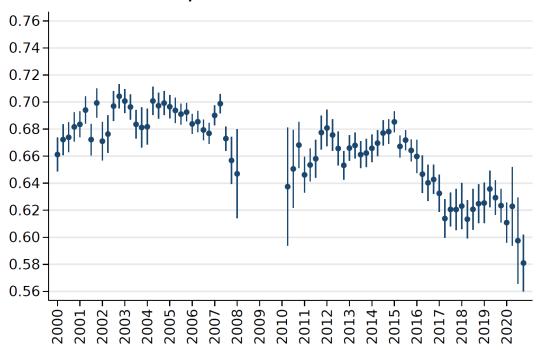
# Risk Perception and Loan Underwriting in Securitized Commercial Mortgages

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#### Securitized CRE Loan LTV Ratios

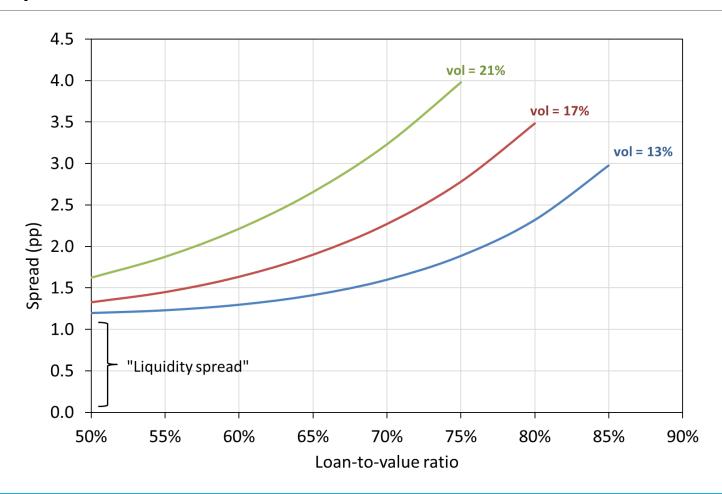




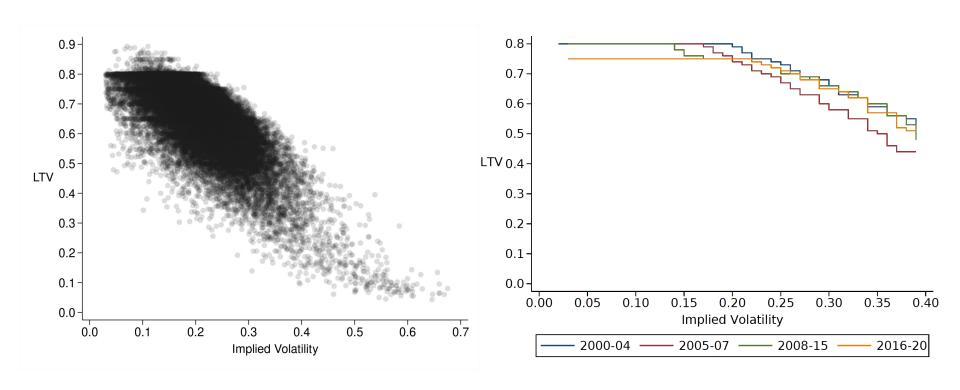
#### **Morningstar CMBS**

- 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)

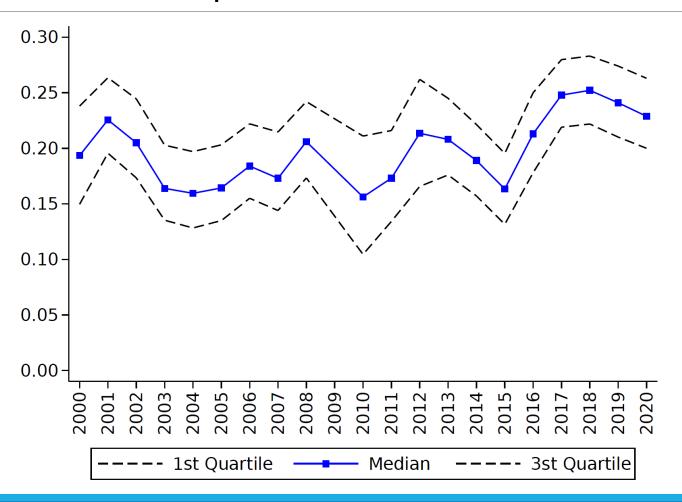
# Stylized CRE Loan Offer Curve



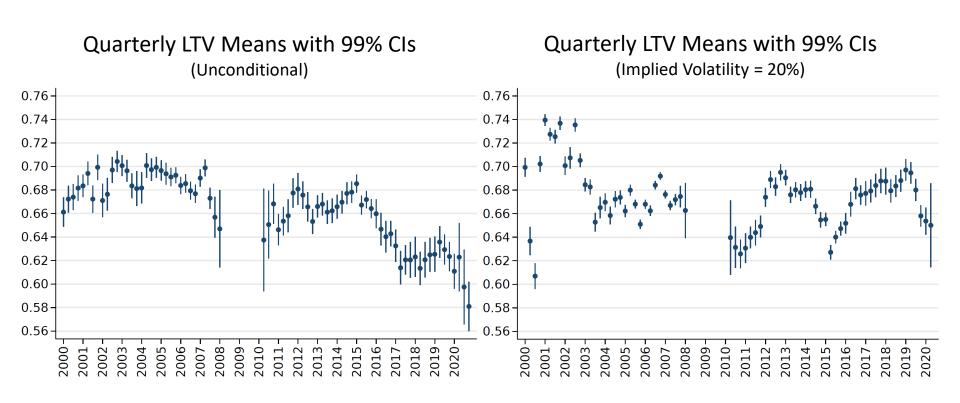
## **Empirical Credit Rationing Frontier**



#### CRE Loan Implied Volatilities



## Controlling for Perceived Risk

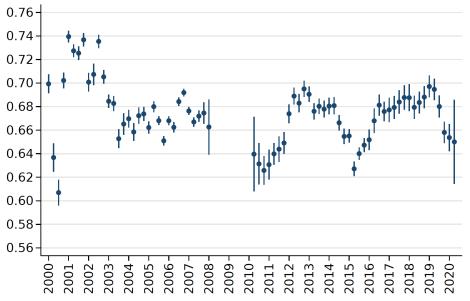


#### Conclusion

- 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 (IV = 20%, CRS = 3.7%, UST10 = 3.2%, and Static Frontier)

