Discussion of “Credit Spreads and the Severity of Financial Crises” by Krishnamurthy and Muir

Gary Gorton
Yale and NBER
The Timing and Severity of Panics

• Gorton (1988) found:
  – An unexpected shock to a leading indicator at panic date.
  – Shock above a threshold $\rightarrow$ panic; not above at any other date.
  – Size of shock correlated with severity.
  – National Banking Era: no central bank; crisis dating based on when NY CH issued loan certificates.
This Paper

• Larger sample; use credit spread instead of info shock.
  – Sample 1869-1930; countries = 14; crises 27-48

• Benefit: Larger sample allows power from cross-section.

• Costs
  – Spread more complicated object;
  – Trouble with dating of crisis;
  – Central banks.
Crisis Dating

• Difficult to date the start of crises, esp with annual data.
  – Modern era contaminated by expectations of central bank/government action.
  – The four major classifications World Bank crises since 1970 (147) do not match.
  – Boyd et al (2015, 2009) show that declines in deposits can forecast start dates.

• Here, mostly rely on Schularick and Taylor, rather than Bordo et al or R&R.
  – But ST rely on Bordo and R&R and Bry-Boschan.
Crisis Dating cont.

• ST date start of the recession. Others’ dating based on bank runs/bank failures.

• Central bank problem.

• Why not date with spreads?
Result 1: Change in spreads forecasts severity of crisis.

• Surprising? Yes, given dating problems. And GDP measured with noise.
• Shows importance of the cross section.

• The change in the spread at the crisis start is the info shock.
• Is there a $\Delta$ spread threshold? $90^{th}$ percentile—dates not the same. False positives? Yes, Figure 8.
• Then, what is the relevant info in spreads?
Beating Up on R&R

• R&R: -9.3% peak-to-trough decline in GDP on average.

• In recent R&R (2014) - - not in refs-- calculate a severity index for 100 crises. Compare with this.

• Here the measure of severity is 3 year cumulative growth in GDP or peak to trough.
R&R: Depth, Duration and Double Dips

Reinhart and Rogoff (2014), AER P&P
Result 2: Credit growth

• Many studies show that credit growth is the best predictor of crises.

• Since the credit boom is observable, why isn’t this information incorporated into the spread?

• No explanation here for the credit boom; conclude that pre-crisis spreads too low.
Result 3: Pre-crisis spreads are “too low”.
U.S. Mortgage-Related Securities Outstanding Per Capita

USD Billions


Yale SCHOOL OF MANAGEMENT
U.S. Non-Mortgage Asset-Backed Securities Outstanding

$ Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (in Billions)</th>
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<td>2005</td>
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• “Too low” - - depends on what the credit boom is about.

• A crisis theory needs to incorporate the credit boom.
  – Preferred theory papers unsatisfactory. Threshold artificial, no credit boom.

• If the boom is driven by a shortage of safe debt, then prices are bid up and yields down.

• Need the sovereign debt/GDP ratio as in K&V-J. Jorda, Schularick and Taylor (2013) have these data.
Result 4: Financial crises are different.

• Don’t we know this?
• Here specifically: Spreads and credit growth positively correlated unconditionally. But conditional on 5 years prior to the crisis, credit growth and spreads negatively correlated.
• Not all credit booms end in a crisis. During these booms, what do spreads look like?
What’s different about debt?

• “Trigger” + “Amplification” says nothing about debt.

• What is the information in spreads that is important here—for debt?

• Spreads on debt have predictive power but stock returns do not. → Not expected losses given default. Also, spreads recover quickly.

• Debt puzzles: Collin-Dufresne et al. (2001), Philippon (2009), Gilchrist et al.

• Debt can be used as collateral.