## "Depositor Runs and Financial Literacy" by Kim Discussant: Andres Liberman (NYU)

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# Summary of the paper

- Question: does depositor behavior during a bank run vary with financial literacy?
- Strategy: correlate branch-level data on depositor outflows following an FDIC enforcement event with average literacy of survey respondents who live nearby
- Answer: branches located near survey respondents with low-financial literacy see lower deposit inflows (larger outflows?) following FDIC enforcement events

## Research question

- Does financial literacy affect the probability of a bank run?
  - ▶ Interesting and novel policy lever: can education affect the way people behave with respect to bank runs?
- Paper does not observe runs: enforcement actions by FDIC. What is an FDIC enforcement action?
- Most are informal, unobserved actions (e.g., between 1990 and 1997, 84% of all actions were informal - Gilbert and Vaughan 2000)
- According to my own calculations, between 2007 and 2012, FDIC issued 500 <u>formal</u> enforcement actions (paper needs more summary stats)

#### Enforcement action

# FEDERAL DEPOSIT INSURANCE CORPORATION WASHINGTON, D.C. DEPARTMENT OF FINANCIAL INSTITUTIONS SAN FRANCISCO, CALIFORNIA

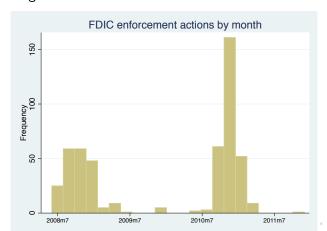
In the Matter of )
ALLIANCE BANK )
CULVER CITY, CALIFORNIA )
(INSURED STATE NONMEMBER BANK) )

ORDER TO CEASE AND DESIST Docket FDIC-08-265b

Alliance Bank, Culver City, California ("Bank"), having been advised of its right to a NOTICE OF CHARGES AND OF HEARING detailing the unsafe or unsound banking practices alleged to have been committed by the Bank and of its right to a hearing on the alleged charges under section 8(b)(1) of the Federal Deposit Insurance Act ("Act"), 12 U.S.C. § 1818(b)(1), and Section 1912 of the California Financial Code and having waived those rights, entered into a STIPULATION AND CONSENT TO THE ISSUANCE OF AN ORDER TO CEASE AND DESIST ("CONSENT AGREEMENT") with counsel for the Federal Deposit Insurance Corporation ("FDIC"), and with counsel for the California Department of Financial Institutions ("CDF"), dated October 10, 2008, whereby solely for the purpose of this proceeding and without admitting or denying the alleged charges of unsafe or unsound banking practices and violations of law and/or regulations, the Bank consented to the issuance of an ORDER TO CEASE AND DESIST ("ORDER") by the FDIC and the CDFI.

#### Bank runs

- Paper documents that enforcement actions caused large depositor withdrawals
- ▶ This is an interesting finding, but it puzzles me:
- 1. 2007-2012 time period is characterized by big problems in banking sector



#### Bank runs

- 1. 2007-2012 time period is characterized by big problems in banking sector
- 2. FDIC enforcement actions are not randomly assigned
  - Probably signals some underlying management issue
  - ► Would like to see summary stats of all banks in sample, and in particular of banks subject to enforcement events
  - ▶ I'll posit (without any evidence) that EA banks are relatively small, geographically concentrated, with few branches (perhaps you can show I'm wrong!)
    - Bank fixed effects?

#### Bank runs

- Even if we control as much as we can, it is likely that enforcement actions are correlated with underlying, unobservable, time varying problems
- If so, can we interpret results as a run due to FDIC enforcement?
- An (observationally equivalent) alternative is that these are just relatively worse banks
  - Perhaps these banks attract relatively less sticky depositors?
  - Suggestion: can you tell us something about within-bank deposit rate heterogeneity across branches?

#### To the main test

- ▶ Paper conditions on sample of banks subject to enforcement (0.5% of all obs), and runs regression of change in branch-level deposits on local financial literacy (with bank×year fe's)
- Main finding: loading on local financial literacy is positive: more financial literacy is correlated with higher deposit growth (within enforced bank×year)
  - ▶ Better: run regression on full sample, and interact enforcement dummy with financial literacy (Table 8)

#### Idealized test

- ► In theory, as author acknowledges, results could go either way, so execution is crucial
- ▶ What is the test I would like to run if I had access to the best possible dataset and the best possible empirical setting?
  - ▶ Individual-level data for borrowers in a bank that will fail
  - Randomly assign financial literacy (btw, not crazy: staggered introduction of financial literacy in high-school curriculum, e.g. Brown, Grigsby, Van der Klaauw, Wen, Zafar (forthcoming RFS))
  - ▶ Check how people react to news about bank failure

#### Current test

- Measure financial literacy of a certain mile radius around branch with at least 5 survey respondents (mean is 69 people, extremely skewed: again, need some stats) and correlate with change in deposits (within bank-year)
- ► Ex-measurement error, this is an estimate of the average financial literacy of an area located around a branch that experienced an enforcement action
- ▶ Is this a good measure of financial literacy of the branch of a bank that goes through an FDIC enforcement event?
- Not likely. For this, you need to assume that literacy of depositors in branches exposed to enforcement actions is well approximated by the average
  - ► Literacy is correlated within geographic area for survey respondents?: does not provide support for this assumption
  - ► Further, tests using heterogeneity in respondent characteristics demonstrate large differences in literacy within an area



### Alternative interpretation of main test

- Between 2007 and 2012, banks that experience an enforcement action are in trouble and losing deposits, and relatively more so in areas that happen to have low financial lliteracy
- Why is the distinction important?
  - Unclear policy implication: improve financial literacy?
- ► Further, even if we take results at face value: what is the "correct" (privately and socially) response?
  - Literacy increases deposit stickiness? Who should be running? People with low literacy choose worse banks?
- ➤ Suggestion: perhaps value of information to regulator?

  Perhaps its easier for regulator to measure literacy of a certain area and use that measure to predict response to regulatory events in that area

#### Conclusion

- ▶ I don't think the paper can distinguish between EA-caused run and fundamental problems, and thus, of the endogeneity of depositor base
- Suggestion: take regulator's perspective who wants to understand depositor response to certain events but lacks information
- ► Perhaps there is a cheap (?) way to elicit literacy, and thus to infer across-geographic area heterogeneity in response to enforcement events

## **Thanks**

Thank you

#### Other comments

- Financial literacy should be pre-determined: why use different versions of literacy for different enforcement actions? (page 14) Likely to change endogenously
- Measurement error implies attenuation bias: systematic? (page 15)
- ▶ IV: exclusion restriction is probably not satisfied (page 18)
- ▶ Informal writing does not help the paper. In many parts you mention results are the same (similar) with alternative definitions of variables, or robust to alternative specifications. It would strengthen the paper to include these results (Appendix)
- When discussing heterogeneity, compare results using pooled regressions (not each compared to zero)
- Correct s.e.'s for residual financial literacy?
- ► Standard errors are very unclear throughout. Try to cluster at a high level of aggregation (bank, or region)