Comments on
“Market Discipline under Systemic Risk: Evidence from Bank Runs in Emerging Economies”

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Goals

• Why is this research important?
• What did we learn?
  – Interpretation of results
• What could we learn that we didn’t?
  – Suggestion for alternative techniques
  – Ideas for future data/research
• How can we use to results to inform policy choices?
Why is this research important?

• Explores the nexus between bank fundamentals-based market discipline and systemic risk.
  – Show definitions of bank fundamentals needs to be expanded to include other risks to test for market discipline.

• Provides evidence that systemic risk can play an important (even dominant) role in bank runs.
What Did We Learn?

• Systemic risks (e.g. macro factors) themselves can be appear to make traditional bank-specific fundamentals appear insignificant, but interaction effects very important.

• During crises, systemic risks used by depositors to gauge bank (system?) risk.
Interpretation Issues

• Definitions
  – Market discipline—private sector participants (bondholders, stockholders, rating agencies, and depositors) face costs that are positively related to bank risk and react on the basis of these costs.
    • Only one such participant used—depositors
  – Systemic risk—viewed as driven by macroeconomic factors.
    • Country risk—sovereign bond spreads
    • Exchange rate risk—currency premium (NDFs-spot exchange rate)
Interpretation Issues

• Systemic risk (vs. systematic/global/domestic) concepts.
  – Liquidity risk (e.g. interbank exposures)
  – “Irrational” or “rational herding” bank runs

• Banks’ systemic risk exposure measures used.
  – Share of gov’t debt/total banks assets
  – Ratio of dollar loans/bank capital
  – Potential problems?
    • What proportion of dollar borrowers have dollar-based receipts (a natural hedge)?
    • Variability of variables low—may not be able to statistically capture anything.
Interpretation Issues

• Definitions:
  – Bank fundamentals (matter to whom?)
    • ROA vs. ROE
    • NPLs often understated and lagging
    • Capital differentially defined over time and for different types of banks (public vs. private)
Interpretation Issues

• How much do the systemic variables matter?
  – Uses “the five largest systemic innovations” from VAR framework and compares statistical response to actual decline of deposits.
  – “Merely 15 systemic events are needed to explain 50 and 20 percent of decline in peso and dollar deposits?”
    • Define “systemic events/innovations”?
    • Can these statistical events be compared to actual events over the entire sample period?
    • How should the dummy variables associated with important news in the VAR system be interpreted?
    • Are the results really additive as Table 7 suggests?
Modeling Issues

• Endogeneity
  – Lags help.
  – Deposit interest rate—supply or demand-driven?
  – Covered/uncovered interest rate arbitrage.
  – Sovereign risk assessments (e.g. ratings) and thus bond spreads utilize banking system risks (e.g. robustness of banking sector, contingent liabilities to the gov’t).
Modeling Issues

- Nonlinearity
  - Regressions and VARs are linear specifications.
  - Evidence from the statistical significance of interactions (e.g. banks’ exposures*risk).
  - Spread movements are highly non-linear.
Argentina

(A) Bond Spread

(Log scale; basis points)

Source: J.P. Morgan Chase
Uruguay

(A) Bond Spread

(Log scale; basis points)

Source: J.P. Morgan Chase
What could we learn that we didn’t?

• Suggestions for alternative techniques
  – Non-linear specifications
  – Analysis of variance techniques
  – 2-step procedure
    • Step 1: Control for systemic factors in bank fundamentals (see equation #3).
      – \[ NPL(i,t) = a(i) + b \, NPL(i,t-j) + c \, S \, (t-k) + e(t) \]
    • Step 2: Run deposit variables on \textit{estimated} NPLs and systemic variables to find out independent influence of systemic factors.
What could we learn that we didn’t?

• Alternative data
  – Depositors concerned with liquidity/large depositor withdrawals.
    • Use liquidity ratios
    • Use “large” deposits or interbank deposits
  – Examine only private banks.
    • Use bank stock prices, if available
What could we learn that we didn’t?

- Alternative sample period
  - Bank fundamentals didn’t (statistically) matter during this time period (overshadowed by systemic risks).
  - Fundamentals should matter during tranquil period. Do they? Do we have the wrong set of fundamentals for the question posed?
Policy Implications

• Transparency of “traditional” bank fundamentals (maybe) necessary but not sufficient to prevent bank runs.

• Need to include bank exposure to systemic risks in disclosed data.
  – Should banks disclose? Should supervisors disclose?
  – Costs/benefits of disclosure?
The future of market discipline

• Quest for market discipline should not be viewed as less attainable in emerging markets just because systemic risks are greater.
  – Emerging market bank managers *should* take into account their bank’s exposure to (higher) systemic risks (limit currency mismatches, limit gov’t debt exposures, carry higher capital ratios).
  – Industrial countries’ bank managers and supervisors already do this.
    • Either mandated (e.g. supervisory rules on FX exposure limits, creditor exposure limits, liquidity rules, etc).
    • Or voluntarily (e.g. Value-at-Risk, exposure data) released.
Summary

• Research shows the importance of systemic risk (relative to banking fundamentals) for measuring market discipline using a concrete example.

• Suggests need to view market discipline more broadly and consider expanding transparency to include variables measuring exposure to systemic risks.

• Just a start—more evidence on causes of bank runs and usefulness of systemic risk variables to help market discipline work are needed.