

# Issues in Mortgage and Housing Finance: GSE Reform Proposals

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The views expressed in this presentation are those of the speaker and not those of the Federal Reserve Bank of New York or the Federal Reserve System.

## Several Proposed Bills Now Exist for GSE Reform

### **Senate:**

- Corker / Warner
- Johnson / Crapo

### **House:**

- Hensarling
- Waters

Contrast to a proposal by a few staff at FRBNY

## FRBNY Staff Reports on Housing Finance Reform

### Core Ideas:

- Government explicit guarantee
- Vintage-based reinsurance
- Financial market utility – lender cooperative

## FRBNY Staff Report on Housing Finance Reform

### Core Ideas:

- Government explicit guarantees

Senate bills create an explicit guarantee

House bills split on guarantee

- Vintage-based reinsurance

Senate bills insure MBS rate investor but not guarantors

- Financial market utility – lender cooperative

Corker/Warner and Johnson / Crapo use coop for small lenders –  
many bond guarantors

Waters adopts single lender coop

## Design Principles

- Keep what worked
  - Benefits of standardized securitization are meaningful
    - well understood mortgage products, TBA market liquidity
  - Economies of scale and scope → limited number of securitizers
- Alignment of public and private incentives is critical and requires:
  - restructuring of incentives across securitization chain
- More capital and more attention to regulatory arbitrage
- Simple tax may be preferable to past affordable housing targets
  - Senate bills include a 10 bp tax for affordable housing

## FRBNY Staff Reports: Argue for a Government Backstop

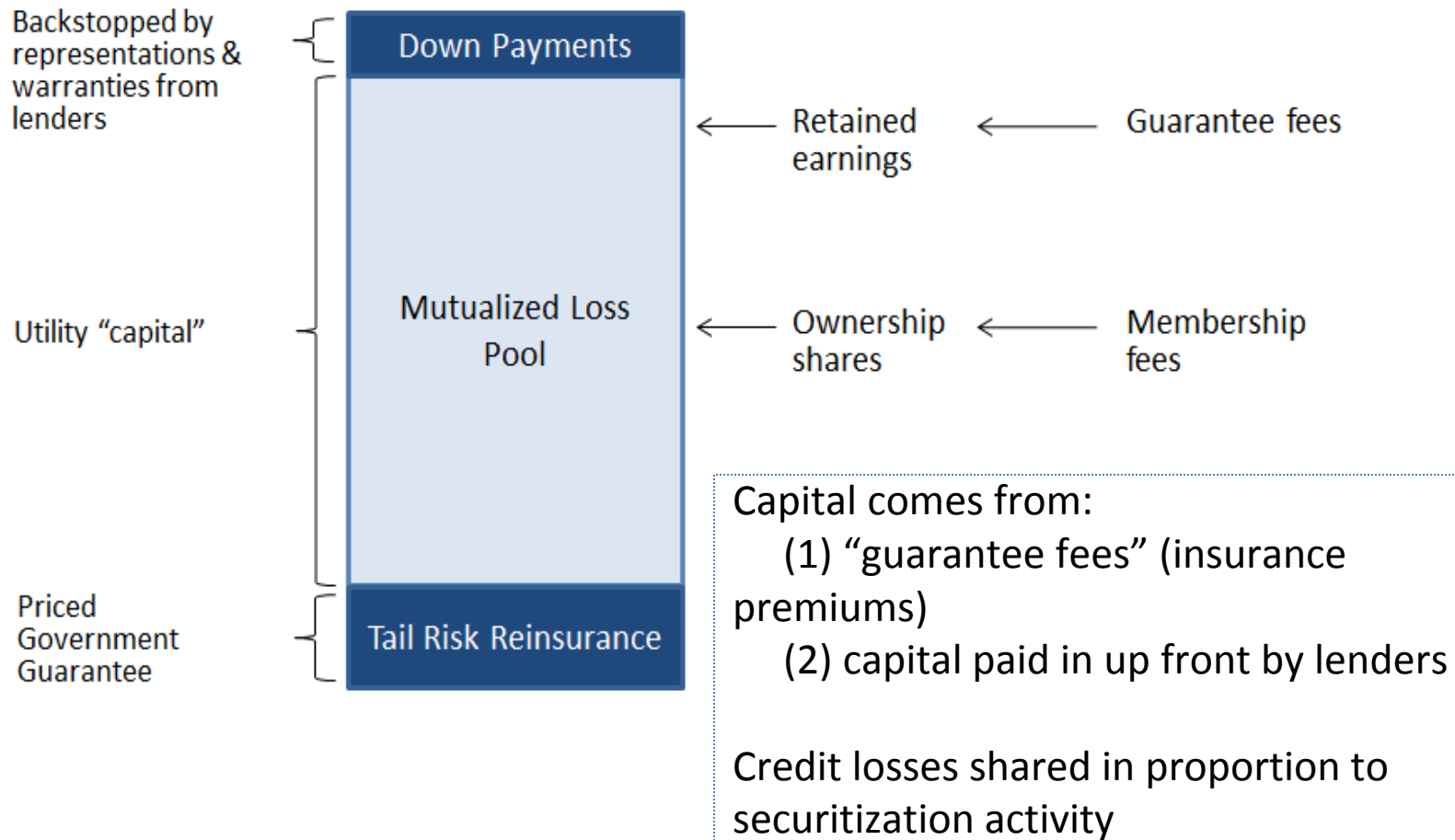
- **Liquidity supports robustness**
  - Goal: the uninterrupted flow of credit to housing markets even in periods of market stress.
- **The government owns the tail risk**
  - Housing is crucial to both household and financial institution balance sheets.
  - If you can't eliminate the risk, then you should reduce, manage, and price it.
  - Denial recreates implicit guarantees, moral hazard, and corrosive uncertainty.
- **The government should hold *only* and *all* the tail risk**
  - The private sector should bear the losses associated with the normal business cycle, regional downturns, idiosyncratic losses.
  - This implies the private sector prices the largest portion of the overall g-fee.

## Designing the Guarantee:

Attachment Point	Important feature	Systemic shock
<b>Security-based</b>	Government bears idiosyncratic and regional risks unless higher capital ratios set	New capital not subject to legacy losses Risk that credit investors pull-back in periods of stress
<b>Institution-based</b>	Moral hazard, erosion of market discipline.	Once trigger reached, new capital is not subject to legacy losses
<b>Vintage-based</b>	Pooling across securities (and possibly issuers) eliminates idiosyncratic/regional risks	New capital not subject to legacy losses. Capacity to do new lending is better preserved – internal financing

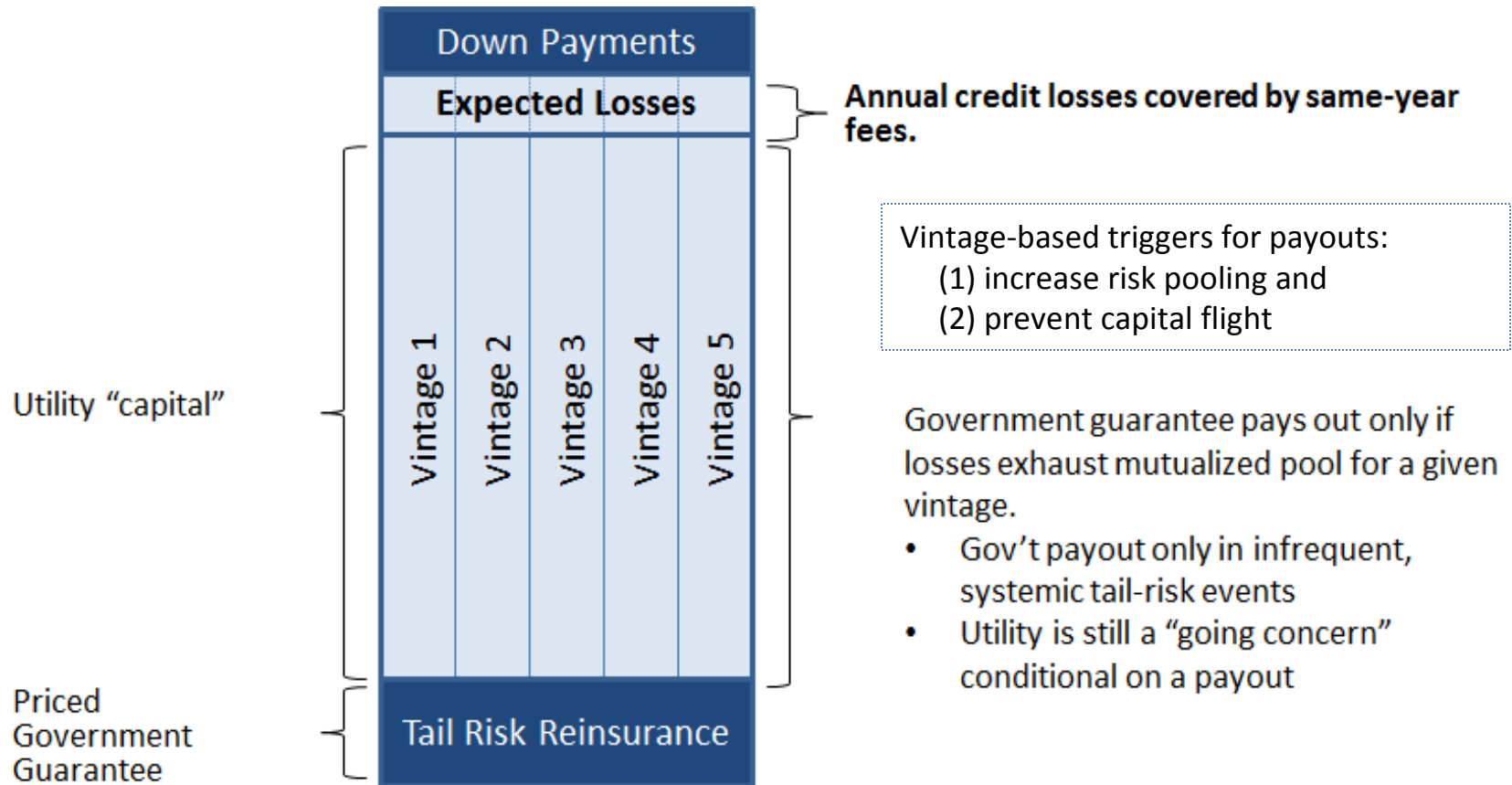
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## Mutualizing Ownership of a Securitization Utility



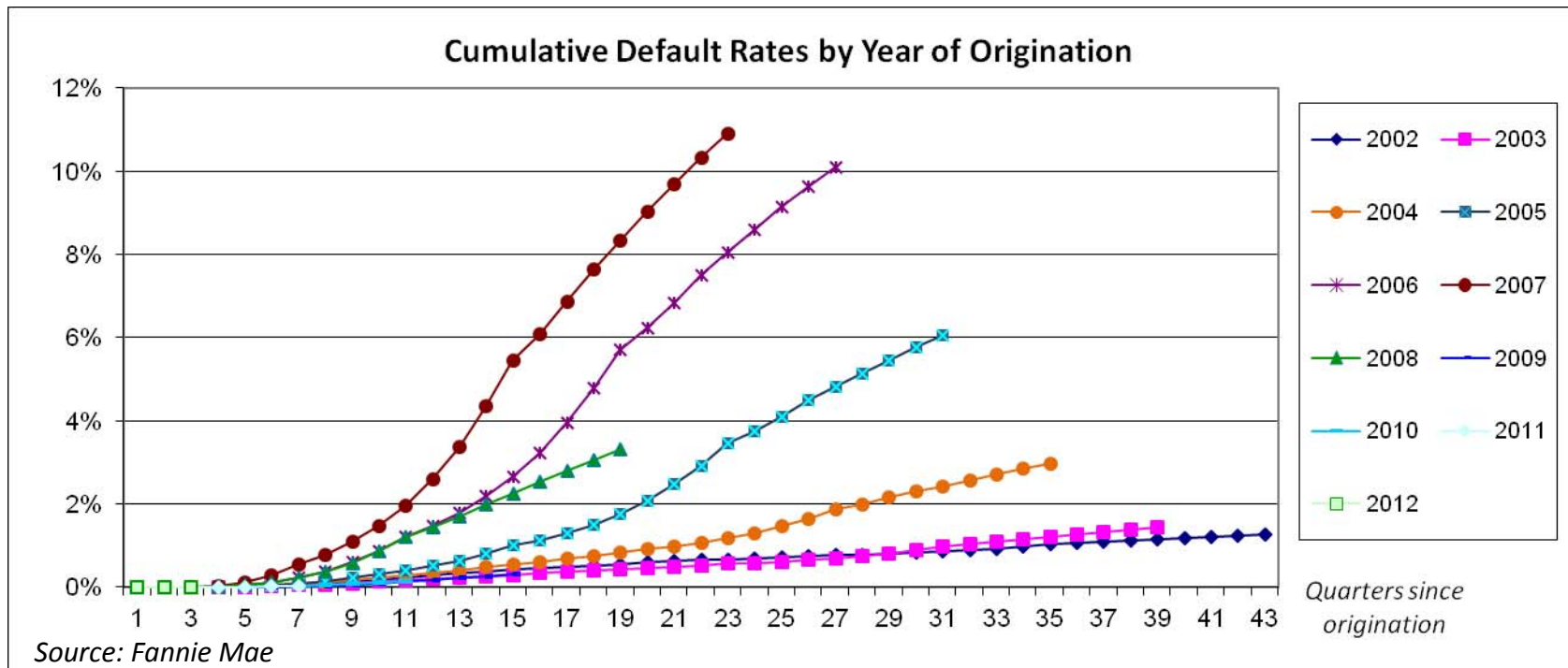


## Capital Structure with Vintages



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## Loan Performance Appears Stratified



- Stratification within 8-12 quarters of origination, supporting the vintage concept.
- Relevant for determining the triggers for tail loss insurance and capital release

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## Stylized example: determining the G-fee for a Vintage

### *No Reinsur*

Capital Ratio	12%
Assumed Return on Equity	10%
Expected Losses	5 bps
Tail Loss Rate	6%
Frequency	30 years
<b>Implied Guarantee Fee</b>	<b>90 bps</b>

### **Basel III:**

Capital ratio = 6% + 2.5% buffer  
 + 3.5% SIFI surcharge = 12%  
 50% risk weight for mortgages  
 => Coop must hold 6% capital

*G-Fee = Capital Charge + Admin Costs (10bps) + Expected Losses + Tail Loss Fee*

### Issues:

- Empirical work on appropriate sizing of loss rates (tail and expected), frequency
- Capital ratio is crucial for both financial stability and g-fee.
  - Historical simulations? Basel requirements? Other (e.g. FMUs)?
- ROE is critical : drives g-fees, incentives, industry dynamics, institutional structure.
  - Large variation in ROE, even within financial industry.

## Stylized example: determining the G-fee for a Vintage

	<i>No Reinsur</i>	<i>Base</i>
Capital Ratio	12%	6%
Assumed Return on Equity	10%	10%
Expected Losses	5 bps	5 bps
Tail Loss Rate	6%	6%
Frequency	30 years	30 years
<b>Implied Guarantee Fee</b>	90 bps	<b>62 bps</b>

Purchase of gov't reinsurance eliminates capital buffer & SIFI surcharge  
Lowers annual fee by 28 bps (or 31%)

•Reinsurance fee = 10 bps

$G\text{-Fee} = \text{Capital Charge} + \text{Admin Costs (10bps)} + \text{Expected Losses} + \text{Tail Loss Fee}$

Issues:

- Empirical work on appropriate sizing of loss rates, (tail and expected), frequency
- Capital ratio is crucial for both financial stability and g-fee.
  - Use historical experience? Basel requirements? Other?
- ROE is critical : drives g-fees, incentives, industry dynamics, institutional structure.
  - Large variation in ROE, even within financial industry.

## Stylized example: determining the G-fee for a Vintage

	<i>No Reinsur</i>	<i>Base</i>	<i>Higher ROE</i>
Capital Ratio	12%	6%	6%
Assumed Return on Equity	10%	10%	15%
Expected Losses	5 bps	5 bps	5 bps
Tail Loss Rate	6%	6%	6%
Frequency	30 years	30 years	30 years
<b>Implied Guarantee Fee</b>	90 bps	62 bps	<b>86 bps</b>

$G\text{-Fee} = \text{Capital Charge} + \text{Admin Costs (10bps)} + \text{Expected Losses} + \text{Tail Loss Fee}$

Issues:

- Empirical work on appropriate sizing of loss rates, (tail and expected), frequency
- Capital ratio is crucial for both financial stability and g-fee.
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- ROE is critical : drives g-fees, incentives, industry dynamics, institutional structure.
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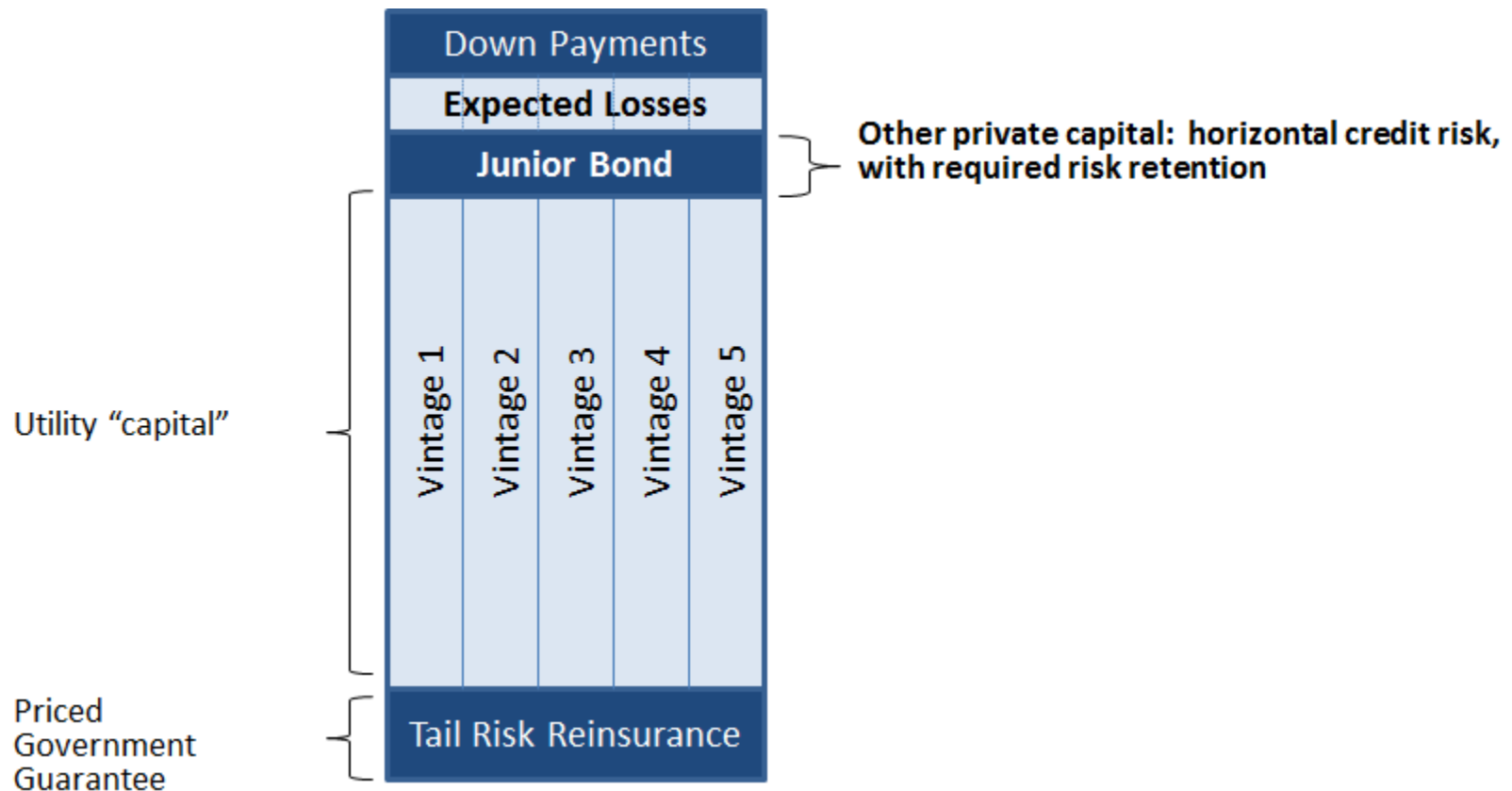
## Junior Bonds: Pros & Cons

- **Benefits of junior bonds**
  - Attract alternative sources of private capital.
  - Provide alternative source of pricing and market discipline for credit risk.
- **Caveats for junior bonds** – important for Corker/Warner & Johnson/Crapo
  - *Investment grade* bonds elicit less market discipline than *high-yield* or speculative-grade bonds.
  - Overreliance on risky bonds
    - Would decrease system robustness because investor appetite is procyclical
    - Would decrease “skin in the game” and risk misaligning incentives
  - Beware institutions “doubling down” on their exposures to credit risk through affiliates – this would increase procyclicality by increasing *effective concentration* and undermining the diversification of capital.

## Designing Junior Bonds

- **Design features**
  - Make them sufficiently risky to incent due diligence.
  - High-quality book of business implies risky junior bonds of only a modest size.
  - Issuers and underwriters should retain some critical mass of credit risk to maintain incentives for high-quality underwriting.
  - Structures should be simple and transparent and issuance should be regular.
  - Cash should be paid up front to reduce the counterparty credit risk associated with derivatives and insurance contracts and maintain sufficient aggregate capital.
- **Impact on capital and pricing**
  - Small size implies modest impact on capital structure.
  - Speculative-grade yields may be only modestly less than a utility's return on equity.
  - Therefore, the impact on the guarantee fee and mortgage rates would be modest.
  - The *structure and composition of ownership* affects the *total cost of capital*, and hence, both guarantee fees and mortgage rates.

## Junior Bonds Combined with Vintages



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## Why a Lender Cooperative?

- **Consistent with structure of other financial market utilities (FMUs)**
  - DTCC, CLS Group, ICE Trust
- **Academic literature indicates mutualization is appropriate for:**
  - Homogenous and sophisticated owners
    - Engaged directly and frequently with the cooperative's business
    - Interests well aligned with respect to the cooperative's mission
  - Party with less market power in a given transaction
    - In this case: the lender relative to the securitizer
    - A cooperative may mitigate monopolistic or oligopolistic dynamics by diffusing market power

## Cooperatives: Pros & Cons

- **Advantages**
  - Vertical integration
    - Aligns incentives of lender and securitizer (unlike private securitization)
  - Weaker profit motive
    - Lower required/expected returns
    - Less risk taking
  - Narrow mission, conservative approach
    - Facilitates monitoring & risk management
- **Disadvantages**
  - More limited access to capital markets
  - Less innovation
  - Lower return on equity
  - Governance may be complicated by unsophisticated or diffuse membership

## Reforming Representations & Warranties

- **Reps & warrants can prevent “free riders” and moral hazard**
  - Demutualizing effect
  - Lenders internalize consequences of own underwriting, but preserve “true sale”
- **Lessons learned**
  - Open-ended reps and warrants based on procedure, not credit performance:
    - Inefficient, if not ineffective, means of aligning lender and securitizer
      - Incentivizes behavior similar to defensive medicine
    - May undermine coop’s incentive to monitor its members *ex ante*
- **Reps & warrants redesign**
  - Underlying principle: promote clear transfer of credit risk
  - Avoid costly *ex post* negotiations and litigation
  - *Ex ante* quality testing of underwriting standards and process
  - Limited duration of outstanding liability

## Sources

### **“The Capital Structure and Governance of a Mortgage Securitization Utility”**

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- *Federal Reserve Bank of New York Staff Report No. 644*, October 2013.
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### **“TBA Trading and Liquidity in the Agency MBS Market”**

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  - <http://www.newyorkfed.org/research/epr/2013/1212vick.pdf>

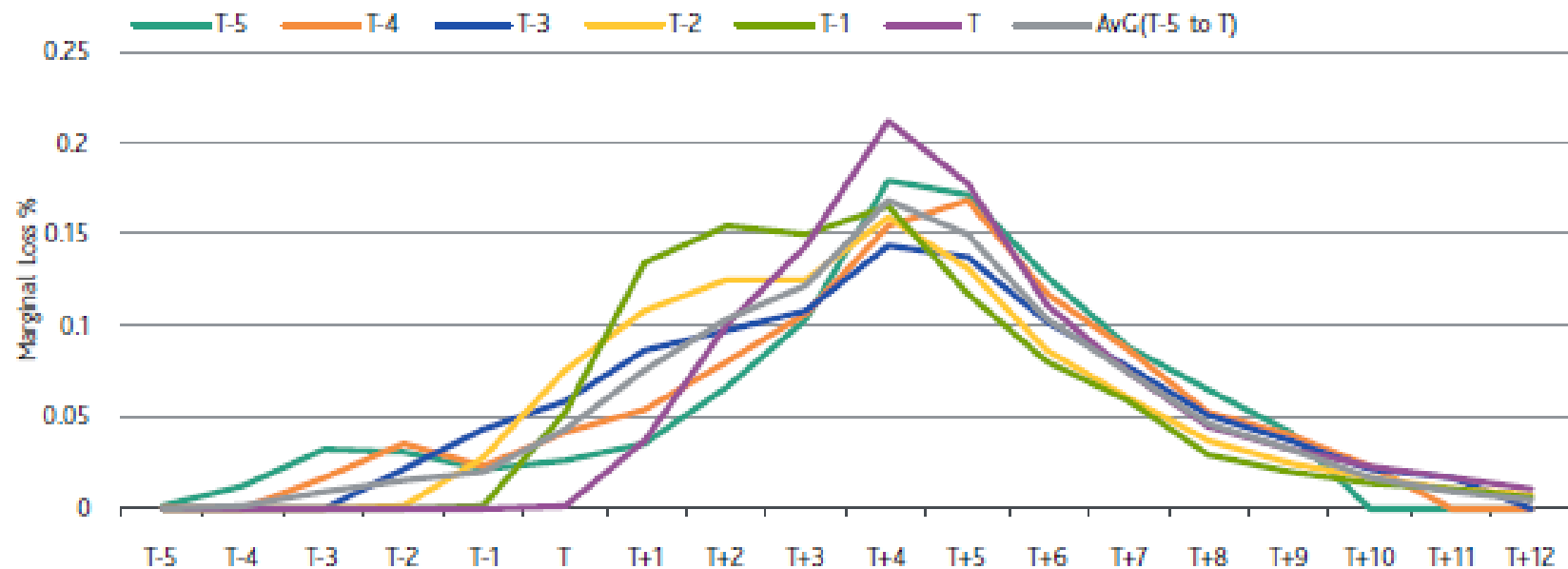
### **“A Private Lender Cooperative Model for Residential Mortgage Finance”**

- Toni Dechario, Patricia C. Mosser, Joseph Tracy, James Vickery, and Joshua Wright
- *Federal Reserve Bank of New York Staff Report No. 466*, August 2010.
  - [http://www.newyorkfed.org/research/staff\\_reports/sr466.pdf](http://www.newyorkfed.org/research/staff_reports/sr466.pdf)

## Housing Cycles: Evidence from Mortgage Insurer Losses

FIGURE 7

Distribution of Claims Paid in Worst Three Regional Rescissions



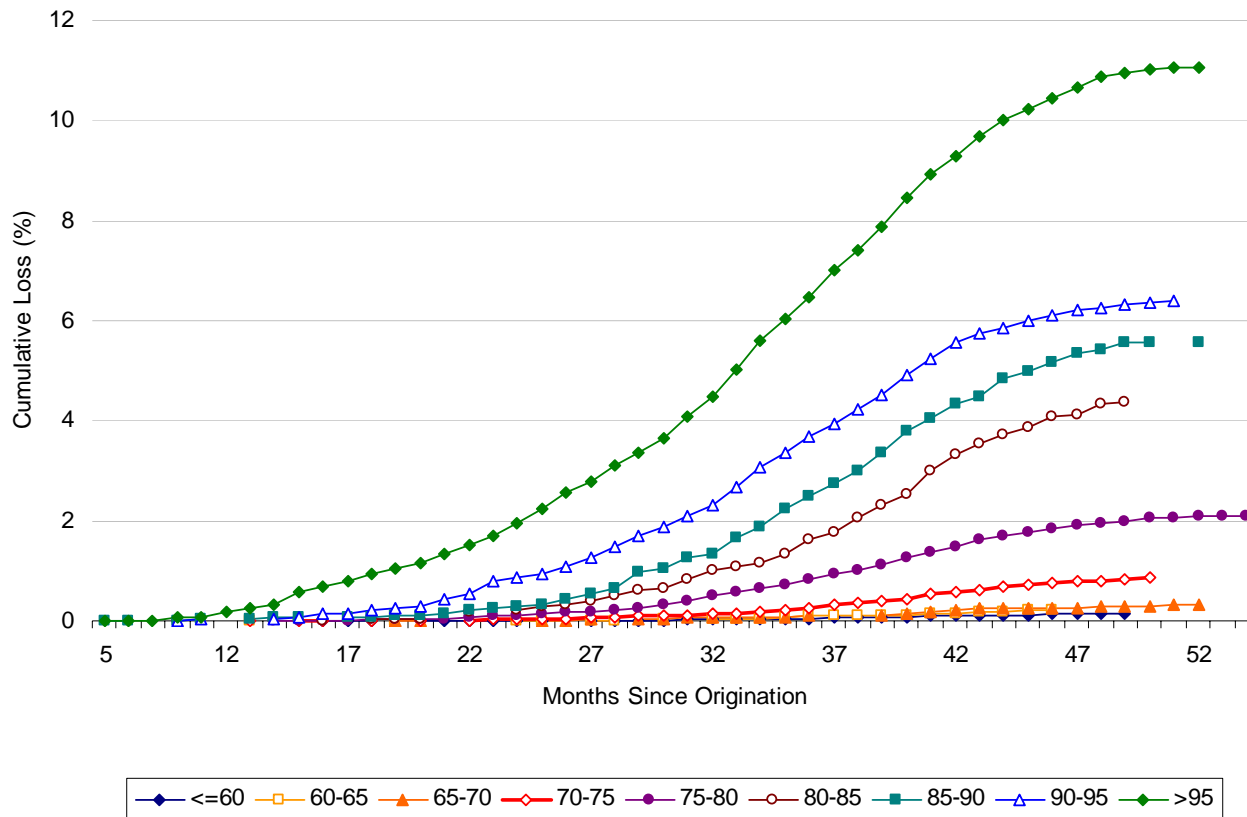
Source: MICA Data.

Sources: MICA Data and Moody's

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## Loss-Absorbing Capital: Down Payments Matter

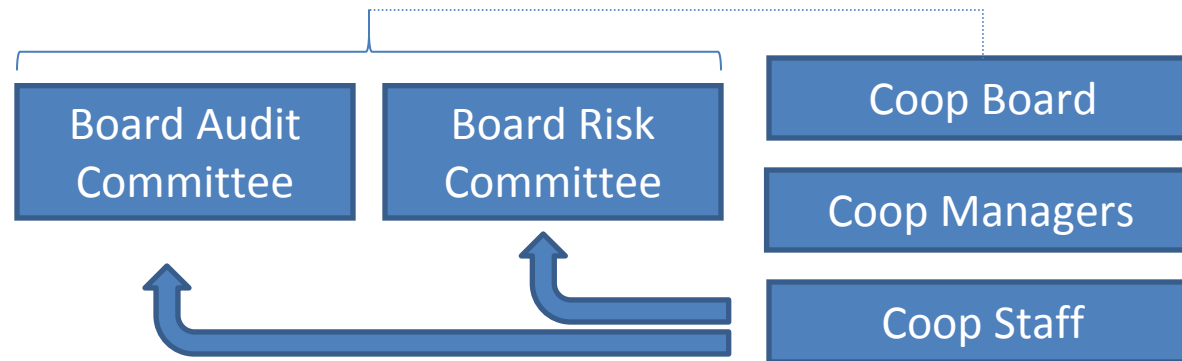
Cumulative Losses on High-Quality Fixed-Rate Non-Agency Mortgages Originated in 2006 by LTV Range



Note: cumulative losses as reported on fixed-rate non-agency loans originated in 2006 with FICO greater than or equal to 720, DTI less than or equal to 33, full documentation, owner-occupied, single-family detached. Sources: LoanPerformance, Deutsche Bank.

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## Cooperative Governance: Best Practices



- Chair and 1/3 of the board should be independent from coop members
- Limit cooperatives' managers' participation on the board
- No constituency should hold more than 50% of the coop board seats
- Smaller members may benefit from:
  - Lower barriers to entry and reduction in volume-based guarantee fees
  - Divorcing voting rights from capital contributions
  - Cumulative voting