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An Unintended Consequence of Holding Dollar Assets

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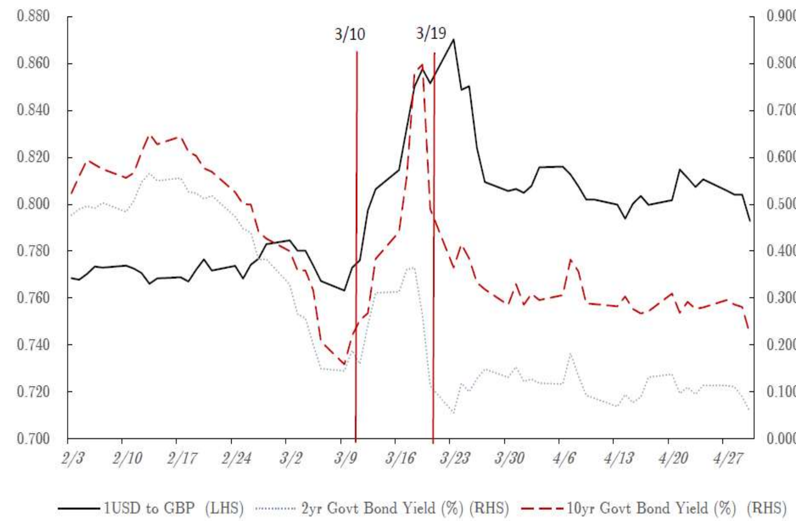
The Narrative

- Substantial foreign ownership of USD financial assets, hedged via FX swaps.
  - ➢ For every £1 in USD assets held, insurers hedge £0.5

- The chain of events:
  1. Covid volatile period
  2. USD appreciates (**black solid line)**
  3. FX swap (variation) margin calls
     - ➢ UK insurers paid £0.005 in VM for each £1 of FX derivatives holdings in the period of March 10-18.
  4. Liquidation of non-USD financial assets (e.g. gilts) to cover said margin calls
  5. Price pressure on gilts (yields spike, **red dotted line**).
     - ➢ A one std. dev. increase in ICPFs sell order flow associated with a 3.2bps increase in yields daily.



Source: Czech et al, 2021

The Implications

1. The proliferation of dollar assets and their hedging a likely source of domestic safe asset selling pressure at times of stress (or when the USD appreciates).

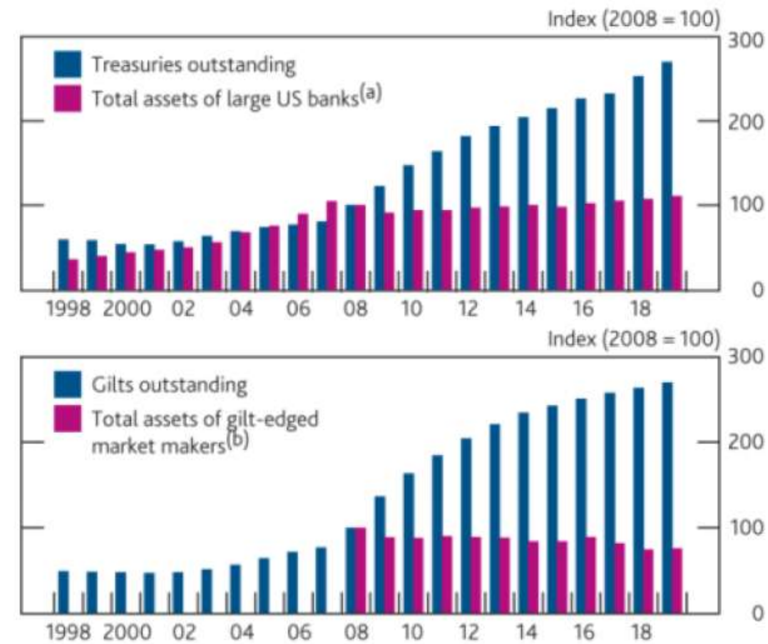
2. Gilt dealers may be balance sheet-constrained and unable to accommodate large client flows.

Policy context: The problem

- Dealers' capacity to intermediate trades in OTC fixed income markets may be approaching a limit.

- **G-bonds**: Outstanding notional amounts are growing relative to dealer balance sheets (and intermediation capacity)
  - ➢ A reason why the gilt price impact studied in the paper is present?

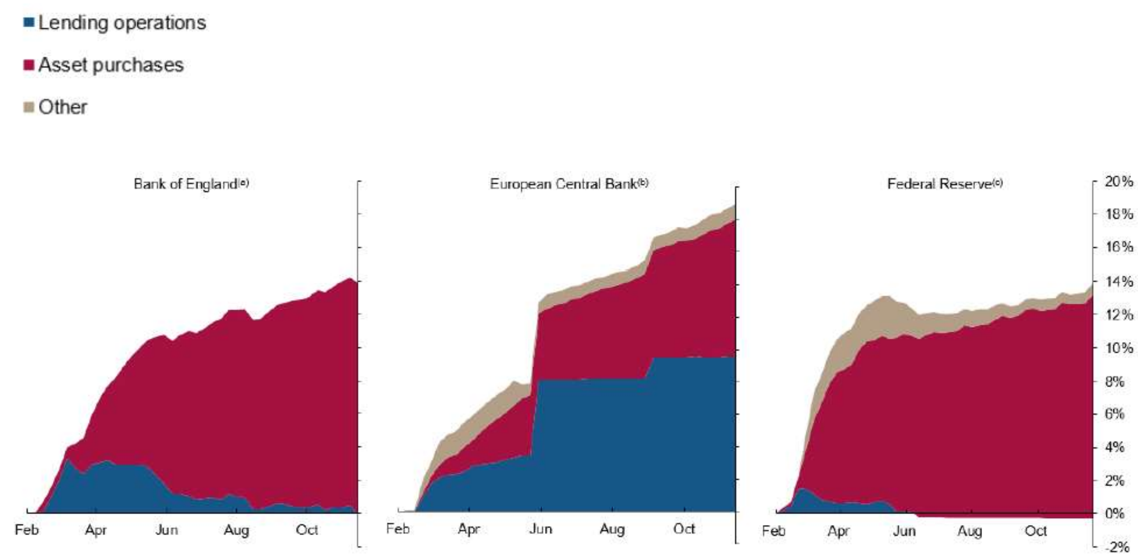
- **C-bonds**: "The U.S. corporate bond market supplied around $500 billion of new financing in the first half of 2021, compared to an average of $157 in the preceding ten years." (Becker and Benmelech, 2021)



Source: Hauser 2021

Central banks to the rescue?

- Central banks aggressively intervened via asset purchases during the Covid market events (chart).
- Hauser 2021, suggests that CBs could step in and act as **Market Makers of Last Resort**.
  - ➢ Nearly unlimited capacity to intermediate trades
- However, the problem seems to be more structural and therefore persistent, likely requiring a **more permanent** solution.
- In this context, any CB-based solution might not be a "last resort" one, thereby posing challenges on central banks' role and reputation.



Changes in components of central bank balance sheets since end-Feb 2020 (as % of 2019 nominal GDP)
Source: Hauser 2021

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Expanded Central Clearing?

- Currently in several G-bond markets central clearing is limited to the D2D or IDB segments
- Expansion of central clearing to the D2C segment would increase dealer balance sheet capacity via multilateral netting (graphic).
- *Caveat*: At times of stress, when client flow is more directional, the netting benefit (and associated balance sheet space capacity) of dealers will likely be lower.

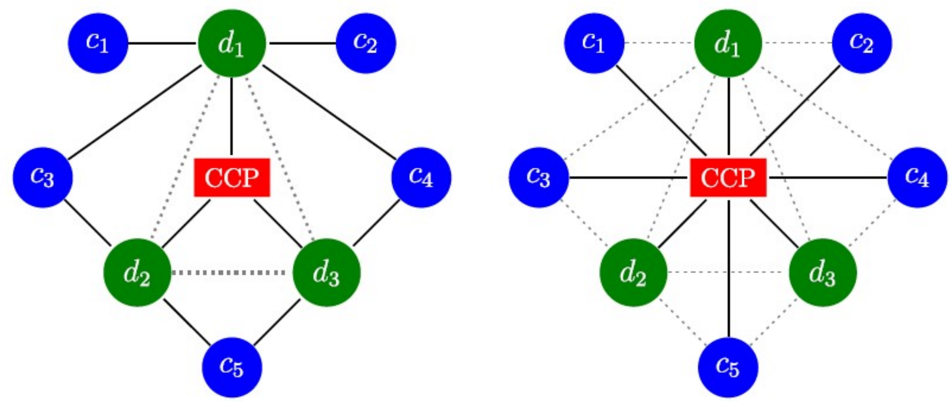

Illustration of current (left) and proposed expanded (right) clearing arrangements for US Treasuries
Source: Duffie, 2020

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Centralized bond trading?

- Bond trading onto **all-to-all**, **CLOB-like** platforms.
  - Trading need not be continuous
- Utilize any **additional balance sheet capacity** by entities that might be available and willing to provide liquidity
- Trades **not exclusively intermediated by dealers (or PTFs)**: Weakens dependency of bond market functioning on the balance sheets of relatively few (dealer) banks.
  - However, dealers/PTFs would be free to participate on any all-to-all venues as they do in equities
- At times of stress, this could also help moderate the vicious cycle between funding and market liquidity.
- Likely to make bond markets more competitive and more inclusive.
  - E.g. by reducing execution costs for retail investors
- Potential Implementation:
  - Wider participation in D2D CLOB platforms where available (e.g. BrokerTec, Nasdaq Fixed Income for US Treasuries, MTS for UK gilts etc.)
  - Order display requirement for brokers/no trade-through rule (Harris et al, 2015)

Centralized bond trading?

- There appears to be interest by non-dealer firms to join these platforms

- FT: “*A group of 17 US public pension funds and insurers have filed a lawsuit in New York alleging that their access to some electronic trading venues in the world’s biggest government bond market was blocked by a group of banks.*”

US Treasury dealers accused of collusion by big investors

Public pension funds and insurers join forces with claim about access to electronic trading venues

FT, 16/11/2017

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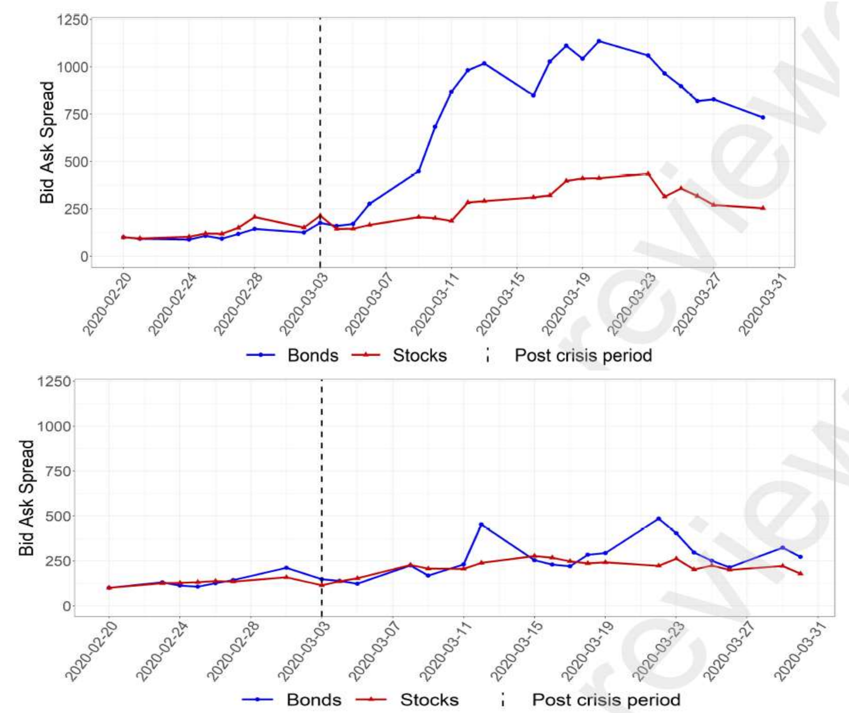
Promising evidence from Israel

- Israeli government and corporate bonds are mostly centrally traded on a CLOB at the Tel-Aviv SE.
- Substantial sell flow on Israeli G-bonds during March 2020 and associated price impact.
- However, BA spreads on Israeli G-Bonds barely changed in contrast to US Treasuries (chart)
    - ➢ Kutai et al, 2021: BA spreads in US Treasuries could have been 30%-60% lower, during March 2020, had they been traded on an exchange.



Average relative bid-ask spreads of US (top) and Israeli (bottom) government bonds and stocks, Feb-Mar 2020 (1000 = 1%)
Source: Kutai et al, 2021

Thank you!