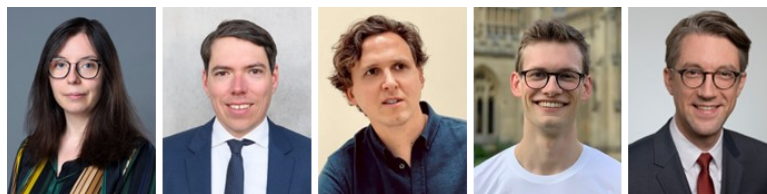


Is the EU Money Market Fund Regulation fit for purpose? Lessons from the COVID-19 turmoil*



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The turmoil seen in March 2020 highlighted key vulnerabilities in the money market fund (MMF) sector. We assess the effectiveness of the EU's regulatory framework from a financial stability perspective and draw three important lessons. First, investment in non-public debt assets exposes MMFs to increased liquidity risk, highlighting the vulnerability from liquidity mismatch between MMF assets and liabilities. Second, low-volatility net asset value (LVNAV) funds are particularly vulnerable to liquidity shocks, given that they invest in non-public debt assets while offering a stable value to their investors. Third, MMFs seem reluctant to draw down on their liquidity buffers during periods of stress, which is amplified by threshold effects associated with breaching the liquidity requirements. Overall, our findings point to fragilities in the EU MMF sector which underline the case for a strengthened regulatory framework. Sensible policy options include removing threshold effects and enhancing the liquidity risk profile of private debt MMFs, for instance by increasing their liquidity buffers while ensuring that the buffers are usable during periods of stress.

*The results, as well as a more detailed methodology, are published in the ECB Macroeprudential Bulletin No. 12 and as [ECB Working Paper No. 2737](#) (Capotă et al. 2021, 2022). These papers should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

Introduction

MMFs are primarily used by investors to store liquidity and manage their cash needs. By investing in short-maturity debt, MMFs also provide short-term funding for financial institutions, corporations, and governments. In this sense, MMFs play a crucial role in the financial system as intermediaries between demand and supply of short-term funding.

The global financial crisis of 2008 highlighted key vulnerabilities in the MMF sector with the potential to amplify risks in the wider financial system. In 2012, the International Organization of Securities Commissions identified several factors that make MMFs vulnerable to investor runs. These include first-mover advantages and a disconnect between the risks that MMF investors perceive and existing credit, interest rate, and liquidity risk (International Organization of Securities Commissions, 2012).

In 2017, EU legislators adopted the EU Money Market Fund Regulation.¹ The new regulatory framework aimed at improving the resilience of the European money market fund sector while maintaining MMFs' ability to provide short-term funding to banks and the real economy. The new framework devised three main regulatory types of MMFs and introduced new rules regarding their portfolio compositions:

- Constant net asset value (CNAV) funds maintain a stable value per share, if the gap between the stable and marked-to-market NAV is lower than 50 basis points. They are required to invest mainly in public debt.
- Low volatility net asset value (LVNAV) funds are permitted to invest in a broader range of assets, including commercial paper and certificates of deposit. They trade at a stable value, as long as the gap between the stable and marked-to-market NAV is lower than 20 basis points.
- Variable net asset value (VNAV) funds can invest in the same range of assets as LVNAV funds, but trade at a marked-to-market NAV. There are two types of VNAV funds, with a shorter and a longer maturity profile.

The MMF Regulation also introduced new liquidity requirements. CNAV and LVNAV funds face the same requirements in terms of daily and weekly liquid assets. If their weekly liquid assets fall below a certain threshold, these funds may need to consider applying liquidity fees or temporary redemption suspensions. VNAV funds have lower liquidity requirements and do not need to consider liquidity management tools if they breach the weekly liquid asset threshold.

Following the onset of the COVID-19 crisis in early 2020, private debt MMFs experienced significant outflows resulting in exceptional challenges for managing liquidity. While the level of stress stabilised following central bank policy actions, the episode exposed vulnerabilities in the sector arising from liquidity mismatch between MMFs' assets and liabilities.

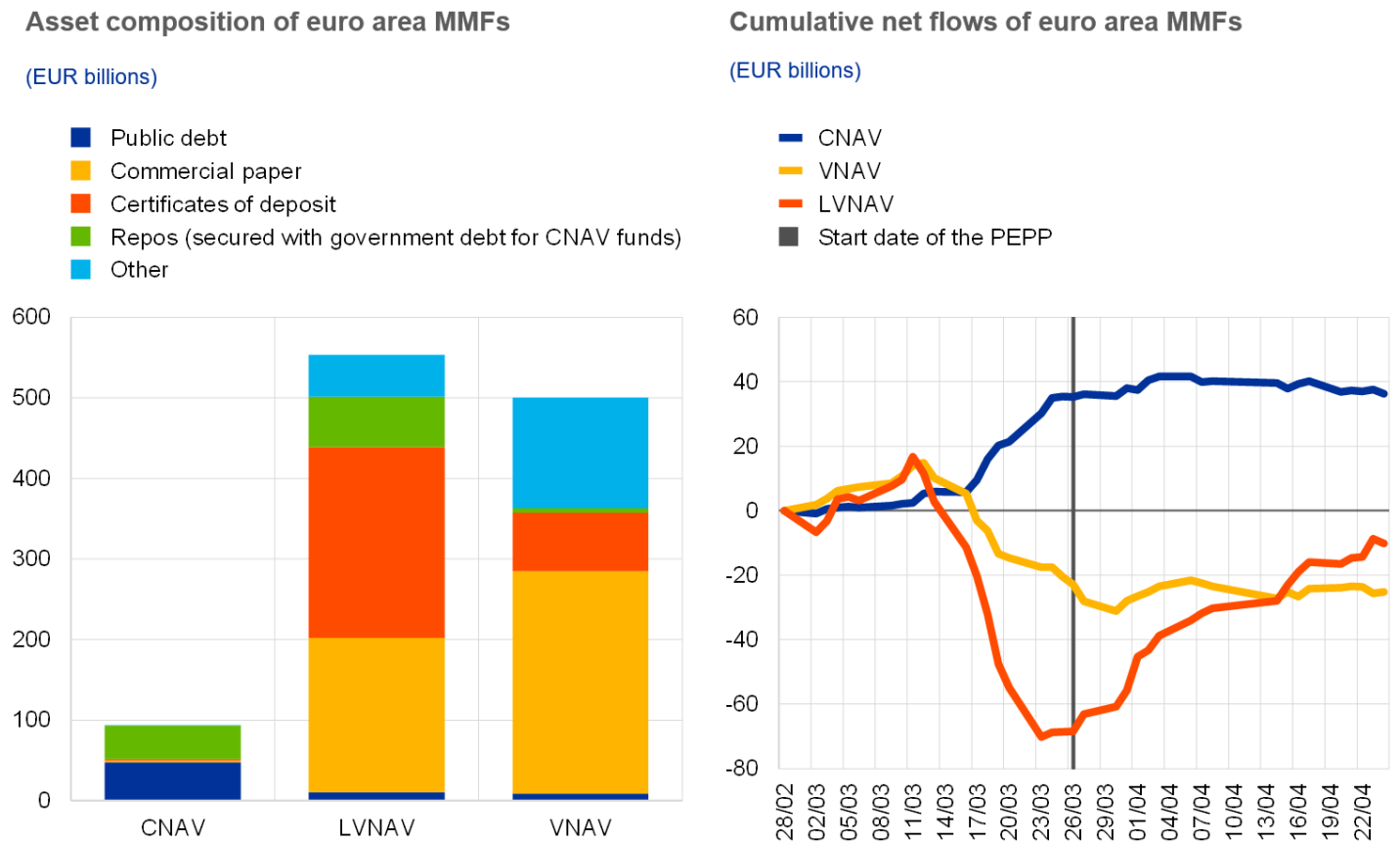
This policy brief summarises the findings of a recent analysis which assesses the effectiveness of the EU's regulatory framework from a financial stability perspective (Capotă et al., 2022). By investigating the behaviour of investors and fund managers during the COVID-19 market turmoil in March 2020, this policy brief highlights fragilities in the European MMF sector and calls for strengthening the regulatory framework for private debt MMFs in the EU.

¹ Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds.

Non-public debt investment exposes MMFs to liquidity risk

Chart 1 (left panel) shows the portfolio size and composition across fund types at the end of February 2020. With around 550bn EUR in total net assets, LVNAVs are the largest fund type, followed by VNAV funds (around 500 bn EUR) and CNAV funds (around 100bn EUR). While CNAV funds invest largely in government securities, LVNAV and VNAV funds are mostly invested in commercial paper and certificates of deposit, which are generally characterized by low levels of liquidity even in normal times (Financial Stability Board, 2020).

Chart 1: Outflows were concentrated in LVNAV and VNAV funds, which largely invest in commercial paper



Sources: Crane Data, Refinitiv Lipper and ECB calculations. Notes: The left-hand panel shows the aggregate composition of different types of MMFs on 28 February 2020. The total assets of each type of fund are based on data from Refinitiv Lipper, while the relative composition of those portfolios is based on information from Crane Data. The right-hand panel is based on Refinitiv Lipper and shows cumulative daily net flows between 28 February and 22 April 2020. The vertical line denotes 26 March 2020, which was the start date of the ECB's pandemic emergency purchase programme (PEPP).

The large portfolio share in non-public debt exposes LVNAV and VNAV funds to liquidity risk. This can result in larger outflows during times of market stress, as has been seen in March 2020. The right panel of Chart 1 shows the net flows across fund types from the end of February to the end of April 2020. Following the onset of the COVID-19 crisis in Europe, both LVNAV and VNAV funds experienced substantial outflows, while CNAV funds saw net inflows.

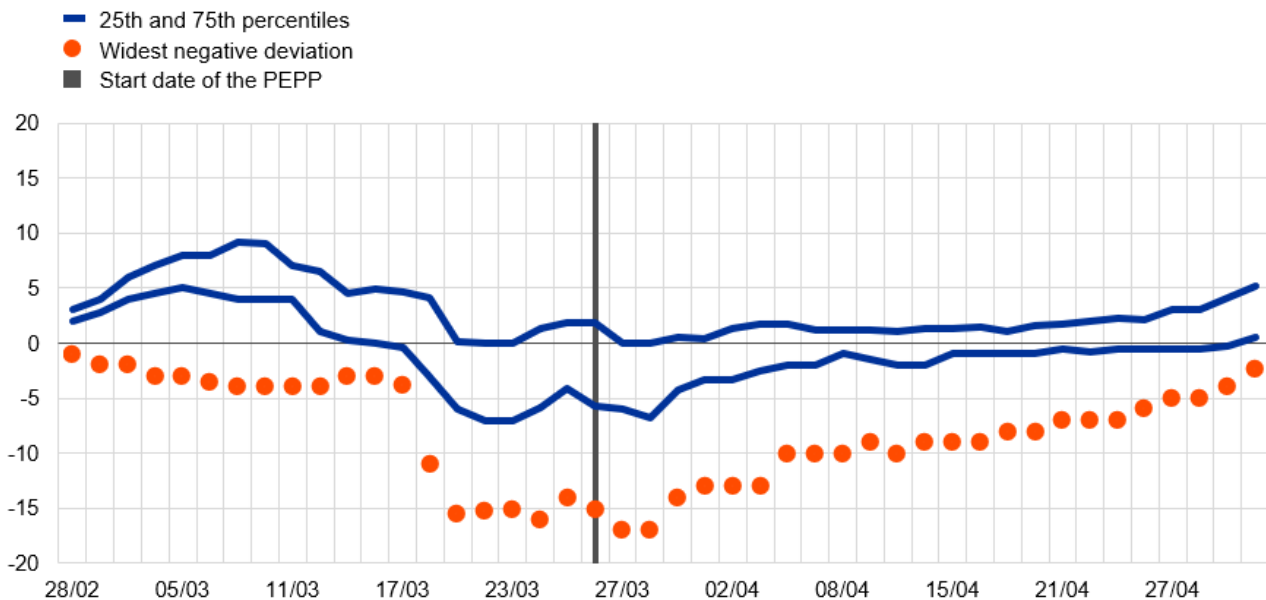
Asset liquidity is an important factor in explaining net fund flows during the onset of the COVID-19 pandemic in March 2020. After controlling for a wide of range of fund characteristics including the regulatory type, return, currency, age, and size, we find that daily outflows during the Covid-19 turmoil were around 0.7-0.9 percentage points higher for more illiquid funds (investing largely in commercial paper and certificates of deposit), relative to other MMFs holding more liquid assets (Capotă et al. 2022). Anecdotal evidence of MMFs asking issuing banks to buy back their commercial paper suggests a lack in secondary market liquidity of these assets (European Systemic Risk Board, 2020).

The LVNAV framework and liquidity risk

LVNAV funds are allowed to invest in commercial papers and certificates of deposit, while offering a constant NAV. However, the shares must trade at a variable NAV if the difference between the marked-to-market NAV and the constant NAV exceeds 20 bps. If the marked-to-market value falls below the threshold, the fund is converted to variable NAV and investors will suffer a loss. This might incentivise them to redeem their shares before the threshold is breached.

As shown by Chart 2, in March 2020, US dollar-denominated LVNAV funds moved closer to their lower valuation threshold at -20 basis points. The prospect of breaching the regulatory threshold may have incentivised some investors in these funds to redeem their shares during the March 2020 turmoil. Our empirical analysis shows that net outflows during this period were larger for funds with a higher risk of breaching the valuation threshold relative to other funds. The analysis controls for a number of other factors, including fund return, standard deviation of the return, age, total net assets, weekly liquidity assets, a portfolio illiquidity dummy as well as fund and day fixed effects (see Capotă et al. 2022).

Chart 2: Some USD-denominated LVNAV funds came closer to breaching the lower valuation threshold during the turmoil of March 2020
NAV deviations from stable value (in basis points)



Sources: Crane Data and ECB calculations. Notes: The blue lines show the 25th and 75th percentiles of the NAV deviations for US dollar-denominated LVNAV funds. The red dots show the largest negative NAV deviations on each day. The vertical line denotes 26 March 2020, which was the start date of the PEPP.

MMFs' use of liquidity buffers

The MMF Regulation also introduced new weekly and daily liquidity buffers to strengthen MMFs' ability to meet redemptions with cash from maturing assets and to prevent their assets from being liquidated at heavily discounted prices. If a MMF does not meet the minimum requirements for liquidity buffers and if the fund experiences daily redemptions above 10% of its total assets, MMFs need to consider temporarily suspending, limiting redemptions or applying liquidity fees (VNAVs are excluded from this rule). In stress periods, this can incentivise investors to redeem from funds that are close to the regulatory threshold to avoid becoming subject to suspensions or fees.

Our analysis shows that the level of liquidity buffers is an important factor in explaining fund flows during the March 2020 market turmoil, controlling for a wide set of fund characteristics as well as day fixed effects and fund fixed effects. While we do not find a significant relationship between lagged liquidity buffers and net flows during normal periods, we find that funds with lower liquidity buffers face significantly higher outflows relative to MMFs with higher liquidity buffers during crisis periods. This, in turn may have discouraged some fund managers from drawing down extensively from their liquidity buffers in March 2020 (Capotă et al. 2022).

Conclusions and policy implications

Our findings suggest that liquidity mismatch is a key vulnerability in the MMF sector, which can impact investors' behaviour and underlying markets. MMFs that invest predominately in less liquid private debt assets are vulnerable to liquidity risk from large and sudden outflows. Private debt funds that offer a stable value to their investors are particularly vulnerable to liquidity shocks. As our findings suggest, MMFs are reluctant to draw down on their liquidity buffers during periods of stress. Since the activation of possible liquidity management tools, such as fees or gates, is linked to regulatory thresholds, this can further amplify investor outflows and reduce the propensity of fund managers to use their liquidity buffers.

Several measures have been proposed to enhance the resilience of the MMF sector to future shocks and reduce systemic risk (see, for example, Grill et al, 2022a). Sensible policy options include removing threshold effects and enhancing the liquidity risk profile of private debt MMFs, for instance by increasing their liquidity buffers while ensuring that the buffers are usable during periods of stress. Importantly, any regulatory reforms should be targeted at addressing the identified vulnerabilities in MMFs, while not unduly restricting the economic functions that MMFs provide for investors and corporate funding (see Grill et al., 2022b). ■

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