NBFIs and the Stress in Money Markets during the Covid-crisis

Topic 8

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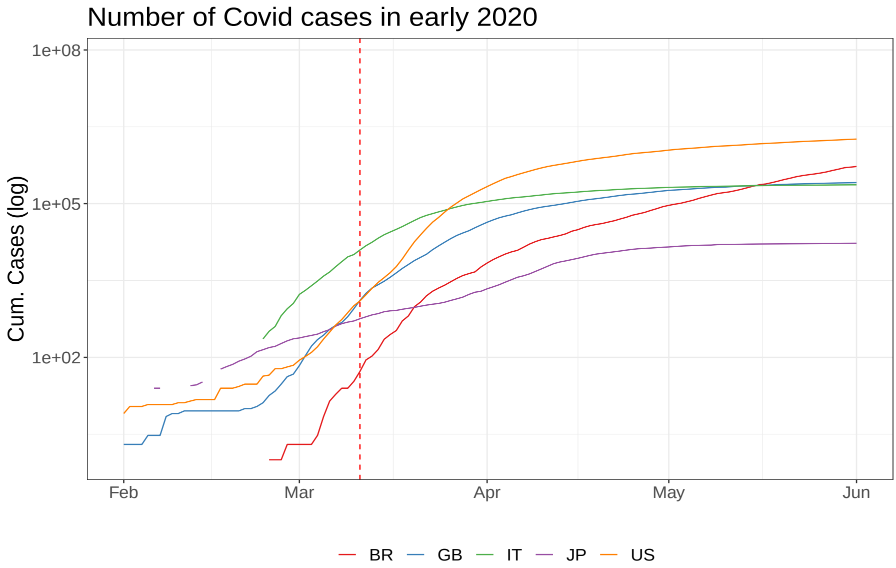
Seminar on Non-Bank Financial Intermediaries (Dr. Andreas Schrimpf)

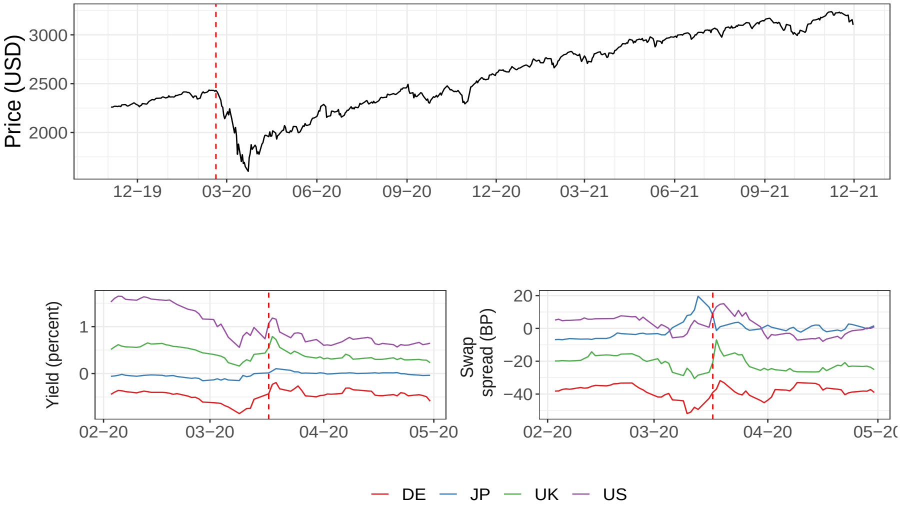
The March Market Turmoil

The Covid-19 Pandemic



Disturbances in Financial Markets

MSCI World and 10y Government Bonds



The Money-Market and its NBFIs

Short term funding market, which provides funding to banks, corporations and governments. Borrowers look for financing of operations, investors look to invest their money at a market rate of return.

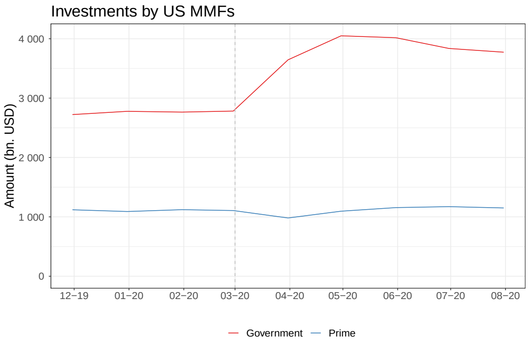
- Money Market Funds
- Broker Dealers
- Hedge Funds
- Principal Trading Firms

Focus on three Key Players in the US market

- Government and Prime MMFs
- Broker Dealers
- *Central banks (the Fed)*

Differences between Government and Prime MMFs

Prime MMF	Government MMF
Private debt	Public debt
Floating NAV	Fixed NAV
Redemption Gates & Fees	-



Analysis of these actors in the March Market Turmoil

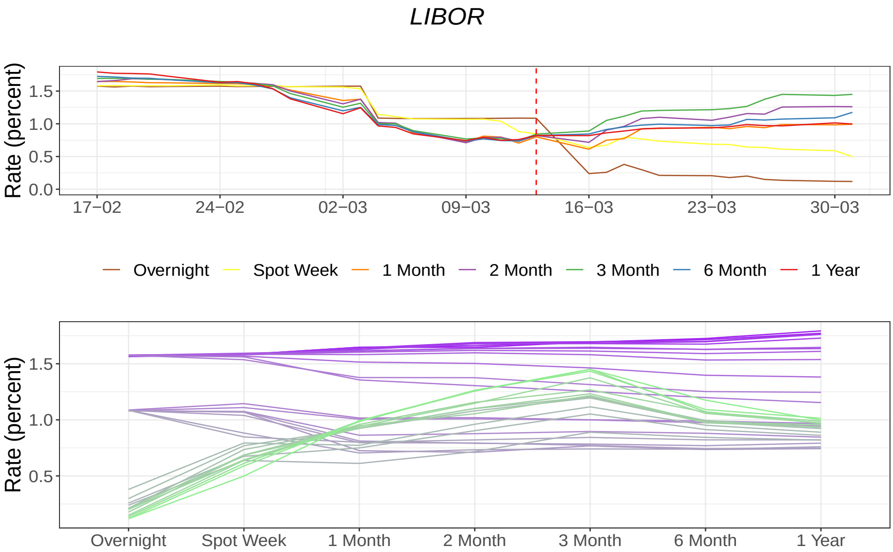
Research Questions

1. *What was the role of NBFIs in the market stress of March 2020? Which factors related to the business models of NBFIs played a destabilizing role?*
2. *What role did broker-dealers play during the stress episode?*
3. *What was the role of central banks and through which tools did they intervene to restore market functioning? What tools were effective and why?*

RQ1 - Role of the NBFIs

- Flow from prime to government MMFs (see Li et al. 2021; Eren et al. 2020; FSB 2020)
- Broker dealers tried to intermediate fire-sales (see FSB 2020)
- Prime MMFs liquidity supply dried up, increasing funding costs for others

RQ1 - Role of the NBFIs



RQ1 - NBFIs' Destabilizing Factors

Bouveret et al. (2021) collect a couple of destabilizing factors:

- MMF's large footprint in e.g. the repo market lead to disruptions (also Paddrik et al. 2021)
- Portfolio overlap
- Low liquidity
- Floating NAV
- Run risk (redemption gates and fees, credit risk)

RQ2 - Role of Broker Dealers

- Difficulties to take on new liabilities (deleveraging) and to sell off acquired assets (lack of cash) (compare Aramonte, Schrimpf, and Shin 2021)
- Balance sheet constraints
- Increased funding costs (repos became more expensive)
- Operational struggles (move to home-office) (FSB 2021)
- Insertion point for central bank interventions (Boyarchenko et al. 2021)

RQ3 - Central Bank Interventions

The Fed intervened with a multitude of measures targeted at different areas of the financial markets.

Date	Intervention	Abbreviation	Entity
2020-03-15	Changes to FX Swap Lines	CFXL	Fed
2020-03-17	Commercial Paper Funding Facility	CPFF	Fed
2020-03-18	MMF Liquidity Facility	MMFL	Fed
2020-03-19	Expansion of Swap Line Network	EFXL	Fed
2020-03-20	Primary Dealer Credit Facility	PDCF	Fed

RQ3 - Tools' Effectiveness

- Existing SEC regulations (gates and fees) were detrimental (Li et al. 2021)
- Rebound flows to prime funds, due to loans for broker dealers (MMLF)
- Market improvements for CP following announcement of the CPFF
- Foreign exchange swap lines helped to divert some stress away from US MMFs and to transmit the Fed's interventions

Summary - RQs

Summary - RQs

1) The fragility of prime MMFs led to their liquidity provision coming to a halt, causing problems for other market participants
2) Broker dealers were not able to intermediate the large, one-directional, flow of assets
3) Central bank interventions were key to remove liquidity frictions, especially the MMLF

References i

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Bouveret, Antoine, Camille Graciani, Cian Murphy, and Christian Weistroffer. 2021. "Issues Note on Systemic Vulnerabilities of and Preliminary Policy Considerations to Reform Money Market Funds (MMFs)." *ESRB Issues Note*.

Boyarchenko, Nina, Richard K Crump, Anna Kovner, and Deborah Leonard. 2021. "COVID Response: The Commercial Paper Funding Facility." *FRB of New York Staff Report*, no. 982.

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Paddrik, Mark, Carlos Ramirez, Matthew McCormick, and others. 2021. "The Dynamics of the US Overnight Triparty Repo Market." *FEDS Notes*, no. 2021-08: 02.