Systemic Loops and Liquidity Regulation by Inaki Aldasoro and Ester Faia

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# Starting point of the paper

- Banks are exposed to spirals between liquidity scarcity and solvency risk
- Banks face various forms of contagion
  - Liability side: short run debt and runs
  - Asset side: Fire sales externalities and interconnected debt defaults in the interbank market
  - Problems are exacerbated by banks' tendency to hoard liquidity and induced liquidity freezes
- Does regulation help solving these problems?
  - Liquidity Coverage Ratio (LCR)

## Main findings

- Model is calibrated with European data via simulated method of moments
- Systemic risk profile is not improved in the phase-in increases of LCR



Figure 5: Systemic risk for different stages of the phase-in of LCR.

# Main insights

#### □ LCR leads to

- Lower interbank leveraging and lower risk of debt defaults (+)
- Higher liquidity buffers and thus lower fire-sales, in the case of investors' runs (+)
- □ but also to liquidity shortages (-)
  - Lower liquidity supply in the interbank market
  - Same application of the tool for banks with different liquidity needs and asset exposures
- □ The net effect of LCR is unclear
  - LCR increases systemic risk if reduction in liquidity supply dominates

### New policy experiment

LCR based upon banks' systemic importance

- Stricter LCR for more systemic banks depending on their size, interconnectedness and complexity on the asset side
- □ Systemic risk decreases now monotonically



### A few comments

□ Very interesting paper, combining micro and macro

- Very important to understand effects of new regulation
- Important to build models that can be calibrated
- Liquidity regulation is very much under-studied
- More specific comments
  - 1. Channels of contagion
  - 2. More on LCR
  - 3. Interaction with other regulatory tools

## 1. Channels of contagion



## 1. Channels of contagion (cont.)

- □ Very rich model of contagion all "necessary"?
- □ How about to focus on one channel only?
  - E.g., shocks to non-liquid assets and fire sales
  - Transmission of losses through accounting rules
  - Reaction of investors' at other banks
- Advantages
  - Interbank market is typically considered to deal with liquidity shocks (e.g., Bhattacharya and Gale, 2007; Allen and Gale, 2000)
  - More micro-foundation?
    - E.g., Internalization of effects of shocks on banks' behavior, investors' reaction and probability of runs and contagion?

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#### Advantages

- Interbank market is typically meant to deal with liquidity shocks (e.g., Bhattacharya and Gale, 2007; Allen and Gale, 2000)
- More micro-foundation perhaps?
  - E.g., Internalization of effects of shocks on banks' behavior, investors' reaction and probability of runs and contagion?

### 2. More on LCR

#### LCR reduces interbank liquidity – novel effect

#### Other contributions:

- Diamond and Kashyap (2016): Basel liquidity regulation are not optimal because regulators have imperfect information about banks' liquidity risk
- Carletti, Goldstein, Leonello (2016): Liquidity regulation may increase probability of runs because it lowers banks' profitability

#### □ Problem with LCR:

- Uniform application or inability to deploy liquidity in crisis times?
- Goodhart (2008): Weary traveler arriving late at night sees there is one taxi standing....but cannot take it because of local bylaws...

### 3. Interactions with other regulatory tools

#### □ The paper considers LCR

- Can the model say something on Net Stable Funding Ratio?
- Or do we need a model of maturity mismatch?

More research is needed on the interaction of different regulatory tools

- E.g., how about capital regulation?
- Can it help solve some of the negative consequences of LCR?

### Conclusions

#### Very interesting paper trying to

- build a macro model with micro features,
- and to calibrate impact (and optimality) of policy tools on systemic risk

#### Suggestions to push the paper further

- Streamline the contagion channels or justify why they are needed?
- Discuss other LCR shortcomings deploy liquidity in crisis time?
- More on interactions with other regulatory tools?