Non-bank financial intermediaries and financial stability[1]

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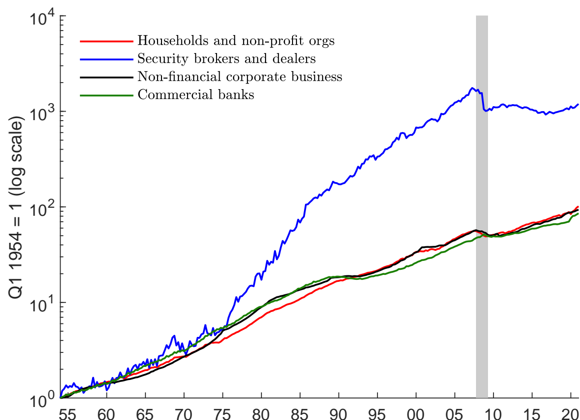
[1] The views expressed in this presentation are my own and do not represent those of the Federal Reserve Board, Federal Reserve System, Bank for International Settlements, their principals, or staff members.

An evolving financial system

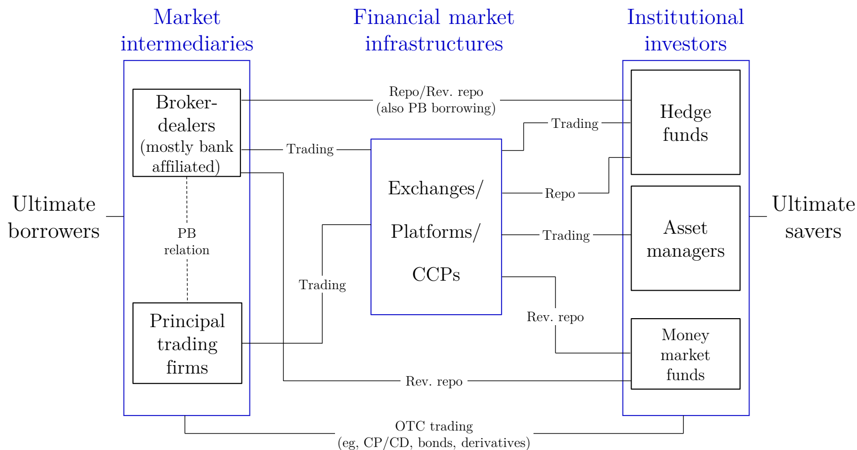
- The rise in broker-dealers' assets after 1980ish, and their flattening since the GFC, mark key structural changes in the financial system
  - Regulation is only part of the story



An example: The corporate credit market

- Starting in the late 1970s:
  - Bank loans became (relatively) less important
  - Corporate bonds gained ground
  - Dealers provided liquidity to market-based intermediation
- After the late 2000s:
  - Growth of corporate-bond mutual funds accelerated
    - They can generate spikes in liquidity demand
  - Liquidity provision by dealers slowed
- The risk of liquidity imbalances increased

The non-bank financial system



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   - Margins – a key element of non-bank credit intermediation – affect system-wide balance-sheet capacity
   - Margins are a useful risk-management tool for individual entities, but sudden increases can set off system-wide deleveraging spirals that propagate liquidity risk

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3) At times of stress, liquidity demand rises just when deleveraging constrains liquidity supply
   - March 2020 in the Treasury market
   - The policy debate

NBFIs' liquidity *demand*

- Focus on NBFIs with business models that involve leverage or some degree of liquidity transformation
  - Money-market funds
  - Mutual funds
  - ETFs, though the redemptions mechanism discourages runs
  - Hedge funds, leveraged though they often have long redemption notices

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- Principal trading firms (PTFs) buy and sell securities while keeping minimal inventories

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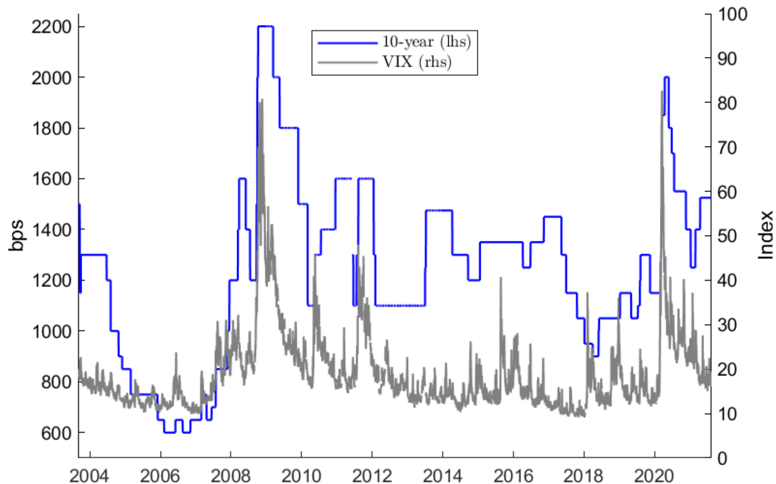
  - In relative-value arbitrage, instability in correlations – typical of market turmoil – leads to declines in balance-sheet capacity

Margins and volatility

- Volatility is the main driver of margins. Figure from Barth & Kahn (2021)



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- Mostly thanks to the popularity of relative-value trades, buying cheaper cash bonds and selling more expensive futures
- Leverage was key to earning a profit
- After 2017, hedge funds became more active in funding their positions. with capital-efficient “sponsored repo,” routed through a clearing platform and often funded by MMFs

Positioning in Treasury futures

March 2020 in Treasury markets

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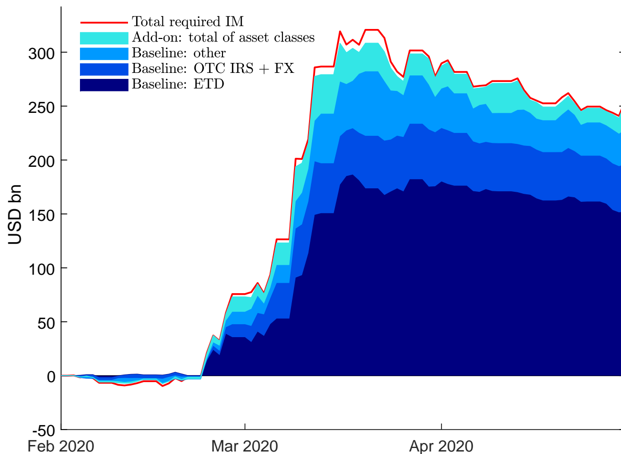
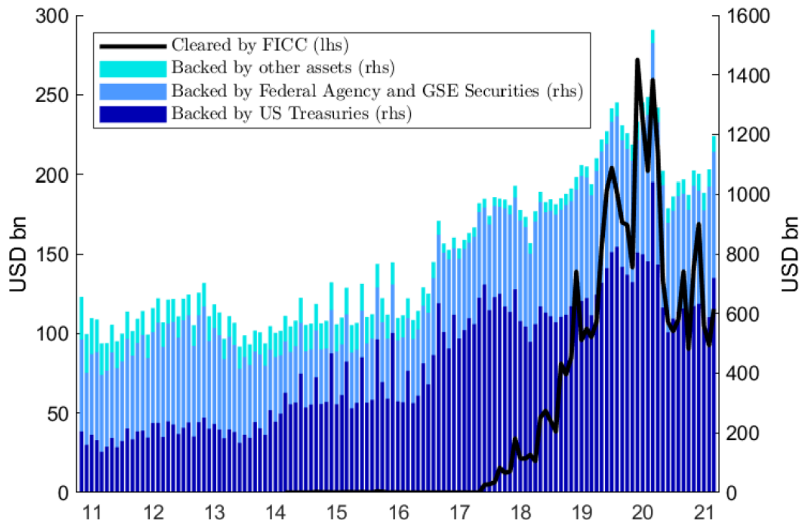
- The ensuing deleveraging led to position unwinds by hedge funds
  - Deleveraging was amplified by the recursive nature of debt capacity
  - Effectively, each position unwound generated externalities that led to more unwinding.
  - This is where the macroprudential perspective becomes relevant
  - Such dynamics were an important contributor – though not the only one – to market dysfunction during the early stages of the pandemic

The overall amount of CCP initial margins rose quickly

- Figure from BCBS, CPMI, and IOSCO (2021).



Sponsored repo reflected hedge-fund deleveraging



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    - Liquidity is available in good times and bad – which is crucial in a market-based intermediation framework like the current NBFI system
    - Moral hazard and the boom-bust cycles it contributes to are kept in check