2024 EBA Policy Research Workshop

Discussion of "ETFs, Illiquid Assets, and Fire Sales" by John J. Shim and Karamfil Todorov

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Outline

The issue and the paper

- Research question: how liquidity shocks in a bond exchange-traded fund (ETF) that holds illiquid corporate bonds are transmitted to the underlying market/assets?
- Important contributions of this paper:
  - Simple model modeling the key and stabilising role of an ETF's authorized participant (AP), such as a large broker-dealer, who holds inventory in bonds (shock-absorber, no fire sales);
  - Non-linear price impact of fire sales apparently captured through a discontinuity in the price impact function.

Main findings

- Main findings:
  - ETFs have advantages over mutual funds in managing illiquid assets;
  - The stabilising role of APs explains why large ETF redemptions do not trigger a fire sale;
  - ETF premiums and discounts interpreted as transaction costs for liquidity-demanding ETF investors (coming from the AP's costs of preventing fire sales and managing the mark-to-market value of inventory);
  - Model able to explain the counter-intuitive observation that the ETFs that traded at the deepest discounts during the COVID-induced sell-of in March 2020 were those holding investment-grade bonds (especially short-maturity).

AP's constraints: some oversimplifying assumptions or obscure statements

- The AP's capacity to hold inventory in bonds seems unlimited in the model: realistic? What about the impact of possible regulatory constraints?
- Paper discusses the (absence of) impact of the representative AP assumption. But what if we relax the perfect competition assumption or introduce the assumption of strategic/uncooperative behaviour on the part of heterogeneous APs?
- Modeling of price impact of fire sales: what should we understand with this sentence: "We note that our main findings related to premiums/discounts and inventories do not rely on the discontinuity in the price impact function"?

ETFs' systemic risks

- Systemic risks from ETFs other than those affecting the functioning of underlying illiquid asset markets are a bit overshadowed and could be modeled (see 2019 ESRB report):
  - Higher volatility and co-movement of security prices, especially at times of market stress and if the constituent securities are illiquid;
  - Decoupling of ETF prices from those of constituent securities at times of stress, with destabilising effects on financial institutions heavily exposed to ETFs or reliant on them for liquidity management;
  - Inducement of investors to take large correlated exposures, which may result in contagion in the event of sharp ETF price drops;
  - Materialisation of operational risks in a major provider of ETFs, which may generate widespread sales of ETFs owing to the sector's very high level of concentration.

Empirical estimation

- Estimation of trading volume for bonds held by ETFs in creation vs. redemption: isn't there a risk of endogeneity between the predicted volume for bonds in creation and redemption baskets of an AP and the trading volume of a bond in case of APs' anticipations?

Policy implications

- Main supervisory or regulatory implication from the model:
  - A policy that supports inventory-holding APs or call for government institutions themselves to act as an AP, that would help support the bond market when ETFs face large redemptions.
- Need to elaborate on the supervisory implications:
  - What impact of accounting rules: variable NAV vs. constant NAV?
  - Case for minimum liquidity ratios applied to mutual funds?
  - What impact of potential macroprudential measures at the hand of the supervisor, such as swing prices and redemption gates, and the need to develop them more?

Conclusion

- Solid and interesting paper relying on a rigorous theoretical framework;
- Framework could be expanded to encompass a larger range of systemic risks potentially posed by ETFs and to take into account recent developments in the field of macroprudential regulation.