Risk Perception and Loan Underwriting in Securitized Commercial Mortgages

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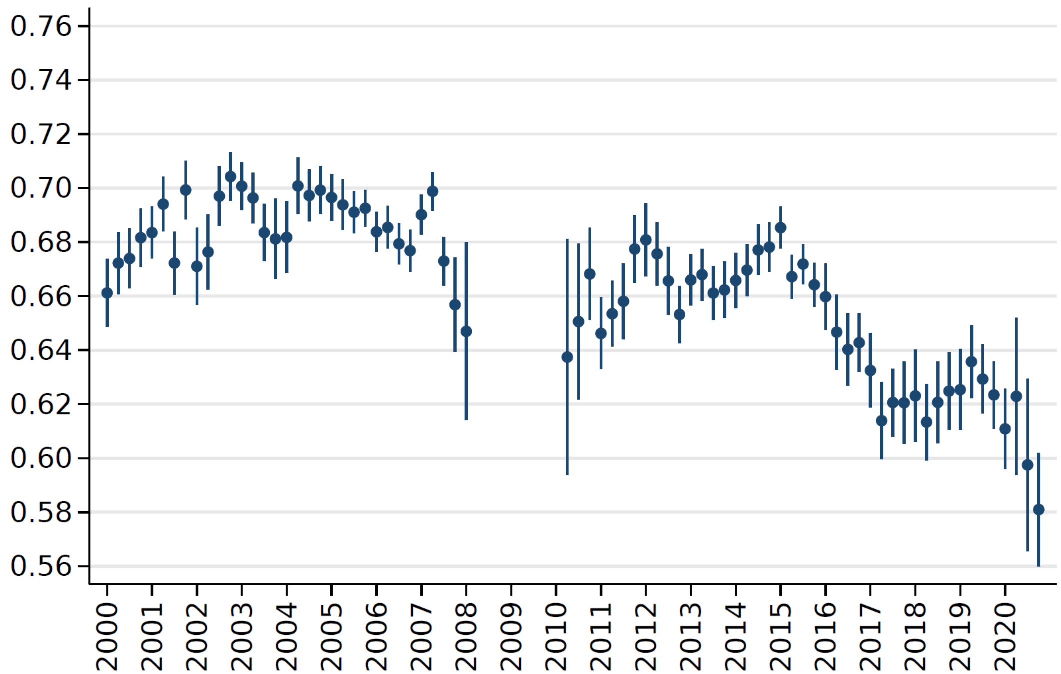
Securitized CRE Loan LTV Ratios

Quarterly LTV Means with 99% CIs

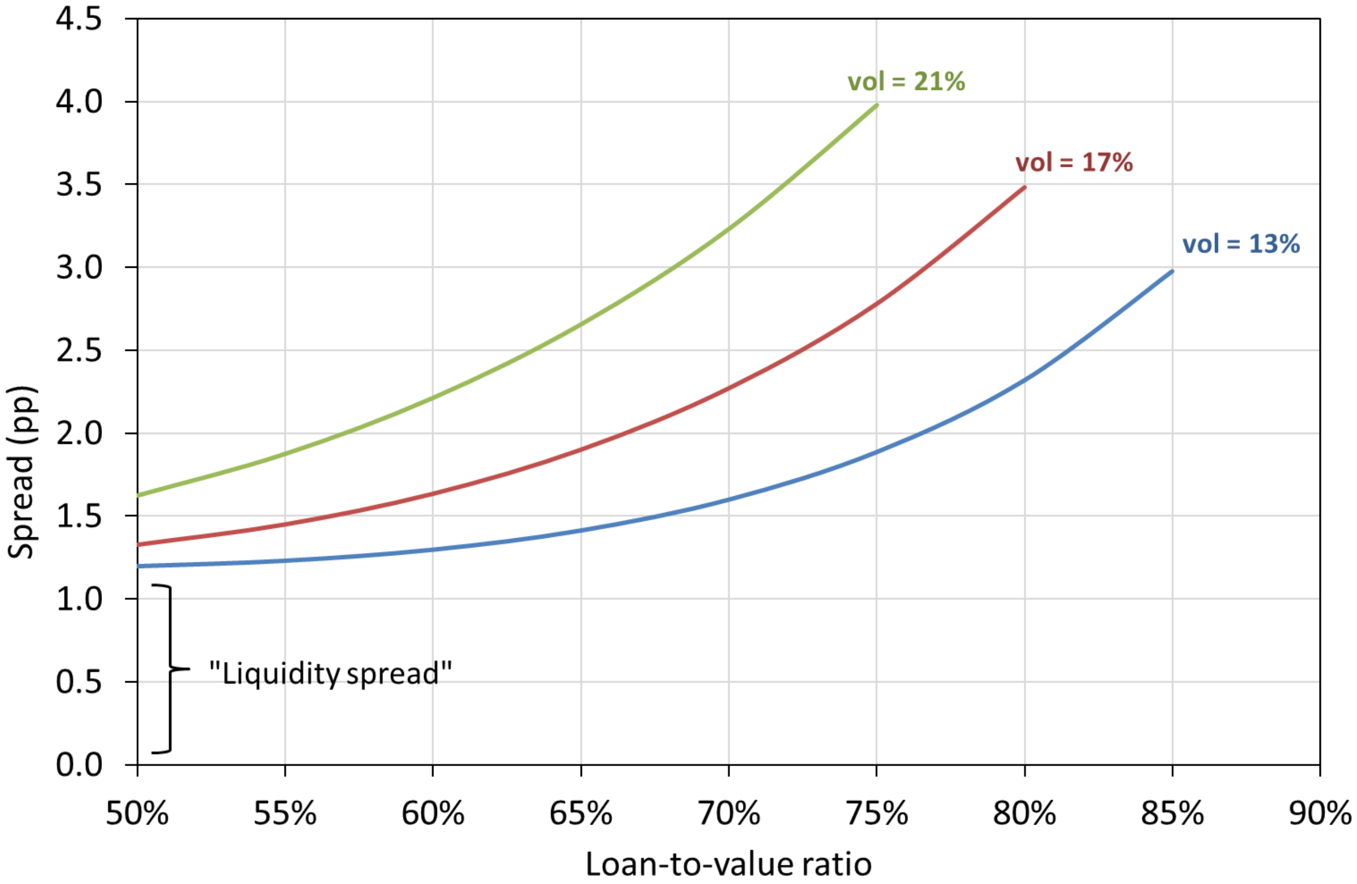


<u>Morningstar CMBS</u>

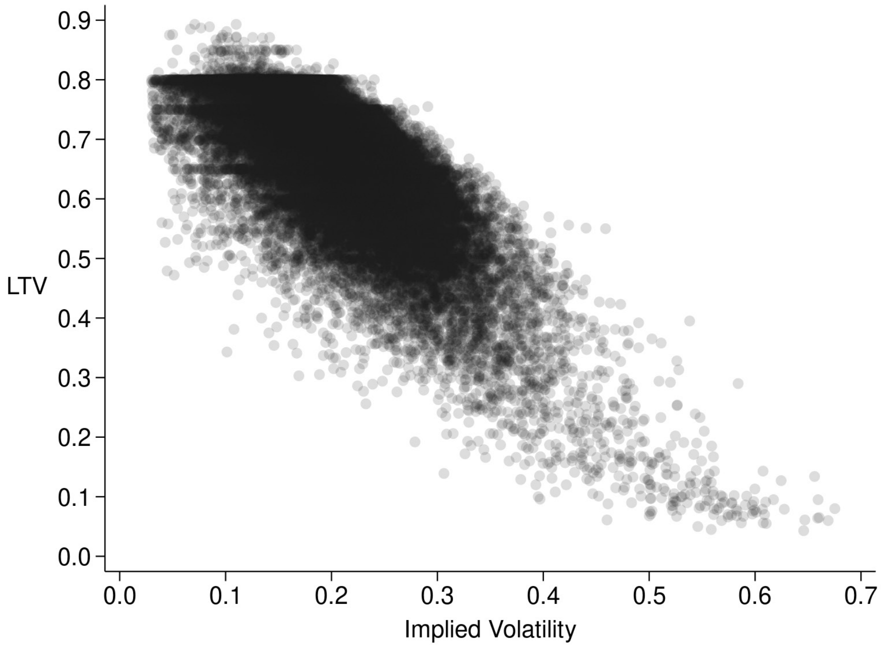
- 111,465 loans in dataset
- **48,468 loans** in sample
  - fixed rate
  - non-agency
  - non-pari passu
  - single-property
  - debt yield > 0.07
  - DSCR > 1.25

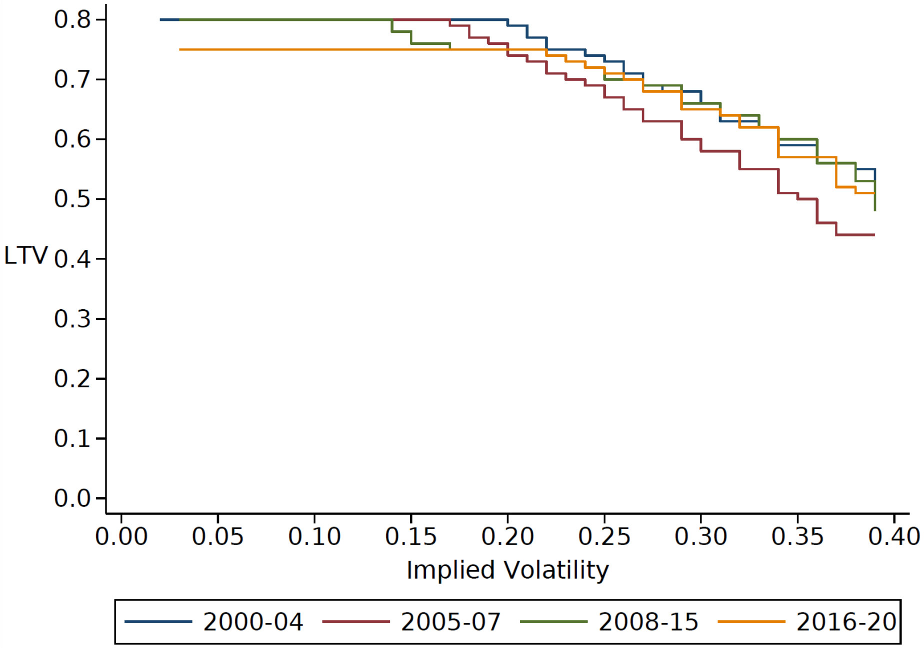
- "The CRE bubble [...] resulted in [...] CRE loans based on dramatically weakened underwriting standards." (2010)

Stylized CRE Loan Offer Curve

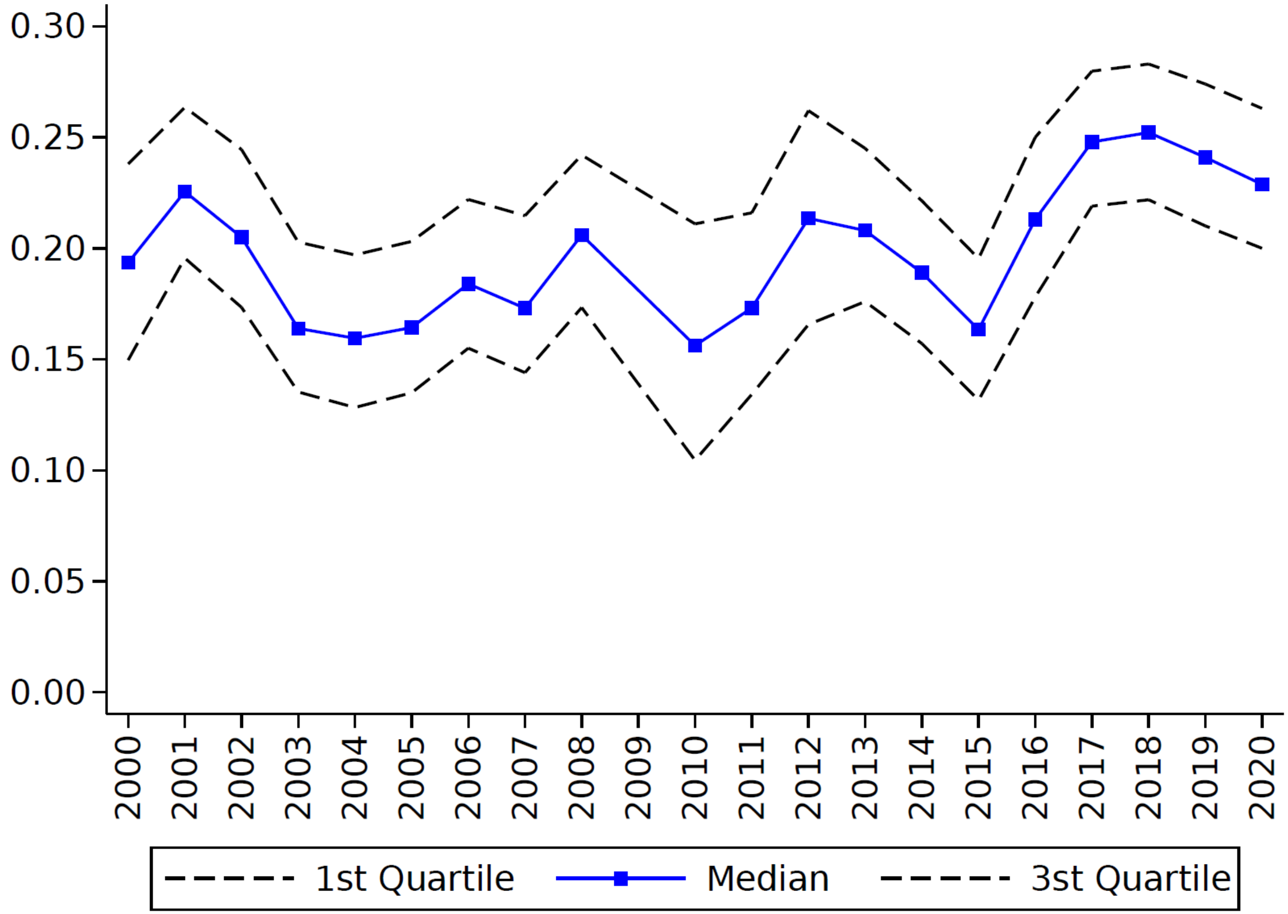


Empirical Credit Rationing Frontier

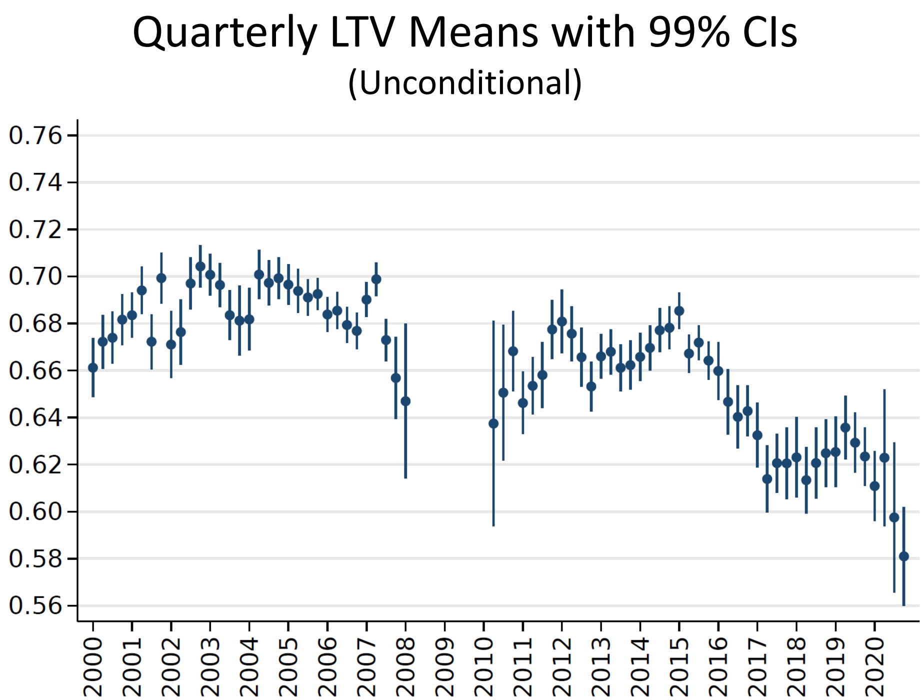


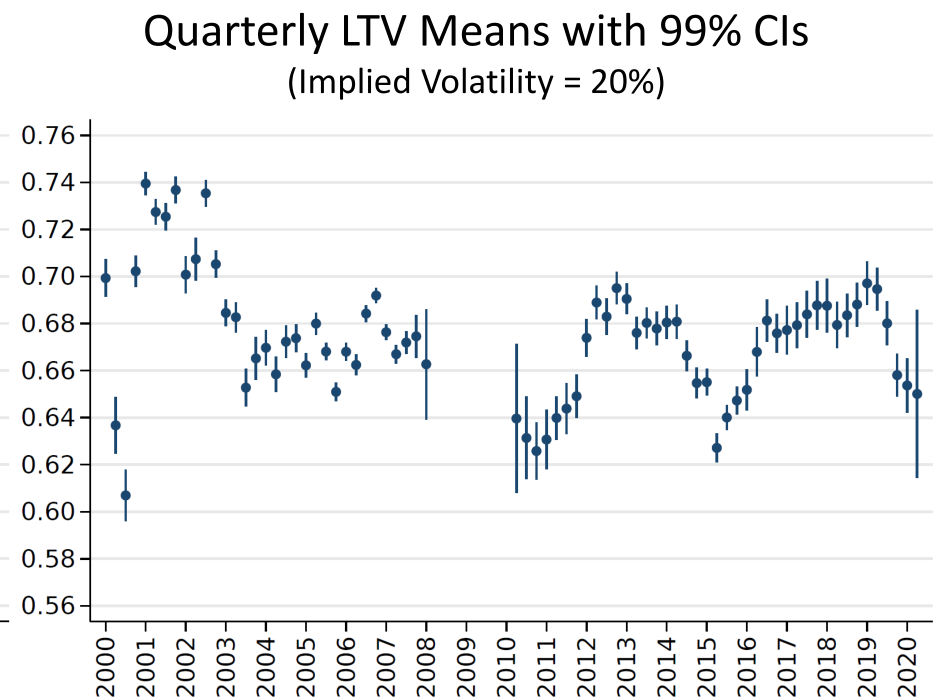


CRE Loan Implied Volatilities



Controlling for Perceived Risk



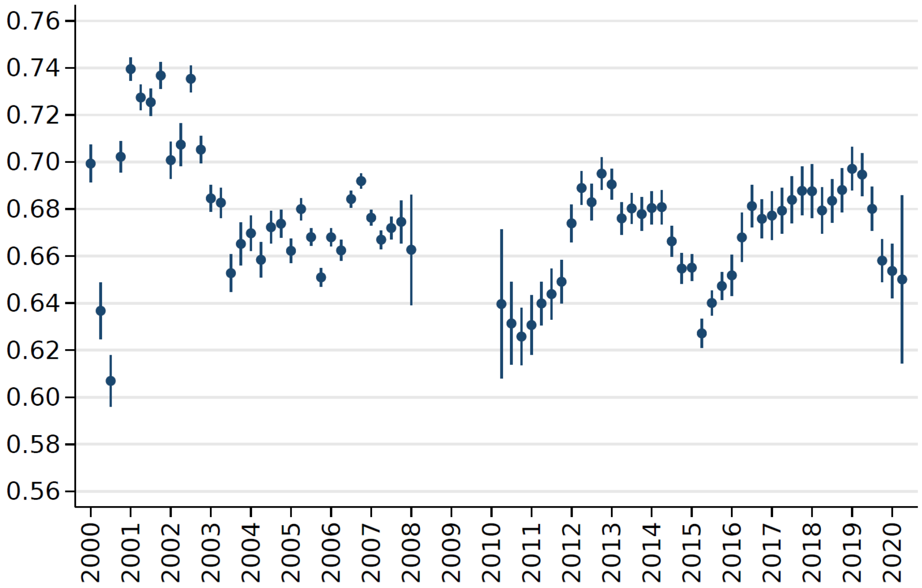


Conclusion

- For both lenders and borrowers, theory suggests that one of the key factors in secured lending is the risk of the underlying asset.
- We empirically confirm that **perceived property risk is the single most important fundamental determinant of LTV variation**.
- We find that the **LTVs of securitized CRE loans have been stable** in the past decades, once changing risk perceptions are controlled for.
- We find that **credit rationing frontier shifts explain little of observed LTV variation and are not consistent with common GFC narratives**.
- Our results motivate the augmentation of LTV information with market-specific risk perceptions by both investors and policy makers.

Controlling for More Fundamentals

Quarterly LTV Means with 99% CIs
(Implied Volatility = 20%)



Quarterly LTV Means with 99% CIs
(IV = 20%, CRS = 3.7%, UST10 = 3.2%, and Static Frontier)