April 11, 2022

Securities and Exchange Commission
Attn: Vanessa A. Countryman, Secretary
100 F Street NE
Washington, DC 20549-1090

Re: Request for Comment on Money Market Fund Reforms, File No. S7-22-21

Thank you for the opportunity to comment on proposed amendments to rules governing money market funds, as described in S7-22-21 The authors of this letter are Samuel Hanson, William L. White Professor of Business Administration at Harvard Business School, David Scharfstein, Edmund Cogswell Converse Professor of Finance and Banking at Harvard Business School, and Adi Sunderam, Willard Prescott Smith Professor of Corporate Finance at Harvard Business School. We write in our individual capacities as financial economists, not on behalf of Harvard or any other organizations with which we are affiliated.[1]

The main amendments proposed in S7-22-21 require institutional prime money market funds to hold more liquid assets, eliminate liquidity fees and redemption gates for these funds, and require them to use swing pricing to determine the prices at which shareholders can redeem their shares. Enhancing liquidity requirements will help institutional prime money market funds deal with large withdrawals, and we thus support this amendment. We also support eliminating liquidity fees and redemption gates as they exacerbate incentives for money market fund investors to run during periods of stress. Indeed, for this reason, we opposed their inclusion in the 2016 reforms. We believe that there are difficult design issues with respect to swing pricing and that this pricing system—like fees and gates—could exacerbate run incentives. While enhancing liquidity requirements and eliminating fees and gates are steps in the right direction, we do not think these measures go far enough to enhance the stability of money market funds. As a result, we continue to argue that money market funds should be required to have loss-absorbing capital to protect investors and reduce their incentive to run during periods of stress. Risk-based capital also reduces a fund's incentive to take excessive risk in normal times.

Background

In 2014, after several years of study, the SEC approved new regulations for prime money market funds (MMFs), which were implemented in 2016. These new regulations were intended to prevent sudden mass redemptions from MMFs of the sort that occurred in September 2008 during the height of global financial crisis. The goal of these reforms was not just to protect investors but also to protect the broader financial system given the important role that prime MMFs play in funding large global financial institutions. The SEC's new regulations included the introduction of floating net asset values (floating NAVs) for institutional prime MMFs, as well as liquidity fees and redemption gates for all prime funds.

[1] David Scharfstein is a director of M&T Bank Corporation. The views presented here are his personal views. He is not representing the views of M&T Bank Corporation.

On September 17, 2013, in response to a request for comments on the proposed rule, we submitted a letter to the SEC arguing that the proposed reforms were inadequate. We quote from our 2013 letter:

> *We think that the floating net asset value (NAV) alternative would not be a significant improvement over the status quo and that it would not meet the SEC's goals of "address[ing] the heightened incentives shareholders have to redeem shares in times of financial stress" and "improv[ing] the transparency of money market fund risks through more visible valuation and pricing methods." Moreover, we believe that liquidity fees and redemption gates could actually exacerbate the incentive for shareholders to redeem shares ("run") during a period of financial stress, and could thus be a step back relative to the status quo.*

Both of these concerns were borne out in March 2020, when there was another run on institutional prime MMFs due to the financial stresses triggered by the onset of COVID-19. As noted in the President's Working Group Report of December 2020, institutional prime MMFs experienced redemptions equal to 30% of total assets between March 11 and March 24, 2020, including three consecutive days where redemptions exceeded 5%.[2] Neither floating NAVs nor liquidity fees and redemption gates helped prevent this run on institutional funds. As in 2008, the 2020 run on MMFs was only stopped after extraordinary interventions by the Federal Reserve and the U.S. Treasury.

As we noted in our 2013 letter, because the assets held by prime money market funds—commercial paper, certificates of deposits, repurchase agreements—have limited secondary market liquidity, it is difficult to mark them to market, particularly during periods of financial stress. This means that the NAV of a prime MMF cannot float in any meaningful sense. During periods of market-wide stress, it is in investors' interest to redeem early, before concerns about the quality or liquidity of a prime fund's assets can be reflected in its NAV. Getting out early allows investors to avoid taking even small losses. Thus, as demonstrated in March 2020, prime MMFs are vulnerable to runs even if their NAVs are nominally floating.

In our 2013 letter, we also argued that liquidity fees and redemption gates would not forestall incipient runs but instead would accelerate them because institutional investors would preemptively withdraw if they feared that prime MMFs were about to impose fees or gates. Recent research by Federal Reserve Board economists supports this view: funds with liquidity levels closer to the threshold that would allow them to impose fees and gates experienced larger redemptions in March 2020.[3]

The events of 2008 and 2020 show that incremental reforms will not meaningfully enhance the stability of prime MMFs. The core problem is that prime MMFs use risky and illiquid assets to back liabilities (MMF shares) that investors take to be safe and liquid and that they treat as close substitutes for bank deposits and other "cash-like" instruments. It has been long understood that

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[2] "Report of the President's Working Group on Financial Markets:
Overview of Recent Events and Potential Reform Options for Money Market Funds." December 2020.

[3] Lei Li, Yi Li, Marco Macchiavelli, and Xing Zhou (2021), "Liquidity Restrictions, Runs, and Central Bank Interventions: Evidence from Money Market Funds," *The Review of Financial Studies* 34:11, 402–543.

mismatches in safety and liquidity of the assets and liabilities of financial institutions leave them vulnerable to runs that can threaten their own viability and the stability of the broader financial system. Regulators use a combination of capital and liquidity requirements to reduce the financial stability risks posed by these mismatches at banks and other institutions.

Evaluation of Current Proposal

Elimination Liquidity Fees and Redemption Gates

For the reasons stated above and in our 2013 letter, we believe that liquidity fees and redemption gates encourage runs, which proved to be the case in March 2020. We therefore support the SEC's proposal to eliminate fees and gates. However, strong run incentives existed before the 2016 reforms, as demonstrated in 2008, and they will continue to exist if fees and gates are eliminated. These run incentives exist because the underlying assets of money market funds are illiquid, while money market funds offer investors same-day liquidity. Thus, simply eliminating liquidity fees and redemption gates will be insufficient to address the inherent instability of money market funds.

Enhanced Liquidity Requirements

Enhanced liquidity better positions a fund to meet redemptions without selling illiquid assets at a discount to par value. We support the proposal to introduce more substantial liquidity requirements by requiring funds to hold at least 25% of total assets in daily liquid assets and at least 50% of total assets in weekly liquid assets.

However, two caveats are important to consider. First, as noted in the proposal, the SEC's analysis indicates that if they had been operative in March 2020, these requirements would have reduced, but not eliminated, the risk that funds would have had to sell illiquid assets to meet redemptions. Indeed, one could argue that the SEC's analysis significantly underestimates the remaining risk because it includes a period when the Federal Reserve and U.S. Treasury intervened to support money market funds. If one of the goals of the proposed amendments is to reduce the likelihood of future government support, minimum liquidity requirements would likely have to be set even higher than what is being proposed. Alternatively, as we suggest below, other stability-enhancing tools such as capital or private liquidity commitments will be needed.

Second, there is a risk that funds will not be willing to dip below the minimum liquidity requirements in times of stress even though the proposal eliminates liquidity fees and redemption gates. We think it makes sense not to penalize funds for going below the minimum threshold, but there is still the possibility that funds will not want to breach the minimum to avoid sending a negative signal to the market. It may be useful to include guidance indicating that when funds are under stress, they are *expected* to breach their liquidity minimums. This problem is not unique to money market funds; banks are also averse to breaching liquidity thresholds during times of crisis, which limits the value of liquidity requirements. The ubiquity of this problem underscores the point that enhanced liquidity requirements do not go far enough to enhance the stability of money market funds.

Swing Pricing

The proposed amendments include a swing pricing provision whereby institutional prime funds would be required to determine a "swing factor" that incorporates spread costs and transaction costs associated with a net redemption. If net redemptions exceed 4% of net asset value, the fund is also required to incorporate market impact costs into the calculation of the swing factor, which ultimately determines the price at which shareholders can redeem their shares. The rationale for swing pricing is that redeeming shareholders should have to bear the cost their redemptions impose on non-redeeming shareholders when funds are either forced to sell illiquid assets or reduce liquid asset holdings.

The argument that shareholders should internalize the costs of redemption on other shareholders is compelling. Swing pricing has been used by open-ended bond and stock mutual funds in other countries to try to achieve this goal.[4] Moreover, swing pricing may be useful in discouraging investors who require certainty about the value of their investments from investing in institutional prime MMFs in the first place.

However, we have two significant concerns about the using swing pricing for money market funds. First, while stock and bond fund shareholders are willing to tolerate price volatility, MMF shareholders have demonstrated that they are highly risk averse. Indeed, they use MMFs mainly for liquidity purposes, making their MMF holdings more akin to deposits than investments in stock or bond mutual funds. Thus, uncertainty about the price at which MMF shareholders will be able to redeem their shares is likely to lead them to pull their funds at the first sign of trouble. Second, given liquidity needs and a high level of risk aversion, a poorly designed swing pricing system risks exacerbating instability during periods of stress. On the one hand, swing factors must rise enough in times of stress to significantly disincentivize redemptions. On the other hand, as daily net redemptions get closer to the 4% market impact threshold, investors may rush for the exits to avoid a potentially large loss in value. These run incentives may be exacerbated by uncertainty around how money market funds will implement the swing pricing system when redemptions exceed 4%. A poorly designed swing pricing system may re-create some of the very same problems of liquidity fees and redemption gates that exacerbated the run on MMFs in March 2020.

Given these implementation concerns, while swing pricing may be helpful in some regards, we do not believe that it will prevent destabilizing runs during periods of stress. Moreover, while eliminating liquidity fees and redemption gates combined with enhanced liquidity requirements are steps in the right direction, they are not enough to avoid destabilizing runs. For these reasons, we continue to believe that it is important to introduce some form of capital or private liquidity commitments.

[4] For a study of swing pricing in open-ended stock and bond mutual funds in the United Kingdom see Dunhong Jin, Marcin Kacperczyk, Bige Kahraman, and Felix Suntheim (2022) "Swing Pricing and Fragility in Open-end Mutual Funds," *Review of Financial Studies* 35(1), 2022, 1-50.

Capital and Liquidity Commitments

Prime money market funds provide banking-like services by engaging in risk, maturity and liquidity transformation. Thus, to enhance the stability of prime money market funds and minimize the risk that the Federal Reserve and the U.S. Treasury will yet again be forced to intervene to stop an incipient run on money market funds, we need to draw on some of the ideas used in bank regulation.

The primary tool for regulating banks is capital. Capital would serve two functions in the context of prime money market funds. First, it provides a layer of protection for MMF investors. This protection would reduce investors' concern that they would lose money in periods of market stress, and thus it would reduce their incentive to run in a crisis. Second, capital would reduce the incentive for prime MMFs to take excessive risk in normal times. By taking additional risk, prime MMF managers are able to offer higher yields, attract more assets, and earn greater fees.[5] A risk-based capital regime forces prime MMFs that take more risk to bear some of the costs of doing so, reducing their incentives to take risk in the first place.

There are a number of ways to implement a capital regime for prime MMFs. We discuss several alternatives in our paper in the *IMF Economic Review*, which the PWG Report referenced.[6] A first approach would be for prime MMFs to issue a subordinated share class that would absorb losses before ordinary MMF shareholders. In exchange for bearing potential losses, the subordinated shareholders—longer-term investors who are willing to bear losses—would be paid a premium over the yield on the assets in the MMF in normal times. We estimate that for a well-diversified portfolio of MMF assets, a subordinated share class of 3 to 4% of assets would fully protect ordinary shareholders from losses with a high degree of confidence. Furthermore, we estimate that the cost of this loss protection for ordinary MMF shareholders would be small—a reduction in yield on the order of 5 basis points (0.05%). The resulting structure would be similar to those found in securitizations, which often use contractual loss-absorption by junior tranches to provide the safety desired by investors in more senior tranches.

Another way to implement a capital regime would be to require MMFs to buy capital protection from a regulated banking institution. For a fee, a bank would commit to buying an MMF's assets at par at the fund's request. Regulators would require the bank to hold capital and liquidity against this purchase commitment. The Federal Reserve and the U.S. Treasury facilitated such purchases through the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF) in 2008 and the Money Market Mutual Fund Liquidity Facility (MMLF) in 2020 at no cost to money market fund investors. Under this proposal, MMF investors would be required to pay private entities in advance for protection rather than getting it for free from the government after the fact.

There are many other ways to implement a loss-absorbing capital regime for prime MMFs `and the next round of reforms should include some capital-like mechanism to protect ordinary

[5] Marcin Kacperczyk and Philipp Schnabl (2013), "How Safe are Money Market Funds," *Quarterly Journal of Economics* 128(3), 1073-1122.

[6] Samuel G. Hanson, David Scharfstein and Adi Sunderam (2015), "An Evaluation of Money Market Fund Reform Proposals," *IMF Economic Review,* 63, 984-1023.

shareholders in prime MMFs. Absent such a policy, it seems almost inevitable that there will be further runs on prime MMFs during future periods of financial market turmoil and that U.S. policymakers will again feel compelled to provide support to them.

Sponsors of prime MMFs will surely argue that requiring prime funds to have loss-absorbing capital and to hold more liquid assets will lower prime MMF yields and hence the demand for prime MMFs. We agree. However, we do not think the broader consequences of a reduction in the scale of prime MMF assets will be problematic. Investors who truly want safe and liquid investments can meet those needs through Treasury and government MMFs. In addition, the issuers of financial instruments typically held by prime MMFs will find other, more stable sources of financing. This is exactly what happened in 2016 after the implementation of the SEC's 2014 reforms. Assets under management of prime MMFs declined, yet commercial paper outstanding was essentially unaffected.

Conclusion

Prior to the last round of reforms, we argued that the proposed reforms would not prevent future runs and that SEC should require prime MMFs to have some form of loss-absorbing capital. We are concerned that, while the enhanced liquidity requirements in the new proposal are an improvement, they do not go far enough. Moreover, the swing pricing requirement has the potential, like liquidity fees and redemption gates, to exacerbate run incentives. We again make the case for capital regulation of prime MMFs. The prime MMF industry has required extraordinary government support twice in the last 14 years. This recent history shows that the existing regulatory regime for prime MMFs is inadequate. In the absence of serious structural reform, history is likely to repeat itself, with more investor runs and more government support when they happen.

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