



# Constant NAV money market funds under regulators' spotlight

## Breaking or not breaking the buck; that is the question!

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Money Market Funds (MMFs) are investment funds whose investment objective is to provide investors with capital protection, a low-volatility return and daily liquidity. Typically, MMFs invest in a diversified portfolio comprising high-quality, short-duration instruments such as corporate commercial papers, floating rate notes, government bills and short-term deposits.

MMFs are viewed as a safe alternative investment to bank deposits and are often used by institutional and retail investors as a way to manage cash efficiently. MMFs offer investors a larger diversification than regular bank deposits and generate higher returns.

In terms of the broader economy, MMFs play a key role between corporates seeking funding sources and investors looking for investment opportunities. MMFs generate returns from the credit, maturity and liquidity mismatch between their assets and liabilities. Investors can redeem their investments on a daily basis while the time horizon of the investments is typically stated in months. In that respect, MMFs perform bank-like operations in that they play a maturity transformation role. Therefore, they are what are known as shadow banking players.

Two distinct forms of collective investment schemes exist for MMFs: the constant NAV (CNAV) and the variable NAV (VNAV). CNAV MMFs are marketed primarily in the U.S. and in some parts of Europe (mainly in the UK). In the U.S., MMFs are regulated under Rule 2a-7 of the Investment Company Act. CNAV MMFs are allowed to sell or redeem shares at a stable NAV, typically one dollar per share. They are also allowed to value their holdings using the amortised cost method or share price rounding method. In return for this accounting treatment, CNAV MMFs are required to comply with strict rules regarding the credit quality, liquidity, diversification and duration of the portfolio. Moreover, the Board of Directors of the fund must monitor any deviations in the value of the portfolio using the amortised cost and the market values of the portfolio holdings. The market values produced by the two methods must not differ significantly as existing shareholders may see their holdings diluted and redeeming/purchasing investors may be penalised.

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## As a bank-like business model, MMFs are inherently exposed to the following risks: credit, interest rate and liquidity risk

In contrast, a VNAV is a fund where the portfolio holdings are marked-to-market, i.e. valued at market prices, resulting in a fund price that fluctuates more compared to the amortised cost method. Another significant difference lies in the liquidity provided to investors: while VNAV offers T+1 liquidity, meaning that investors asking for redemption at T would be refunded on the next business day, the CNAV, in some jurisdictions, offers same-day liquidity, which enables investors to manage their MMF holdings with no discontinuity.

Long considered to be an investment with almost-zero volatility, the subprime crisis in 2007-2008 and the European debt crisis in 2011 revealed them to be not as safe as they were supposed to be. As a bank-like business model, MMFs are inherently exposed to the following risks: credit, interest rate and liquidity risk. During the subprime crisis in 2007, several MMFs marketed as 'enhanced' or 'dynamic' suffered significant losses on their underlying investments, resulting in sharp declines in Net Asset Value (NAV). This was mainly the result of investments in senior tranches of asset-backed securities backed by subprime mortgages which suffered greater-than-expected losses resulting in write-downs on the safest tranches. In some cases, bank sponsors provided financial support to the troubled MMFs by injecting cash to compensate for the losses or by purchasing certain troubled investments.



After the collapse of Lehman Brothers in October 2008, many MMFs faced liquidity issues. The liquidity problems appeared in two distinct ways. First, on the asset side, liquidity, i.e. investors' appetite for the assets held by MMFs, dried up. Bid-ask spreads widened significantly and selling certain securities at their fair price under pre-crisis standards was no longer possible without incurring a loss (e.g. slippage cost). For example, at the height of the crisis, the liquidity of floating rate notes issued by certain investment banks completely disappeared. Second, on the liability side, several MMFs faced greater-than-normal redemption requests. There was a 'flight to quality' (i.e. a sudden shift of assets to highly rated securities such as U.S. Treasury bills or German Bunds). As a result, several MMFs experienced a run, putting even more downward pressure on asset prices in an adverse feedback loop. Faced with heavy redemptions, combined with the impossibility of selling assets quickly to generate the required liquidity, several MMFs had to suspend redemptions.

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## The European sovereign debt crisis has highlighted another risk to which MMFs were exposed: interest rate risk

A prime example was the case of the 'Alpha' MMF, which was exposed to short-term debts issued by Lehman Brothers. After the collapse of the investment bank, the 'Alpha' MMF was forced to recognise a loss on its investment. As a result, the NAV went below one dollar a share (phenomenon known as 'breaking the buck'). On top of that, the contagion spread to other MMFs not exposed to Lehman Brothers. The fund was hit with massive redemption requests and had to suspend redemptions. One direct consequence of the run on several MMFs was the reduction in commercial paper holdings. These short-term securities, issued by corporates to finance their operating expenses, play a vital role for the economy. Suddenly, the market for commercial papers was shut down leaving many companies in financial distress.

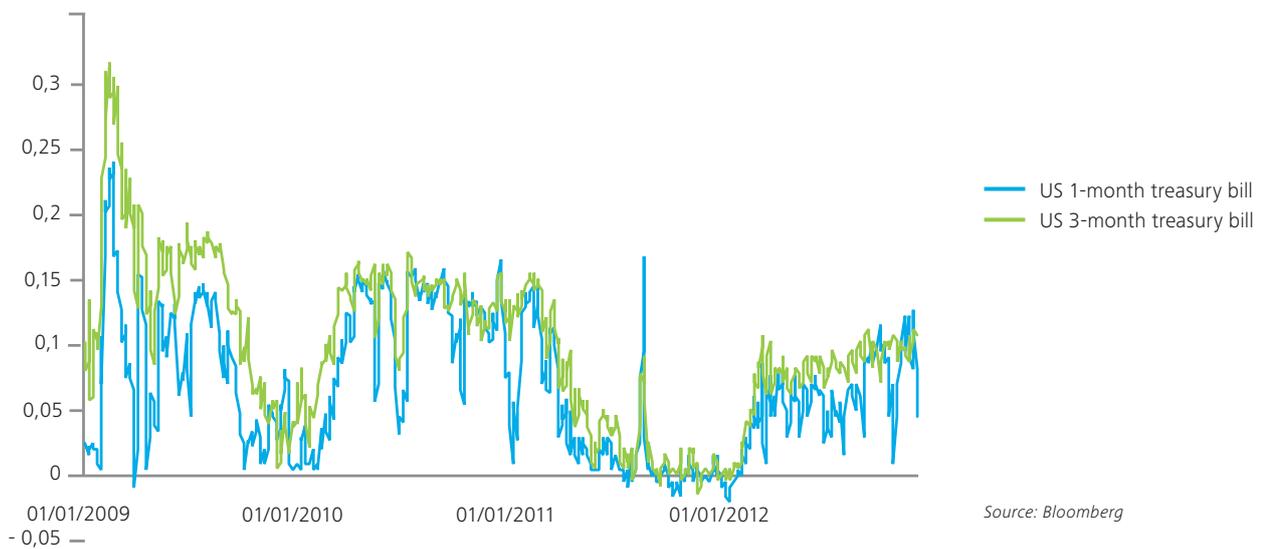
The European sovereign debt crisis has highlighted another risk to which MMFs were exposed: interest rate risk. In an effort to boost the economy, the European Central Bank (ECB) slashed the interest rate on its deposit facility from 25 basis points to zero. In the turmoil of the EU sovereign debt crisis, investors dumped lower-rated government bonds such as Greece, Portugal, Italy, Spain and Ireland to buy higher-rated government bonds such as Germany, Netherlands and France in another 'flight to quality'. As a direct consequence, the yield offered on these short-term sovereign debts moved close to zero and sometimes even into negative territory (see graph 1). The same phenomenon could be observed in the U.S., where yields on treasury bills approached the zero mark (see graph 2).



Graph 1



Graph 2





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As a result of extremely low or even negative short-term yields, generating positive returns became more and more difficult for MMFs after management and transaction fees were deducted. Some MMFs chose to tackle this issue by taking on more credit and interest rate risk, lengthening their maturity profile and investing in lower-rated names. This issue was especially acute for CNAV MMFs as negative investment yields increased the risk of 'breaking the buck'. To mitigate this risk, several MMFs cut or waived their management fees to cover the losses. Some bank sponsors also chose to step in and inject cash to compensate investors.

These recent developments have shown the systemic risk that MMFs can pose to the broad economy. MMFs act as a channel between the financial markets and the so-called real economy by matching investors' liquidity supply and corporates' liquidity needs. A run on one MMF can trigger a run on other funds and could create a ripple-effect capable of toppling the entire financial system. This phenomenon is known as 'breaking in the link'. For that reason, the mutual fund industry and regulators are currently debating whether there is a need to reform MMFs to make them more resilient and less prone to runs.

In the next table we will review the regulatory environment of MMFs. More particularly we will draw a comparison between U.S. and European Union regulation in that respect; the latter decided to make a distinction between short MMF and MMF in order to protect the name MMF and reinforce investors' protection. Next, we will review the different options available to mitigate the risk posed to MMFs as suggested by the International Organisation of Securities Commissions (IOSCO), the worldwide umbrella group for securities regulators and other regulatory bodies.

## Regulatory landscape

	Rule 2a-7	Short-term money market funds	Money market funds
Body	SEC	ESMA	ESMA
<b>Maturity</b>	<ul style="list-style-type: none"> <li>The weighted average maturity of the portfolio is limited to 60 days<sup>1</sup></li> <li>The maximum weighted average life<sup>2</sup> of any security is limited to 120 days</li> <li>Individual securities (except for U.S. government floating rate securities) can have a maximum maturity of 397 days</li> </ul>	<ul style="list-style-type: none"> <li>The weighted average maturity of the portfolio is limited to 60 days</li> <li>The weighted average life of the portfolio is limited to 120 days</li> <li>The residual maturity of any single security is limited to 397 days portfolio</li> </ul>	<ul style="list-style-type: none"> <li>The weighted average maturity of the portfolio is limited to 6 months</li> <li>The weighted average life of the portfolio is limited to 12 months</li> <li>The residual maturity of any single security is limited to 2 years provided that the time remaining until the next interest rate reset date is less than or equal to 397 days</li> </ul>
<b>Credit quality</b>	<ul style="list-style-type: none"> <li>Maximum 3% of assets invested in second-tier (i.e. A2/P2 rating) securities as rated by nationally recognised rating agencies</li> <li>Maximum 0.50% of assets invested in second-tier securities of a single issuer</li> <li>The maturity of second-tier securities may not exceed 45 days</li> </ul>	<ul style="list-style-type: none"> <li>Requirement to invest in securities having one of the two highest short-term credit ratings awarded by a recognised rating agency</li> <li>If the security is not rated, the securities should be of equivalent quality as determined by the management</li> <li>Credit quality should be monitored on a regular basis and not only when the security is added to the</li> </ul>	<ul style="list-style-type: none"> <li>Requirement to invest in securities having one of the two highest short-term credit ratings awarded by a recognised rating agency. As an exception to this principle, money market funds may hold sovereign issues rated at least investment grade by one or more recognised credit rating agencies</li> <li>If the security is not rated, the securities should be of equivalent quality as determined by the management</li> <li>Credit quality should be monitored on a regular basis and not only when the security is added to the portfolio</li> </ul>
<b>Liquidity</b>	<ul style="list-style-type: none"> <li>Daily portfolio liquidity of 10% in liquid assets (i.e. cash, U.S. treasuries)</li> <li>Weekly portfolio liquidity of 30% in liquid assets (i.e. cash, U.S. treasuries)</li> <li>Maximum 5% of the portfolio in any single security as measured at the time of purchase</li> </ul>	<ul style="list-style-type: none"> <li>The management company should consider the liquidity profile when making an investment decision. No specific guidelines are indicated</li> </ul>	
<b>Stress tests</b>	<ul style="list-style-type: none"> <li>Requirement to stress test the ability of the fund to maintain a one-dollar NAV in the event of stressed scenarios related to the deterioration of the credit quality of the portfolio, larger-than-normal redemptions or a shift in the yield curve</li> </ul>		
<b>Other</b>	<ul style="list-style-type: none"> <li>MMFs must make their holdings public on a monthly basis</li> <li>Holdings must be available for at least six months after the date of publication</li> </ul>	<ul style="list-style-type: none"> <li>Both Variable and Constant NAV are allowed</li> </ul>	<ul style="list-style-type: none"> <li>Only Variable NAV is allowed</li> </ul>

<sup>1</sup> Weighted average maturity is calculated considering the reset date of a floating rate security

<sup>2</sup> Weighted average life is calculated considering the final maturity of any security

### Proposed solutions to tackle such drawbacks

In this section, we will review the different options available to mitigate the risk of CNAV MMFs breaking the buck. These were formulated by the IOSCO and other regulatory bodies. Where possible, we will point out potential caveats.

#### a) Mandatory move from constant NAV to variable NAV

The first solution proposed is to move from a constant NAV to a variable structure. It essentially boils down to forcing MMFs to value their portfolios at market value using mark-to-market accounting. Investors would therefore redeem/subscribe at a variable NAV instead of a fixed one-dollar NAV. Over time, this will reduce the sentiment of safety and demonstrate that MMFs are actually exposed to credit, interest rate and liquidity risks. It will raise investors' awareness that MMFs are not impervious to losses.

VNAV MMFs also reduce the shareholder's incentive to run when a fund has experienced a loss. A variable NAV provides price transparency as the NAV embeds the market value of the assets. As a result, it will reduce the 'first mover' advantage by forcing redeeming shareholders to redeem at a NAV that reflects current losses. This will prevent the transfer of losses to remaining shareholders.

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Many argue that the move to variable NAV could be detrimental to the investor's community. Some investors (e.g. pension funds) are legally prohibited from investing in non-constant NAV funds. The move from CNAV to VNAV would force them to shift their money to regular bank deposits. As a result these investors would lose the benefit of diversification that MMFs aim to achieve. This measure would actually create the opposite effect—increasing the exposure to financial institutions that, as history has shown, are never too big to fail.

The U.S. regulator, the Securities and Exchange Commission (SEC), looked into this mandatory move and eventually backed down in August 2012 due to internal disagreements on the matter, urging other policymakers such as the Financial Security Oversight Council (FSOC) to step in. Meanwhile, the SEC is considering further study of the industry and market impacts.

#### **b) Creation of a NAV buffer and redemption restrictions**

A second solution is to create a buffer to absorb losses and restrict the possibility of redeeming shares of the fund. A MMF would have to constitute a reserve by retaining a percentage of the income. To some extent, these reserves could be used to offset losses and thus prevent the NAV of CNAV MMFs from going below one dollar. Along with a capital buffer, restrictions on redemptions could be put in place. Redemption restrictions aim to mitigate the liquidity risk of MMFs. During times of stress, the fund would be allowed to suspend or 'gate' redemption requests.

Opponents to this measure have argued that restricting the liquidity of MMFs would defeat the objective of providing liquidity to retail and institutional investors. As a result, MMFs would no longer be considered as an efficient cash management tool.

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## After the collapse of Lehman Brothers in October 2008, many MMFs faced liquidity issues

#### **c) Subscription suspension**

A third possibility is to close the MMF to new subscriptions from investors. As a consequence, the manager would not have to invest in newly issued securities that offer lower yields than the assets already in the portfolio, something which dilutes the MMF yield and increases the probability of breaking the buck.

However, this approach could only be effective in the short term (until maturity of existing investments) and MMF managers would then face the same issue as today. Furthermore, from a commercial point of view, this may lead investors to consider moving to other managers.

#### **d) Sponsorship**

Another possibility would be for bank sponsors to make an explicit commitment to cover the losses and therefore guarantee that the fund does not break the buck. While this measure may appear to decrease the risk of the fund, it may actually increase it. The fund manager has less incentive to monitor the credit risk of the portfolio as he knows the fund will be bailed out if it suffers losses. This would introduce a 'moral hazard' issue where risk takers do not bear full responsibility for their investments. It would create an asymmetry where gains accrue to shareholders of the fund while losses accrue to shareholders of the bank sponsors.

However, regulators and in particular the European Systemic Risk Board (ESRB) are now reflecting on whether sponsor support for MMFs should be outlawed so as to prevent from risk spreading contagion to sponsors. A Moody's study highlighted that 62 MMFs in the U.S. and Europe were rescued by their sponsor during the financial crisis at a cost of US 12.1 billion.

#### e) Waiving of fees

As already discussed in the first part of this article, reducing or even waiving the management fees entirely would reduce the likelihood of breaking the buck. These management fees could be used as a buffer to absorb losses just like we explained above. One caveat of this solution is that even waiving the management fees completely may still not be enough to prevent the fund from breaking the buck. Indeed, looking at graphs 1 and 2, we can observe that yields on short-term treasuries of highly rated governments are in negative territory. This means that the performance of the fund is doomed to be negative irrespective of management fees.

#### f) Reverse split

Another solution could be to act on the number of outstanding shares of the fund in order to maintain a one-dollar NAV. By cancelling a certain number of outstanding shares (reverse split), the value of the NAV will mechanically increase. The proportion of shares to be cancelled for each investor would be directly linked to the yield the manager wants to compensate. For instance, a negative yield of -0.10% on the fund's assets could be compensated by the cancellation of 0.10% of outstanding shares, leaving the NAV price unchanged at 1 dollar per share. The reverse split is pure accounting artefact as no wealth is lost or created. Indeed, the total NAV remains unchanged.

However, careful attention needs to be paid when considering this solution as it may be in conflict with terms of the prospectus and/or articles of incorporation of the MMF.

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**In terms of the broader economy, MMFs play a key role between corporates seeking funding sources and investors looking for investment opportunities**

#### To the Point:

- Money Market Funds (MMF) used to be seen as safe investments offering low volatility and interest risk combined with daily liquidity and credit diversification. Thus, they are a main part of so-called shadow banking activities; being less regulated (than banks) and may contribute to systemic risks
- They are under the spotlights of regulators; especially \$1 (Constant NAV) MMFs as they appeared to poorly perform under current market environment, which combines low interest and greater credit risks leading such funds' managers to struggle in order to get positive performance and ultimately maintain stable NAV
- Several possibilities have been considered or could be envisaged to not 'break the buck' such as migrating to Variable NAV (facing strong opposition resulting in a step back from the SEC), suspending subscription to new investors (could be damageable from a commercial point of view), restricting redemptions (this will repudiate the liquidity characteristic of such funds) covering of losses by sponsors (EU regulators currently considering possible ban of this to prevent from contagion to banks), waiving of management fees (could not be sufficient to preserve the buck) or cancelling of existing shares (but losses are still suffered by investors)

