Perspective from
Franklin Templeton Industry Advisory Services

New investment options and opportunities from commingling assets in crypto wallets

Cryptographically protected wallets commingle assets in a common container, creating new investment options and opportunities

November 2024

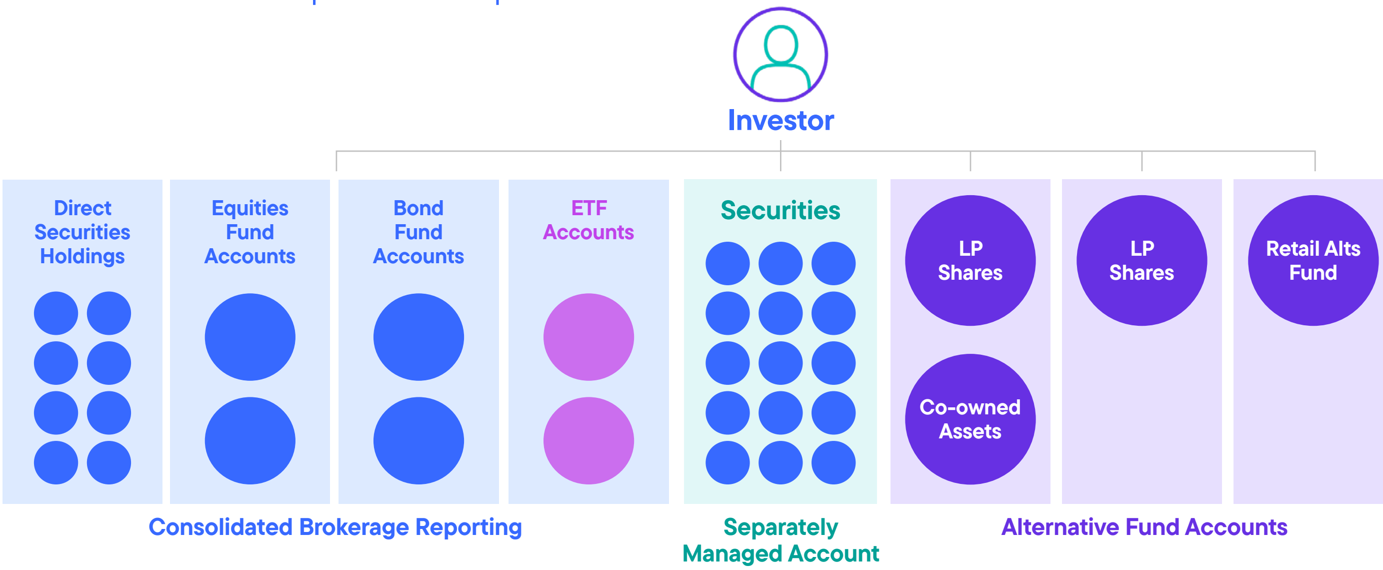
This is the sixth article in the Future of Investing series, drawing insights from our annual industry-wide survey, The Future of Investing.[1] The Overview summarizing the top 10 key findings can be found here along with a series of articles, each exploring a key finding in more depth.

We rarely stop to think about it, but today's investor "portfolio" is a reporting and analytical construct. It refers to the collection of assets spread across different investment accounts that belong to the investor. The "portfolio" gathers together the assets held in these accounts virtually as illustrated in Exhibit 1.

The design of the financial market infrastructure has forced each organization to maintain multiple sets of accounts for each investor serviced. Each firm processes individual transactions on a bilateral basis, moving payments and securities between distinct client accounts. Clients owning the same stock at two different brokerage houses would see two distinct listings and could not aggregate their exposure.

Fund ownership requires two ledgers: the ledger recording the *fund's* holdings of securities, and the shareholder ledger that shows how much of the fund's interests each *shareholder* owns. This makes it impossible to commingle fund assets. Even if an investor were to own two equity mutual funds with the exact same strategy and investment universe, their ownership would be recorded on two separate shareholder ledgers and each fund's holdings would be administered in separate brokerage accounts.

Exhibit 1: Portfolios Composed of Multiple Accounts



Source: Franklin Templeton Industry Advisory Services. For illustrative purposes only.

> **"Today, we see every fund has its own custodian, its own fund administrator, its own KYC/AML responsibility. We've set the system up to be this way and then we complain about there being no interoperability."**
>
> **FinTech**
> Innovator

Owning an exchange-traded fund (ETF) eliminates one set of bookkeeping. Investor interests in these offerings are recorded only on a shareholder ledger until a shareholder redeems their ETF "in-kind" in the primary market. The growing use of separately managed accounts (SMAs) represents the opposite approach. Whereas with an ETF the holding is only of a fund (with no individual security holdings), SMA account owners only hold *securities* and there is no fund structure, and thus no shareholder ledger to administer.

Private funds add further complexity and even more accounts. Most of these offerings are recorded via a roster of limited partnership (LP) interests maintained bilaterally with each distribution partner. An investor may choose to increase their LP interests in a fund over time, but if the second allocation were done via a different bank or advisory firm, the fund would need to maintain and administer two LP records for the investor—one with each organization. Co-investments create yet another set of accounts between each alternatives manager and investor that sits on the side of the fund's investment in that asset.

Using cryptographically protected wallets to hold digital or tokenized assets represents a very different value proposition from the loose affiliation of accounts underlying today's portfolios. In these wallets, assets may be stored *alongside* all other holdings. At present, these assets mainly include cryptocurrency coins, fungible tokens that represent participation interests in various protocols and decentralized apps, and non-fungible tokens (NFT) representing unique assets, typically digital assets. However, these wallets could potentially hold a variety of other assets as well.

Several bonds have been issued on blockchains where ownership is reflected via a token and that token is held in a cryptographically protected wallet. Investors have been able to use central bank digital currencies (CBDCs) held in a cryptographically protected wallet to purchase such bonds. For example, earlier in 2024, the Swiss city of Lugano issued a six-year digital bond of CHF 100 million where subscribers to the offering paid with a CBDC.[2]

“We have a definitional problem with alternatives. There’s old alts and new alts, which are things that people aren’t investing in today: Fractional art, real estate, fine wine—investments that also give people something to use or enjoy.”

Wealth Manager
<US$500 billion

Tokenized funds are also available. Franklin Templeton’s OnChain U.S. Government Money Fund (FOBXX) uses tokens to represent the shareholder’s interest in the underlying fund. One “Benji” token equals one share of FOBXX. The physical securities that make up the fund are maintained in the traditional way, but the shareholder record sits exclusively on the blockchain. Wallets are set up for each shareholder and their Benji tokens are minted and deposited when they subscribe to the fund. The tokens are burned, and the investor’s cash is returned when they redeem the fund. Interest payments are applied daily via incremental awards of additional Benji tokens.

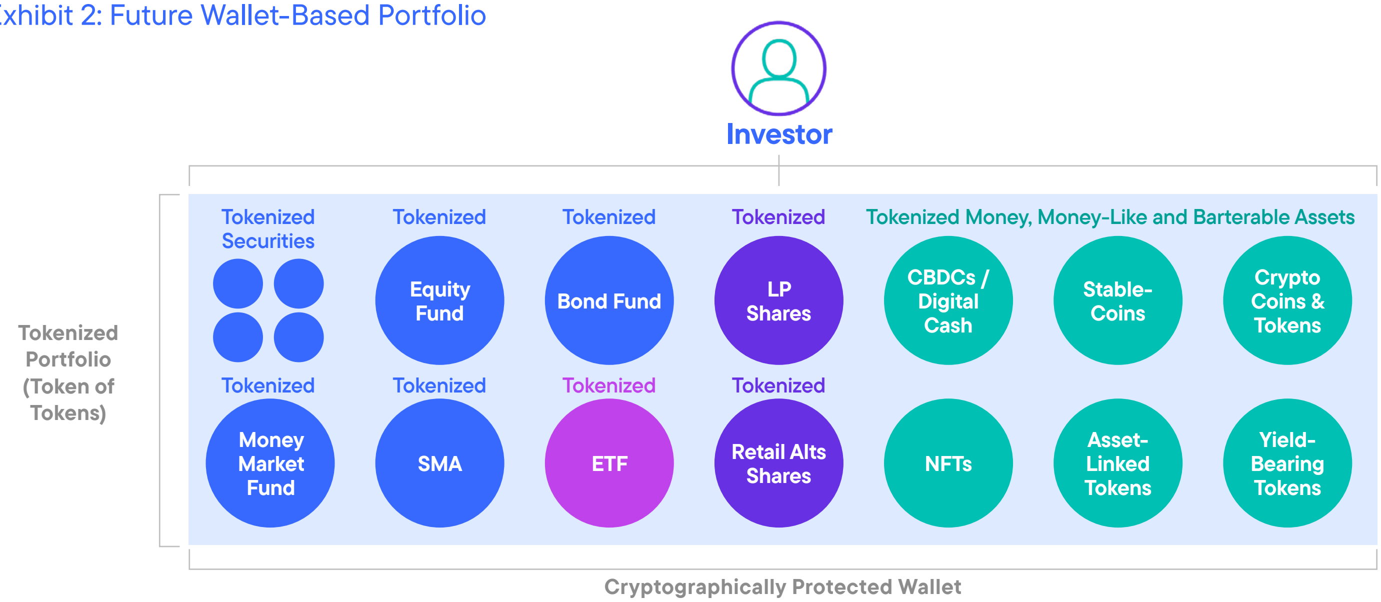
Physical assets have also been tokenized with digital instruments providing proof of ownership stored in wallets. For example, in early 2024, Galaxy Digital Holdings LP provided a loan to the co-founder of Animoca Brands, accepting as collateral a tokenized version of the renowned 1708 “Empress Caterina” Stradivarius violin, represented by its NFT equivalent. The physical Stradivarius violin, valued at over US$9 million in 2023, will remain securely stored with a Hong Kong-based custodian until the loan is fully repaid. The NFT, which grants ownership rights to the Stradivarius, is held in Galaxy’s digital wallet.[3] While this example highlights an innovative way to create new assets, it should be noted generally that investing in NFTs is considered speculative and involves substantial risks, as ownership rights lack legal recognition and enforceability in some jurisdictions.

An almost unlimited number of physical and digital assets could potentially utilize this same NFT-based token approach, enabling entire new asset categories to improve a portfolio’s diversification.

All these tokenized assets—cryptocurrencies, NFTs, tokenized securities, tokenized funds, tokenized physical assets and new forms of digital “money”[4] —can coexist within the same cryptographically protected wallet, as shown in Exhibit 2.

We examine the broader future of advisory in subsequent articles, but even here one can see how this defragmentation of the portfolio and consolidation of its holdings in a wallet could reduce the frictions involved in changing advisor and increase the portability of an individual’s portfolio, e.g., to another advisor. This will intensify competition to add value to the client in new and additional ways to retain clients and/or attract new ones.

Exhibit 2: Future Wallet-Based Portfolio



Source: Franklin Templeton Industry Advisory Services. For illustrative purposes only.

From an investor perspective, beyond the obvious benefit of exchanging payments and assets in real-time, several other aspects of a portfolio's operations will likely be enhanced by traditional financial assets existing in tokenized form and held in a cryptographically protected wallet.

- **Proportional yield:** Today, many funds pay a yield, which is typically calculated and paid out to shareholders of record at the start of the trading session. Subsequent activity during the trading day is not factored into the calculation. Yield is only awarded on a calendar-day basis. With blockchain-based, tokenized funds, each NAV cycle can be broken down into minutes or even seconds. Every movement of fund shares during that window can be assessed as a unique payment. A similar approach could be used for any award of other types of payments or application of corporate actions.
- **Fractional bond and mutual fund shares:** Today, the ability to invest small amounts of money into individual stocks or ETFs allows investors to participate in the market without needing to purchase a full share. However, fractionalization is not yet available in bonds, mutual funds and many other offerings. Most bonds have a US$1,000 minimum and most retail mutual funds require between US$500 and US$5,000 to purchase a share. Tokenized instruments on blockchain remove that barrier, allowing fractionalization and administration of any financial instrument down to tiny increments.
- **Continuous net asset value (NAV):** Today, the NAV on a fund is calculated once daily, after trading for the day has concluded. With tokenized fund shares and blockchain-based transactions, the exact holdings of the fund and its value can be calculated at any time. Similarly, the number of outstanding tokens and the owners of those tokens can be readily monitored. As a result, the industry would be able to move to NAV-pricing on demand.

These enhancements would make for both a far more efficient operational environment and a much better investor experience, in our view. Having tokenized versions of today's financial assets in a wallet also creates additional opportunities to wring more utility from investor portfolios.

- **Expanded payment options:** Today, the only way to pay for a security or fund transaction is with fiat currency. All the money and money-like assets discussed in Applying the technology being explored in payments to modernize financial markets infrastructure could be used in a blockchain-based environment, but perhaps more interestingly, so could an investor's other holdings. Fractional amounts of stocks, bonds, ETFs or even funds enhanced by new continuous NAV calculations, could be tendered to pay for other securities or fund transactions, and potentially, even for other types of transactions.
- **New income opportunities:** Tokenized assets held in a cryptographically protected wallet could also be used to add liquidity to automated market-making or lending protocols. Both opportunities provide a way to share in the earnings being generated in those asset pools and could allow users to deposit their tokens and share in the earnings generated.
- **More accurate investment portfolios:** Tokenizing traditional assets and holding them in a cryptographically protected wallet would allow these investments to be considered alongside crypto investments. Today, it is not possible to hold securities and tokenized assets in the same portfolio. This presents a significant obstacle to an investor's ability to capture the value protocols and decentralized projects are creating. For example,

Ethereum, the largest layer one public blockchain, launched in 2015, was reported to be on track to reach US$1 billion in annual profit in 2024.[5] It would be hard to have a full view on developments in the e-commerce and online platforms or the software development space without considering Ethereum's positioning. In the future, Ethereum's tokens could be held and administered side by side with stocks such as Amazon or Apple in a digital wallet, something that's not possible in today's account-based approach.

In addition to the benefits discussed already, there are deeper considerations about what the commingling of traditional and new digital assets in a cryptographically protected wallet may mean for investors and for asset and wealth management more generally. The entire concept of what constitutes an investor's wealth and the role, purpose and composition of their portfolio may expand significantly. We examine this in our next article in this Future of Investing series.

For more information or to request a presentation on the 2024/25 Future of Investing findings, please contact your Franklin Templeton representative or reach us directly at *industryadvisoryservices@franklintempleton.com*.

Contributors

Sandy Kaul
Head of Franklin Innovation Research, Strategies and Technologies

Franklin Templeton

Robert Crossley
Head of
Industry Advisory Services

Franklin Templeton

Alegria Apikelis
Senior Analyst

Franklin Templeton

Janice Deringer
Senior Analyst

Franklin Templeton

Samuel Huddart
Analyst

Franklin Templeton

Endnotes

1. On an annual basis, Franklin Templeton's Industry Advisory Services team conducts off-the-record, unscripted interviews of leaders across the financial services industry. This year, we were fortunate enough to hear from 85 leading thinkers controlling over US$50.1 trillion of assets under management across the financial services industry about their views on the future of investing between March and September of 2024. Input came from a broad cross-section of the industry—asset owners, private banks, wealth managers, consultants, investment managers, crypto firms, academics, industry leaders and fintech firms. Conversations took place formally as part of free-ranging, qualitative, off-the-record, survey interviews, and informally during one-on-one sessions where the implications and plans for each organization are discussed and explored. Each of these inputs added to an emerging picture of an industry that is changing rapidly and across multiple dimensions. Interviews were conducted globally with about two-thirds of discussions held with leaders of firms based in the United States, and the other third spread between Europe and Asia.
2. Source: "Swiss city Lugano issues blockchain bond with settlement in wholesale CBDC." Global Government Fintech." February 14, 2024. There is no assurance that any estimate, forecast or projection will be realized.
3. Source: "Galaxy Digital's Innovative Loan Secured by Tokenized Stradivarius Violin." Softtik. June 14, 2024.
4. Tokenized assets may function in ways similar to a form of "money," but these assets are highly speculative and have an uncertain regulatory status.
5. Source: Bhardwaj, Shashank. "Ethereum Aims For $1 Billion Annual Profit As DeFi Gains Momentum In Q1." Forbes India. April 19, 2024.

Curated glossary of relevant terms

Blockchain

A blockchain is a digital record or ledger of transactions, duplicated and distributed across an entire network of computer systems. Blockchains represent complete records of all transactions ever performed within that system. Every node in the blockchain network has a real-time, simultaneously updating copy of this ledger. Every node sees new blocks of transactions being appended to the existing chain of verified blocks and could re-create the entire sequential history of transactions on that chain stretching back to the very first (genesis) trade on the ledger. Blockchain is sometimes described as "distributed ledger technology" or DLT.

Cryptocurrency

Cryptocurrency is a form of digital or virtual currency that uses cryptographic techniques to ensure security, making it nearly impossible to counterfeit or double-spend. Most cryptocurrencies operate on decentralized networks powered by blockchain technology, which is a distributed ledger maintained by a network of computers. Cryptocurrencies are typically not issued by any central authority, making them theoretically resistant to government interference or manipulation.

Minting

Minting is the process of generating new coins through verification of data, creation of new blocks, and documentation of the verified information on a blockchain network via proof-of-stake consensus mechanism. These newly minted coins are circulated in the market for trading purposes.

Tokens

Tokens are used to facilitate payments, initiate services, bestow ownership, authorize voting, convey rights and transfer assets. Specialized tokens are used for each of these functions. Broadly, these specialized tokens can be broken down into two categories: cryptocurrency tokens and app-issued tokens.

Tokenization

Tokenization is the process of converting, through symbolic representation or encoded rule sets and attestations, something of value into a digital token that can be transacted on a blockchain. These tokens can represent tangible assets like gold, real estate, and art, or intangible assets like voting rights, ownership rights, or content licensing.

IMPORTANT LEGAL INFORMATION

This material is intended to be of general interest only and should not be construed as individual investment advice or a recommendation or solicitation to buy, sell or hold any security or to adopt any investment strategy. It does not constitute legal or tax advice. This material may not be reproduced, distributed or published without prior written permission from Franklin Templeton.

The views expressed are those of the investment manager and the comments, opinions and analyses are rendered as of the publication date and may change without notice. The underlying assumptions and these views are subject to change based on market and other conditions and may differ from other portfolio managers or of the firm as a whole. The information provided in this material is not intended as a complete analysis of every material fact regarding any country, region or market. There is no assurance that any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets will be realized. The value of investments and the income from them can go down as well as up and you may not get back the full amount that you invested. **Past performance is not necessarily indicative nor a guarantee of future performance. All investments involve risks, including possible loss of principal.**

Any research and analysis contained in this material has been procured by Franklin Templeton for its own purposes and may be acted upon in that connection and, as such, is provided to you incidentally. Data from third-party sources may have been used in the preparation of this material and Franklin Templeton ("FT") has not independently verified, validated or audited such data. Although information has been obtained from sources that Franklin Templeton believes to be reliable, no guarantee can be given as to its accuracy and such information may be incomplete or condensed and may be subject to change at any time without notice. The mention of any individual securities should neither constitute nor be construed as a recommendation to purchase, hold or sell any securities, and the information provided regarding such individual securities (if any) is not a sufficient basis upon which to make an investment decision. FT accepts no liability whatsoever for any loss arising from use of this information and reliance upon the comments, opinions and analyses in the material is at the sole discretion of the user.

Products, services and information may not be available in all jurisdictions and are offered outside the US by other FT affiliates and/or their distributors as local laws and regulation permits. Please consult your own financial professional or Franklin Templeton institutional contact for further information on availability of products and services in your jurisdiction.

Brazil: Issued by Franklin Templeton Investimentos (Brasil) Ltda., authorized to render investment management services by CVM per Declaratory Act n. 6.534, issued on October 1, 2001. **Canada:** Issued by Franklin Templeton Investments Corp., 200 King Street West, Suite 1500 Toronto, ON, M5H3T4, Fax: (416) 364-1163, (800) 387-0830, www.franklintempleton.ca. **Offshore Americas:** In the US, this publication is made available by Franklin Templeton, One Franklin Parkway, San Mateo, California 94403-1906. Tel: (800) 239-3894 (USA Toll-Free), (877) 389-0076 (Canada Toll-Free) and Fax: (727) 299-8736. **US:** Franklin Templeton, One Franklin Parkway, San Mateo, California 94403-1906, (800) DIAL BEN/342-5236, franklintempleton.com. Investments are not FDIC insured; may lose value; and are not bank guaranteed.

Issued in Europe by: Franklin Templeton International Services S.à r.l. – Supervised by the *Commission de Surveillance du Secteur Financier* – 8A, rue Albert Borschette, L-1246 Luxembourg – Tel: +352-46 66 67-1, Fax: +352-46 66 76. **Poland:** Issued by Templeton Asset Management (Poland) TFI S.A.; Rondo ONZ 1; 00-124 Warsaw. **Saudi Arabia:** Franklin Templeton Financial Company, Unit 209, Rubeen Plaza, Northern Ring Rd, Hittin District 13512, Riyadh, Saudi Arabia. Regulated by CMA. License no. 23265-22. Tel: +966-112542570. All investments entail risks including loss of principal investment amount. **South Africa:** Issued by Franklin Templeton Investments SA (PTY) Ltd, which is an authorized Financial Services Provider. Tel: +27 (21) 831 7400, Fax: +27 (21) 831 7422. **Switzerland:** Issued by Franklin Templeton Switzerland Ltd, Stockerstrasse 38, CH-8002 Zurich. **United Arab Emirates:** Issued by Franklin Templeton Investments (ME) Limited, authorized and regulated by the Dubai Financial Services Authority. **Dubai office:** Franklin Templeton, The Gate, East Wing, Level 2, Dubai International Financial Centre, P.O. Box 506613, Dubai, U.A.E. Tel: +9714-4284100, Fax: +9714-4284140. **UK:** Issued by Franklin Templeton Investment Management Limited (FTIML), registered office: Cannon Place, 78 Cannon Street, London EC4N 6HL. Tel: +44 (0)20 7073 8500. Authorized and regulated in the United Kingdom by the Financial Conduct Authority.

Australia: Issued by Franklin Templeton Australia Limited (ABN 76 004 835 849) (Australian Financial Services License Holder No. 240827), Level 47, 120 Collins Street, Melbourne, Victoria 3000. **Hong Kong:** Issued by Franklin Templeton Investments (Asia) Limited, 62/F, Two IFC, 8 Finance Street, Central, Hong Kong. **Japan:** Issued by Franklin Templeton Investments Japan Limited. **Korea:** Issued by Franklin Templeton Investment Advisors Korea Co., Ltd., 3rd fl., CCMM Building, 101 Yeouigongwon-ro, Yeongdeungpo-gu, Seoul, Korea 07241. **Malaysia:** Issued by Franklin Templeton Asset Management (Malaysia) Sdn. Bhd. & Franklin Templeton GSC Asset Management Sdn. Bhd. This document has not been reviewed by Securities Commission Malaysia. **Singapore:** Issued by Templeton Asset Management Ltd. Registration No. (UEN) 199205211E, 7 Temasek Boulevard, #38-03 Suntec Tower One, 038987, Singapore.

Please visit www.franklinresources.com to be directed to your local Franklin Templeton website.

FRANKLIN TEMPLETON

US-GTM-3648940-3548940
IASFI-W1124