Monitoring NBFIs over Time

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Financial Stability Board Non-Bank Monitoring Experts Group Meeting
Panel Discussion

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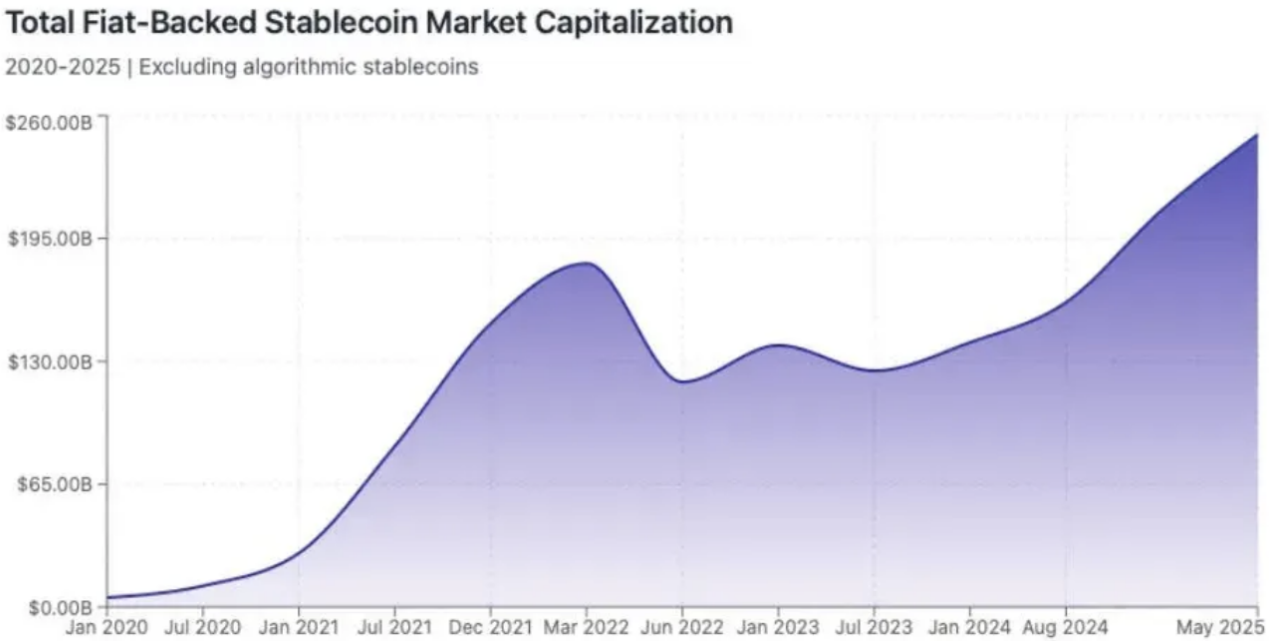
Overview

- The FSB's monitoring report of NBFIs is an incredibly valuable resource for understanding the evolution of financial intermediation
- My students and I have learned much from reading the report and other FSB work over the years - thank you very much!
- Some suggestions
  1. Incorporate new NBFIs, e.g., stablecoins and private credit funds
  2. Consistent measurement of NBFI risk over time
  3. Benchmarking NBFI risk against banking sector risk

1. Include New NBFIs: Stablecoins

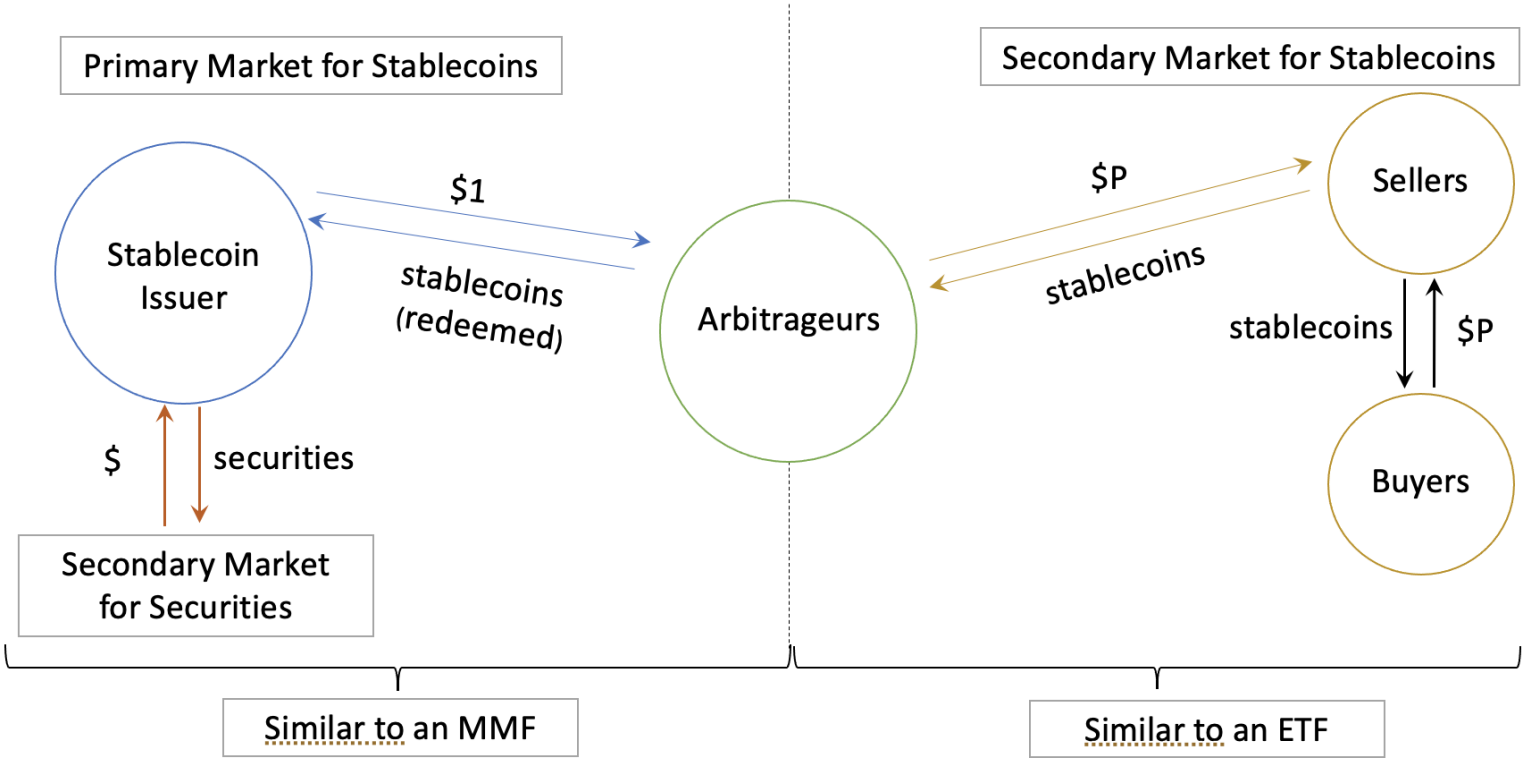
- Suggest to include new NBFIs that have emerged, grown, and will continue to grow
- 1. Fiat-backed stablecoins
  - Assets: fiat-assets e.g. sovereign bonds, deposits, repos
  - Liabilities: stablecoin tokens



Source: Medium

1. Include New NBFIs: Stablecoins

- Stablecoins engage in of liquidity transformation like MMFs + ETFs and bear (varying degrees) of run risk

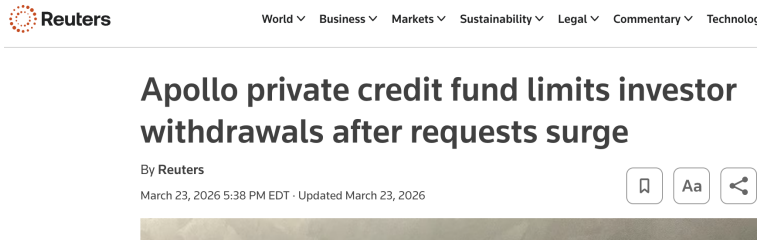


Source: Ma, Zeng, Zhang 24

- Data is available
  - Outstanding stablecoin supply is observable on the blockchain
  - Reserve assets are self-reported, might be regulated going forward

1. Include New NBFIs: Private Credit Funds

- 2. Private credit funds
- Illiquid assets funded by claims with varying degrees of redeemability $\rightarrow$ liquidity transformation + run risk



- Systematic data is more challenging to obtain

2. Consistent Measurements over Time

- As in the past, new NBFIs will continue to emerge going forward
- Monitoring based on economic functions rather than specific entities can better withstand the test of time
- But what about the effects of compositional changes within NBFI categories?
  - E.g., adding stablecoins would enlarge the narrow measure of NBFIs, but may also change (reduce) the average liquidity mismatch
- Monitoring targets should be designed to be consistent over time even as the composition of NBFIs by economic function is evolving

2. A Simple Way for Consistent Measurements over Time

- Currently, we have size_{EF} and $\text{vulnerability measure}_{EF}$ for each EF
- Could simply compute the weighted sum:

$$\text{Aggregate vulnerability} = \sum_{EF} \text{size}_{EF} \times \text{vulnerability measure}_{EF} \quad (1)$$

- $\rightarrow$ Robust to compositional changes within each EF over time and across jurisidictions
- $\rightarrow$ Provides a headline statistic that can be easily communicated
  - Complements the current richness of the report
- $\rightarrow$ No additional data required

2. A Simple Way for Consistent Measurements over Time

- After computing the weighted sum for each vulnerability measure

$$\text{Aggregate vulnerability} = \sum_{EF} \text{size}_{EF} \times \text{vulnerability measure}_{EF} \quad (2)$$

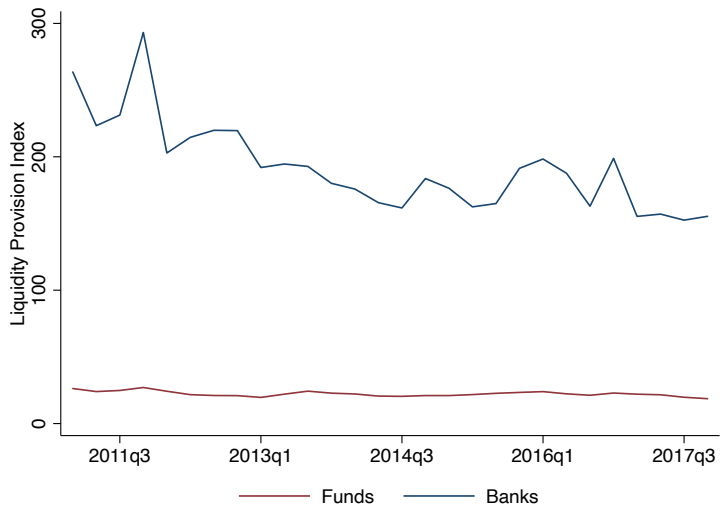
- Could further sum up different aggregate vulnerability measures to form an aggregate risk index *if they are sufficiently independent*
  - E.g., should not add up maturity transformation (MT) and liquidity transformation (LT)
- Note: Methodology inspired by the LMI Index (Bai, Krishnamurthy, and Weymuller 2018) and the LPI Index (Ma, Xiao, and Zeng 2024)

3. Benchmarking NBFI Risk Against Banking Sector Risk

- Could calculate the same aggregate vulnerability measures for the banking sector and present them along with those of NBFIs
- $\rightarrow$ Helps put NBFIs on the same footing as banks
- $\rightarrow$ Allows a broader audience to understand the importance and vulnerability of NBFIs, e.g., central banks, bank regulators
- $\rightarrow$ Captures risk more holistically across the financial intermediary
  - Can detect risk shifting between banks and NBFIs through interlinkages
- Bank data should be mostly available from existing sources

3. Benchmarking NBFI Risk Against Banking Sector Risk

- $\rightarrow$ Sheds light on the right ways to measure risk in the modern financial intermediary
  - Leverage/short-term debt used to capture liquidity risk at banks
  - Liquidity risk arises in NBFIs with minimal leverage like mutual funds
  - Liquidity tranformation (LT) is much broader than leverage
- E.g. LPI measures how much liquidity is transformed by \$1 in bank deposits versus \$1 in bond fund shares



Source: Ma, Xiao, and Zeng 2024

Suggestions

1. Incorporate new NBFIs: stablecoins and private credit funds
2. Consistent measurement of NBFI risk over time: size-weighted sum of vulnerability measures
3. Benchmarking NBFI risk: calculate and compare with the same aggregate vulnerability measures for banks

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Thank you once again!

References

Bai, Jennie, Arvind Krishnamurthy, and Charles-Henri Weymuller. "Measuring liquidity mismatch in the banking sector." The Journal of Finance 73.1 (2018): 51-93.

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