## The Central Bank's Balance Sheet and Treasury Market Disruptions

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## **Research questions**



Treasury are exposed to funding shocks originating in the repo markets.

• What is the role of banks? and banks' regulatory constraints?

- What is the role of Central Bank's Balance sheets?
  - Repo facilities
  - Reverse Repo facilities

## Objective



 Propose a dynamic model of the Treasury (and Repo markets) that captures the various disruptions observed in recent years

- Show the role of
  - Central bank's Balance sheet (Treasury on the Asset side and reserves on the liability side)
  - repo and reverse repo facilities
- in the Treasury market disruption

## **Motivating Evidence**



	Repo Rate	Interm. Spread	RRP vol.	TGA vol.
Quarter End	+	+	+	+
Tax Deadline	+	0	—	+
Treasury Issuance	+	+	0	+

## Model





Figure 1: Chart of Sectors' Balance Sheets

#### Shocks considered



 Change in preference by householders between reserves and repo (a sort of demand for liquidity in the LM model) and spillovers between Repo and Treasury Yield

- Intermediation shock
- Tax deadline shock
- Quantitative Tightening Shock
- Fiscal Expansion Shock

Very interesting topic!

Very interesting paper!



## Why do we end up with a system like this?





Figure 1: Chart of Sectors' Balance Sheets



- Do shadow banks qualify as money market funds?
- Why do households invest in Repo? Why not in Treasury bonds?
- If households include firms investing in money market funds, call them firms...
- In reality firms invest directly into money market fund shares: to what extent does your model reflect reality?

# d'Avernas and Vandeweyer (2023) seem closer to reality...





Figure 2: Chart of Sectors' Balance Sheets



In your model, it is not clear why only households had access to the triparty repo mkt and not shadow banks.

- Is it because only banks could borrow (and lend) in the triparty repo market?
- How do results change if shadow banks can borrow into the triparty repo market?



How relevant it is, in your framework, to have a repo market, i.e. a collateralized credit market? If borrowing would be uncollateralized but without credit risk, would it be the same?

• How relevant is the collateral value?

## Motivating Evidence – various shocks



	Repo Rate	Interm. Spread	RRP vol.	TGA vol.	Treasury y.
Quarter End Tax Deadline	+	+	+	+	?
Treasury Issuance	+	+	0	+	

- September 2019 (Tax Deadline?) Repo Rates (+) and TY (0)
- March 2020: Repo Rates (0) and TY (+) What type of shock is it?

## Results



 Change in preference by householders and spillovers between Repo and Treasury Yield



 The shock of the change in preferences in the steady state affects Treasury or repo mkt depending on the expected duration of the shock



 This result is interesting, however, there is one part missing in this framework:

 If the Treasury reduces value, this has implications on the amount you could borrow in the repo market with the treasury as collateral. Is this channel considered?



- In the model (and in reality..) shadow banks cannot borrow in the triparty repo.
- But how relevant is this aspect for your results?

 How do your results change if shadow banks borrow in the triparty repo market directly from households? (Given their preferences potentially not....).



In all the shocks considered, the best (or equal) solution is to extend the CB repo and reverse repo facilities to shadow banks!

In this way, the CB is becoming the "intermediary" of the Repo market.

- Should this facility be present and available:
  - all the time or only in extreme cases?
  - with an extremely penalizing rate or quantity?



- Intermediation shock, Tax deadline shock, Quantitative Tightening Shock, Fiscal Expansion Shock
  - Which one will also have an effect on the treasury market via repo spillover?

- How do CB repo facilities affect the Treasury market via the repo markets?
- All the times that they are not able to prevent repo spikes for a long period?



Very interesting paper!

Enjoy reading it!