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Rated, But Not Equal

A Due Diligence Framework for Institutional Allocators in the Tokenized Money Market Fund Market

June 2026

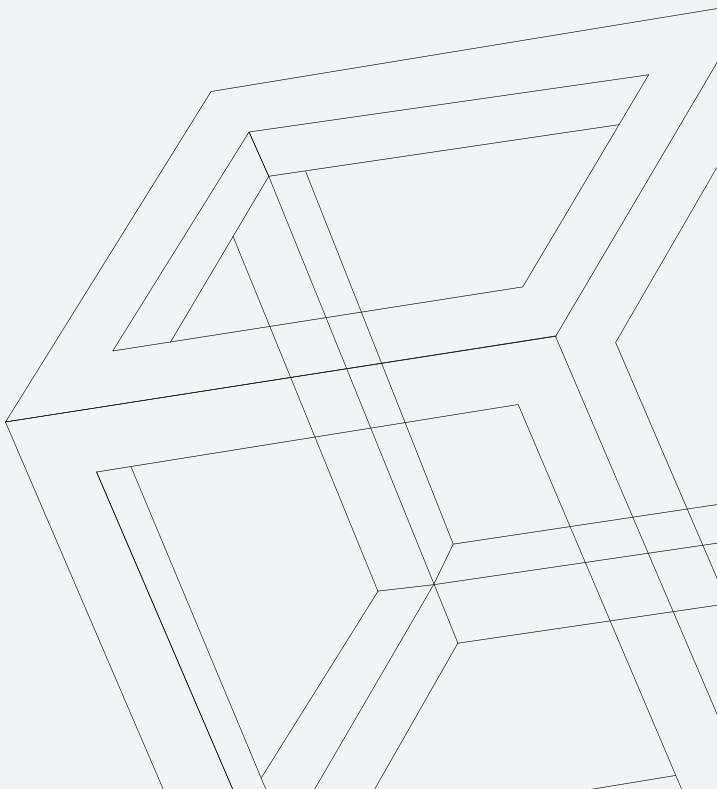


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Introduction

On May 13, 2026, Moody's assigned its highest money market fund assessment to two tokenized products on the same day. BlackRock's BUIDL, the largest tokenized Treasury fund globally with approximately $2.5 billion in assets under management, and Fidelity International's FILQ, launched on May 13, 2026, both received an Aaa-mf assessment (where 'mf' denotes money market fund, reflecting the assessment's evaluation of both credit quality and liquidity) – indicating a very strong capacity for capital preservation and liquidity. Moody's applied its standard money market fund methodology, augmented by a digital assets economy review covering the tokenization arrangement, and concluded that tokenization does not alter the underlying assets or the legal and regulatory framework of either product (Moody's).

For risk and compliance teams and investment committees that have been waiting for a formal credit checkpoint before proceeding with tokenized fund allocations, the Aaa-mf resolves the threshold question. These products now sit on the same risk tier as the most conservative traditional money market instruments.

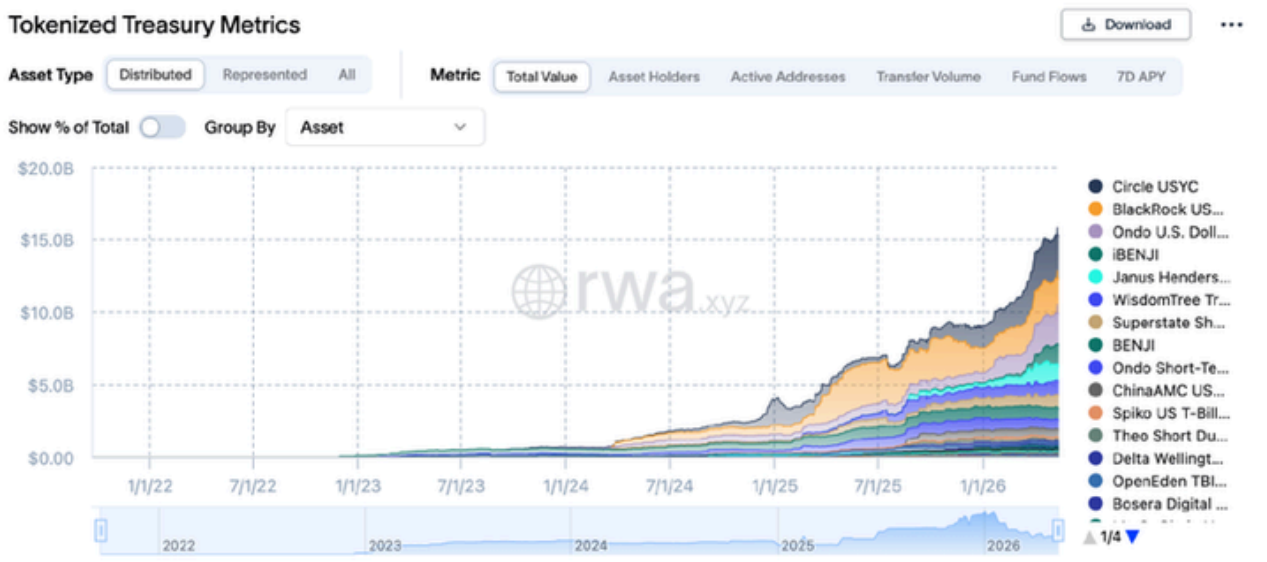
But the two funds that share that assessment operate on fundamentally different infrastructure. BUIDL spans eight blockchain networks connected by a third-party cross-chain bridge. FILQ runs on a single permissioned Ethereum environment, with real-time NAV data delivered by Chainlink and JP Morgan. The assessment tells you both funds are creditworthy. It does not tell you which one settles faster under redemption stress, which one depends on a bridge protocol that was exploited for $320 million in 2022, or which chain's validator set has contracted by 68% from its 2023 peak. For institutional allocators, an assessment like Moody's is the beginning of due diligence on a tokenized fund. This piece provides the framework for the rest.

Note: Moody's Ratings' Money Market Fund (MMF) assessments (identifiable by their "-mf" modifier) are opinions of the investment quality of shares in mutual funds and similar investment vehicles that principally invest in short-term fixed-income obligations. They are not credit ratings.

The market landscape

The tokenized US government debt market has grown from $1 billion to more than $15 billion in assets under management in two years (rwa.xyz via CoinDesk). The broader market for tokenized real-world assets now exceeds $30 billion, tripling in the past year (CoinDesk).

Exhibit 1: Tokenized Treasuries

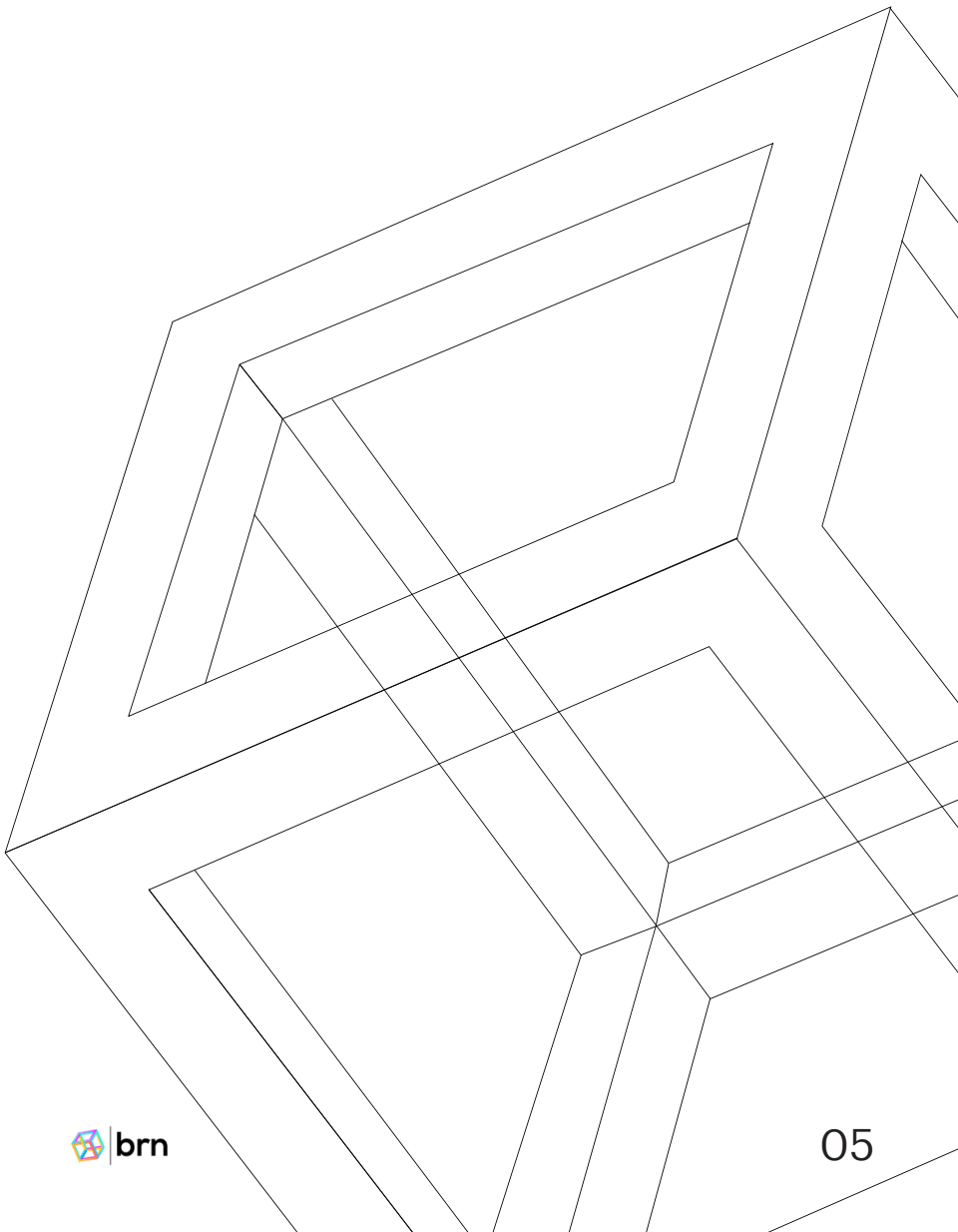


Source: https://app.rwa.xyz/treasuries

The first half of 2026 has brought a wave of new institutional entrants: Fidelity International launched FILQ on May 13, JP Morgan filed to launch a tokenized money market fund under the ticker JLTXX, and BlackRock announced two additional on-chain fund offerings. The demand driver is institutional cash management: on-chain yield from government securities with 24/7 settlement, stablecoin-based subscriptions and redemptions, and composability with collateral markets on decentralized finance platforms.

The figure that matters most for allocators, however, is not the market's size but its fragmentation. BUIDL operates across eight blockchains: Ethereum, Solana, Polygon, Optimism, Arbitrum, Avalanche, Aptos, and BNB Chain (rwa.xyz). Franklin Templeton's BENJI operates across nine, with the Stellar network hosting roughly 70% of its supply (Stellar.org). Fidelity International's FILQ operates on one: Ethereum, in a permissioned environment. Ondo Finance's OUSG holds a diversified portfolio of tokenized money market funds — including FYOXX, BENJI, WTGXX, and BUIDL — and adds its own smart contract layer across four chains, including

XRP Ledger (Ondo Finance). The same product category houses funds with architectures that share almost nothing beyond the label "tokenized money market fund." A $2.5 billion fund spread across eight blockchains is not a single product from a risk perspective. Each chain represents a different set of validators, a different finality mechanism, and a different reliability record. At this stage of the market, "tokenized MMF exposure" is not a homogeneous category. It is a spectrum of operational risk profiles under the same name.



What the Aaa-mf assessment tells you

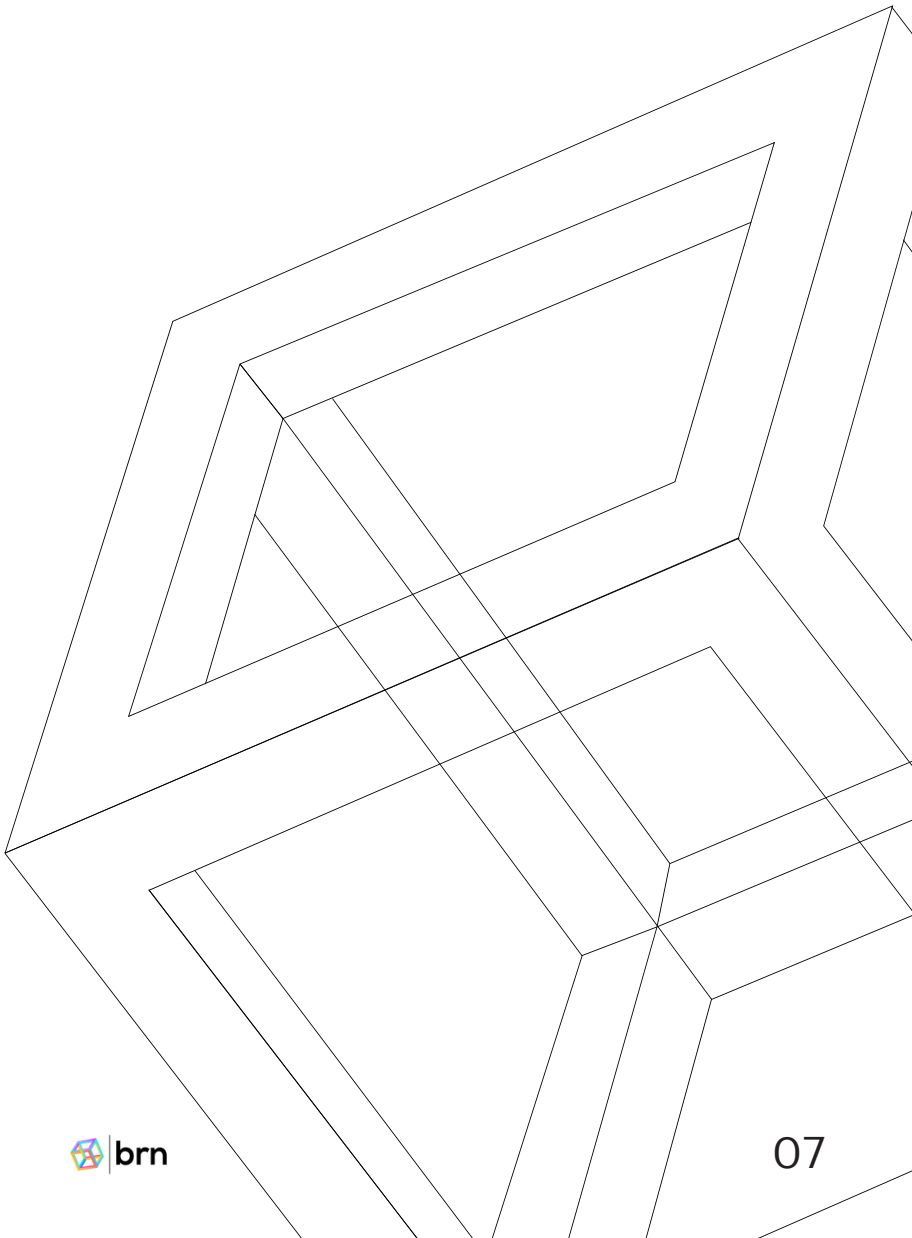
The Aaa-mf assessment evaluates a money market fund's credit quality, liquidity profile, counterparty risk, legal structure, and its operational controls as the primary channel through which technology risks are assessed and mitigated, including smart contract governance frameworks, custody arrangements, and related operational safeguards.

Moody's applied this framework to both BUIDL and FILQ and concluded that each demonstrates a very strong ability to meet its capital preservation and liquidity objectives, the highest assessment in Moody's six-tier scale for money market funds. The agency noted explicitly that, on the back of these governance and control mitigants, tokenization does not change the fund's underlying assets or its legal and regulatory framework (The Block).

This is a meaningful finding. It means that, from a credit perspective, the tokenized wrapper adds no incremental risk to the portfolio of short-term Treasuries, reverse repurchase agreements, and cash equivalents that these funds hold. The Aaa-mf places them alongside the most conservative instruments in the money market universe, the same tier occupied by funds that collectively manage trillions of dollars globally. For investment committees whose mandates require a minimum credit rating as a precondition for allocation, this precondition is met. The tokenized fund now clears the same bar as its traditional equivalent.

The assessment’s scope, however, has a boundary that allocators need to understand. Moody's assesses technology risk controls at the fund level: how the smart contracts are governed, how custody is managed, and what operational safeguards exist within the fund's own infrastructure. It does not assess the resilience characteristics of the blockchain network on which the fund operates, because these are exogenous infrastructure risks rather than risks structured and mitigated at the fund level. Settlement finality, network uptime history, validator concentration, and cross-chain bridge dependencies fall outside the assessment's stated scope. This boundary is a design choice to focus the assessment on controllable, mitigated risks, not a deficiency or omission in the analysis.

Credit ratings and assessments answer the question "Is this fund creditworthy?" Institutional allocators also need to answer a different question: "On which chain does this fund operate, under what conditions does that chain settle, and what happens when the network is under stress?" The remainder of this analysis provides a framework for that second question.



The infrastructure layer: what the assessment does not cover

A note on scope

The analysis that follows focuses on the five blockchain networks that currently host the largest concentration of tokenized US Treasury assets under management: Ethereum ($7.8 billion), BNB Chain ($3.1 billion), Solana ($904.1 million), Stellar ($857 million), and Plume ($515.6 million), per rwa.xyz data as of end-May 2026. These are the networks where institutional allocators are most likely to encounter tokenized MMF exposure today.

Different networks, different shapes of risk

The five networks are not built the same way, and the differences matter more for risk assessment than they do for technical understanding. Ethereum and Solana use Proof-of-Stake, a model in which a large number of independent participants bond capital and earn rewards for validating transactions honestly. BNB Chain uses a related model called Proof of Staked Authority, with a deliberately smaller and more curated validator set. Stellar uses a federated trust model in which a small group of well-known institutions agrees on transaction order, with no staking involved. Plume is a Layer 2 network: it processes transactions on its own infrastructure but settles them on Ethereum, inheriting Ethereum's security while adding its own operational layer.

For the institutional allocator, those design differences translate into four practical risk questions that need to be answered for each network: how concentrated is the network, how fast does settlement become final, how reliable has the network been historically, and what governs the smart contracts and bridges through which the fund operates. The technical mechanisms behind the answers vary by network, but the questions themselves are constant.

How concentrated is the network?

The first question for any infrastructure layer is how many independent parties would need to fail or collude simultaneously to disrupt settlement.

Ethereum has more than one million validators on paper, but the liquid staking protocol Lido controls roughly 24% of all staked ETH, meaning a single intermediary exerts disproportionate influence on the network's validation (Dune Analytics). Solana has roughly 795 active validators after a 68% decline from its 2023 peak, with three entities (Helius, Binance Staking, and Galaxy) controlling more than 26% of staked SOL (Solana Compass; CoinCodex). BNB Chain operates with a substantially smaller set of 45 validators, drawn primarily from the Binance ecosystem and its partners (Chainspect).

For Stellar and Plume, the question takes a different form. Stellar's security depends on the configuration choices of approximately two dozen Tier 1 institutions, including the Stellar Development Foundation, Franklin Templeton, Blockdaemon, and Satoshipay; these are the entities whose trust settings would need to converge in error to halt the network (Messari). Plume currently runs a single centralized sequencer operated by the Plume team (L2BEAT). That sequencer orders transactions, but cannot move funds it does not own because the underlying proof system prevents invalid state changes. The practical risk for allocators on Plume is therefore censorship or operational delay rather than asset loss. Centralized sequencers are the norm across all major Layer 2 networks today, with decentralization roadmaps targeting late 2026 to 2027 (eco.com).

How fast does settlement become final?

In traditional fixed-income markets, T+1 means trades settle one business day after execution and become irreversible at that point. On a blockchain, settlement is a question of seconds or minutes, but the principle is the same: until a transaction is final, it can still be reversed. Allocators care about this most during stress periods, when multiple investors are seeking to redeem simultaneously and execution certainty matters.

The time to final settlement is approximately 12.8 minutes on Ethereum (ethereum.org), approximately 2 seconds on BNB Chain with a 2026 roadmap targeting sub-second times (Chainspect), approximately 400 milliseconds on Solana (Solana Documentation), and 3 to 5 seconds on Stellar. Plume operates with two-layer settlement: the network itself confirms transactions in roughly 250 milliseconds, but full settlement that inherits Ethereum's security requires the transaction batch to be posted to Ethereum and finalized there, which adds additional minutes (Plume Documentation).

The gap between sub-second settlement on the fastest networks and roughly 13-minute settlement on Ethereum is material for institutional execution. A fund redemption that settles in under a second on Solana and the same fund redemption settling in nearly 13 minutes on Ethereum represent different execution profiles, even when the assessment is identical.

Has the network ever stopped working?

Reliability under stress is best measured by the historical outage record, not by theoretical throughput claims. Ethereum has never experienced a full network outage since its 2015 launch. BNB Chain operated continuously throughout 2025 without a single outage, processing peaks of 31 million daily transactions (BlockchainReporter). Solana experienced five major outages between 2021 and 2023, including a 17-hour shutdown in September 2021, and has since maintained over 16 consecutive months of full uptime since February 2024 (Solana Compass).

Stellar has experienced one network halt in over a decade of operation, a 67-minute interruption in May 2019 caused by misconfiguration among trusted operators, with 99.99% uptime since (Stellar.org). Plume's operational track record is shorter given its 2025 mainnet launch. Because Plume relies on Ethereum for final settlement, its reliability profile includes both its own sequencer availability and the underlying L1; L2BEAT recorded a transaction data submission gap of roughly 11 hours on May 9, 2026, the kind of anomaly that highlights why Layer 2 networks require monitoring of both layers.

Who governs the smart contracts and bridges?

The least visible operational risks sit at the level of the smart contracts that control fund operations; the oracle infrastructure that prices the fund (e.g., NAV data) and provides on-chain proof of reserves; and, for multi-chain funds, the bridges that move tokens between networks. If a fund's smart contract is upgradeable, the governance structure around upgrades matters: who authorizes changes, how many signatures are required, and whether a timelock allows participants to review proposed modifications before they take effect.

Franklin Templeton's BENJI smart contracts undergo independent third-party security audits, with private keys held by Franklin Templeton itself. FILQ operates in a permissioned environment where compliance controls are integrated at the contract level through Sygnum. For multi-chain funds, the bridge mechanism is its own risk layer. BUIDL uses Wormhole, a cross-chain protocol that was exploited for approximately $320 million in February 2022. The protocol has been rebuilt with substantially upgraded security and governance, but the historical record remains part of the operational risk profile. BENJI uses a burn-and-mint mechanism operated by Franklin Templeton's own transfer agent, eliminating third-party bridge dependency but centralizing the cross-chain process. FILQ avoids bridge risk entirely by operating on a single chain. A fund can operate on a network with strong concentration metrics and fast settlement, but if moving tokens between networks requires a bridge with its own governance and security history, the bridge becomes a potential point of failure in the settlement path, independent of the network itself. The risk assessment of cross-chain protocols is especially critical given recent incidents, such as the $292M LayerZero exploit (Coindesk).

Exhibit 2: Infrastructure characteristics of the top 5 chains (by AUM) hosting tokenized US Treasury

Dimension	Ethereum	BNB Chain	Solana	Stellar	Plume
Tokenised UST AUM	$7.8B	$3.1B	$904.1M	$857M	$515.6M
Network type	Layer 1	Layer 1	Layer 1	Layer 1	Layer 2 (on Ethereum)
Network model	Proof-of-Stake	Proof of Staked Authority	Proof-of-Stake	Federated trust	Optimistic rollup
Independent operators	~1.1M validators (largest holds 24% of stake)	45 validators	~795 validators (top 3 hold 26% of stake)	~23 Tier 1 institutions	1 sequencer (today)
Time to final settlement	~12.8 minutes	~2 seconds	<1 second	3-5 seconds	<1 sec local; +13 min for L1 settlement
Full network outages	None since 2015 launch	None in 2025	5 (2021-2023); none since Feb 2024	1 (May 2019, 67 minutes)	New network; data submission anomalies recorded

Sources: rwa.xyz, Dune Analytics, Solana Compass, ethereum.org, Chainspect, Messari State of Stellar Q1 2026, L2BEAT, Plume Documentation.

Products compared: four architectures, one assessment

The infrastructure framework applied to the four leading tokenized MMF products reveals how the same product category can house fundamentally different risk profiles.

BUIDL: maximum distribution

BlackRock's USD Institutional Digital Liquidity Fund, tokenized through Securitize, holds approximately $2.5 billion in assets and accounts for roughly 15% of the tokenized Treasury market (CoinDesk). The fund's infrastructure strategy is to maximize accessibility by deploying across eight blockchain networks and using Wormhole to enable cross-chain movement of tokens. This gives BUIDL the broadest distribution of any tokenized MMF, which drives AUM growth and facilitates use as collateral on platforms like Deribit and Crypto.com.

The trade-off is infrastructure complexity. BUIDL on Ethereum operates with finality of 12.8 minutes and 1.1 million validators. BUIDL on Solana operates with sub-second finality and roughly 795 validators. BUIDL on BNB Chain operates with 2-second finality and 45 validators. The assessment is identical across all chains; the settlement characteristics and decentralization profiles differ in every case. The bridge dependency adds another variable: Wormhole's security has been substantially improved since the 2022 exploit, but the cross-chain mechanism remains a component the allocator must assess independently of the fund itself.

BENJI: pioneering accessible infrastructure

Franklin Templeton's Onchain US Government Money Fund (FOBXX), represented by the BENJI token, manages approximately $823 million in assets across nine blockchain networks (Stellar.org). It was the first US-registered mutual fund to use a public blockchain as its official system of record, launching on the Stellar network in 2021, and remains the only major tokenized MMF registered with the SEC under the Investment Company Act of 1940.

BENJI's cross-chain model uses a burn-and-mint mechanism operated by Franklin Templeton's own transfer agent, which eliminates third-party bridge dependency but centralizes the cross-chain process via a single entity. The fund's "intraday yield" feature, which calculates yield per second during peer-to-peer transfers, demonstrates a capability enabled by tokenization that traditional fund structures cannot replicate. BENJI has not received a Moody's rating to date, but its SEC registration provides a regulatory layer that the other products do not carry.

FILQ: constrained operational complexity

Fidelity International's USD Digital Liquidity Fund launched on May 13, 2026, and received an Aaa-mf assessment from Moody's. The fund currently operates on a single chain (Ethereum) in a permissioned environment where only approved wallets can transact. Sygnum provides the tokenization infrastructure and KYC/AML controls. Chainlink securely delivers real-time on-chain NAV data using its decentralized oracle infrastructure, with JP Morgan supplying the approved daily valuation. The minimum investment is $100,000. Settlement is available 24/7 through stablecoins.

FILQ's current architecture is the inverse of BUIDL's. Where BlackRock maximizes distribution across chains, FILQ operates on a single chain, constraining failure modes at the cost of distribution breadth. FILQ, as currently structured, means no bridge risk and no multi-chain operational complexity. A permissioned environment means no exposure to permissionless network activity. The parent fund (Fidelity International's LVNAV vehicle) manages nearly $7 billion and has a long operational track record that FILQ inherits in terms of investment strategy and management expertise. At launch, Fidelity International described the design rationale as follows:

"The chain on which an institutional fund operates is a product decision, not a technical detail. We chose a single permissioned environment for FILQ to constrain operational complexity. For institutional clients, execution certainty matters more than breadth of distribution, and our infrastructure choices reflect that priority."
— Emma Pecenicic, Head of Digital Assets Distribution, Fidelity International

Fidelity has not ruled out adding cross-chain functionality at a later stage; the company has indicated that any such decision would involve careful weighing of the operational risk trade-offs.

OUSG: the multi-manager structure question

Ondo Finance's OUSG manages over $540 million in assets across a diversified portfolio of tokenized money market funds. The largest positions are Fidelity Treasury Digital Fund (FYOXX) at 25.3%, Franklin Templeton's BENJI at 24.1%, WisdomTree's WTGXX at 21.6%, and BlackRock's BUIDL at 18.6%, with the remainder in Figure Certificate Company's YLDS, USDC, and cash equivalents (Ondo Finance). The fund operates on Ethereum, Polygon, Solana, and XRP Ledger, and its recent cross-border settlement test with JP Morgan, Mastercard, and Ripple demonstrated a near real-time tokenized Treasury redemption across blockchain and banking rails (CoinDesk).

OUSG is best understood not as a feeder into a single underlying fund but as a fund-of-funds across tokenized MMF products — each with its own chain architecture, smart contract governance, and operational risk profile. An allocator in OUSG carries layered infrastructure exposure: the risk characteristics of four underlying fund architectures, each operating across different networks, plus Ondo's own smart contract layer across the additional chains on which OUSG itself operates. None of the underlying funds' assessments covers the layers that Ondo adds, and no single assessment covers the combined infrastructure stack. For allocators considering OUSG as a route into tokenized Treasury exposure, the due diligence must encompass each underlying fund's infrastructure profile independently, not just the wrapper.

Exhibit 3: Product architecture comparison

Dimension	BUIDL	BENJI	FILQ	OUSG
AUM	~$2.5B	~$823.5M	Newly launched (parent: $7B)	$540M
Launch	Mar 2024	Apr 2021	May 13, 2026	2023
Moody's assessment	Aaa-mf	None	Aaa-mf	None (invests in Aaa-mf rated BUIDL, among others)
Number of chains	8	9	1	4
Primary chain	Ethereum	Stellar (~70% of supply)	Ethereum (permissioned)	Ethereum
Cross-chain mechanism	Wormhole (third-party bridge)	Burn-and-mint (proprietary)	None (single chain)	Ondo Bridge (LayerZero)
Tokenization platform	Securitize	Benji Technology (proprietary)	Sygnum Desygnate	Ondo Finance
NAV delivery	On-chain (Securitize)	Daily yield airdrop	Daily (Chainlink + JPMorgan)	Daily NAV oracle
Regulatory registration	BVI-domiciled	SEC (Investment Company Act 1940)	Cayman Islands (segregated portfolio)	Cayman Islands
Infrastructure philosophy	Maximise distribution	Pioneer accessible infrastructure	Minimise operational risk	Feeder: inherit credit, add chain access

Sources: issuer documentation, CoinDesk, The Block, Stellar.org, rwa.xyz.

The allocator framework: three questions

Every institutional evaluation of a tokenized money market fund should answer three questions that together constitute a complete due diligence covering both credit quality and blockchain infrastructure. These are designed to be portable: they apply to any tokenized fund, not only to the products discussed in this analysis.

What does this assessment cover, and what is its stated scope?

The Aaa-mf covers credit quality, liquidity, counterparty risk, legal structure, and fund-level technology controls including smart contract governance and custody arrangements. It does not assess chain-level resilience, bridge dependencies, or settlement behavior under network stress. The allocator should read the assessment report, understand the scope boundary, and identify explicitly what falls outside it. The instinct to treat a top-tier rating as a comprehensive endorsement of the product is understandable but incomplete. The assessment is comprehensive within its defined scope. The allocator is responsible for covering the dimensions that lie beyond it.

On which chain or chains does this fund operate, and what are their infrastructure characteristics?

For each network hosting the fund, the allocator should answer the same four questions used in the analysis above: how concentrated is the network, how quickly does settlement become final, what is the historical reliability record, and what governs the smart contracts, bridges, and oracle infrastructure through which the fund operates. A multi-chain fund requires this assessment per network, not once at the aggregate level. Furthermore, if they use a modular cross-chain protocol (e.g., LayerZero), each bespoke integration requires due diligence because there is no minimum security floor, whereas a secure-by-default cross-chain protocol (e.g., Chainlink CCIP) has a standard risk profile across integrations. The chain on which the allocator holds the token determines the settlement profile of their specific position, regardless of which chain the fund was originally launched on. For networks that do not use Proof-of-Stake, the concentration question takes a different form: Stellar's risk depends on the configuration choices of its Tier 1 institutions, and Plume's risk depends on sequencer behavior, Ethereum L1

finality, and the data layer that supports the rollup. The oracle infrastructure is also key to the assessment, such as the quality of the NAV data, the secure delivery of it onchain, and whether they implement additional safeguards like Proof of Reserve.

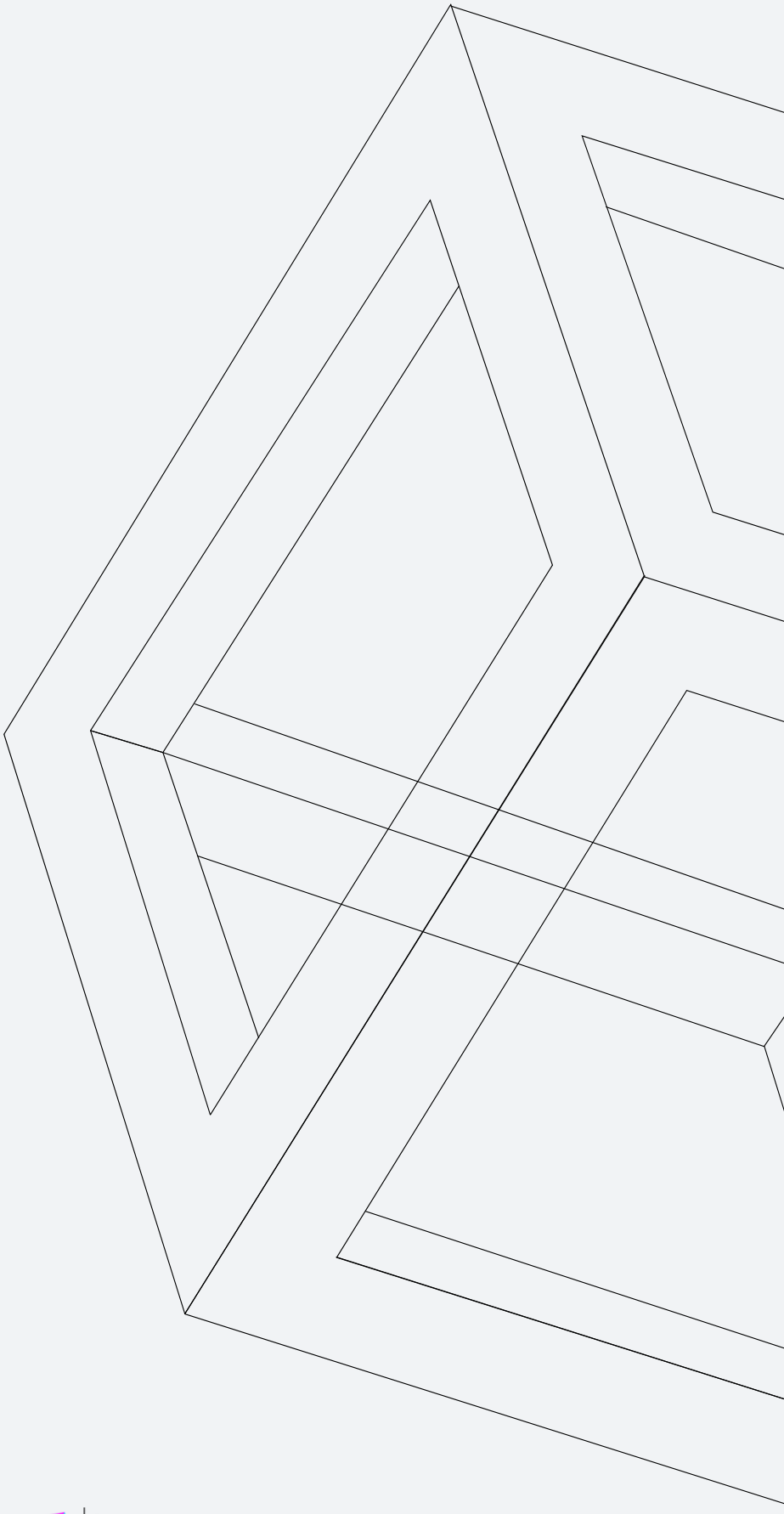
Under a redemption stress scenario, what is the execution path and how certain is settlement finality?

This is the stress test that combines credit and infrastructure into a single assessment. If the fund's underlying assets are liquid (Treasury bills, repurchase agreements) but the chain is congested, the bridge is delayed, or the network is experiencing an outage, settlement certainty degrades regardless of credit quality. The allocator should trace the full execution path: from redemption request, through smart contract execution, through chain finality, to settled proceeds in cash or stablecoin. Each step in that path has a potential point of failure, and the analysis should be conducted for stress conditions, not for normal operations. A fund whose credit quality is beyond question can still deliver a poor settlement experience if its infrastructure fails at the moment the allocator needs it most.

Conclusion

The tokenized money market fund market is maturing, and the Moody's Aaa-mf assessments for BUIDL and FILQ are a threshold event that institutional allocators have been waiting for. Assessments are an essential and legitimate criterion for allocation decisions, and the agency's conclusion that tokenization does not alter the underlying credit profile of these funds removes a barrier that kept many institutions on the sidelines.

But allocators who stop at the assessment carry risk that does not appear in any assessment. The difference between a fund that currently operates on a single permissioned chain with zero network outages and no bridge dependencies, and a fund that spans eight chains connected by a third-party bridge with a documented exploit history, is operational, measurable, and directly relevant to settlement certainty under stress. That difference exists today between products sharing the same Aaa-mf designation. The framework in this analysis gives allocators the tools to assess that second layer.



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27 Ann Siang Road, Singapore | 069707
www.thebrn.co
hello@thebrn.co