When the summer is gone...
The Effect of Systemic Banking Crises on Entrepreneurship

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Systemic Banking Crises

Leaven and Valencia (2013)
The Great Recession

Leaven and Valencia (2013)
Outline

• Motivation
• Contributions
• Conceptual framework
• Sample and estimation strategy
• Results
• Conclusions
Motivation

• In 2009:
• GDP: 1%
• Trade: 11%
• Foreign Direct Investment: 7%
• And new business activity?
Motivation
Motivation

• Researchers have explained the puzzling effect of the Great Recession on FDI (Alfaro and Chen 2012; Gil-Pareja et al. 2013), trade (Ahn et al. 2011; Amiti and Weinstein 2011), employment (Paniagua and Sapena 2014a)

• New business activities i.e. entrepreneurship?
Motivation

危机

“Wei”
Danger

“Gee”
Opportunity

CRISIS
Contributions

• Study the determinants of entrepreneurial activity with a focus on banking crises and credit constraints
• A novel analysis of the varying influence of systemic banking crises on the rate of creation of new business endeavors
• We investigate the effect of:
  – Credit constraints
  – Systemic Banking crises
  – Market conditions
  – Unemployment
• On a global dataset 106 countries 2004-2012
Conceptual framework

- Credit Constraints

Knight (1921) vs Schumpeter (1934)
Credit constraints

• Empirical studies back up the Schumpeterian view on entrepreneurial financage:

• H1: Credit constraints (interest rates) produce a negative impact on entrepreneurial activity (new firm incorporations).
Systemic banking crises

• Different from credit availability (interest rates)
• According to Laeven and Valencia (2013) systemic banking crises share two distinctive traits:
  – 1. Significant signs of financial distress in the banking system;
  – 2. Significant banking policy intervention measures (e.g., liquidity support, guarantees on liabilities restructuring costs, asset purchases, and nationalizations).
Systemic banking crises

• During systemic banking crises, most public efforts and resources are devoted to sustaining the financial system

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
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<tr>
<td>Greece</td>
<td>2008</td>
<td>Spain</td>
<td>2008–2011</td>
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Source: Laeven and Valencia (2013)

• H2: Systemic banking crises have a negative impact on entrepreneurial activity
Market Conditions

• Domestic market conditions (e.g., domestic demand, regulations, administrative costs, labour demand) affect entrepreneurial activity.
  – Regulatory start-up cost and entrepreneurial activity (Djankov et al. 2002)
  – minimum capital requirements Van Stel et al. (2007)
  – Higher democratic and legal standards attract higher quantities of new foreign firms (Paniagua and Sapena 2014)

• H3: Market conditions and regulations affect entrepreneurial activity
Unemployment

• Literature gap

• Credit constraints create unemployment (Acemoglu 2001; Dromel et al. 2010).

• High unemployment increases entrepreneurship (Fairlie 2013; Parker 2004; Shane 2011; Thurik et al. 2008)

• H4: Unemployment produces a positive impact on entrepreneurial activity
<table>
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<tr>
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<td></td>
<td>OLS OLS PPML PPML GMM GMM</td>
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<tr>
<td>Interest</td>
<td>0.003</td>
<td>-0.010***</td>
<td>0.007</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>H1</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.004)</td>
<td></td>
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<tr>
<td>Crisis dummy</td>
<td>-0.104**</td>
<td>-0.0836**</td>
<td>-0.148***</td>
<td></td>
<td></td>
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<tr>
<td>H2</td>
<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.0457)</td>
<td></td>
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<tr>
<td>Ln(GDP per capita)</td>
<td>1.326***</td>
<td>1.335***</td>
<td>0.310</td>
<td>-0.219</td>
<td>0.0640</td>
<td>0.0630</td>
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<td>H3</td>
<td>(0.16)</td>
<td>(0.27)</td>
<td>(0.32)</td>
<td>(0.47)</td>
<td>(0.06)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Procedures</td>
<td>-0.031***</td>
<td>-0.043***</td>
<td>-0.0545***</td>
<td>-0.0472***</td>
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<tr>
<td>H3</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.01)</td>
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<tr>
<td>Start-up costs</td>
<td>-0.0003***</td>
<td>-0.003***</td>
<td>-0.000733**</td>
<td>-0.00682***</td>
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<tr>
<td>H3</td>
<td>(0.0001)</td>
<td>(0.0008)</td>
<td>(0.0002)</td>
<td>(0.001)</td>
<td>(0.0002)</td>
<td>(0.001)</td>
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<tr>
<td>Legal rights</td>
<td>0.0457**</td>
<td>0.0128</td>
<td>0.0734***</td>
<td>0.0295</td>
<td>0.0164</td>
<td>0.0249</td>
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<td>H3</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.04)</td>
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<tr>
<td>Unemployment</td>
<td>0.0134*</td>
<td>0.0170**</td>
<td>-0.00851</td>
<td>-0.0117</td>
<td>-0.00468</td>
<td>-0.00597</td>
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<tr>
<td>H4</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
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</tr>
<tr>
<td>BussDens(lag)</td>
<td></td>
<td></td>
<td></td>
<td>0.913***</td>
<td>0.856***</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.06)</td>
<td>(0.06)</td>
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<tr>
<td>Observations</td>
<td>804</td>
<td>620</td>
<td>804</td>
<td>620</td>
<td>710</td>
<td>548</td>
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<tr>
<td>$R^2$</td>
<td>0.980</td>
<td>0.981</td>
<td>0.941</td>
<td>0.942</td>
<td>-</td>
<td>-</td>
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</table>

Notes: Standard errors in parentheses, Fixed country and year dummies
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Results

• The model fits well the data
• Results are coherent with theory and robust to non-linearity and endogeneity
• Systemic banking crises cause the new firm density to drop by approximately 10%.
  – Entrepreneurship is highly elastic to GDP pc
  – Halving administrative procedures would increase entrepreneurial activity by 5% on average.
  – Increasing start-up costs by 1% reduces new business density by 0.03% on average.
  – Countries with more stringent legal rights have greater entrepreneurial activity
  – An increase of unemployment by 1% increases new business density by 0.11% on average.
Quantile Regression
Conclusions

• Academics: Systemic banking crises have a deep impact in entrepreneurial activity.

• Practitioners: Our results help reduce the intrinsic uncertainty of entrepreneurship.

• Policymakers: can quantify the impact of new regulations accurately with the empirical methodology presented in this research.