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Tokenised funds: rethinking fund operations and infrastructure

Contents

Executive summary

The convergence of maturing blockchain infrastructure, evolving regulatory frameworks and increasing adoption by major financial service providers has created a unique market window for tokenised funds. An expanding base of institutional participants and regulatory bodies in key jurisdictions is actively developing frameworks that accommodate blockchain-based fund ownership, while the assets under management in tokenised funds are growing.

Although the current value proposition is concentrated at the fund share or unit level – tokenising the ownership and distribution layer while leaving underlying portfolio management unchanged – there is great potential for further development.

Several benefits are emerging along the fund value chain: the digital format of tokenised shares allows greater flexibility in distribution; smart contracts automate compliance enforcement and share issuance; tokenised share registers improve transfer efficiency and reduce manual hand-offs and reconciliation. As adoption scales, these incremental efficiencies become structurally significant.

The strategic case extends beyond immediate gains, as financial institutions that engage now are investing in organisational readiness. In an industry where the next generation of investors and service providers will be digitally native, financial services providers that develop teams with both fund management and digital asset expertise, as well as build relationships with early adopters will gain a competitive advantage.

This paper provides insights into fund tokenisation today, laying out the evolution of its adoption, trends and value proposition, mapping the impact across the full fund value chain, comparing traditional and tokenised processes in detail, and outlining the key architectural decisions and regulatory considerations required to move from strategic intent to operational reality.

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01

The evolution of tokenised funds

The total distributed tokenised asset base[1] has grown more than fourfold since early 2025, from USD 5.7 billion to over USD 30 billion (Figure 1). The tokenisation of real-world assets now covers a diverse range of asset classes – including fixed-income and government securities, real estate, commodities, private equity and alternative investments – yet the composition of this growth has been far from uniform. A major uptick at the beginning of 2025 was overwhelmingly driven by a single segment: US Treasury debt in the form of tokenised money market funds. When set against the broader tokenisation landscape, this dominance is striking. While tokenised real estate, commodities such as gold, and private credit have each carved out meaningful niches, tokenised funds – and treasury-focused vehicles in particular – have emerged as the dominant growth vector, accounting for the lion's share of new inflows. This concentration reflects demand from institutional and digital-native investors seeking to earn risk-free yield on-chain, as tokenised Treasuries gradually replace zero-yielding stablecoin holdings. The trajectory underscores a broader market dynamic: whereas other tokenised asset classes remain at earlier stages of adoption or serve more specialised investor bases, tokenised funds benefit from regulatory familiarity, operational scalability and immediate utility as yield-bearing, composable instruments within decentralised finance ecosystems. In this sense, tokenised funds are not merely one category among many in the expanding tokenisation universe – they represent the primary gateway through which institutional capital is migrating on-chain.

Figure 1: Evolution of tokenised assets[2]

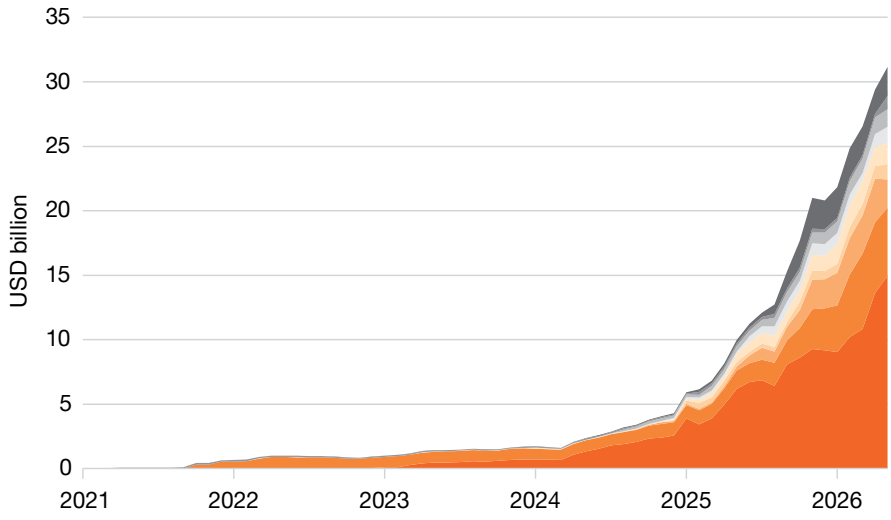
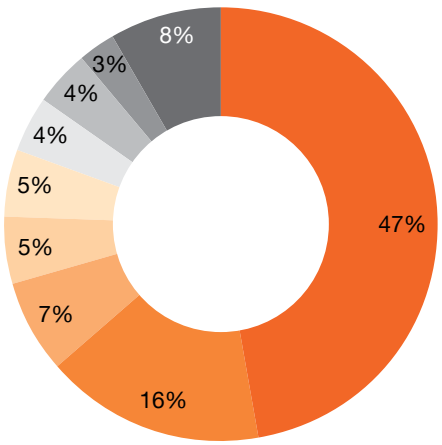


Figure 2: Tokenised assets by asset class[2]



US treasury debt
Commodities
Asset-backed credit
Stocks
Specialty finance
Active strategies
Non-US Government debt
Venture capital
Other

1 This figure encompasses tokenised assets that can be held in external wallets and transferred freely between them, excluding stablecoins and tokenised deposits.

2 RWA.xyz. (May 2026)

Although today's tokenised funds footprint remains relatively small, the long-term outlook is promising.

Tokenised money market funds holding US Treasury debt currently amount to almost USD 15 billion, making up the largest share of tokenised assets with 47% (Figure 2). The dominance of tokenised US Treasuries is supported by the dollar's role as the global reserve currency, the unmatched depth and liquidity of the US Treasury market, and the fact that the largest tokenisation platforms (Ondo, Securitize) are US-based.

Although today's tokenised funds footprint remains relatively small, the long-term outlook is promising. Tokenised fund assets under management could reach USD 235 billion by 2029, according to estimates by Calastone.[3] PwC's 2025 Asset and Wealth Management Survey reveals that 38% of asset managers expect tokenisation and digital asset adoption to have the most impact on revenue growth by 2030.[4]

Market trends and adoption use cases by traditional finance players

In a traditional fund, investors receive fund units or shares that are recorded in a share register maintained by a transfer agent, with corresponding entries at the investor's custodian or depository bank. In a tokenised fund, the fund share is represented as a blockchain-based token, which is a programmable digital asset issued on a distributed ledger. Major global players started pilot projects in 2021.

Launched in April 2021 as the first US-registered fund to use a public blockchain for transaction processing and share-ownership recording, Franklin Templeton's Franklin OnChain U.S. Government Money Fund (FOBXX) marked an early milestone in on-chain finance. It grew steadily, surpassing USD 270 million in assets under management (AUM) by March 2023 and reaching more than USD 836 million by January 2026.[5,6] Initially launched on the Stellar blockchain, the fund continued expanding to additional chains, and today FOBXX fund shares are available natively on eight public blockchains, including Ethereum and Solana.[7]

3 Calastone. (2025) White paper: Empowering Digital Distribution: The Strategic Rise of Tokenised Funds.
4 PwC. (2025). PwC AWM Revolution 2025.
5 Franklin Templeton. (2023). Franklin Templeton announces the Franklin OnChain U.S. Government Money Fund surpasses $270 million in assets under management.
6 Franklin Templeton. (2026). Franklin OnChain U.S. Government Money Fund.
7 CryptoSlate. (2025). Franklin Templeton FOBXX tokenised money fund goes live on Solana.

In a tokenised fund, the fund share is represented as a blockchain-based token, which is a programmable digital asset issued on a distributed ledger.

To maintain a consolidated view of ownership across all chains, Franklin Templeton uses a proprietary blockchain-based transfer agent system for processing transactions and recording share ownership. An app provides a direct-to-investor distribution channel, bypassing traditional intermediary distributors and enabling Franklin Templeton to offer its tokenised funds directly to qualified investors through a digital-native experience.

Another example that supported institutional adoption was BlackRock's tokenised money market fund. BlackRock USD Institutional Digital Liquidity Fund (BUIDL) was launched on Ethereum in March 2024 and has since expanded to additional chains. Since then, it has grown to over USD 2 billion in AUM[8], making it one of the largest tokenised fund products in the world. What makes the fund unique is that it enables institutional investors to hold a blockchain-based token representing shares in a fund backed by US Treasuries and cash equivalents, allowing 24/7 peer-to-peer transfers, near-instant settlement and the potential to be used as on-chain collateral.

In November 2024, UBS Asset Management took a different approach to tokenised funds by tokenising shares of an existing fund in Singapore, the UBS USD Money Market Investment Fund Token (uMINT).[9] UBS was able to demonstrate the first in-production tokenised fund-share transaction by processing a subscription and a redemption order on-chain. Given that it follows established token architecture patterns, uMINT's significance is not primarily technological. It is strategic and commercial, marking the world's largest asset and wealth manager putting tokenised funds into production. Unlike BlackRock's BUIDL (which targets institutional and DeFi-adjacent investors) or Franklin Templeton's FOBXX (which is a registered US mutual fund available via the Benji app), uMINT is positioned within UBS's wealth management ecosystem.

8 rwa.xyz. (May 2026) BUIDL.
9 UBS. (2024) UBS Asset Management launches its first tokenized investment fund.

02

The value drivers for tokenised funds

By tokenising fund shares, institutions can introduce programmable digital shares without changing the fund's legal structure or underlying investments. For financial institutions, the strategic question is therefore not whether tokenisation will universally replace existing infrastructure, but where it can deliver measurable value under current market conditions and where to begin piloting tokenisation.

While the technology has attracted significant attention, the business case remains use-case dependent. In the near term, the clearest benefits will tend to be in process automation, controlled transferability and digital distribution enablement. Over time, as on-chain payment rails, market liquidity and industry standards mature, more structural efficiency gains may emerge. The following sections outline the principal value drivers for financial institutions that are considering tokenising shares.

Operational efficiency and risk reduction

A primary source of potential value lies in replacing fragmented ownership records with a shared on-chain ledger. This reduces friction and improves data consistency across the ecosystem. The ledger enables faster confirmation of ownership changes, automated enforcement of transfer conditions and improved auditability.

Tokenisation can help reduce settlement risk through atomic delivery-versus-payment mechanisms.

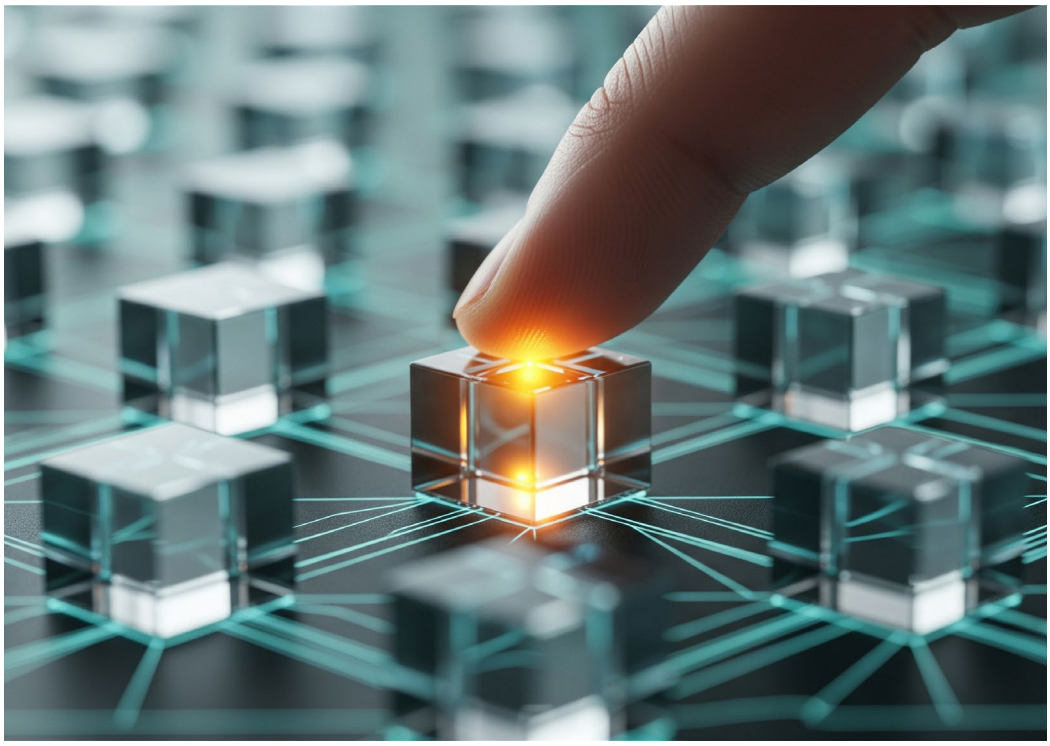
Tokenisation can also help reduce settlement risk through atomic delivery-versus-payment mechanisms. Where tokenised shares and digital cash instruments are both available on-chain, settlement can occur simultaneously within a single transaction. This reduces failed trades and counterparty exposure, giving investors greater certainty on their positions. When fiat payment rails are used, the process becomes only partially atomic. However, transparency and automation benefits still apply.

Programmable compliance represents another tangible near-term advantage. Investor eligibility rules can be embedded directly into the transfer logic. This creates a more consistent and scalable control framework. For fund administrators, it reduces manual compliance monitoring while maintaining full regulatory accountability.

Investor and market access

Beyond operational considerations, tokenised shares can expand the ways funds can be accessed and distributed in digital environments. The use of programmable tokens enables fractional ownership and facilitates more flexible integration into digital wealth platforms and treasury workflows.

While secondary transferability is often cited as a universal benefit of tokenisation, its relevance is product-dependent. For daily-dealing mutual funds, the incremental value is minimal. It becomes strategically meaningful for money market funds used as collateral, cross-platform treasury management and illiquid private market structures, where peer-to-peer mobility unlocks real capital efficiency. However, most tokenised funds implement permissioned transfers rather than open trading, so this benefit should be assessed for each product and investor segment rather than assumed by default.



Strategic positioning and ecosystem readiness

Tokenised share capabilities have strategic implications for financial intermediaries. Institutions that gather early experience with programmable fund infrastructure position themselves to participate more effectively in emerging digital asset ecosystems, including tokenised collateral frameworks, digital treasury management and next-generation wealth platforms.

Most importantly, asset managers do not need to build all components in-house. A growing ecosystem of regulated digital custody providers, tokenisation platforms and wallet infrastructure vendors is emerging to support institutional adoption. These third-party solutions allow managers to pilot tokenised share classes within existing regulatory frameworks while limiting upfront operational complexity.

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Cost savings

While tokenisation does not automatically reduce operating costs at launch, it creates a pathway for gradual efficiency gains by automating selected processes in the fund share life cycle. By embedding transfer restrictions directly in the token logic and synchronising ownership records across participants, tokenised share infrastructure can reduce operational handoffs and improve process transparency.

Industry analyses[10] suggest that the near-term savings potential is concentrated in transfer agency operations, reconciliation activities and settlement coordination, while other cost components such as portfolio management, regulatory compliance and fund administration oversight remain largely unchanged. Under realistic adoption scenarios, automation and reduced reconciliation effort could lower operational servicing costs for the fund share layer over time, with the largest impact expected in environments with high transfer volumes or cross-platform distribution. In early hybrid models, however, cost benefits may initially be partially offset by integration and infrastructure costs, meaning efficiency gains tend to materialise progressively as scale and standardisation increase.

10 Bank for International Settlements (BIS): The rise of tokenised money market funds (2025); SS&C Technologies: Tokenization of Funds – Mapping a Way Forward; BCG & ADDX: Relevance of on-chain asset tokenization in 'crypto winter' (2022); World Economic Forum: Asset Tokenization in Financial Markets (2025).

03

Major impacts of tokenising fund shares on the fund management value chain

For asset managers, custodians and other financial intermediaries, the key question remains: how does tokenisation impact my day-to-day operations? Following the fund value chain, we highlight where a change to on-chain fund units will create the most impact and which areas remain unchanged.

Figure 3: Impact of fund unit tokenisation along the fund value chain

	Impact	Responsible	Description
1 **Investment management**	None	Asset Manager	• No change to investment process or portfolio management. • All activity remains fully off-chain.
2 **Trade execution and settlement**	None	Traders, Brokers, Custodian	• Underlying trades executed like today. • Traditional market infrastructure unchanged.
3 **Custody and safekeeping**	Minimal	Custodian / Depositary	• Assets stay in traditional custody. • Depositary oversight unchanged, with minor smart-contract monitoring.
4 **Fund accounting and NAV**	Minimal	Fund Administrator	• NAV still calculated off-chain. • Added step: NAV published on-chain for transparency.
5 **Distribution and marketing**	**High**	Distributors, Fund Manager	• Digital platforms enable direct investor access. • Reduced reliance on traditional distributors.
6 **Investor onboarding and KYC/AML**	Minimal	Fund Admin, Transfer Agent	• KYC/AML remains mostly off-chain. • On-chain whitelisting creates reusable compliance credentials.
7 **Subscription and redemption**	**High**	Transfer Agent, Fund Admin	• Smart contracts automate eligibility and mint/burn. • Faster settlement and less reconciliation.
8 **Income distribution**	**High**	Fund Admin, Paying Agent	• Smart contracts automate yield/dividend distribution. • Removes manual calculations and payment runs.
9 **Compliance and risk monitoring**	**Moderate**	Asset Manager, Depositary	• Portfolio compliance unchanged. • On-chain records improve AML processes and enforce transfer rules.
10 **Reporting and audit**	**Moderate**	Fund Admin, Auditor	• On-chain data improves transparency and audit. • Core financial reporting stays off-chain.

Our in-depth analysis focuses on the high-impact areas within our use case: distribution, subscription and redemption, and income distribution. In these areas, tokenisation most fundamentally alters the traditional workflow by reducing intermediaries, automating manual processes through smart contracts and replacing fragmented record-keeping with a single blockchain-based ownership ledger.

High impact: distribution and marketing

Fund tokenisation fundamentally reshapes the traditional distribution model by enabling direct investor access through digital platforms alongside traditional channels, rather than replacing them. Where the traditional model requires investors to access the fund through certain intermediary distributors – custodian banks, fund platforms, relationship managers – the tokenised model allows investors to register, complete KYC and subscribe directly via a digital platform operated by the fund manager or a tokenisation provider. This is why traditional distributors such as Allfunds[11], Clearstream[12] and Calastone[13] are developing DLT-integrated capabilities to offer tokenised shares through their existing networks.

Evolution 1: portable investor credentials
Today, investors must complete KYC/AML onboarding separately for each fund platform. The next step is reusable, on-chain identity credentials – verified once by a trusted claim issuer and recognised across multiple fund platforms, tokenisation venues and asset managers. This eliminates redundant onboarding, reduces time-to-invest from days to minutes and lowers compliance costs for both investors and fund managers.

Evlotion 2: real-time secondary market liquidity
Current tokenised fund shares are primarily subscribe-and-redeem instruments, much like their traditional counterparts. As regulated digital asset exchanges and OTC venues mature, tokenised fund shares will become continuously tradeable: investors will be able to buy and sell fund tokens on secondary markets without waiting for the fund's dealing cycle, with smart contracts enforcing compliance at every transfer. A recent first step in the transformation of fund shares from periodic-liquidity instruments into near-continuous-liquidity assets occurred in February 2026, when the SEC allowed 24/7 trading and instant settlement of WisdomTree's Treasury Money Market Digital Fund[14]. Intraday transactions with a broker dealer at USD 1, rather than only at end of day NAV, enable continuous, around-the-clock liquidity on blockchain rails, with trades settled instantly against the dealer's inventory.

High impact: subscription and redemption

Traditional share issuance involves a multi-step sequence across the fund administrator, transfer agent and custodian, involving the update of at least three separate systems that must be independently reconciled. Confirmation reaches the investor often days later, with limited interim visibility.

In the tokenised process, the smart contract mints tokens and assigns them to the investor's wallet in a single atomic transaction. The NAV is published on-chain via an oracle or admin feed, making it transparently available and creating an immutable audit trail. The smart contract uses this on-chain NAV to determine the number of tokens to mint based on the subscription amount.

Confirmation is near-instantaneous and the investor has continuous, real-time visibility into their holdings and full transaction history.

11 Allfunds. (2026). The way to lead change.
12 Clearstream. (2026). D7 DLT: Clearstream launches tokenized securities platform.
13 Calastone. (2025). Calastone launches tokenised distribution solution to unlock the future of fund distribution.
14 WisdomTree. (2026). WisdomTree to launch 24/7 trading and instant settlement.

Transfers of fund units are also recorded on the distributed ledger. This approach replaces the traditional settlement system by allowing the distribution of fund shares only to whitelisted addresses. Depending on the smart-contract definition, these tokens can only be issued to whitelisted addresses but not exchanged between them.

Evolution: payment, settlement and reconciliation – what if investors paid with crypto?
Traditionally, cash flows through multiple banking intermediaries to the fund's custodian, followed by manual reconciliations against subscription documents, before shares can be issued. Settlement depends on banking cycles and discrepancies trigger exception handling.

In the tokenised process, subscription instructions and payments are linked within a single digital workflow, simplifying reconciliation. Token minting occurs only after payment confirmation, creating a direct, auditable link. Where stablecoin-based payment is supported, the exchange of value and issuance of ownership can occur atomically in a single transaction – eliminating settlement lag and reconciliation entirely.

With tokenised fund shares, the calculation of distributable income remains unchanged, but the allocation and execution of distributions can be automated through smart contracts. This reduces manual intervention, lowers reconciliation effort and ultimately decreases the operational cost for the fund provider.

High impact: income distribution

Income distribution is traditionally a back-office process that involves multiple systems and manual steps, creating operational complexity, reconciliation work and costs. With tokenised fund shares, the calculation of distributable income remains unchanged, but the allocation and execution of distributions can be automated through smart contracts. This reduces manual intervention, lowers reconciliation effort and ultimately decreases the operational cost for the fund provider.

Smart contracts automate income allocation to token holders through two mechanisms:

- **Rebasing:** token quantities increase in investor wallets proportionally to their income share. Where tokenisation creates impact, the FA/TA can automate distribution instructions, whether as cash payouts or reinvested shares.

- **NAV accumulation:** income is reinvested in the fund, with investor holdings reflecting the accrued value. Tokenisation has only a limited material impact here, as income accrual into NAV remains an off-chain calculation.

In the tokenised process, the execution of distribution becomes programmable and near-instant (bar fiat payouts). Smart contracts can update investor balances directly on-chain, making the entitlement receipt immediately visible. The blockchain acts as the shared ledger, eliminating fragmented record-keeping during the distribution event.

Evolution: towards fully on-chain income flows
As underlying assets themselves become tokenised, the entire income distribution cycle can move on-chain. Coupon or dividend flows from tokenised securities could be paid directly into the fund's smart contract, which would automatically redistribute income to investors. This creates the foundation for atomic, end-to-end income processing without manual reconciliation, batch cycles or payment delays.

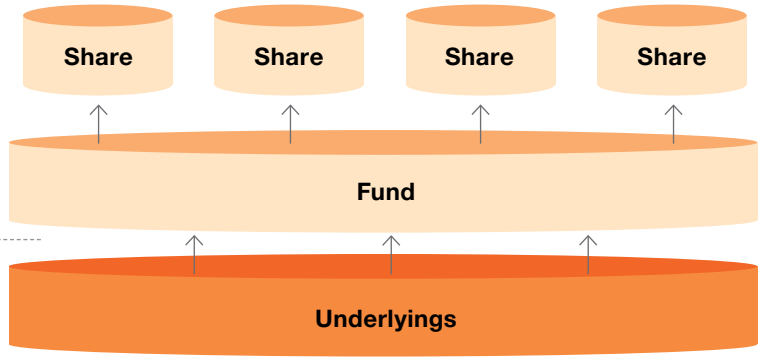
04

The technology and key architectural elements

Having established the practical impact along the full fund value chain, we now examine the operational steps and key architectural elements required to make tokenised fund shares a reality.

A fund can be broken down into three distinct layers: the fund share (the unit representing the investor's ownership stake), the fund itself (the legal vehicle and its governance structure) and the underlying assets (the portfolio of instruments the fund invests in). These layers can be tokenised independently or in combination, each with different implications for infrastructure, regulation and operations.

Figure 4: Three distinct fund layers



As a focus of this paper, we look at tokenising the fund shares, which is currently the most adopted tokenisation layer.

Tokenised underlyings are a possible evolution of fund tokenisation.

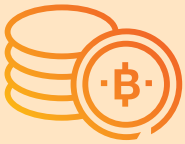
When tokenising at the share level only, the fund's legal structure remains conventional. The underlying assets – Treasury bills, commercial paper, reverse repos – remain in traditional custody, managed and settled through established market infrastructure. What is tokenised is the share itself: the unit that represents the investor's proportional claim on the fund's net asset value, their entitlement to income and their redemption rights. Ownership is represented by blockchain-based tokens, programmable digital assets issued and managed via smart contracts on a distributed ledger.

To successfully set up tokenised fund structures, companies must first understand what foundational elements are critical – but how do they determine where to focus their efforts?

Moving from strategic vision to operational execution requires careful consideration of the foundational infrastructure that will underpin tokenised fund shares. Understanding these key architectural elements is essential for asset managers and fund service providers seeking to capture the value drivers identified in Chapter 2 while managing implementation complexity and risks.

Structural token technology: the foundational technology decisions that define how the token itself is designed, issued and governed

Blockchain selection: fund tokens are issued on a specific blockchain using a token standard that defines their technical behaviour. When selecting an underlying blockchain, it is paramount to consider the adoption and network effects of the selected ledger type. Interoperability can be significantly impacted by this choice, as will the scalability and transaction costs resulting from transactions. The current market trend for tokenised funds is clearly towards public blockchains with permissioned smart contract access (such as Ethereum or Solana), leveraging the openness, interoperability and liquidity potential of public chains while maintaining regulatory compliance through on-chain access controls. Private chains (such as Canton Network) remain relevant for specific institutional use cases where confidentiality requirements or regulatory constraints make public chain deployment impractical. Ethereum remains the dominant blockchain for tokenised fund issuance and its total real-world asset value now stands at USD 15.6 billion.[15]



Token standard: a token standard defines what the token can do – the technical rules governing how a token behaves, how it is minted, transferred, queried and burned. For tokenised fund shares, the choice of standard is a foundational architectural decision because it determines what compliance logic can be embedded in the token, how the token interacts with wallets and platforms, and whether it meets the regulatory requirements for a transferable security. Beyond core functionality, tokenised fund shares also enable on-chain transfer restrictions, automated investor identity and eligibility verification, regulatory intervention capabilities (such as freezing, forced transfers, and clawbacks) and integration with institutional infrastructure.

Smart contract architecture: the smart contract architecture refers to the building-out of the functions based on the token standard, defining how the entire system is constructed, how components interact and how the token operates within a broader ecosystem of contracts. Programming the architecture means creating the smart contract logic that governs the token life cycle – including minting (subscription), burning (redemption), transfer restrictions (whitelist enforcement, jurisdictional blocks and investor-type checks), NAV integration, yield distribution mechanisms (rebasing and accumulation) and role-based access controls (admin, minter, burner, pauser and whitelist manager). Here are the most impactful features for tokenised fund shares:

1. **Yield and income distribution mechanism:** determining how fund income is passed through to token holders at the smart-contract level, whether through rebasing (adjusting token quantities), NAV accumulation (increasing token value) or periodic distribution events. The chosen mechanism must align with the fund's distribution policy, tax treatment and accounting requirements.
2. **Token governance and emergency controls:** establishing the governance framework for the smart contract, defining who holds which roles, under what authority and with what safeguards. This includes pause functionality (freezing all transfers in an emergency), forced transfer or burn capabilities (for regulatory or legal enforcement), upgrade governance and multi-signature or approval requirements for critical operations.
3. **Compliance and transfer restriction logic:** defining and encoding the rules that determine who can hold, receive and transfer the token, including KYC/AML whitelist enforcement, jurisdictional restrictions, investor qualification requirements, holding limits, lock-up periods and transfer approval mechanisms. This is the programmable compliance layer that can be built upon the right token standard.

15 rwa.xyz. (May 2026). Networks.

Architectural embedding: provider-side integration

Tokenising fund shares is not solely a technology decision; it also requires embedding the new blockchain-based infrastructure into the existing operational ecosystem of the fund and its service providers.

Operational systems and organisational integrations required to connect the token infrastructure with the existing fund ecosystem:

Wallet infrastructure and digital custody: establishing secure wallet infrastructure for the fund and its investors, including the selection of a digital asset custodian, key management approach (self-custody, third-party custody, MPC-based solutions), wallet provisioning workflows for onboarded investors and the security architecture protecting private keys from loss or compromise.

Integration with fund administration systems and on-chain data feeds: establishing the mechanism by which the off-chain NAV calculation is published on-chain for use by the smart contract, typically via an oracle or administrative data feed. This includes defining the update frequency, data validation controls, error-handling procedures and governance over who can publish and under what authority.

Transfer agent and registry integration: determining the relationship between the on-chain token ledger and the traditional transfer agent function, whether the blockchain serves as the primary book of record, a supplementary register or operates in parallel with a traditional share register. This has legal, regulatory and operational implications that vary by jurisdiction.

Distributor and platform connectivity: establishing how tokenised fund shares are made available through distribution channels, whether through a proprietary digital platform, integration with existing fund distribution networks (e.g. Allfunds, Clearstream or Calastone) or listing on digital asset exchanges and tokenisation platforms (e.g. Securitize, ADDX or Archax). This includes API connectivity, order routing and the reconciliation of distribution-level activity with on-chain records.

Legal and regulatory framework alignment: ensuring the entire architecture operates within the applicable legal and regulatory framework, including confirmation that token-based ownership is recognised under the fund's domicile law, that smart contract operations align with fund governance documents (prospectus and articles of incorporation), that data privacy requirements are met given blockchain's immutability, and that regulatory reporting obligations can be fulfilled from the combined on-chain and off-chain data infrastructure.

Cyber security: tokenised funds introduce a set of cybersecurity considerations that are materially more complex than for traditional fund structures, principally because the consequences of a security failure (such as the theft of the cryptographic keys that control ownership of fund tokens) are often immediate and irreversible in a way that has no equivalent in conventional finance, where fraudulent transactions can typically be unwound through established legal and operational channels. In addition to established cybersecurity principles that apply, the tokenised fund ecosystem introduces several novel risks, most notably, the security of the private cryptographic keys used to authorise transactions, the integrity of the smart contracts, and the vulnerability of the technical interfaces connecting traditional fund administration systems to blockchain infrastructure. Critically, however, the architecture of regulated tokenised funds usually provides meaningful recovery mechanisms that are absent from fully decentralised digital asset markets: the administrative controls built into regulated security token standards allow fund operators to freeze, cancel, and reissue tokens in response to a proven fraud, meaning that, unlike in unregulated cryptocurrency markets, economic ownership can often be restored to a legitimate investor even where the original fraudulent transaction cannot be erased from the immutable blockchain record. The governance processes and access controls protecting these administrative override functions are themselves a primary cybersecurity point of focus.

Operational resilience and business continuity: addressing the operational risks specific to blockchain-based infrastructure, including smart-contract bugs or vulnerabilities, blockchain network outages or congestion, oracle failures, key management failures and the ability to maintain fund operations if the on-chain infrastructure becomes temporarily unavailable. This includes audit of smart contracts, fallback procedures and incident response planning.

While this integration involves significant operational and technical effort, the reward is a fundamentally more efficient, transparent and scalable fund infrastructure. Providers that successfully embed tokenised capabilities position themselves to offer faster settlement, automated compliance, real-time reporting and broader distribution reach. These capabilities translate directly into competitive advantage and the ability to serve the next generation of digitally native investors and asset managers.

05

Regulatory considerations: global convergence and the Swiss approach to tokenised funds

Across major financial centres, regulators have responded to fund tokenisation by adapting existing fund frameworks or creating new regimes to accommodate distributed ledger technology (DLT). This section summarises the principal regulatory approaches and identifies emerging points of convergence, before outlining the specific Swiss regulatory framework for tokenised funds.

International regulatory landscape

Globally, jurisdictions have pursued broadly converging approaches to fund tokenisation while differing in their specific legal architectures. In the European Union (EU), tokenised fund units remain governed by existing frameworks (UCITS and AIFMD). The DLT Pilot Regime[16] provides a regulatory sandbox for the trading and settlement of tokenised financial instruments, including fund units, on distributed ledger infrastructure. Several EU member states – notably Luxembourg, Germany and France – have enacted national legislation explicitly recognising DLT-based registers for fund units, with live tokenised fund products already in the market. The European Commission's 2026 review of the DLT Pilot Regime will materially affect the scalability of tokenised fund structures across the EU.

The United Kingdom has pursued a structured approach, with the Financial Conduct Authority (FCA) confirming in its 2025 consultation paper[17] that tokenised fund registers can operate within existing authorised fund rules while exploring more direct investor access to funds. Both private and public DLT networks are permitted, subject to appropriate controls.

In Asia, Singapore applies a technology-neutral, substance-based approach under its Securities and Futures Act, with the Monetary Authority of Singapore (MAS) publishing operational guidance for tokenised funds in 2025 and actively building connected infrastructure for cross-border settlement. Hong Kong regulates tokenised fund interests under its existing Securities and Futures Ordinance, with specific requirements issued for tokenised investment products.

In the United States, tokenised fund shares remain subject to existing securities laws, with major asset managers demonstrating that tokenised fund vehicles can operate within the current regulatory framework. Joint guidance from the Federal Reserve, the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC) in 2026 confirmed that tokenised securities receive the same capital treatment as non-tokenised equivalents.

Off-shore fund centres, including the Cayman Islands and British Virgin Islands, are adapting their frameworks to accommodate tokenised structures through documentary updates, consultation proposals and operational guidance.

16 Regulation (EU) 2022/858
17 CP25/28

The cash leg of transactions is widely identified as a key barrier to scalability, with market participants calling for the development of digital cash – stablecoins, tokenised bank deposits or central bank digital currency (CBDC) – to enable atomic delivery-versus-payment for fund subscriptions and redemptions.

Emerging best practices

Across jurisdictions, several common themes are emerging. A resilient tokenised fund model requires permissioned tokens on institutional-grade infrastructure, with programmable transfer rules aligned with the fund's prospectus. Custody arrangements must accommodate both institutional and investor self-custody. The cash leg of transactions is widely identified as a key barrier to scalability, with market participants calling for the development of digital cash – stablecoins, tokenised bank deposits or central bank digital currency (CBDC) – to enable atomic delivery-versus-payment for fund subscriptions and redemptions.

Tokenised funds in Switzerland

Against this international backdrop, Switzerland has established a coherent legal foundation for tokenised funds, though the market has yet to see its first live tokenised fund product. With its 2021 DLT Act, Switzerland integrated distributed-ledger technology into financial markets law by introducing ledger-based securities in the Swiss Code of Obligations (SCO) and adapting the Financial Market Infrastructure Act. This framework allows fund units to be issued on a blockchain under the existing Collective Investment Schemes Act and its ordinance (CISA), without the need for an SPV structure. CISA defines what a fund unit is and what rights investors have (subscription, redemption, information, equal treatment) but does not prescribe a specific technology for representing these units, provided investor rights and proper register maintenance are ensured.

Switzerland has created a coherent legal foundation for tokenised funds by applying existing financial market laws. Tokenised units are not a new product class; they are the same CISA units in a new technological form, issued and transferred on a legally recognised DLT register.

Traditional vs on-chain fund issuance

Traditional issuance in Switzerland is based on a multi-layer, off-chain structure. Under CISA, fund units are claims or participation rights with defined investor and redemption rights, but no fixed technical form is stipulated. Units are recorded as uncertificated rights or via global certificates at a central securities depository and held as intermediated securities under the Intermediated Securities Act. The fund management company or SICAV, the custodian bank and intermediaries maintain a fragmented but reliable record chain that is operationally intensive, especially for cross-border distribution.

With tokenised funds, by contrast, fund units are created as ledger-based securities and recorded in a DLT register that fulfils SCO requirements. This DLT register can function as, or be mirrored in, the official register of units required by CISA, provided investor rights are fully respected. Unlike some jurisdictions, Switzerland permits the “real” CISA fund units to be tokenised directly. Issuance, transfers and redemptions can thus be recorded near real-time on-chain, while the fund continues to operate under familiar Swiss regulation.

Regulatory considerations in the Swiss market contrasted with developments in the global context

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Key regulatory focus points include:

- **Form and register:** ensuring the DLT register meets SCO requirements (integrity, access rules, register agreement) and fits the fund’s legal documentation.
- **Investor protection and disclosure:** updating prospectuses and fund documents to describe the DLT model, technology and cyber risks, token custody and operational resilience.
- **AML/KYC and whitelisting:** designing onboarding and on-chain whitelisting so that only identified, eligible investors can hold and transfer tokens, in line with AMLA and sanctions rules.
- **Outsourcing and IT governance:** managing DLT and smart-contract providers within FINMA expectations on outsourcing, cyber-risk and operational risk.

Switzerland’s potential compared with other jurisdictions’ advantage lies in allowing direct tokenisation of fund units under an existing, flexible fund regime. For international institutions, this combination of legal clarity, regulatory continuity and operational simplicity could serve as a differentiator. However, despite this favourable legal environment, no tokenised fund has been launched in Switzerland yet, reflecting both the nascent state of the broader tokenisation ecosystem and a degree of regulatory caution.

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Strategic outlook: what is needed for tokenised fund shares to scale

The transition toward tokenised fund shares should not be viewed as a product of innovation led by a single type of financial institution, but as a coordinated evolution of the fund unit ecosystem. Broad structural impact will materialise only as infrastructure, standards and incentives converge.

Ecosystem alignment and role evolution

Tokenisation does not change the core statutory roles and operational functions in Swiss fund structures; it changes the tools used to fulfil them. The fund management company or SICAV board remains responsible for governance, portfolio and risk management, and organisation under CISA. The custodian bank continues to safeguard assets, monitor compliance and oversee cash flows. The transfer agent/registrar remains in charge of the unitholder register – potentially implemented as a DLT register or mirrored on-chain – subject to CISO rules on delegation and oversight. Distributors and financial intermediaries still operate under CISA, FinSA and AMLA requirements for client protection, suitability/appropriateness where applicable and AML/KYC.

What changes is the operational effort. A single, shared DLT register reduces manual reconciliations between multiple systems. Programmable compliance (whitelisting, transfer restrictions, geo-blocking) embeds regulatory requirements into the transaction layer. Better data quality and audit trails support reporting, risk management and oversight. The regulatory perimeter remains the same, but the cost and friction of compliance can decrease where tokenisation is implemented with proper governance and controls.

Tokenisation does not change the core statutory roles and operational functions in Swiss fund structures; it changes the tools used to fulfil them.

The trajectory of tokenised funds will depend less on technological feasibility than on coordinated ecosystem evolution.

Critical enablers of broader adoption

Three ecosystem developments will materially influence adoption speed.

1. Regulatory clarity and record recognition
Supervisory acceptance of on-chain ownership records, clarity around digital custody liability, and harmonised treatment of transfer restrictions across jurisdictions will determine whether tokenised share registers remain parallel systems or evolve into recognised books of record.

2. Payment rails integration
Fiat rails currently remain dominant in regulated fund markets. While tokenisation can improve transparency and workflow coordination even in fiat-based environments, the capital-efficiency case strengthens significantly as tokenised deposits or stablecoins gain traction.

3. Standardisation and interoperability
Common token standards, identity frameworks and governance models are essential to avoid siloed implementations. Interoperability reduces integration costs and lowers barriers for distributors, custodians and administrators to participate.

A measured but structural shift

The structural constraints of the traditional fund share model are embedded features of legacy infrastructure. Tokenised shares offer a mechanism to address selected inefficiencies today while establishing a foundation for more synchronised ownership management over time.

The trajectory, however, will depend less on technological feasibility than on coordinated ecosystem evolution. In this context, tokenisation should not be understood as a replacement of the existing fund architecture, but as a gradual reconfiguration of the ownership layer, one that requires alignment across the full market infrastructure to achieve scale.

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How PwC can help

PwC's network combines extensive fund management and asset management expertise with experience with digital assets and tokenisation, both from industry and pioneering implementation projects.

We can help asset managers and other financial institutions navigate the end-to-end journey from project design to implementation decision: selecting appropriate blockchain infrastructure and service providers, designing compliant legal structures across jurisdictions, developing business cases for specific fund products and creating phased implementation roadmaps that integrate tokenisation with existing fund administration systems.

We bridge strategy, technology and regulatory expertise – combining asset management industry knowledge, blockchain architecture capabilities and Swiss regulatory navigation to de-risk tokenised fund implementation from concept through production launch.

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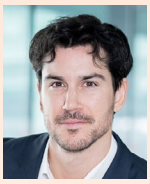

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