

Discussion: Intraday Liquidity and Money Market Dislocations

Discussant: Yiming Ma

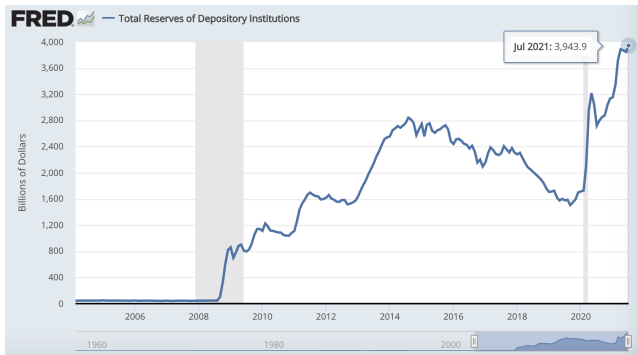
Discussant: Columbia Business School

August 27, 2021

Background

- After the 2008 crisis: jump in the volume of central bank reserves
- More reserves → more liquidity in the banking system

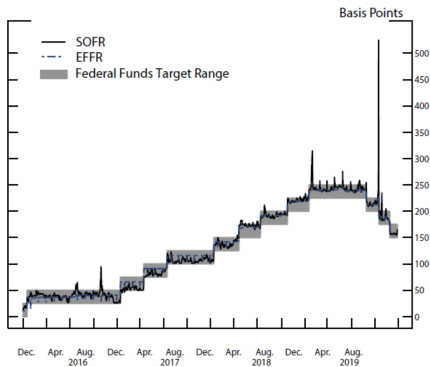
Figure: Total Reserves



Background

- However, there have been large spikes in the Fed funds rate and Treasury repo rates after the crisis
- E.g., in September 2019, repo rates surged 400 bps above the IOER

Figure: EFFR and SOFR



The Question

What is going on? Why wasn't there “enough liquidity” with all the bank reserves in the system to prevent these liquidity strains? What can be done to prevent future strains?

Why does it matter?

- 1 Repos are the predominant form of short-term funding in financial markets
- 2 Repo markets are intricately tied to Treasury markets
 - E.g., March 2020
- 3 Repo markets are one of the first stages of monetary policy transmission

This paper

- Repo dislocations due to intraday Liquidity Stress Test requirements
 - Banks must hold reserves sufficient to cover one-day outflows without “daylight overdrafts” from the Fed
- A very comprehensive framework + insights on an important question

Approach:

- GE model
- Empirical evidence
- Institutional details

Figure: Repo Market without Intraday LST Requirements

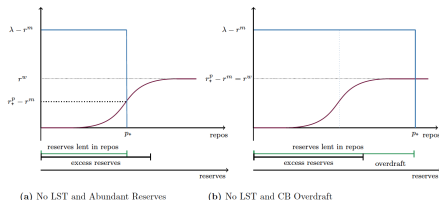
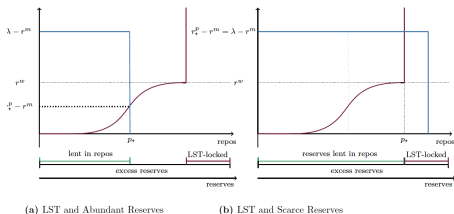


Figure: Repo Market with Intraday LST Requirements



Main Findings

- ① Intraday liquidity requirements \rightarrow \downarrow supply of repos \rightarrow repo rate spikes more likely
 - Inelastic kink in the repo supply curve
- ② \uparrow Treasury versus reserves supply \rightarrow \uparrow demand for repos \rightarrow repo rate spikes more likely
 - Shadow banks finance Treasuries using repos
- ③ Repo rate spikes \rightarrow Treasury yield surges

Comment I: Intraday versus General Liquidity

- In the model, banks face
 - Reserve requirements
 - Intraday liquidity stress test requirement
 - kink in repo supply curve
- In practice, banks face
 - Reserve requirements: not binding
 - Intraday liquidity stress test requirement
 - Liquidity coverage ratio (LCR)
 - Supplementary Leverage Ratio (SLR)

Comment I: Intraday versus General Liquidity

- Shouldn't the LCR and SLR also affect repo supply?
 - Perhaps they are not specific to the intraday horizon
 - But they still affect banks' *general* desire to supply repos
- How to relate the general versus intra-day liquidity requirements?
- Maybe the supply curve without the intraday liquidity requirements can be driven by the sum of other regulations rather than just reserve requirements?
- The type of repo probably matters...

Comment II: Which Money Market Rate?

- Most of the paper uses repo to imply a uniform secured loan backed by US Treasuries
- The empirical tests at the end run regressions with a variety of rates (which is great!)
 - Treasury GCF Repo
 - MBS GCF Repo
 - SOFR
 - JPY-USD FX swap implied dollar funding rate
- But how do they map to the model?
- How are they affected by different types of regulation?
 - E.g., Treasuries and Reserves are Level 1 HQLA, MBS are Level 2 HQLAs
- Suggest to explain + plot different rates at the outset and then explain their mapping to the model

Comment III: Adjustment Frictions

- Pre financial crisis literature: fed funds market (and a fraction of the repo market) is OTC and vulnerable to strains
 - This is the reason for interbank liquidity strains
- More recent work: distribution of reserves matters (Copeland, Duffie, and Yang, 2021)
 - There must be adjustment frictions between banks and relationships with some shadow banks that affect the effective supply of repos!
- Not the focus of this paper, but can perhaps discuss with respect to the literature/think about in future work

Conclusion

- A very nice framework to answer an important question!
- Three suggestions
 - 1 Relate general with intraday liquidity requirements
 - 2 Discuss differences in money market/repo rates
 - 3 Think about potential adjustment frictions in reserves and repo markets