

# Freddie Mac, Fannie Mae and the Future of Mortgage Markets

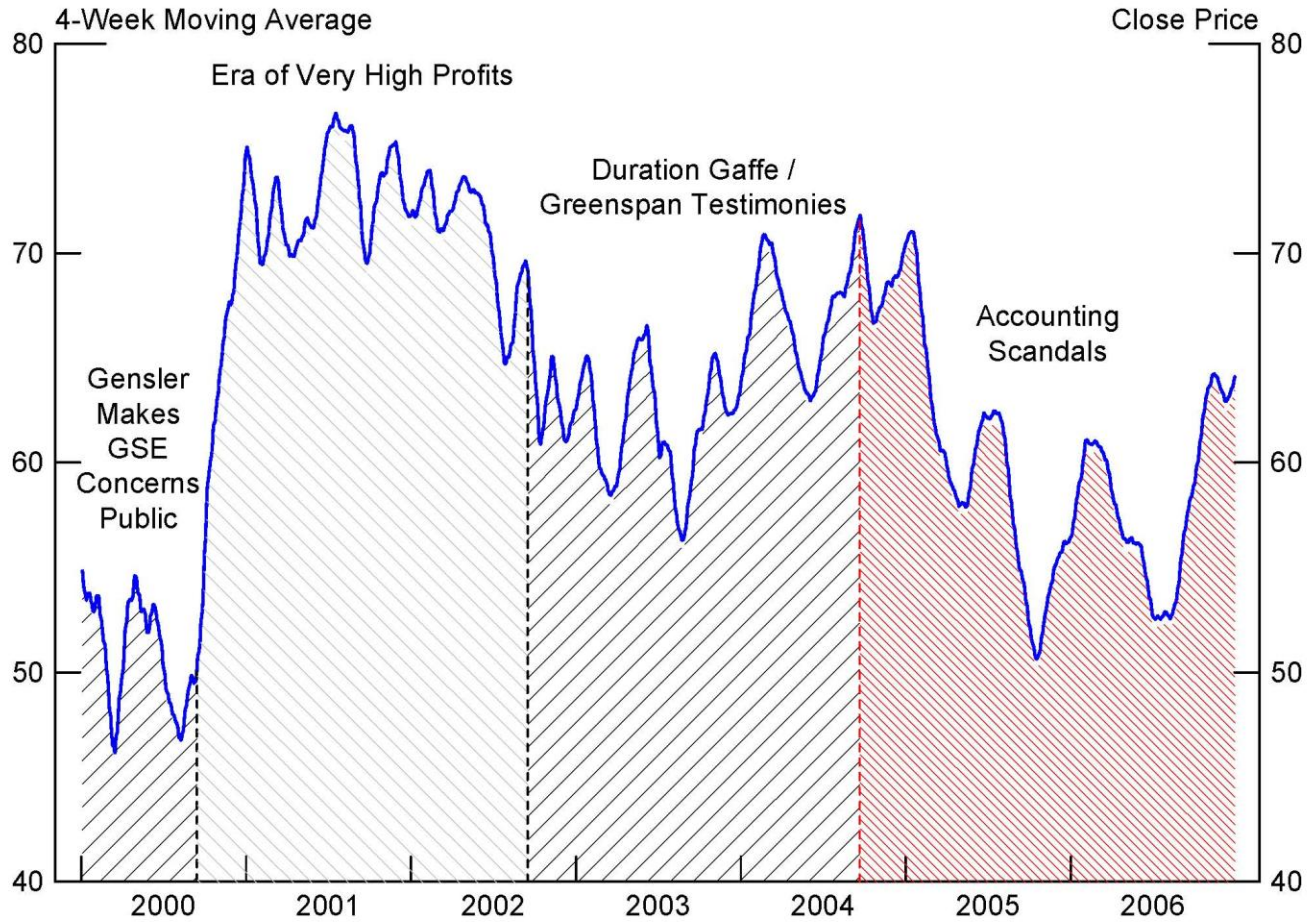
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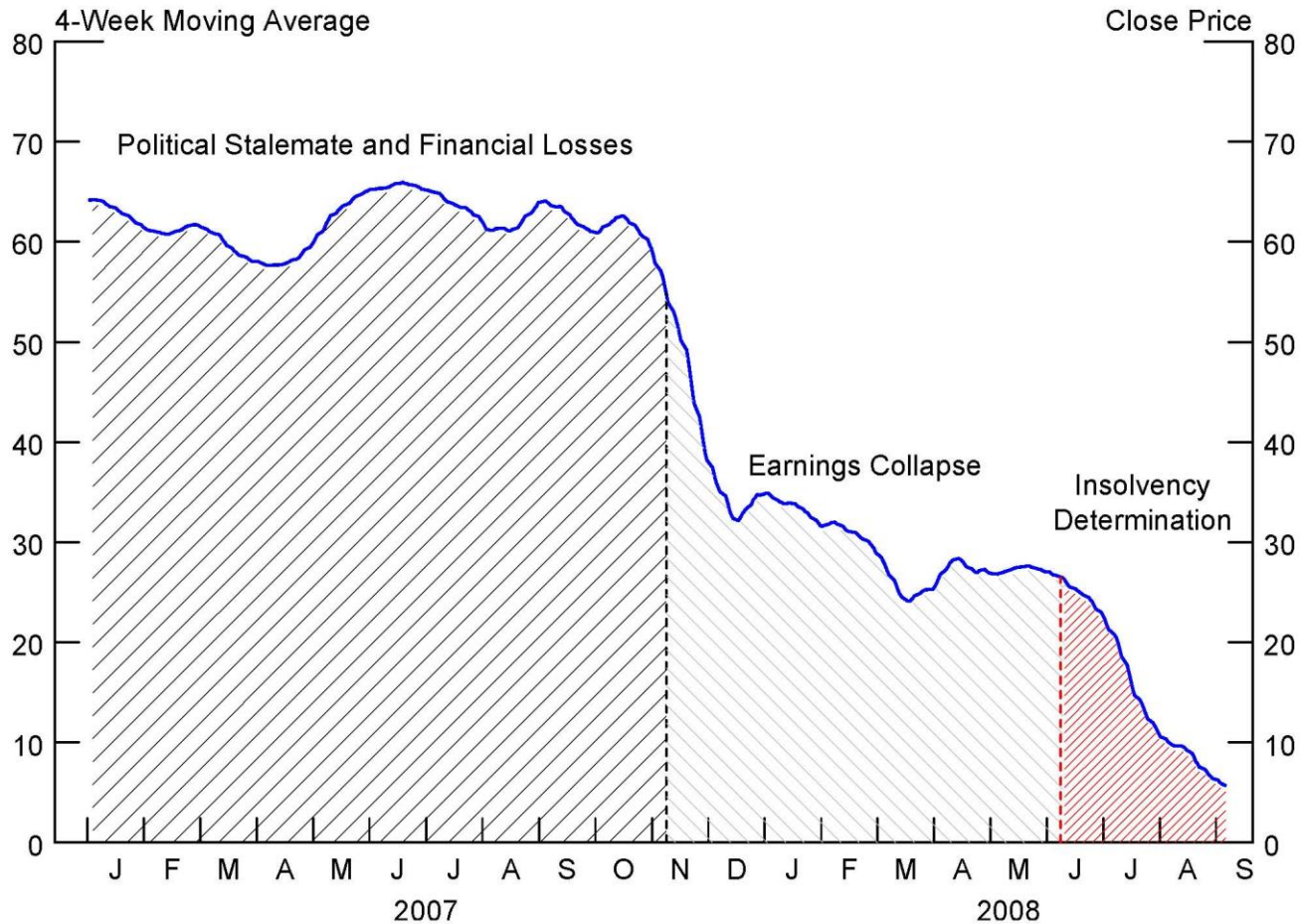
Board of Governors of the Federal Reserve System

\* The views expressed do not necessarily reflect those of the Board of Governors of the Federal Reserve System, or its staff.

## GSE history (2000-2006)



## GSE history (2007-conservatorship)



## The Federal Reserve's concerns about the GSEs Prior to Conservatorship

- Close ties to government allowed the GSEs to borrow at lower interest rates
- Private ownership and duopoly structure meant limited pass-through of benefits
- Allowed rapid portfolio growth and high profits
- Created incentives for regulatory capture
- Created systemic risk (Greenspan, February 2004)

## Systemic risk: GSE portfolios, not GSE mortgage securitization

- Portfolio growth and profit pressures
  - Lowered underwriting standards
  - Accumulation of Alt-A mortgages
- Low capitalization
- Lack of ongoing market discipline
  - Accounting scandal created lack of confidence in internal controls
  - Debt costs did not rise throughout scandal
- Rollover risk
  - Debt investors fled
  - Concerns arose about credit quality of mortgage portfolio, “liquidity portfolio,” and pledging of assets for secured borrowing

## What to do with Fannie Mae and Freddie Mac?

- Bernanke (2008)
- Option 1: Privatization
  - Unclear what this means; not evident that private sector would securitize mortgages without government support
  - Strong social interest in maintaining a stable source of capital market funding for mortgages
  - Suggests private firms with some form of government backstop or regulation
  - Hancock, Passmore (2008, 2009): Bond insurer

## Option 2: Covered bonds

- Debt obligations are issued by financial institutions and secured by a pool of high-quality mortgages
  - Pool is actively managed by originating financial institution
  - Common method of funding mortgages in Europe
  - Relatively robust financing during financial crisis
  - Usually have some form of explicit or implicit government backing
  - Difficult to start in the United States because it competes with FHLB funding

## Option 3: Government agency or public utility

- Private shareholders overseen by utility board (Paulson)
- Consolidate FHA and GSEs into a government agency
- Cooperative structure like FHLBs (trade associations)
- Davidson

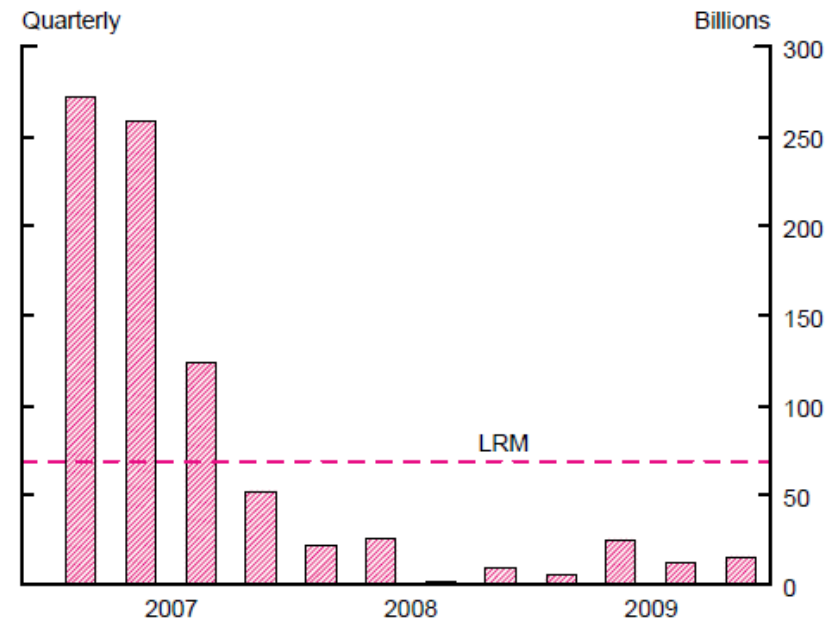
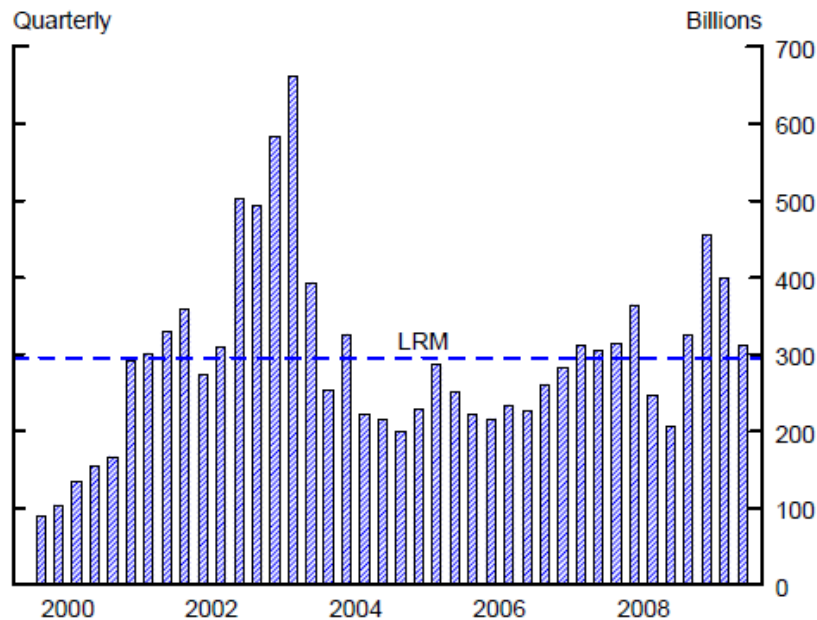


# Retail Investor Runs, Asset Securitization, and an Analysis of Government Secured Bond Insurance

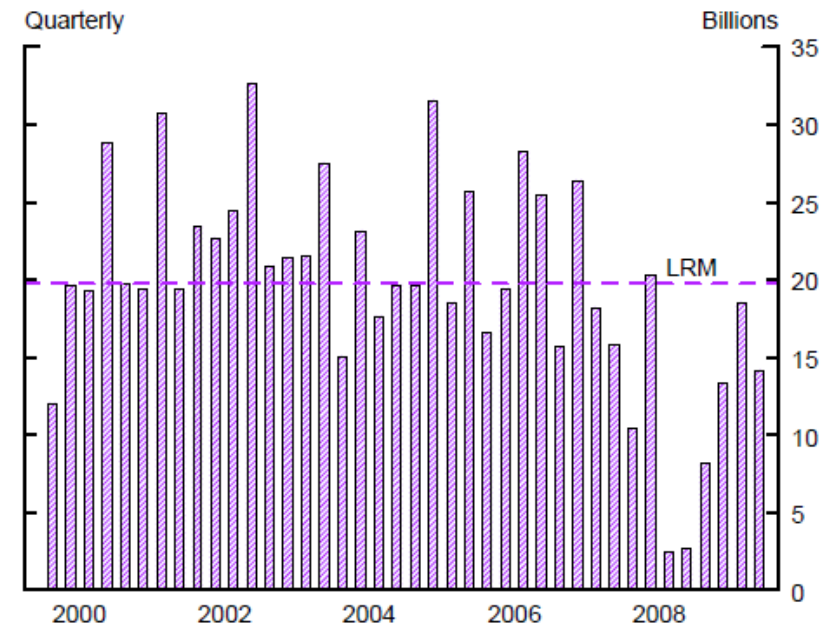
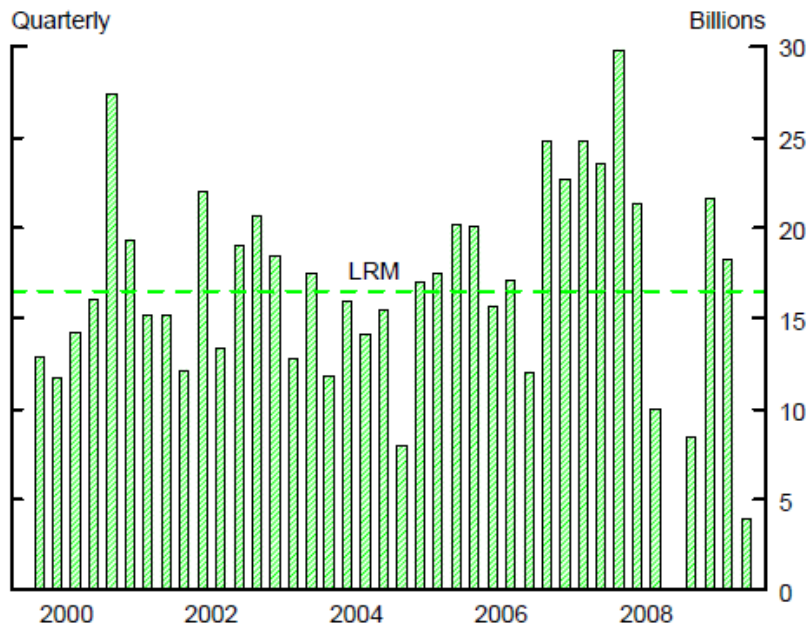
Diana Hancock and  
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Two different outcomes during the financial crisis: Agency (left-panel) and non-agency MBS Issuance (right-panel)



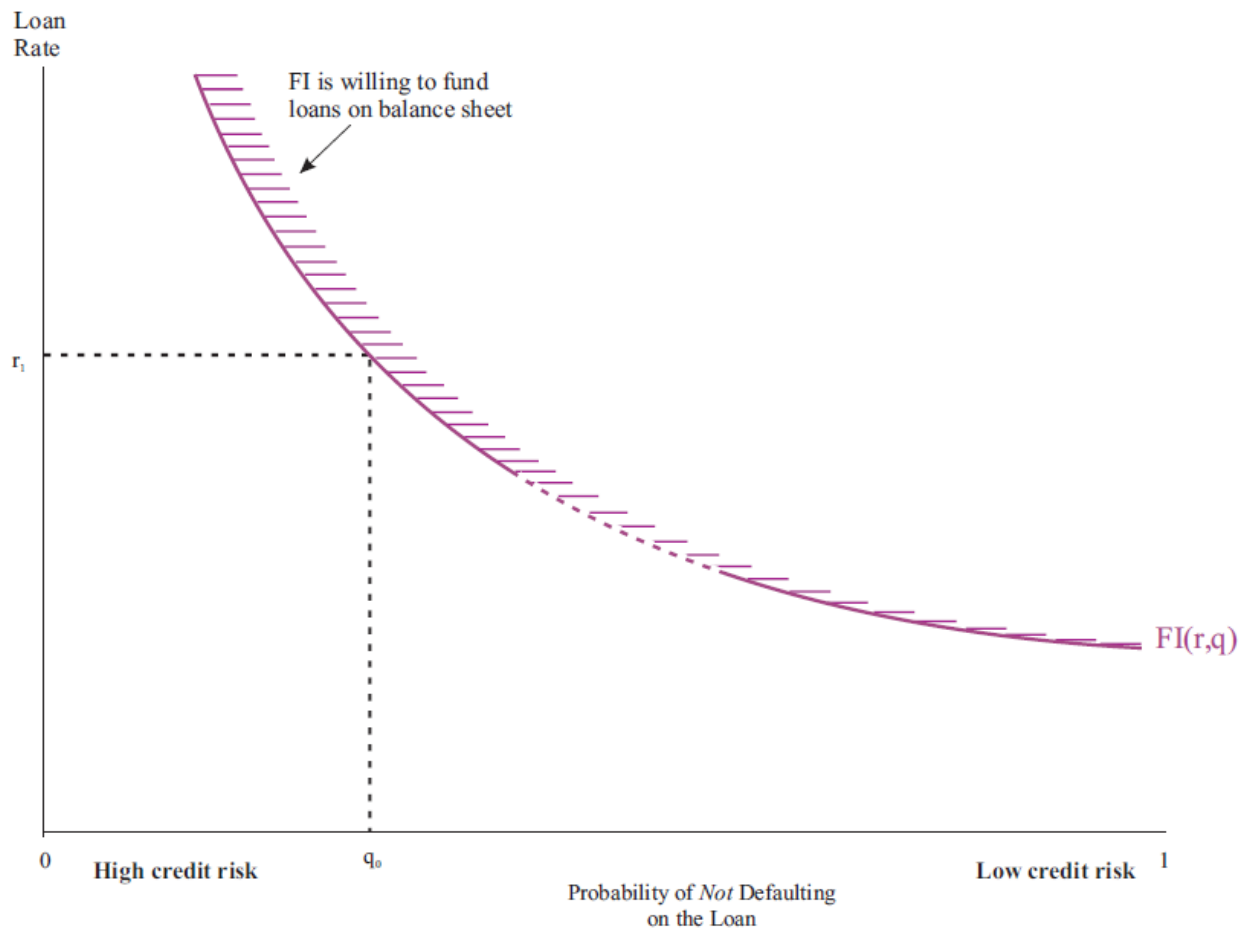
Non-government-backed securitization disappears during the financial crisis: Credit card (left panel) and auto ABS issuance (right panel)



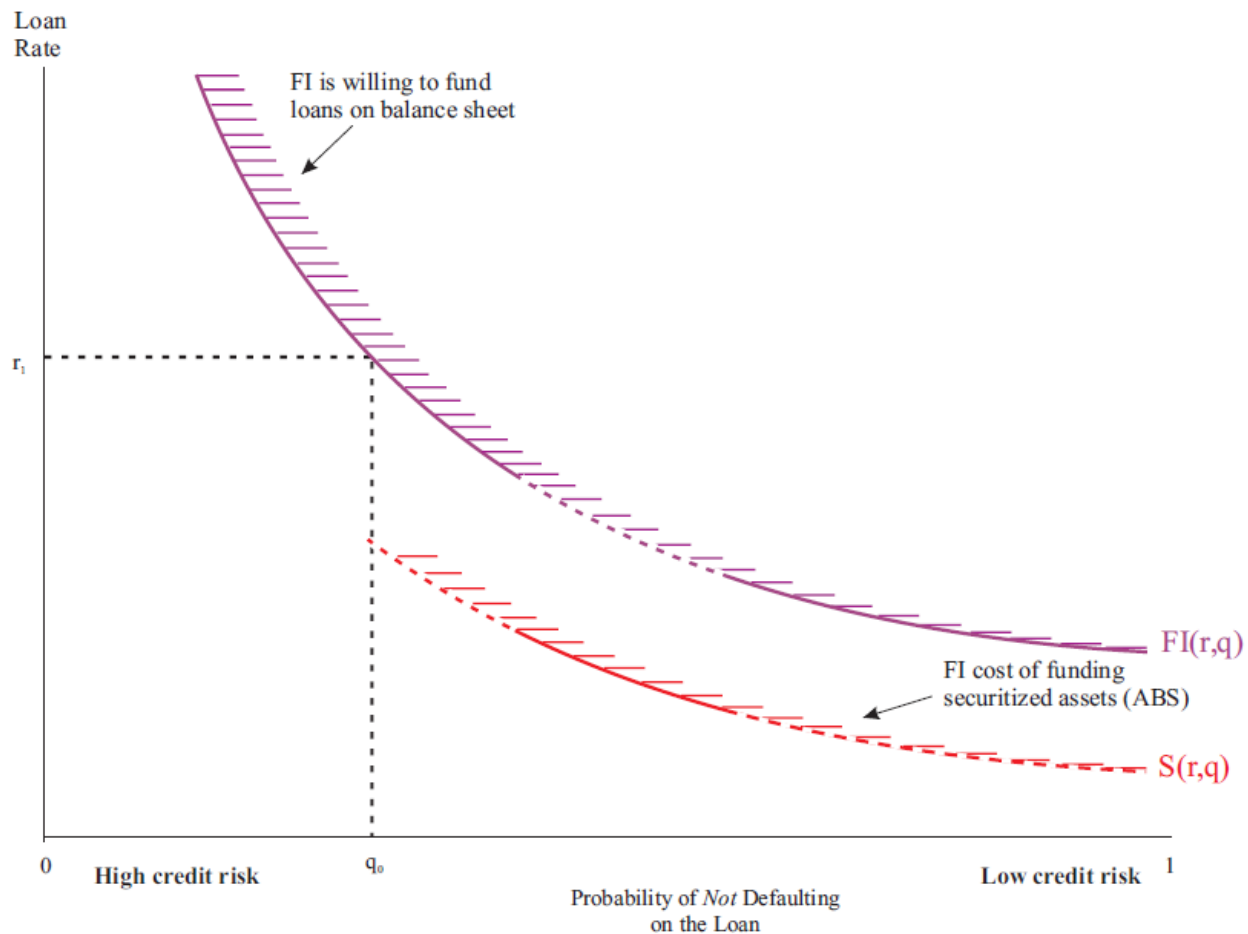
## What is special about government-backed securitization?

- Two types of investors:
  - Sophisticated – Invests in due diligence
  - Retail – Unwilling, or unable, to conduct due diligence
- Retail investors:
  - Far greater in number, with more funds available
  - Searching for yield
  - Lower cost of funds to financial institutions
  - Greatly increases liquidity of product if perceived as safe
  - Prone to “run”
- Model retail investors as only knowing the average credit risk of a portfolio and fleeing if such risk is too high

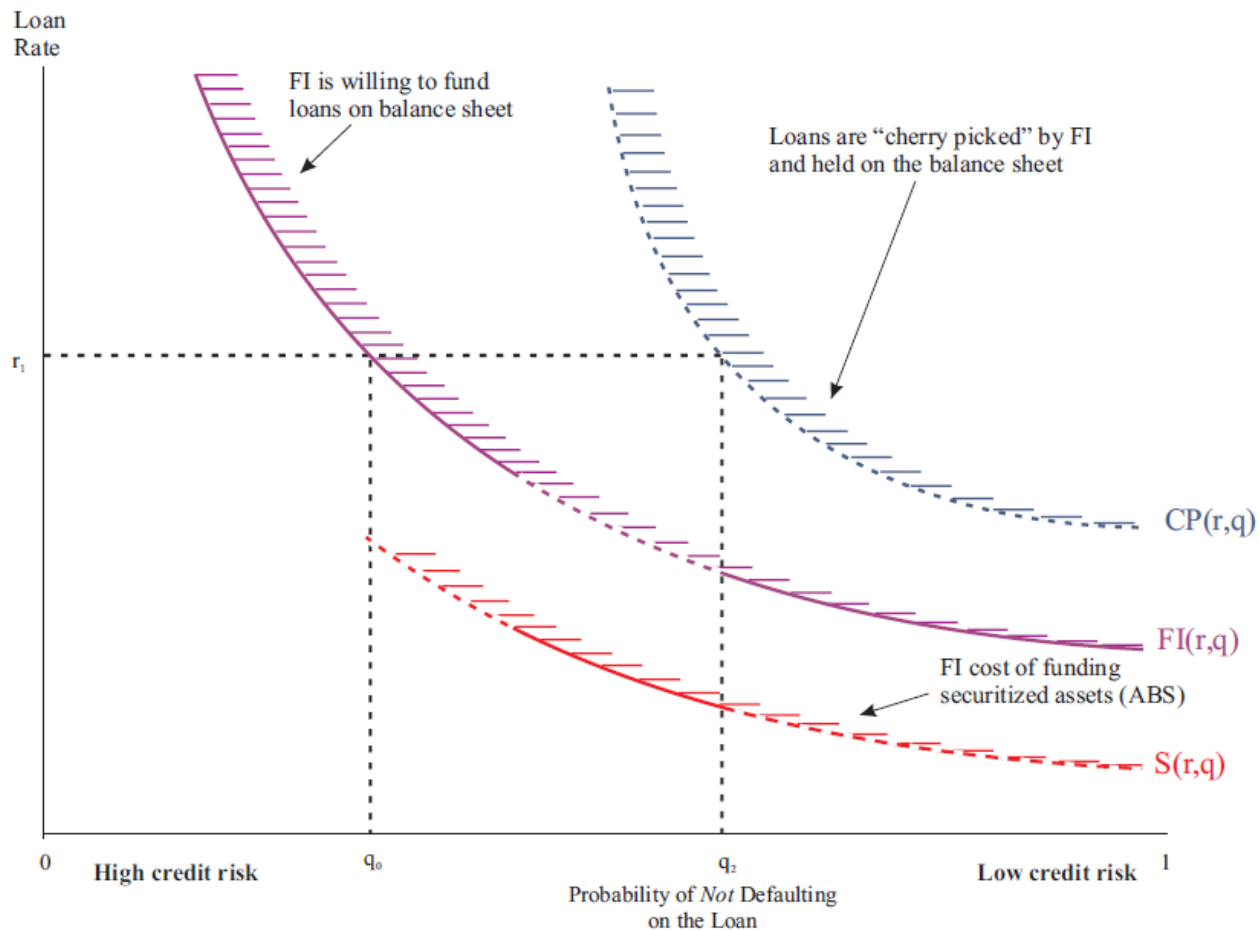
## Financial institution funding of loan portfolios: Zero profit trade-off in contractual rates and credit risk



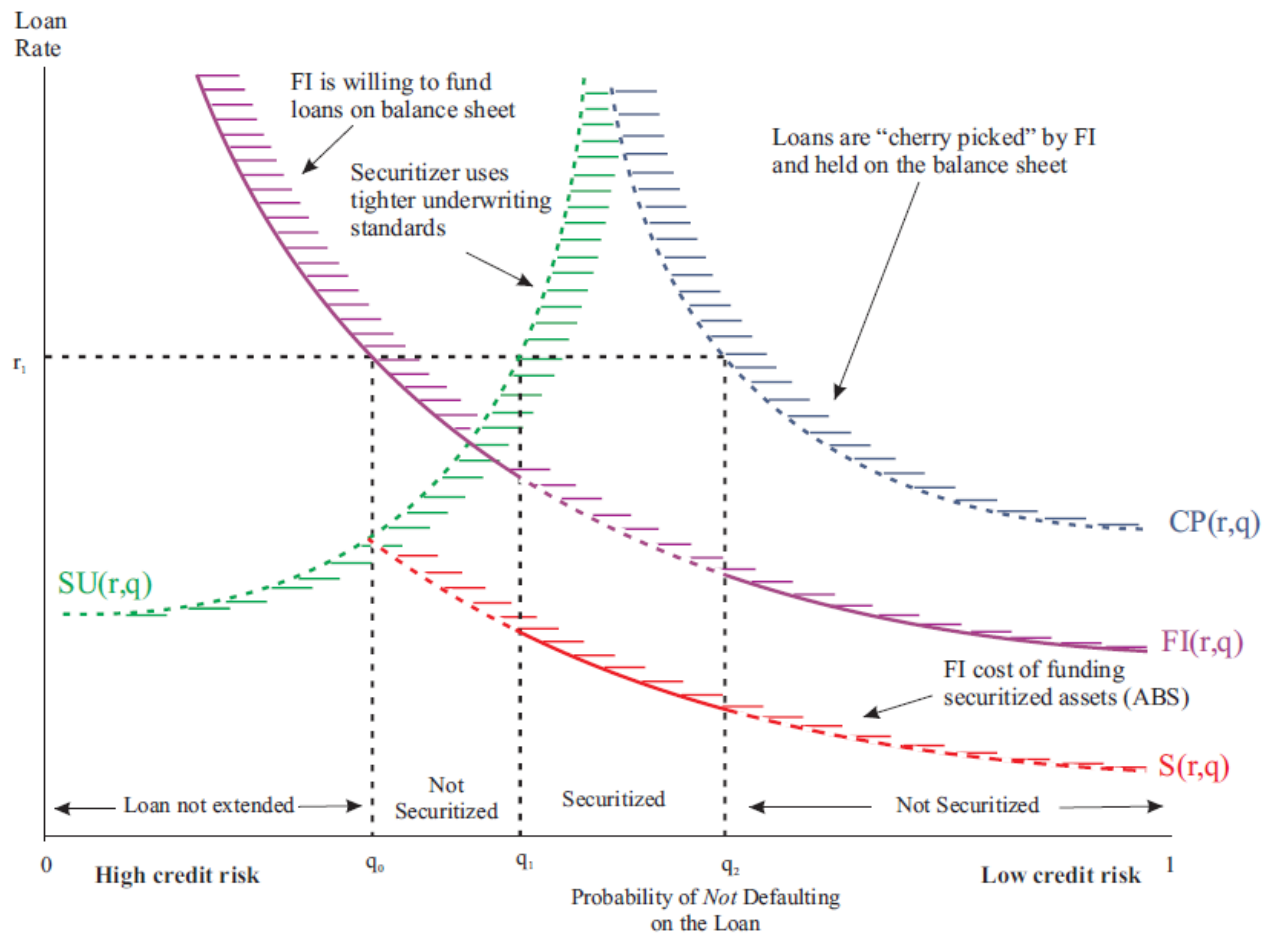
## Financial institution funding of ABS: Zero profit trade-off – gains in liquidity and lower funding costs



## First-mover advantage: Originator takes safest loans out of securitization pipeline

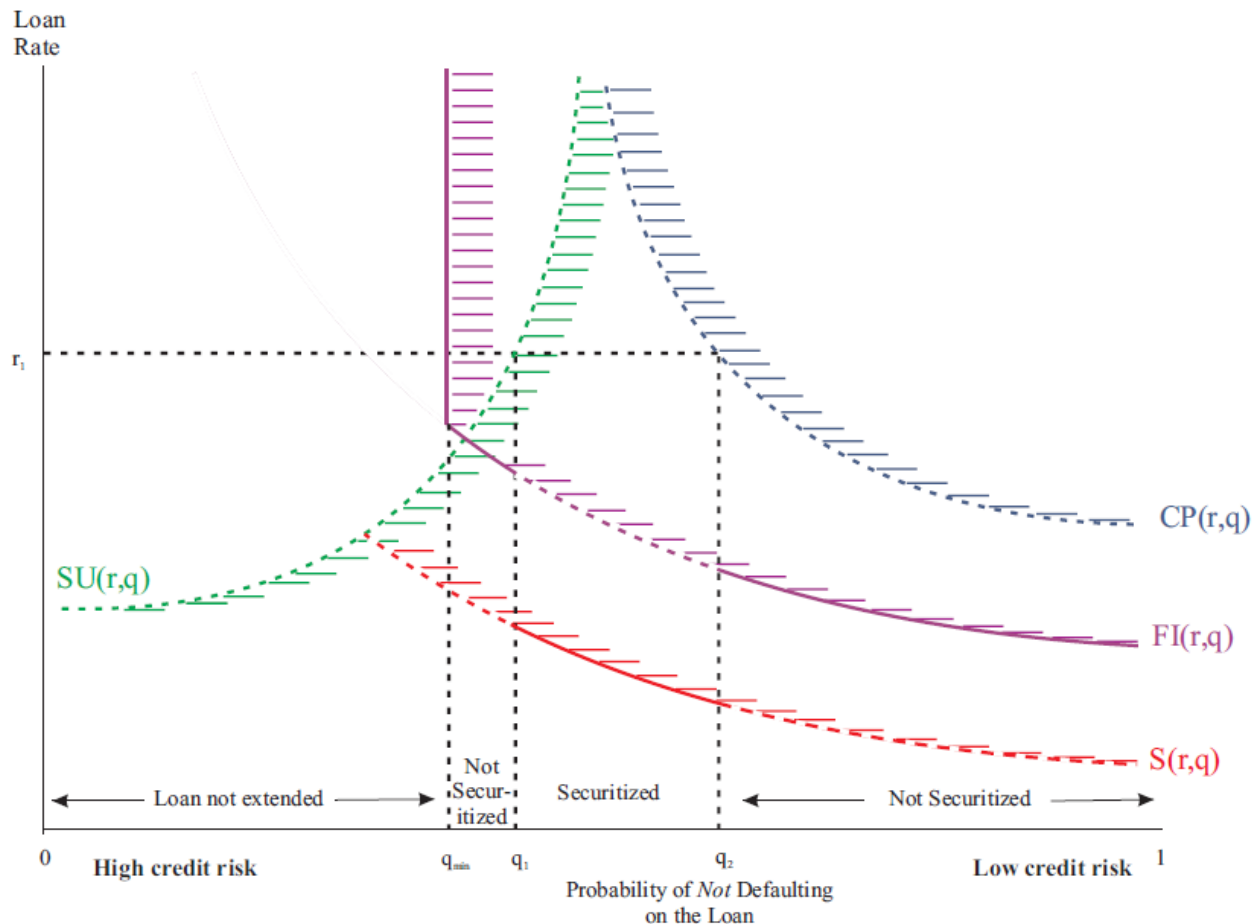


## Securitizer guards against “cherry picking” by limiting “lemons”

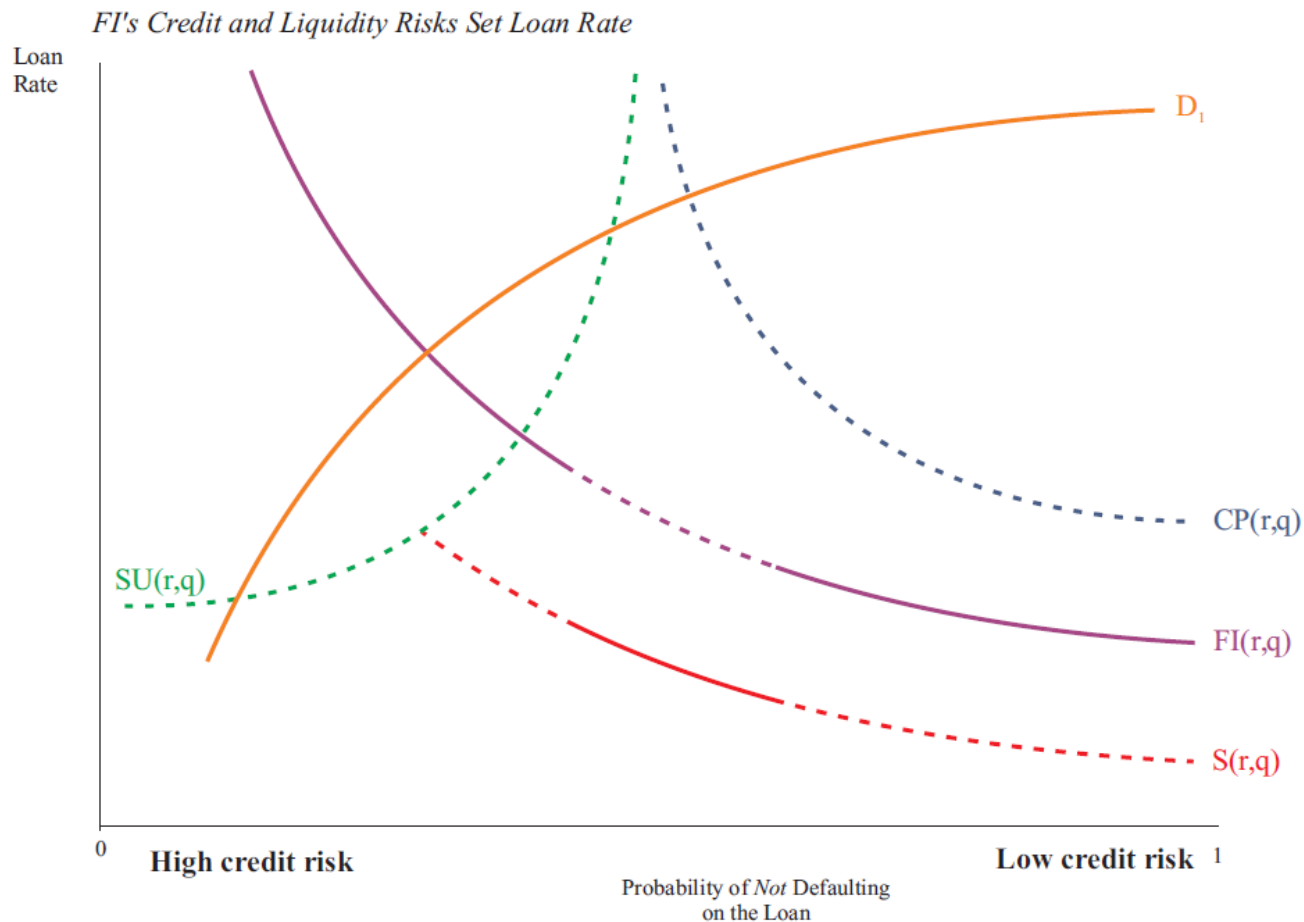




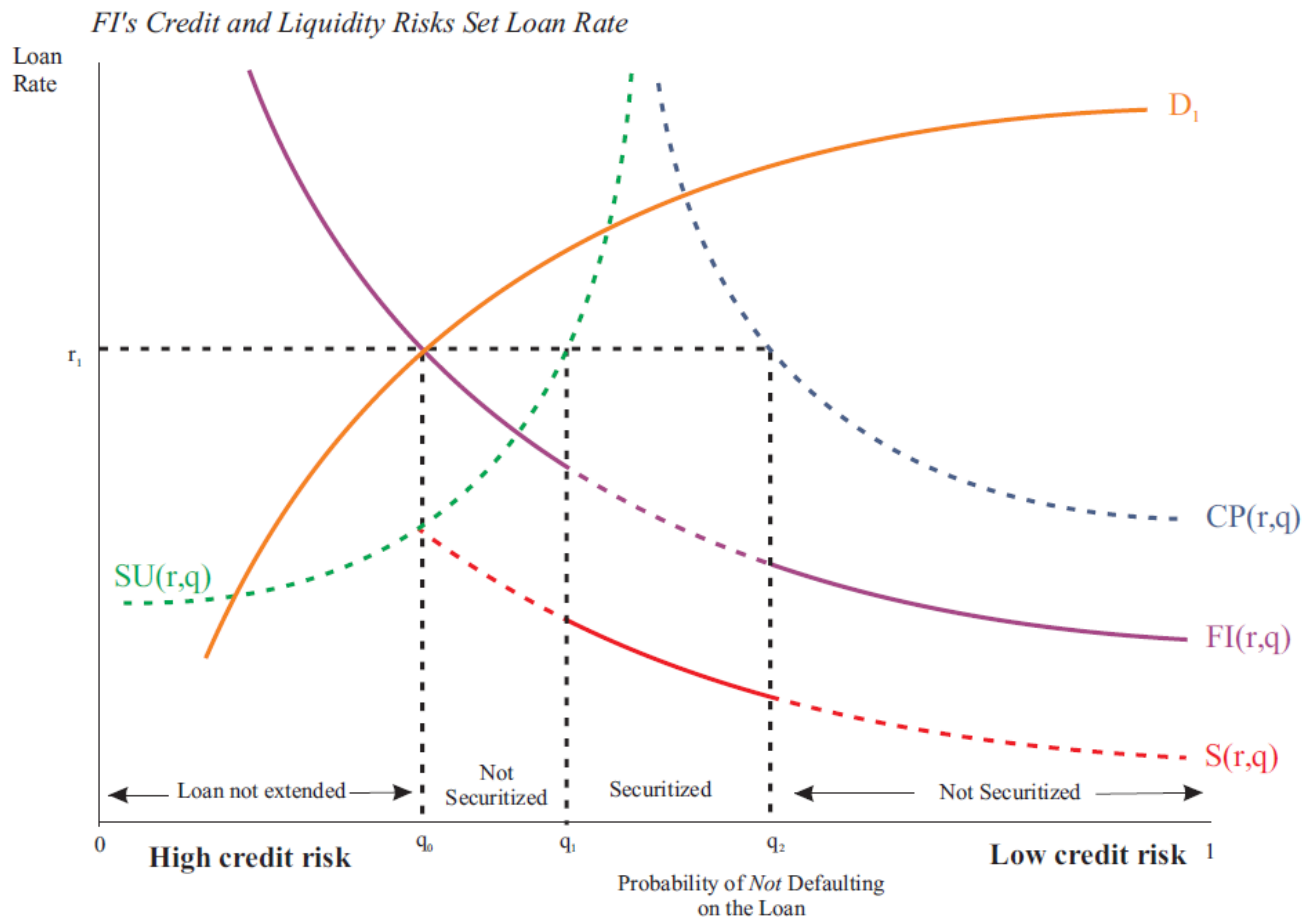
Financial institution funding with uninsured deposits: Creates “kink” in funding whole loans – retail investors see too much credit risk, and supply of funds becomes inelastic



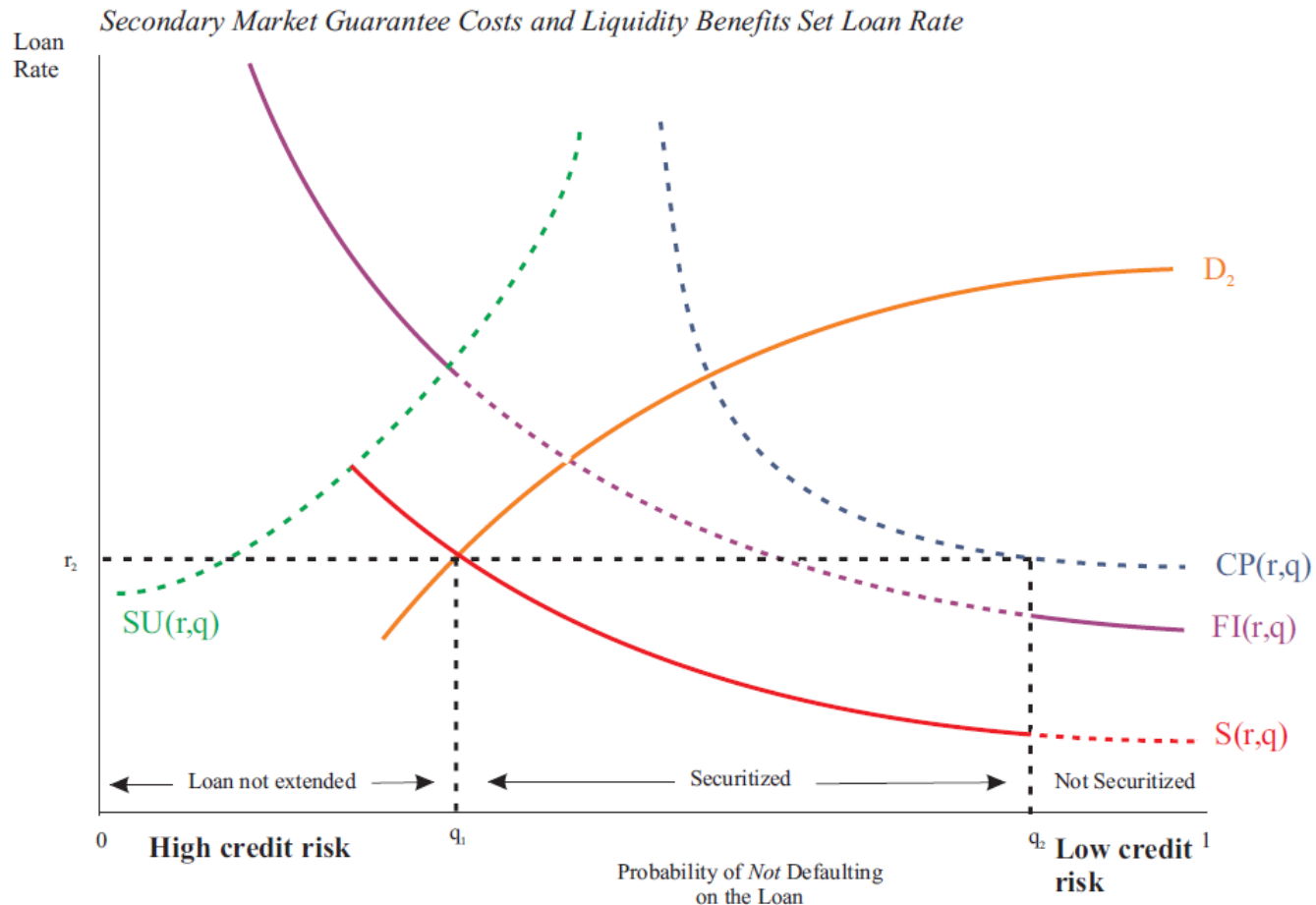
Demand equals supply. Households' concern is bankruptcy. Only households with low risk take on loans with high rates.



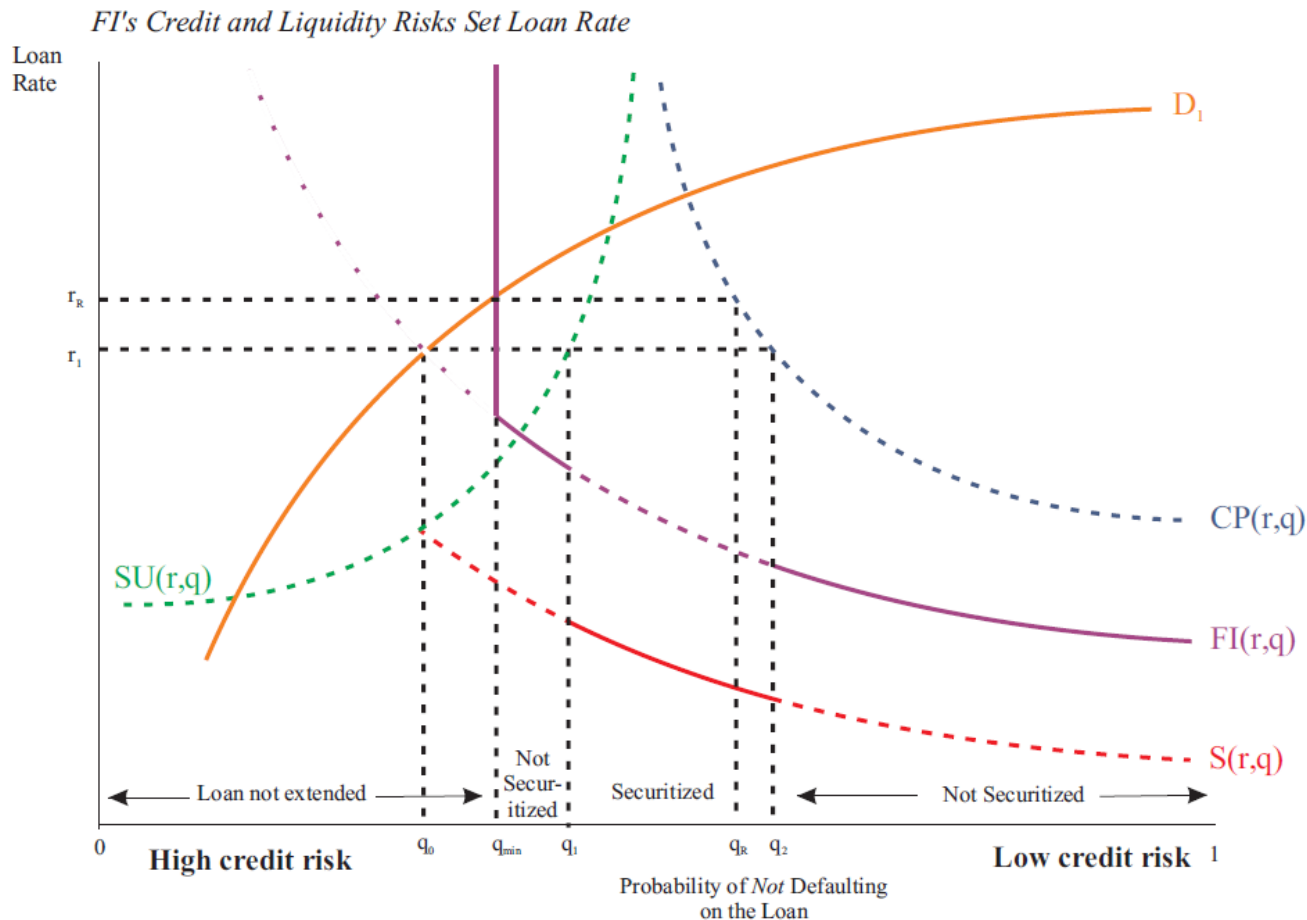
## Equilibrium loan rates without retail investors (no “kink”)



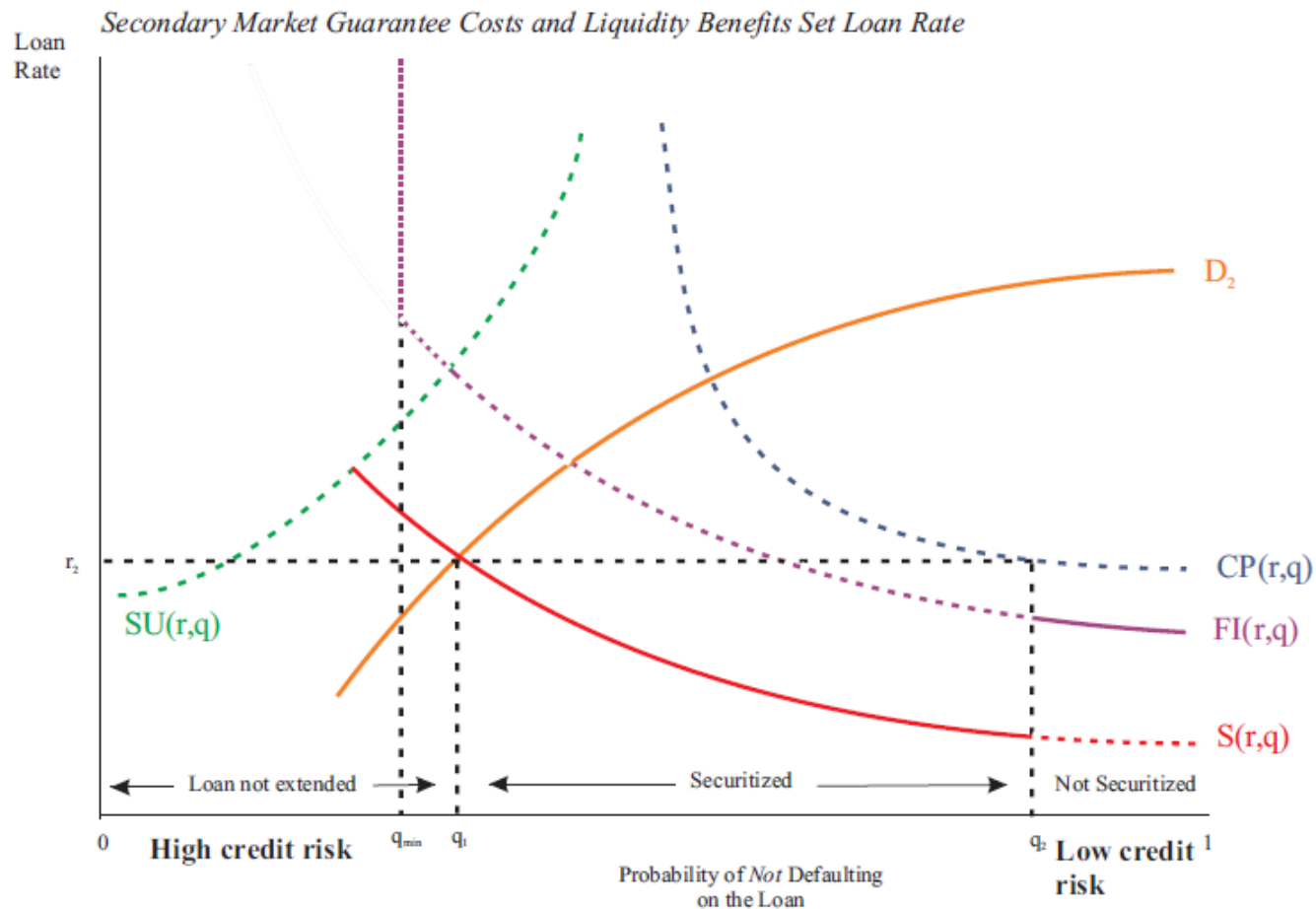
# Equilibrium loan rates without retail investors, marginal loan securitized



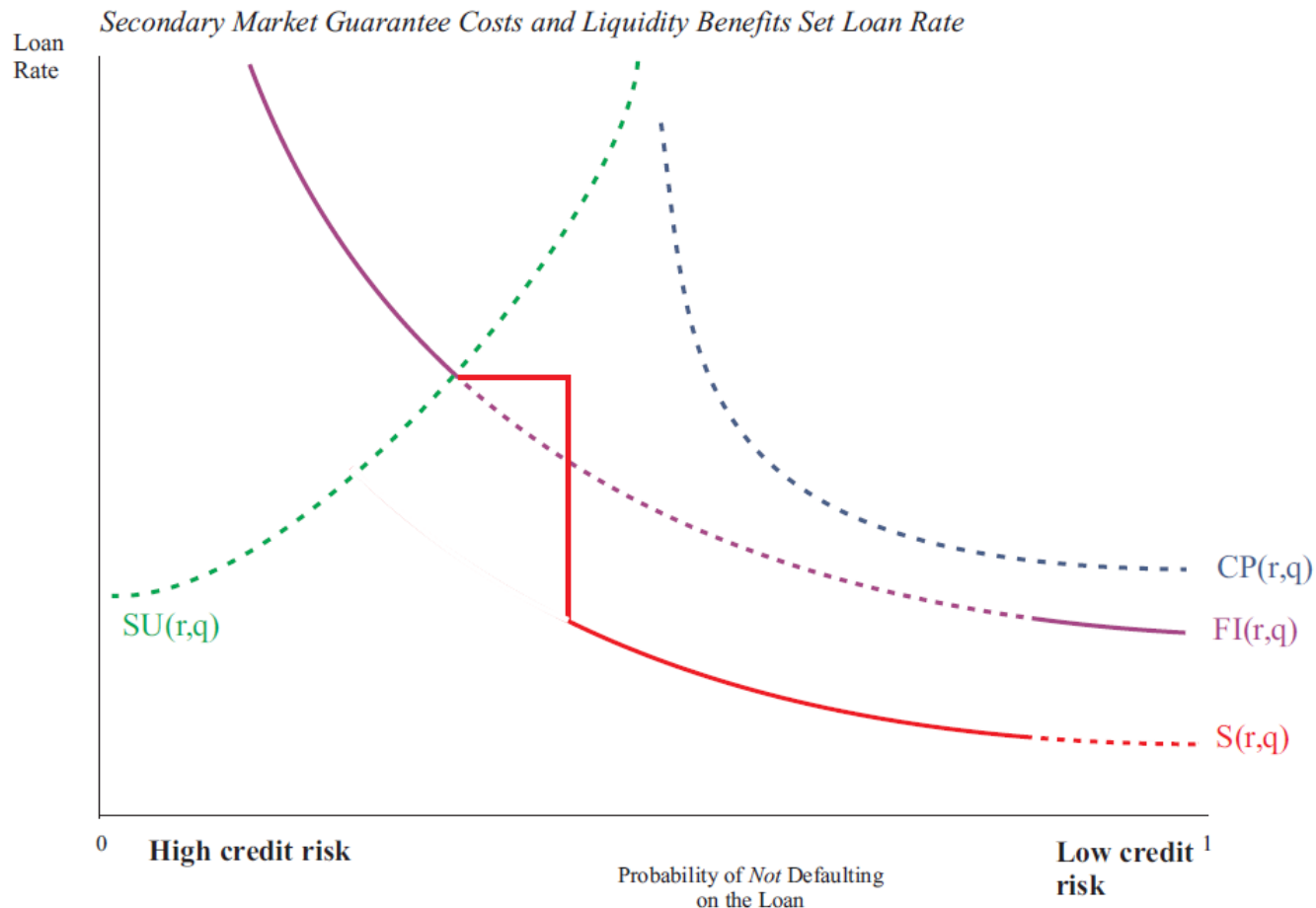
## Equilibrium loan rates with retail investors: Funding risk for whole loans on portfolio raises rates and limits loans



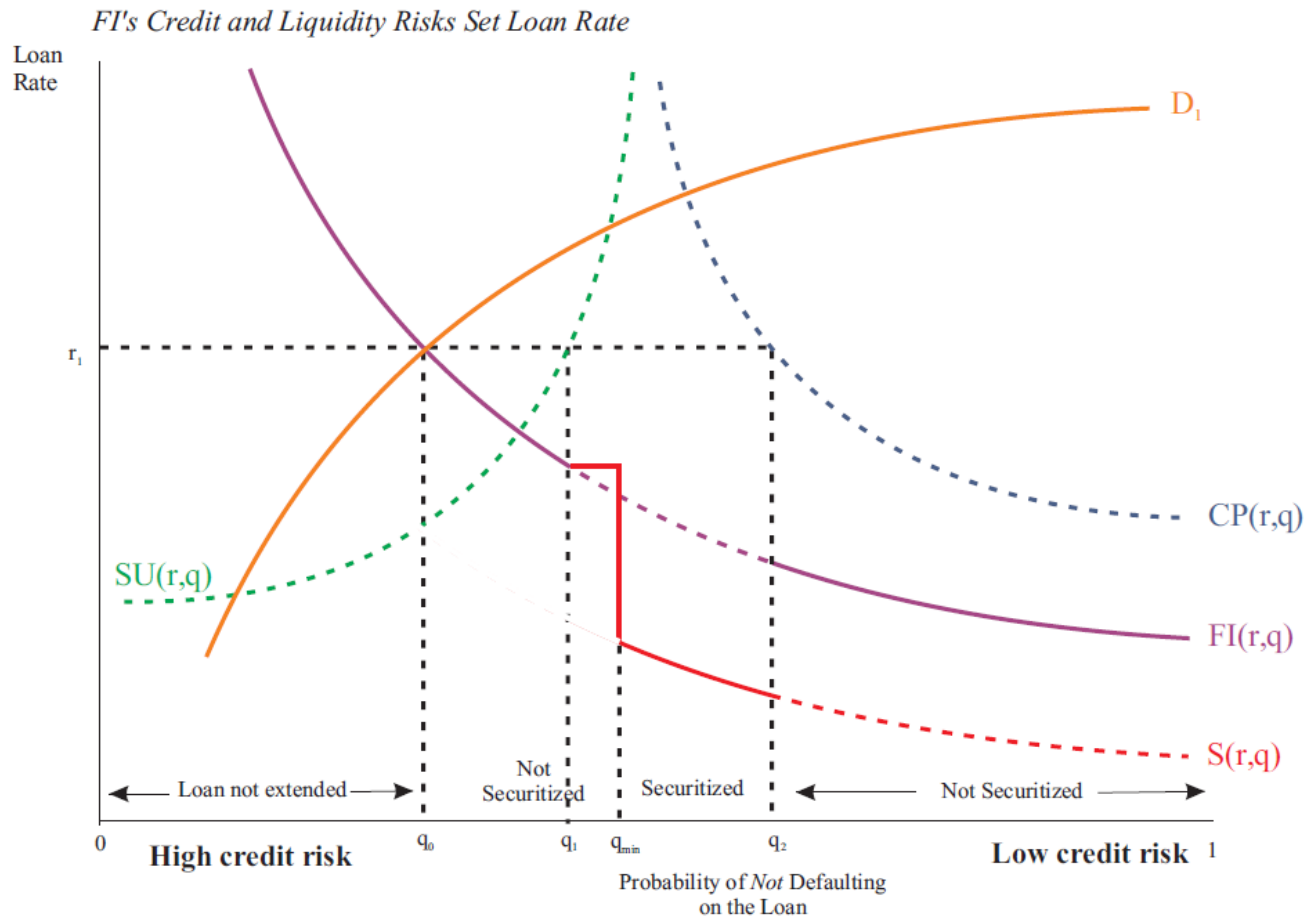
## Equilibrium loan rates with retail investors: Funding risk of whole loans has no effect because marginal loan is securitized



Equilibrium loan rates with deposit insurance and retail funding of securitization: the “kink” is now associated with a run by market investors in a securitization

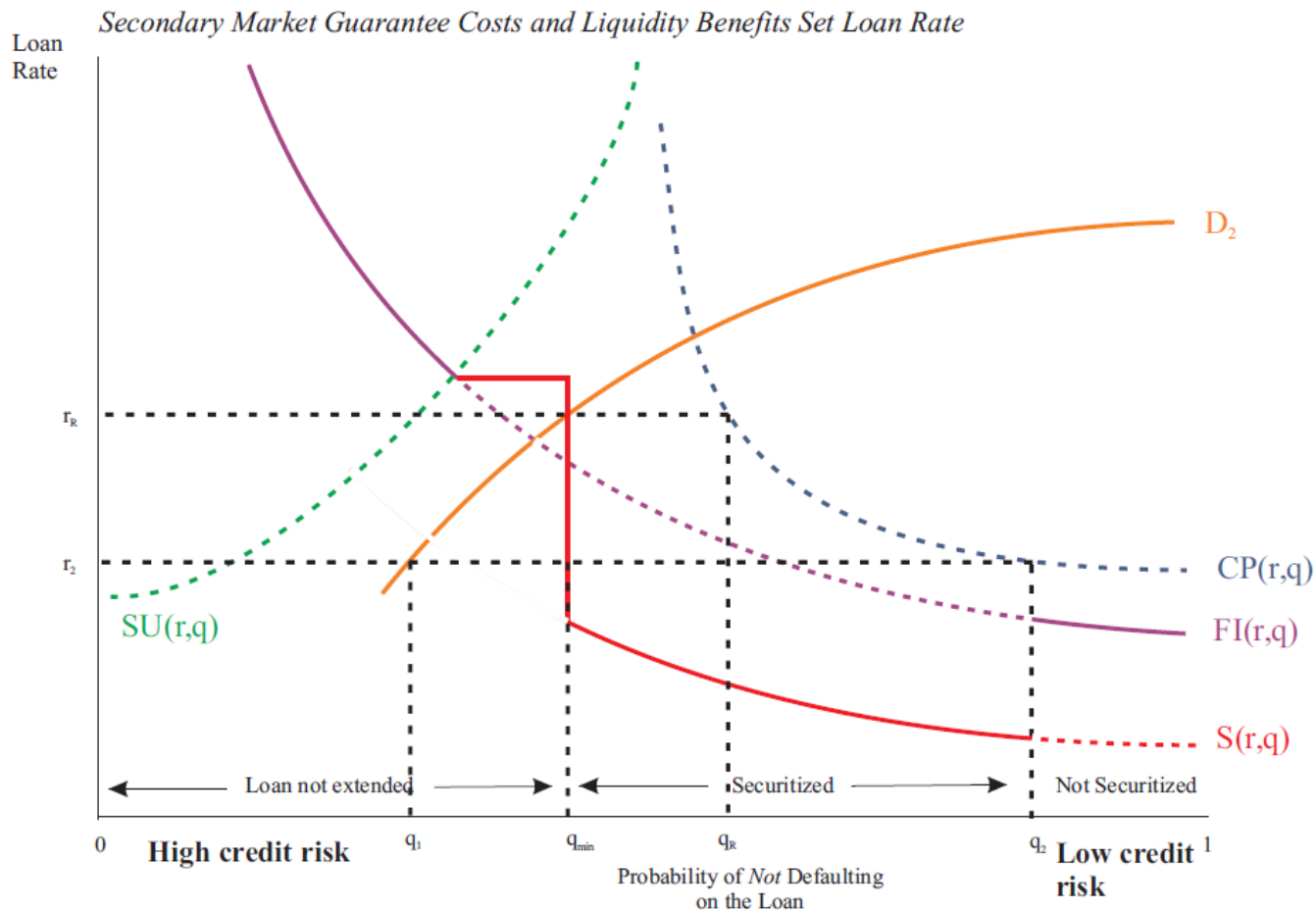


Equilibrium loan rates with deposit insurance and retail funding of securitization: No effect on rates or loan extended if marginal loan is funded by insured deposits, securitization less extensive

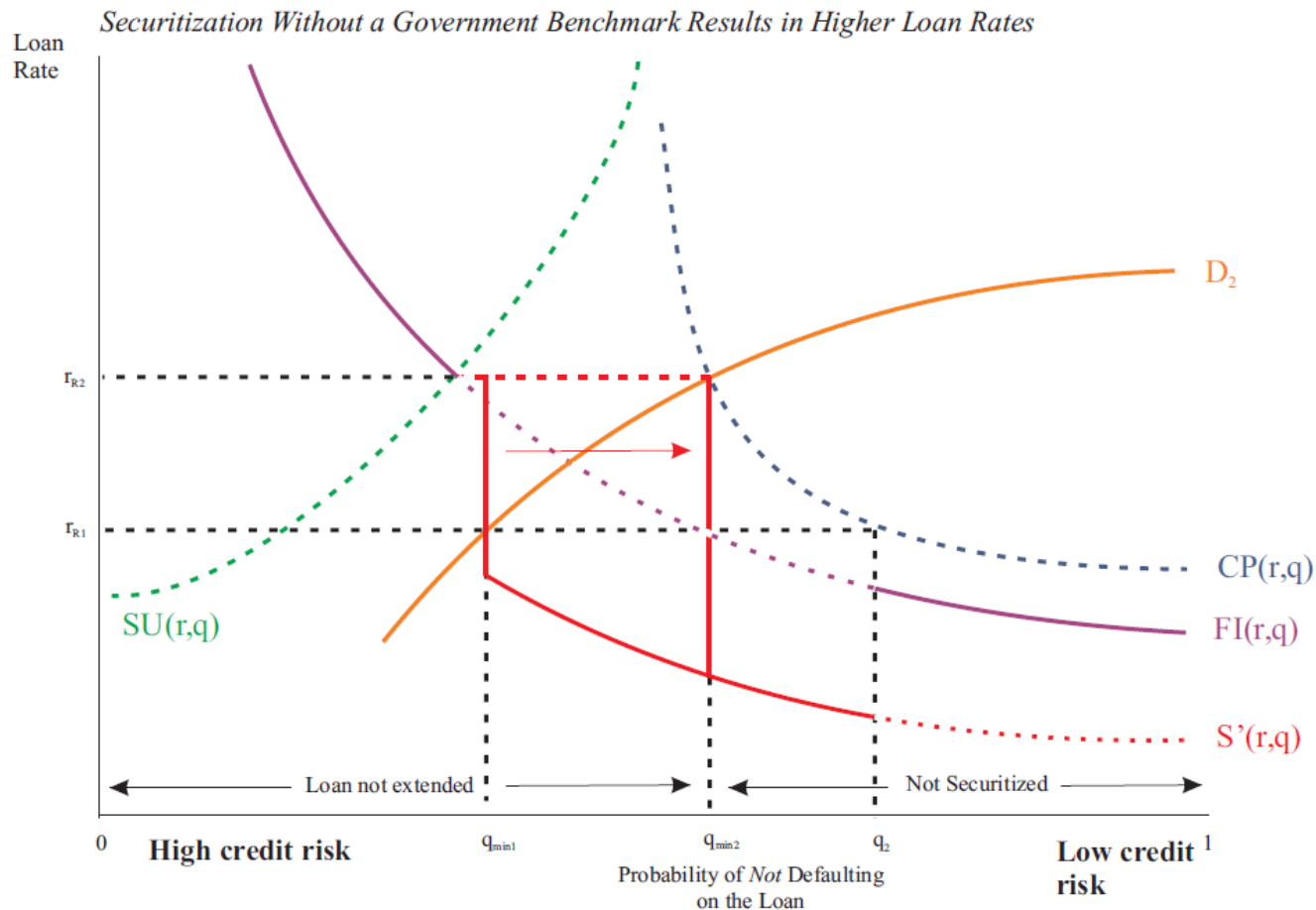




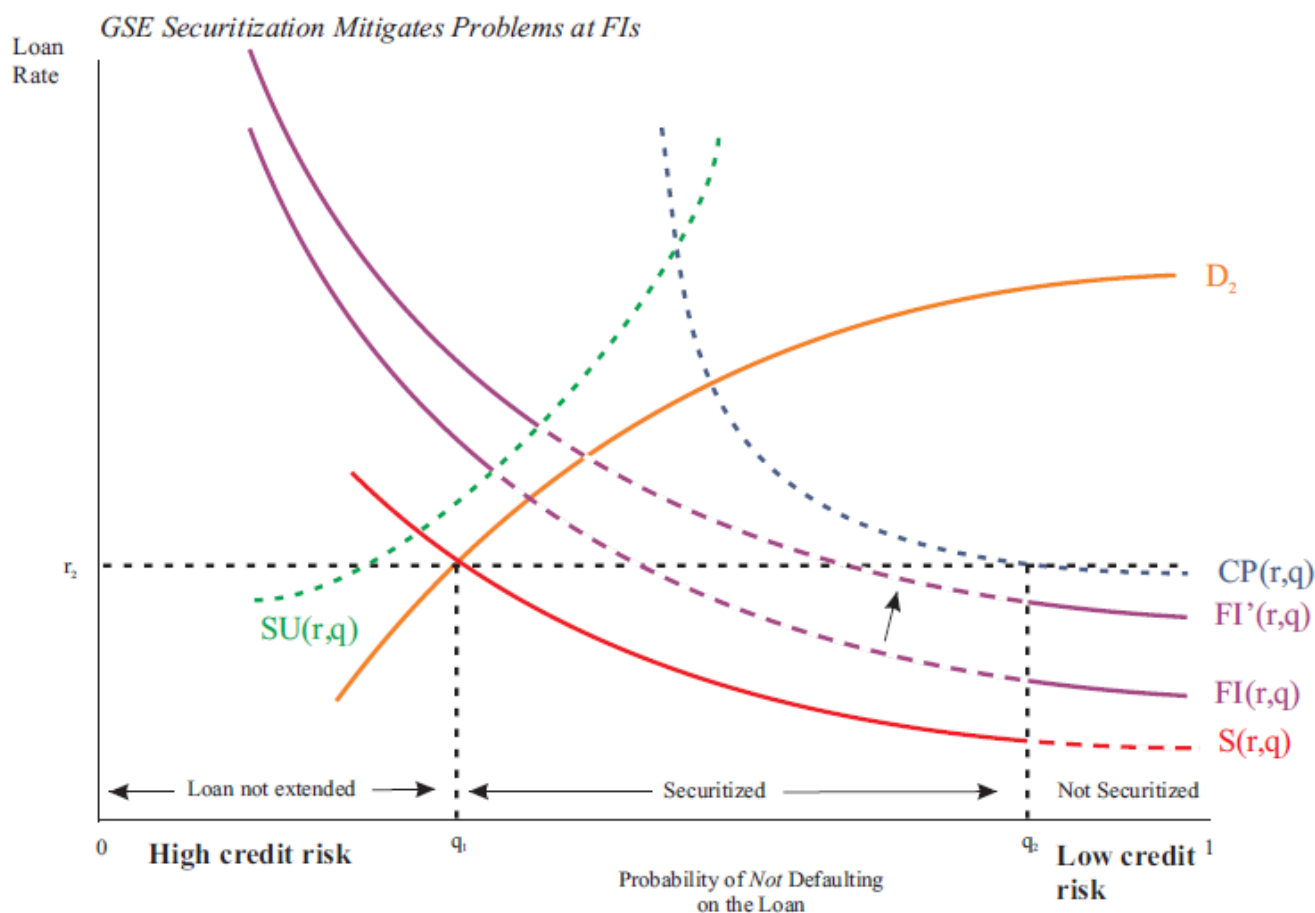
# Equilibrium loan rates with deposit insurance and retail funding of securitization: Liquidity risk raises loan rates and limits lending



Description of the financial crisis: For non-government backed securitization, retail investors “run” (as perception of average risk of securitized loans increases), which raises rates and eliminates securitization



Description of the financial crisis: Increasing capital costs at FIs causes decrease in willingness to lend. No effect on loan rates or loan supply because of credibility of government-backed securitization. All loans become securitized if capital cost increase is large enough.



## Summary: Results of model

- Securitization may or may not lower primary market loan rates
- Securitization has the potential to remove significant funding risk premiums from the primary loan market if:
  - FIs rely heavily on uninsured retail investors for funding
  - Securitizer is a credible guarantor against credit risk
  - GSE securitization performed this function during the financial crisis
- If securitizer guarantee becomes not credible, loan rates can increase and securitization diminishes
  - Non-government securitization disappeared during crisis
- If securitization is not trusted by retail investors, the only loans offered during a crisis are those placed in FIs' portfolios; loan rates are higher too
- If FIs are not trusted by retail investors, a credible securitizer can stabilize loan rates; securitization dominates the market

## Policy implications of financial crisis for securitization

- Government-backed insurance for ABS: securitization ceases during a financial crisis without a credible government backstop
- Government also bears the “tail risk” associated with a systemic shock
  - Should manage this risk like an insurer
  - Would mitigate disruptions during a financial crisis if managed *ex ante*
- FINSAIF (financial institutions’ secured asset-backed insurance fund)
- Structured like FDIC:
  - Explicit risk-based insurance premiums charged to ABS originators
  - Insurance fund maintained
- Expands GSE function from securitizing mortgages to all loan types
- Provides possible role for Fannie Mae or Freddie Mac

## Advantage of FINSAIF

- Explicit government guarantee fosters financial stability
- Ensures that similar risks for assets held across all FIs (big and small) are treated similarly (mitigates TBTF)
- Makes funding of longer-term assets by FIs easier
- Provides retail investors with a diversity of assets to purchase and removes their search for implicit government backing