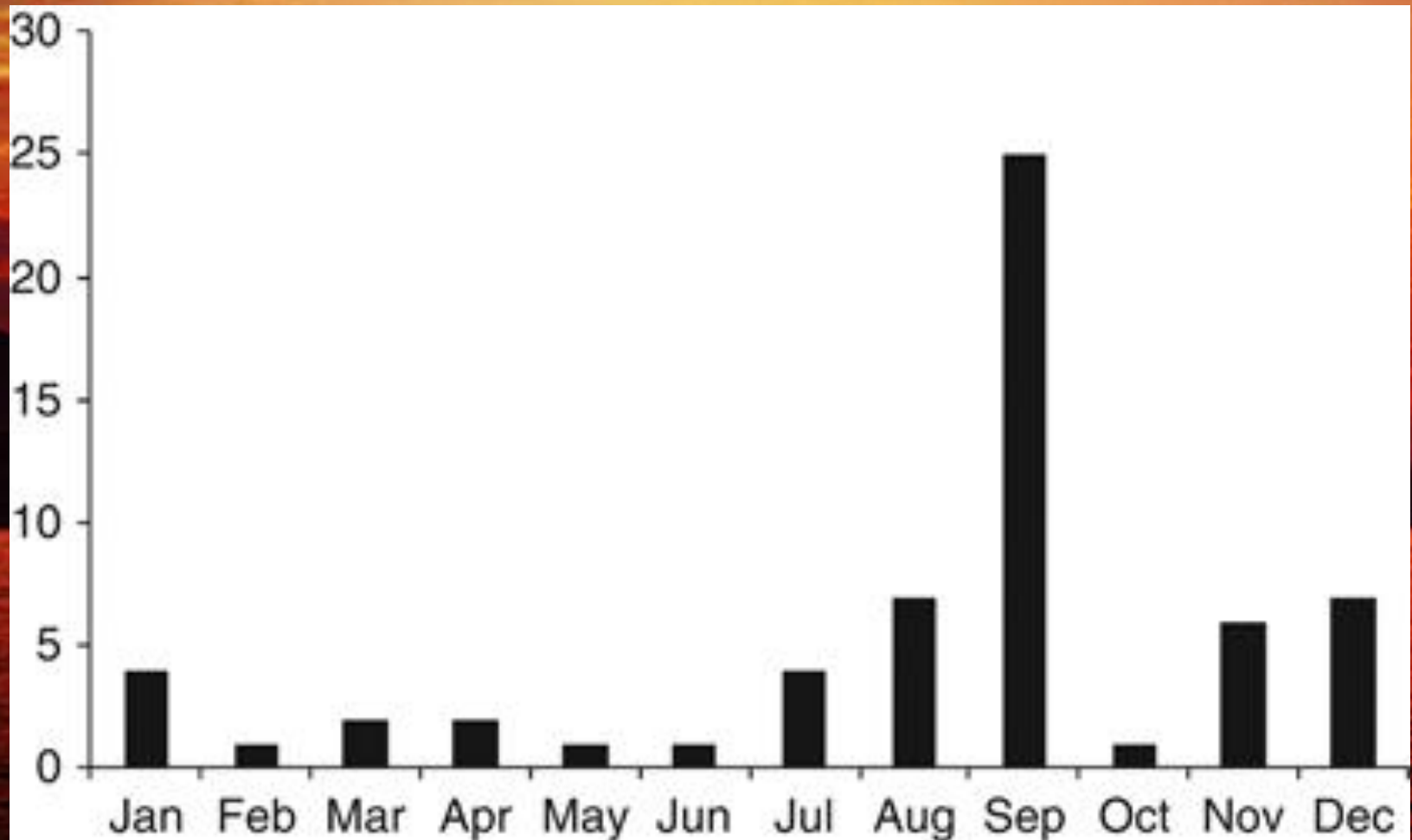


When the summer is gone...



The Effect of Systemic Banking Crises on Entrepreneurship

Jordi Paniagua

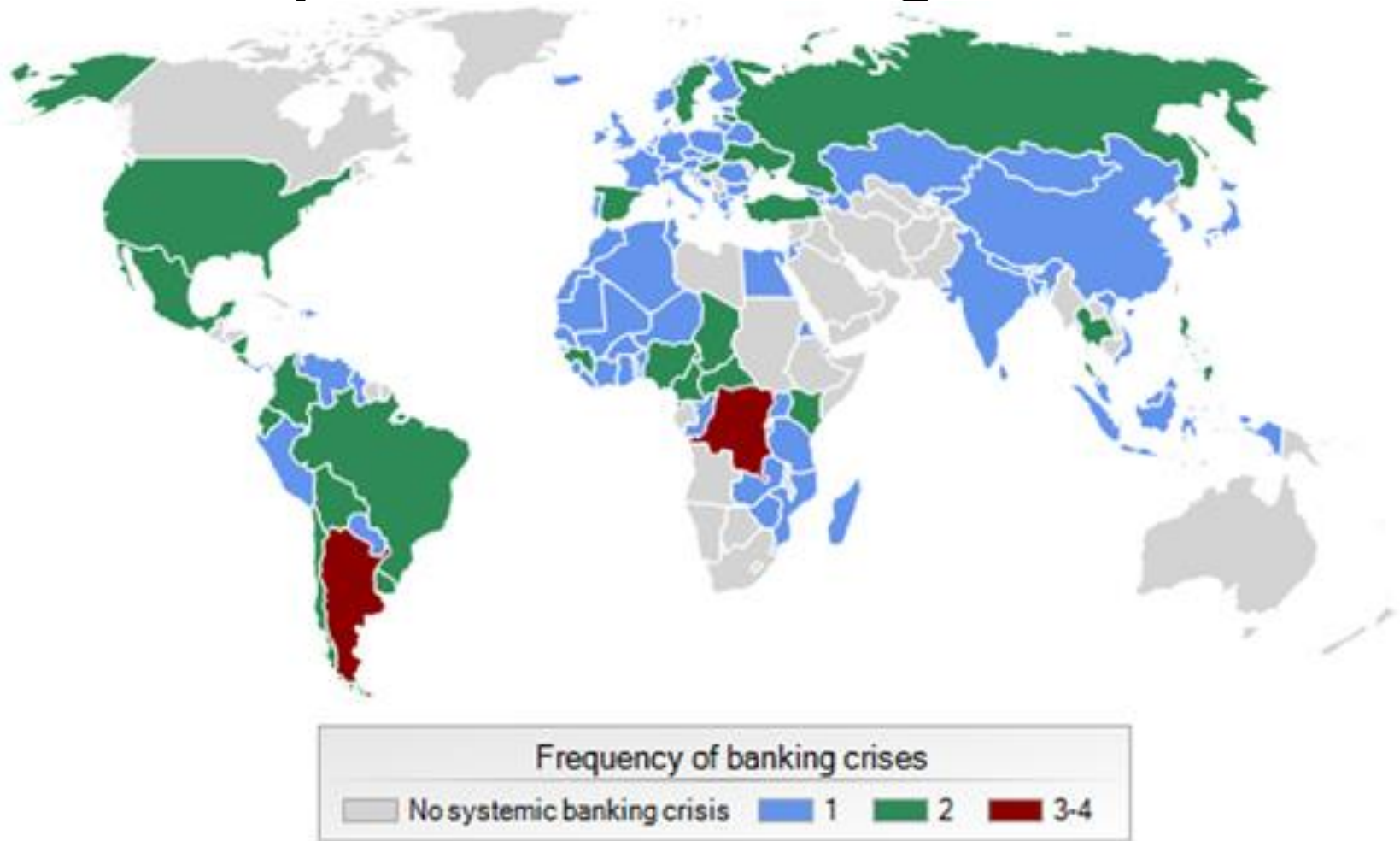
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AEDM

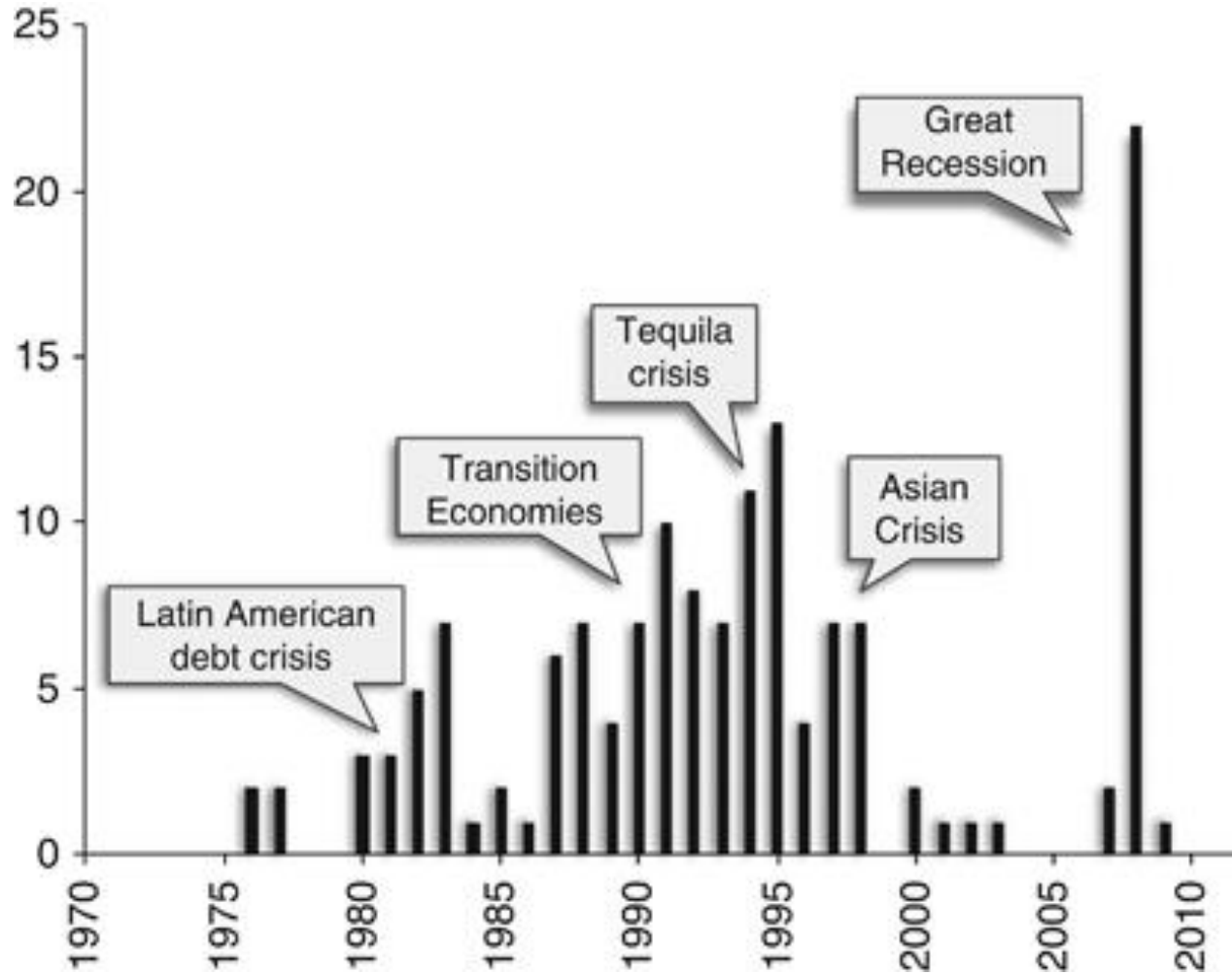
Paris Sept. 2nd 2014

Systemic Banking Crises



Leaven and Valencia (2013)

The Great Recession



Leaven and Valencia (2013)

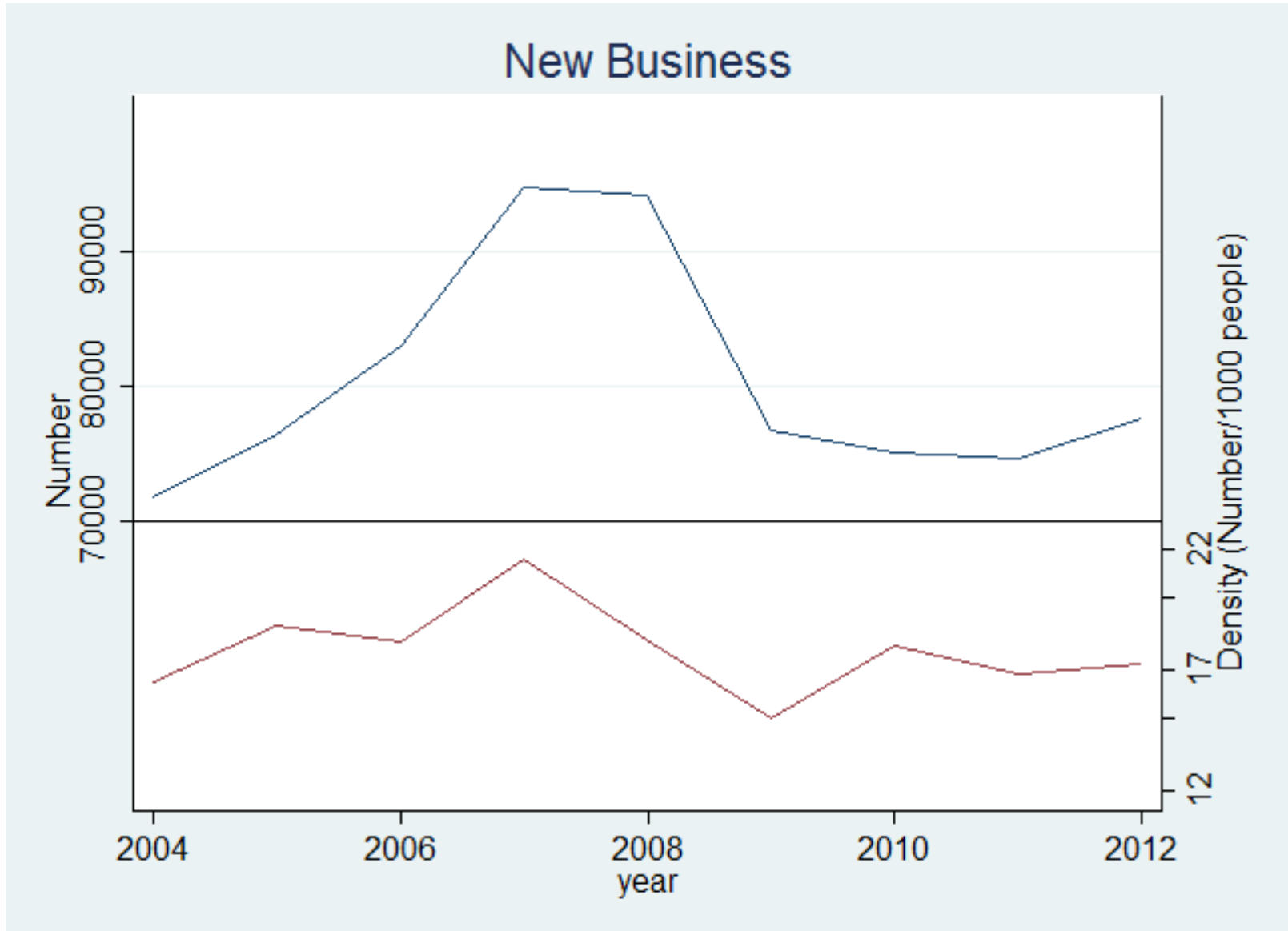
Outline

- 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



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

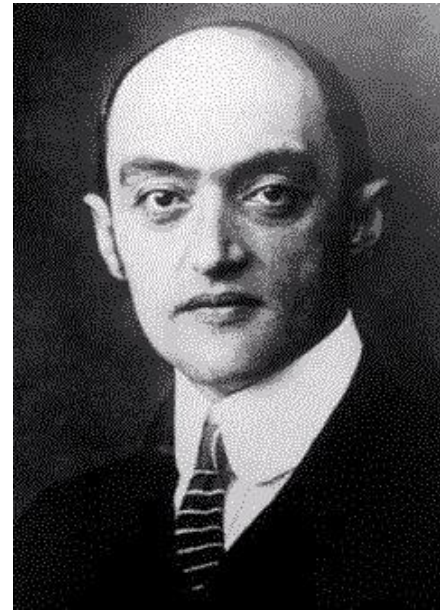
Conceptual framework

- Credit Constraints



Knight (1921)

vs



Schumpeter (1934)

Credit constraints

- Empirical studies back up the Schumpeterian view on entrepreneurial finance:
 - Evans and Jovanovic (1989), Holtz-Eakin et al. (1994), Hurst and Lusardi (2004), Black and Strahan (2002), Parker and van Praag (2006)
- **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

| Country | Year | Country | Year | Country | Year |
|--------------------|-----------|-------------|-----------|------------|-----------|
| Austria | 2008 | Latvia | 2008 | UK | 2007–2008 |
| Belgium-luxembourg | 2008 | Mongolia | 2008–2009 | USA | 2007–2008 |
| Denmark | 2008–2009 | Netherlands | 2008 | Kazakhstan | 2008–2010 |
| Germany | 2008–2009 | Nigeria | 2009–2010 | Ukraine | 2008–2009 |
| Greece | 2008 | Spain | 2008–2011 | | |

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**

| | (1) | (2) | (3) | (4) | (4) | (6) |
|--------------------|------------|-----------|-------------|-------------|-----------|----------|
| | OLS | OLS | PPML | PPML | GMM | GMM |
| Interest | | 0.003 | | -0.010*** | | 0.007 |
| H1 | | (0.002) | | (0.002) | | (0.004) |
| Crisis dummy | -0.104** | | -0.0836** | | -0.148*** | |
| H2 | (0.05) | | (0.04) | | (0.0457) | |
| Ln(GDP per capita) | 1.326*** | 1.335*** | 0.310 | -0.219 | 0.0640 | 0.0630 |
| H3 | (0.16) | (0.27) | (0.32) | (0.47) | (0.06) | (0.05) |
| Procedures | -0.031*** | -0.043*** | -0.0545*** | -0.0472*** | 0.0324 | -0.00165 |
| H3 | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) |
| Start-up costs | -0.0003*** | -0.003*** | -0.000733** | -0.00682*** | -0.000377 | -0.00165 |
| H3 | (0.0001) | (0.0008) | (0.0002) | (0.001) | (0.0002) | (0.001) |
| Legal rights | 0.0457** | 0.0128 | 0.0734*** | 0.0295 | 0.0164 | 0.0249 |
| H3 | (0.01) | (0.01) | (0.01) | (0.02) | (0.03) | (0.04) |
| Unemployment | 0.0134* | 0.0170** | -0.00851 | -0.0117 | -0.00468 | -0.00597 |
| H4 | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.009) |
| BussDens(lag) | | | | | 0.913*** | 0.856*** |
| | | | | | (0.06) | (0.06) |
| Observations | 804 | 620 | 804 | 620 | 710 | 548 |
| R ² | 0.980 | 0.981 | 0.941 | 0.942 | - | - |

Notes: Standard errors in parentheses,

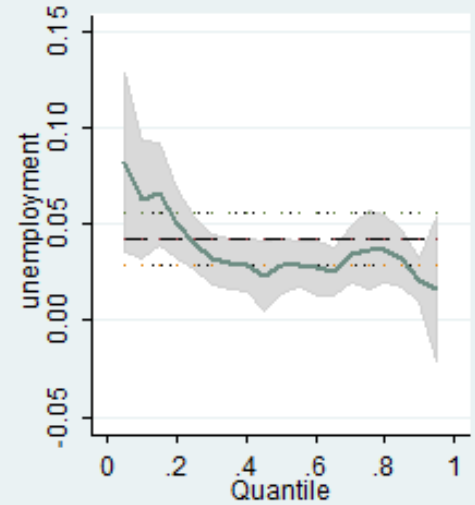
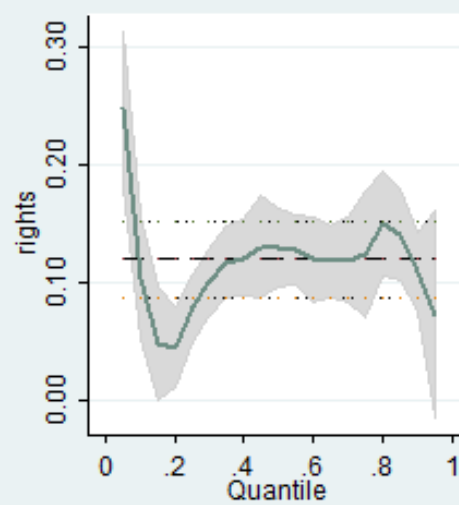
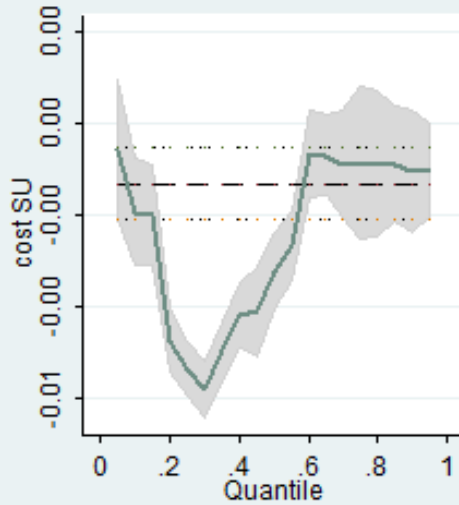
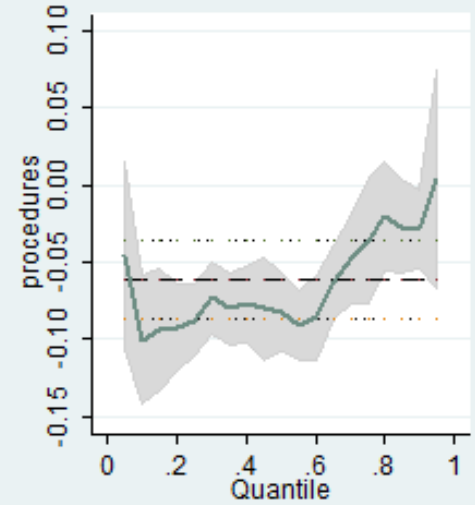
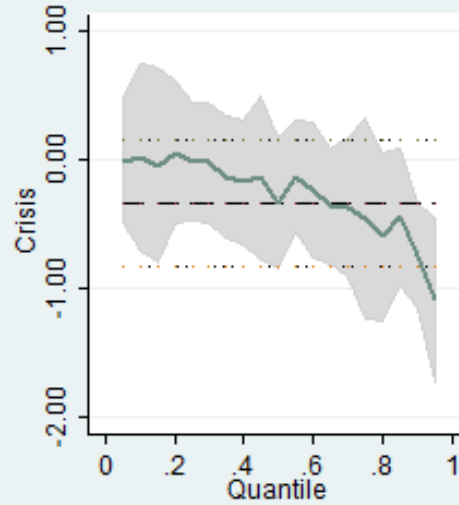
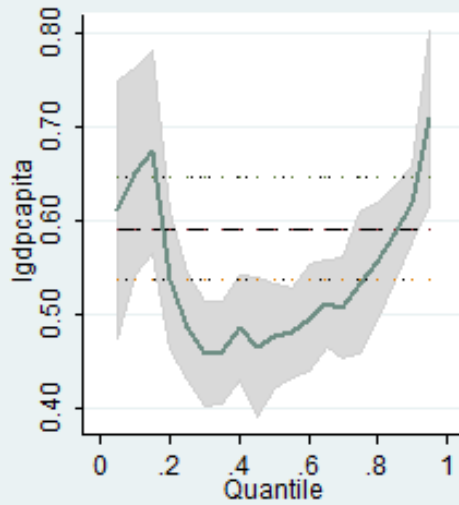
Fixed country and year dummies

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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