# Does Experience of Banking Crises Affect Trust in Banks?

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# INTRODUCTION

Trust in banks is crucial for the effectiveness of the financial system

- Greater confidence of individuals in financial institutions enhances their usage of financial system services
- Facilitates the pooling of savings and the expansion of credit by banks → contributes to financial development
- Fosters financial stability by reducing the risk of bank runs

# WHAT DO WE KNOW ABOUT TRUST IN BANKS

- Research on trust in banks remains limited
- Single-country studies on the level and the determinants of trust
  - Carbo, Maqui-Lopez and Rodriguez-Fernandez (2013) for Spain - customer perception of bank characteristics influences their level of trust in banks
  - Jansen, Mosch and van der Cruisjen (2015) for the Netherlands - trust in banks is strongly hampered by events such as the revelation of large bonuses for bankers, negative media reports, falling stock prices and opaque product information
  - Studies showing that trust in banks sharply falls during the Global Financial Crisis
    - Sapienza and Zingales (2012) for the US – banks perceived more trustworthy than the stock market, the government, large corporations, or bankers, but less trustworthy than people in general
    - Knell and Stix (2015) for Austria – trust deteriorates during the crisis

# WHAT DO WE KNOW ABOUT TRUST IN BANKS

- Cross-country analysis
  - Fungáčová, Hasan and Weill (2019)
    - large differences in trust in banks across countries
    - lower confidence in banks in countries affected by the Global Financial Crisis
    - identification of several sociodemographic indicators including a negative relationship between individual’s age and trust in banks

# WHAT DO WE KNOW ABOUT TRUST IN BANKS

- Previous studies uncover a negative short-term effect of the most recent crisis on trust in banks
  - Trust is usually persistent and not easy to change → there might even be long term cost of banking crises due to detrimental impact on trust in banks
  - The additional cost of banking crisis besides loss of output and fiscal costs
- Channel through which banking crises affect trust in banks based on psychology
  - Influence of negative experiences - negative experiences with others hamper interpersonal trust (Coleman, 1990; Glanville and Paxton, 2007)
  - The breach of trust alter expectations (Lewicki and Bunker, 1995; Kramer, 1999) → banking crisis can alter expectations about how a breaching bank will behave in the future

# CONTRIBUTION TO THE LITERATURE

- On trust in banks
  - exposure to banking crises influences the individuals' banking behaviour (Osili and Paulson, 2014)
- On the costs of banking crises
  - loss of output (Kroszner, Laeven and Klingebiel, 2007; Dell'Aricia, Detragiache and Rajan, 2008; Devereux and Dwyer, 2016)
  - the fiscal costs associated with the resolution of the banking crisis (Amaglobeli et al., 2016; Laeven and Valencia, 2018; Lane, 2011)

# CONTRIBUTION TO THE LITERATURE

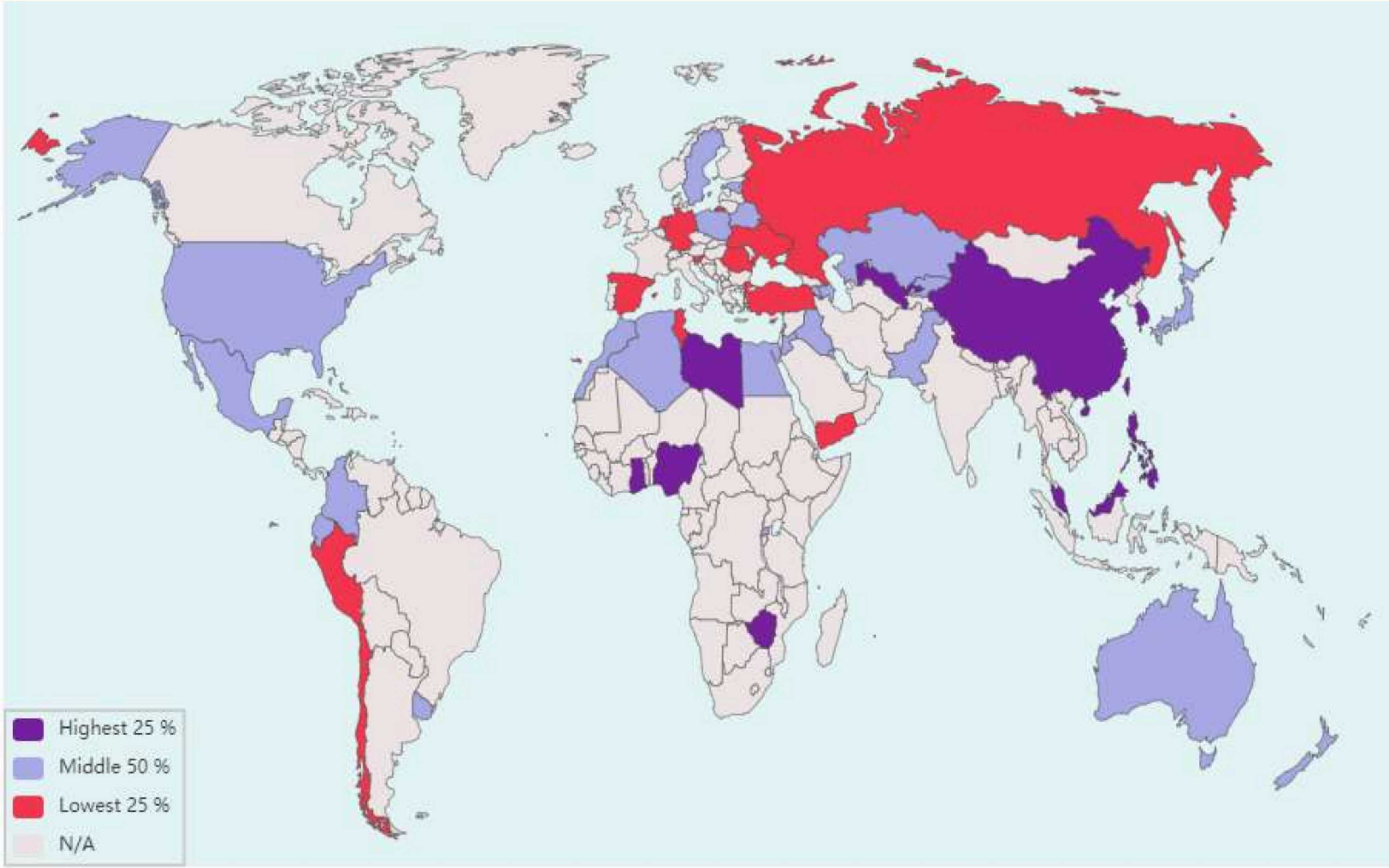
- On the effects of crises on the economic beliefs and behavior
  - Mudd, Pashev and Valev (2010) - loss experiences in a banking crisis influence the behavior of individuals
  - Malmendier and Nagel (2011) - experiences of macroeconomic shocks during the life-time influence financial risk taking of individuals (they report lower willingness to take financial risk, are less likely to participate in the stock market, invest less in stocks)
  - Giuliano and Spilimbergo (2014) - individuals who have grown up during recessions are more supportive of income redistribution
  - Malmendier and Nagel (2016) - individuals who have lived during period of high inflation also expect higher future inflation

# DATA

- Merging two datasets (using the age of respondent)
- Last wave of the World Values Survey conducted in 2010-2014
  - information on trust in banks and individual characteristics for over 66,000 individuals in 52 countries
  - the question asked:

    *Could you tell me how much confidence you have in banks: Is it a great deal of confidence (1), quite a lot of confidence (2), not very much confidence (3) or none at all (4)?*
- Dataset on banking crises by Laeven and Valencia (2018)
  - Information on 151 systemic banking crises episodes globally during 1970-2017
  - Starting and ending dates of the crises, their resolutions and outcomes
  - Additional information on currency crises and sovereign debt crises

# MEAN TRUST IN BANKS



# DATA

- Create different crises variables
  - dummy for systemic banking crises
  - exposure to crises - number of years the systemic banking crises went on during the respondent’s lifetime divided by the number of crises the respondent has lived through
  - different age brackets indicating the age at the time of crises
- 73 % of respondents have experienced a systemic banking crisis during their lifetime and out of them 33% have experienced two crises
- 45% of those who experienced a systemic banking crisis lived through a twin crisis

# METHODOLOGY AND ESTIMATIONS

- Dependent variable, *Trust in banks*, is a discrete variable with values between 1 and 4 → ordered logit model estimations
  - different specifications with different explanatory variables on crises
- Control variables
  - individual characteristics (gender, income, education and marital status)
  - general trust
  - country specific dummy variables
- Main estimations: impact of past banking crisis on trust in banks
  - Additional estimations take into account crises characteristics

# MAIN ESTIMATIONS

| Dependent variable: trust in banks | | | |
|---|---|---|---|
| | Dummy for crisis | Exposure to crises | Two crises |
| Systemic banking crisis | -0.235*** | | -0.232*** |
| | (0.038) | | (0.039) |
| Exposure to crises | | -0.055*** | |
| | | (0.012) | |
| Two crises | | | -0.056 |
| | | | (0.076) |
| General trust | 0.158*** | 0.157*** | 0.158*** |
| | (0.032) | (0.032) | (0.032) |
| Female | 0.113*** | 0.113*** | 0.113*** |
| | (0.030) | (0.030) | (0.030) |
| Education | -0,054 | -0.055* | -0.055* |
| | (0.033) | (0.033) | (0.033) |
| Income | 0.077*** | 0.077*** | 0.076*** |
| | (0.012) | (0.012) | (0.012) |
| Married | -0.006 | -0.009 | -0.003 |
| | (0.027) | (0.026) | (0.027) |
| Country dummy variables | YES | YES | YES |
| Number of observations | 66293 | 66293 | 66293 |
| Pseudo R-squared | 0,055 | 0,055 | 0,055 |

- Experiencing a banking crisis has negative impact on trust in banks
  - in line with Osili and Paulson (2014) - migrants who have experienced a banking crisis are more likely not to have a checking account in the US
- Higher exposure to crises in the lifetime related to lower trust

→ past experience of banking crises deteriorates the degree of trust in banks, length seems to matter more than frequency

# MAIN ESTIMATIONS: AGE AT THE TIME OF CRISIS

| Dependent variable: trust in banks | | |
|---|---|---|
| | Narrow age brackets | Broad age brackets |
| Respondent 0-10 years during crisis | -0.024 | |
| | (0.043) | |
| Respondent 11-20 years during crisis | -0.036 | |
| | (0.051) | |
| Respondent 21-30 years during crisis | -0.071 | |
| | (0.049) | |
| Respondent 31-40 years during crisis | -0.080 | |
| | (0.050) | |
| Respondent 41-50 years during crisis | -0.117** | |
| | (0.047) | |
| Respondent 51-60 years during crisis | -0.147*** | |
| | (0.045) | |
| Respondent 60+ years during crisis | -0,090 | -0.060 |
| | (0.126) | (0.109) |
| Respondent 0-20 years during crisis | | -0.0171 |
| | | (0.047) |
| Respondent 21-40 years during crisis | | -0.0594 |
| | | (0.042) |
| Respondent 41-60 years during crisis | | -0.112** |
| | | (0.034) |
| Control variables | YES | YES |
| Country dummy variables | YES | YES |
| Number of observations | 66293 | 66293 |
| Pseudo R-squared | 0,055 | 0,055 |

- Banking crisis affects trust in banks negatively only if the crisis takes place when the individual is
  - between 41 *and* 50 or between 51 and 60 (narrow age brackets)
  - in the age group 41-60 (broad age brackets)
- More mature individuals suffer more from losses during banking crises and their trust in banks is consequently more influenced



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# MARGINAL EFFECTS

| Model specification | Systemic banking crisis | |
|---|---|---|
| Trust in banks outcome (positive trust) | 3 | 4 |
| Crisis dummy variable | -2.3 | -2.9 |
| General trust | 1.5 | 2 |
| Female | 1.1 | 1.4 |
| Education | -0.5 | -0.7 |
| Income | 0.7 | 0.9 |
| Married | -0.1 | -0.1 |

- Having experienced a banking crisis decreases the probability of positive confidence in banks (both category 3 and 4 answers) by 5.2 percentage points
- Higher marginal effect than for other significant variables (female, income)

→ marginal effects confirm the significant role of previous banking crisis experience in influencing individuals’ trust in banks

# SEVERITY OF THE CRISES

- Banking crises differ in their severity and can have different consequences
- We question whether more severe banking crises hamper trust in banks more
- We define banking crisis to be severe in two alternative ways:
  - Stronger impact on the real sector: banking crisis is defined as severe if the output loss is higher than the median
  - Stronger impact on the banking sector: banking crisis is defined as severe if the peak liquidity support needed during the crisis (in % of deposits) is higher than the median

# SEVERITY OF THE CRISES

| | Severe crisis (output loss ) | | Less severe crisis (output loss) | | Severe crisis (liquidity support) | | Less severe crisis (liquidity support) | |
|---|---|---|---|---|---|---|---|---|
| | Dummy for crisis | Broad age brackets | Dummy for crisis | Broad age brackets | Dummy for crisis | Broad age brackets | Dummy for crisis | Broad age brackets |
| Systemic banking crisis | -0.211*** | | -0.246*** | | -0.238*** | | -0.222*** | |
| | (0.037) | | (0.073) | | (0.055) | | (0.049) | |
| Respondent 0-20 years during crisis | | -0.080 | | -0.086 | | -0.054 | | 0.023 |
| | | (0.053) | | (0.069) | | (0.063) | | (0.073) |
| Respondent 21-40 years during crisis | | -0.090* | | -0.057 | | -0.063 | | -0.064 |
| | | (0.052) | | (0.074) | | (0.065) | | (0.065) |
| Respondent 41-60 years during crisis | | -0.103* | | -0.114*** | | -0.087* | | -0.131*** |
| | | (0.054) | | (0.053) | | (0.048) | | (0.047) |
| Respondent 60+ years during crisis | | 0.032 | | 0.044 | | -0.353*** | | 0.036 |
| | | (0.169) | | (0.153) | | (0.116) | | (0.127) |
| General trust | 0.151*** | 0.153*** | 0.236*** | 0.233*** | 0.159*** | 0.158*** | 0.204*** | 0.206*** |
| | (0.043) | (0.043) | (0.08) | (0.080) | (0.056) | (0.056) | (0.047) | (0.047) |
| Female | 0.114*** | 0.112** | 0.208*** | 0.209*** | 0.129*** | 0.128*** | 0.191*** | 0.189*** |
| | (0.051) | (0.052) | (0.07) | (0.070) | (0.033) | (0.034) | (0.056) | (0.057) |
| Education | -0.094* | -0.096* | -0.107 | 0.103 | -0.069* | 0.078* | -0.099 | -0.103* |
| | (0.051) | (0.051) | (0.076) | (0.079) | (0.042) | (0.042) | (0.061) | (0.062) |
| Income | 0.062*** | 0.061*** | 0.092*** | 0.093*** | 0.106*** | 0.105*** | 0.068*** | 0.069*** |
| | (0.016) | (0.016) | (0.024) | (0.024) | (0.019) | (0.019) | (0.015) | (0.015) |
| Married | 0.006 | 0.004 | -0.06 | 0.066 | 0.026 | -0.029 | -0.029 | -0.022 |
| | (0.035) | (0.032) | (0.049) | (0.053) | (0.045) | (0.045) | (0.043) | (0.042) |
| Country dummy variables | YES | YES | YES | YES | YES | YES | YES | YES |
| Number of observations | 20728 | 20728 | 17752 | 17752 | 26880 | 26880 | 25080 | 25080 |
| Pseudo R-squared | 0.047 | 0.047 | 0.08 | 0.08 | 0.04 | 0.04 | 0.072 | 0.073 |

- Past experience of both severe or less severe crises has a significant negative influence on trust in banks
- BUT: severe crisis measured by output loss also affects detrimentally the trust of younger people
    - In line with earlier literature: early experiences of economic crises influence the beliefs of individuals (Malmendier and Nagel, 2011 and Giuliano and Spilimbergo, 2014)

→ Severity of the banking crisis has a different impact on individuals’ trust depending on the age at the crisis time

# OTHER TYPES OF FINANCIAL CRISES

- Other types of financial crises might also affect trust in banks
  - Currency crises can deteriorate trust in banks since they can be associated with losses for a large share of population
  - Banking and currency crisis can occur at the same time (=twin crisis)

➢ We find that both currency and twin crisis are negatively related to trust in banks, but the impact is smaller than with pure banking crisis

  - Stock market crises do not usually affect such a large share of population, but may generally increase distrust in the financial system

➢ We find that trust in banks is not affected by stock market crises

# ADDITIONAL ESTIMATIONS

- Logit model as an alternative for the ordered logit model
  - dependent variable is *High trust in banks* - equal to one if the respondent has a great deal of confidence or quite a lot of confidence in banks, and zero otherwise
- Excluding the most recent crisis
- Controlling for the time elapsed from the crisis
- Dataset of Reinhart and Rogoff (2009) - covers smaller number of countries but longer time period

# CONCLUSION

- We provide a cross-country assessment of how past experience of banking crises influences trust in banks
- Main finding: individual’s experience of a banking crisis deteriorates his or her trust in banks
  - higher exposure to banking crises over the individual’s lifetime is negatively related with trust in banks
- Banking crisis experience most diminishes trust in banks if the individual is between 41 and 60 years of age at the time of the banking crisis

# CONCLUSION

- If the banking crisis has severe real effects (output loss), the young peoples' trust is also affected
- The detrimental impact on trust in banks seems to specifically concern systemic banking crisis
  - The impact of currency crises and twin crises is weaker than that of pure banking crises
  - Stock market crashes has no effect on trust in banks
- Overall, banking crises generate a long-term reduction of confidence in banks → evidence of additional costs of banking crises

# THANK YOU

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