# Discussion of When is Less More? Bank Arrangements for Liquidity vs. Central Bank Support

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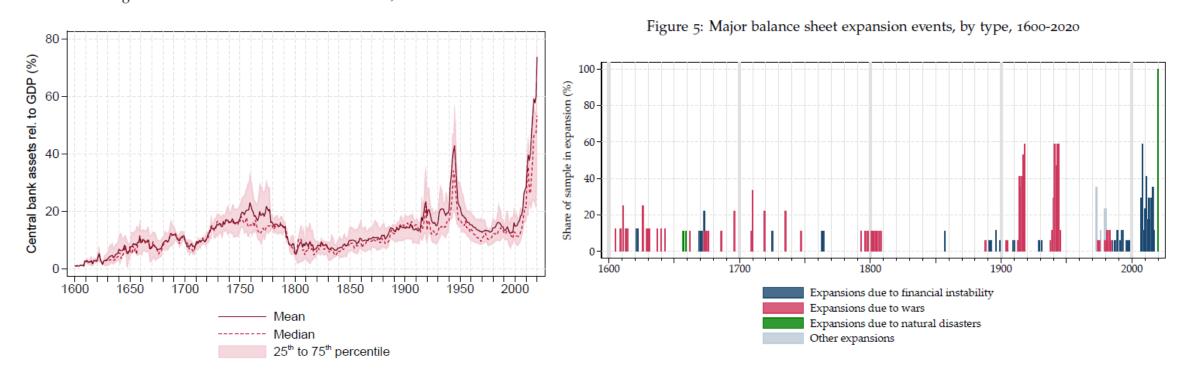
By Acharya, Rajan, and Shu



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# Historical Spike in Central Bank Liquidity Support

Figure 1: Central bank assets relative to GDP, 1611-2020

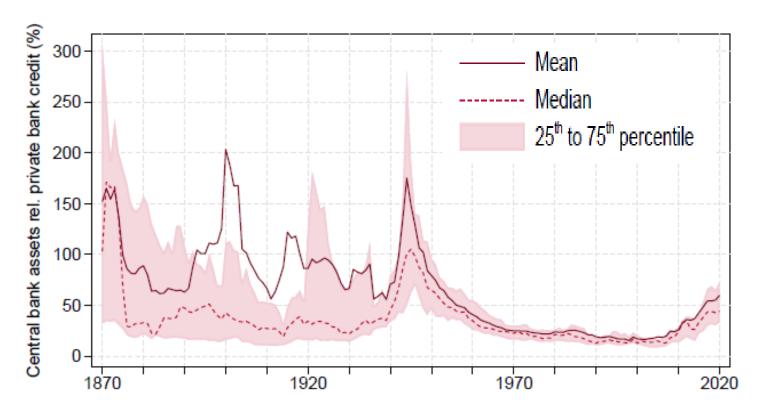


Source: Ferguson, Kornejew, Schmelzing, Schularick (2023) "The Safety Net: Central Bank Balance Sheets and Financial Crises, 1587-2020".



## But the Size of the Safety Net is Smaller

Figure 2: CB assets as a share of total bank lending to the non-financial private sector



**Source:** Ferguson, Kornejew, Schmelzing, Schularick (2023) "The Safety Net: Central Bank Balance Sheets and Financial Crises, 1587-2020".



# And Less Time to Respond....

2008







Run time: 16/19 days

Outflow: 4%/10% of deposits

2023





SIGNATURE BANK®

Run time: 1-2 days

Outflow: 87%/29% of deposits\*

**Note:** \* Outflows in 2023 include those over first day of run plus outflows scheduled for the 2<sup>nd</sup> day but that did not occur as the banks were closed. **Source:** Data on run time and deposit outflows from Rose (2023).



## Paper Addresses Host of Related Issues

- Very ambitious paper...
  - How did we get to this situation?
  - Is this optimal? If not, why not?
  - How could the framework be improved (greater role of private sector)?
- > ALOT of pieces....
  - Households, private investors and banks (with deposits, insurance & investment choice)
  - Bank runs and fire sales of assets
  - Central bank responses: liquidity infusions; bailouts vs loans at high rate vs pre-positioned liquidity
  - Private sector options & market for insurance (speculation, various forms insurance (older/CoCo, etc)
  - Interaction between central bank responses (<u>pricing liquidity</u>) and private sector options
  - Inefficiencies: banks overinvest, central bank support underpriced, speculation crowds out investment
  - Historical context: Scottish Free Banking Era, JP Morgan, Fed origin, Treasury cash-futures basis trade
- Key Question: Do we need all the components?



# One Key Issue: Pricing Liquidity Support

#### Bagehot's rule:

- During a crisis, central bank should <u>lend freely to solvent institutions</u> (POG cover)
- Against good collateral at a <u>penalty rate</u>
- Acharya, Rajan, Shu model several options:
  - "Bailout" central bank—focus on reducing fire sales through ex-post infusion of funds into distressed banks with no charge
    - Issue: Liquidity free, crowds out private insurance
  - Central bank pre-commits to lend conditional on stress at a premium
    - Issue: setting the premium (personal costs of intervention ≠ societal cost)
  - Both scenarios: central bank does not adequately charge for liquidity support
    - → more speculative investment funded by banks
    - → crowds out private sector alternatives
    - → increases incidence of banking stress

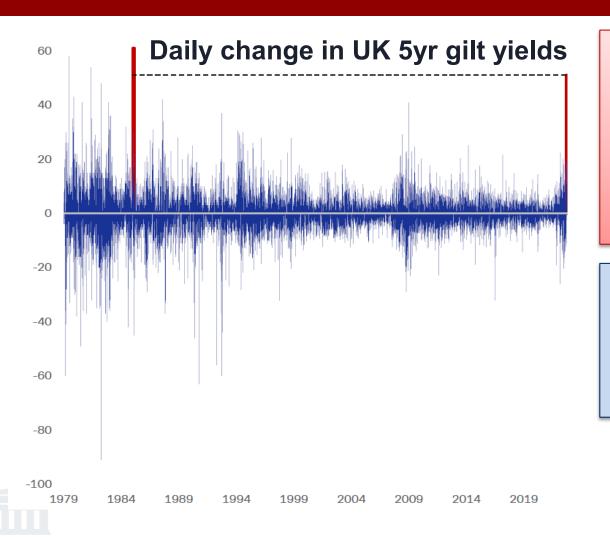


### **Application to Recent Events**

- Two examples: illiquidity feeds fire sales, broader systemic financial stress
  - 1) SVB/Regional Banks in US 2023
    - → Bank Term Funding Program (BTBF): loans for depository institutions against collateral <u>valued at par</u>
  - 2) LDI crisis in UK in 2022
    - → BoE gilts purchases over 13 business days using backstop pricing aimed at removing liquidity premium
- > Both stabilized risks around fire sales (and runs), but key differences
  - Penalty for bad investment decisions? LDI (not BTBF)
  - Profit for central bank? LDI (not BTBF)
  - Introduced moral hazard and crowd out private sector alternative? BTBF (less for LDI)
- > What explains the difference in applying Bagehot's penalty rate?
  - Planning in advance? Preparedness? Ability to respond quickly?
  - Willingness of central bank (governor) to risk failure?



## Challenge: How to Price Extreme Events?



#### **Extreme market moves hard to price**

- Largest daily increase in UK 5yr gilt yields since 1985
- Worst rolling 5-day move in 10yr gilts since records began
- In <3 days, 30yr gilt yields ↑ 1.6pp, 3x larger than any other historical 3-day move

#### No more bailouts....not credible

- After series of bailouts...back to late-1800s...
- Can't avoid the repeated game
- How to shift to new equilibrium?

Source: Deutsche Bank, UK Market Crisis 101

## Final Thoughts

- Paper addresses critically important questions
- Ambitious model with many useful insights
  - Paper just scratches surface of what can learn from framework
- Very supportive of ideas for alternative forms of liquidity support through private sector
  - But imposing challenges...pricing, recent actions

