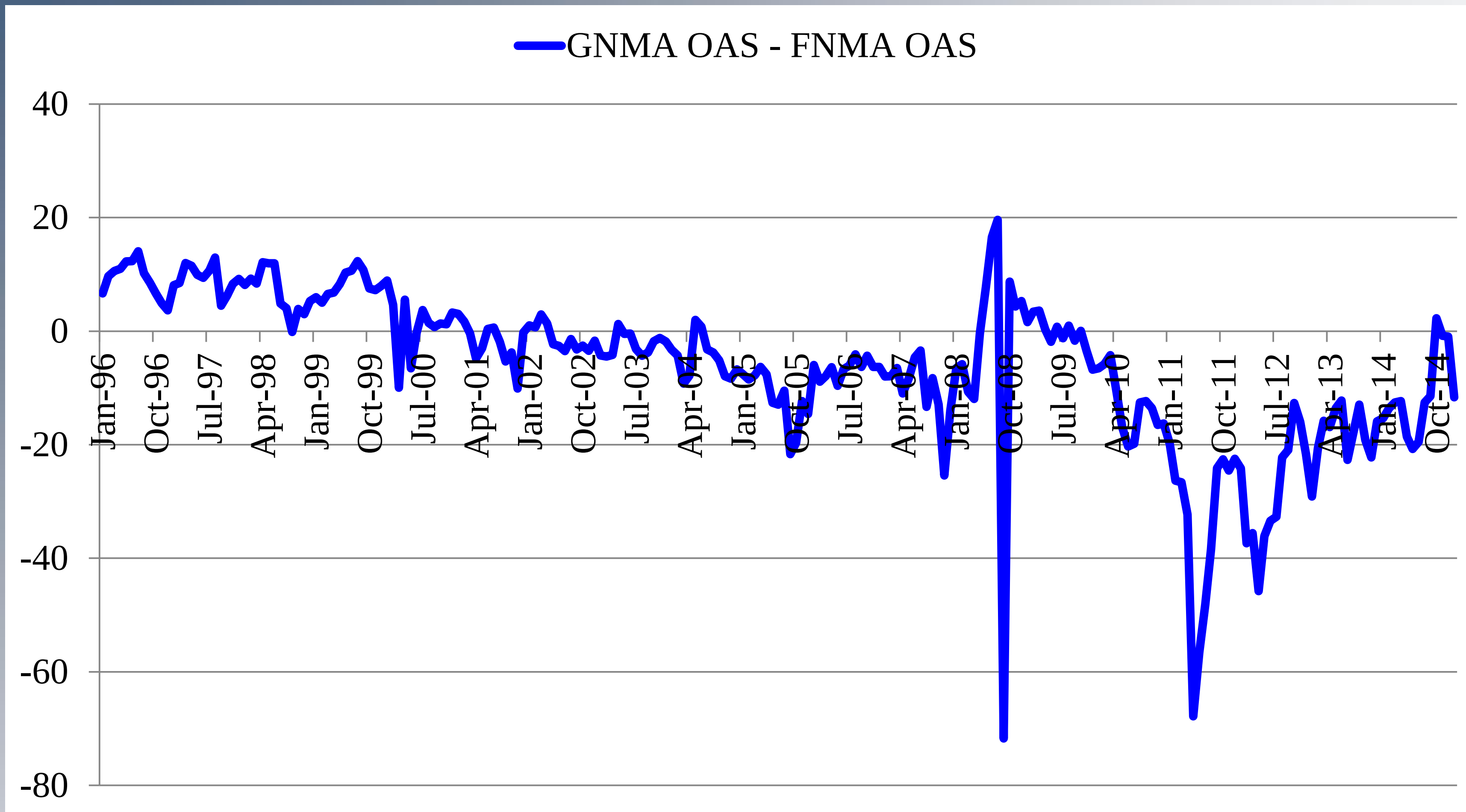
GNMA and FNMA OAS Volatility



Source: Citigroup Yieldbook, REFM Calculations

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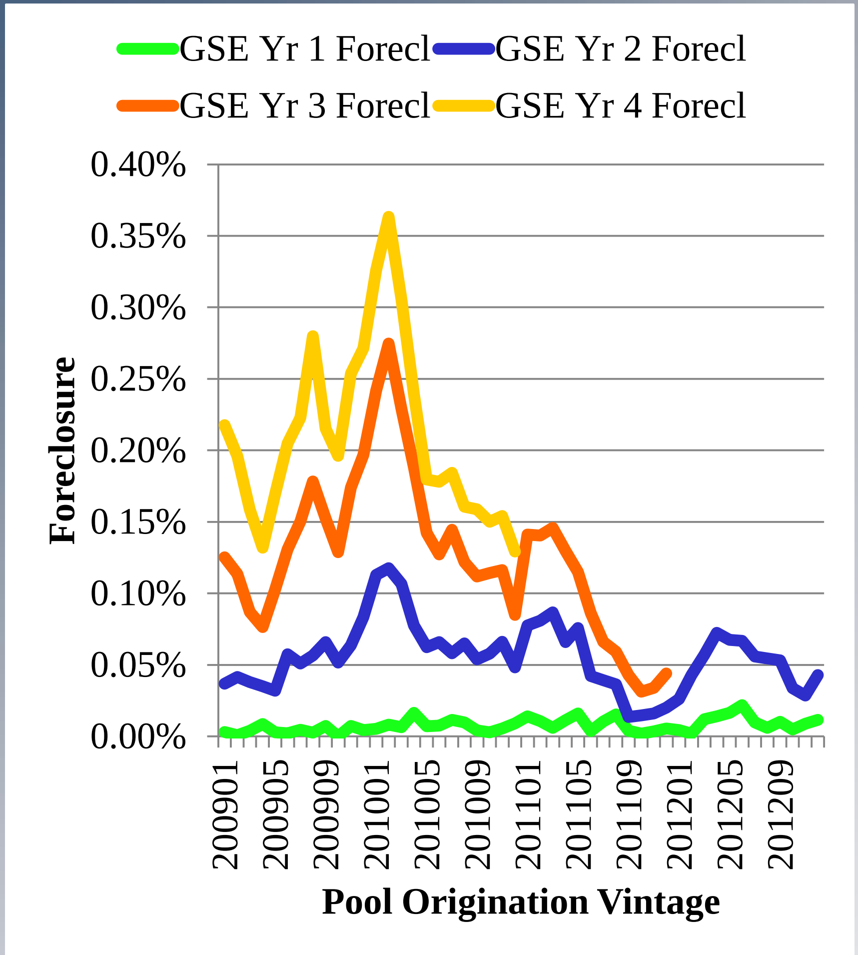
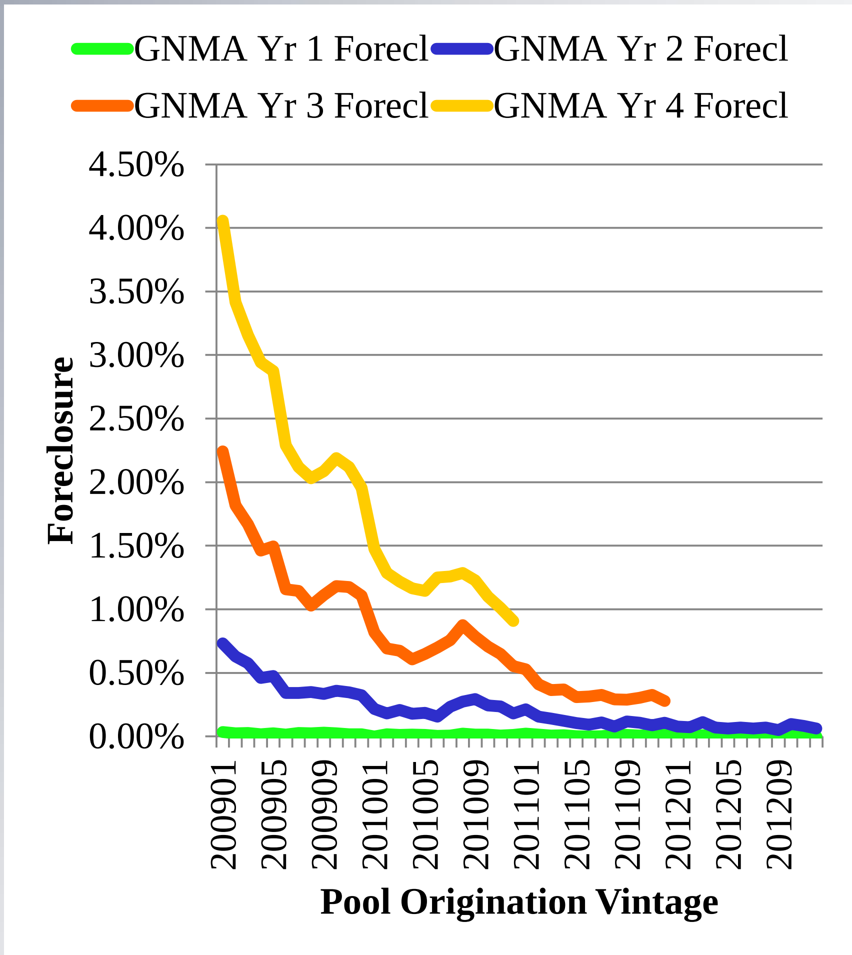
GNMA Foreclosure Elevated Relative to GSEs





GSE Foreclosure

GNMA Foreclosure

Source: RMS, REFM calculations

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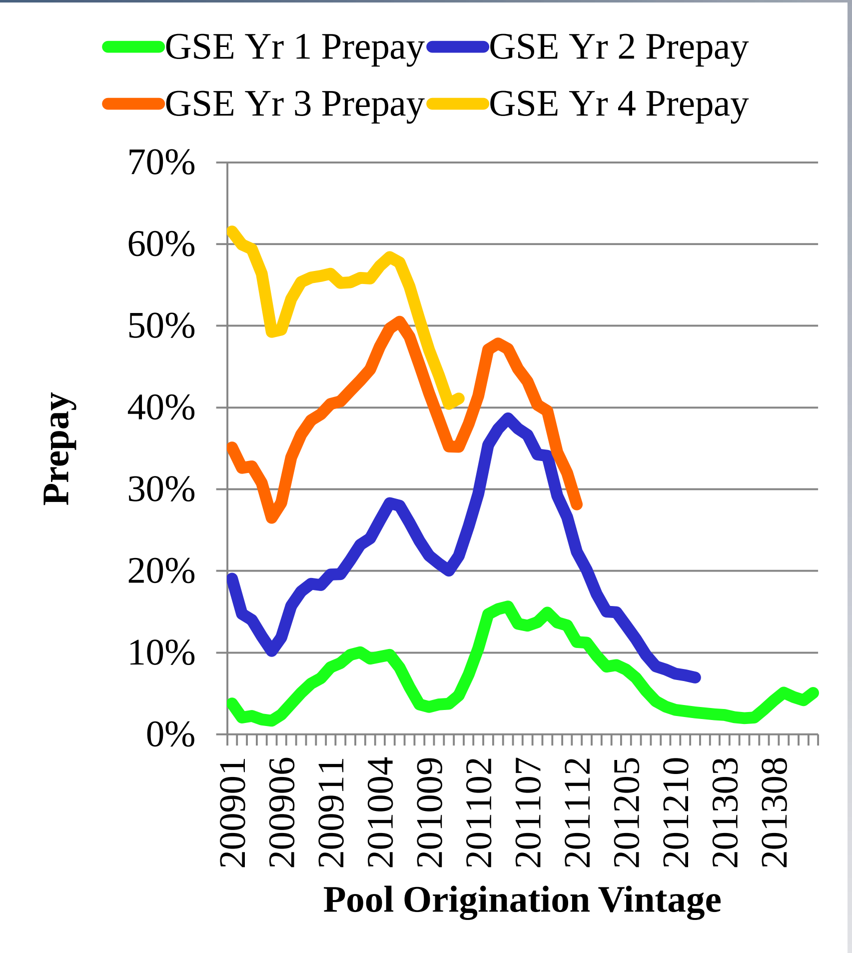
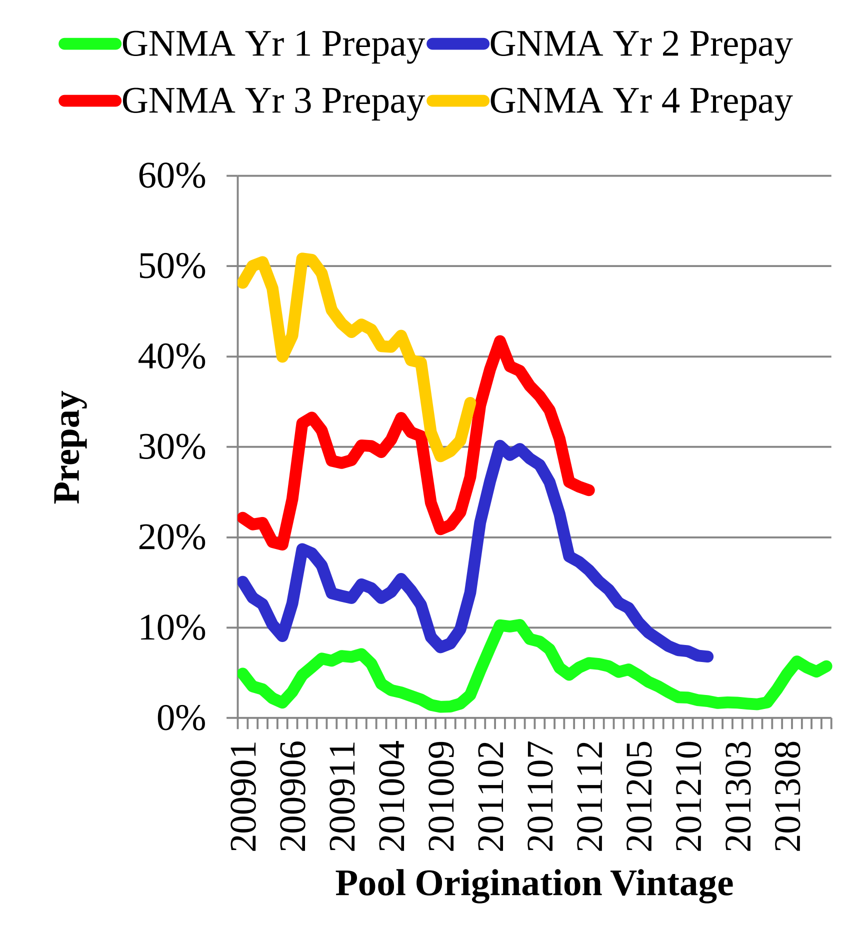
GNMA Prepayment is Slower Relative to GSEs



GSE Prepayment



GNMA Prepayment

Source: RMS, REFM calculations

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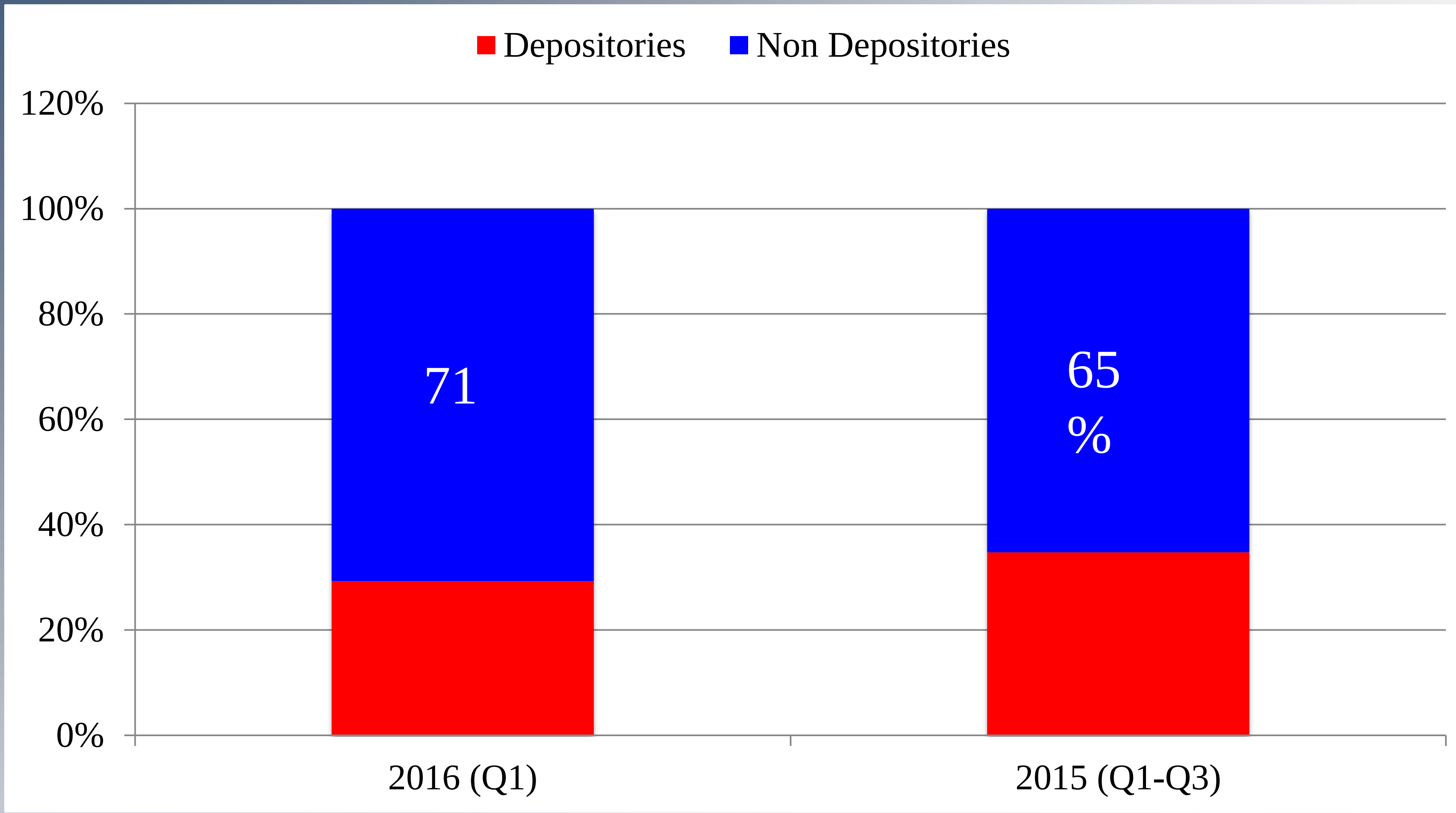
Top 100 GNMA Producers are largely non-depositories



Source: Inside Mortgage Finance

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Primary Non-Depository Funding Source: Mortgage Repurchase Agreements

- **Strict capital and accounting covenants**
- **Significant roll over risk (short maturities)**
- **Often highly concentrated Repo-Buyer counterparty exposure**
- **Risk of haircuts and dynamic margins**
- **Exempt from Automatic Stay under BAPCPA 2005**
- **Reps and warranty risk resides with originator (Repo seller who has little capital)**

Pre-crisis New Century Committed MRAs (December 2005)

- **Warehouse Lenders (MRAs) -- TOTAL $14.35B**
  - Bank of America, N.A. - $3B
  - Barclays Bank, PLC - $1B
  - Bear Stearns Mortgage Capital - $800M
  - Citigroup Global Markets Reality Corporation -$1.2B
  - Credit Suisse First Boston Capital, LLC - $1.5B
  - Deutsche Bank - $1B
  - IXIS Real Estate Capital, Inc - $850M
  - Morgan Stanley Mortgage Capital Inc. - $3B
  - UBS Real Estate Securities Inc. - $2B
- **Off-Balance Sheet Borrowing -- TOTAL $2B**
  - Von Karman Funding Trust - $2B

Source: New Century 10Q filing.

Penny Mac Mortgage Investment Trust: Warehouse Lines (74% Liabilities, 8 Month WAM) and Net Capacity, (10Q 2016:Q1)

	Line	Net
Credit Suisse First Boston Mort. Capt.	$858,021,000	$752,000
Citibank	$824,003,000	0
Bank of America, NA	$568,850,000	0
JPMorgan Chase & Co	$543,313,000	$136,000
Morgan Stanley Bank, NA	$252,082,000	$462,000
Daiwa Capital Markets	$178,994,000	$80,000
Barclays Capital	$12,379,000	$239,000
BNP Paribas	$10,122,000	0
Fannie Mae Capital Markets	$5,863,000	$5,863,000
Deutsche Bank	$784,000	$784,000
Goldman Sachs	$262,000	$262,000
Other	$656,000	$655,000
Unamortized debt issuance costs	($1,081,000)	
Total	**$3,258,502,000**	**$13,488,000**

Source: PennyMac Mortgage Investment Trust, Form 10Q filing.

Conclusions

- GNMA TBA pricing appears to capitalize regulatory capital advantages – **0% risk weight**.
- GNMA MBS producers increasingly non-depository mortgage companies – **71% non-depository**.
- Non-depository pipeline funding is **fragile:**
  - Pre-crisis mortgage origination funding structures are still dominant – especially master repurchase agreements (MRAs).
  - MRA funding structures are vulnerable to: 1) roll-over risk; 2) many other debt covenants (especially accounting triggers) -- this was a very important pre-crisis problem leading to the collapse of lending infrastructure and many firm bankruptcies.
  - MRAs have repo status so they are exempt from automatic stay --Warehouse lenders (Repo Buyers) will run when market softens.
  - Non-depository warehouse "borrowers" (repo sellers) have no capital, but they bear the rep and warranty risk – is this sensible?

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