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The rise of tokenised money market funds

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The rise of tokenised money market funds

Key takeaways

- *Tokenised money market funds (TMMFs) are a fast-growing collateral asset and savings instrument in the crypto ecosystem. Like stablecoins, TMMFs circulate on public permissionless blockchains but offer returns at money market rates and regulatory protections as securities.*
- *TMMFs currently cater strongly to decentralised finance protocols and rely on “allow-listing” of blockchain wallets to constrain peer-to-peer trading of their tokens to ensure regulatory compliance. However, such allow lists only constrain direct holding of TMMFs.*
- *TMMFs give rise to risks that mirror, and potentially amplify, those found in conventional money market funds, such as liquidity mismatches, as well as the operational and anti-money laundering / countering the financing of terrorism-related risks associated with stablecoins.*

Tokenised money market funds (TMMFs) are a rapidly growing segment of decentralised finance (DeFi). They represent shares in funds that invest in money market instruments, but circulate as tokens on public permissionless blockchains, such as Ethereum or Stellar. Legally, TMMF shares are classified as securities – although not always as money market funds – and are subject to regulation and supervision by securities market authorities. Unlike major stablecoins, which also seek to maintain a stable value but are prohibited from paying interest, TMMFs distribute returns to investors in line with money market rates.

This Bulletin provides a primer on TMMFs. It discusses potential use cases, illustrates the operational model of major funds and documents the growth and composition of the TMMF market. It also lays out the sources and implications of interlinkages with stablecoins, suggesting that current TMMFs often operate as complements to stablecoins. Highlighting potential risks related to liquidity mismatches, interconnectedness and operations, the Bulletin concludes with policy considerations.

TMMFs as on-chain collateral

The DeFi ecosystem stands or falls with the availability of collateral. In a public, permissionless blockchain, where market participants’ identities are hidden behind wallet addresses, credit needs to be backed by collateral. Recurrent spikes in the volatility of cryptoasset prices call for additional lender protection. Accordingly, lending in DeFi protocols is based on significant overcollateralisation, driving up the aggregate amount of collateral to sustain activity in the crypto ecosystem (Aramonte et al (2022)).

Stablecoins have evolved as an important source of collateral in DeFi but face inherent limitations (Aldasoro et al (2025a)). Breaches of parity in secondary markets and episodes of runs illustrate risks associated with stablecoin arrangements. Seizures of tokens by authorities in the context of scams and other illicit activities have highlighted the risks associated with the uncontrolled float of stablecoins between unhosted wallets. The prohibition on stablecoin issuers paying interest to coin holders (Garcia

Ocampo (2025)) implies significant opportunity costs of holding stablecoins relative to the returns on risk-free assets in traditional financial markets, particularly when interest rates are significantly above zero.¹

TMMFs seek to provide an alternative, yield-bearing source of on-chain collateral, mimicking features of government bonds – the backbone of collateralised transactions in traditional finance. By providing a claim on traditional money market instruments, like conventional money market funds (MMFs), TMMFs offer returns comparable with short-term risk-free rates. For investors predominantly active in crypto markets, TMMFs have clear advantages over their conventional counterparts. As tokens, they match key features of stablecoins on distributed ledgers, such as enabling peer-to-peer transactions and programmability through smart contracts. In principle, this allows investors to continuously rebalance positions without the need for intermediaries, while earning returns for each instant of time at which collateral was held. Peer-to-peer trading of TMMFs could promote their use to meet margin calls, reducing the need for investors to redeem shares to access liquidity² – a recurring vulnerability for conventional non-government MMFs during previous periods of market stress (FSB (2021)). As on-chain derivatives markets grow and more traditional assets become tokenised, this feature could become particularly useful. Finally, TMMFs may enable fund management companies to broaden their investor base beyond existing distribution channels, targeting crypto companies and retail investors that seek money market returns while remaining on-chain.

Operational model

TMMFs are digital representations of regulated funds. This makes them subject to the same regulatory requirements as their non-tokenised counterparts. Leveraging synergies that result from this equivalence, TMMFs have been launched by fund management companies, such as Franklin Templeton and BlackRock, which also manage a range of conventional funds. However, crypto-native companies, such as Circle and Ondo Finance, have also entered the market.

Legal structures of current TMMFs differ. Some are digital representations of shares in a conventional US government MMF. This allows retail and institutional investors to participate but requires adherence to stringent liquidity requirements and investment constraints (eg 99.5% of assets must be invested in cash, government securities and/or repos collateralised by the former). Others are not MMFs at all, but private funds for accredited investors. The latter structure is common for international funds as it provides greater flexibility and tax benefits. However, their shares can only be offered to so-called qualified purchasers – typically institutional investors – through specific regulatory exemptions for private offerings in the United States.³

Regulatory compliance requires that TMMF tokens do not flow freely between wallets of unknown beneficiaries on blockchains. Investors need to be onboarded by the fund administrator. This creates an “allow list” of wallets that comply with anti-money laundering / combating the financing of terrorism (AML/CFT) rules and meet any additional fund-specific requirements (eg for funds restricted to qualified purchasers). Such lists are maintained and regularly updated by the fund administrator.

The programmability of tokens – based on standards – seeks to ensure that TMMF shares can only be directly owned by and traded among allow-listed wallets. On Ethereum, ERC-20 is the base standard for fungible tokens like stablecoins; ERC-1400 builds on ERC-20 to support permissioned transfers, and the

¹ Stablecoins deposited at cryptoasset service providers (CASPs), like centralised exchanges, can earn interest. However, this interest comes from holding claims against the CASP, which are usually not insured, rather than from the stablecoins themselves.

² Shares of traditional MMFs are cumbersome to trade, and investors have to redeem them in stress periods to meet margin calls. This is not the case for TMMF tokens.

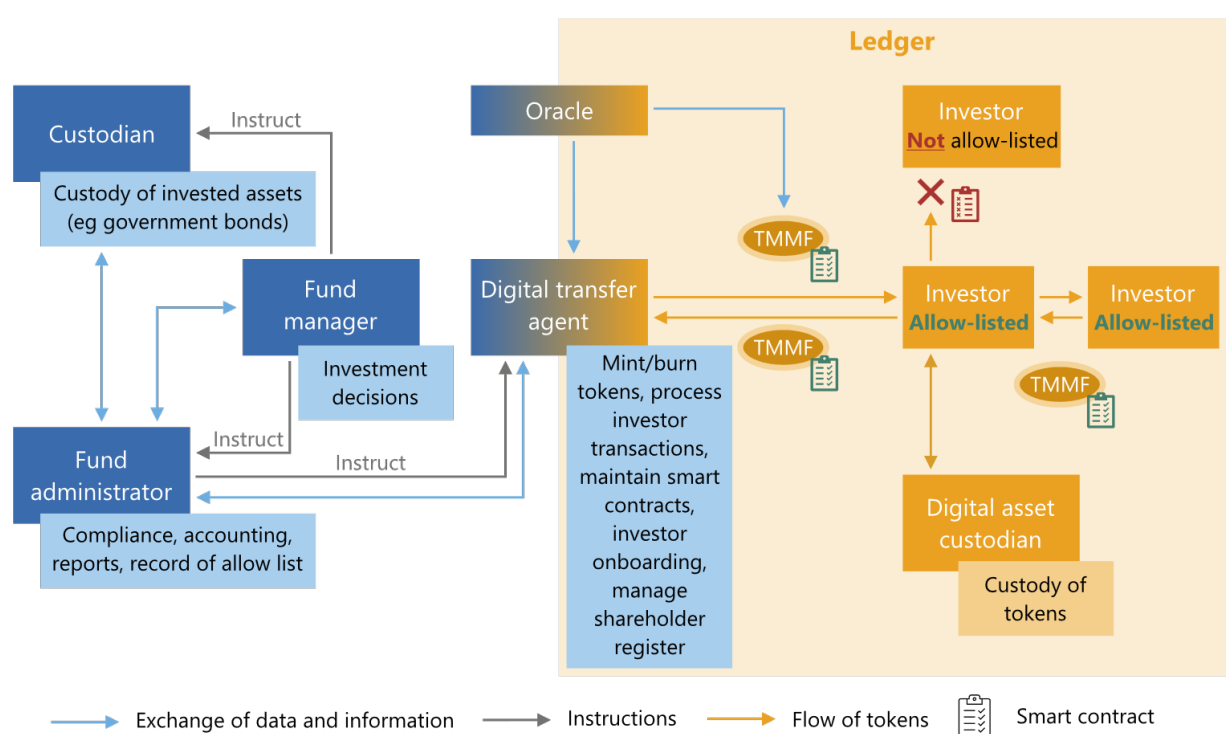
³ Variable net asset value (VNAV) funds also exist, such as the Spiko T-bills Money Market Funds registered in the European Union.

more recent ERC-3643 further develops this model.⁴ These newer standards extend ERC-20 to ensure TMMF tokens remain compatible with most wallets. They also add functions to verify identity and eligibility before allowing transactions. Under ERC-3643, for example, `isVerified` can confirm that a recipient appears in the register of allow-listed investors, and `canTransfer` can enforce any additional conditions required before a transfer proceeds. As compliance needs evolve, such programmable checks enable more complex rules to be applied, helping to address the circumvention of constraints (see below).

While specific design choices differ across funds, TMMFs generally follow a similar operational model (Graph 1). To subscribe, allow-listed investors transfer money or stablecoins to a digital transfer agent, which can be either affiliated with the fund management company or an external service provider (eg Securitize for Blackrock's BUIDL fund). The agent represents the link between the off- and on-chain interfaces and manages the shareholder register. Once the transaction is settled, tokens representing fund shares are "minted" and credited to the investor's wallet (often managed by a digital asset custodian), while the proceeds are invested in money market instruments (eg government bonds) and held by a custodian.

How tokenised money market funds move off-chain claims to the ledger¹

Graph 1



¹ Simplified illustration of a tokenised money market fund's (TMMF) operational model. Design choices and structures vary across TMMFs.

Source: Authors' elaboration.

For redemptions, the opposite process occurs: investors request to withdraw their token, after which the transfer agent removes ("burns") it from the blockchain. The fund then liquidates the necessary amount of assets and sends cash or stablecoins to the transfer agent's account for payout to the investor. The return accrued to investors is paid at regular intervals, typically daily or monthly. This can take the form of additional tokens for TMMFs that aim to maintain a stable net asset value (NAV) per share, or they can accumulate within the fund, thereby raising the NAV. In addition to subscribing or redeeming, allow-listed investors can also trade tokens among themselves.

⁴ ERC-3643 builds upon ERC-1400's foundation but introduces integrated, on-chain identity management to support permissioned transfers by directly linking token holders' identities to compliance rules.

Notwithstanding the continued expansion of tokenisation, current TMMFs operate in a hybrid market environment. The vast majority of repo transactions takes place in traditional money markets and government securities reside predominantly with custodians off-chain (Aldasoro et al (2025b)). In the absence of native tokenised assets to invest in and active on-chain money markets, a range of TMMF activities are still performed off-chain. The calculation of the fund's NAV, for instance, relies on pricing information usually provided once per business day by off-chain services to which the blockchain has access ("oracles"). Custody and proof of ownership of the investments are also still performed off-chain.

Minimum investment amounts are tailored to the target investor base. Some funds cater exclusively to institutional investors and have introduced minimum amounts of \$5 million, while retail-oriented funds set much lower amounts. Similar to conventional funds, where minimum amounts often vary across share classes, some TMMFs set low thresholds for the tokens that operate on retail-oriented blockchains (eg Solana), while imposing much higher ones for tokens circulating on other blockchains (eg Ethereum).

Market structure

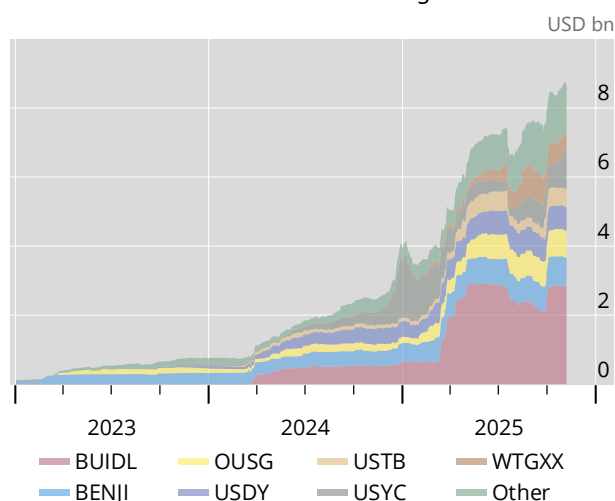
Following a slow start, TMMFs have grown rapidly over the last two years. While total value locked (TVL), equivalent to the funds' assets under management, amounted to only about \$770 million at end-2023, TVL rose more than tenfold to almost \$9 billion by the end of October 2025 (Graph 2.A).

During this time, the TMMF market underwent a significant structural shift (Graph 2.B). Initially, Stellar, a network that allows comparatively cheap transfers in much smaller amounts than other blockchains, was the preferred choice of issuers as it caters to a broad investor base, including retail. With the growth of institutional TMMFs, other features, such as the stability and security provided by a large number of validators and smart contract capabilities, have gained greater importance. These funds largely operate on Ethereum, which now accounts for 50% of TVL.

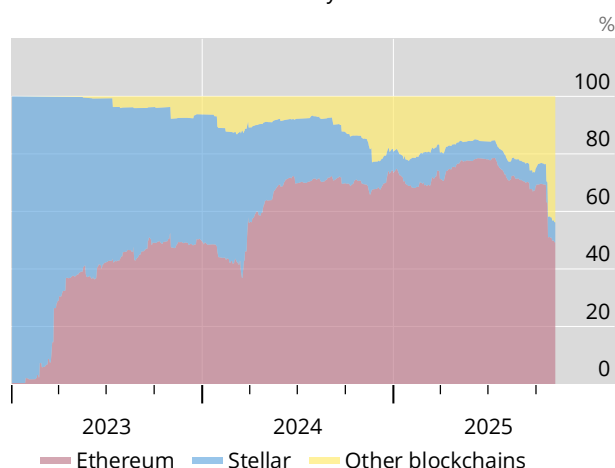
The growth of tokenised money market funds (TMMFs)

Graph 2

A. Total value locked in TMMFs has surged¹



B. Entrants have shifted activity across blockchains²



¹ Total value locked (TVL); based on a sample of 36 TMMFs. ² TVL by blockchain, as a percentage share of total TMMF TVL.

Sources: rwa.xyz; authors' calculations.

At present, TMMFs – including those not representing shares of registered US government MMFs – invest predominantly in short-term US government securities (ie US Treasury or agency debt) or repo out cash against such securities (Graph 3.A). In addition to the attractiveness of US money market rates and the depth of the underlying market, this allocation reflects the primacy of dollar-pegged stablecoins in the crypto ecosystem, which is a crucial driver of investor demand for dollar returns.

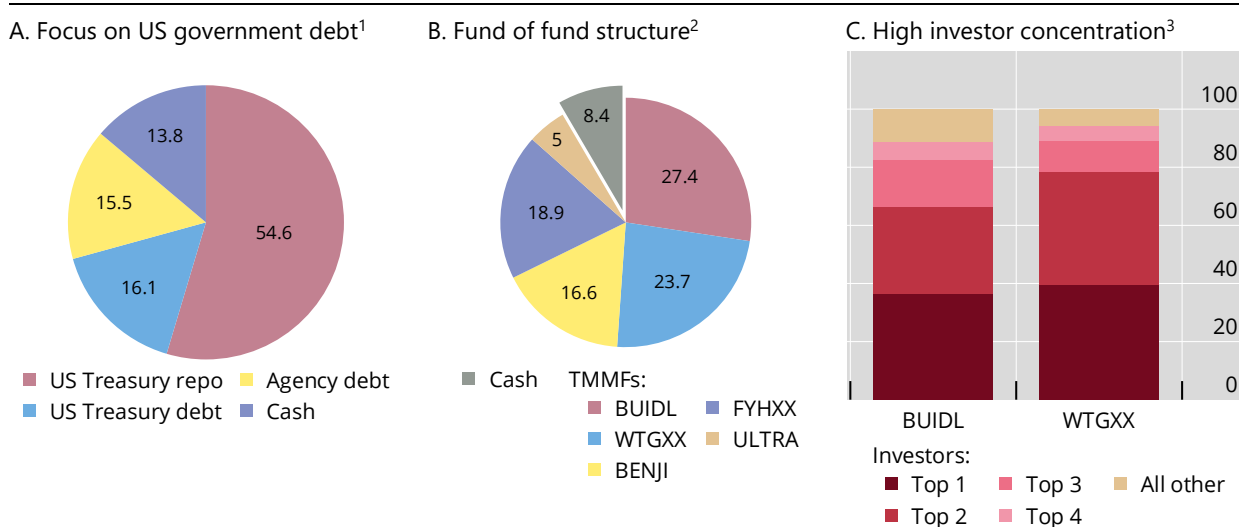
Based on Ethereum data, companies operating DeFi protocols are the main investors in BUIDL, the largest TMMF to date. Their demand reflects several use cases. One is using TMMFs as collateral on DeFi platforms, such as allowing users to borrow stablecoins by pledging TMMFs (eg Aave horizon protocol). Another use is issuing “fund of fund” structures, like the Ondo Short-Term US Government Bond Fund (OUSG), a TMMF that invests exclusively in other TMMFs (Graph 3.B). This allows issuers to market tokens under their own brand and tailor fund features (eg fees, minimum investments) to suit their target investors. TMMF tokens can also be packaged into other tokens, such as being used as reserve assets to back stablecoins, which are more widely accessible. Moreover, some platforms allow trading of tokens for all investors they have onboarded, broadening access to wallets not directly allow-listed by the TMMF.

Demand from DeFi protocols has resulted in a high concentration of holdings by a small number of investors and limited trading activity. For BUIDL, but also for another large fund, the WisdomTree Government Money Market Digital Fund (WTGXX), around 90% of total holdings are in the hands of only four wallet holders, according to blockchain data (Graph 3.C).

Investment focus on US government debt amid high investor concentration

In per cent

Graph 3



¹ Average holdings of BENJI, February–April 2025. ² Average holdings of OUSG, February–April 2025. ³ Share of TMMF tokens held by the four wallet addresses that account for the largest holdings of BUIDL and of WTGXX, respectively; wallet addresses differ across funds.

Sources: Company filings; iMoney.net; ondo finance; rwa.xyz; authors' calculations.

Risks and policy considerations

TMMFs are demonstrating some of the new technological capabilities that tokenisation could bring to the financial system. In providing a tokenised representation of a government bond portfolio, current TMMFs mimic some of the features of tokenised government bonds, which could become the backbone of the future financial system (Aldasoro (2025b)). If this comes to pass, ensuring prudent risk management will remain key to sustain trust in the system.

TMMFs give rise to risks that mirror and may even amplify those found in conventional MMFs and stablecoins. At the heart of these risks lies the liquidity mismatch between the daily redemption capabilities of the tokenised shares and the underlying assets, which remain subject to traditional settlement cycles. This creates the potential for stress during periods of heightened demand for liquidity in a market environment without resort to the financial safety net of traditional finance.

The transparency of blockchain-based transactions further compounds liquidity risk by acting as a coordination device among investors. As redemptions are immediately visible to all market participants,

the risk of runs may be exacerbated as confidence in the TMMFs wanes. This dynamic could become more acute if, as the market expands, new types of TMMFs are launched that move away from the current focus on short-term government bonds, eg because risk-free rates decline. In such cases, the absence of robust liquidity buffers may leave funds more vulnerable to sudden surges in redemption requests.

Interlinkages between TMMFs and stablecoins introduce additional channels for contagion. Some TMMFs have established instant redemption facilities in partnership with stablecoin issuers, enabling allow-listed investors to exchange fund tokens for stablecoins. While this can alleviate immediate liquidity pressure on the fund, it also creates the potential for shocks to propagate between the TMMF and stablecoin markets. Moreover, the practice of repackaging TMMF shares into other tokens can also transmit stress from one fund to others, raising the risk of broader disruption within the crypto ecosystem. Leveraged borrowing strategies (so-called looping), where TMMFs are pledged as collateral to borrow stablecoins to buy more TMMFs, could worsen market dislocations by triggering deleveraging spirals.

Operational and technological risks are also inherent to TMMFs. The reliance on public blockchain infrastructure exposes funds to cyber attacks, smart contract vulnerabilities and service outages, any of which could impair the functioning of the fund or limit investor access to their shares.

The current allow-listing approach poses additional operational challenges. It results in duplication, as each fund must maintain its own list. It is impractical for funds with a large investor base and restricts TMMF liquidity, limiting their wider use for margining. It also fragments the blockchain environment into controlled and uncontrolled compartments, potentially reducing market efficiency. Furthermore, the wrapping of TMMF tokens into stablecoins or the possibility to trade them freely on platforms can allow investors to bypass allow-lists in practice. As the market grows, alternative solutions may be needed. Trusted wallet ID systems, shared across funds and supported by sound AML/CFT checks and ongoing compliance monitoring (eg Aldasoro et al (2025c)) could mitigate associated risks.

More broadly, the expansion of TMMFs also highlights challenges for authorities internationally. While the market remains in its infancy, TMMFs illustrate the speed with which tokenised finance can move from theory to mainstream adoption and can create crucial points of contact between jurisdiction-bound traditional finance and global DeFi. Regulatory frameworks, however, remain fragmented across jurisdictions (Salami (2025)). Without agreed standards, risks of regulatory arbitrage, capital flow volatility and challenges for AML/CFT compliance could grow, raising risks for consumers and financial stability.

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