



BANK OF ENGLAND



Building Financial Market Resilience: From Diagnosis to Prescription *Appendix*

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The FPC's Four Quadrants of Focus

Table 1: Quadrants

	Banks	Financial Markets
Good times	?	?
Bad times	?	?

Table 2: Quadrants

	Banks	Financial Markets
Recovery (2021)	TBD	Supportive
External Shock (2020)	Resilient	Vulnerable



March 2020: From “Flight to Quality” to “Dash for Cash”

Figure 1: “Dash for Cash” Map

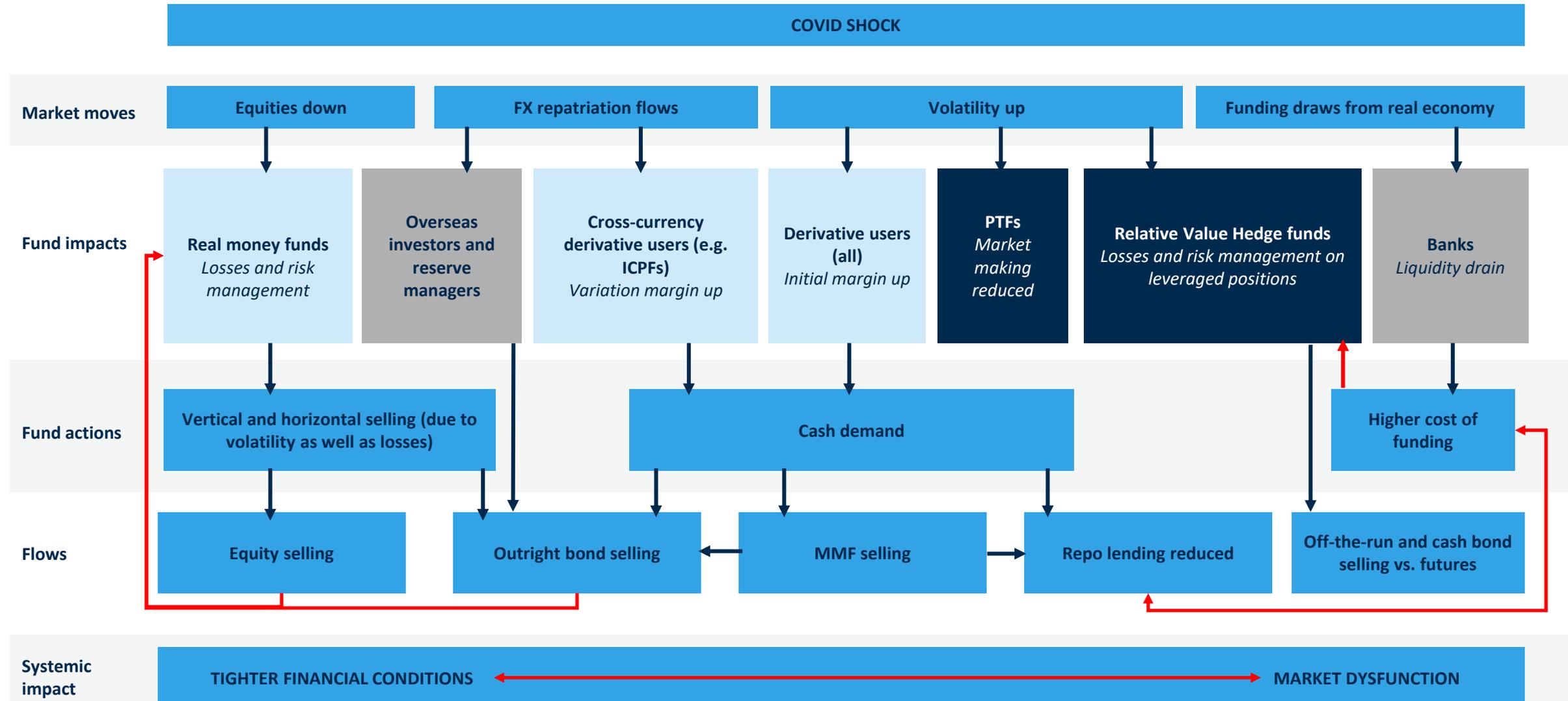
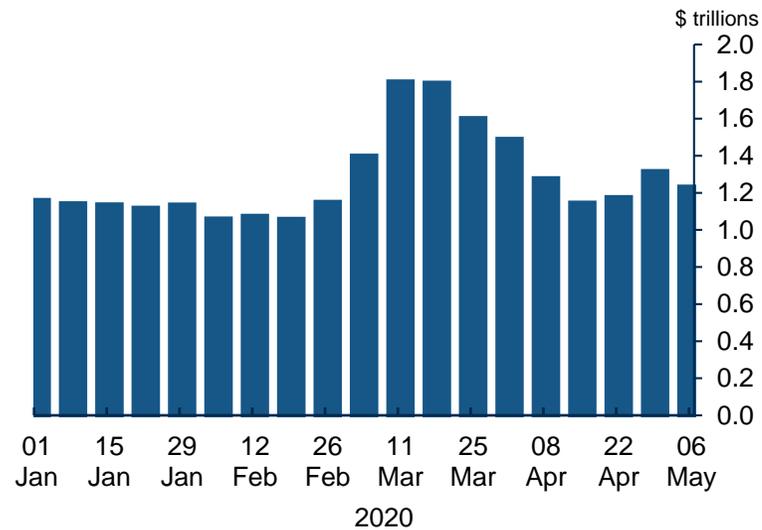


Chart 1: Primary dealer net inventories of US Treasuries

Net-dealer maturity-weighted position



Source: Federal Reserve Bank of New York and Bank calculations
 The aggregate net inventory (long minus short) of primary dealers, maturity weighted by multiplying the net position in dollars by the number of years to the centre of each reported maturity class, to roughly reflect the sensitivity of market values to changes in yields.

Chart 2: Cumulative net purchases of gilts by dealers



Source: MiFID II transaction data and Bank calculations
 (a) Includes all conventional UK government bonds. Measured in nominal value.
 (b) Estimated from MiFID II transaction reports
 (c) Smoothed using a 5-day centred moving average



Outright Selling Pressure

Figure 2: “Dash for Cash” Map

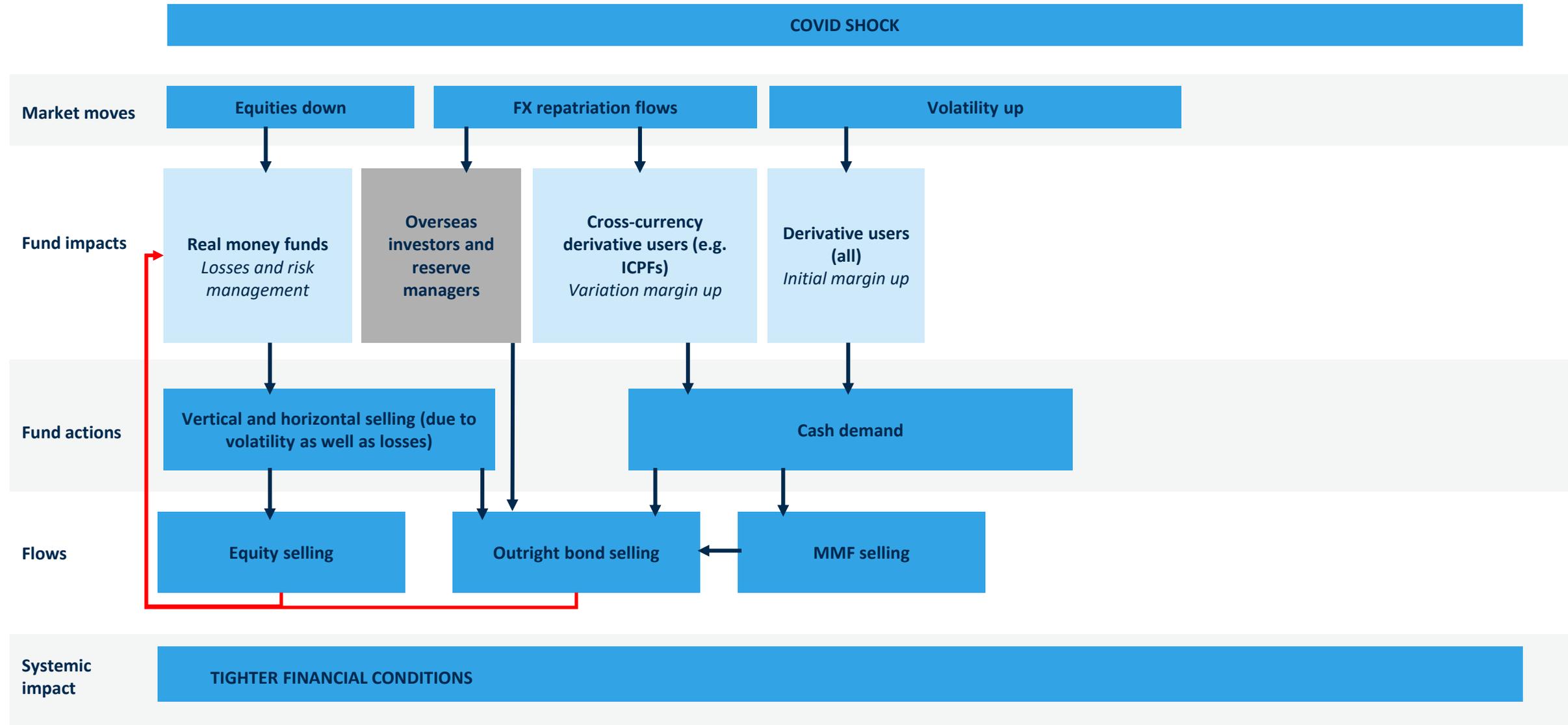
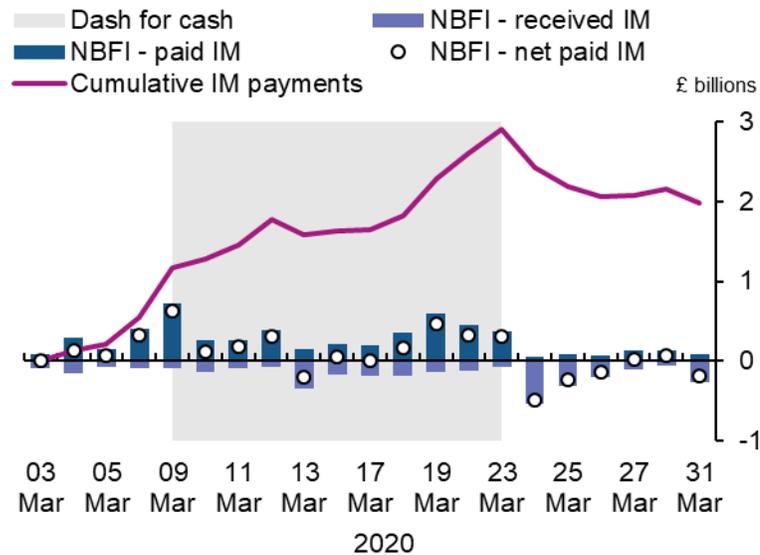
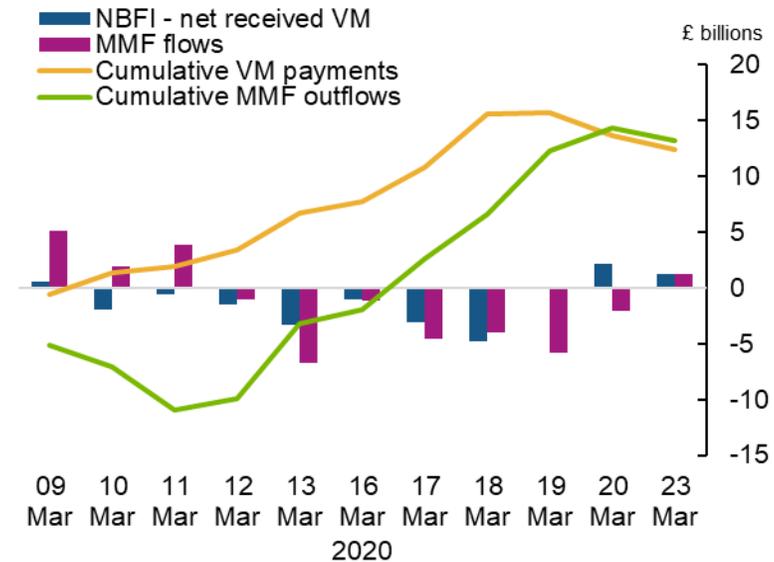


Chart 3: Estimated initial margin payments for UK NBFIs



Sources: Supervisory returns and Bank calculations.
 Notes: Supervisory data on initial margins demands on NBFI clients of clearing members at UK CCPs act as a proxy for the initial margin paid by NBFIs. The estimates likely provide a lower bound for IM demands, as the data do not include IM requirements for uncleared derivatives as well as cleared trades at non-UK CCPs.

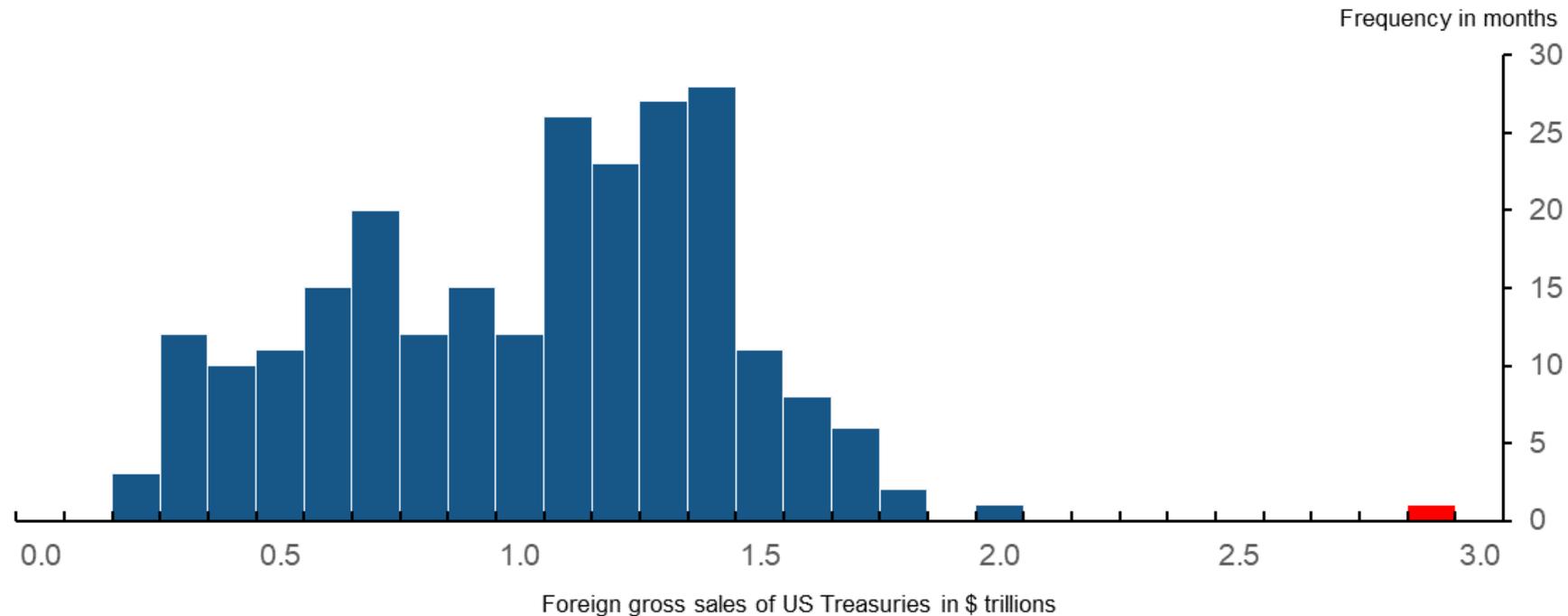
Chart 4: Outflows from sterling money market funds and estimated NBFI variation margin demands



Sources: Crane Data LLC, EMIR Trade Repository Data, and Bank calculations.
 Notes: Variation margin calls are estimated using the EMIR Trade Repository Data on interest rate swaps, forward rate agreements, inflation swaps, and cross-currency basis swaps. The estimates are based on the methodology used in Bardoscia et al. (2019), 'Simulating liquidity stress in the derivatives market'.

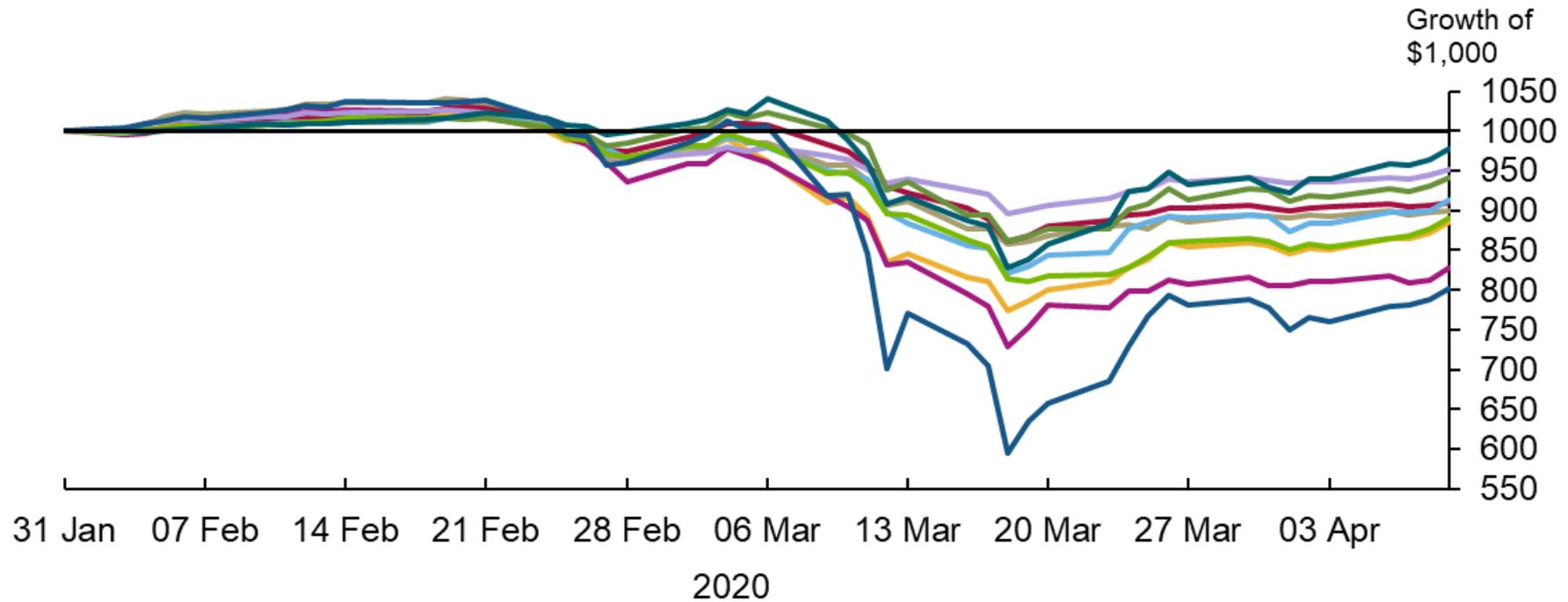
Chart 5: Monthly gross sales of U.S. Treasury bonds and notes by foreigners to U.S. residents

Data from January 2000 to March 2020



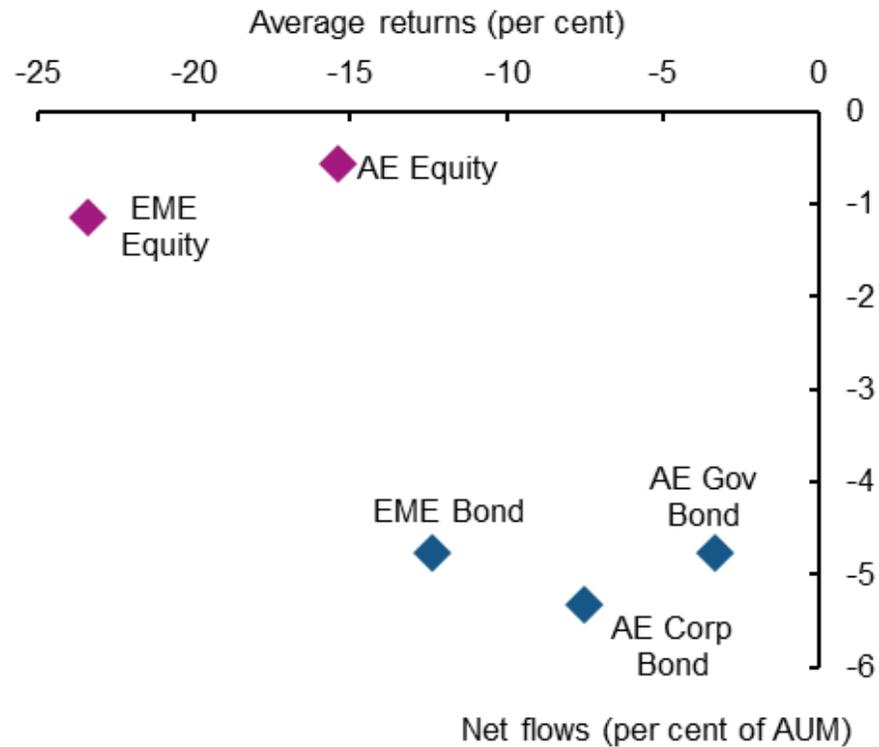
Sources: U.S. Department of the Treasury, Treasury International Capital System and Bank calculations

Chart 6: Performance of a Sample of Risk Parity Mutual Funds



Sources: MPI Stylus Pro Software

Chart 7: Open-ended fund flows and average returns in March 2020



Sources: Morningstar and Bank calculations.

(a) Funds must have at least 30% of their portfolio invested in the asset class (equity, bond, corporate bond or government bond) and region (advanced economies (AE) or emerging market economies (EME)) to be considered as part of each category.



Funding and Market Disruption

Figure 3: “Dash for Cash” Map

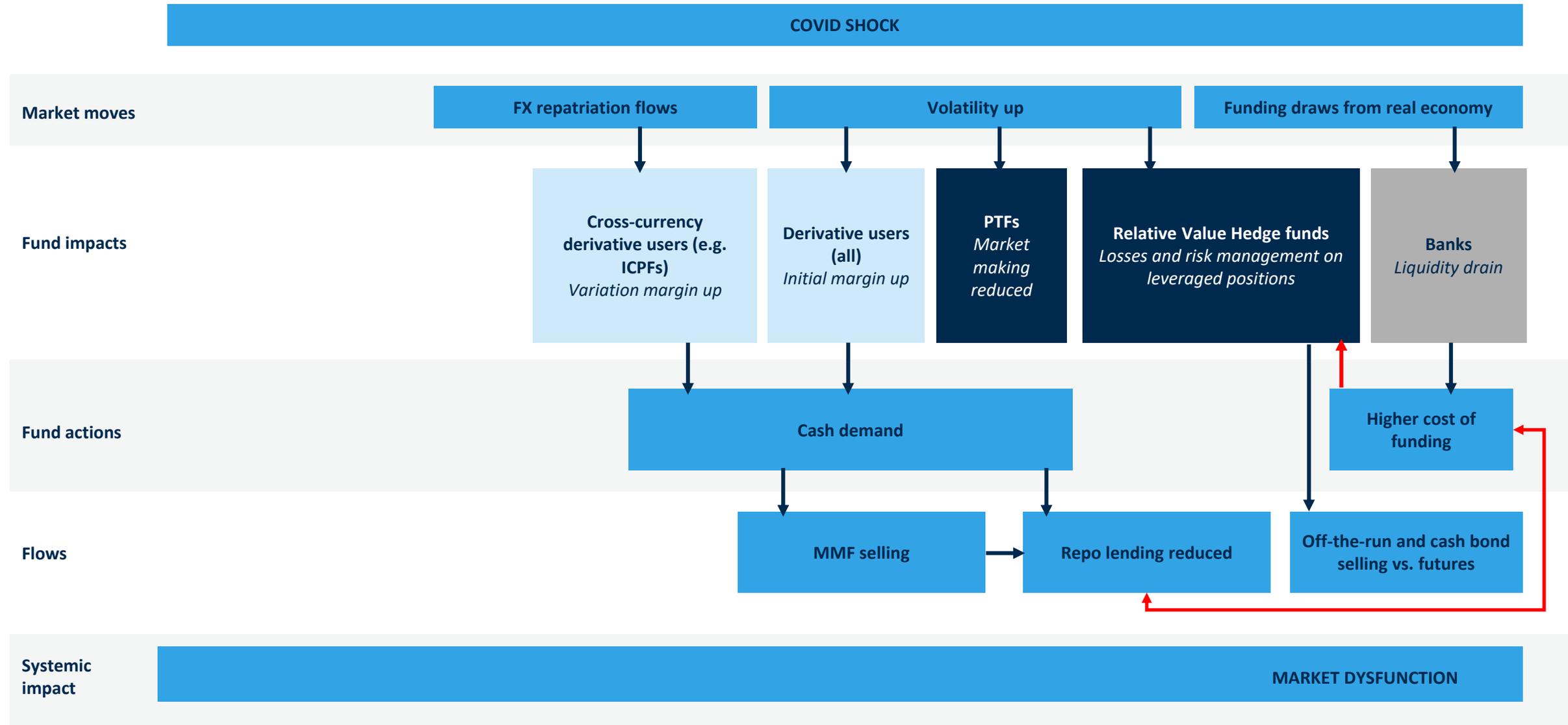
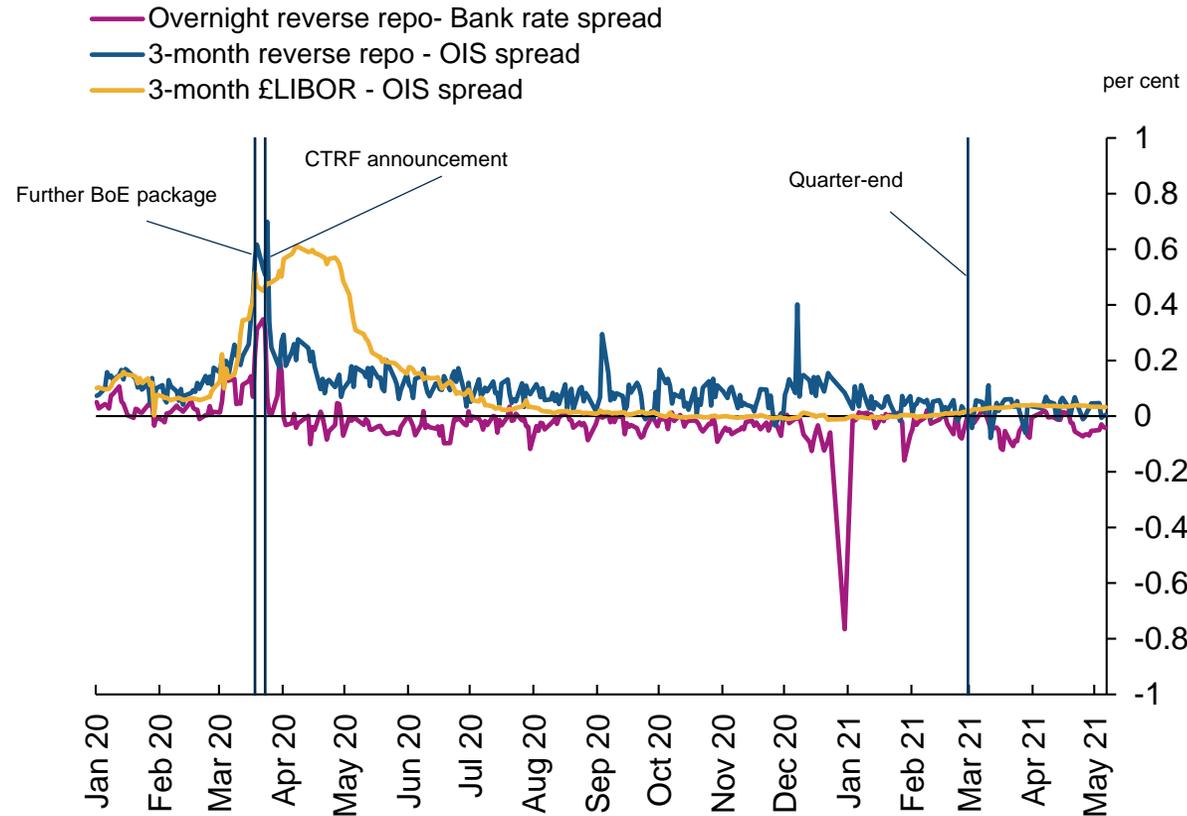
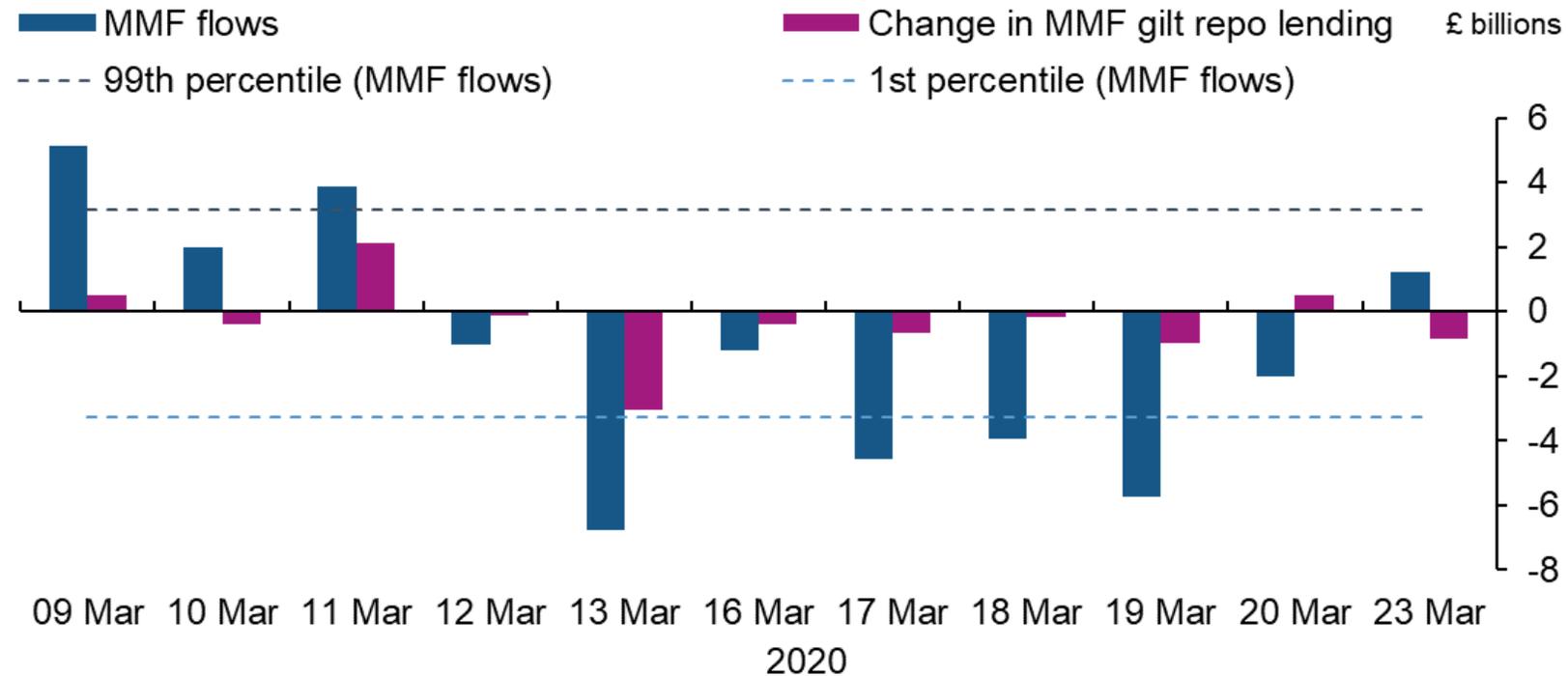


Chart 8: Sterling money market spreads



Source: Bank of England Sterling Money Market data collection and Bank calculations. Notes: The overnight reverse repo rate is for cleared DBV (Delivery by Value) transactions. The 3-month reverse repo rate uses only transactions estimated to be non-nettable (under leverage ratio rules). Both rates are volume-weighted and are stated from the perspective of dealers

Chart 9: MMF outflows and changes to gilt repo lending

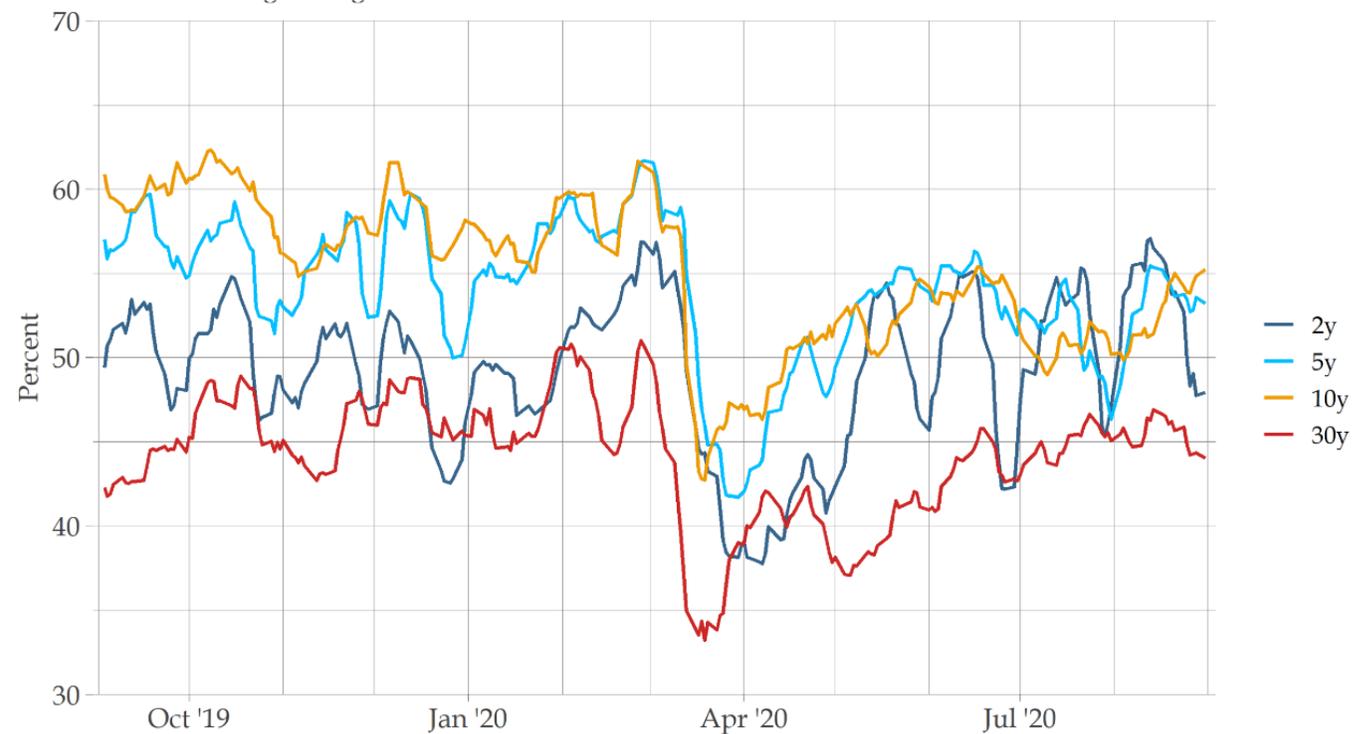


Sources: Crane Data LLC, Sterling Money Market Database, and Bank calculations.

(a) The 1st and 99th percentiles of daily MMF flows are calculated over the period 02 January 2014 to 02 November 2020.

Chart 10: PTF shares of volumes on electronic interdealer platforms

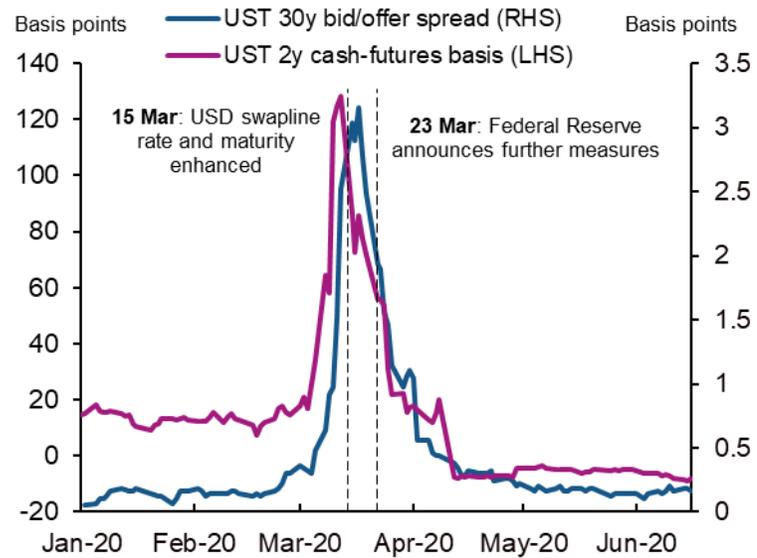
1-week moving averages; volumes are limited to nominal on the runs



Sources: Treasury, TRACE

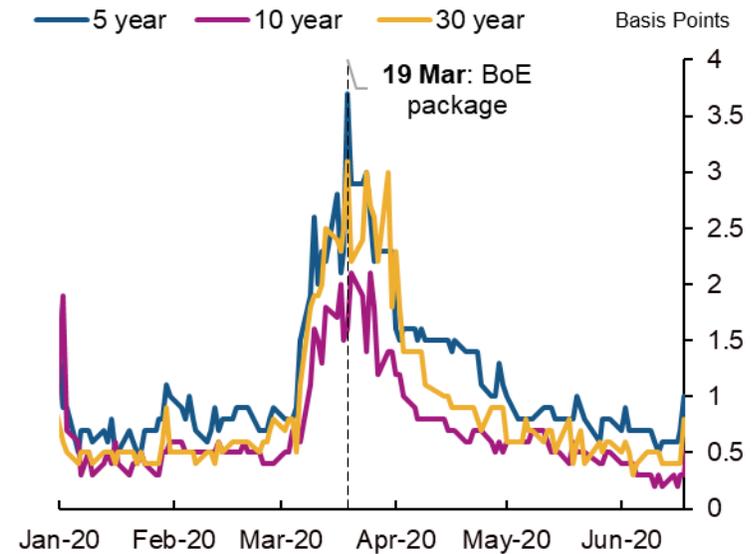
Treasury Deputy Secretary Muzinich [link](#)

Chart 11: UST Bid-offer spreads



Source: Bloomberg Finance L.P., Refinitiv Eikon from LSEG and Bank calculations.

Chart 12: Gilts Bid-offer spreads



Source: Refinitiv Eikon from LSEG and Bank calculations.



Proposals

Proposals

- **Increase transparency and reduce pro-cyclicality in margin calculations.** Ensure all derivatives users enhance planning for, and management of, liquidity outflows.
- **Reform money market funds** so that they are either regulated and managed in a way that allows them to perform their function in times of stress, or are no longer considered cash-like investments
- **Ensure that open-ended investment funds align their redemption terms with the liquidity of their assets.** They can do this by holding more liquid assets, by lengthening redemption periods, or through more effective use of swing pricing.
- **Make it a principle to always analyse market structure changes in the context of their impacts on liquidity in bad times as well as good.**
- **Consider tools to reduce both jump-to-illiquidity risk, and the risk that excessive leverage by non-bank financial institutions causes market dysfunction in stress.**
- **Examine central bank tools, including exploring offering central bank government bond repo, with very high haircuts, to a broad array of counterparties that meet appropriate standards.**