The Collapse of the U.S Housing Bubble –

Reforming the incentives shaping U.S. housing finance

A presentation by

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Ely's Thesis about the U.S. housing crisis

Finance is a game largely played by rational players

The rules of the game are not always rational

A game played by rational players under irrational rules will produce an irrational outcome

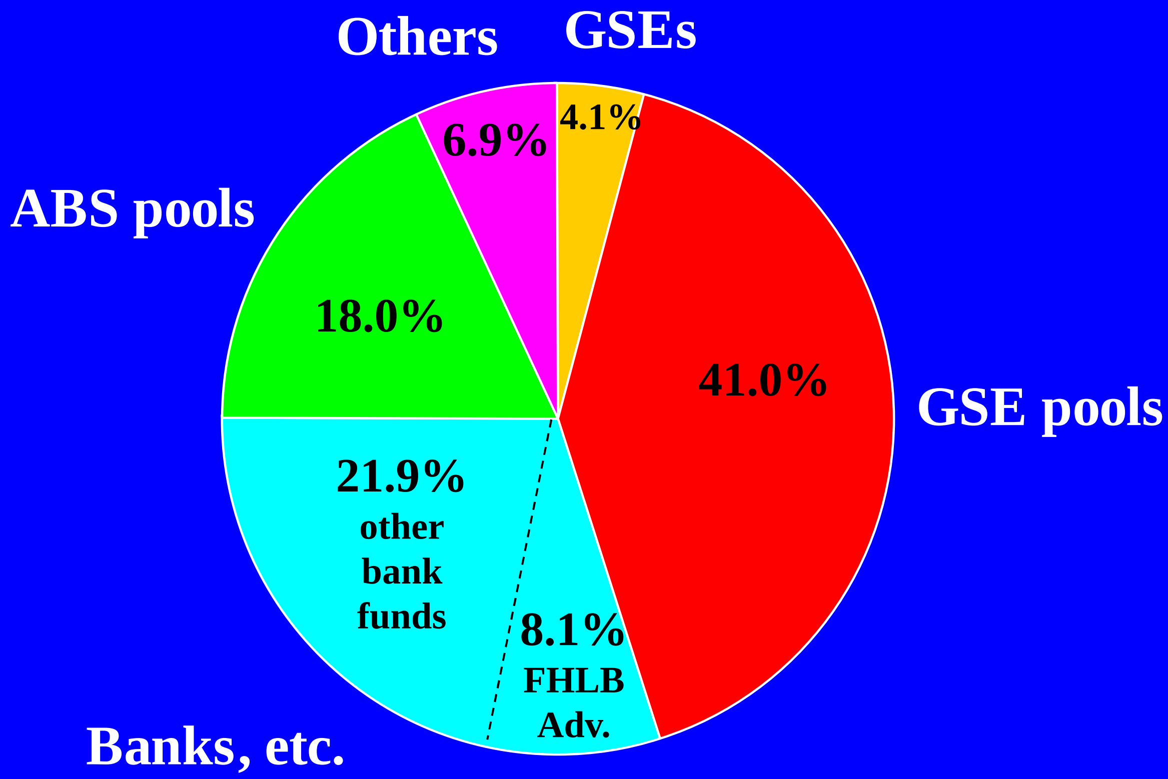
This thesis describes the causes and consequences of the U.S. housing crisis

Underlying causes of the U.S. housing crisis – irrational rules of the game

- Excessive public-policy promotion of home ownership
  - Home ownership as a way to build wealth
  - Various government schemes promote home ownership
  - Substantial tax incentives for home ownership – mortgage interest and property-tax income tax deductions
- A policy tilt towards the secondary mortgage market and mortgage securitization
  - The growth of Fannie Mae and Freddie Mac

GSEs Dominate U.S. Home Finance

Funding sources for $11.254 trillion of U.S. home mortgages at June 30, 2008



Note: Directly and indirectly, the three housing-finance GSEs funded 53.2% of all home-mortgage debt.

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  - Substantial tax incentives for home ownership – mortgage interest and property-tax tax deductions
- A policy tilt towards the secondary mortgage market and mortgage securitization
  - The growth of Fannie Mae and Freddie Mac
  - **U.S. banks' leverage-ratio capital requirement discriminates against holding low-risk mortgage assets in portfolio**
  - **The double-taxation of corporate dividends**

Additional irrational rules of the game

- The credit-rating agencies enjoy unwarranted liability protection – their First Amendment defense
- Fair-value accounting rules, specifically FAS 157, force excessive asset-value write-downs
- A regulatory blind-eye about maturity mismatching led to excessive mismatching by mortgage intermediaries
  - Too much reliance was placed on hedging that risk
- The absence of covered-bonds in U.S. mortgage finance
  - The FDIC is unnecessarily hostile to bank issuance of covered bonds

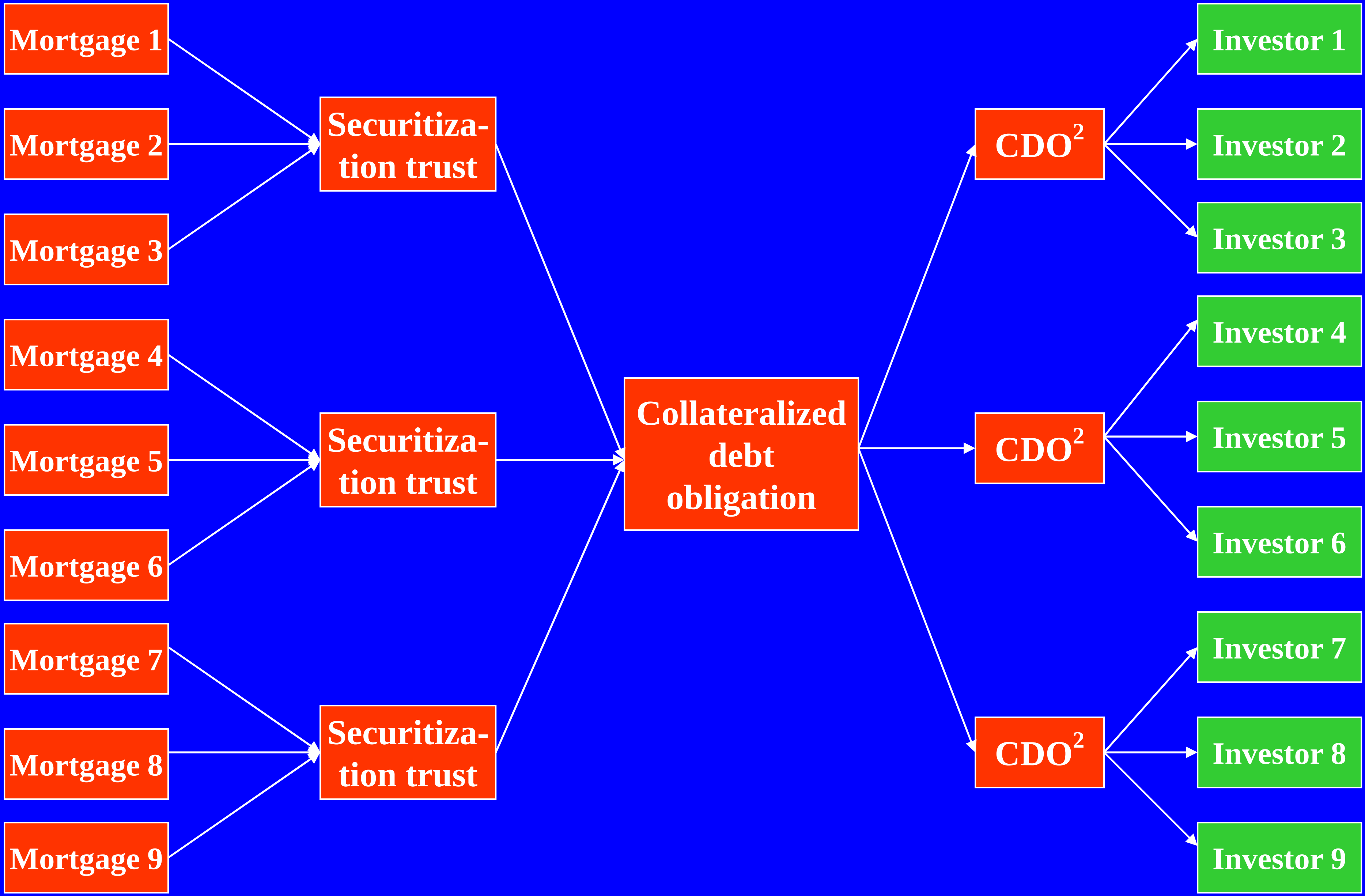
Balance sheet of a covered-bond issuer

Assets	=	Liabilities + Capital
Assets in the cover pool (1xx% of covered bonds outstanding)		Covered bonds outstanding (secured by the cover pool)
Other assets		Other liabilities
		Equity capital

How the game turned out

- Home-ownership promotion overstimulated housing demand, particularly among weaker credit risks
  - Too many houses were built to sell to overextended home buyers and housing speculators
- Mortgage securitization promotes moral hazard in the lending process by distancing the credit-grantor (the lender) from the ultimate bearer of the credit risk

How well does Investor 1 on the right understand the risk of Mortgage 1 on the left?



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  - Too many houses were built to sell to overextended home buyers and housing speculators
- Mortgage securitization promoted moral hazard in the lending process by distancing the credit-grantor from the ultimate bearer of the credit risk
- **Liquidity problems arose when maturity mismatched intermediaries could not roll over their short-term debt**
  - **Credit losses and “fair value” asset markdowns weakened their ability to refinance their short-term debt**
- **A classic downward spiral ensued**

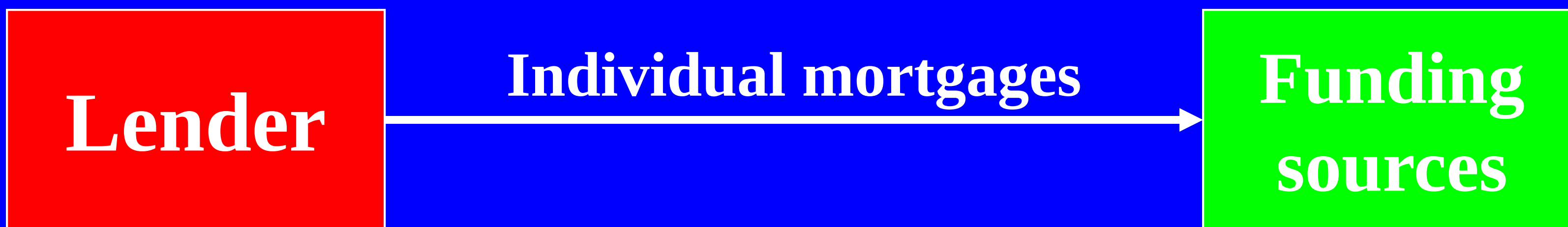
Reforming U.S. housing-finance rules

- Reduce moral hazard by leaving credit risk with the credit-grantor, the lender
  - Level the playing field between the originate-to-hold and the originate-to-distribute business models

Which business model is more efficient?

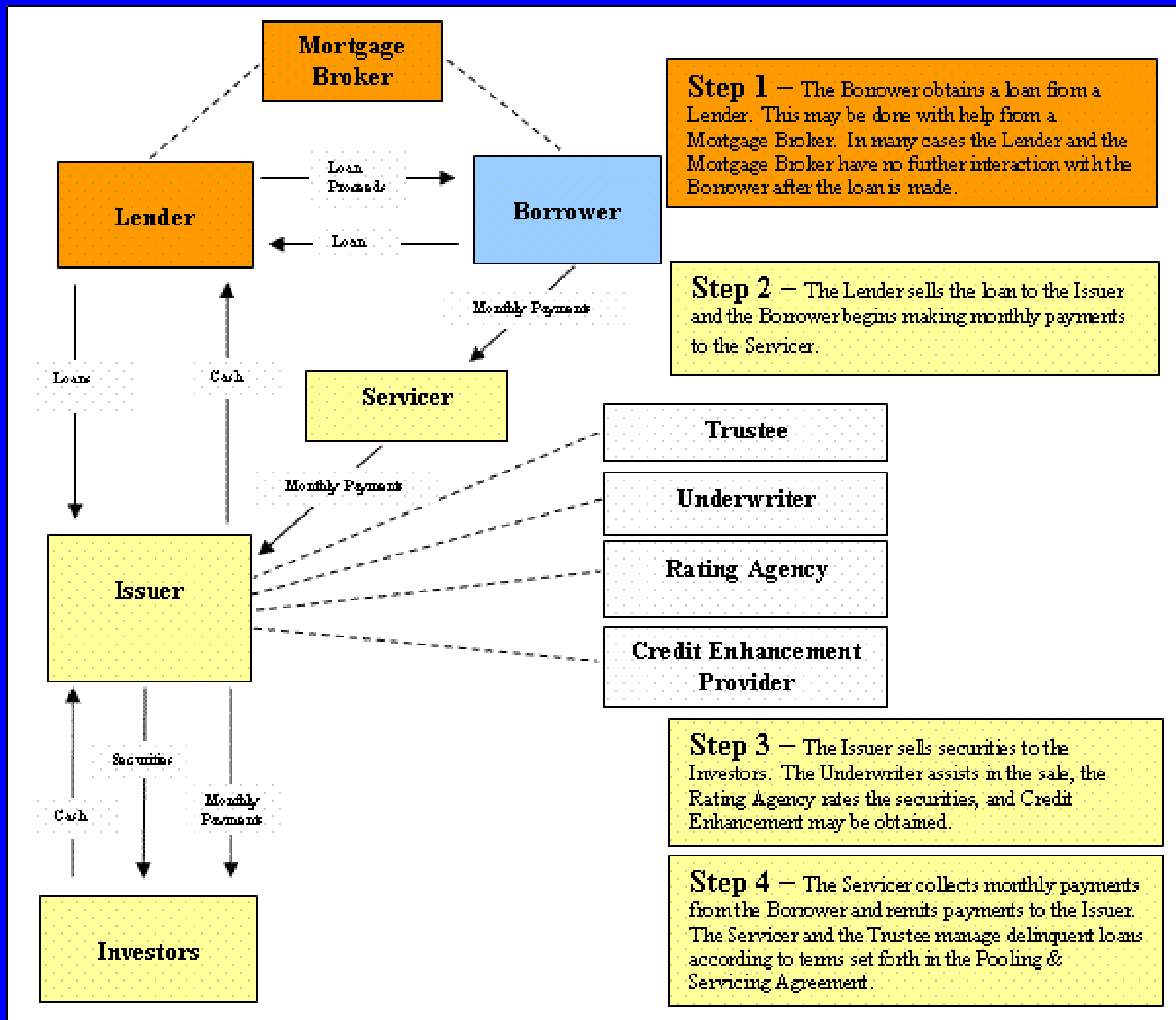
Moving many small assets (mortgages) from lenders to funding sources or moving large blocks of funds to lenders

The originate-to-distribute business model



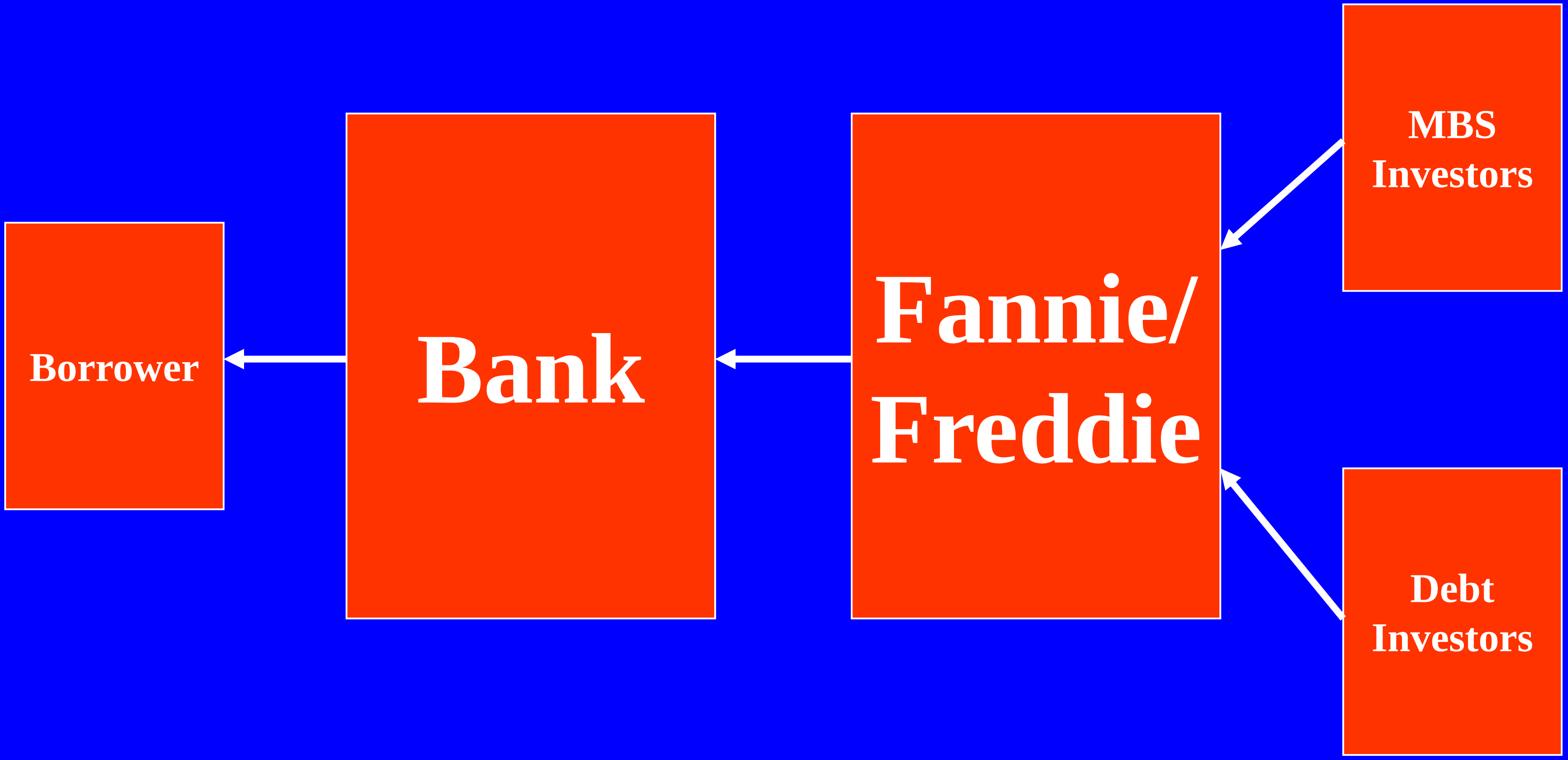
The originate-to-hold business model

Which structure is simpler – this?

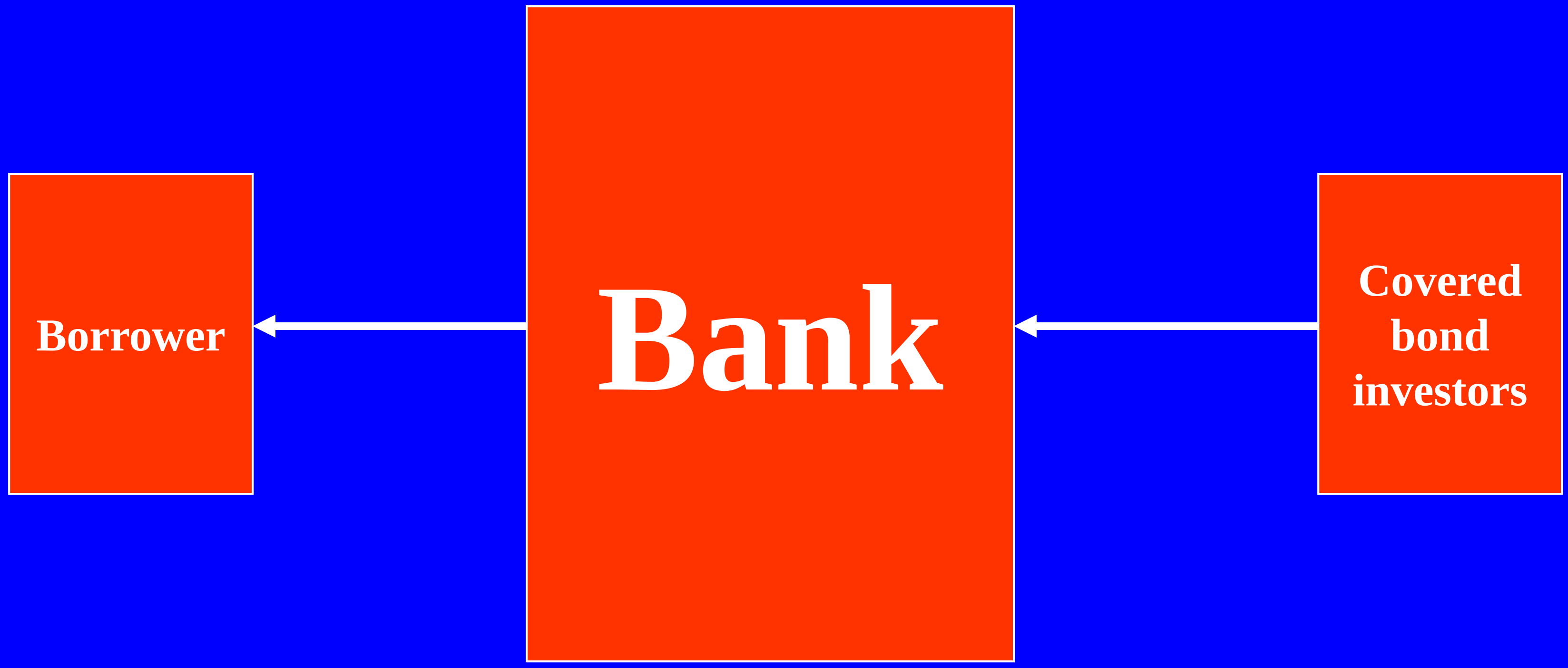


Source: Statement of Sheila C. Bair, Chairman, Federal Deposit Insurance Corporation on Possible Responses to Rising Mortgage Foreclosures before the Committee on Financial Services, U.S. House of Representatives, April 17, 2007

. . . or this?


Borrower
Bank
Fannie/
Freddie
MBS
Investors
Debt
Investors

. . . or this?



Reformming U.S. housing-finance rules

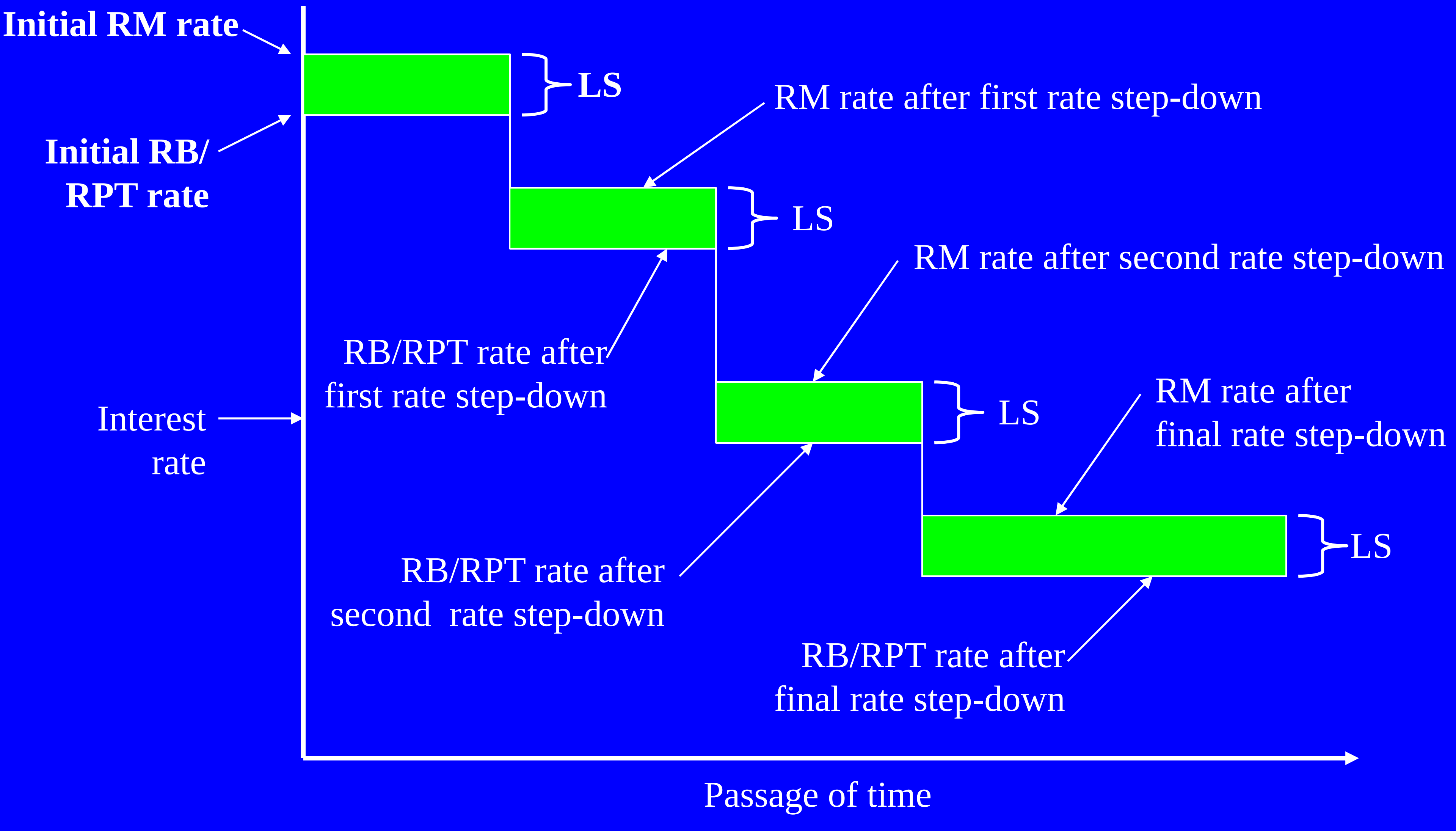
- Reduce moral hazard by leaving credit risk with the credit-grantor, the lender
  - Level the playing field between the originate-to-hold and the originate-to-distribute business models
  - **Phase out Fannie Mae and Freddie Mac**
- **Reduce maturity mismatching through greater reliance upon covered-bond financing**
- **Trim mortgage intermediation costs**
  - **Lower credit losses by lenders retaining credit risk**
  - **Reduce funding costs through simpler structures**
  - **Lower mortgage origination and refinancing costs**
  - **Reduce servicing costs**

The Ratchet-Mortgage™ concept

- The Ratchet Mortgage™ (RM) concept for automatic, no-cost refinancing of fixed-rate mortgages
  - The RM rate declines automatically in accordance with a decline in a published rate index, without regard to the borrower's creditworthiness
- The key to the RM invention (patents pending) is the linkage between the RM and its funding source
  - A Ratchet Pass-Thru™ (RPT)
  - A Ratchet Bond™ (RB), which can be a covered bond
- The RM eliminates all refinancing costs because it keeps the original mortgage in place

The Ratchet-Mortgage™ Step-down effect

Lender's spread (LS) remains constant over the RM's life



Thank you

I welcome your questions and discussion