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Discusssion of
"Lending to Hedge Funds: Does Competition Erode Bank Risk Management?"

Authors: C. Bittner and S. Jank

Discussant: Petros Migiakis

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Disclaimer: The views expressed in this presentation are those of the discussant and not necessarily of the Bank of Greece or the Eurosystem.

The paper

- ***Research question*:** Does the bargaining power of hedge funds impact banks' lending terms?

The paper

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The paper

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- ***Empirical strategy***:

$$Haircut_{l,b,f,c,t} = \beta HHI_{f,t} + \gamma \mathrm{PD}_{b,f,t} + \alpha_{b,f,c\tau} + \nu_t + \varepsilon_{b,f,c\tau}$$

HHI measures the concentration of fund's *f* funding to its lenders (a value of 1 denotes that the fund has been funded from one entity).

PD is the probability of default that bank *b* has assigned to the fund *f* at time *t.*

The classifier c allows for separation across groups of ratings: high-IG vs. medium-to-low IG, vs. non-IG.

Then the paper moves on to compare haircuts applied to model-implied ones based on VaR variants.

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- ***Findings***:

(1) Funds with a low concentration in their sources of funding get lower haircuts, for the same collateral at the same day, from different banks.

(2) The (diminishing) effect of low concentration on haircuts is twice as large for medium-to-low rated IG collaterals than it is on highly-rated ones.

(3) The probability that the bank applies a haircut lower than the model-implied one, increases with low concentration.

Assessment

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- *This is a very interesting paper, well written and in an increasingly important topic*.

- Placement in the literature: Relationships of banks with non-bank FIs.

- Advantages:
  - New information: very informational combination of MMSR & AnaCredit & CSDB data.
  - Results are intuitive, adding to the extant literature.
  - Policy implications: call for improvements in the ECAF (?).

Definition Question: What is a hedge fund?

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Paper at hand:

"Hedge funds are private, largely unregulated investment pools that provide managers with significant flexibility in both investment strategies and financial instruments.".

Other sources (institutional and market):

Investment pools, with flexibility in their investment decisions, vis-à-vis mutual funds, that have the objective of positive investment returns, even if markets incur losses.

- **International Investment Fund Association:**
  (USA) "A private investment pool for wealthy investors that, unlike a mutual fund, is exempt from SEC regulation."
  (Europe) "A fund, which uses an assortment of trading techniques and instruments to meet an objective of providing positive investment returns irrespective of the performance of stock markets.".

- **US Securities and Exchange Commission: "***Hedge funds pool investors' money and invest the money in an effort to make a positive return. Hedge funds typically have more flexible investment strategies than, for example, mutual funds. Many hedge funds seek to profit in all kinds of markets by using leverage (in other words, borrowing to increase investment exposure as well as risk), short-selling and other speculative investment practices that are not often used by mutual funds."*

- **EurekaHedge:** "*Hedge funds are investment vehicles that explicitly pursue absolute returns on their underlying investments. The appellation "Absolute Return Fund" would be more accurate, not least as not all hedge funds maintain an explicit hedge on their portfolio of investments. However the "Hedge Fund" definition has come to incorporate any absolute return fund investing within the financial markets (stocks, bonds, commodities, currencies, derivatives, etc) and/or applying non-traditional portfolio management techniques including, but not restricted to, shorting, leveraging, arbitrage, swaps, etc.*"**.**

Regarding regulation: in FSB's 2015 IMN Survey, several countries gave distinct answers to a set of questions regarding the registration and requirements for operations of hedge funds in their jurisdictions.

Motivation Question: Why focus on hedge funds?

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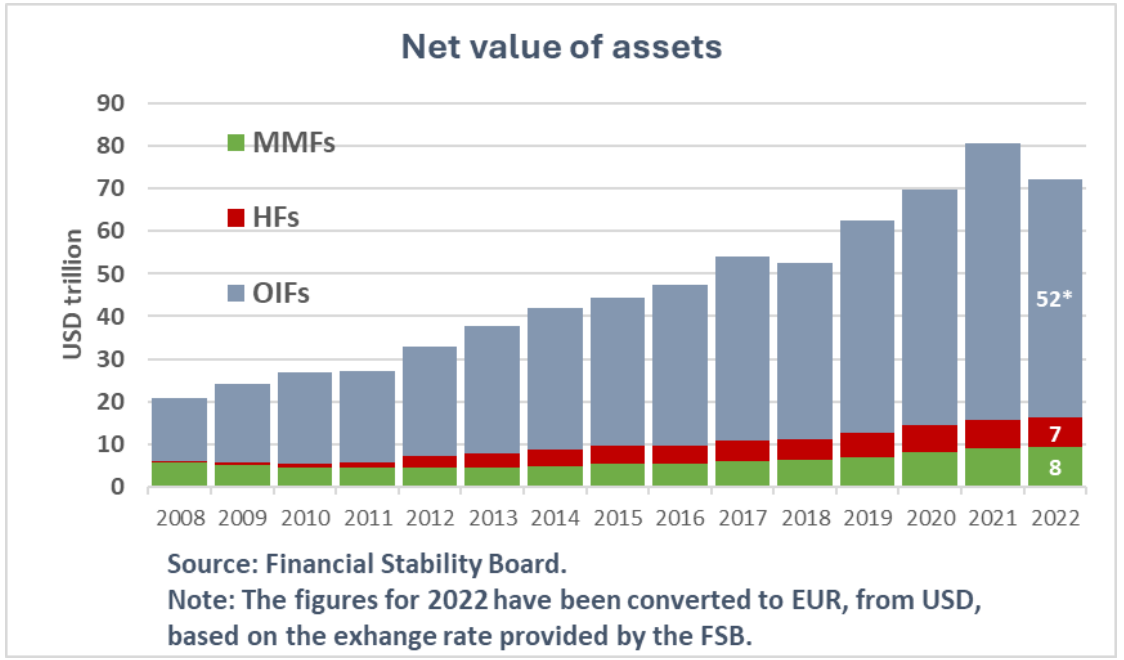
- The paper deals with hedge funds. The reason of distinguishing '*hedge*' from other *funds* is not obvious:

(1) According to the IIFA Open-end regulated investment funds' total net assets amounted to €63.9 trillion, by 2024Q1;

(2) According to the FSB in 2022 Other Investment Funds (OIFs) and Money Market Funds (MMFs) held assets amounting to €60 trillion while hedge funds' total net assets amounted to €6.5 trillion.

(3) The literature documents procyclicality of the NBFI funding activity (see, Banegas *et al.* 2022; Kaufmann 2023; Nicoletti *et al.* 2024) and a high degree of connectivity of non-banks to banks (see, Abad *et al.* 2022; Acharya et al. 2024-*cited*).



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[1] Abad J., D'Errico M., Killeen N., Luz V., Peltonen T., Portes R., Urbano T., 2022. Mapping exposures of EU banks to the global shadow banking system. J.Banking & Finance 134, 106168.

[2] Banegas A., Montes-Rojas G., Sigas L., 2022. The effects of U.S. monetary policy shocks on mutual fund investing. J.Int'l Money & Finance 123, 102595.

[3] Kaufmann C., 2023. Investment funds, monetary policy and the global financial cycle. J. Eur. Ec. Assoc. 21(2), 593-636.

[4] Nicoletti G., Rariga J., Rodriguez d'Acri, C., 2024. Spare tyres with a hole: investment funds under stress and credit to firms. ECB working paper no 2917.

Policy Question: Why associate banks' haircuts to ECAF's?

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- The paper associates the haircuts applied by banks, in their lending to hedge funds, on the collateral values to the eligibility of the collateral in Eurosystem operations.

- I think here more clarity is needed: haircuts and ratings are employed for different types of risks.
  - Haircuts are applied to mitigate market and liquidity risks (e.g. FSB 2015*).
  - Eurosystem collateral eligibility framework (Eurosystem Credit Assessment Framework-ECAF**) is calibrated on credit risk.

*Financial Stability Board 'Transforming shadow banking into resilient market-based finance', 12 November 2015 (last update: 7 September 2020).

**European Central Bank 'The financial risk management of the Eurosystem's monetary policy operations', July 2015.

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ECAF foresees 5 credit quality steps:

CQS1	CQS2	CQS3	CQS4	CQS5
AAA/Aaa & AA/Aa	A	BBB	BB+/BBH/Ba1	BB/Ba

- So, when the paper mentions high-rated it must be CQS1 (AAA & AA) but when it mentions medium-to-low IG it must be CQS2 & CQS3 combined (i.e. A and BBB).
- Indeed, the coefficient associating haircuts on bank lending to HFs to the latter's concentration doubles for A/BBB compared to AAA/AA.
- This is taken to indicate an 'erosion' of risk management practices by banks.

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- It would be interesting to see CQS2 and CQS3 separately: if indeed the coefficient for CQS3 (BBBs) is significantly higher than that for CQS2 (A) then there are indications of erosion of risk management practices.
- On the other hand, if this is not the case, the aggregation of the two CQS (2&3) may just be representative of the structure of the European bond market:
  - With an average rating of A, in the government bond market, it is easily explained (by the bank's point of view) to apply a lower haircut for a A-rated GB than for a AA-rated NFC of bank bond.

- Still, even if the coefficient is indeed larger for BBBs than for As, other questions should be answered before we can end to the conclusion that banks employ more lax risk management to funds with higher bargaining power…

More questions

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Questions:

- Why does a fund with 3 or more sources have a higher bargaining power than (indicatively):
  (i) A fund belonging to the same holding company with the bank?
  (ii) A large hedge fund with a positive return legacy?
  (iii) A large hedge fund, affiliated with a bank lending to the fund's lender?

- Are the results similar, if the sample is separated to government bonds used as collateral and to corporate bonds?

- Financial stability issues may arise if the fund fails AND the collateral is inadequate. So, does low concentration indeed affect haircuts if we take into account the interaction of the riskiness of the fund to riskiness of the collateral pledged (i.e. PD_fx$Rating_c$)?

Suggestions

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(1) The PD variable could be substituted with funds' vulnerability measures, as these are defined by FSB (see, Annex 5, in "Global Monitoring Report on Non-Bank Financial Intermediation").

(2) The Expected Shortfall methodology derives the loss expected, for a fund, if the market risk exceeds a certain threshold (e.g. 5%). So, it may be more relevant to examine the ES of funds, under a VaR(5%) scenario, based on the HHI. This would answer directly whether funds indeed are riskier than what banks' haircuts suggest.

Summary

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Very nice paper, with a lot of potential for policy contribution on the topic of linkages of non-banks and banks.

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(+30) 210.320.3587

pmigiakis@bankofgreece.gr

Athens, 21 El. Venizelou, Office 541