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Conference on Money Markets 2022
Discussion of "Liquid Assets and Financial Fragility" by Toni Ahnert and Marco Macchiavelli

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Motivation

- Liquid assets are crucial for:

    - Investment behaviour (hedge/diversification)
    - Pricing instrument/benchmarking
    - Regulation and supervision
    - Monetary policy
    - Financial markets and stability

- ➤ **Provision of safe assets to the financial system is a core central-bank function during normal times …**
- ➤ **… and especially during financial crises as it may help providing an impetus for sustainable recovery**

Motivation (cont'd)

- Liquidity provision through various facilities (LOLR facility, IOER, OMOs, etc.)

➢ **So, why is this topic then on the agenda today?**

i.   Provision of liquid assets typically via **depository institutions**

ii. Increased participation of **non-bank entities** in financial markets (e.g., FSB 2021)

iii. Frictions may arise due to heterogeneous **<u>bargaining power and access</u>** to central bank facilities (e.g., Bech and Klee, 2011; Abbassi and Bräuning 2021, among others)

This paper

- Ample liquidity provided through various facilities (LOLR facility, IOER, OMOs, etc.)

➢ **So, why is this even an issue then?**

i.   Provision of liquid assets typically via **depository institutions**

ii.   Increased participation of **non-bank entities** in financial markets (e.g., FSB 2021)

iii.   Frictions may arise due to heterogeneous **<u>bargaining power and access</u>** to central bank facilities (e.g., Bech and Klee, 2011; Abbassi and Bräuning 2021, among others)
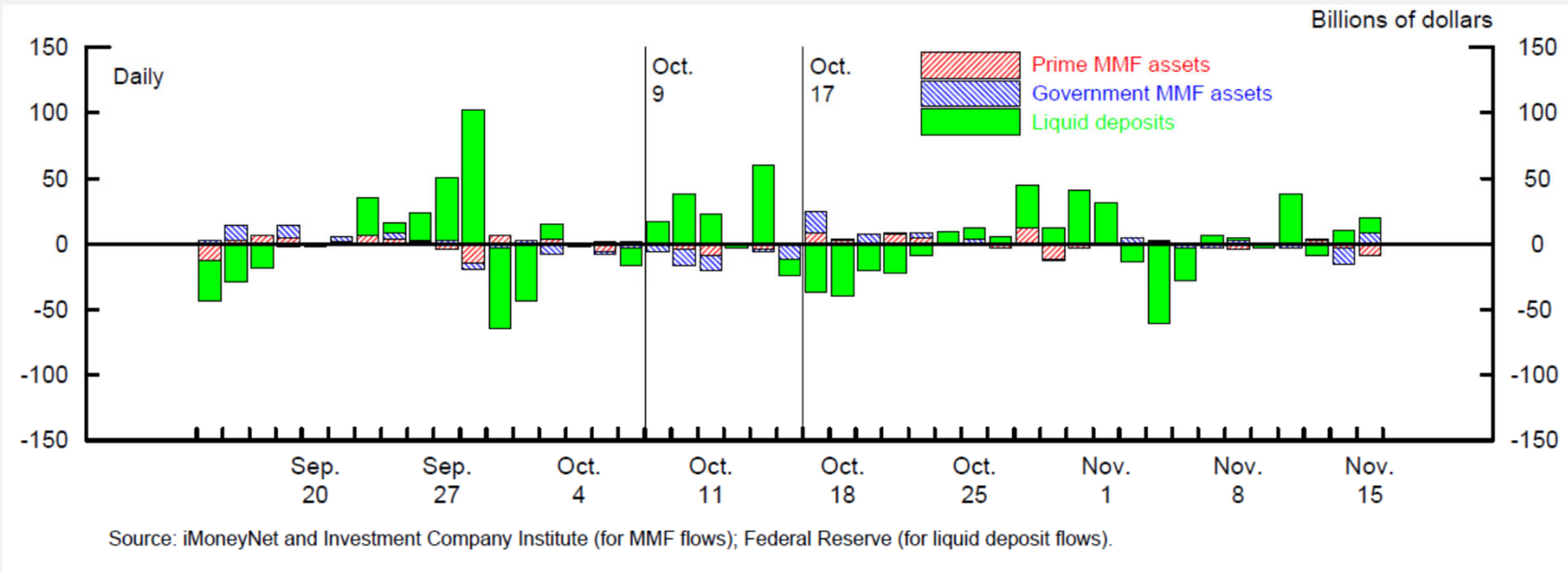
This paper (cont'd)

- Studies this in the context of the FED's Overnight Reserve Repurchase (ON RRP, which grants money market funds access to an altered version of the IOER facility)

➢ **Idea of the ON RRP:**

MMFs lend out funds overnight to the FED, receive Treasury securities as collateral (Tri-party repo) and the ON RRP rate (similar concept as the IOER for depository institutions)

– Focuses on primary MMFs **with and without access** to the ON RRP facility
– Exogeneous event (**2013 debt-ceiling standoff** in the US)

This paper (cont'd)

Source: iMoneyNet and Investment Company Institute (for MMF flows); Federal Reserve (for liquid deposit flows).

- In the five business days ending on October 16, 2013, net redemptions from prime and government MMFs totaled $15 billion and $40 billion, respectively, and CP outstanding declined $20 billion (Frost et al, 2015)

- **Specific question of the paper: does access to ON RRP help to reduce outflows during the 2013 debt-ceiling standoff in the US**

Null hypothesis and main result of the paper

- MMFs with more cash-like assets (i.e., low/zero average cost of liquidation) are better equipped to internalize short-term fluctuations, e.g., withdrawals/redemptions

Two results:

i. Theoretical result: **low/zero average cost of liquidation** helps to internalize losses/withdrawals but **higher marginal cost of liquidation** induces fire-sale type dynamics

ii. Empirical results: differential outflow for affected MMFs depending on access to ON RRP

My main comments

- Super interesting and important topic

[Fits nicely into the recent literature emphasizing benefits of the public provision of safe short-term assets in enhancing financial stability by displacing private money-like assets that are prone to runs, e.g., Stein 2012, among others]

- Carefully executed, polished paper

My comments:

- Economic channel, theoretical framework, other/diffferent interpretations
- Identification
- Big-picture lesson/putting into perspective

My main comments: economic channel

Diamond and Dybvig (1983) consider the fragility of a financial institution that must choose between a short-term safe asset (like ON RRP), and a long-term technology

- Exogeneous increase in the return of the safe asset (consistent with an increase in ON RRP rate) has both a

  ➢ **Substitution effect** (i.e., tendency to increase investment in the safe asset as its relative return makes it more desirable) and

  ➢ **Income effect** (i.e., tendency to reduce investment as one can earn the same income with lower quantity of the asset)

  → Either effect could dominate (e.g., Foster et al, 2015)

My main comments: theoretical framwork

Generally: I am not sure how helpful the model is for the empirical study

- **Theoretical framework** depends on availablity of liquid assets with zero cost of liquidation → **focuses on market liquidity**, i.e., the ease with which one can sell the asset (trigger on liability side, may affect both assets and liabilities)

- **Empirical study** uses the availability of liquid assets (i.e. cash) to borrow Treasury securities in the ON RRP → **focuses on funding liquidity**, i.e., the ease with which one can use an asset for refinancing (trigger on asset side, swap on the asset side)

➤ I think, there is already enough literature to motivate for the dynamic at play (Brunnermeier, 2009; Hanson et al. ,2015; among others)

My main comments: big picture lesson

- Can you say something on aggregate effects?

  - Commercial papers: can borrowers from control MMFs compensate the reduction across other entities/intermediaries?
  - What happens to aggregate level of short-term funding?
  - Are outflows at control MMFs associated with inflows elsewhere?

- Paper seems to put emphasis on private money-like assets → is more lending always better?

- "Graceful Exit" → temporary facility, potential (asymmetric) effect of „phasing out" (Acharya and Rajan, 2021; Acharya et al., 2022)?

My main comments: big picture lesson (cont'd)

- Can an elastically supplied risk-free asset (like the ON RRP) amplify run dynamics/ alter fligh-to-quality dynamics?

  ➤ 2008 (also 2011 and 2013) flight-to-quality episodes may alter destinations of safe-haven flows

  ➤ Cash that, in absence of ON RRPs, might have moved quickly to liquid deposits at banks could go to ON RRPs through government MMFs
      → prime MMFs could experience larger outflows
      → Availability of short-term funding like repos and CPs could decline more quickly
      → **Financial stability implications** (Foster et al, 2015)

- Maybe more balanced discussion of these dynamics (also in light of potential QT/restrictive monetary policy episodes ahead)?

In conlusion

➢ Super important and interesting topic and paper

➢ Already polished

➢ My comments:
  ➢ Link between theoretical framework and empirical study
  ➢ Maybe some additional robustness tests
  ➢ Big picture lessons
  ➢ More balanced discussion of the identified effect from a systemwide perspective (and its implications for financial stability)

THANK YOU!

Additional Comments

My main comments: theoretical framwork (cont'd)

Specifically: Can you say something about sorting/matching (investors – MMFs)?

➢ Investors' decision is determined by:
  – Risk
  – Return
  – Costs

➢ All else equal, treated MMFs/MMFs with low/zero average cost of liquidation (i.e., low risk-return) → may attract risk-averse investors

➢ All else equal, control MMFs/MMFs with higher marginal cost of liquidation (i.e., higher risk/return) → may attract risk-taking investors

➢ How does that affect the model outcome?

My main comments: other/different interpretations

		Pre-crisis (Jul 1 – Sep 30)				Crisis (Oct 1 – Oct 16)	
	Obs.	Mean	St.Dev.	p(25)	p(75)	Obs.	Mean
				Panel A: All Prime Funds			
AUM	2046	7.93	18.71	0.34	6.52	462	8.19
Flows	2046	0.05	4.40	-0.95	0.89	462	-0.21
Yield	2045	18.78	5.28	16	23	462	18.60
Mat7d	2025	42.09	16.68	33	47	458	41.40
Repo	2046	12.93	12.60	4	18	462	13.64
Treasuries	2046	4.78	6.75	0	8	462	4.88
AtRisk	2037	0.87	1.65	0	1.24	462	1.79
PrimeRisk	2046	25.07	15.20	13	36	462	24.62
				Panel B: Treatment Group, Sample 2 (			
AUM	130	5.45	1.67	3.71	6.59	36	5.22
Flows	130	-0.15	2.90	-1.06	0.51	36	-0.53
Yield	130	19.95	3.95	17	22	36	19.67
Mat7d	130	35.2	12.98	30	42	36	36.31
Repo	130	13.07	10.63	6	21	36	13.72
Treasuries	130	5.76	4.43	0	10	36	5.89
AtRisk	130	1.20	1.42	0	2.71	36	1.21
PrimeRisk	130	29.92	10.65	26	37	36	30.58
				Panel C: Control Group, Sample 2 (8			
AUM	112	5.53	1.36	4.17	6.75	24	5.80
Flows	112	1.18	6.05	-1.03	2.85	24	-1.34
Yield	112	22.22	3.04	20	24	24	22.38
Mat7d	112	40.58	9.41	33	44	24	40.42
Repo	112	7.36	6.01	0	11	24	6.21
Treasuries	112	2.05	2.65	0	4	24	3.67
AtRisk	112	0.39	0.73	0	0.54	24	0.5
PrimeRisk	112	33.84	17.31	24	47	24	33.75

- Treated MMFs are associated with lower risk and return

- Control MMFs are associated with higher risk and return

➢ Results could also imply:

- Diversification is important to internilize losses/withdrawals
- As a result, reduced outflows for more diversified MMFs during times of market stress

My main comments: other/different interpretations (cont'd)

- Lack of access to ON RRP (for control MMFs) could imply heterogenous bargaining power (Bech and Klee, 2011; Abbassi and Bräuning, 2021) in money markets

- May suggest that eligibility/access to ON RRP affects money market rates → suggests increased footprint by the FED on money markets

My main comments: identification

- Why don't you use **net outflows** (or control for inflows)?

- Why dont't you use the **share of elgibile collateral** (which is exogeneous to the MMFs and pre-determined) **as an IV** for their ON RRP take-ups?

- Is there also a **within-treated MMF heterogeneity** depending on the share of affected T-Bills?

- Effect on treated T-bills should be higher when **restricting on T-bills not maturing** during the 2013 debt-ceiling standoff (simply because maturity distance to maturity/face value is greater)

- I would suggest not to use 2011 as a period for robustness analyses (US MMFs experienced outflows due to their European government investments)

- In Table 2 and 3, I would assume that an F-test with the null hypothesis, that beta3+beta4=0, cannot be rejected, suggesting that there is no significant effect for the treated MMFs (relates to my earlier point that for treated MMFs, there is an asset swap)