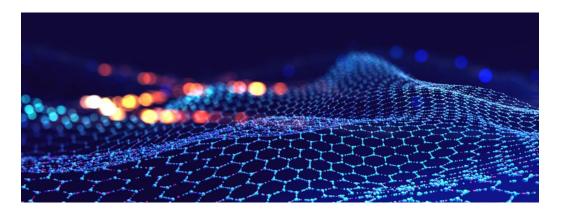


Perspective from
Franklin Templeton
Industry Advisory Services

The Future of Investing: 2024/25 Edition—Overview

October 2024



Introduction

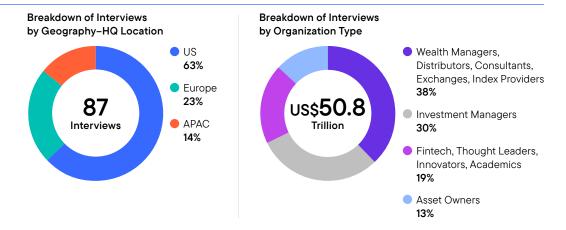
On an annual basis, Franklin Templeton's Industry Advisory Services team conducts off-the-record, unscripted interviews of leaders across the investment management industry. This year, we were fortunate enough to hear from 87 leading thinkers controlling over US\$50.8 trillion of assets under management 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.

Our intention is to summarize this wide-ranging set of inputs and present the findings back for use by the broader industry as part of a dialogue meant to help organizations think about their own future. This new "Future of Investing" survey will be released annually.

All input from individuals and the firms they represent is anonymous. We do not delve into any organization's individual plans, nor do we expose any firm's direct strategy. Instead, we look to synthesize the comments we have heard and distill spots where there is either alignment in multiple participants' views or there are inklings of a new and potentially disruptive path that might upend conventional thinking.

Breakdown of Interviewees by Organization Type and Location of Global Headquarters

Data as of October 2024.



This year's Survey findings fall into four overlapping areas that will guide our presentation of them: the future of money, the future of asset management, the future portfolio and the future of advisory. This first article will provide a high-level overview of the key findings, which will be followed by a series of short articles published at regular intervals over the coming weeks, unpacking those four dimensions of our industry's future.

While some will be keenly interested in the overall strategic themes and the interplay between their underlying dynamics, other readers will have more specific areas of interest. The forthcoming article series is deliberately written for both groups, and while the articles can be read individually or together, when read in sequence a much more important overarching story emerges.

Drivers of change working to reshape investing

The overwhelming majority of survey respondents noted that there was more uncertainty and change occurring in the industry at present than at any time in recent memory. Several factors were cited as drivers of this change.

• New technologies: Two new types of technology came up repeatedly in interviews, and often together: the growing adoption of crypto-inspired blockchains, wallets, smart contracts and tokenization, and the rapid advancements of artificial intelligence (AI) and specifically the capabilities and applications of large language models (LLMs).

Survey participants highlighted the potential for these new offerings to enable not just automation, but smart forms of automation that allow for conditionality and can dynamically adapt to changing circumstances. They noted the potential for these technologies to shorten the industry's operational timeframes, and eventually allowing for real-time transactions and settlements. They anticipated a shift in analytical focus away from using static, structured data and historical pattern recognition to dynamic modeling able to incorporate a greater diversity of information in real time, absorbing it as it is being created, to support more effective decision-making. Such capabilities were seen changing multiple facets of how investing and advisory works.

A third aspect of technology, though not called out explicitly, is also foundational to enabling many of the future capabilities that participants discussed. As we have seen in other industries, investment management companies are now beginning to rethink their proprietary platforms and strategies to better distribute their products and services and plug into or connect third-party offerings. This is being accomplished via the use of application programming interfaces (APIs). Open banking is already advancing in this regard and similar thinking is seen as extending to investment and wealth management. Creating an API-strategy may become a key enabler of change and a pathway to greater deployment of both crypto-inspired technologies and artificial intelligence over time.

• Changing delivery expectations: While survey participants were mixed in their views about investing in cryptocurrencies and alternative coins, there was broad agreement that the ecosystem has reshaped expectations of what is possible and how the future financial markets infrastructure could and should operate. Expectations were that trading would move toward being 24 hours a day, seven days a week and 365 days a year. Delays in the exchange of payments and assets are likely to shrink, and eventually become instantaneous and simultaneous. Proprietary systems are seen as diminishing in importance as industry participants move onto platforms using shared developer toolkits and standards, composable and interoperable functionality, and distributed views of data that promote transparency and collective upkeep. Upgrades were seen as supporting eventual movement away from today's account-based system to cryptographically protected wallets enabling greater aggregation of different types of assets, increased portability of assets and portfolios, and an expansion of available ways to optimize the extraction value from holdings.

Investor expectations were seen as experiencing equally significant shifts. Survey participants characterized individual investors as looking for an enhanced digital consumer experience that provided app-like ease of use, more support for mobile, and omnichannel engagement (the ability to interact with clients over whichever channel they prefer and to keep those channels in sync with one another, providing a unified customer experience). Next-gen investors were seen having additional requirements. Specifically, digitally native younger investors were seen as wanting significantly more interactivity, as attaching greater importance to community and peer-group engagement, and as seeking ways to express and project their social identity. Perhaps most significantly, we found a growing consensus across survey participants that to survive and thrive in a future ecosystem, those looking to advise and manage investments must get much closer to the client and their daily activities. Creating third-party partnerships was seen as a core enabler of expanding and re-imagining customer acquisition.

Delivery requirements were also evolving for more sophisticated investors. Professional family offices navigating the increasing challenges of generational turnover combined with the growing complexities of multi-jurisdictional lifestyles discussed needing more robust, customizable technology platforms to enable real-time communication, facilitate multi-party decision-making and consensus-building, and provide comprehensive views and options to manage the family's assets against both qualitative and quantitative objectives. Institutions sought to build or leverage partner technologies to meet expanding regulatory reporting requirements, administer direct and co-investments, manage unique sourcing pipelines, and facilitate new liquidity options for existing holdings. For both groups, those providing tech-enabling platforms were seen as having structural advantages in capturing, retaining and managing assets and relationships.

New investment options: New options around how to invest and what to invest in were also cited repeatedly by survey respondents. Some of the comments focused on changes in the use of existing products, for example exchange-traded funds' (ETFs') and exchange-traded products' (ETPs') potential to wrap completely new types of assets, and their movement from simply being an exposure vehicle to also serving as a transport vehicle for large sets of securities. Individual account minimums are falling and enabling a broader set of mass affluent investors to move their portfolios out of collective funds into individual accounts, setting the stage for new types of portfolio services. Institutional investors are increasingly becoming co-investors rather than just limited partners for private investments, and they are increasingly offering their own directly held assets back to investment managers to increase their portfolio efficiency. New forms of alternative funds are being designed to foster broader retail participation.

Survey participants also drew attention to new products and instruments. Stablecoins, digital money and tokenized money-like instruments are creating new financing and collateral opportunities. Pilots that explore the tokenization of "real world" assets are progressing with the support of regulatory sandboxes and growing sponsorship from traditional industry participants. Tokens representing ownership of digital assets or providing a digital receipt to confirm ownership of a physical asset are increasingly being viewed as a potential portfolio holding. Fractionalization is making previously collectible, but not easily traded assets, more readily accessible. All these influences were seen as changing the composition and delivery of investor portfolios and providing new sources of diversification and value.

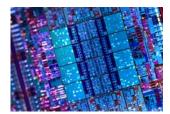
• Expanding regulatory mandates: Finally, regulators were seen as pushing into three areas that are each poised to transform how investing works. First and foremost has been a global trend toward implementing more consumer protections around investment products and advisory services. Actions have ranged from demanding more transparency around fees and costs to limiting or banning retrocessions (the practice of paying kickbacks or commissions to advisors or distributors for promoting and selling their product) to mandating new behavioral standards for those offering advice, be it a suitability hurdle or a "best interest" standard as a fiduciary requirement. Next has been a growing set of rules and regulations around data, both relating to the ability to access and share consumer data and prescribing the rights and obligations of organizations concerning sharing their own data and system access. Finally, there is a growing set of digital asset and crypto-related regulation and frameworks emerging from international bodies that are helping to bring new technologies, assets and practices into alignment with the traditional financial market infrastructure.

These four forces were seen as combining to reshape multiple aspects of how the future industry will work, but their interaction and impacts will vary in different areas, regions and markets. Below we have sketched out the 10 most important findings about this future, and each of these will provide the focus for the forthcoming series of articles referenced above.

Overview of the top 10 findings

Below, we list at a high-level overview of the top 10 findings of this year's survey and provide a short summary of what is covered in each section:

FUTURE OF MONEY



1. Expanding number of assets able to perform the functions of "money" will change the future of payments and the scope of investment management. Central banks, commercial banks and new entrants are exploring crypto-inspired technologies—blockchain, cryptographically protected digital wallets, tokenization and smart contracts—to envision new forms of digital money. At the same time, an increasing number of assets are becoming more easily tradable and more divisible as this same technology is being applied to both existing assets and new digital assets, with these tokenized assets being held in a cryptographically protected wallet. Money-like digital assets are also emerging, ranging from stablecoins to tokenized money market funds and tokenized gold. Any asset able to be seamlessly converted into/from traditional cash, or from one form of acceptable payment to another, is able to act as de facto money, in the appropriate context. With an infrastructure that supports proof of holdings, instant valuation and real-time exchange of payments, one can see how the scope of assets that today are seen as simply stores of value could be used for payment, and ultimately to assets being directly exchanged, i.e. with no intermediation by cash. This direct exchange would not be subject to the traditional inefficiency of barter (indivisibility, valuation and search costs) and could occur at the individual, corporate or country level. As the number and variety of assets that investors might want to hold as an alternative to cash increases, the treasury function, both for an individual and institutional investor, will expand in scope and become an integral element in the achievement of a portfolio's objectives. Investment management will encompass the selection and management of holdings to dynamically optimize the value extraction for the client, balancing yield generation, capital appreciation, buying power maximization, tax-minimization and access to relevant non-financial forms of utility.

FUTURE OF ASSET MANAGEMENT



2. Applying the same technology being explored by payments to today's 50-year-old financial market infrastructure and moving toward having money and assets on the same rails holds out the prospect of significant cost, accuracy and efficiency improvements. There is an increasingly significant gap between the inefficiencies inherent in today's financial market infrastructure and the benefits that would accrue by moving securities and fund-related activities onto the same crypto-inspired rails that are currently being explored by payments for the movement of money. The potential to enable 24/7/365 trading and real-time simultaneous exchange of payments and assets on a transaction-by-transaction basis and across different participants and asset types to facilitate more flexible and intelligent automation with smart contracts and to use shared ledgers for recording and collaboratively updating key records and databases is even more significant when set against the investment management industry's 80% increase in operating expenses since 2010. The upgraded infrastructure should not just radically increase efficiency and decrease costs, but it could also expand the range of services that asset managers can offer and change the focus and breadth of their business. Whereas today's financial market infrastructure comprises a series of key intermediaries and service providers, the future financial market infrastructure may consist of shared utilities that allow peer-to-peer engagement.



3. New models take advantage of the increasing "portability" of assets in public and private markets to optimize portfolio returns. Advances in portfolio construction and portfolio management have seen the rapid growth in the types of building blocks and certain product properties become more important. Reliance on ETFs and alternatives have increased significantly, and active ETFs are gaining ground on traditional mutual funds and European UCITS. The functional properties of ETFs mean their utility extends well beyond being a vehicle for simply obtaining passive public market exposure to becoming a trading vehicle to improve alpha (excess return of an investment relative to the return of a benchmark index) outcomes and providing exposure to new types of investment, such as spot ETPs Bitcoin, Ethereum and other "next-gen" alternatives. ETFs today allow investment managers to reduce slippage, capture execution and tax alpha, and provide a base for new models like direct indexing and fixed income portfolio trading. ETFs provide a transport mechanism to efficiently move securities into and out of portfolios as a group, rather than individually. Through the ETF's "redemption in-kind" mechanism, an ETF can be converted into a basket of its constituent assets, thus transforming aggregate fund-level exposure into individual asset-level exposure. By providing a transport mechanism to efficiently move securities into and out of portfolios as a group rather than individually, ETFs can increase the mobility of assets in a portfolio. In the same way that shipping containers revolutionized the efficiency of the transport of goods, combining standardization with the ability to move many different types of goods together, ETFs' ability to collectively move securities is quietly revolutionizing the efficiency of portfolio and risk management. Leading institutions are also finding ways to improve the mobility of holdings or private assets, utilizing secondaries to create liquidity around stale limited partnership (LP) shares, co-investing alongside asset managers to obtain and control their own portion of deal access and sharing more of their directly owned assets with investment managers. And new wrappers and tokenization of LP shares for private assets are helping make alternatives accessible to retail. But whether the wrappers, mechanisms or assets are old or new, the industry-wide need for ever-more effective ways to manage portfolio exposures and facilitate the efficient movement of blocks of assets in portfolios are likely to speed up the industry's drive toward new and more efficient rails.



4. "ETF-ization" of assets is likely to be the first step on the pathway to real-world asset tokenization. However great and widespread the advantages of adopting new technology, current technology and systems are too entrenched to be replaced wholesale. Instead, we anticipate a multi-stage pathway to the future with the migration of exposures, processes, and ultimately instruments to tokenized forms able to run on blockchain rails. Blockchain is already being utilized for crypto exchange-traded products (ETPs) and can provide "proof of reserves" for a widening set of new asset types that can be placed into the ETF wrapper, and there is a clear opportunity to deploy smart contracts to help automate key ETF-related functions. In parallel, industry infrastructure upgrades are getting underway to use blockchains, tokens, smart contracts and cryptographically protected wallets to enhance securities processing and move to "on-demand" cash movements and fund pricing. Once these efforts gain ground, tokenization of real-world assets is likely to accelerate. ETFs may first introduce tokenized share classes to enable the migration of assets, just as today we are seeing mutual fund and UCITS assets migrate into active ETFs. From there, tokenizing each holding in the tokenized ETF share class becomes easier and more use cases can be enabled, creating a virtuous circle, encouraging and incentivizing broader asset manager adoption.

FUTURE PORTFOLIO



5. Cryptographically protected wallets co-mingle assets in a common container, creating new investment options and opportunities. Today, when investment managers discuss overseeing an investor's portfolio, they are referring to a virtual construct used for reporting and analytical purposes. The reality is that the "portfolio" comprises many distinct accounts containing different funds and a variety of public and private assets. This is a legacy of the industry's approach to securities and fund processing, combined with the newer demands of ETF trading and the non-standardized way in which private funds are administered. The proliferation of different accounts, different providers, siloed infrastructure and asset class-specific systems often makes it impossible to create a consolidated view of even just an investor's asset holdings. Shifting portfolio holdings into digital form would enable traditional assets to sit sideby-side in a cryptographically protected wallet alongside cryptocurrencies, stablecoins, tokenized forms of money and non-fungible tokens (NFT)s. This single holistic view of an individual's assets would enable investment managers, wealth advisors, industry consultants and outsourced chief investment officers (OCIOs) to consider, manage and optimize portfolio holdings in a way that was previously impossible and to easily swap between assets. It would also allow the investor to contribute tokenized forms of their personal assets to the portfolio and potentially increase the utility of those holdings. There are analogs of the advantages outlined above for individuals, for institutional investors and portfolios.



6. Scope of asset management is likely to expand to cover all assets in wallet. Investment managers today only apply their expertise to the portion of an investor's capital set aside for investment. The flow of funds allocated to or simply consumed by operating expenses, interests, capital expenditure and philanthropy typically, or largely, sit outside the manager's purview. Similarly, assets owned directly by the individual or institution are rarely considered as sources of return to be managed and optimized. Co-mingling all assets in the same wallet offers the potential to expand the focus of the portfolio and the ways in which the manager can add value. The expanding range of money, money-like and directly exchangeable (barterable) assets represents a ready pool and flow of unadvised or unmanaged assets. Visibility into an investor's assets beyond those currently managed unlock new opportunities, and the ability to use smart contracts embedded in tokens would enable the structuring of asset rights to support both investing and philanthropy and create better alignment of the capital with what is important to the capital owner. Both the asset and wealth management industries have been on a pathway toward offering more tailored portfolios. The shift to wallet-based management and the provision of more comprehensive and genuinely individualized solutions delivering value beyond that measured by traditional financial outperformance metrics should accelerate the blurring of the lines between banking and portfolio management.

FUTURE OF ADVISORY



7. Demographic timebomb is challenging the "one-size-fits-all" platform and approach to advisory. The economics of and approach to delivering wealth advice are changing across the world, and while the specifics may differ by country, there is a common direction of travel: The industry is becoming more competitive, more consumer-centric, more reliant upon tech-facilitated solutions and more regulated. Advisors are being held to higher standards of responsibility, regulation is changing how they are remunerated, and there is an increasing demand to align incentives, improve outcomes and increase consumer protections. Bankers and advisors are becoming increasingly reliant on tech-enabled platforms to deliver on this mandate. These platforms are being built to support investors' wealth accumulation journey. Two factors make this approach problematic. More wealthy individuals are retiring and shifting from accumulation to decumulation—requiring different products, services and advice to service highly path-dependent, personalized and often dynamic needs. At the same time, an unprecedented generational split in attitudes toward investing is occurring. Most younger investors (72%)—including millennials who will likely make up 55% of the individuals in their peak earning years by 2035—do not believe it is possible to outperform using equities and bonds.² These are the primary offerings of today's wealth platforms. Moreover, younger generations are also looking to engage differently, with more emphasis on social media, participation and communities. Building an advisory platform to service these individuals also requires a different set of products, services and advice. These pressures are pushing the industry toward an "either-or" decision in terms of how and in which direction they build their future capabilities: design for decumulation and retirees or for next-gen investors with their very different preferences, attitudes, and in many cases, needs.



8. "Open advisory" would bring together capital and asset management and integrate third parties to enhance investors' lives and wealth. Open banking has been gaining ground in recent years, increasing transparency, reducing friction and opening up competition by providing a set of data, product and transactional APIs. These offerings have been used in two ways: to export functionality and embed bank-related activities in third-party offerings and to enable the integration of third parties into the bank's own proprietary offerings. A similar move to create "open" wealth advisory via APIs offers the potential to significantly enhance and expand the wealth delivery model, at the same time as changing the relationship that exists today between the adviser and the client's investment portfolio. The self-directed and relationship management platforms employed by the wealth industry today have very similar offerings, but we see a far more pronounced barbelling emerging in the future. At the low-touch end of the spectrum, wealth activities would be distributed and offered "as-a-service," often sitting alongside open banking services in third-party platforms and offering a broader view of an investor's total wealth picture. At the other end of the spectrum, the high-touch model is likely to evolve from today's facilitative service platforms to a far more robust "hub" that encourages intra-network connectivity and expansion across relevant constituencies and communities, creating pathways to high value resources to enhance an ultra-high-net-worth individual's (UHNW) and/or family's life or an institution's ability to deliver on their expanding mission and responsibilities to stakeholders.



9. New direct-from-consumer model embeds advisory upstream in the capital flow to direct and influence its deployment. Instead of the traditional product-push or direct-to-consumer distribution model, future low-touch advisory will disaggregate the distribution of today's wealth platform capabilities and focus service provision at the point at which an investor receives money, before it has been allocated as capital, spent or otherwise used. This point could be a workplace platform, an app, a super app or a wallet. In each instance, the focus of advisory would expand from simply managing the capital left over for investment after all other demands on it have been made, to influencing the flow and allocation of that capital to different uses upstream. First-mover advantage for advisors embedded in these capital collection venues could be significant as they would occupy a highly privileged position to be able to add value to the client by optimizing the allocation of capital across a range of competing needs, interests and objectives and optimizing the timing of its allocation. However, this capital advisory is likely to be preceded by cash advisory, providing services around cash and different forms of money. This would dynamically assess the individual's behavior and rebalance the allocation of capital as required or anticipated, optimize selected forms of payments to obtain the best utility and rewards, and manage the investor's different forms of money, money-like and barterable holdings to maximize their buying power. This "robo-treasurer," or spending optimization function, will provide a very natural crossover into or complement to robo-investing. A new robo-3.0 model would consider the entirety of assets held in a digital wallet, align holdings to the individual's values, preferences and unique situation. It will also identify and manage rewards associated with certain offerings, as well as optimizing spending to support and balance immediate daily living goals with long-term financial objectives. Together, these services would operate like a personal chief financial officer (CFO) or eCFO for the client and become a key facilitator of their life and wealth.



10. High-touch advisory for ultra-high-net-worth individuals and institutions focuses on community to foster intra-network connectivity and benefits. An increasing number of UHNW individuals and their affiliated family offices are running portfolios that are for all intents and purposes institutional. Today's wealth platforms are poorly positioned to support these needs, and many wealthy families are building and deploying bespoke technologies to service their requirements. Plugging into these systems, as well as into the networks surrounding these wealthy clients, will likely become a primary route to attract and retain clients. Two strategies are likely to embed the banker's or advisor's role in this network: bringing tools to facilitate the client's lifestyle and incorporate their peers and family and delivering curated experiences from third parties to enhance their enjoyment and/or support their mission. For institutional clientele, the provision of access to and creation of value through curated communities or networks will become an important differentiator. Today, most advisory and consulting relationships are bilateral, and though the lessons learned are applied across clients, there is little effort to create direct connectivity. This is likely to change as the value to be gained in forging educational and investment partnerships across their client base elevates the consultant's or OCIO's value to their network.

The broad financial services industry faces greater change and uncertainty than at any time in recent history. This is manifesting itself in numerous ways, ranging from the rebuilding of market infrastructure, the challenges of integrating new technologies, and the need to migrate best practices across siloed business areas, to new investment products and tradeable assets, diverging generational beliefs about investing and wealth, and diverging needs of different cohorts.

Standing at the precipice of change, it is tempting to sit back to watch it unfold and hope it goes away. However, these changes and the interplay between them will spark new ways of doing business and fundamentally change the economics of competition. Those firms who are behind the curve—in either understanding or investing in the combination of technology, talent and partnerships necessary to successfully navigate these changes—are likely to see their business taken away by firms that understood the changes earlier and adapted more proactively.

As illustrated by the summary of our top 10 findings above, large and complex forces are reshaping the future of investing. We are excited to share the insights and understanding from our ongoing work through a forthcoming series of articles that delve deeper into each of these findings and spanning the four key dimensions of the future of money, they future of asset management, the future of portfolios and the future of advisory. Additionally, we will present further analysis of these areas in separate publications throughout 2025 that will highlight both the risks and opportunities for different industry participants.

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

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Endnotes

- I. Implied finding based on interviewees discussing their technology platforms enabling future business directions.
- 2. Source: "2024 Bank of America Private Bank Study of Wealthy Americans." Bank of America Private Bank, 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 typically not issued by any central authority, making them theoretically resistant to government interference or manipulation.

Smart contracts

Smart contracts are self-executing contracts in the form of code that are housed on a blockchain. Just as a transaction is recorded on the blockchain, the terms of the transaction are also recorded on the blockchain.

Spot ETF

A spot ETF is an exchange-traded product that tracks the current market price of an underlying asset, such as a commodity, cryptocurrency or index. Instead of holding the asset directly, investors buy shares of the ETF, which represents a portion of the asset held by the fund. This allows investors to gain exposure to the asset's price movements without needing to purchase, store or manage the asset themselves. Spot ETFs are traded on traditional stock exchanges during regular market hours, providing a regulated and convenient way to invest in various assets with benefits, such as enhanced security and ease of access. However, they may come with higher fees, potential tracking errors, and are limited by traditional market trading hours—unlike the 24/7 cryptocurrency markets. A Spot Bitcoin ETF tracks Bitcoin's market price and a spot Ethereum ETF tracks Ethereum's market price. These products are not an investment company registered under the Investment Company Act of 1940 (1940 Act), and therefore are not subject to the same regulatory requirements as mutual funds or ETFs registered under the 1940 Act.

Stablecoin

A stablecoin is a type of token that has its value pegged to another currency, commodity, financial instrument or basket, and should, if well designed and operated, maintain a steady value, neither appreciating nor depreciating in price. Stablecoins typically tie their value to the US dollar in some way. The collateral pools associated with these stablecoins are primarily, though not exclusively, comprise government-issued fiat currencies or fiat-denominated fixed income securities.

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 block-chain. These tokens can represent tangible assets like gold, real estate and art, or intangible assets like voting rights, ownership rights or content licensing.

UCITS

Undertakings for Collective Investment in Transferable Securities (UCITS) is a regulatory framework by the European Commission for managing and selling mutual funds across the EU. Similar to US mutual funds, UCITS are registered and regulated in EU member states, with guidance from the European Commission to ensure their safety and availability for EU citizens.

WHAT ARE THE RISKS?

All investments involve risks, including possible loss of principal.

Companies in the **technology sector** have historically been volatile due to the rapid pace of product change and development within the sector. **Artificial Intelligence** is subject to various risks, including, potentially rapid product obsolescence, theft, loss or destruction of cryptographic keys, the possibility that digital asset technologies may never be fully implemented, cybersecurity risk, conflicting intellectual property claims, and inconsistent and changing regulations.

Blockchain and cryptocurrency investments are subject to various risks, including inability to develop digital asset applications or to capitalize on those applications, theft, loss or destruction of cryptographic keys, the possibility that digital asset technologies may never be fully implemented, cybersecurity risk, conflicting intellectual property claims, and inconsistent and changing regulations. Speculative trading in bitcoins and other forms of cryptocurrencies, many of which have exhibited extreme price volatility, carries significant risk; an investor can lose the entire amount of their investment. Blockchain technology is a new and relatively untested technology and may never be implemented to a scale that provides identifiable benefits. If a cryptocurrency is deemed a security, it may be deemed to violate federal securities laws. There may be a limited or no secondary market for cryptocurrencies.

Digital assets are subject to risks relating to immature and rapidly developing technology, security vulnerabilities of this technology (such as theft, loss, or destruction of cryptographic keys), conflicting intellectual property claims, credit risk of digital asset exchanges, regulatory uncertainty, high volatility in their value/price, unclear acceptance by users and global marketplaces, and manipulation or fraud. Portfolio managers, service providers to the portfolios and other market participants increasingly depend on complex information technology and communications systems to conduct business functions. These systems are subject to a number of different threats or risks that could adversely affect the portfolio and their investors, despite the efforts of the portfolio managers and service providers to adopt technologies, processes and practices intended to mitigate these risks and protect the security of their computer systems, software, networks and other technology assets, as well as the confidentiality, integrity and availability of information belonging to the portfolios and their investors.

ETFs trade like stocks, fluctuate in market value and may trade above or below the ETF's net asset value. Brokerage commissions and ETF expenses will reduce returns. ETF shares may be bought or sold throughout the day at their market price on the exchange on which they are listed. However, there can be no guarantee that an active trading market for ETF shares will be developed or maintained or that their listing will continue or remain unchanged. While the shares of ETFs are tradable on secondary markets, they may not readily trade in all market conditions and may trade at significant discounts in periods of market stress.

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