

RSJ TECH WEB3 REPORT 2023

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1. Introduction

This investment report analyzes the Web3 and crypto market and explores the potential for institutional investors to gain exposure to cryptocurrencies and digital assets. We collected data points from deep secondary research in combination with multiple calls with Web3 funds, network sessions, and insights from industry-leading conferences. The report evaluates the benefits and drawbacks of investing in the crypto market, examines the trends in venture capital funding, and discusses the role of crypto hedge funds and ETFs in diversifying investment portfolios.

The report highlights the growing interest of institutional investors in the crypto market and the increasing adoption of cryptocurrencies. It also addresses the challenges and risks of crypto investments, including volatility, regulatory uncertainty, and security concerns.

Furthermore, the report discusses the different investment opportunities available in the crypto market, such as venture capital investments, hedge funds, ETFs, and direct exposure. Additionally, there is a commentary on RSJ Investments exposure.

The report concludes by evaluating the reasons to invest in cryptocurrencies, including the potential for market growth, the emergence of the Metaverse, and the tokenization of illiquid assets. It also acknowledges the concerns and obstacles institutional investors face, such as regulatory challenges, infrastructure limitations, and the need for improved security and scalability.

2. Market Overview

The cryptocurrency market has been experiencing a period of strong volatility since the start of the current bear market in early 2022, with fluctuations in the value of major cryptocurrencies such as Bitcoin, Ethereum, XRP, Solana, and meme coin Dogecoin (Statista, 2023). After the first nine months of 2023, when the crypto market cap oscillated between 0.9 trillion. USD – 1.1 trillion. USD (66% decline from its peak), there has been a strong price surge. In the middle of February 2024, over a month after BTC spot ETF approval, BTC price increased to USD 51 ths. and pushed the crypto market cap to USD 2 trillion.

Several growth factors are driving the growth of the cryptocurrency market, including increasing acceptance and adoption of cryptocurrencies by individuals and institutions, growing interest in decentralized finance (DeFi) platforms, and the potential for cryptocurrencies to serve as a hedge against inflation and political instability. Additionally, advancements in blockchain technology and the increasing use of cryptocurrencies for cross-border transactions contribute to market growth (Statista, 2023).

In 2022, only the top 20 cryptocurrencies, including Bitcoin and Ethereum, had a significant market share, taking up almost 90% of the market (The total amount of cryptocurrencies is around 8,000). Many other digital currencies were too obscure for investors. Bitcoin and Ethereum are also among the most traded cryptocurrencies (Statista, 2023).

The cryptocurrency market is expected to continue growing in the coming years. However, the market is also likely to experience volatility and corrections, as is typical with any emerging and rapidly evolving market. (Statista, 2023). Historically, the crypto market tends to move in 4-year cycles, corresponding with BTC halving. The next BTC halving should occur by late April 2024.

2.1 Crypto in the World

According to <u>Statista.com (2023)</u>, the crypto adoption for payments is a non-Western trend. Cryptocurrency adoption is higher in Southern Asia and South America due to economic instability, lack of access to traditional financial services, cultural attitudes, and the need for remittances. Larry Fink (Blackrock CEO) also points out this phenomenon in <u>his annual letter to</u> shareholders.

2. 2 Expected Market Size

Speaking of digital ownership in the world, some reports are showing exciting trends. <u>Verified Market Research</u> suggests that the NFT (non-fungible token) industry could be worth 232 billion. USD in the next ten years, highlighting the growing interest in unique digital assets. Meanwhile, <u>McKinsey & Company</u> predicts that the Metaverse, a virtual world, could become worth a staggering \$5 trillion by 2030, mainly driven by online shopping, which could generate 2.6 trill. USD in revenue within the Metaverse by then.

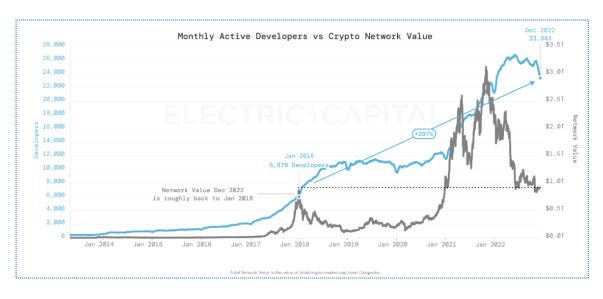
Looking at the bigger financial picture, <u>BCG (2022)</u> anticipates that the global tokenization of less liquid assets could reach a value of \$16 trillion by 2030. To put this in context, that is about 10% of the total money the world's economies produce. These insights give us a glimpse of how rapidly the digital economy is growing and the opportunities it offers to investors and businesses.

2. 3 Developer Activity

The number of developers actively working on a blockchain provides insight into the future potential of the blockchain and its overall strength. Developers are responsible for creating decentralized applications (dApps), fixing bugs, building smart contracts, and adding new features for beta testing before launching (Chaindebrief, 2023).

The developer's activity and engagement showed strong resilience, especially after the crash of Terra/Luna when they quickly moved to build projects on other chains, notably Cosmos and Polygon.

<u>Developer Report (2022)</u> shows steady growth in developer activity. It is seasonal and proportional to market run-ups.



Source: Developer Report: Analysis of Open-Source Crypto Developers by Electric Capital

2. 4 Blockchain Use Cases

In 2021, it was expected that approx. one-third of blockchain spending in Europe would come from the banking sector, namely cross-border payments and settlements, transaction agreements, and trade finance and post-trade/transaction settlements. It is driven by the mainstream adoption of cryptocurrencies, which is predicted to significantly boost blockchain spending in the banking sector. Among the most significant use cases are cross-border payments and data provenance. The use cases beneficial for retail also include social security and social identity, digital art custody (NFTs), lending protocols, and smart contracts (Blockgeeks, 2022).

The very first purpose of the use of cryptocurrencies was for transactions, yet cryptocurrency adoption in online shopping and mass use is hindered by slow transactions, scalability issues, and market volatility. A 2022 survey found that most people see cryptocurrency as an investment opportunity (77.4%) rather than a payment tool (18.5%) (Statista, 2023). Not to mention the enormous energy usage of proof-of-work mechanisms compared to Visa transactions (More in Appendices).

It is also notable to mention that the majority of blockchain patents (84 %) in 2021 were held by China. Alibaba Group (including Alipay) is the leader in absolute patent blockchain applications, with over 2,542 applications (Statista, 2021). However, the patent environment in China differs from the US; the price of patent applications is close to zero, and thus their quality might be lower. Additionally, many crypto protocols and projects are open-source as this is an ethos of the industry, which by definition means there are no patents, which makes the Chinese dominance questionable.

According to <u>a16zcrypto report (2023)</u>, blockchains have a growing number of active users, with new ways to engage, including on-chain games. DeFi and NFT activity are on the rise again.

The number of active crypto developers has steadily increased. Blockchains are scaling through new paths like "Layer 2" solutions and advancements in "zero knowledge" systems that will unlock new categories of dApps.

2. 5 Web3 Technology Stack

The whole Web3 can be described using layers. Layer 0 provides the hardware infrastructure, Layer 1 maintains protocols for secure transactions, Layer 2 offers scaling solutions for faster andcheaper transactions, and Layer 3 hosts applications like DeFi and NFT platforms, enabling innovative use cases in the crypto space.

- L1 (Layer 1) is the base layer or the main blockchain layer. This core blockchain technology is responsible for consensus, security, and transaction validation, and all, including transaction processing and smart contract execution, occur on-chain. Examples of L1 blockchains include Bitcoin, Ethereum, and others.
- L2 (Layer 2) is the second layer that is built on top of L1 blockchains to improve their scalability and speed and reduce transaction costs. These are often referred to as "scaling solutions." Layer 2 solutions include technologies like state channels and sidechains, which enable faster and cheaper transactions by processing them off-chain. These solutions then periodically settle the accumulated transactions on the Layer 1 blockchain, reducing congestion and increasing throughput. L2 scaling solutions continue to attract investments, continuing momentum from 2022 (Pitchbook, 2023).
- L3 (Layer 3) is an advanced layer that typically focuses on hosting decentralized applications (dApps) and executing specific functions. These networks are designed to provide a dedicated environment for a single decentralized application, allowing it to operate independently with its own rules, governance mechanisms, and economic incentives.

Based on the calls and talks with crypto funds we had, the trend in the following years shifted from investments into Layer 1 to dApps and Layer 3, although, for example, Molten Ventures (Fund of funds investor) still sees value in Layer 2. Yacine Ghalim (Heartcore) and Mattia Gagliardi (Zee Prime) both allocated most of their portfolios to L3. W3.fund aims to focus on the application layer as well. These funds claim that there is a shift in the focus and the new trend will be led by dApps; thus, according to research made by Heartcore (Data: Coinmarketcap and Token Terminal, 2022), the Application layer makes only 2% of the market cap in Web3, while aggregating 55% of revenues.

3. Regulations and their Importance

We have learned from multiple studies that crypto regulations and price volatility are the greatest overall barriers to investment. According to the <u>Fidelity Digital Assets Study (2022)</u>, price volatility is the main problem institutional investors are having with entering the digital asset class (50%). Other concerns cited by investors surveyed include a lack of fundamentals to gauge appropriate value (37%), concerns around security (35%) and market manipulation (35%), and concerns around the regulatory classification of certain coins as unregistered securities (33%). Also, <u>PwC (2023)</u> states that regulatory and tax uncertainty continues to be the greatest barrier to investing (cited by 83% of respondents across hedge funds). Of greatest concern is the globally fragmented regulatory approach/environment, followed by unclear guidance with a heightened threat of rulemaking through enforcement. The need for regulations is therefore evident.

It is quite reasonable to have a strong regulation framework. The history speaks for itself: according to research of Web3 is Going Just Great, there are a lot of projects that turned out to be scams or collapsed. So far, there have been a total of 68 billion USD lost in crypto and Web3 due to frauds and collapses (6% of the current crypto market cap) since 2021. The biggest collapses include the FTX and Terra/Luna.

3.1 EU

The regulatory framework for crypto-assets in the European Union (EU) is being established through the Markets in Crypto-Assets Regulation (MiCA). It aims to create a uniform legal framework across the EU for issuing certain crypto-assets and providing specific crypto services. In addition, MiCA introduces sector-specific regulations to prevent market abuse and market manipulation in crypto markets. Once a company has been granted a MiCA license in one country, it will be able to "passport" it and offer the licensed service throughout the entire EU crypto market, increasing the competitiveness of any European crypto projects (Greenfield, 2023).

Based on many talks with European GPs, we learned that everyone agrees that MiCA is beneficial and advantageous for Europe and European VCs. They see startups moving from the US to either Europe or Singapore & Hong Kong mainly because of the lack of crypto regulations in the US.

3.2 US

The US currently lacks a regulatory framework for crypto, causing uncertainty among market participants. Proposed regulations have failed due to a congressional deadlock. Crypto companies face difficulties in complying with unclear SEC registration processes, resulting in closures and enforcement actions. Some industry insiders even refer to the current situation as Operation Chokepoint 2.0. as they see this as a coordinated crackdown on the industry by US agencies.

One of the currently debated suggestions is to require stablecoins to register as insured depository institutions, like banks. Congress is also exploring alternative approaches through

bills that propose reserve requirements and disclosure rules. Existing regulations already cover aspects like anti-money laundering and sanctions for stablecoins. The US is still undecided on introducing a Central Bank Digital Currency (CBDC) and is conducting research. Regulators are also assessing how to regulate other digital assets such as NFTs and DeFi. Guidelines on managing liquidity risks and finder activities, along with new legislation specifically for stablecoins, can be expected in the future (PwC, 2023).

How (lack of) policy and regulation impacts U.S. crypto, based on a16z report:

- Banning new business models or technologies undermines American values and drives innovation and jobs elsewhere.
- Agency guidance or new legislation that establishes appropriate, clear rules will protect consumers and help the Web3 industry flourish.
- Legal businesses and their customers deserve access to financial services and lawful protections, from banking relationships to data privacy.

3.3 Asia

Singapore and Hong Kong (alongside the EU) could emerge as crypto hubs as the US cracks down on industry. Singapore was one of the first nations to establish regulations for the industry, while Hong Kong's proximity to China could give it an edge.

The MAS (Monetary Authority of Singapore) introduced the Payment Services Act (PSA) in January 2020 as an overarching regulatory structure for traditional and cryptocurrency exchanges. Under the PSA, digital currencies are referred to as digital payment tokens (DPTs), with Bitcoin and Ether recognized as cryptocurrencies by the MAS. This makes approved cryptocurrencies legal assets in Singapore, allowing them to be treated similarly to other asset classes. Recently, there has been growing government support for the tokenization of RWA (real-world assets), notably financial products.

4. Institutional Allocations

4.1 Banks

According to a <u>new report</u> conducted by the Bank for International Settlements (BIS), the bank exposure is minuscule. The report looked at total assets from 19 banks around the globe that make up a significant portion of the overall assets that the BIS oversees under Basel III. These banks reported 10.3 bill. EUR in prudential crypto-asset exposure, which comes out to 0.14% of their assets. When the BIS extrapolated this out to the 182 banks it oversees globally, it calculated that banks globally have a mere 0.01% of their assets exposed to crypto (<u>BIS</u>, 2023).

It is crucial to mention that The Basel Committee on Banking Supervision endorsed in 12/2022 rules that a bank's exposure to certain cryptocurrencies must not exceed 2% while the max. recommendation is 1%.

Reported crypto-asset exposures are primarily composed of Bitcoin (31%) and Ether (22%). Together with its derivates, these make up almost 90% of reported exposures. Focusing on the top 20 reported crypto assets by exposure amount, other relatively significant reported crypto assets include Polkadot (2%), Ripple (2%), and Solana (1%) (BIS, 2023).

For qualified investors ready to gain exposure, <u>Morgan Stanley suggests</u> starting with publicly traded products—preferably ones that are multi-asset and potentially accessing the growth opportunities through a venture capital/private equity investment in the blockchain ecosystem.

4. 2 Investment Firms

While digital assets have been around for over a decade, they were initially dismissed as a niche investment for tech enthusiasts. However, in recent years, institutional investors have shown agrowing interest in digital assets.

Custom Research Lab and Coinbase created the 2022 Institutional Investor Digital Assets Outlook Survey. The data were collected from 140 institutional investors in the US with assets under management of about 2.6 trillion. USD. To summarize, 62% of Institutional investors increased their allocations during the crypto winter, with many using this as an opportunity to learn and build for the future, and only 12 % of institutional investors reduced their exposure. In the following three years, the majority anticipates increasing crypto exposure. The top motivation for investing in crypto is differentiated performance, with many citing their desire to allocate to innovative technology. 71 % of institutional investors think that the crypto valuations will increase over the long term. This corresponds to the PwC crypto fund report (2022): 67% of hedge funds intend to deploy more capital into crypto by the end of 2022. Also, more than a third of traditional hedge funds were invested in digital assets, nearly double the amount from 2021. Also, the latest analysis provided by Binance shows that the overwhelming majority (88%) of institutional crypto investors are positive about the outlook of crypto over the next 12 months; thus, 50% expect to increase their allocation (Binance Research, 2023).

According to excellent recent research conducted in 2023 by EY | How institutions are investing in digital assets, Institutions see value in the ability to diversify assets, as well as the potential for asymmetric returns when investing in crypto/digital assets. The respondents consisted of 256 institutional investors such as family offices, foundations, pension funds, etc. (see details in Appendices, and I also strongly recommend reading the research).

Digital Asset Allocation	<0.1%	0.1%-0.5%	0.5%-1%	1%-5%	5%-10%	10%-20%	20%-50%	>50%
All respondents	9%	15%	16%	35%	15%	7%	2%	1%
<\$1b	6%	9%	14%	43%	15%	9%	3%	1%
\$1b - \$49b	10%	19%	17%	27%	19%	8%	0%	0%
\$50b-\$499b	16%	27%	18%	21%	12%	3%	3%	0%
>\$500b	16%	17%	22%	33%	6%	6%	0%	0%

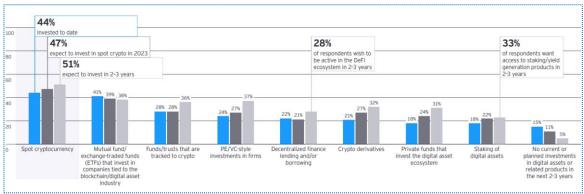
Source: EY Institutional Investor Digital Asset Report (2023)

Digital Asset Allocation	<0.1%	0.1%-0.5%	0.5%-1%	1%-5%	5%-10%	10%-20%	20%-50%	>50%
All respondents	9%	15%	16%	35%	15%	7%	2%	1%
Asset owners	13%	18%	21%	30%	9%	7%	2%	0%
Family offices/RIAs/wealth managers	5%	10%	17%	43%	16%	5%	2%	2%
Institutional asset managers	11%	18%	10%	35%	20%	4%	2%	0%
Traditional hedge funds	11%	14%	14%	25%	14%	18%	4%	0%

Source: EY Institutional Investor Digital Asset Report (2023)

Overall, 35% of respondents noted allocating 1–5% to digital assets and/or related products, with 60% of respondents indicating they allocate more than 1% of their portfolio to digital assets and/or related products. While respondents with smaller AUM tended to allocate a greater portion of their portfolio to these products, it was noteworthy that 45% of institutions with more than 500 bill. USD in AUM responded that they allocate more than 1% of their portfolio, suggesting a large amount of capital invested in the space by traditional institutional investors (EY, 2023).

The same study shows that Infrastructure, L1, and L2 are areas of focus among institutional investors in 2023. In terms of future allocations, according to EY, the biggest shift to happen is in VC-style investments. 37% of Investors reported that they expect to invest in crypto VCs in 2-3 years (EY, 2023).



Source: EY Institutional Investor Digital Asset Report (2023)

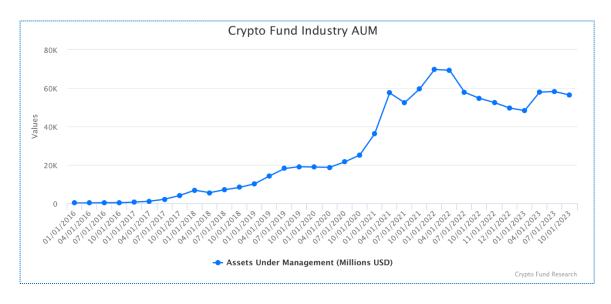
4. 3 Traditional Hedge Funds

The same <u>PwC survey (2023)</u> also showed that approximately one in three of the "traditional" hedge funds surveyed are currently investing in digital assets, compared to one in five when surveyed last year. The average allocation of digital assets of traditional hedge funds accounts for 4% of their AUM, compared to 3% reported in the survey last year. The largest hedge funds (having 5 billion USD in AUM or greater) all have less than 1% of their total hedge fund AUM in digital assets.

5. Strategies in Crypto/Web3 Allocations

5. 1 Web3 Venture Capital Funds

In total, there are around 850 crypto funds (VCs + crypto hedge funds) managing around 50 billion USD. Around 50% of crypto funds are based in the US, followed by China. (Crypto Fund Research, 2023) The vast majority of crypto funds (75 %) are small funds with sizes smaller than USD 50 mill. However, there are some huge players, including Coinbase Ventures, NGC Ventures, Haun Ventures, Andreessen Horowitz, and YC.



Size of Traditional Venture Capital Funds

Speaking of the sizes of VC funds, US vehicles under 250 mil. USD have significantly outperformed those above that threshold, according to PitchBook's 2022 Global Fund Performance Report.

Generating substantial returns in traditional VC can be tougher for larger funds. Smaller VC funds (<400 mill. USD) averaged 19-20% returns, while larger ones (400 mill. USD to 1 bill. USD) managed 7.2%. Mega-funds (> 1 bill. USD) struggled with a mere 2.4% return (gridline.co, 2022).

Larger funds typically avoid <1 mill. USD pre-seed rounds, leaving room for smaller funds. This means less competition for emerging managers with smaller funds, making it easier to invest in promising startups at lower valuations. In contrast, bigger funds compete fiercely in later-stage rounds.

Locally, we consider it essential to mention Rockaway Blockchain Fund, a Prague-based crypto fund with a highly diversified approach, making direct equity and token investments into blockchain-related projects (70%) and other top-tier digital asset funds (30%). The Fund I had a final closing in 2021; as of Q1 2024, the expected TVPI stands at over 4x.

Evaluation of the Strategy

Crypto venture capital (VC) investments offer several benefits to investors, including:

- Discounts on tokens before ICO: Crypto VCs typically have access to pre-ICO token sales, which offer discounts of up to 30% on the public offering price. This can provide investors with a significant opportunity to generate profits.
- Earlier access to promising deals: Crypto VCs are often the first to invest in new and innovative crypto projects, as is usual in the traditional VC sector.

- Flexibility after the ICO and earlier liquidity: Crypto VCs often have lockup periods on their token investments. However, these lockup periods are typically shorter than those for traditional VC investments. This gives crypto VCs more flexibility to sell their tokens when they see fit and to generate earlier liquidity.
- VC funds can offer early access to Web3 dApps, which represent emerging trends in Web3 and, therefore, are often pre-ICO. It may happen that ETFs or crypto hedge funds will not offer exposure to those for its investors as these entities will invest only in projects post-ICO. Additionally, according to research made by Heartcore (Data: Coinmarketcap and Token Terminal, 2022), the Application layer makes only 2% of the market cap in Web3 while aggregating 55 % of revenues, which implies huge potential for Web3 dApps.

However, crypto VC investments also come with several drawbacks, including:

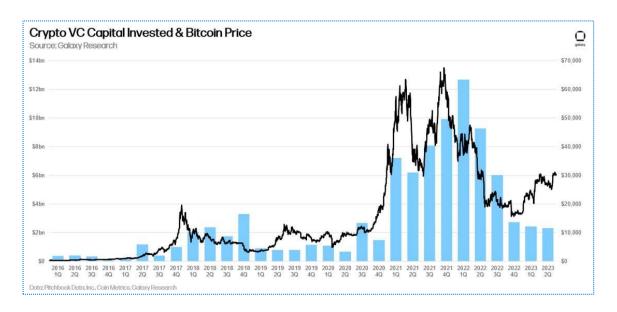
- Higher volatility: The crypto market is notoriously volatile, and crypto VC investments
 are no exception. This means that investors can experience significant losses if the
 value of their token investments declines.
- Higher probability of write-offs: As with any VC investment, there is always the risk that
 the crypto projects that investors back will fail. This can result in a complete loss
 of investment. Crypto/Web3 is still emerging, and the risk of deceptive projects is, by
 nature, higher.

Trends of Venture Capital Funding

Crypto venture capital funding is still falling, even though there were more deals in the second quarter of 2023. The amount of money invested in crypto startups is down in Q2 2023 from the previous quarter. In fact, ~90% of all raised assets in 2017-2022 were raised in years 2021 and 2022. The most fund value raised occurred in 2022 before Terra (Luna) and FTX collapses (VisionTrack, 2023). Crunchbase data shows that while seemingly all sectors are seeing a slowdown in venture capital, Web3 has been hit hardest as investors retreat to both AI and more traditional sectors.

Nevertheless, Andreessen Horowitz announced in May 2023 it had raised its fourth crypto fund at USD 4.5 bill. The fund is easily the largest crypto fund ever raised. A16z invests across all stages and a variety of sectors, such as fintech, blockchain, SaaS, and cybersecurity.

According to Viktor Fisher, CEO of Rockaway X, the 4-year cycles in the crypto sector might eventually be beneficial because the market enables startups to bring new applications, and it helps to "clear" the market.



5. 2 Crypto Hedge Funds

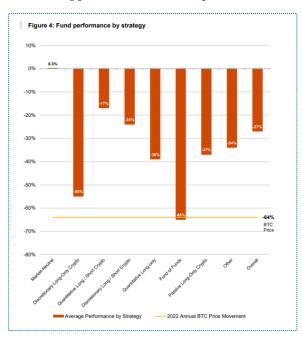
Crypto hedge funds are a new concept, and 81% of them were launched in 2017 or later. In July 2023, PWC conducted its annual research among 131 crypto hedge funds (PWC Annual Global Crypto Hedge Fund Report, 2023). Crypto hedge funds reacted proactively to last year's FTX crush and are taking measures to adapt better to this new industry dynamic. Perhaps not surprisingly, they now place increased importance on platform security when selecting a trading venue. They also focus more on custody solutions, counterparty risk management, the use of decentralized exchanges, and the increased use of standard liquidity management tools.

PwC concluded that despite the decline in crypto-asset values and negative investment returns, AUM levels appear to be resilient, although they noted that there is a possibility of survivorship bias in their sample.

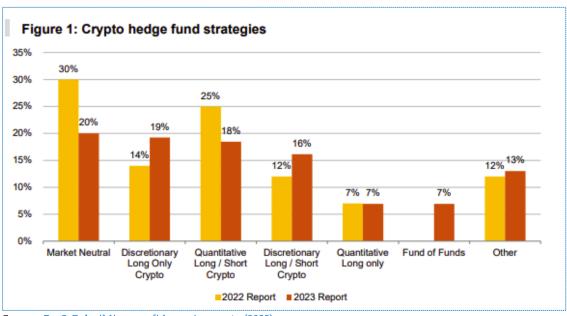
In terms of strategies, Crypto hedge funds adopt a wide array, with a market-neutral strategy with leverage being the most common one.

Crypto Hedge funds typically require higher fees and a high minimum deposit. Management fee ranges from 1 - 4%, the most common being 2%. The performance fee structure in the crypto hedge fund industry is diverse, reflecting the varied risk appetites and return expectations of

crypto investors. From conservative sub-15% fees to aggressive above-20% fees, sometimes going as high as 50%, the market caters to a wide range of investor profiles. Minimum investment typically starts at 100 ths. USD. The largest crypto hedge fund ever launched (1 bill. USD), Brevan Howard Digital Asset Multi-Strategy Fund, then accepts a minimum check of 5 mill. USD. Other notable funds are Digital Asset Index Fund provided by Morgan Creek Digital & Bitwise Asset Management, Arbitrage fund run by Bitcoin Reserve, or hedge funds provided by large Crypto players like Pantera Capital (Pantera Liquid Token fund) A16z, or Coin Capital. We talked to Sigil Fund - a Gibraltar-based openended liquid hedge fund with top Czech and Slovak managers. Sigil has commitments from WOOD & Co and Miton.



Source: PwC: Rebuilding confidence in crypto (2023)



Source: PwC: Rebuilding confidence in crypto (2023)

5.3 ETFs

Crypto ETFs function in a similar manner to traditional ETFs. ETFs allow investors to invest in diversified crypto portfolios without directly owning the coins. On January 10, 2024, the SEC approved 11 spot Bitcoin ETFs, marking a significant shift in its stance. This decision was attributed to several factors, including the emergence of regulated futures markets, improved custody solutions, and the growing maturity of the Bitcoin ecosystem. The approved ETFs include offerings from major asset managers like BlackRock, Fidelity, and VanEck.

These ETFs generally hold physically settled Bitcoin and are traded on regulated exchanges like NYSE Arca and Bats BZX Exchange. Fees vary slightly across different ETFs, ranging from 0.4% to 1.25% annually.

Examples of the most recommended and known crypto ETFs include:

- Grayscale (GTBC) with AUM of 28.6 bill. USD. Founded in 2013 as a trust, Grayscale quickly evolved into the world's largest digital currency asset manager. The fund remains the single largest crypto asset manager in 2023. GBTC is now an ETF and remains well over ten times bigger than the largest of the newcomer spot bitcoin ETFs.GBTC built its infrastructure well in advance of the recent SEC ruling as it bet big in anticipation of getting over this final regulatory hurdle. Although large and liquid, however, the elevated fee structure for this bitcoin ETF at present may give investors cause to shop around.
- <u>iShares Bitcoin Trust</u> (IBIT): The iShares Bitcoin Trust is backed by the world's largest asset manager, BlackRock, and offers the trust and experience of a well-established brand. This, combined with a lower initial cost of 0.12% (rising to 0.25% later) and its high trading volume, makes IBIT a serious contender for investors seeking exposure to Bitcoin. Its early dominance in trading volume suggests it might become a leading player in the space.
- Bitwise Bitcoin ETF (BITB): Bitwise, known for its existing Bitcoin products, caters to more experienced crypto investors with the BITB. This ETF also appeals to those who value open-source development efforts, as it donates 10% of its profits to relevant organizations. With a highly competitive fee of 0.2% after the initial waiver, BITB offers a cost-effective way to gain Bitcoin exposure.

Examples of newly approved ETFs with AUM comparison

ETF (Ticker)	AUM
Grayscale Bitcoin Trust (GBTC)	\$28.6 billion
iShares Bitcoin Trust ETF (IBIT)	\$2.7 billion
Invesco Galaxy Bitcoin ETF (BTCO)	\$300.0 million
Bitwise Bitcoin ETF (BITB)	\$623.1 million
ProShares Bitcoin Strategy ETF (BITO)	\$1.8 billion

These low-fee single-asset ETFs will be an obvious entry point into crypto for most institutions. Advocates have long argued that allowing this type of product would enable a greater swath of the public to invest in Bitcoin without having to go through the trouble of buying it directly or deal with potential issues like their custody providers collapsing.

Bitcoin ETF in Europe: On 15th August, London-based Jacobi Asset Management has listed Europe's first BTC spot ETF on Euronext Amsterdam

The listing meant Europe saw a spot bitcoin ETF traded before the U.S., despite dozens of applications to the Securities and Exchange Commission (SEC) in the last few years.

5. 4 Direct Exposure

Direct exposure, even to major cryptocurrencies (BTC, ETH), is still relatively complicated for institutional investors due to regulatory restrictions and issues with safety and custody. Despite the growing number of custodian solutions, 90% of institutional investors would still prefer to invest through TradFi firms and/or crypto ETFs EY (2022). Further, investing directly into the equity of crypto startups would confront investors with typical problems of early-stage investments, such as lack of access and a high need for diversification.

During our call with one of the funds, they proposed a strategy aligned with the preferences of their investors. The investors expressed a desire to allocate 30% of their investment in listed equities like Coinbase, another 30% in digital assets focusing on infrastructure, 10% in private markets specifically targeting venture capital funds with a focus on disruptive ideas, and the remaining 30% in crypto hedge funds. We believe it is a solid reference point.

6. Evaluation

6.1 Why Invest

We have looked at crypto investing from different angles: market size predictions and growth, institutional approaches, market sentiment, regulation framework, specific instruments evaluation in the context of institutional investors, and the ideal allocation into crypto instruments.

Web3, with its blockchain tech, is at the forefront of financial and technology innovation and brings to the market solutions such as decentralized finance, NFTs for digital ownership, fractional ownership of assets, tokenization platforms, DAOs for community governance, secure supply chain management, self-sovereign identity for privacy, decentralized storage, gaming asset ownership, energy trading and many other.

From the bigger picture, BCG (2022) anticipates a financial revolution with illiquid assets globally tokenized, potentially reaching a substantial 16 trillion USD by 2030, equivalent to about 10% of the world's total GDP. It is essential to note that this tokenization does not encompass cryptocurrencies but rather extends to a broader range of traditional assets linked to crypto protocols. In our quickly evolving digital world, McKinsey & Company (2022) predicts that the Metaverse could skyrocket to a value of 5 trillion USD by 2030. Also, Verified Market Research projects significant growth in the non-fungible token (NFT) industry, with a potential valuation of 232 billion USD in the next decade. To put these numbers in context, the S&P 500 index, a traditional investment benchmark, currently stands at 35 trillion USD. For a detailed chart with benchmarks, please refer to the appendices.

Another positive aspect is the approach of institutional investors. During the crypto winter in 2022, most institutional investors increased their crypto allocations. This was driven by their belief in long-term crypto valuation growth and the appeal of innovative technology. Also, the intention to deploy more in the future will bring additional liquidity to the market, which is currently needed (More in Section 4.2.). Even the biggest players started leaning more towards crypto and Web3 investments. Larry Fink (Blackrock CEO) now says that 'crypto is digitizing gold' and that BlackRock's Bitcoin ETF could help make the sector 'more democratized. That is big news given that in 2017, he claimed Bitcoin is an 'index of money laundering.' Since 2017, cryptocurrencies have become more mature, accessible, and regulated. Morgan Stanley also acknowledged its client's interest in crypto instruments — it stated a recommendation to invest preferably in instruments that are multi-asset and potentially access the growth opportunities through a venture capital/private equity investment in the blockchain ecosystem. We also appreciate that the developer activity stays strong, even in the current crypto winter.

As cryptocurrencies become increasingly more regulated, it will make it easier for institutional investors to invest. In Europe, the MiCA is creating a clear and consistent set of rules for cryptocurrencies. This is helping to make the cryptocurrency market more attractive to investors and businesses, and it is encouraging innovation in the sector. On the other side of the world,

Singapore and Hong Kong are emerging as crypto hubs as well. Singapore's Payment Services Act recognizes digital currencies like Bitcoin and Ether as legal assets, with government support for real-world asset tokenization. Hong Kong's proximity to China adds to its crypto appeal. Conversely, the US lacks comprehensive crypto regulations, causing uncertainty (See Section 3). It is quite important regarding what institutional investors crave to commit capital, and the EU, along with Singapore and Hong Kong, are the places to be.

Web3 VC investments offer unique advantages, including discounts on pre-ICO token sales, early access to innovative projects, and quicker liquidity with shorter lockup periods. VC funds also provide exclusive exposure to Web3 dApps, an emerging trend with substantial revenue potential, often overlooked by traditional investment strategies.

Crypto hedge funds are adapting with a focus on security, custody, risk management, DEX usage, and liquidity tools. Despite crypto value declines, assets under management remain robust. Various strategies are employed, with market-neutral leverage being common (Section 5.3.).

6. 2 Why not Invest

Crypto investments are not all sunshine and rainbows. The current regulation framework is not sufficient. Studies show that the lack of crypto regulations is a big barrier for investors. Institutional investors worry about assessing value, security, market manipulation, and unclear rules. The uncertainty about regulations and taxes, especially due to different rules globally, and unclear guidance doesn't work for institutional investors and government agencies.

Compliance and complexity of auditing and accounting also cause several headaches. However, there are projects working on developing solutions to this problem.

One of the biggest challenges of adopting cryptocurrencies is the lack of infrastructure and service providers. This is because cryptocurrencies are still a relatively new technology, and there is not yet a well-developed ecosystem of solutions and business tools. There needs to be significant improvement in the areas of custody, safekeeping, and scalability. Due to the factors mentioned above, there is a notable concern regarding safety, and there have been several serious instances of mishandled capital (detail in section 3.1).

Moving to VC strategies, VCs need to consider higher volatility and higher write-off rates at the fund level. Startup projects sometimes focus too early on token issuance, which allows for earlier liquidity but can also bring complications in the early stages. Also, valuations in Web3 are often higher and not based on traction but rather the interest from investors. Further, there were occasions of 'pump and dump' schemes, when projects inflate token values to attract retail investors, causing a surge in prices. When prices drop, investors (typically retail) suffer losses. Institutional investors are often affected by these fluctuations as well. Prior to and during the Terra/Luna collapse and the FTX bankruptcy, crypto trading activity increased markedly, with whale investors selling and smaller retail investors buying (bis.org).

On another note, outsized returns delivered by crypto hedge funds might be influenced by a survivorship bias, and it might be challenging to deliver similar results in the next bull market.

7. Conclusion

We have evaluated the benefits and drawbacks of investing in the crypto market and have observed the growing interest of institutional investors in this space. While there are challenges and risks associated with crypto investments, we believe that the potential market growth presents a compelling opportunity.

We discussed the recommended exposure for institutional investors and <u>Section 4.2.</u> offers a detailed view of a benchmark for crypto strategies.

We have evaluated different investment possibilities, including allocating the capital dedicated to Web3 investments via smaller crypto VCs covered in our Angel Tech strategy. Additionally, other viable investment strategies include exploring crypto hedge funds, as well as considering ETFs as a more conservative option for allocation.

VC firms offer unique access to early-stage crypto and Web3 deals, with the potential for significant returns. Additionally, investing in crypto VCs provides the advantage of accessing tokens at discounted prices pre-ICO, further enhancing the potential return on investment (Section 5.1).

Although there were occasions when crypto hedge funds closed down (3AC), many crypto hedge funds have shown resilience and adaptability in the face of market fluctuations by providing opportunities for market-neutral strategies and leveraging their expertise in the crypto ecosystem. Crypto hedge funds proved during the previous cycle that they were generally able to outperform spot cryptocurrencies or crypto ETFs, which was among the portfolio diversification the main factor for our recommendation Section). (Section 5.2).

Further, BTC spot ETFs emerged in January 2024 (later potentially followed by other major crypto ETFs) and are, therefore, set to transform institutional investment participation in crypto. As estimated, in Q1 2024, ETFs become accessible by the largest investment firms (such as Blackrock), offering an accessible, liquid, and diversified entry point for institutions. With advantages like regulatory compliance, institutional investors will most probably start with ETFs as their primary investment product.

Regarding geographical exposure, we recommend focusing on regions with clear and favorable regulatory frameworks. This is currently mainly Europe (followed by other well-regulated markets such as Singapore and Hong Kong) (Section 3.). These jurisdictions offer relatively clear rules for cryptocurrencies and are intended to foster innovation in the sector.

These instruments can offer institutional investors unique exposure to the crypto market while managing risks and leveraging the expertise of industry professionals. We recommend a

cautious yet strategic approach, allocating a portion of assets to crypto investments and staying informed about regulatory developments and market trends.

8. Appendices

EY research

How institutions are investing in digital assets | EY: The EY-Parthenon team conducted a survey of 256 institutional investor decision-makers — e.g., chief operating officers (COOs), CEOs, portfolio managers, and heads of transformation — globally to better understand how they view digital assets, including their sentiment, digital asset allocations, future expectations, and perspectives on tokenization. The respondents represented family offices, registered investment advisors (RIAs) and wealth managers (77); traditional asset managers (76); traditional hedge funds (36); and asset owners (e.g., pension funds, endowments, foundations, investment-grade advisors (IGAs) (67) and came from the US (140), Europe (53), Asia-Pacific (43), Canada (17) and Latin America (3). The EY-Parthenon team commissioned a third party to deploy the survey to confirm a fair and balanced response pool. The survey was conducted in early February, during a time of significant disruption in the digital asset industry due to business failures, increased regulatory enforcement, and heightened inflation. Sampled firms included both those invested and those not yet invested in digital assets and/or related products (e.g., funds, trusts, derivatives).

Digital assets include cryptocurrencies, stablecoins, tokenized assets, non-fungible tokens (NFTs), and other digital representations of value.

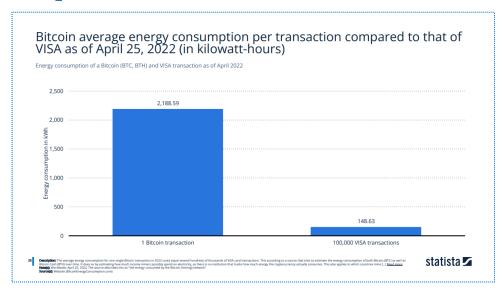
Crypto versus Payment Cards

Currently, there are difficulties in cryptocurrency adoption in online shopping for mass adaptation. The reasons include Slow transaction speeds and scalability issues, particularly for Bitcoin and Ethereum. In comparison to the usage of well-established card companies, in the crypto market, there are notable fluctuations and volatility (Statista, 2023). Also, The energy consumption and computing power needed for proof-of-work transactions are simply enormous. Global Data's (2022) Financial Services Consumer Survey revealed that consumers around the

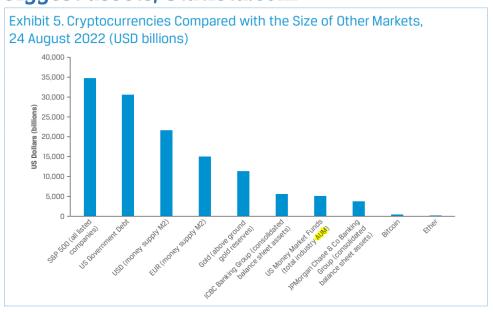


world are showing interest in the cryptocurrency sector. This interest is primarily driven by the motivation to use cryptocurrency as an investment instrument. 77.4% of global respondents who reported having cryptocurrency said that they were motivated to earn profits from it, while only 18.5% of respondents reported using it as a payment tool.

Energy consumption of Bitcoin transaction compared to VISA, Statista.com



Crypto market cap in context with the world's biggest assets, Statista.com



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