CryptoIndexSeries

MARKET RESEARCH REPORT

INSTITUTIONAL ADOPTION, CHANNELS, CHALLENGES & FUTURE OUTLOOK

CRYPTOINDEXSERIES

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INTRODUCTION

Cryptocurrencies are becoming more attractive and spreading to the masses every day for many reasons. They provide an incentive structure and a mechanism for transferring value. The fact that they are traded globally, scarce, portable, and instantly predictable are some of the features that make them attractive. This proliferation is also growing institutionally, and this report focuses on the increasing crypto adoption of institutional investors compared to previous years, the reasons for this upward trend, and the challenges awaiting institutions in this journey.

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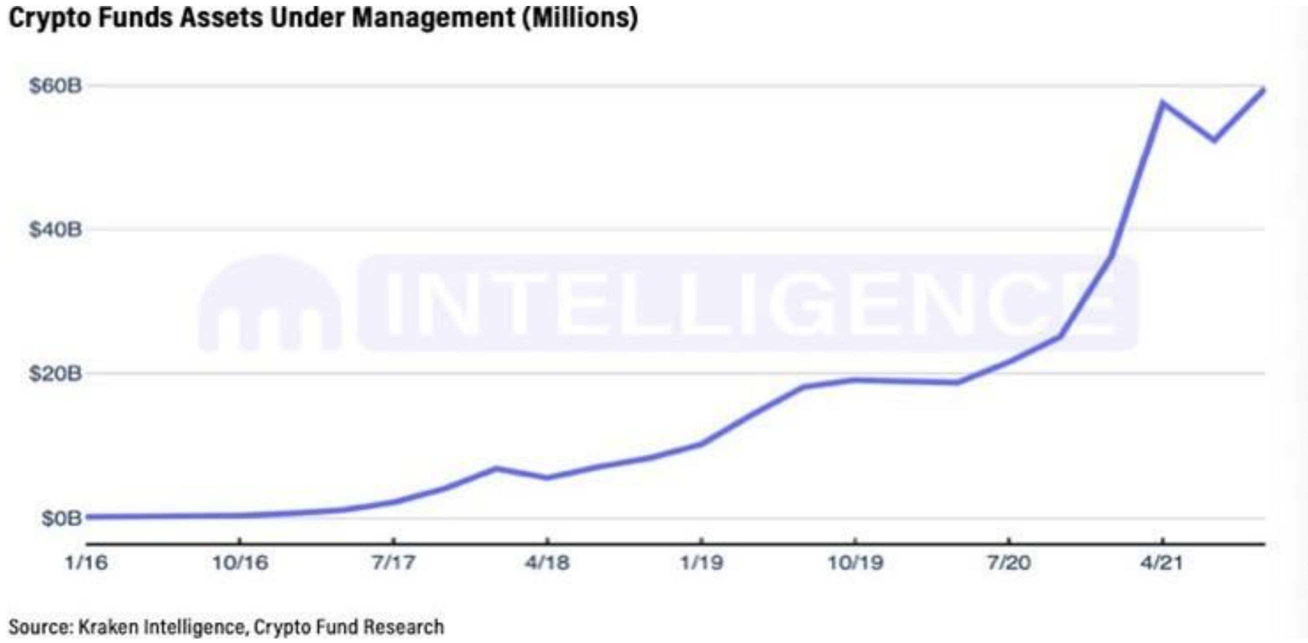
ADOPTION OF CRYPTOCURRENCIES

The crypto industry is gaining popularity day by day with the developments in the market and technology. Despite the volatility of the market in 2021, the crypto industry as a whole has been performing positively. There is also an increase in the number of private investment funds trying to capitalise on the rising market returns of the crypto industry every year. According to Kraken Intelligence, the assets under management of private crypto investment funds (AUM) increased from $36.25 billion in January 2021 to $59.6 billion in October 2021,an increase of 64.4%.

Kraken Intelligence noted that much of this jump from AUM year to year was due to legacy financial institutions and investors investing directly in crypto funds. In 2021, NYDIG raised $100 million from Liberty Mutual Insurance, the third largest insurance provider in the United States, and a number of other institutions. Fidelity Investments took a $20 million stake in Marathon Digital Holdings, the leading U.S. institutional bitcoin miner.



Large investments like these have been followed by an increase in the total number of cryptocurrency-focused funds, which rose from 804 to 851 in 2020. According to Kraken Intelligence, much of this growth is in crypto-related hedge funds, rather than venture capital.

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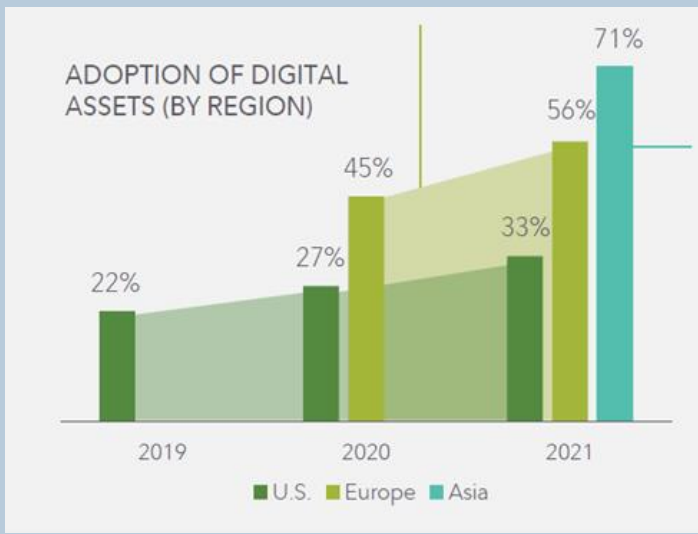
There is a significant amount of research that provides us some predictions about the adoption of cryptocurrencies by institutional investors. Fidelity Digital Asset, a New York-based financial services firm, conducted an extensive study on this topic, including a survey amongst 1100 investors. Out of 1100respondents, there were 299 Asian,408 American and 393 European investors. 52% of the respondents stated that they have already invested in digital assets.

This table illustrates the year-on- year increase in the crypto money trend of institutional investors for each region. Asia showed the largest crypto adoption activity at 71% in 2021, while the U.S. Investors, stand out with the steadiest increase since 2019.



Source: Fidelity Digital Asset - The Institutional Investor Digital Assets Study

According to Nickel Digital Asset Management research, 91% of institutional investors think that the prevalence of crypto assets is increasing day by day.

In summary, the crypto industry is rapidly advancing towards institutional adoption. There are many reasons that increase the crypto adoption of institutional investors. The pandemic, which started in the last quarter of2019, has left fundamental impact on the crypto industry. According to Fidelity Digital Asset, in the U.S., positive perception increased by five-percentage points since 2020. Thepositive perception in Europe increased 14-percentage points from 2020. Asian investors had the most favourable perception of digital assets, with63% of respondents saying they held a positive view and 21% neutral view.

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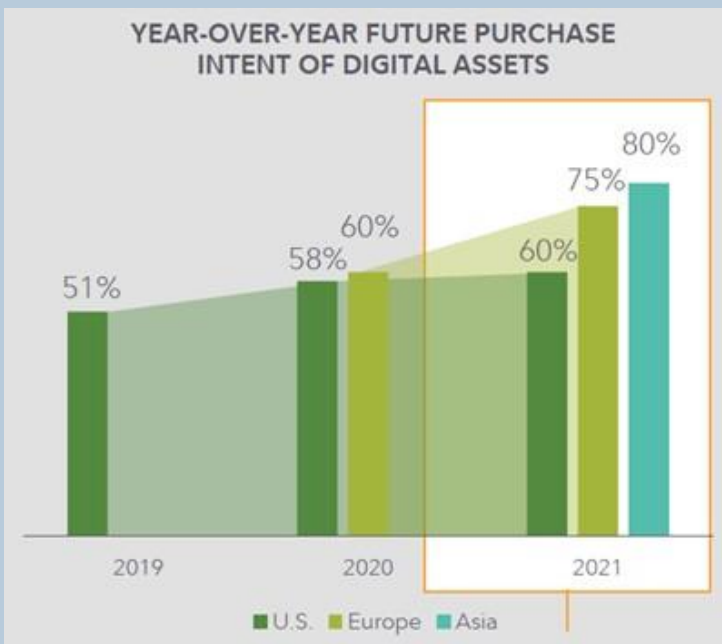
INSTITUTIONAL INVESTMENT CHANNELS

Not all institutional investors who participated in the Fidelity Digital Asset Study take the same approach to investing in the crypto industry. For starters, U.S. investors surveyed in the Report prefer investment products over outright purchases of digital assets. The U.S. investors said they were 16% more likely to invest directly in digital assets in past years, while that rate is 14% this year. However, the percentage of investors who say they will focus on an investment production the future appears to have increased from 18% to 30% year-over-year. This trend is expected to continue as more public and private investment products become available to U.S. investors.



Source : Fidelity Digital Asset - The Institutional Investor Digital Assets Study

In Europe, the situation is somewhat different. The share of investors investing directly in digital assets increased from 29% last year to 41% in 2021, while the share of investors investing in investment products increased from 14% to 29%. In Asia, 52% of investors surveyed said they purchased digital assets directly, while 39%expressed their allocation through an investment product. According to the Fidelity report, U.S. and European investors' future propensity to buy increased from 59% last year to 71% this year.

In line with how the regional survey data trended, Asia was most interested in future investments (80%), followed by Europe (75%) and the U.S.(60%). Europe continues to show considerable gains here as well, with investment intent up 15-percentage points from last year's survey

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If we examine Fidelity's data on investor segments, we can see that institutional use is increasing. 47% of family offices, 43% of financial advisors and all of the hedge funds (HFs) and venture capital funds (VCs) surveyed in the U.S. are currently invested in digital assets and 15% of high-net-worth investors invest in cryptocurrencies. The situation is slightly different for institutional investors in Europe. According to Fidelity, in Europe, 86% of surveyed crypto HFs & VCs, 85% of HNWIs, and 71% of financial advisors are currently invested in digital assets. There is a big difference among HNWIs compared to the Americas, with 85% of European high net worth investors transacting in crypto. In Europe, 90% of investors surveyed said they had a neutral to positive attitude towards digital assets, an increase of 19percentage points since 2020. According to Fidelity, adoption in Asia was led by segments similar to those in Europe. 100% of financial advisors, 86% of HNWIs and 53% of crypto HF & VCs surveyed are currently investing in digital assets.

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CHALLENGES FOR CRYPTO INSTITUTIONAL ADOPTION

While there is a growing trend of institutional investors entering the crypto industry,there are barriers that prevent investors from adopting cryptocurrencies. The most noteworthy challenges are listed below:

1. Volatility
2. Infrastructure Problem
3. Regulatory / Compliance Risks

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1. Volatility:

The biggest obstacle is volatility in the crypto industry. Financial institutions are reluctant to adopt cryptocurrencies due to the range of volatility. According to Fidelity Digital Asset, 54% of investors see crypto market volatility as a barrier to adoption.

2. Infrastructure Problem:

According to the PwC report, custody and safekeeping of securities is seen as an area of market infrastructure that needs to be fundamentally improved for the adoption of digitisation. In order to deliver an E2E service, including data analysis, trading, storing of crypto assets, portfolio analytics and risk management activities, institutions require expertise and guidance.

When operating cryptocurrencies with multiple counterparties, asset managers face the problem of inefficient capital allocation. Between banks, exchanges, custodians, and OTC, there is a lack of infrastructure and services needed to manage cryptocurrencies and fiat currencies, leading to operational difficulties and undesirable risks. In traditional financial markets, the efficiency of capital allocation relies on counter parties acting as intermediaries to manage and administer your assets on your behalf. Prime brokerage houses and central clearing counterparties are examples of these intermediaries. In the crypto world, these institutions, as we know them today, will be largely automated by software and other smart contract standards. The popular DeFi movement, which advocates self-execution of financial smart contracts, is still far from meeting the needs of institutional asset managers. Although some vertically integrated platforms are emerging, through which institutions can access services such as trading, custody, and lending, asset managers still face a significant software and service gap to manage digital assets to the same regulatory standards as traditional asset classes.

At times, this expertise does not exist internally and given the time pressure, the institutions look to work with trustworthy third-party service providers. According to PwC, 83% of investors indicate the need for market infrastructure improvement, and 17% claim the necessity for enhancement of financial and collateral management.

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3. Regulatory / Compliance Risks:

In addition to these risks, compliance-related risks should also be considered. The lack of compliance and regulations in the crypto industry makes it difficult for traditional financial service providers to enter and operate in new markets. Effective regulation, an open attitude, and improved technological knowledge among regulators will encourage the adoption of cryptocurrencies. If regulators adopt an open attitude toward technological innovation and accept the advancing technological understanding of cryptocurrencies, they will be able to effectively investigate and audit cryptocurrencies - a situation discussed in a recent article from BIS. This will also support regulators' efforts to skilfully assess and prevent oversight.

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INSTITUTIONAL CRYPTO ACTIVITIES

Despite the challenges, crypto markets continue to gain more attention among institutions. This section reports examples of institutions who have shown significant adoption in the last 2-3 years.

- ✓ BlackRock ($10Trillion AUM): The world's largest asset management firm filed an application to launch a blockchain-related exchange-traded fund in January. Organizations in the blockchain and crypto industries, such as cryptocurrency miners, cryptocurrency exchanges, and companies that develop blockchain technology, will be tracked by the iShares Blockchain and Tech ETF. It was reported in February that BlackRock's integrated investment management platform, Aladdin, will offer crypto trading to its clients.

- ✓ Charles Schwab ($7.5 Trillion AUM): Charles Schwab has filed an application to create an index-tracking exchange-traded fund (ETF) that will provide exposure to companies active in digital assets and commercial blockchain operations. According to their regulatory filing, the Schwab Crypto Economy ETF aims to invest at least 80% of its net assets in shares from the Schwab Crypto Economy Index.

- ✓ Fidelity International & Fidelity Canada: In February, Fidelity International ($812 billion AUM) launched FBTC, a physical Bitcoin exchange traded product. It is fully backed by Bitcoin, which is held in custody by Fidelity Digital Assets, and traded on European exchanges. The fund is open to professional investors from a variety of European nations. Fidelity Canada ($145 billion in assets undermanagement) has launched Fidelity Advantage Bitcoin, which invests directly in bitcoin while simultaneously providing the security of Fidelity's in-house storage.

- ✓ State Street ($4.1Trillion AUM): State Street has teamed up with Copper, a crypto infrastructure provider, to offer institutional-grade digital asset custody to its customers. The firm will offer custody services for several of the most "active" cryptocurrencies, including Bitcoin, Ethereum, Cardano, Solana, and Polka dot, pending regulatory approval.
- ✓ JP Morgan Chase ($3.1 Trillion AUM): JP Morgan Chase has granted access to cryptocurrency funds. Grayscale, Osprey, and NYDIG will now provide a variety of crypto funds to the bank's private clients.

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- ✓ Goldman Sachs ($2.1Trillion AUM): According to the amended Form D filing, the Galaxy Institutional Ethereum Fund launched in February 2021, with a minimum initial investment of $250,000 for institutional investors. According to Bloomberg, Goldman Sachs is considering launching Bitcoin and Ether over-the-counter bilateral options and futures trading in March 2022.

- ✓ BNY Mellon ($2.4Trillion AUM): BNY Mellon is launching a new firm dedicated to providing its clients with an integrated solution for digital assets, which will encompass both standard cryptocurrencies and stable coins. Once it launches, BNY customers will be able to store Bitcoin and Ether in the company's crypto wallets powered by Fire blocks technology.
- ✓ Invictus Capital: Cryptocurrency asset manager Invictus Capital saw a massive increase in assets undermanagement in the first quarter of 2021, showing the growing adoption of digital assets among institutional investors. On May 6, 2021, Invictus announced that assets under management increased 50% to $112 million in the quarter ended March 31. The Crypto20 index fund, a tokenised fund of the top 20 cryptocurrencies, grew 221 percent.

- ✓ Grayscale: Grayscale Investments, one of the world's largest digital currency asset managers in terms of assets under management (AUM), has announced the establishment of a smart contract fund comprised of Ethereum competitors. The fund called GSCPxE (Smart Contract Platform Ex-Ethereum Fund) holds seven different smart contract coins and its 18th investment product to date. GSCPxE fund holds Cardano, Solana, Avalanche, Polkadot, Polygon, Algorand, Stellar.

- ✓ Osprey: The Osprey fund, which is structured similarly to GBTC, has roughly $80 million in assets under management (AUM) and can be accessed directly by accredited investors or indirectly through OTC trading platforms by regular investors. Osprey Funds Launches First-Ever Polygon Fundin US. “We’re excited to offer investors a new way to tap into the growing Ethereum market via the Osprey Polygon Trust” said Greg King, C E O of Osprey Funds. The Osprey Polygon Trust is now accepting subscriptions from accredited investors with a $10,000 minimum investment. The sponsor plans to list the fund on the OTCQX exchange as soon as possible and has committed to eliminate the management charge for all investors until January 2023.

- ✓ NYDIG: NYDIG, a leading bitcoin company, announced a $1 billion growth equity fund on December 14, 2021, that will value the company at more than $7 billion. The funds will be used to further expand NYDIG's enterprise-grade Bitcoin platform, which includes Bitcoin and Lightning payments, asset tokenisation, and smart contracts, as well as recent updates to the Bitcoin protocol.

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SUMMARY

Despite the volatility, infrastructure and regulatory challenges, the adoption of cryptocurrencies by institutions will accelerate in correlation with technological infrastructure and products that make it easier for investors to participate in the crypto industry.

It is evident that institutions require a spectrum of services encompassing data collection & storage, benchmark (index) creation, fund issuance, effective access to trading venues, digital asset storage, portfolio analytics and risk management tools among others.

At CryptoIndexSeries, we provide institutional-grade, AI-driven Data, Trading & Portfolio AnalyticsAPI & tools to POWER institutions' in-house solutions and to help them SAVE cost, ECONOMISE on the resources & FOCUS on their strategic activities. We also partner with Prime Brokers, exchanges, and other relevant service providers to enable an end-to- end service to institutions looking to invest in crypto assets

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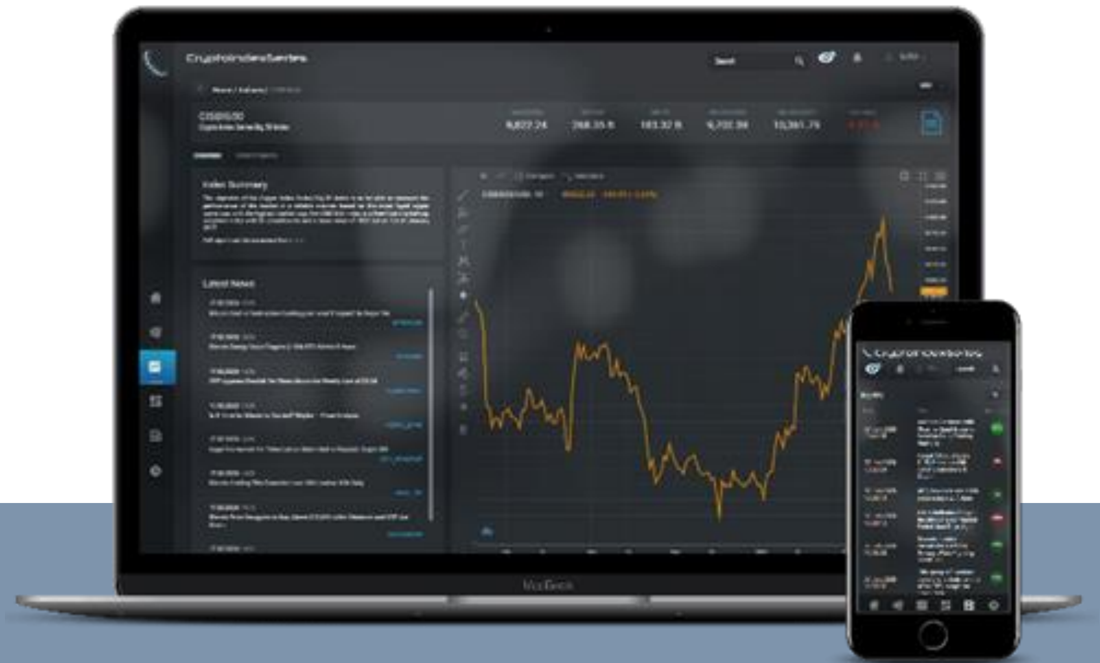

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