

# Banks' Use of Off Balance Sheet Facilities, Structured Finance

Richmond, Virginia  
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**THE FEDERAL RESERVE BANK OF RICHMOND**

RICHMOND ■ BALTIMORE ■ CHARLOTTE





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The views expressed in this presentation are those of:



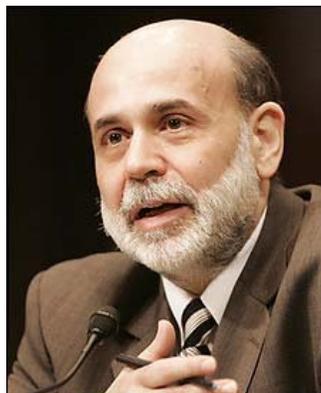


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Chris Klepnis - Bloomberg

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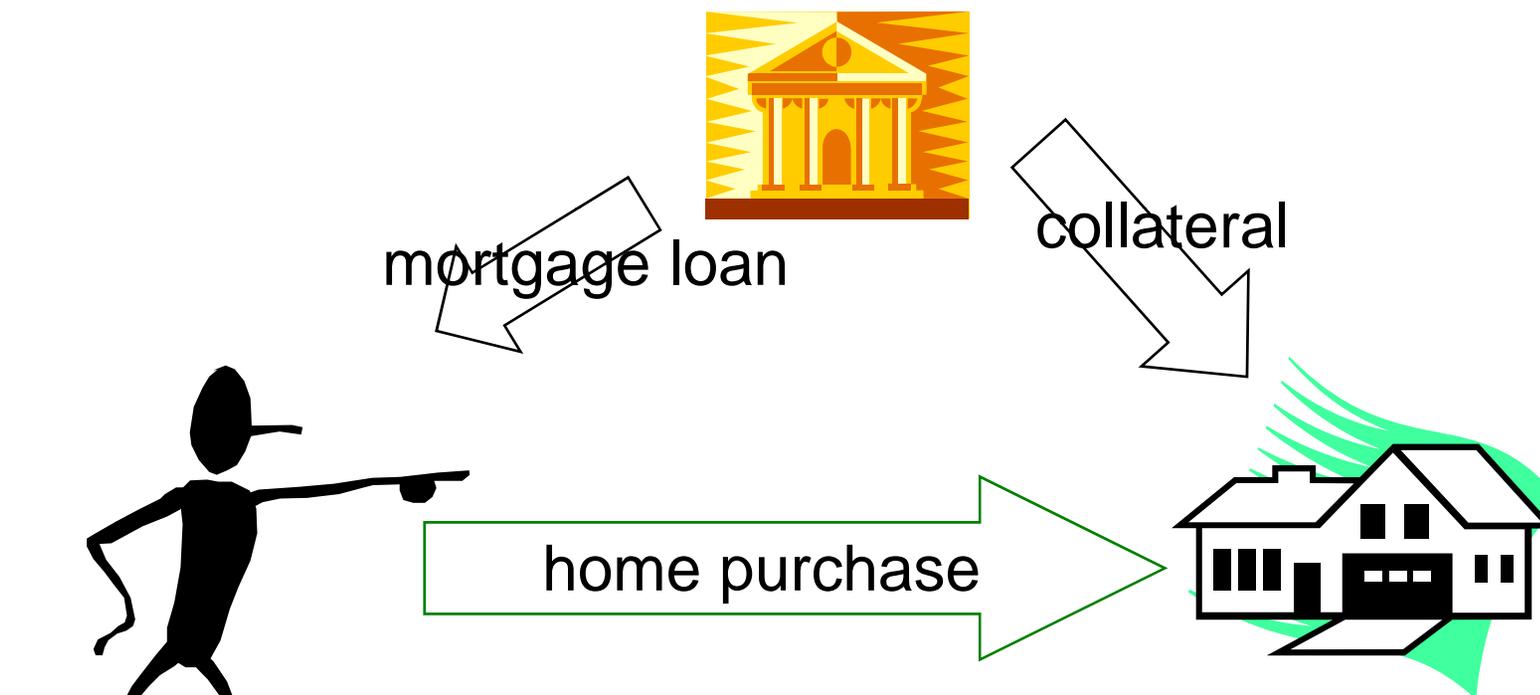


- I've partnered with Dr. Bob Carpenter who will be coming to you live from Baltimore later in the presentation
- I will provide a brief overview of structured finance and particularly mortgage securitization – I will try to answer, “why would anyone want to do that?”
- Bob will answer the current question - “where are we now?”





# Buying a Home





# Bank's Balance Sheet

Assets
Cash
Securities
ABS
Agency MBS
RMBS
Other
Loans
Card
Auto
Mortgage
Instalment
Commercial
Less: LLR
Other Assets

Liabilities
Deposits
CDs and other
Other Borrowed Money
Other Liabilities
Subordinated Debt
<b>Equity</b>

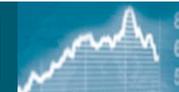




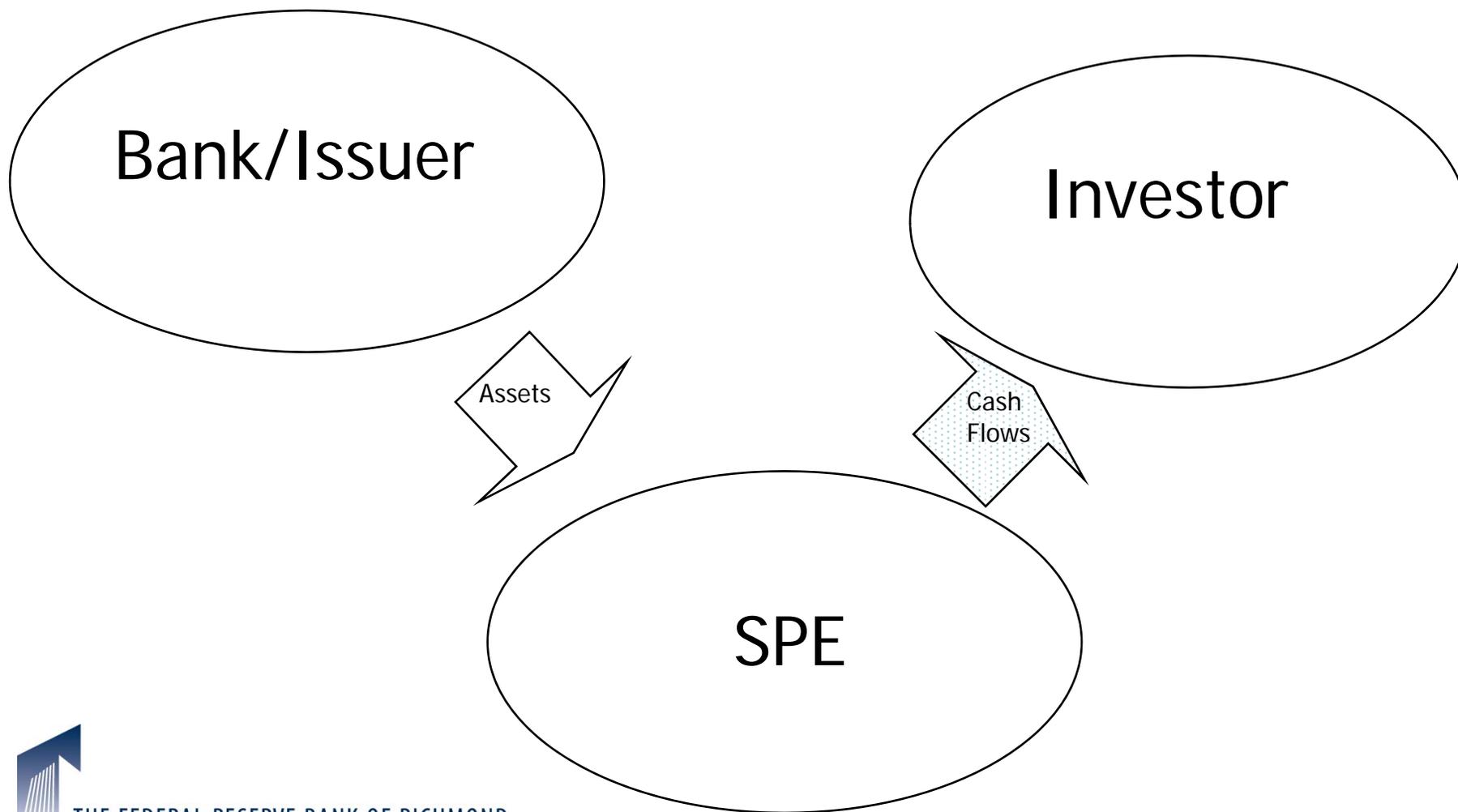
## An Example Transaction

- An institution pools together a group of assets, usually originated in-house, but sometimes purchased
  
- Assets tend to be similar –
  - Maturity
  - Underwriting standards
  - Rates, etc.
  
- Creates a special purpose entity (SPE) to “own” the assets and trustee arrangements to manage cash flows
  
- Structures/negotiates a deal in-line with rating agency criteria





# Example Transaction





# Securitization

- Tranching of credit risk is the structuring of cash flows and credit exposure - share of the credit losses differs from the pro rata interest in the underlying pool of exposures
- “Investor” includes any party, including the originating institution, holding an interest in a securitization transaction – must have a 3<sup>rd</sup> party
- Through securitization, obligation for payment shifts from the originating entity to the performance of the underlying pool of exposures





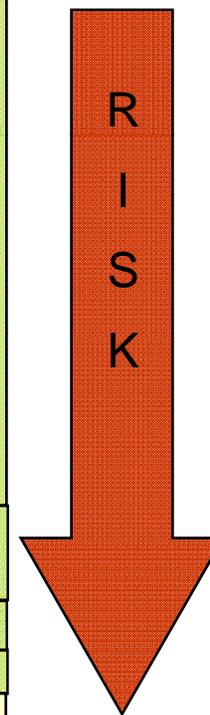
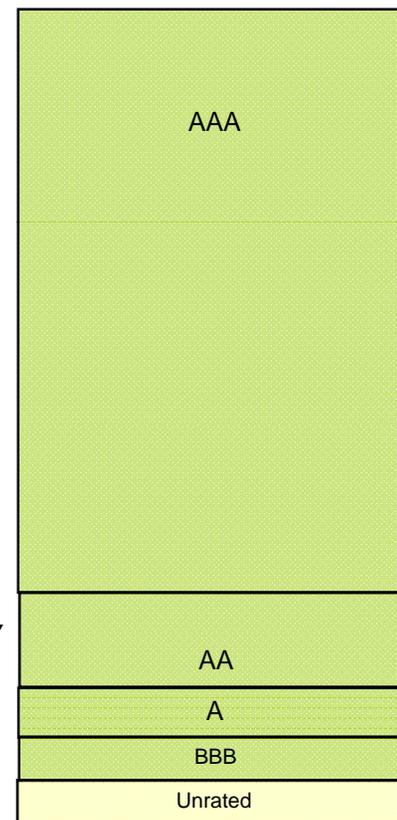
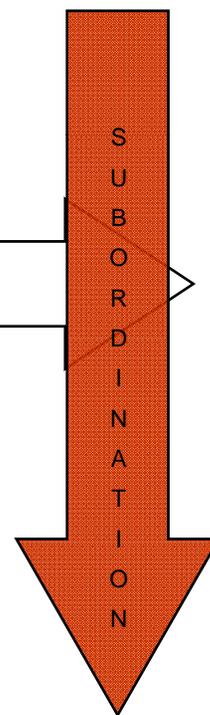
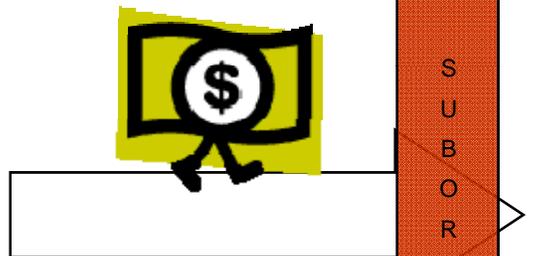
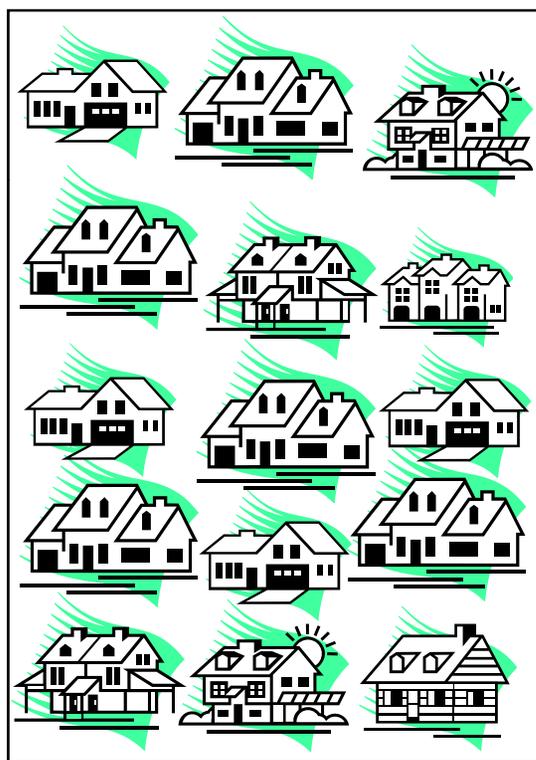
# Securitization

- All of portion of Credit risk is transferred to third parties
- At least 2 tranches reflecting different levels of seniority
- Performance depends on underlying exposures
- Underlying exposures are financial assets



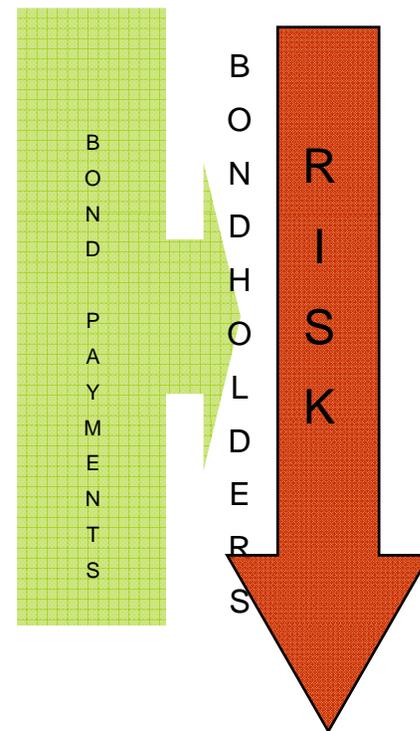
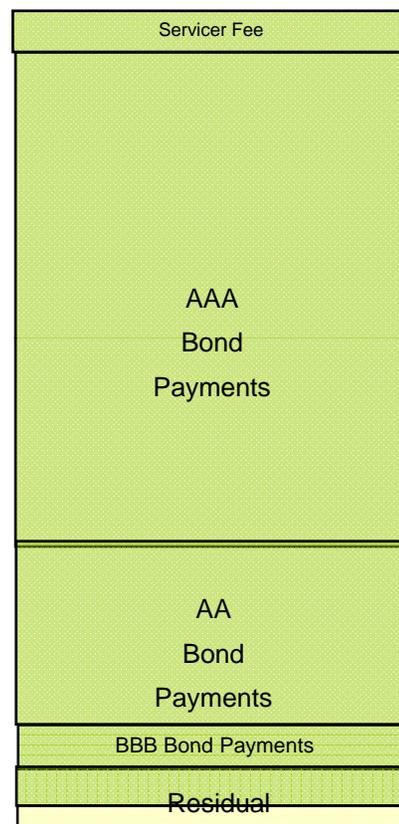
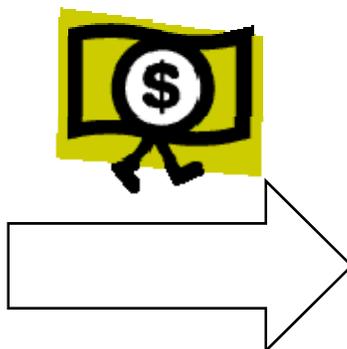
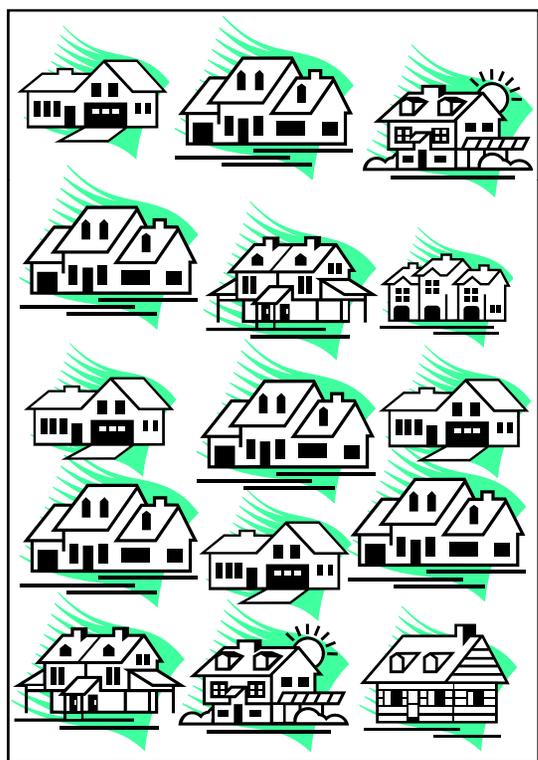


# The Structure of the Bond - Ratings





# The Structure of the Bond – Monthly Cash Flow “The Waterfall”



Residual Holders





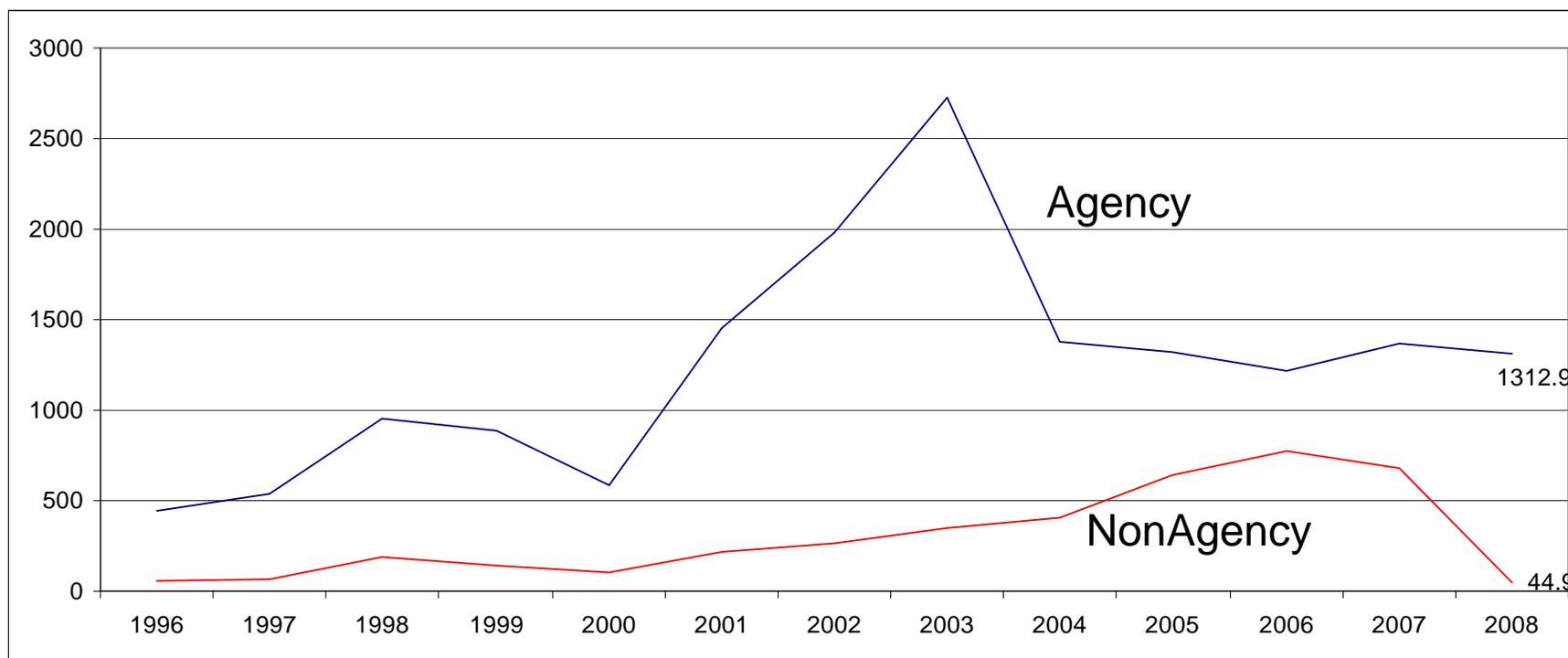
## Key Components for Success

- Underwriting of underlying assets
- Well structured deals
- Ratings
- Market liquidity and structure





## This Mortgage Market for Securities is Really Big - Origination

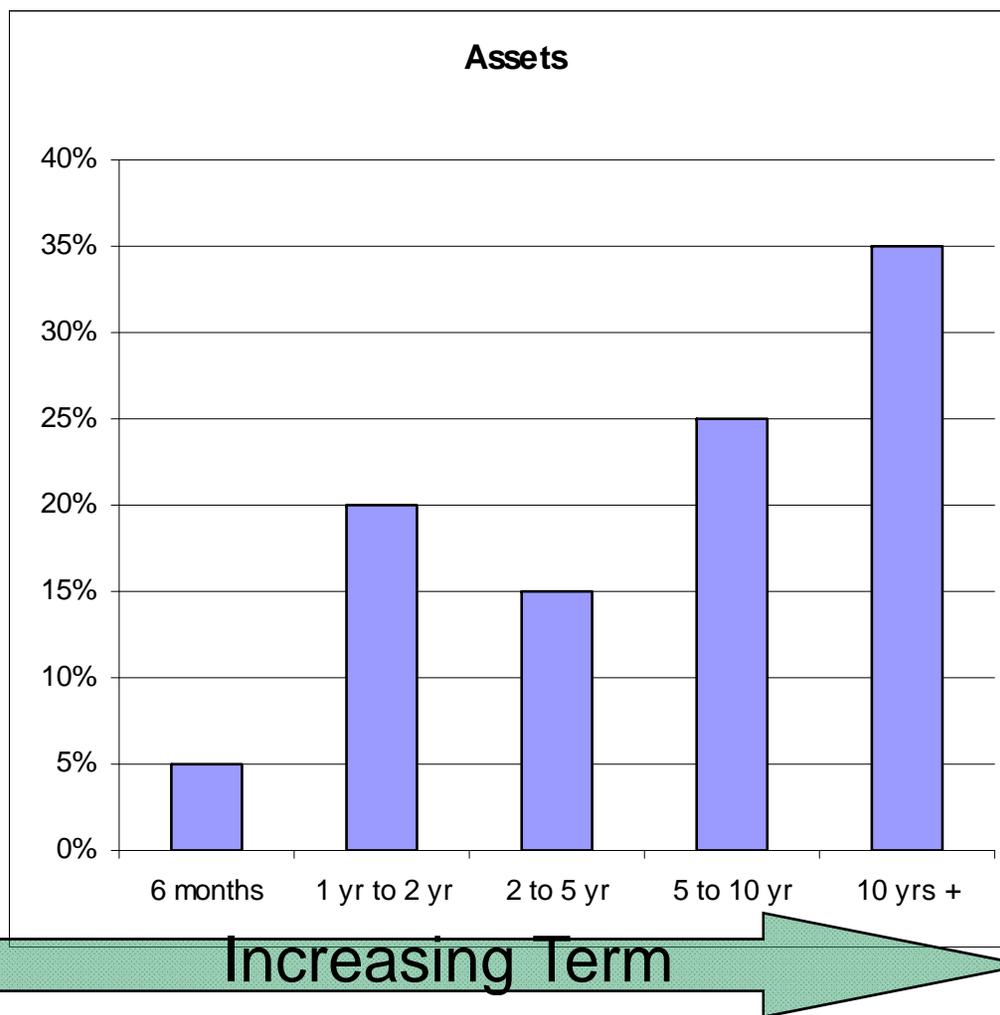




## Motivations for Banks/Issuers to Securitize?

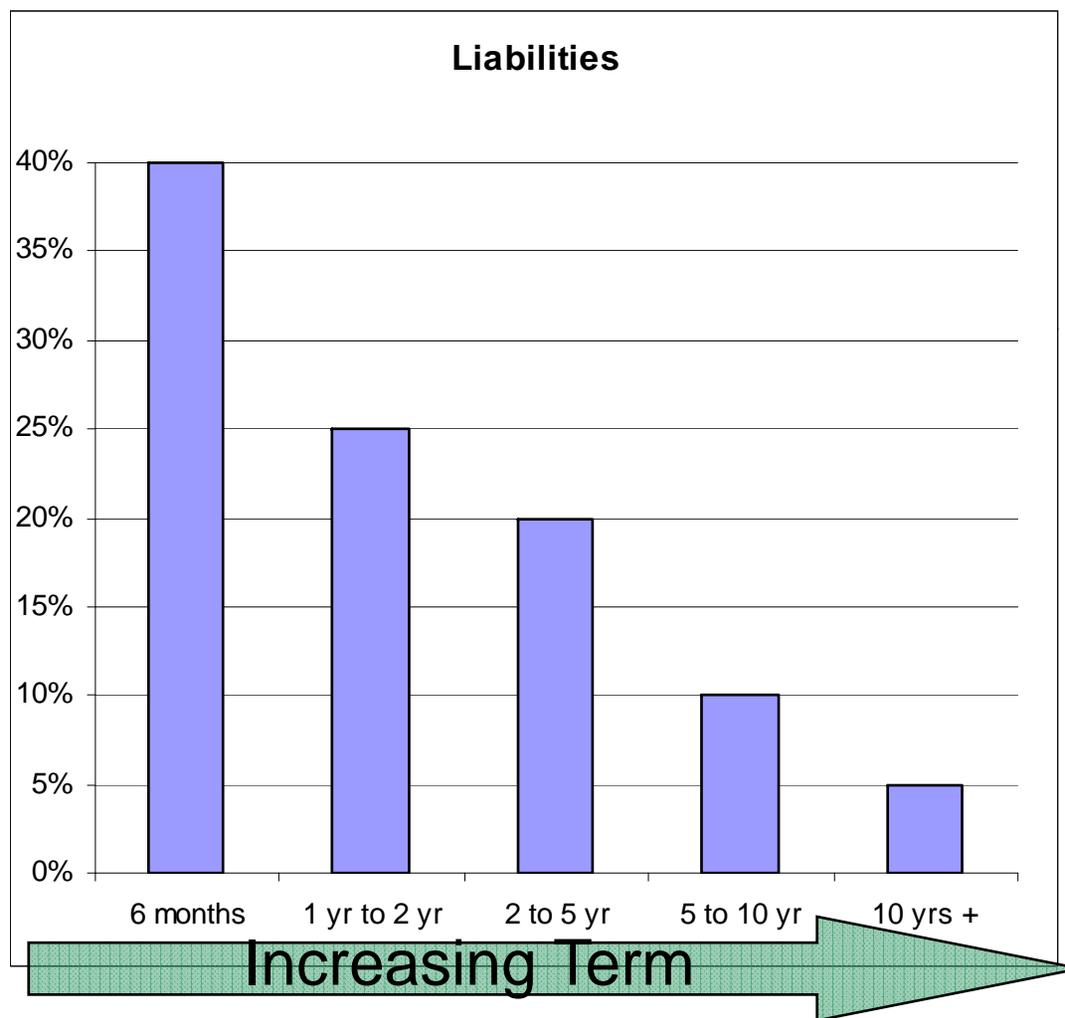


# Bank Balance Sheet



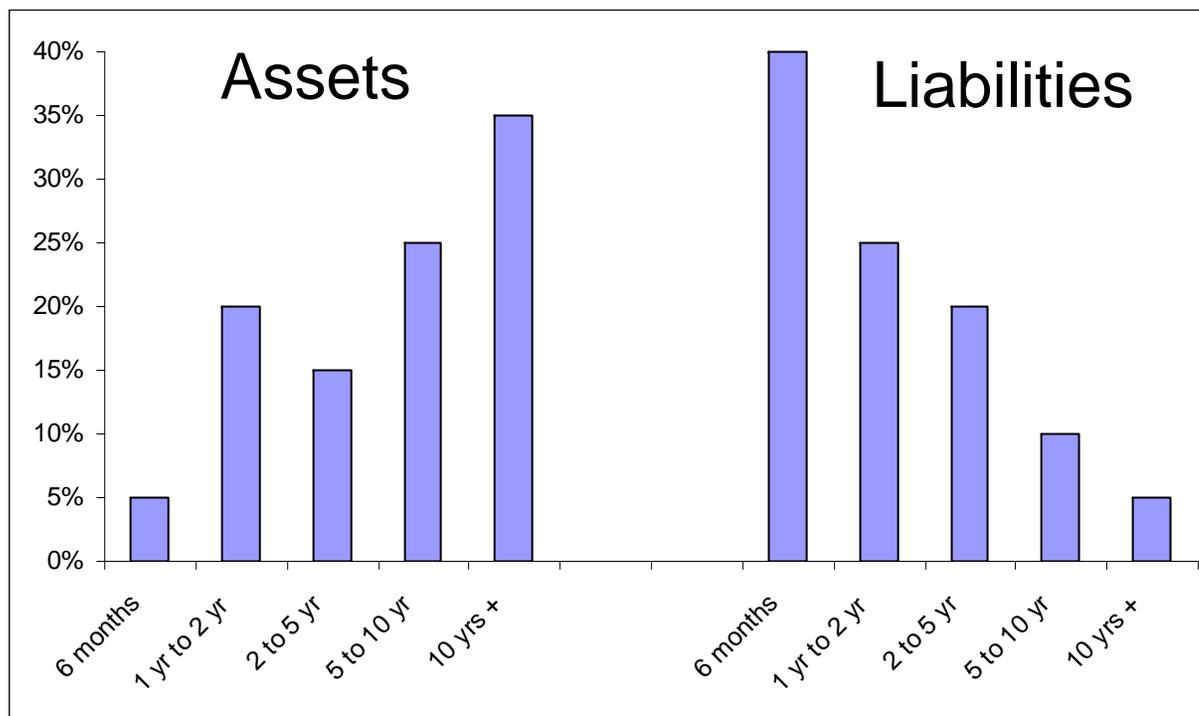


# Bank Balance Sheet



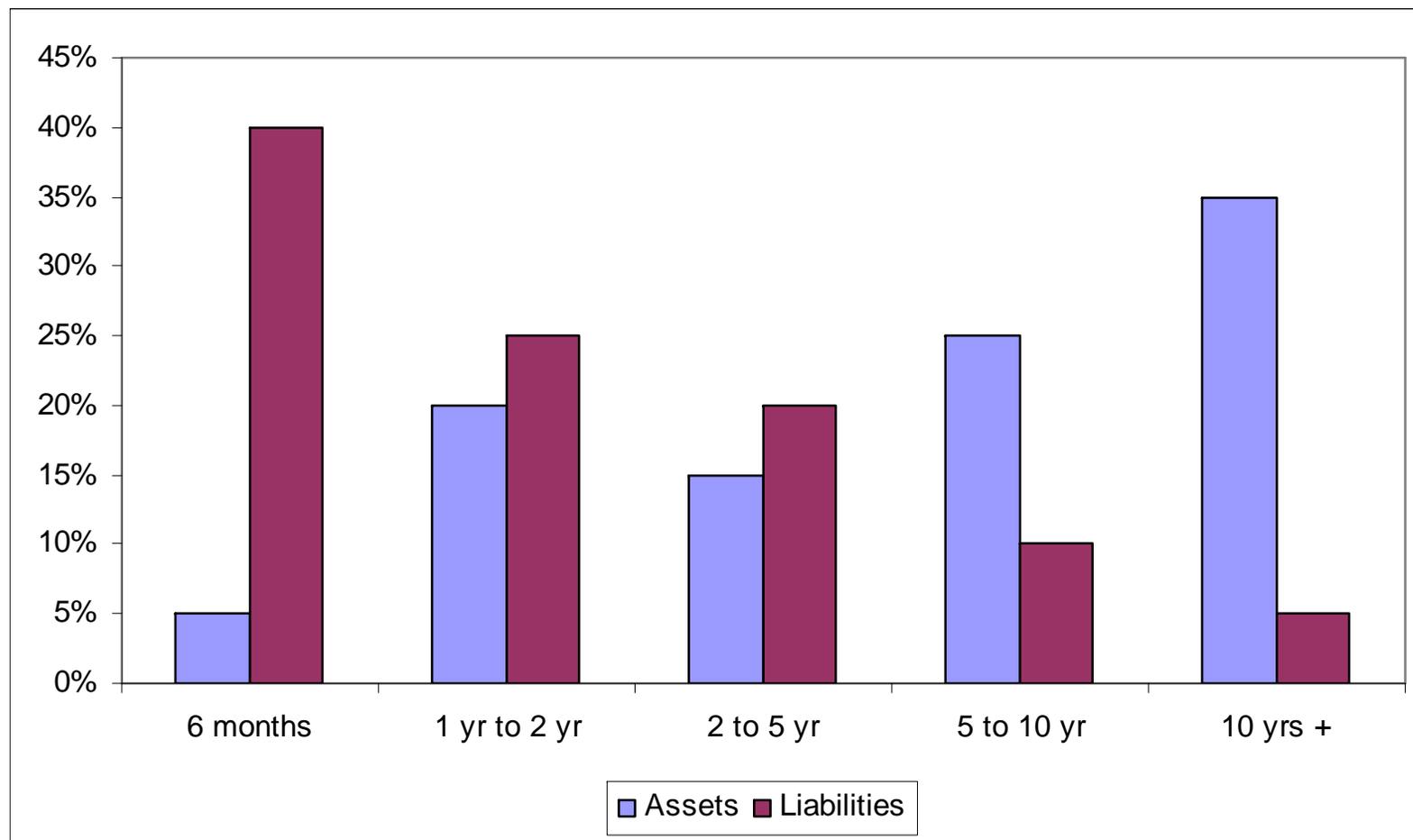


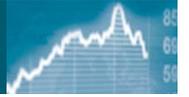
# Bank Balance Sheet



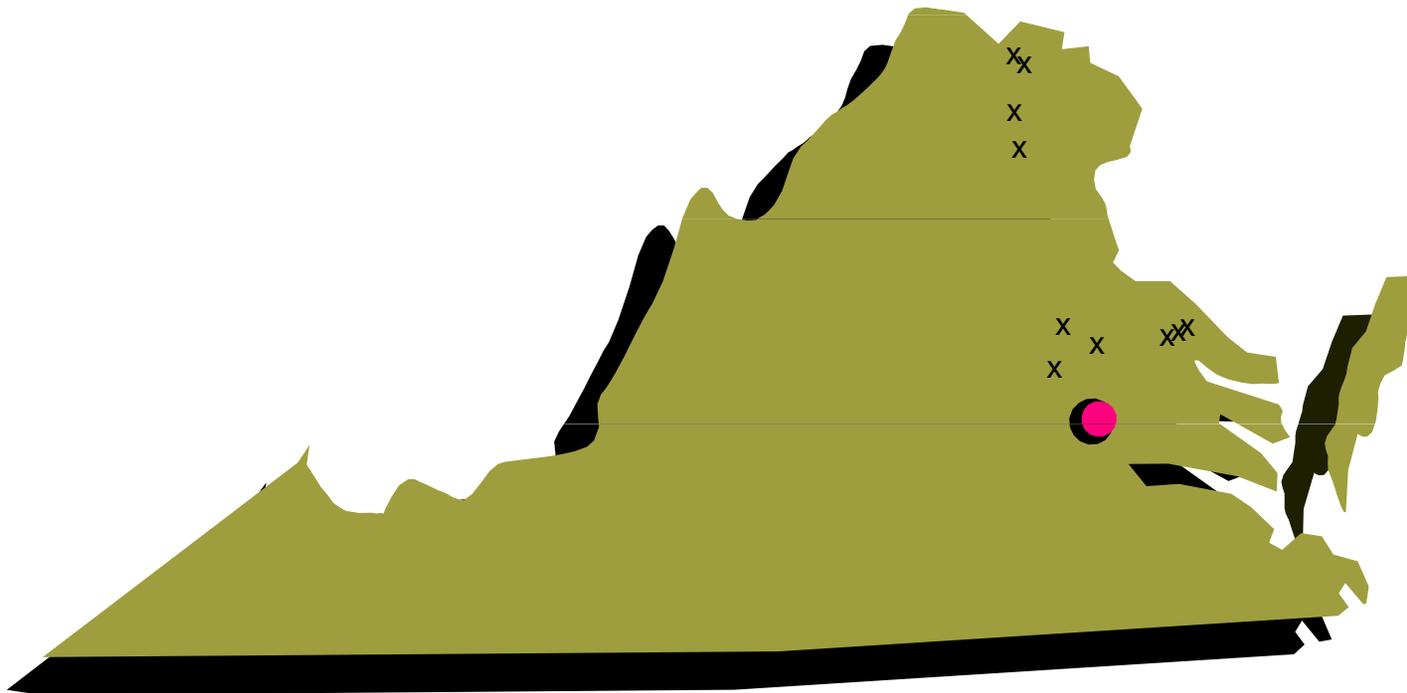


# Bank Balance Sheet Mismatch





# Virginia Lending



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# National Diversification



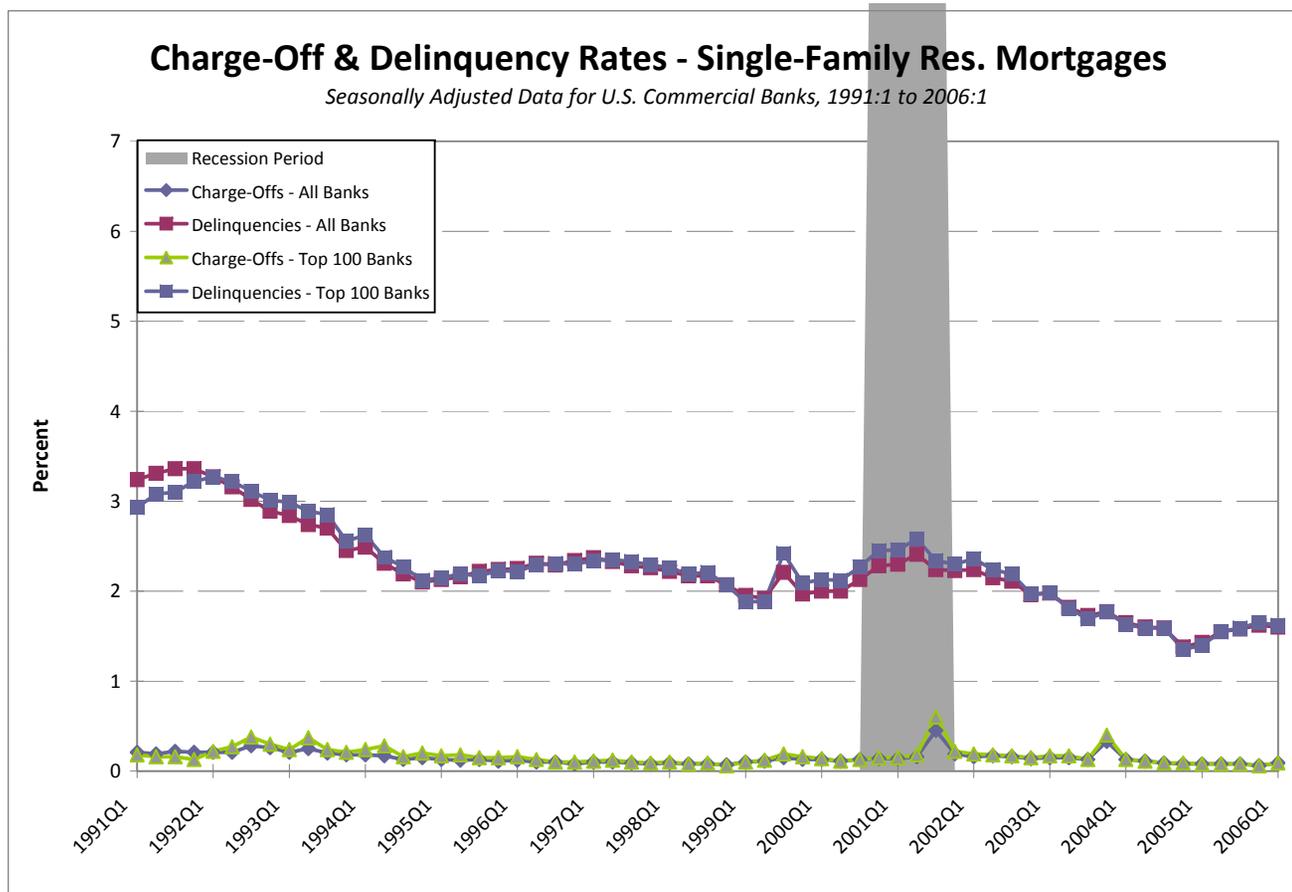


# Strong House Prices





# Low Losses





# Motivations

- Interest rate risk management
- Funding
- Customer accommodation
- Allow to focus on fee revenue and deal structuring
- Allow to focus on underwriting expertise
- Credit risk management
- Capital relief



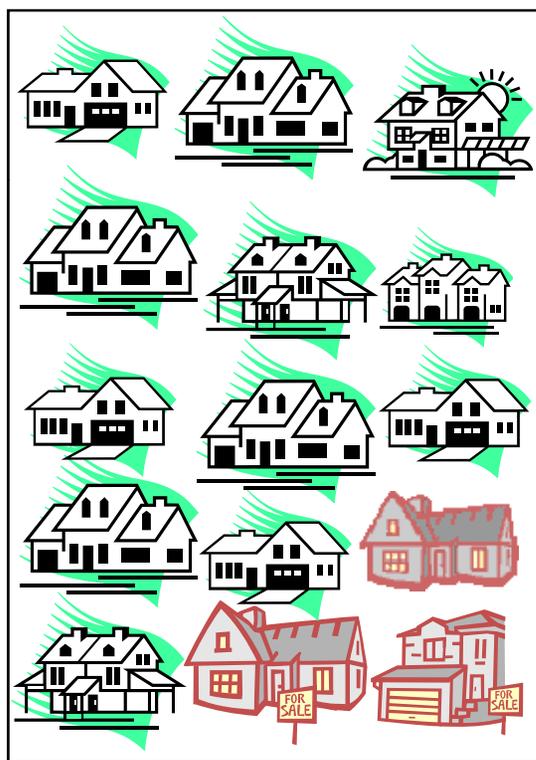


What could go wrong?



# Mortgage Security

Loans are Assets for Banks and  
Deposits liabilities



Bond

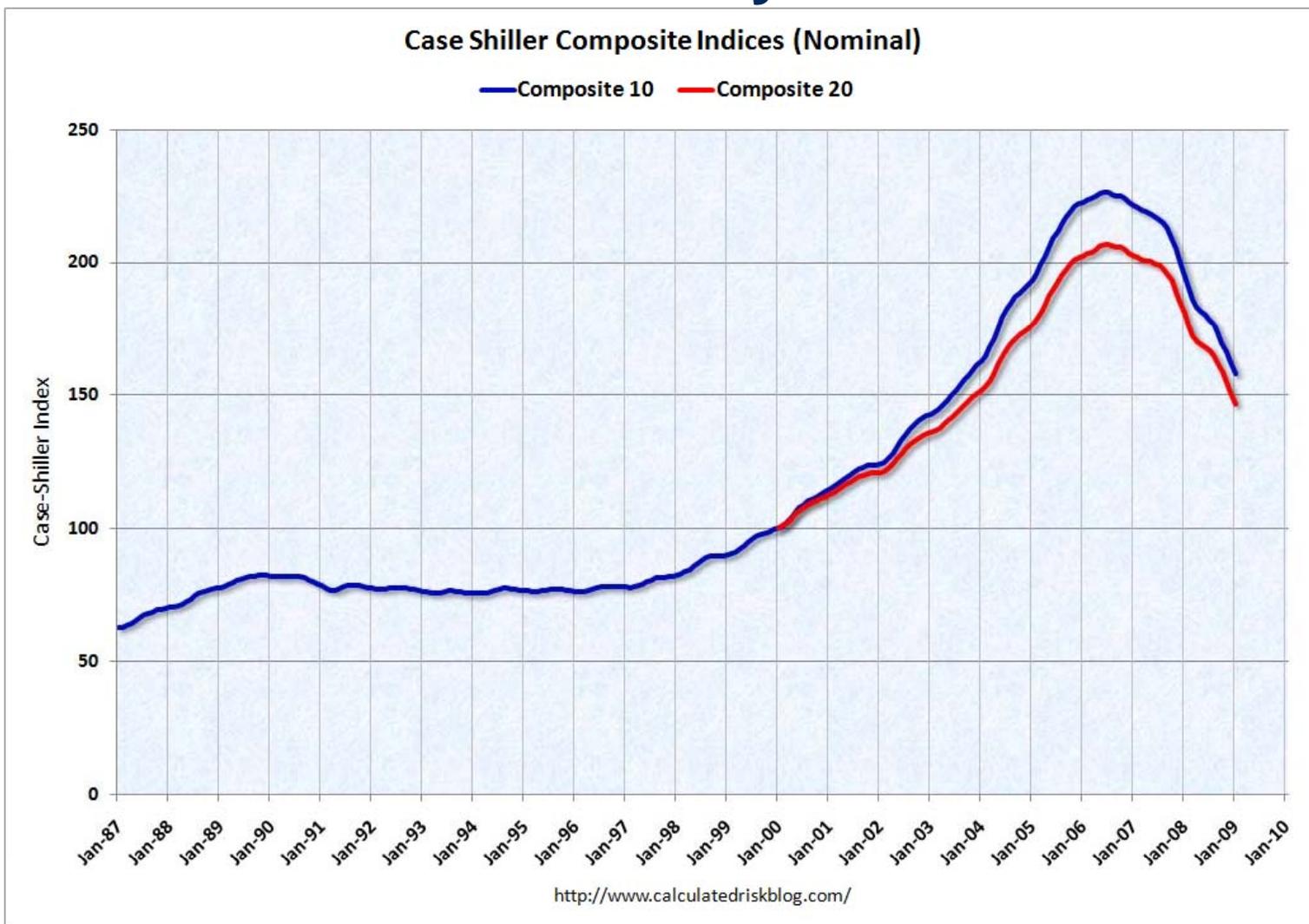
Residential Mortgage-  
Backed Security

RMBS





# HPI – The Rest of the Story





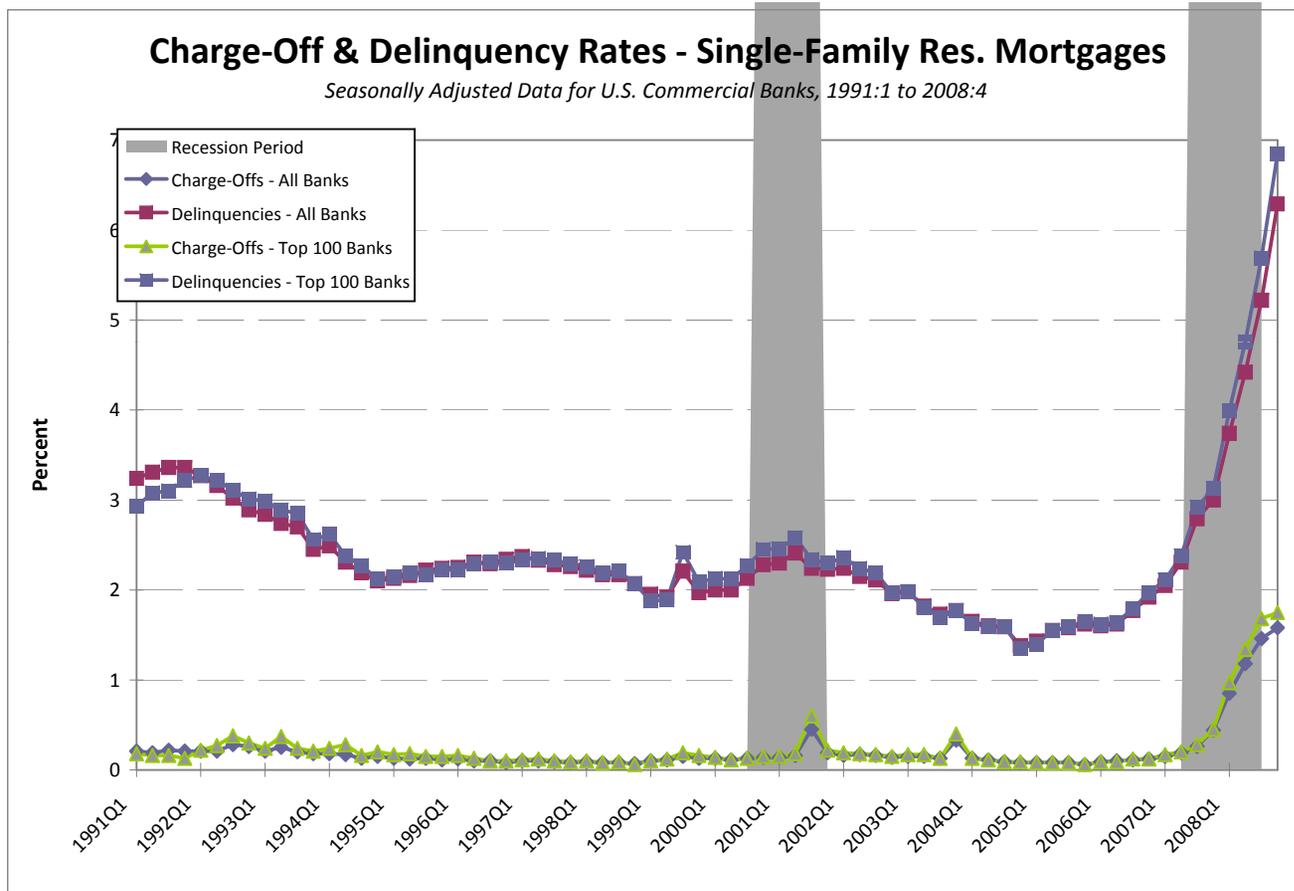
# Foreclosure

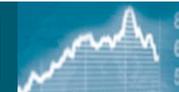


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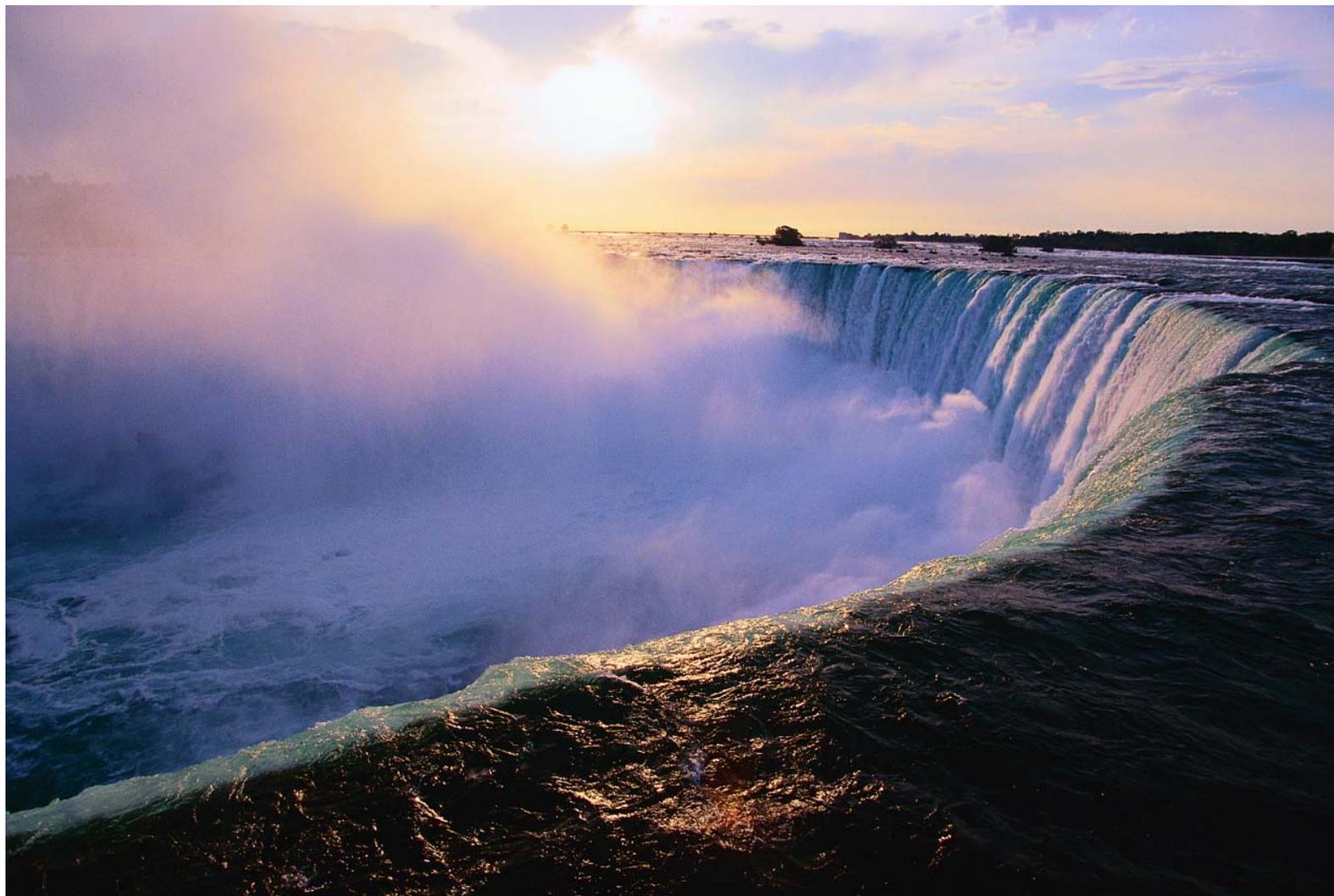


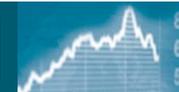
# Losses



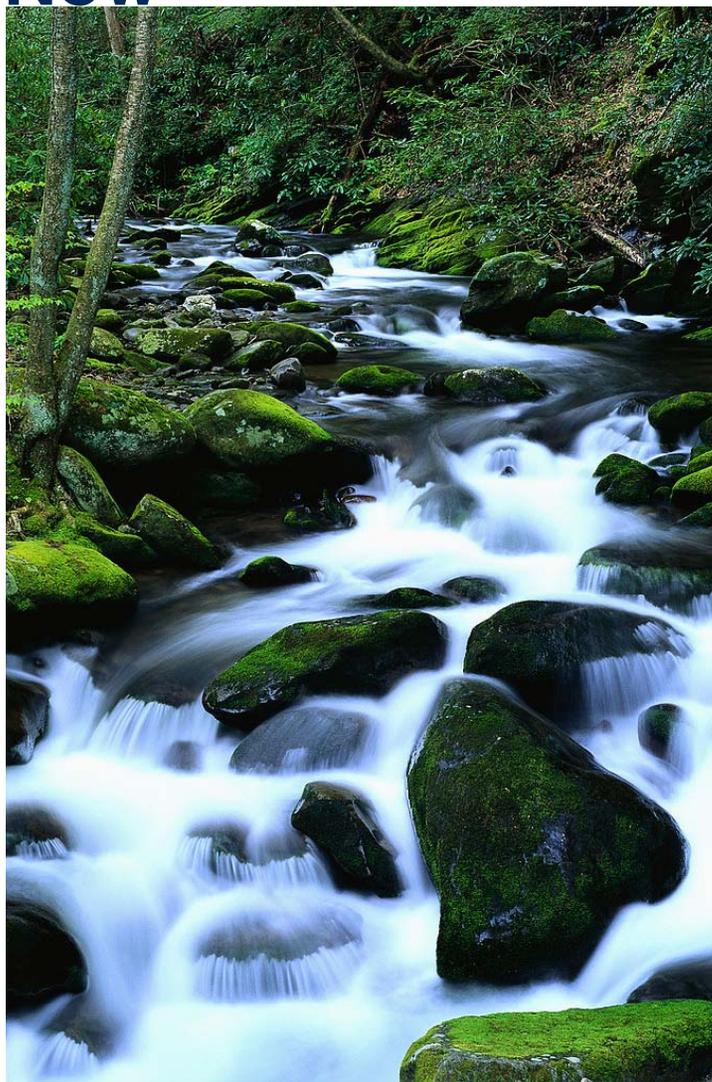


# The Waterfall - Then



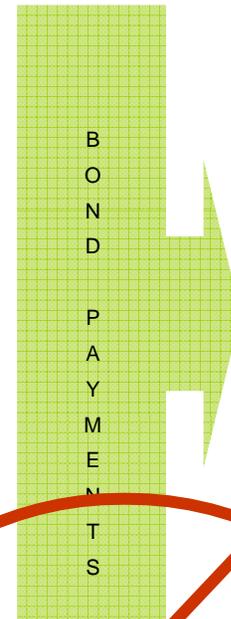
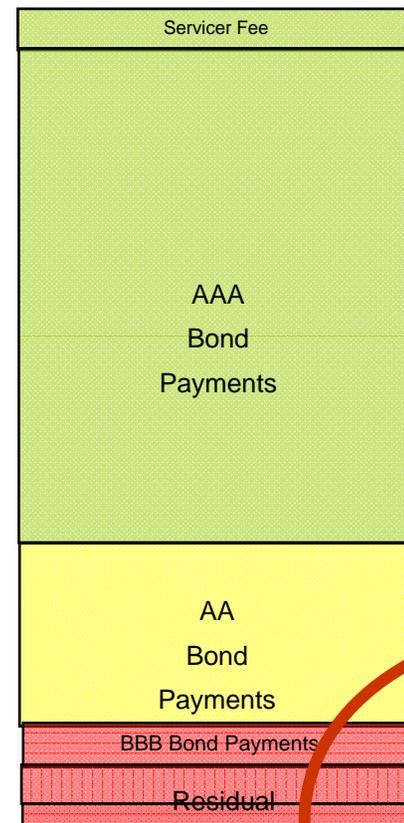
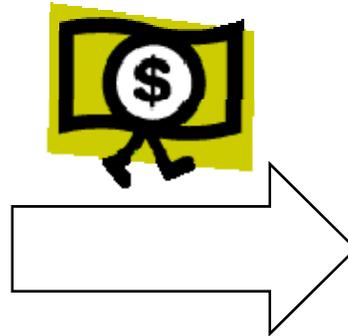


# The Waterfall - Now

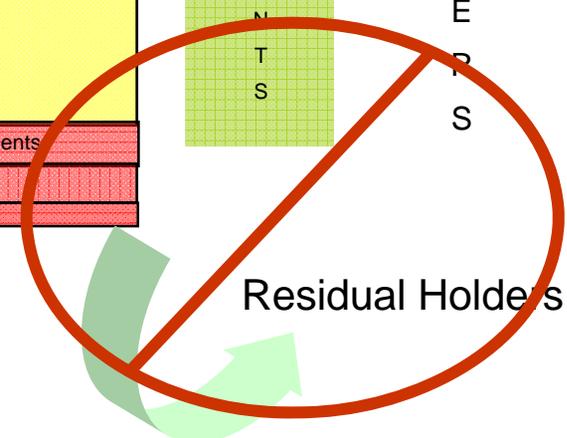


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# The New Waterfall and Impact to Monthly Bond Payments



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Residual Holders



# Questions

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