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Note: This letter was sent to approximately 60 policymakers in national-government or international organizations.

RE: Money Market Fund Reform: Pros and Cons of Options

Many money market funds were stressed in March 2020 despite changes in regulations and operating procedures made during the decade following stresses in 2007-8. Government money funds performed exceptionally well during March 2020, managing record levels of inflows, but some prime and some muni money funds experienced large redemptions.[1] Given the reoccurrence of stresses earlier this year, fund sponsors and regulators are evaluating strategies and reforms to ensure the money fund industry's resilience in the future.

The aim of this document is to inform policymakers and corporate decisionmakers of the pros and cons of potential policy responses designed to promote money fund resilience. The pros and cons noted herein for each policy response focus on reasons a particular response might or might not improve money fund resilience for prime and muni money funds (hereinafter collectively referred to as "money funds"). It should also be noted that certain of the pros and cons may represent issues to consider rather than a specific reason a policy response may or may not work. Irrespective, both should be considered to gain a greater understanding of the points being made.

This document was developed with the active input of the asset managers associated with the GARP U.S.-based and European-based Buy Side Risk Managers Forums (collectively the "Forums").[2] The Forums (and this document) do not recommend specific policy actions, but instead attempt to provide objective analysis and/or insight. Their goal is to objectively inform policymakers about possible future money fund reforms and to recognize the range of potential consequences of each policy. Participating asset managers' views differ about the best choice or combination of choices among the options analyzed herein and about the relative merits of the pros and cons for any individual option.

The next section suggests some foundational and desirable characteristics of any reforms that are chosen. A guide to the remainder of the document follows, and then specific potential reforms with pros and cons.

[1] "Prime" and "muni" are primarily terms applied in the U.S. market. In Europe, what were once denoted prime funds are now mainly "LVNAV" funds (limited variability net asset value). For simplicity, in this document, "prime" refers to any money fund that invests primarily in non-government assets, and "muni" refers to any money fund that invests primarily in tax-advantaged local government rather than central government assets.

[2] A listing of the 54 members of the US and European Buy Side Forums, whose assets under management are over $56 trillion, may be found at: https://www.garp.org/#!/about/buy-side-risk-managers-forum, as well as other papers and consultation responses developed with input from Forum members. The Forums are not lobbying groups. Forum participants assess issues objectively and in a non-partisan manner to develop where possible best practices, and to share among themselves, the asset management industry and the regulatory community ideas and approaches on current and emerging risk issues that would benefit the global financial services industry.

1. Desirable reform requirements

Money funds provide many benefits to investors, the financial system, and the broader economy. Money fund investments are liquid, diversified, and, in contrast to deposits at banks or similar financial institutions, have limited vulnerability to disruption by the failure of the provider. Money funds are highly regulated and transparent. Money funds also provide accounts that allow investments in, and redemptions from, other types of mutual funds. They provide funding to many types of financial and non-financial firms and municipalities. Because they invest in standardized, short-term instruments, they can react quickly to changes in financial markets while simultaneously being a cost-effective way to fund operations, and contribute to the normal functioning of financial markets.

A primary goal of money fund reform following the latest period of stress is to limit (ideally eliminate) money fund instability. A secondary goal is to limit the need for ad hoc government intervention to preserve stability.

Some of the reforms discussed herein, if adopted, may cause the affected money funds to cease to exist.[3] It is recommended that if a reform effectively leads to money fund elimination, decision-makers simply propose their outright elimination so that a clear debate about costs and benefits of elimination can occur. While elimination may remove a source of financial instability, it will, in all probability, introduce other risks because entities in the real and financial sector currently receiving funding from money funds or investing in money funds would need to find substitutes. The resulting consequences for economic activity and financial stability would be difficult to anticipate and forecast.

A. Formalize Communication Avenues

In March 2020, official sector entities and industry participants communicated and cooperated extensively and acted effectively in responding to money fund stresses. However, in the future, ad hoc cooperation might not always work so well. Official sector decision-makers are urged to use the lessons of the past two crises to establish standing arrangements for communication and cooperation with each other and with money market participants (including issuers, asset managers and investors) in preparation for the next period of stress. Such arrangements should at a minimum involve every jurisdiction with a material volume of money funds, should err on the side of being more global rather than less, and should remain nimble.

B. Think Broadly

Money funds invested in central government obligations (as opposed to prime and muni funds) performed well in March 2020. While this paper focuses on prime and muni money funds, it is suggested that in evaluating potential reforms, decision-makers think more broadly and consider all money market fund vehicles because the circumstances of the next period of stress may be different.

C. Address Liquidity and Credit Shocks

Any successful reform proposal or combination of proposals must address both credit and liquidity shocks. Once a crisis is beyond the initial shock, credit and liquidity concerns become intertwined, but the concern that leads to initial redemption decisions by money fund investors at the beginning of a period of stress is

[3] Many of the reforms in the might-eliminate-money-funds category may materially increase the costs to fund providers of running money funds and/or erode the returns to money funds. In the current low-margin, low-yield environment, such options are likely to squeeze some or all fund providers (and/or money funds) out of the market.

usually only one of credit or liquidity. A proposal that addresses only credit or liquidity stress is unlikely to be effective in all future situations.[4, 5]

The vulnerability of money funds arises primarily from two of their characteristics:

1. Money funds are subject to large, rapid redemptions.
    - Somewhat similar to the bank-run dynamic, if a fund investor becomes concerned that other fund investors will redeem en masse, that fund investor may immediately redeem in order to maintain access to their money and to avoid losses associated with rapid liquidation of fund assets to meet redemptions.[6] Certain previous reforms may have also inadvertently created a first-mover advantage, contributing to this dynamic. The details of the run dynamic, such as the triggers, may differ from one episode to the next, but successful reform must address the run dynamic in general.
2. Money fund investors need quick access to balances.
    - Many investors use money funds to store operating capital they may need to access quickly rather than for returns as part of a portfolio diversification strategy. This amplifies investors' alertness to threats to their ability to redeem quickly, especially features such as redemption gates and fees that might mechanically inhibit their ability to redeem (see below for more on gates and fees). Current low costs of redemption and ease of changing from one fund to another also amplify the pressure on money funds during periods of stress.

D. Make Reforms Global

Decision-makers are urged to attempt to make reform effective globally. Regulatory regimes and fund characteristics currently differ somewhat across jurisdictions, but money funds in many jurisdictions experienced stress in March 2020. A reform implemented in only one region or jurisdiction may end up being ineffective or may cause unintended consequences due to, for example, regulatory arbitrage.[7] So, policy responses should be adaptable to different market structures and user bases in different jurisdictions, but be globally consistent when attempting to address the same vulnerabilities.

E. Regularly Address Money Fund Asset Mix

To be successful in the long run, any reform must ensure continuing attention by the official sector to understanding specific money fund assets[8], and to changes in the mix of money fund assets or other features of money funds so that changes to financial stability protections are made as necessary. For

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[4] 2007-8 is an example of a period of stress initially caused by credit concerns. Investors first became concerned about the ability to repay of ABCP vehicles with holdings tied to U.S. subprime mortgages. Later investors fled money funds as numerous financial institutions collapsed. Once withdrawal volumes became large, investors were also concerned about the ability of money funds to raise liquidity to meet withdrawals.

[5] 2020 is an example of a liquidity shock. Initially, investors needed funds for their own operations, margin calls, etc. Once withdrawal volumes became large, the ability of some issuers of money fund assets to repay became a concern.

[6] In this document, "withdrawal" refers not only to money that flows out of a fund family, but also to transfers of assets from the fund experiencing the outflow to another fund with the same sponsor.

[7] Greater international alignment of money fund regulatory regimes also could strengthen investor protection and financial stability and could make money funds safer and cheaper to operate.

[8] During the most recent market stress, a key element of the effectiveness of the MMLF was the subsequent decision to broaden the eligible instruments to include certificates of deposit, particularly those issue d by US branches of foreign banks (i.e., "Yankee CDs"). On the contrary, one of the challenges of the ECB PEPP was that it was targeted at commercial CP, which generally comprises a very small percentage of a typical MMF portfolio.

example, a central bank asset purchase program that worked well in a past crisis might work poorly in a future crisis if the mix of assets eligible for central bank purchase is not updated to include money fund assets in portfolios at the time of the future crisis. Money fund asset mixes change slowly, but periods of stress may also be widely separated in time.[9]

F. Be Aware of Perceptions

Some potential reform(s) may result in negative perceptions or other unintended disadvantages for key participants. For example, if central bank support of money funds in crises is a key to success of reform but at the time of the next crisis the political environment is such that supporting action by central banks might damage their reputations or have other undesirable consequences, central banks might not act and the reforms might not work. Similarly, if reforms require money funds themselves to take some action but that action affects the money fund negatively, the net effect of the reform might be small or negative. Decisionmakers are urged to think carefully about possible sources of disadvantage that would hamper effective action and to try to insulate actors from them.

G. Determine Regulatory Authority

This document does not address which official sector entities should have authority for money fund regulation and supervision or for intervention in periods of stress. However, the possibility of additional or different regulation or regulators associated with some reform options may be noted as a con because costs would arise. Even if the locus of authority is changed, any new regulator(s) will have to grapple with the issues raised in this document.

2. A guide to the document

This document next describes the episode of money fund stress in March 2020. A good understanding of the facts provides an underpinning for consideration of reforms.

The policy responses are grouped in two broad categories: Those that are unlikely to eliminate the targeted types of money funds, and those that may do so.

The discussion of each proposal does not go into fine details. The goal of this document is not detailed analysis, but rather to portray the range of proposals and their pros and cons.

The relative number of pros and cons for a proposal is not indicative of the proposal's likely efficacy. For example, a common pro is something like "May substantially reduce the likelihood and severity of future money fund stress." Though the statement does not require a lot of words, stress reduction is a primary goal of reform, and should receive a lot of weight. Conversely, many cons require a lot of words where they describe institutional details that might make a reform less effective.

Pros and cons fall into three categories: 1) Reasons the proposed reform might or might not work as desired; 2) Potential side effects, good and bad; and 3) Matters to be considered during design and implementation.

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[9] The 2020 central bank programs were limited in their coverage. Only in the United States did a program directly benefit money funds.

3. What happened in March 2020?

Money fund stress in March 2020 was initially caused by stresses in the financial system and the real economy associated with the Covid-19 pandemic.[10] Prime institutional money funds initially experienced a near-pure liquidity event. Large outflows occurred because investors needed funds for business operations, to meet margin calls, etc. Some muni money funds, particularly high-yield money funds, also were stressed.

However, soon after stresses started to show themselves, withdrawals accelerated at prime and muni funds while money market funds investing only in central government securities experienced inflows.[11] As stress continued, an increasing share of prime and muni fund withdrawals were motivated by investors' desire to avoid both liquidity and credit risk by rapidly moving their capital to Treasury and central government money funds or other investments perceived as safe.[12]

Other investors withdrew from prime and muni funds because of concerns about the operation of some of the reforms made during the last decade.

- In the United States, prime money funds net asset values (NAVs) have been variable since the post-2009 reforms. Anticipating (small) reductions in the NAV, some investors withdrew to avoid such reductions.
- In Europe, many money fund NAVs are fixed at 1 until the underlying value moves more than 20 basis points from 1, after which NAVs are variable. Fearing losses associated with a shift to variable NAVs, some investors withdrew. It is worth noting that money fund experience differed somewhat across currencies, fund providers, and variability of the NAV. Development of a comprehensive inventory of experience might prove useful.

Investors in the United States and Europe were concerned about the imposition of limits on withdrawals (gates) and possible fees charged on withdrawals.

- Both may be implemented by funds if the share of their liquid assets in all assets falls below 30 percent (and, in Europe, if daily withdrawals exceed 10 percent of assets). Investors with such concerns were particularly likely to withdraw from funds as the fractions fell toward 30 percent. Knowing this, funds took steps to liquidate other assets, that is, they tried to ensure sufficient usable liquid assets to meet possible withdrawals without approaching the 30 percent trigger.

Funds seeking liquidity turned to dealers to sell assets. Dealer capacity was quickly exhausted because dealers primarily act as intermediaries rather than investing for their own account. With few buyers of money fund assets, large dealer purchases would have resulted in ballooned inventories. Some dealers' parents also feared increased burdens from capital and liquidity regulations from holding additional assets and thus were reluctant to buy money fund assets even at a discount.

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[10] In contrast, in 2007-8, many investors were concerned about credit losses at prime and muni money funds and so they withdrew to avoid bearing credit losses.

[11] In typical periods of financial system stress, flight-to-quality increases the demand for government securities, ensuring that government funds can easily sell assets to meet withdrawals, but prime and muni fund assets often do not enjoy the same increase in demand for their assets.

[12] U.S. Treasury markets were briefly stressed as demand for cash caused selling pressure in Treasuries even though demand for Treasuries normally is high in crises.

Rapid government action diffused the stress and relieved concerns that a financial crisis was imminent.

In the U.S., the announcement by the Federal Reserve that it would purchase a large amount of U.S. Treasury securities re-liquified the Treasury market. The Fed also re-opened or created various facilities to support short-term debt markets, such as the money market fund liquidity facility, commercial paper funding facility, primary dealer credit facility, and municipal liquidity facility. Bank regulators also informed banks that they could dip into their capital and liquidity buffers, thus removing potential indirect regulatory constraints on banks' ability to hold money fund assets.

In Europe, central banks, including the ECB and the Bank of England, announced various asset purchase programs. While this helped to calm markets more broadly, it was not directed at short-term funding markets and the extent to which money funds could receive support from these programs was extremely limited.[13] Because a substantial fraction of European money fund assets are denominated in dollars, it is possible that Fed actions helped European dollar-denominated money funds as well as U.S. money funds, even though Fed facilities were not directly accessible to EU-domiciled funds.

More generally, official sector actions relieved financial market concerns that a financial crisis was looming.[14]

4. Reform proposals unlikely to eliminate targeted money funds

A. No reform

1) Existing regulations and authorities are adequate, and nothing needs to be done.

The money fund industry survived March 2020 with no fund failures, in part because of official sector actions that relieved the stresses. Perhaps the official sector toolkit is already enough.

Pro:

- Central bank intervention proved highly effective at stabilizing markets in the March 2020 crisis.

Con:

- Central bank intervention may not always work. March 2020 was a near-pure liquidity event. Future periods of stress may be caused by concerns about the credit quality of money fund assets, and central banks are typically less well positioned to address problems stemming from distressed assets, especially assets that might impose losses on central banks.
- Central bank programs launched at short notice may not always adequately address the full extent of a crisis.

[13] Support of money funds was mainly via the March 18 Pandemic Emergency Purchase Program (PEPP), which expanded asset eligibility to permit the ECB to purchase nonfinancial commercial paper. European money fund balance sheets included many other types of assets which remained ineligible.

[14] Please see https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-lessons-from-covid-19-us-short-term-money-markets-july-2020.pdf , https://fas.org/sgp/crs/misc/R46424.pdf , https://crsreports.congress.gov/product/pdf/IF/IF11320/3 and https://www.federalreserve.gov/pubs/feds/2014/201430/201430pap.pdf for additional data and analysis related to March 2020.

- Given that central bank balance sheets are ultimately public property, central banks are generally reluctant to commit in advance to intervention without having a surrounding web of regulatory powers designed to reduce the chance that intervention will be needed.
- Central bank intervention may result in moral hazard.
- Regulations related to redemption gates and fees and their link(s) to liquid assets may have unintentionally caused some redemptions and thus should be re-examined (see 4 below).
- Some features of existing regulation appeared to have made the crisis worse, so improvements should still be considered.

B. Proposals to address dealer balance sheet capacity constraints

The issuing, buying and selling of most money fund assets is intermediated by dealers. When money funds must sell assets quickly to fund withdrawals, dealer balance sheets can balloon in size, which can cause dealers to stop buying money fund assets.

2) Increase dealer balance sheet capacity in stress conditions by revamping capital and liquidity regulations

Dealers are mainly large banks. A common assertion is that post-2008 changes in regulations incentivized dealers to maintain much smaller balance sheets.[15] The presumption is that they are unwilling to take a lot of money fund assets onto their balance sheets in stress situations because they would violate capital or liquidity minimum requirements. Thus, changing the regulations to expressly allow dealer balance sheets to increase in crises might be helpful, or alternatively providing clearer guidance on the use of buffers under existing rules. A related possibility would be to designate commercial paper and other money fund assets as high-quality liquid assets, which might increase banks' demand for money fund assets in stress situations and thus cause more buyers to be available in stress situations.

Pro:

- Temporarily easing capital and liquidity regulations in times of extreme market stress might increase liquidity in short-term markets in stress situations by allowing banks to expand balance sheets without raising additional capital.
- Continued capital and liquidity requirements during normal markets would ensure continued financial stability and resilience of banks.
- Banks are natural holders of short-term assets given their access to central bank funding and other funding sources.

Con:

- Regulatory action directed at bank capital and liquidity requirements may be unnecessary because regulators have already stated that capital and liquidity buffers may be drawn down during crises and such buffers are usually large enough to accommodate larger dealer balance sheets. (Regulators should be prepared to move very rapidly in a crisis to affirm buffer availability.)

[15] It is not clear that balance sheets are a lot smaller than in pre-crisis normal times. 2006-7 is the often the comparison period for balance sheet size, but dealer balance sheets might have been abnormally large leading up to 2007, in part because trading volumes were large and in part because many dealers had substantial proprietary trading operations with assets on their balance sheets.

- It cannot be assumed that dealers would want to expand their balance sheets by buying money fund assets in periods of money fund stress. Other assets may be more profitable. Moreover, large growth in money fund assets on dealer balance sheets usually means few buyers are available at near-par prices. If buyers remain absent for a long time, dealers can profit from holding money fund assets only if they purchase at a large discount, which means money fund NAVs might fall materially.
- Relaxed regulations may not increase liquidity of credit-stressed money fund assets. Like any investor, dealers would be willing to buy such assets only at a meaningful discount. Thus, even if effective in situations like March 2020, this reform might not be as effective in credit-stress situations like 2007-8, where some money fund assets were distressed rather than simply illiquid.

3) Reduce the reliance on dealers in order to improve market liquidity, for example by establishing alternatives such as platforms for direct trading of commercial paper and other money fund assets between buyers and sellers.

Pro:

- With direct trading of money fund assets between buyers and sellers (where sellers include issuers), liquidity stress situations might not leave money funds unable to sell assets to meet withdrawals because asset prices would move enough to attract buyers.
- If platforms were successfully developed for most or all money fund assets, reliance on dealer balance sheets would be reduced.
- Such platforms might reduce trading costs in ordinary times because dealer costs would be removed from the system.
- Such platforms might broaden and deepen secondary market liquidity by encouraging cross-over buyers of money market assets and additional participants in the short-term markets.

Con:

- The addition of platform alternatives will not address the issue of if the volume of money fund asset sellers is much larger than the volume of money fund asset buyers during crisis periods (which is likely), the price of money fund assets must fall substantially to clear the market.
- Participation of other liquidity providers such as hedge funds and electronic market making firms is uncertain due to the low margin nature of money market products.
- Money funds are likely to be a substantial fraction of buy-side participants on the platform. If most of them are selling, the capacity of other buyers might be overwhelmed.
- A platform-brokered system might increase the volatility of NAVs. This might increase stress relative to a dealer-oriented system.
- Platforms may be expensive to create and operate, especially during the transition period, and may require new regulation of the platforms and their participants.
- Money funds have strict counterparty requirements; any platform may need to be authorized by multiple types of regulators, including regulators of central counterparties.

C. Changes to money fund regulations

4) Decouple the 30 percent liquid asset trigger from the imposition of redemption gates and fees in the United States

Currently in the United States, when a money fund's liquid assets at a one-week horizon fall below 30 percent of all assets, the fund's board must convene and decide whether to impose redemption gates or fees on investors (it cannot do so above 30 percent). In Europe, an additional requirement is that 10 percent of assets is withdrawn in a single day. Investor withdrawals accelerate as 30 percent is approached because of investor aversion to gates and fees, so decoupling gates and fees from the 30 percent threshold might reduce liquidity stress. A related reform would involve strong statements from regulators that liquid assets are usable in stress situations, that is, money funds could go below the minimums without regulatory consequences.[16]

Pro:

- Decoupling gates and fees from the 30 percent threshold would remove a bright-line trigger for investor redemptions.
- Allowing money market funds to use their liquid assets in times of stress by temporarily waiving or modifying the 30% threshold might make existing money fund liquidity more usable.
- Because money funds currently hold buffers of liquid assets above the 30 percent threshold to assuage concerns about gates and fees, decoupling might reduce the need to hold what is effectively an additional buffer.
- Fund managers' scramble to liquify assets to avoid reductions of liquid asset ratios to near 30 percent would be reduced, thereby reducing pressure on dealers.

Con:

- If some other method was used to limit activation of gates or fees, the implications of that method for redemptions in stress situations would need to be carefully considered, because it is possible that stress might be amplified, not reduced.
- Decoupling might not be as helpful in credit-stress situations because the initial shock is motivated by concerns about the fundamental value of money fund assets.

5) Adjust rules for NAVs for prime institutional and muni funds

Prime institutional and muni money funds, which have variable NAVs, were the primary locus of stress in the March 2020 episode in the United States (though some U.S. retail prime funds, with fixed NAVs, were thought to be in some danger of breaking the buck). The prime fund equivalents in Europe have NAVs that are fixed unless values move outside a 20-basis point collar, after which NAVs are variable. Somewhat like the 30 percent liquid asset requirement in the U.S., the collar in Europe contributed to stress by encouraging investors to withdraw if they believed money fund NAVs might soon become variable. In the U.S., it is possible that some investors withdrew due to fears that NAVs would fall. Returning to fixed NAVs might alleviate stress in the future. A related alternative to consider may be to adjust the collar in Europe.

[16] Minimum percentages of liquid assets might also be fruitfully increased if decoupling causes investors to view higher minimums as stabilizing rather than destabilizing.

Pro:

- Changing the rules might reduce withdrawals in moderate liquidity stress situations.

Con:

- In the more credit-risk-oriented 2007-8-episode, fear that funds would break-the-buck motivated withdrawals by some investors. Thus, a fixed NAV might make things worse, not better, in some situations.
- Some are concerned that a fixed NAV may obscure the true value of fund investments.
- It is not clear that investor actions in 2020 were motivated by the floating NAV in the U.S. In Europe, it is not clear that moderate adjustments in the collar would have made much difference. Making the collar very wide might be roughly equivalent to a fixed NAV.
- Fixed NAV may cause some money fund investors to believe that principal is guaranteed.

6) Change the definition of liquid assets at banks to include many instruments held by money funds and/or change the definition of money fund liquid assets to include a larger fraction of money fund assets

Liquid-asset definitions affect both actual liquidity and money fund investor perceptions of liquidity. Two kinds of definition are relevant. First, the definition of high-quality liquid assets (HQLA) for banks affects what banks are willing to hold on their balance sheet and thus can affect the ability of money funds to sell assets in times of stress (banks may be more willing to buy HQLA). Second, the definition of liquid assets for money funds affects money fund investor perceptions of fund distress: When liquid assets start to fall significantly, investors are more likely to withdraw because they believe the fund is becoming distressed. If the set of assets designated as liquid grows, then money fund liquid asset percentages will increase, and money funds will appear less distressed. However, denoting an asset as liquid does not make it liquid.

Pro:

- Expanding the scope of HQLA might improve the ability of money funds to sell assets in crises and would improve the liquidity of money fund assets in normal times.
- Expanding the definition of money fund liquid assets might reduce perceived money fund distress in crisis situations, all else equal.

Con:

- An over-expansion of either definition of liquid assets might harm the credibility of money fund (and bank) liquidity. If investors know that some assets designated as liquid actually are not, they may question balance sheet liquidity and run sooner, not later. [17]
- Bank regulators would have to alter their regulations defining HQLA. It is not obvious they will be willing to do so, given their focus on banking system stability (not money funds), and the possibility for unintended consequences.

[17] A related possibility would be to categorize money funds themselves as HQLAs in some manner. However, doing so might strengthen transmission of money fund stress to banks.

D. Central bank support

7) Make central bank backstop facilities permanently available

In the last two crisis situations, central bank facilities acted as backstops for money funds. Such backstops could be made permanently available in the normal course of business.

- A variant would be to require commercial banks to buy or lend against money fund assets in unlimited quantities on demand, with central banks providing liquidity to the commercial banks as necessary. This is effectively a backdoor central bank backstop. Dangers include that banks might fail to perform, as well as uncertainty about costs imposed by banks.

Pro:

- Central bank backstops would mitigate potential liquidity problems.
- Central banks are natural providers of unlimited backup liquidity.

Con:

- Backstops do not address credit problems unless the central bank is required to buy assets at amortized cost. Such a requirement would mean the central bank could bear some credit losses which is not normal central bank practice.
- The central bank might impose extra costs on users of the backstop to compensate for the risk of credit losses.
- Money funds might be subject to additional regulatory requirements from the central bank or from other regulators. To the extent these are costly and make affected funds very unprofitable for sponsors, affected money funds might disappear.
- A new form of moral hazard would be created.
- Legal changes might be needed in the United States. It is not clear that the Fed has the authority to implement an effective permanent backstop. Currently, many Fed backstops rely on "unusual and exigent circumstances."
- Restricting such a backstop to money funds may be difficult in the long run if other fund types were to face similar stress situations.
- In the last two crises, European central banks did not offer facilities directed specifically at money funds. To the extent such facilities are important in the future, central bank's globally having experience with them will be limited.

5. Reform proposals that are likely to eliminate targeted money funds

A. Changes to money fund regulations

8) Implement swing pricing

Swing pricing allows fund managers to allocate the price-impact and transaction costs of large withdrawals to the investors making the withdrawals, rather than imposing such costs on all investors. To the extent that investors withdraw from money funds in stress situations because they fear bearing the price-impact and transaction costs of withdrawals by other investors, swing pricing might reduce liquidity stress. UCITS money funds in Europe have the authority and capacity to implement swing pricing but are reluctant to use it, perhaps because, with NAVs generally at 1, swing pricing would essentially take on the same characteristics as withdrawal fees. U.S. funds have authority to implement swing-pricing, but the necessary infrastructure is not available.

Pro:

- Swing pricing might reduce liquidity stress to the extent it is made worse by fears of sharing price impact and transaction costs.
- Investors who know they will be charged for price impact and transaction costs will have less incentive to make large redemptions.
- Swing pricing would allocate price impact and transaction costs more fairly across investors in normal as well as stressed times.[18]
- Anecdotally, a portion of withdrawals from prime money funds was to avoid all risks, which include price-impact and transaction costs.

Con:

- Money fund investors expect to be able to make investments and redemptions at par or very near-par values. Implementation of swing pricing for some money funds might make investors unwilling to use them, that is, might eliminate the affected funds.
- Swing pricing would not fully address stress caused by credit concerns or liquidity concerns motivated by factors other than price impact and transaction costs.
- It is not clear that fears about price-impact and transaction costs played a major role in the March 2020 episode.
- Swing pricing may be viewed by investors as increasing the volatility of their net returns to money fund investments. If so, swing pricing might increase withdrawal pressures, not reduce them.
- While swing pricing is permitted in the U.S., there has been little progress in its adoption due to significant costs and systems challenges (particularly the timing of information flows through trade processing and settlement platforms). Effective use of swing pricing would require market-wide changes, many of which are beyond the control of fund managers.
- Though one common argument for swing pricing is that it will discourage large, unexpected redemptions from funds, on a day when redemptions (or inflows) are large, investors making small changes in their holdings will also be affected. Some such investors might view this as unfair.

B. Capital and equivalents

Fears that the NAV of money funds would fall due to credit losses on fund assets (or fire sales) motivate some investors who withdraw. Resources to absorb losses may serve to alleviate such fears.

9) Require money fund sponsors to provide capital against NAV losses

Capital contributed by fund sponsors could be a loss-absorbing resource.

[18] See https://s3-us-west-2.amazonaws.com/garpsalesforcepublic/Content__c/a1Z1W000005W7pCUAS/a2r1W0000015tuWQAQ_GARP_SEC_Swing_Pricing_PDF.pdf

Pro:

- Might reduce withdrawals in some situations, especially where withdrawals are motivated by fears of reduced NAVs, if investors take comfort from the existence of loss-absorbing capital.

Con:

- Capital requirements will not address withdrawals motivated by a fear about being able to get out at all, regardless of the NAV at which a withdrawal occurs.
- Capital equivalent to a substantial percentage of fund assets might be needed to absorb material losses on fund assets. Previous studies by the U.S.-based Investment Company Institute and the President's Working Group have argued that the costs of providing such capital might make any money market fund for which capital is required unprofitable for fund sponsors; that is, such funds would disappear.
- Capital requirements would introduce competitive inequities. Many fund sponsors, particularly independent investment managers, may not have enough capital resources available.
- Determining the appropriate size of capital buffers would be difficult.

10) Allow for the retention of some investor assets for some number of days after redemption, making such assets absorb NAV losses ("holdbacks")

Loss absorbing resources would be provided by fund investors rather than the fund provider. This is different from swing pricing in that its purpose is to make withdrawing investors bear their share of losses that are realized after withdrawal, thus reducing the incentive to run to avoid such losses.

Pro:

- Might reduce withdrawals in some situations, especially where withdrawals are motivated by fears of credit losses in the near term.
- May promote more equitable treatment of redeeming and remaining investors.

Con:

- Even institutional investors might not understand such holdback arrangements and might be outraged should the arrangements be used, with reputational damage to the fund provider. Thus, fund providers might be reluctant to use the powers.
- Investors' motivation for money fund investments is capital protection and liquidity. Such investors might be unwilling to use a product that could bear losses and be made partly illiquid due to holdbacks. If such reluctance is widespread enough, funds with holdback features would disappear.
- Holdbacks do not address withdrawals motivated by a fear about being able to get out at all, regardless of the NAV at which the withdrawal occurs.
- The reform would impose transition costs as custodians and transfer agents develop the necessary capabilities. Moreover, given their reluctance to implement the infrastructure for swing pricing, there is no guarantee, absent regulatory pressure, that custodians and transfer agents would be willing to implement this option.
- Holdbacks might be operationally difficult to administer.

11) Require MMFs to buy protection against NAV losses (for example, via bespoke derivatives or stable-value insurance wrappers)

Protection is like capital but is provided by a third party for a fee. Implicitly, the costs could be passed on to investors if the costs are small enough that money fund returns are not forced below zero.

Pro:

- Protection might reduce withdrawals in some situations, especially where withdrawals are motivated by fears of credit losses in the near term.
- Protection might cost less than capital.
- Costs of protection would be borne by fund investors rather than fund sponsors.
- Investor expectations of stable NAVs would be supported by an explicit guarantee.

Con:

- Costs of buying protection against NAV losses, if available, are likely to be high and to make any money market fund for which protection is required either pay negative interest rates or be unprofitable for fund providers. That is, such funds might disappear.
- Requiring protection introduces counterparty risk. If the provider of the protection fails to pay in a timely fashion, the loss-absorbing purpose will not be served. Because money fund stress situations are usually associated with severe stress in the broader economy, the chance that the protection provider fails to pay is not negligible.
- Trouble at the protection provider might induce withdrawals even if none would otherwise have occurred.
- NAV protection does not address withdrawals motivated by a fear about being able to get out at all, regardless of the NAV at which the withdrawal occurs.

C. Backup liquidity

12) Require MMFs to have large backup credit lines with banks, which in turn can use central bank facilities to obtain liquidity

Where the inability to pay withdrawing investors (and fear of such inability) in a timely manner is the primary concern motivating fund stress, demonstrably having backup liquidity can alleviate the stress. The most common source of such liquidity is bank lines of credit. Many funds already have lines of credit, but perhaps such lines are not large enough to forestall investor concerns, or perhaps investors do not understand the available lines.

Pro:

- Large-enough backup lines would relieve liquidity risk for investors.
- Large lines might be more effective than buffers of liquid assets if the lines are large enough to make breaching their limits extremely unlikely.
- Large lines might allow funds to maintain smaller buffers of liquid assets.

Con:

- Large lines might be so costly that money funds would disappear.
- Current regulation limits the degree of fund leverage, which places operational limits on credit line usage.
- The required size of the lines is not clear.
- Line of credit providers lend against the value of fund assets. Large lines might not address investor concerns about credit losses in fund assets unless investors were sure that the providers of lines would absorb all credit losses (which is unlikely).

- In aggregate, large lines might exhaust banking system capacity given the large size of the money fund industry. If banks provide lines beyond their capacity, for example in hopes that inflows of deposits during times of stress would provide extra capacity, the lines might transmit stress to the banking system more quickly and strongly, which might not improve financial stability on balance.
- Using lines of credit as the policy instrument introduces counterparty risk (line-providing banks might fail to perform).
- Many credit lines are designed as short-term bridges and will not be able to sustain ongoing redemptions in a less liquid environment.
- The indirect connection with central bank balance sheets creates a new form of moral hazard.
- When backup lines are used, borrowing introduces leverage into money funds, resulting in a riskier investment for remaining investors.

D. Third party step-in

13) Require sponsors to step in to provide liquidity and/or absorb credit losses, perhaps by buying assets from a stressed fund.

Sponsors motivated to keep their funds out of stress and with sufficient resources could undo all stress by acting as a backstop. That is, the sponsor would absorb any NAV losses and would ensure that investors could redeem at any time.

Pro:

- Step-in would address both credit and liquidity stress.

Con:

- Not all funds have sufficiently large sponsors.
- Step-in would give a competitive advantage to large bank sponsors of money funds, although they might then be subject to additional capital and liquidity requirements.
- Requiring step-in would change the structure of the industry in ways that are difficult to predict and that might not be in the public interest.
- Requiring step-in would be contradictory to recent efforts undertaken by policymakers, at both international level and within specific jurisdictions, to reduce the interconnectedness between the banks and non-bank (investment funds) sectors. Step-in is not currently permitted in all jurisdictions, e.g. it is not permitted in Europe, so changes in law and/or regulation would be required.
- What would be the restrictions on prices at which sponsors would be required to buy assets from the fund? If sponsors buy at a discount to par, when the stress evaporates and asset values return to par, the sponsor benefits, not the fund investors, raising issues of fairness and creating the potential for manipulation by the sponsor.
- If fund sponsors are required to buy assets at par regardless of asset market values, the fund is not materially different from the sponsor. Would such a regime be consistent with fund charters and regulatory structures?
- Step-in could make affected money funds disappear if sponsors properly incorporate all the costs of being a backstop and those costs are larger than the benefits sponsors receive.
- The sponsor might fail to perform. Even the fear of nonperformance could induce runs.
- Sponsors might have to bear additional regulatory restrictions and costs after stepping in. For example, presumably bank regulators would require bank sponsors to hold both capital and

liquidity against the chance of having to step in. Such requirements might make affected money funds disappear. Alternatively, fear of restrictions and costs might cause sponsors to resist stepping in.

14) Create a separate government agency to support money funds that provides both insurance against credit risk (for a fee) and backstop lines of credit (for a fee), in turn obtaining liquidity and credit support from central banks and/or central governments

Pro:

- Such an agency would mitigate credit and liquidity problems.

Con:

- Costs to money funds of such an agency (including fees and costs of associated regulations) might make affected money market funds so unprofitable for fund sponsors that such funds would disappear.
- Such an agency would probably be accompanied by additional regulation.
- To the extent that the agency bore losses in a stress situation, even if only some money funds imposed the losses, all money funds would be likely to have to pay fees to enable the agency to recover the losses.
- Such an agency could only be created by legislation
- Such an agency would need direct access to central government fiscal support as well as central bank liquidity support. If such an agency's ability to absorb credit losses was based on mutualization of losses within the money fund industry, widespread credit distress at money funds would undermine the agency's credibility and might make it ineffective.
- Such an agency might introduce new forms of moral hazard. Even if only some money funds initially take imprudent risks as a result, competitive pressures might cause most money funds to take imprudent risks.

E. Elimination

15) Disallow prime money market and/or muni funds by rule or legislation

Prime money funds and muni money funds have been the most exposed to stress in the 2007-8 and March 2020 episodes. Outlawing them might take care of most of the problems but may introduce new issues depending on what money fund users use instead for their investments.

Pro:

- Elimination would remove problems for fund sponsors, the economy and governments associated with prime and muni money fund stress.
- Elimination would avoid competitive inequities that arise if some fund families stop providing prime and muni money funds while others do not.

Con:

- Repercussions for financial markets and nonfinancial firms might be material given the important role of money funds in short-term funding and as an alternative to traditional banking deposits. For example, who would buy the paper from issuers that currently sell to prime and muni money funds? Would the impact on economic activity be material?

- The structure of funding markets for financial firms, industrial firms, and municipalities would change.
- It is possible that another form of instability might be substituted for money fund instability. For example, if money fund investors change to short-term bond funds, runs on such funds might occur in stressed periods.
- Would it provide as many channels for government intervention during periods of stress as does the current system?

6. Concluding Remarks

Thank you for your attention to this letter. We hope it aids your discussions and that it helps the policy community advance its thinking about reforms to enhance money fund resilience. We recommend that the official sector convenes a meeting including a representative group of money market fund participants to discuss potential reforms. We stand ready to offer any additional input, or to coordinate any meeting you may feel appropriate with interested Buy Side Forum members.

Yours truly,

/s/ Richard Apostolik
President and CEO

/s/ Mark Carey
Co-President, GARP Risk Institute