Second Annual Stress Test Modeling Symposium: CRE Break Out Session

Moderator

Steven Durfey – Federal Reserve Bank of Chicago

Panelists

Joseph Heller – Fifth Third

Joseph Nichols – Federal Reserve Board

Kiran Yalavarthy – Wells Fargo

Reduced Form vs. Structural Models

- Reduced Form Models:
  - Requires fewer assumptions about lender or borrower actions
  - Simple to estimate and forecast
  - Potential concerns of over-fitting to last cycle
- Structural Models:
  - Requires far more assumptions of lender and borrower actions
  - More complicated to estimate and forecast
  - More responsive to changes in market structure or new economic developments

Dealing with Sparse Historical Data

- Historical data on CRE loan performance tends to be drawn from portfolios of large stable-income properties (primarily commercial mortgage backed securities and insurance companies)
- How should these models be applied to owner-occupied CRE or construction loans?
  - Are owner-occupied CRE loans just C&I loans with different LGDs?
  - Do construction loans have the same sensitivity to macro shocks that income-producing loans have?

Modeling Roll-Overs and Extensions

- CRE loans often have balloon payments at maturity that need to be rolled over at maturity/completion of construction:
  - Do borrowers look to other sources of financing?
  - How does a roll-over differ from new financing?
- Distressed CRE loans are often extended:
  - What are the economic risks of this strategy given the cyclical nature of the CRE market?
  - How should this be modeled in a stress scenario?

Granularity of Model

- What is the appropriate level for a model:
  - Top-down model of portfolio level losses?
  - Roll-over model by market segment?
  - Loan level PD-LGD-EAD model?
- What is the trade off for increasing the granularity?
  - Increase ability to capture concentration risk
  - Increase dependence on noisy market measures

Risk Ratings vs. Borrower Financials

- Risk Ratings
  - Credit officer assigned an internal risk rating based on borrower financials
  - Risk rating updated in response to changes in loan status
- Borrower Financials
  - Bank collects information on borrower financials
  - Updated property value, rental income, occupancy rates

Open Q&A