Discussion of

Institutional Synergies and the Fragility of Loan Funds

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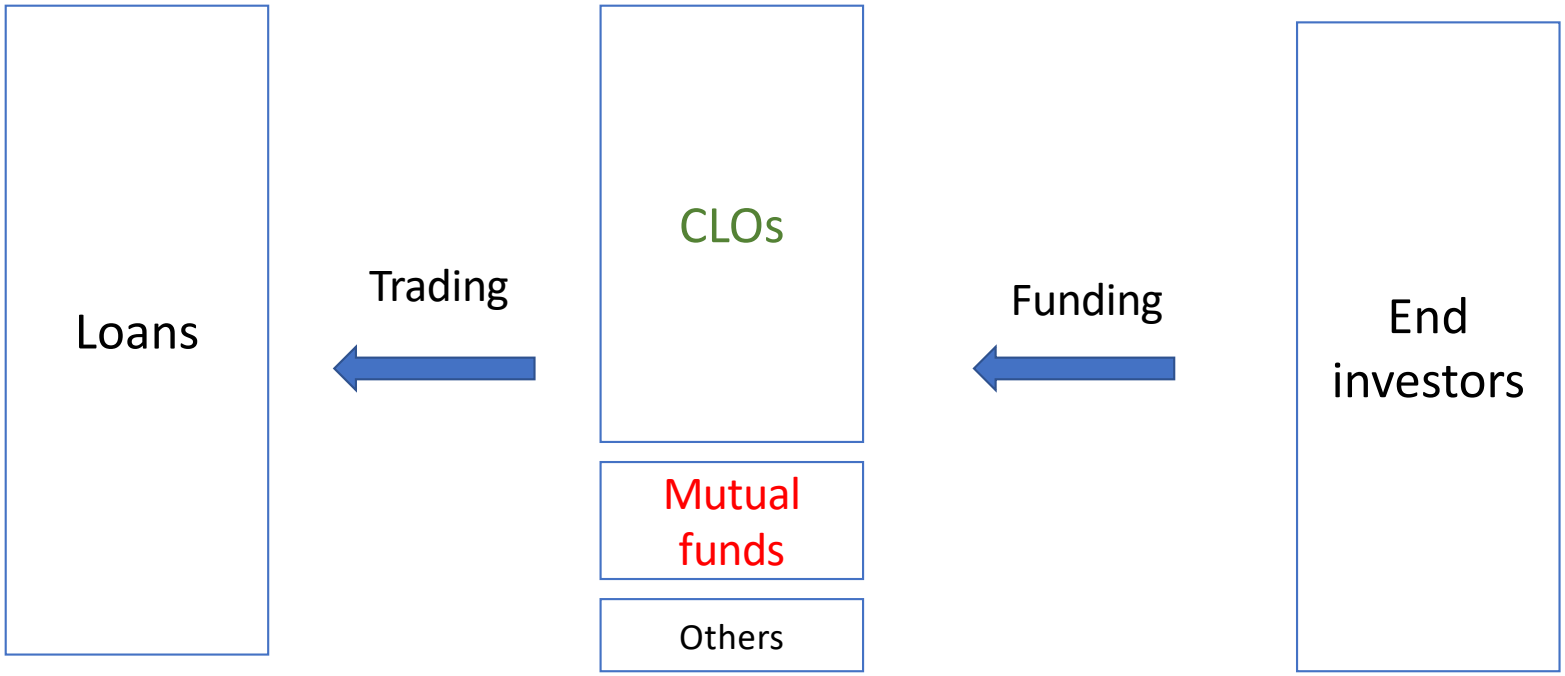


This paper: price pressure of mutual fund fire sales are smaller in "eligible loans" because they help CLOs pass overcollateralization (OC) tests

My two cents

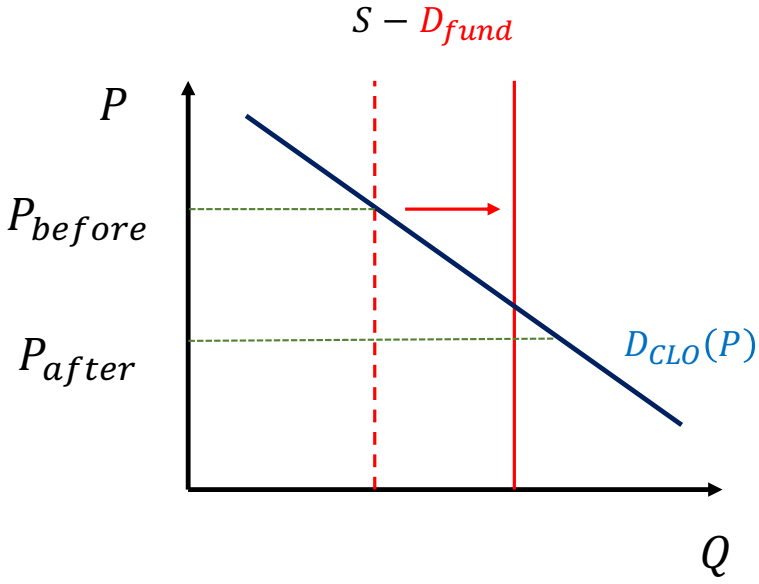
- **Assessment:** this paper shows that *funding frictions* can shape demand (and thus prices) in a new market
  - Lots of careful analysis

- **My discussion** will first put a bit more structure on the problem and then use it to find areas for improvement

1. The mechanism

CLO demand elasticity determines the price impact of fire sales

- A loan with S shares outstanding
- Two investor groups:
  - Funds: D_{fund}
  - CLOs: $D_{CLO}(P) = a - b \cdot P$
- Market clearing: $D_{fund} + D_{CLO}(P) = S$
  - $P = constant - (S - D_{fund})/b$



- Fire sale from funds (D_{fund} ↓) means residual supply ($S - D_{fund}$) ↑

CLO demand elasticity depends on loan eligibility

- CLO portfolio choice:

$$\max_{\{D_1,\ldots,D_N\}} \sum_i D_i \cdot (V_i - P_i) - risk_i \cdot \frac{D_i^2}{2}$$

$$s.t. \quad \sum_i D_i \cdot \left(I_{i\ eligible} \times Par_i + I_{i\ ineligible} \times P_i\right) > OC\ test\ threshold$$

- Thus, CLO demand for each loan i:

$$D_{CLO,i}(P) = a_i - \frac{1 + I_{i\ ineligible} \times \Lambda}{risk_i} \cdot P_i$$

- Where Λ is the shadow price of the constraint

2. Okay, let’s revisit this paper

1) Some immediate predictions

- **Heterogeneity:** the effect should primarily come from CLOs with binding OC constraints (around 40%).

- **Calibration:** put in some numbers. Does this justify the magnitude of the estimated difference in fire sale price impacts?

… (and many more)

2) More interpretable exercises

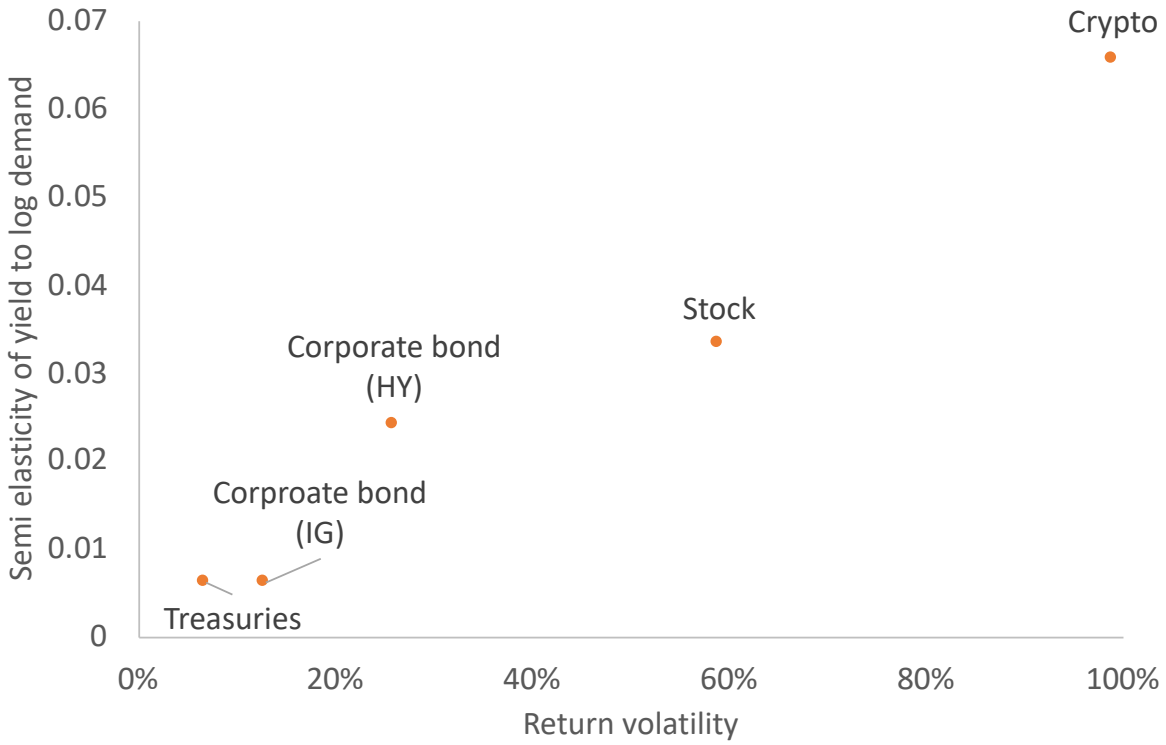
- For instance, Table 5 shows that CLOs do provide liquidity to mutual funds, but the coefficient is hard to interpret

Dependent variable:	Par (1)
Flow Pressure	-0.005***
	(-2.95)
Buy Pressure	
Sell Pressure	
Loan FEs	Yes
Year FEs	Yes
Observations	6,077
R-Squared	0.42

- Put them on the same units, and then we can ask what fraction of liquidity is provided by CLOs?

- Given market clearing, it is not surprising that CLOs do provide liquidity
  - Magnitudes matter

3) What is the price impact per unit of demand?



- Semi-elasticity: $-\frac{\Delta yield}{\Delta Q/Q}$

- What is the implied price impact for CLOs?

4) The method for computing fund flow-induced fire sales

- Existing evidence, in both the stock and corporate bond markets, suggest that Lou (2012) is a more appropriate approach than Coval-Stafford (2007)
  - E.g. Wardlaw (2020)

3. More broadly, for the literature

In studying demand/supply effects, I hope/think we are moving from 1.0 to 2.0

- **Version 1.0:** showing that demand effects exist
  - Useful when the null hypothesis is zero demand effects

- **Version 1.5:** probe mechanisms in a purely *reduced-form* fashion
  - This paper

- **Version 2.0:** *more structure*, careful about *magnitudes*
  - Not necessarily Koijen-Yogo!

In summary

- My (idiosyncratic) discussion reflects my personal bias for conducting version 2.0 studies
- I learned a lot reading this paper
- I wish the authors all the best in the publication process