

4th Annual Global Crypto Hedge Fund Report 2022



Contents

Introduction	2
Executive summary	3
Survey data	5
Investment data	6
Strategy insights	7
Market analysis	9
Assets under management	10
Fund performance	11
Fees	13
Cryptocurrencies	14
Derivatives and leverage	20
Decentralised exchanges	21
Predictions	22
Non-investment data	23
Team expertise	24
Custody and counterparty risk	26
Governance	29
Valuation and fund administration	30
Liquidity and lock-ups	31
Legal and regulatory	33
Tax	35
List of Survey Respondents	36
AIMA Chapter	39
Introduction	40
About the research	41
Hedge funds investing in digital assets	42
Hedge funds who do not currently invest in digital assets	47
Key takeaways	49
About PwC	50
About CoinShares & Elwood	51
About AIMA	55

Introduction

This report provides an overview of the global crypto hedge fund market, offers insight into how this dynamic sector is evolving, and seeks to identify key trends that are relevant to industry participants, investors, and service providers.

It is divided into two parts based upon a distinction between specialist crypto asset hedge funds (those created with the expressed intent of dealing primarily in digital asset investments), and “traditional” asset-based hedge funds:

Part 1 – Crypto Hedge Funds

Digital Asset markets for crypto-specialist funds, using data collected by CoinShares.

Part 2 – Traditional Hedge Funds

Digital Assets markets for “traditional” hedge funds, prepared in cooperation with the Alternative Investment Management Association (AIMA).

Executive summary

AuM at Crypto Hedge Funds and Digital Asset acceptance among Traditional Hedge Funds continued to grow during 2021 with the former yielding healthy returns and maturing trading strategies familiar to the latter. The increased sophistication of the Crypto Specialist funds can be evidenced in experience of management, preference towards higher quality assets, and the interplay between of Digital Asset, on-chain/off-chain yield earning instruments, and traditional derivatives markets. With the hopes of further regulatory clarity, both Crypto Specialist and Traditional Hedge Funds are bullish about the long term future of Digital Assets and their value.

	Crypto Hedge Funds	Traditional Hedge Funds	Big Picture
Growth	<ul style="list-style-type: none"> Individual funds have grown by an average of 150% in 2021 (US\$23.4m to US\$58.6m) The percentage of crypto hedge funds with AuM over US\$20 million increased in 2021 to 59%, from 46%, which is significant as \$20m is the threshold for “critical mass” in the traditional hedge fund world 	67% who currently invest intend to deploy more capital by the end of 2022	Digital Assets are becoming an important element of many hedge fund portfolios...
Sophistication of Market	<ul style="list-style-type: none"> The most common crypto hedge fund strategy is Market Neutral (a new category for this year’s survey) (30% of funds). This is followed by Quantitative Long / Short (25%), Discretionary Long Only (14%), and Discretionary Long / Short (12%) Proportion of firms trading derivatives has risen from 56% to 69% (this year) 41.6% of crypto hedge funds utilised DeFi platforms to enhance yield through farming, and/or borrowing and and lending of assets, while 78% of crypto hedge funds have invested into the DeFi sector 	<ul style="list-style-type: none"> 29% of managers who are not yet investing in Digital assets plan to Unsurprisingly, traditional fund strategies are evolving with a decline in a passive approach from 29% to 10% this year and an expansion across the spectrum of digital asset types with funds entering the NFT markets, Decentralized Exchange (DEX) listed tokens and other tokens beyond BTC and ETH 	... in a sophisticated and interconnected financial system ...
Regulation	<ul style="list-style-type: none"> 82% (up from 76%) of funds make use of an independent custodian 91% of funds have an independent auditor 	83% of respondents who did not invest in Digital assets cited regulatory uncertainty as their rationale	... while developing its own Digital asset control and operational environment(s) ...
Bullish Market Perspective in longer term (At least as of April 2022)	<ul style="list-style-type: none"> 42% of crypto hedge fund predictions see a BTC price between US \$75,000 to US\$100,000 range, with another 35% predicting the BTC price to be between US\$50,000 and US\$75,000 by the end of 2022. All of which are higher than the current price at time of publication. Given time of survey and results which reported that nearly 30% of funds traded UST and 50% had some form of exposure to LUNA, it’s not clear how the events with Terra and the wider market disruptions in May 2022 will have impacted this. 	Around a third of respondents not currently investing in crypto say that if the main barriers were to be removed, they would actively accelerate their involvement/investment in digital assets (27%), an increase from 18% last year.	... to enable continued engagement and long term growth.



Part 1: Crypto Specialist Hedge Funds

Survey data

This report shares the results of survey-based research conducted in Q1 2022 by CoinShares, combined with qualitative inputs on sound practices observed within the crypto hedge fund space from PwC's crypto team. The report focuses on actively managed crypto hedge funds which invest/trade in liquid, public cryptocurrencies and other instruments.

This report excludes:

- Crypto index funds (including passive/tracker funds); and
- Crypto venture capital funds (which make equity type investments).

While most crypto hedge funds provided responses to all the survey questions, some were not in a position to provide information on certain topics/questions. However, all data analysed in this report is based on information provided by a majority of the funds that we surveyed.

There is also an inherent element of survivorship bias in the fund universe surveyed, as the report only includes crypto hedge funds that were in operation in Q1 2022. Overall 57% of respondents in this year's survey also responded to last year's survey, with the difference coming from new funds in this year's survey and with some funds in the previous survey that did not respond this year. The data provided in this report, including performance data, has also not been verified by an independent fund administrator or other third party, but was provided by the crypto hedge fund managers directly.

Finally, all participants were asked to give consent to CoinShares Capital Markets (UK) Limited and PwC for their name to be shared in the report. Some firms requested that their name not be shared. Those which have given their consent are listed in alphabetical order in the appendix. However, individual firms have not been linked to any specific comment or data point.

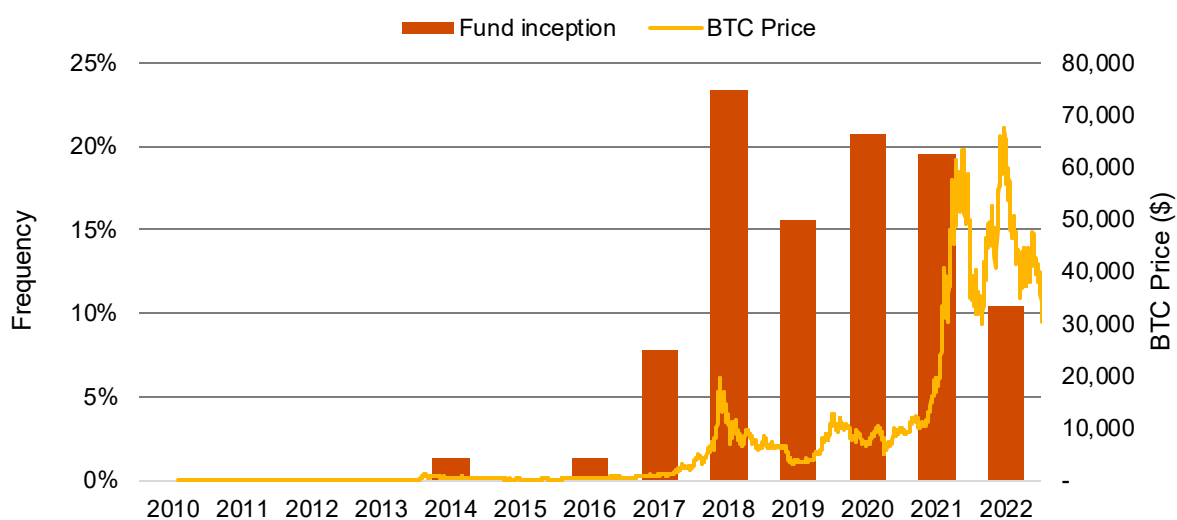
A low-angle, upward-looking photograph of a modern glass skyscraper. The building's facade is composed of blue-tinted glass panels and white structural elements. The sky is a clear, pale blue. In the foreground, the top of a green tree is visible. A horizontal orange bar with a white border is positioned across the middle of the image, containing the text "Investment data".

Investment data

Strategy insights

Our research shows that there are potentially over 300 crypto hedge funds currently. Our survey results suggest that half of these were launched in the past 3 years.

Launch of new crypto hedge funds appears correlated to the price of Bitcoin



In the graph above, we show the launch of new funds against the price of Bitcoin (BTC). There was a large number of funds being launched when BTC was going up (2018, 2020, 2021) and more moderate activity in less bullish years. It should be noted that this analysis is partially hindered by survivorship bias, as funds launched in 2014-2017 may no longer be in operation and would not have responded to our survey.

In terms of the strategies employed by the crypto hedge fund respondents, we were able to classify them into six broad types:

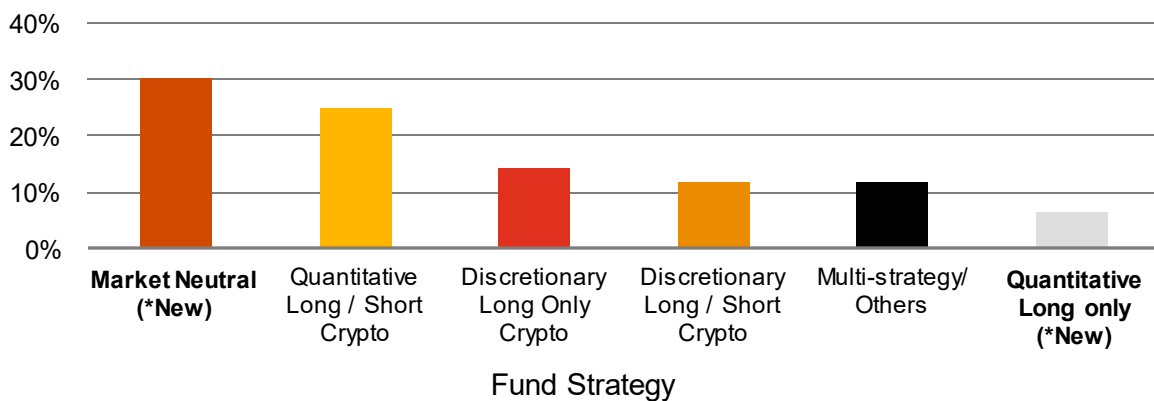
- **Discretionary Long Only:** In these funds, investors generally have a longer investment horizon. These funds tend to invest in early stage token / coin projects, and they also buy and hold more liquid cryptocurrencies.
- **Discretionary Long / Short:** Funds which cover a broad range of strategies including: long / short, relative value, event driven, technical analysis and some strategies which are crypto-specific, such as mining. Discretionary funds often have hybrid strategies which can include investing in early-stage projects.
- **Quantitative Long / Short:** Funds taking a quantitative approach to the market in a directional manner. Indicative strategies include: market-making, arbitrage and low-latency trading. Liquidity is key for these strategies and restricts these funds to only trading more liquid cryptocurrencies.

- **Quantitative Long Only (New*):** Funds taking a quantitative approach. These funds tend to continuously trade their underlying assets, taking advantage of price volatility. This strategy comes with a trade-off that it may be costly, but can be effective in capturing arbitrage opportunities in the market. This new category was newly added as we noted a relatively high number of respondents flagging it as their strategy in last year's survey.
- **Market Neutral (New*):** These funds aim to profit regardless of the direction of the

market, usually using derivatives to mitigate or eliminate broader market risk and get more specific exposure to the underlying. Similarly to the above, we added this category as it is a popular one among crypto hedge funds.

- **Multi-strategy/Others:** Funds adopting a combination of the above strategies. For instance, within the limitations set in the prospectus of a particular fund, traders may manage discretionary long / short and quantitative sub-accounts.

Most common strategies of crypto hedge funds



We have added new strategy categories in this year's survey and therefore the results are less comparable with last year's results. However, based on the respondents of our survey, we can conclude that market neutral funds have become the most common strategy among crypto hedge funds, making up nearly a third (30%) of all currently active crypto funds. This is followed by quantitative

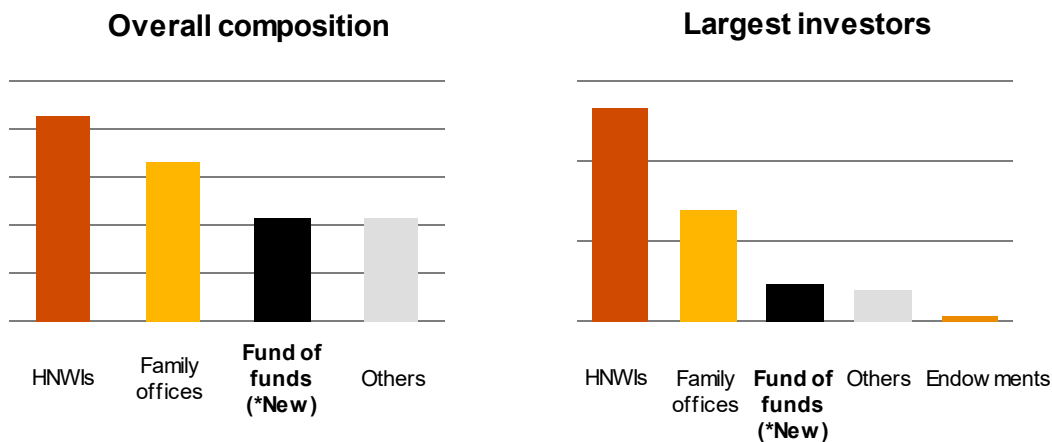
long / short funds (25%) and discretionary long only (14%), with multi-strategy/others and discretionary long / short funds making up a much smaller proportion, at 12% each. We have identified a sixth category, quantitative long only funds, which stands at just 7% of our sample.



Market analysis

Similar to the previous year's report, we see that high-net worth individuals (HNWIs) are the most common investor type in these crypto hedge funds. 86% of funds have HNWI investors. This is followed by family offices (66%) and fund of funds (43%). HNWIs are also the largest investors within these funds with 53% of funds saying their largest investors are HNWIs. Interestingly, we also saw endowments being named by one fund as their largest investor and another fund which also has a small portion of pension fund investors.

Investor compositions in crypto hedge funds

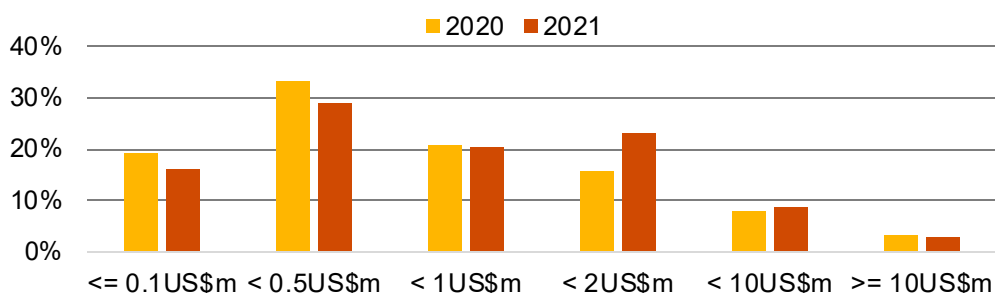


Number of investors in crypto hedge funds and average ticket size

	Average	Median
Number of investors	54	30
Average ticket size (US\$m)	1.63	0.5

The median number of investors in the crypto funds of this year's sample is 30 and the average is 54, while the median ticket size is US\$0.5 million and the average is US\$1.63 million. The graph below shows the distribution of the average ticket size and more than half of funds in this year's sample have tickets below US\$0.5 million, but the overall average is higher as some funds have a small number of investors with larger ticket sizes.

Average investor ticket size distribution of crypto hedge funds



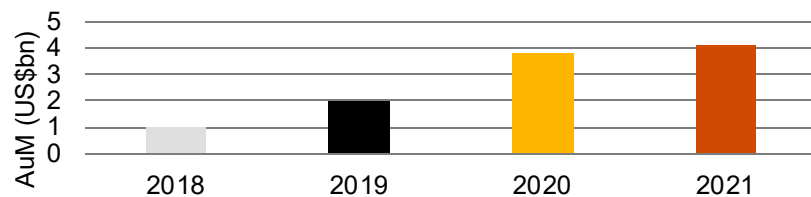
Assets under management

Average and median AuM of crypto hedge funds

	Average	Median
2021 year-end AuM (US\$m)	58.6	24.5
2020 year-end AuM (US\$m)	23.5	8.5
AuM level at launch (US\$m)	3.5	1.5

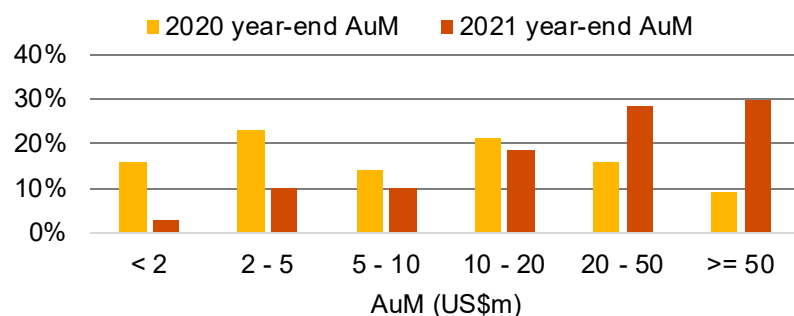
We estimate that the total AuM of crypto hedge funds in this year's sample increased by 8% to about \$4.1 billion in 2021, compared to \$3.8 billion reported by our respondents last year. The median AuM of crypto hedge funds tripled in 2021 (US\$24.5 million) compared to the previous year (US\$8.5 million), with the average AuM not far behind in terms of growth (US\$58.6 million from US\$23.5 million), for the same sample of funds in our survey.

Total AuM



Crypto hedge fund AuM distribution

The graph below shows the distribution of AuM for individual crypto hedge funds. In the previous year, we saw a trend similar to the distribution for traditional hedge funds, where a few large funds manage the majority of assets, with a long tail of smaller funds. This year we saw fewer funds with lower levels of AuM at the end of 2021, while at the other end of the spectrum, the number of funds managing larger amounts of assets was considerably higher. The crypto bull market of early 2021 has potentially driven AuM growth and larger investment ticket sizes from investors leading to higher AuM in the industry overall.





Fund performance

2021 year-end crypto hedge fund performance by strategies

	Average	Median
Market Neutral	+37%	+26%
Discretionary Long Only	+420%	+176%
Quantitative Long / Short	+116%	+66%
Quantitative Long Only	+120%	+109%
Discretionary Long / Short	+228%	+199%

The table above shows a breakdown of the performance of crypto hedge funds by investment strategy. On a median basis, discretionary long / short funds have been the best performing (199%), outperforming discretionary long only funds (176%), while market neutral funds have considerably underperformed other strategies (26%). On average, discretionary long only funds have performed best (420%), which is understandable in a year when intra-period BTC returns peaked at 131%.

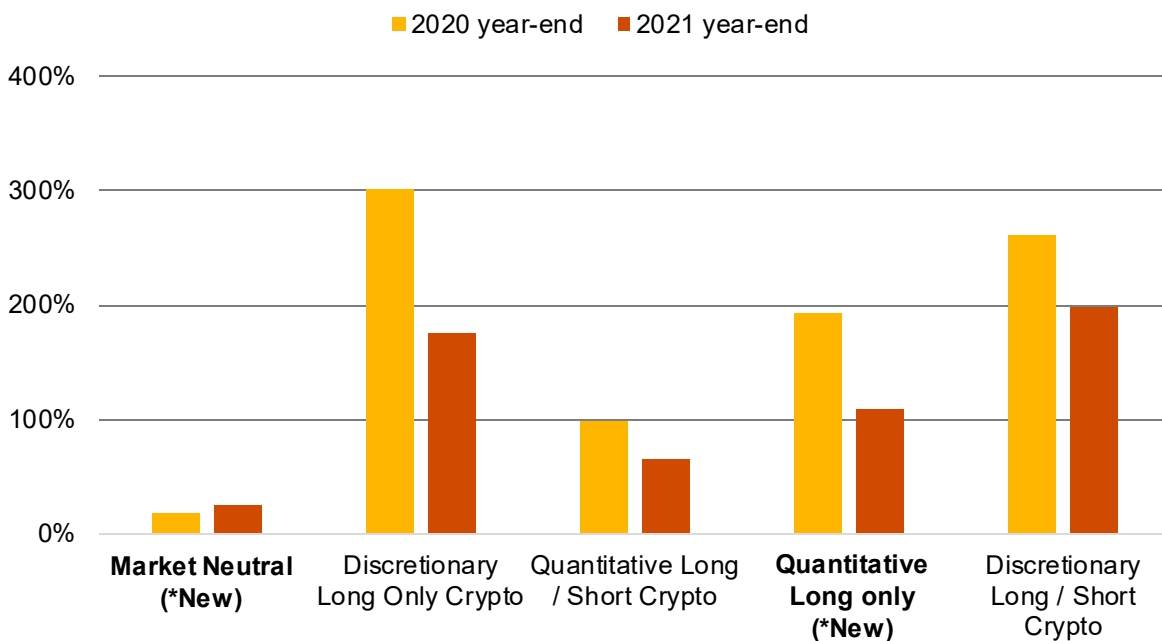
2020 vs 2021 crypto hedge fund median performance comparison

	2020	2021
Market Neutral	19%	26%
Discretionary Long Only	301%	176%
Quantitative Long / Short	99%	66%
Quantitative Long Only	194%	109%
Discretionary Long / Short	261%	261%

Overall, the crypto hedge funds in our sample had a median performance of 63.4% in 2021, slightly outperforming BTC's price, which went up about 60%. The median performance of this year's sample also declined compared to their returns in 2020 (79.8%), reflecting a more volatile cryptocurrency market.



2020 vs 2021 crypto hedge fund median performance by strategy



While different strategies have yielded different levels of performance, all strategies in 2021 underperformed compared to 2020. While market neutral improved slightly, it was still low compared to the overall crypto market. In the context of the broader crypto market, the bull market in 2021 did not result in the same level of gains as that of 2020, with BTC increasing just 60% compared to about 305% the year before.

Additionally, our data suggests that discretionary funds in 2021 performed exceptionally well compared to those utilising quantitative strategies. Comparing quantitative strategies on the other hand, long / short funds underperformed long only funds, likely the result of bearish positions dampening returns in a heated market.

As the market environment evolves in the coming year and the structure of these hedge funds gain more sophistication, we expect to see demand for different trading strategies to cater for the economic environment.

Finally, it is important to note that the core value proposition of hedge funds are not just returns, but also volatility. The data does not paint a picture on whether the strategies were able to offer higher or lower volatility in relation to cryptocurrencies, which could make crypto hedge funds more attractive investment propositions, despite the lower returns.

Fees

Crypto hedge fund management and performance fees

	Average	Median
Management fees (%)	2.2	2.0
Performance fees (%)	21.6	20.0

Median fees have been consistent since 2019: a 2% management fee with a 20% performance fee. Average management fees and average performance fees remained the same (2.2%) but the average performance fee slightly decreased (from 22.5% to 21.6%). The lack of change in management fees are likely to reflect the fact that running costs could have remained at a similar level in relation to previous years, as regulations in this market are still rather nascent. On the other hand, the decreased performance fees are likely to be a result of competitive pressures starting to increase, as more funds enter the space and compete to attract new clients, leading to slightly lower overall fees.

On another note, it is interesting to see crypto hedge funds largely charging the same 2% management and 20% performance fee as traditional hedge funds. One would expect crypto hedge fund managers to be charging higher fees given the lower degree of familiarity with the product and the higher operational complexity such as opening and managing wallets – leading to a less accessible market for individual investors, but it seems this has not been the case.

As the overall cryptocurrency market develops, we expect funds to continue to incur higher costs, especially as regulations evolve and managers continue to institutionalise their processes. Over the past year, we have seen regulators demand higher security and compliance standards, and as more institutional investors enter the space, this trend is likely to continue. Performance fees, meanwhile, may continue to trend lower due to the dual forces of new fund entrants and more sophisticated investors like endowments exploring the space. As the crypto hedge fund universe expands, investors will benefit from increased investment options, while funds are likely to have their profits squeezed by lower margins and increased competition.

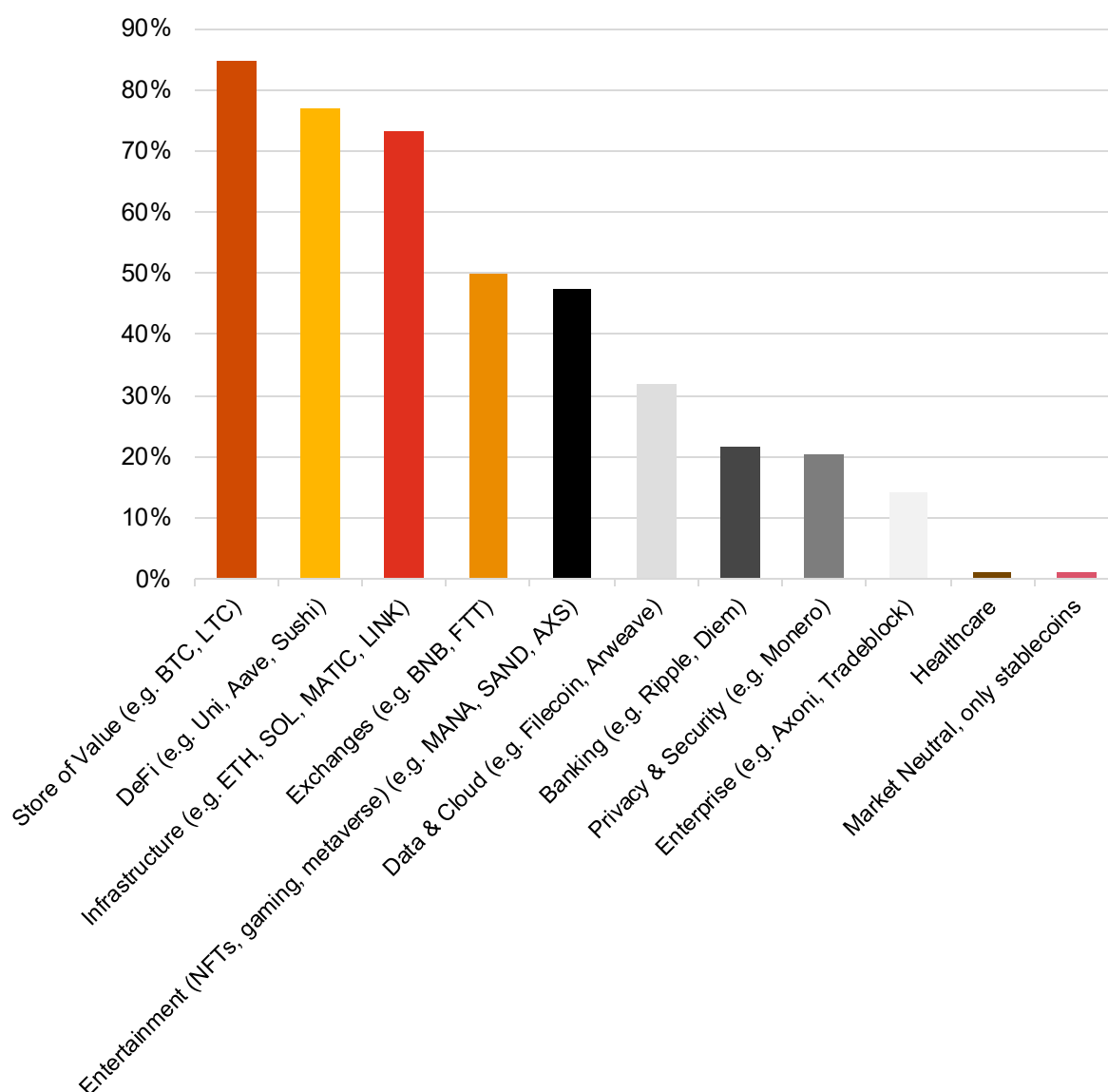


Cryptocurrencies

Cryptocurrency sectors invested into by crypto hedge funds

In this year's report, given the multifaceted nature of cryptocurrencies, we asked crypto funds what sectors they have invested into from the digital assets landscape as well as how they are using BTC and other cryptocurrencies other than for investment purposes.

In terms of sectors, we have broadly categorised the digital assets into ten different categories as seen in the chart below:





The top three sectors that crypto hedge funds have invested into are Store of Value (86%), DeFi (78%), and Infrastructure (74%) based cryptocurrencies. The next tranche of sectors, Exchanges and Entertainment (51% & 48% respectively) have seen less adoption relative to the top three, while other sectors which can be seen as still rather niche in this market like Data & Cloud, Banking, Enterprise, have seen less than 30% of crypto hedge funds trade them.

The majority of funds having invested into Store of Value based cryptocurrencies is not surprising as BTC is the main cryptocurrency representing this sector and is the largest cryptocurrency by market capitalisation.

The quick rise of DeFi is noteworthy, in particular the fact that it overtook allocations to Infrastructure. One reason for this may be the largely unregulated nature of the sector, given how challenging it is to fit DeFi assets into familiar classes such as “debt” or “equity” or generally “securities”.

With 48% of this year’s sample investing into the Entertainment sector, it illustrates, perhaps surprisingly, how quickly the crypto hedge funds can act in adopting new assets to trade. The burgeoning Entertainment sector is headlined by NFT, gaming, and metaverse tokens which saw rapid price growth in the face of mass adoption of the concept of NFTs in 2021.

The wide variety of sectors crypto hedge funds have invested in last year clearly shows a form of diversification that was not present in earlier years. We believe this shows the continuing maturation of the industry as a whole.

Going forward, as the crypto hedge fund universe expands through new entrants and the continuing mass adoption of blockchain and cryptocurrencies, we expect the distribution of sectors to increase and for more crypto hedge funds to diversify the sectors they invest in. For example, we may see a rapid adoption similar to how crypto hedge funds have invested into DeFi, or a whole host of new sectors to emerge similar to the Entertainment sector.

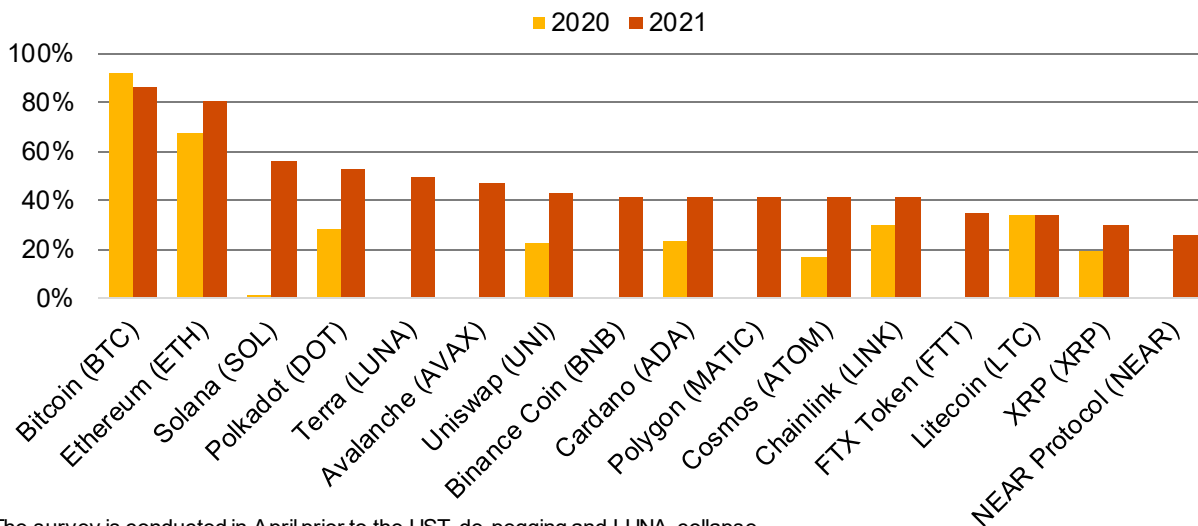




Cryptocurrencies traded by crypto hedge funds

Diving deeper into the specific cryptocurrencies traded by crypto hedge funds, unsurprisingly BTC and ETH, having the highest market capitalisation and trading volume among cryptocurrencies apart from stablecoins, are the top two cryptocurrencies traded by the funds. However, this year only 29% of funds in our survey reported that at least half of their daily cryptocurrency trading volume is in BTC,

compared to 56% of the funds in our survey last year - indicating that funds are diversifying into altcoins. This is also illustrated by the graph below, where Litecoin (LTC) was actually ranked third among the cryptocurrencies traded last year by 34% of respondents. This year we see significantly more altcoins being traded by over 40% of the funds surveyed.



The survey is conducted in April prior to the UST de-pegging and LUNA collapse

After BTC and ETH, the top five altcoins traded by funds in our survey were Solana (SOL, 51%), Polkadot (DOT, 48%), Terra (LUNA, 45%), Avalanche (AVAX, 42%), and Uniswap (UNI, 39%).

New layer-1 chains like SOL, DOT, and AVAX have been quickly adopted by crypto hedge funds in the past year. This reflects the wider adoption these chains have achieved in the market in the last 12 months due to the promises of faster transactions and lower gas fees versus Ethereum. At the start of 2021, SOL price was US\$1.5 with a market capitalisation of US\$69.7 million and trading volume of US\$17.1 million, and by year's end, its price stood at US\$172.5 with market capitalisation of US\$53.3 billion and trading volume of US\$1.3 billion - a price increase of over 9,600%. LUNA and AVAX also followed a similar trajectory, with LUNA

going from a price of US\$0.65 at the start of 2021 to US\$84.7 and AVAX from US\$3.2 to US\$101.5 by year's end. It should be noted, however, that the de-pegging of TerraUSD (UST) caused a chain reaction that resulted in the collapse of LUNA, along with many other cryptocurrencies having lost significant value due to the uncertainty in the market. Since this incident occurred shortly after the collection of our survey responses, we do not have data of its impact on our surveyed funds.

The data above suggests that 2021 has been the year where Ethereum alternatives and scaling solutions started to gain traction and widespread adoption driving activity towards new layer-1 smart contract platforms like Solana and Avalanche, or other ETH scaling solutions like Polygon.

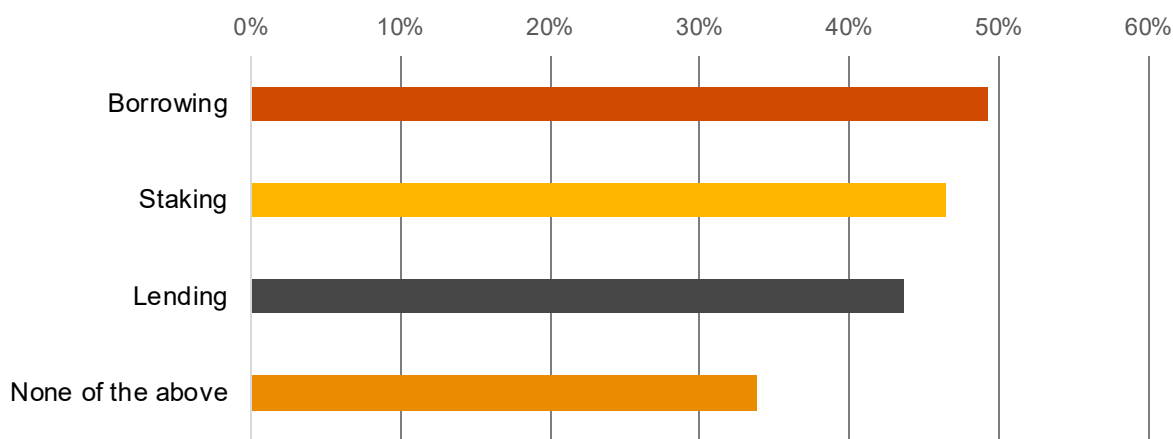


However, the recent incident of the collapse of LUNA could become a set back for the general crypto industry in the short term. While CoinShares' Digital Asset Fund Flows report¹ shows that year to date (May 2022), US\$102 million and US\$43 million worth of funds have flowed into Solana and Avalanche respectively, it is likely that capital flows into various cryptocurrencies could slow down in the remainder of the year as investors become more cautious.

Going forward, we expect funds to continuously evolve their allocations across cryptocurrencies as evidenced by the data this year where there has been a considerable shuffle within the top 10 traded altcoins, with only four of the previous year's

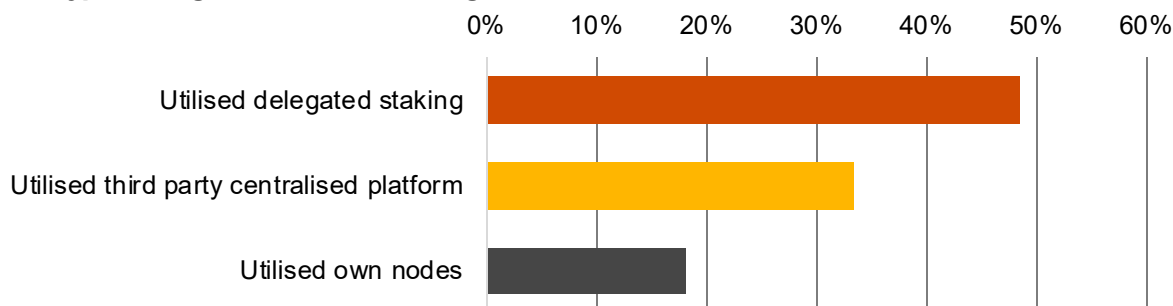
top 10 making it into this year's (ETH, DOT, UNI, and ADA). Further, among this year's top 10, four altcoins (LUNA, AVAX, BNB, and MATIC) were not mentioned in the previous year's survey and SOL was mentioned only once. The case of LUNA is also a stark reminder that many cryptocurrencies are still developing and some projects are still experimental in nature. While the value of these coins can quickly rise in value, they can also just as quickly become irrelevant and completely collapse within a short span of time.

Percentage of crypto hedge funds involved in staking, lending and borrowing



*Excluding respondents that preferred not to answer

Crypto hedge funds and staking



¹ CoinShares, Digital Asset Fund Flows report: <https://coinshares.com/research/digital-asset-fund-flows>

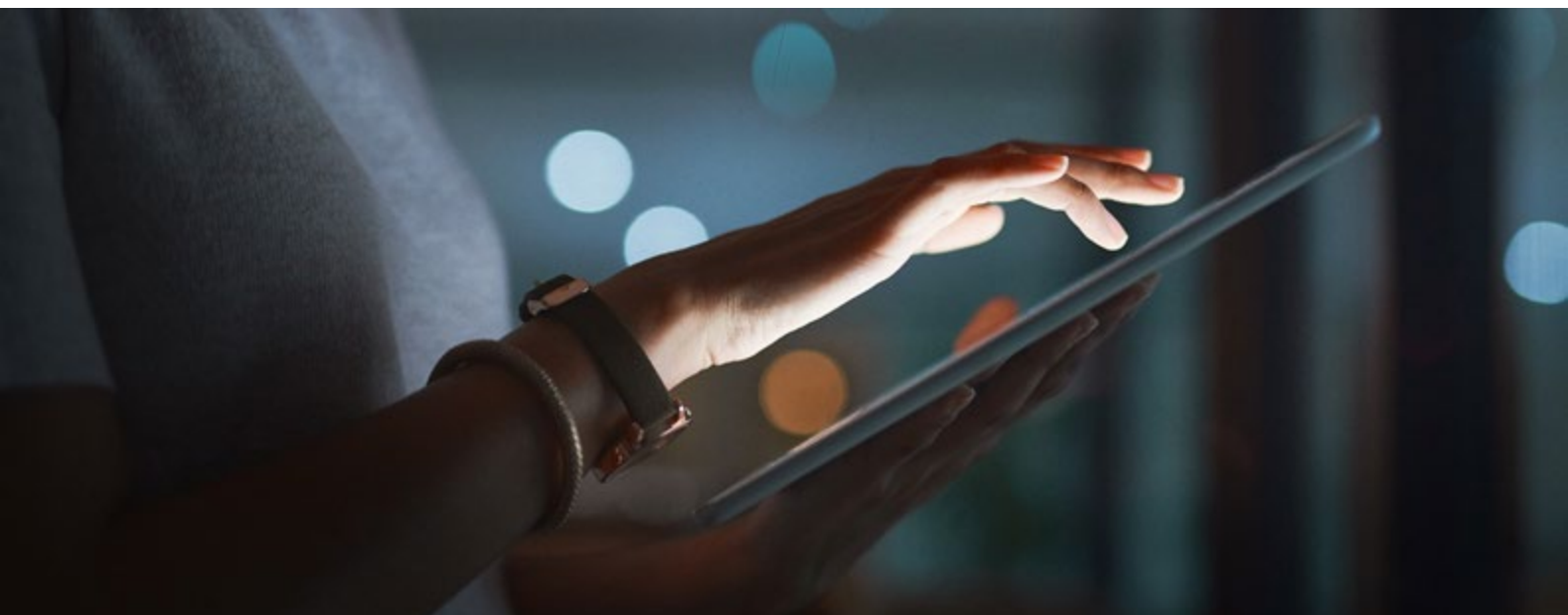


From the perspective of earning yield, large numbers of respondents confirmed usage of the following strategies:

- Staking, delegating, and running master-nodes. These are yield-based strategies, but also contribute to the overall stability and robustness of the underlying blockchain network. This is an important differentiation between crypto markets and capital markets. Moreover, running Proof-of-Stake (PoS) nodes requires engineers to set up and maintain a cloud and/or hardware configuration. Depending on their specific software requirements, different cryptocurrency projects may require very different configurations.
- Borrowing and lending of crypto assets also require specific technologies and skills. Multiple managers may be required to authorise the transfer, and the flow of funds may be tracked on the public ledger. Again, engineers may be required to

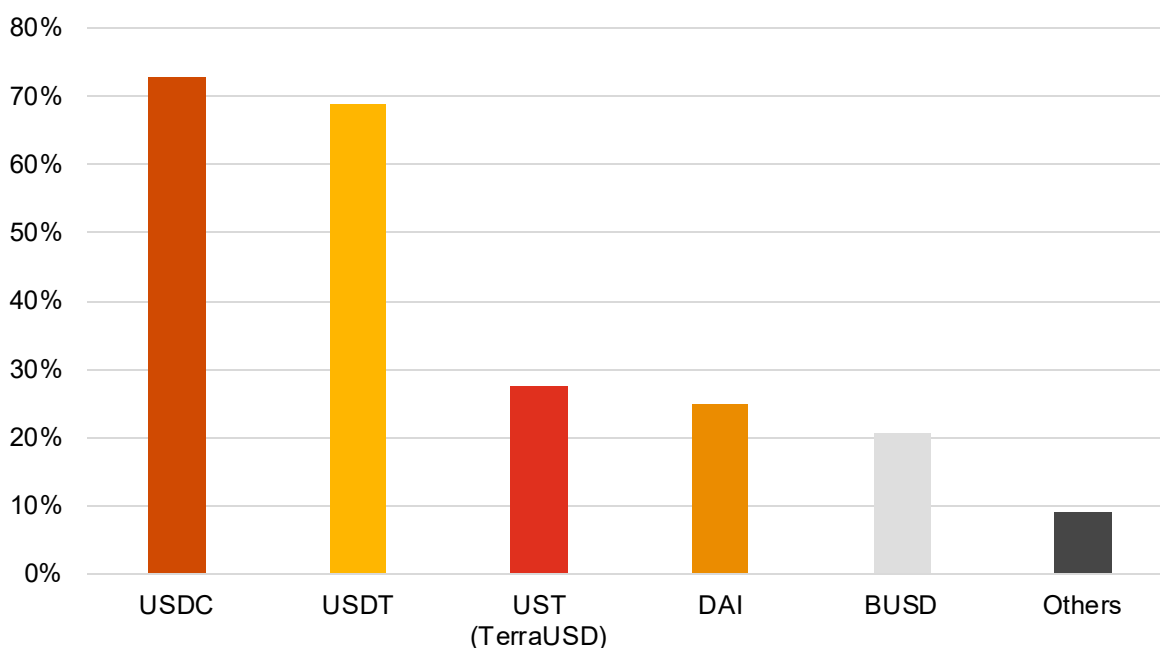
design and develop specific tools to monitor all the individual steps involved in the lending process and to create interfaces between the firm's proprietary software and exchanges or other market participants.

The examples above explain why inputs from tech-savvy investment professionals are fundamental.





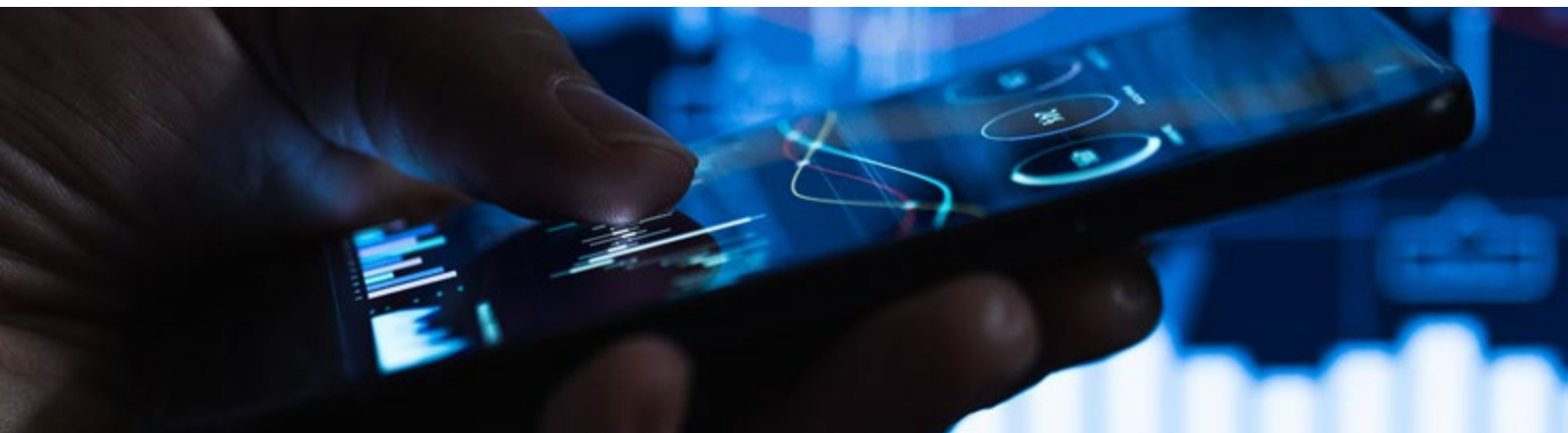
Preferred stablecoin for crypto hedge funds



In addition to altcoins, this year we specifically asked funds which stablecoins they used. The two largest stablecoins in terms of usage were Circle's USD Coin (USDC) and Tether (USDT) with 73% and 69% of funds using them, respectively. New entrants such as TerraUSD (UST), MakerDAO's DAI and Binance's BUSD also saw usage, albeit significantly smaller. About

12% of our sample reported not utilising stablecoins.

It is interesting to note that despite USDT's market capitalisation being almost double that of USDC, hedge funds seem to prefer using USDC. We believe this is due to the greater transparency offered by USDC around the assets backing the stablecoin.





Our survey was conducted in April of 2022 and at the time 27% of our respondents mentioned they had used TerraUSD (UST) as part of their trading activities. At the time of writing this year's report, we witnessed the de-pegging of UST in early May and also saw the stablecoin shedding more than 90% of its value in less than 2 weeks. Whilst we do not know the magnitude of assets that these funds held in UST, we did note that all the respondents that used UST have also utilised other stablecoins such as USDC, USDT or other stablecoins. While 27% of funds used UST, 49% of our respondents have also

traded Terra (LUNA) and depending on the position they have taken on Terra, this could translate into either huge losses or huge gains for these funds. However, the event would have wider implications for the general crypto market and we will likely see more regulation of stablecoins in the future.

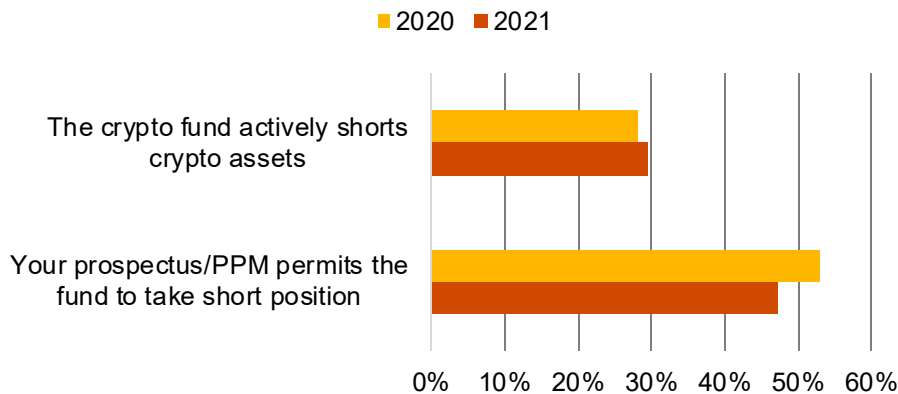
For more information on stablecoins, the key characteristics that make stablecoins more viable, as well as the overview of the options available in the market, please see PwC's Global CBDC Index and Stablecoin Overview 2022².



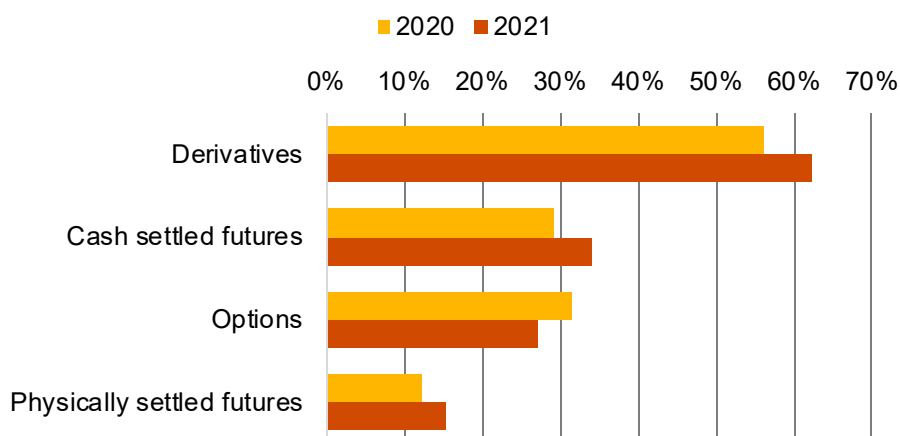
² PwC's Global CBDC Index and Stablecoin Overview 2022: <https://www.pwc.com/sg/en/publications/global-cbdc-index-and-stablecoin-overview-2022.html>
4th Annual Global Crypto Hedge Fund Report 2022

Derivatives and leverage

Crypto hedge funds and shorting



Crypto hedge funds and derivatives



Bitcoin futures open interest continues to indicate a growing attention from institutions. Bitcoin futures notional trading volumes have also jumped exponentially. The trading volume in December 2021 alone was over US\$1.35 trillion, averaging a daily trading volume of over US\$45 million.³

Our 2021 data shows an overall increase in the use of derivative products reflecting the continued development and evolution of the crypto market structure. In total, 62% of the surveyed funds now use derivatives. Cash settled futures (34%) have overtaken options (27%) as the most commonly used trading mechanism by funds. Similar to last year, short positions still remain less popular, with only 29% stating they actively short cryptocurrencies. This is, however, not surprising given the market's extremely bullish sentiment towards cryptocurrencies throughout the year.

³ The Block Crypto, Volume of Bitcoin Futures: <https://www.theblockcrypto.com/data/crypto-markets/futures/volume-of-bitcoin-futures-monthly>



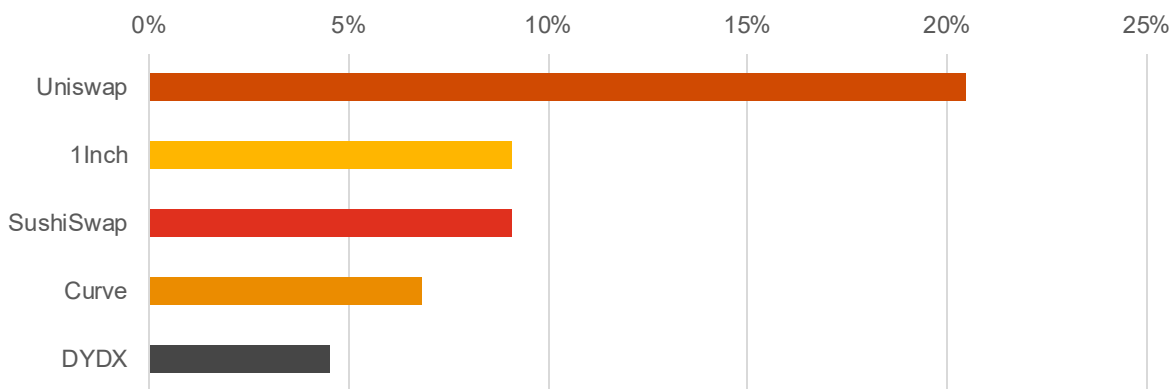
DeFi & Decentralised exchanges

The estimated total value locked (TVL) of the DeFi market has made a 13x leap from an aggregate of US\$18 billion at the end of 2020 to US\$235 billion in December 2021.⁴

We have seen an increase in the usage of DeFi platforms compared to last year with 41.6% of this year's survey respondents using decentralised exchanges, compared to just 31.5% from last year's respondents. Uniswap is the most widely used (20%), followed by 1Inch (9%) and SushiSwap

(9%). The increase in the use of DeFi platforms coincides with the increased capabilities of self-custody offerings that have seen significant improvements in usability and accessibility over the past year. An interesting point to watch is whether investors will be willing to accept the additional risk arising from a self-custody model as long as investment returns stay high enough, or if there will be will pushback.

Top 5 most used decentralised exchanges by crypto hedge funds



As seen in the previous section on cryptocurrency sectors, crypto hedge funds have been quick to adopt DeFi in their strategies, with the increased usage of decentralised exchanges supporting this. The largely unregulated nature of DeFi may have been one reason for this. The trend is changing, however, and is moving towards increasing regulation. For example, the SEC has ruled that DAO tokens sold on the Ethereum blockchain were securities, and various authorities including in Italy and Hong Kong have issued warnings about synthetic assets such as tokenized shares. With increasing regulation, there is likely to be a pullback on allocations to this sector,

or if not, at least an increase in fees being charged by fund managers who are running DeFi strategies.

The rise of DeFi also presents interesting challenges for custody solutions. At the moment, DeFi activities are almost entirely done "on chain", meaning managers are taking self-custody of assets when it comes to DeFi. Given increasing investor interest in crypto hedge funds and the push towards institutionalization, it is likely that there would be pushback from investors when it comes to self-custody. There is clearly a need for a satisfactory custody solution specific for DeFi activities to be introduced sooner, rather than later.

⁴ The Block Crypto, DeFi Value Locked by Category: <https://www.theblockcrypto.com/data/decentralized-finance/total-value-locked-tvl/total-value-locked-by-category>

Predictions

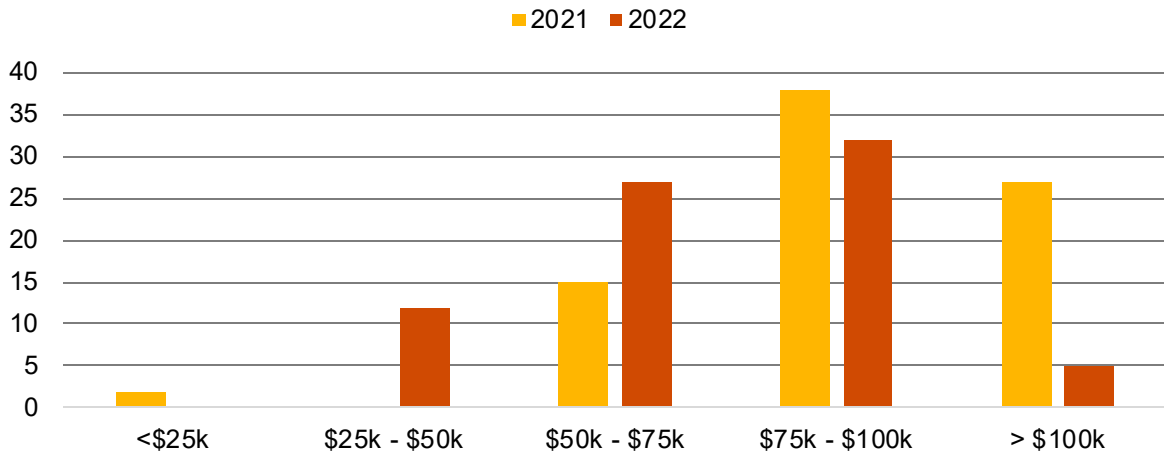
Similar to last year, we gave crypto fund managers the opportunity to contribute their estimates on where the price of BTC and the overall cryptocurrency market capitalisation would be on 31 December 2022.

The data shows that at the time of the survey (April 2022), while the overall crypto market was quite bearish, managers remained extremely bullish on BTC.

All respondents predicted that BTC would end the year above the prevailing price upon survey closure, US\$40,000, with the median prediction of BTC price being US\$75,000.

The majority of predictions were within the US\$75,000 to US\$100,000 range (42%), with another 35% predicting the BTC price to be between US\$50,000 and US\$75,000 by the end of 2022.

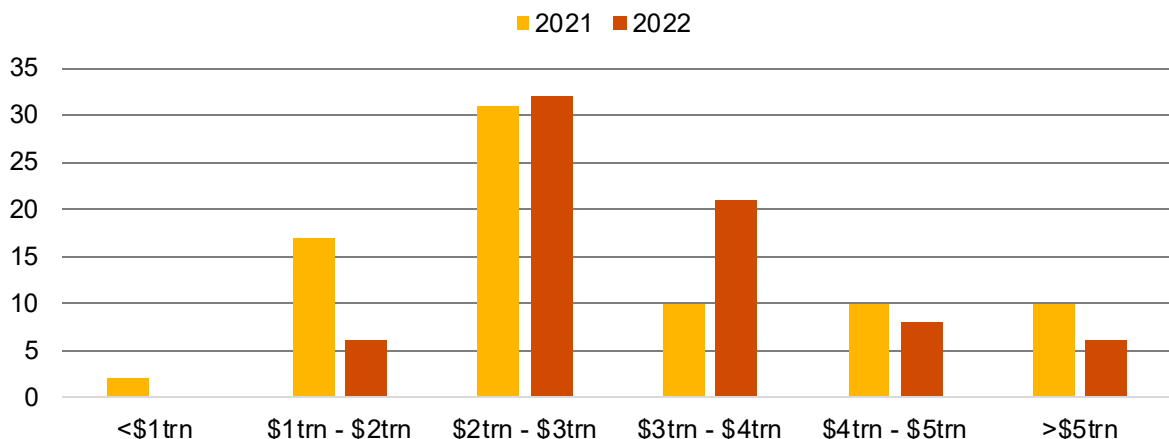
Distribution of BTC price predictions for the end of 2022



At the time we closed the survey, the crypto market was worth approximately US\$1.5 trillion. Based on responses, fund managers were also bullish towards the crypto market capitalisation changes in the upcoming year, with over 97% of fund managers expecting the market to finish the year

significantly above current levels and with the median predicted level at US\$3 trillion. Most forecasts ranged between US\$2 trillion and US\$3 trillion. It is not clear how recent events and changes to market sentiment might impact these estimates.

Distribution of Crypto Market Cap predictions for the end of 2022





Non-investment data

Team expertise

Change in crypto hedge fund average team size and cumulative years of investment management experience

	2019 Average	2019 Median	2020 Average	2020 Median	2021 Average	2021 Median
Team size	8.7	6	7.6	6	9.6	7.0
Cumulative years of team investment management experience	50.1	40	60	40	63	40

In 2021, the average investment team size grew from 7.6 to 9.6 people. The average cumulative years of investment management experience has also increased slightly to 63 from 60.

The data above indicates a continuation of 2020's trend where we see the crypto space attracting an increasing amount of investment talent. Survivorship bias could potentially rationalise the growth of average management experience with the possibility of closed-down firms possessing more junior staff.

Similar to our view last year, we expect to see a number of experienced finance professionals enter the crypto space as the industry matures and gains wider acceptance. With that being said, the

increasing amount of 'traditional' asset management experience will also allow regulators and the general public to 1) gain easier access to crypto investments; 2) enhance knowledge and confidence in the industry, and; 3) achieve stable and compliant growth.

We also expect to see a strong uptrend in the number of non-finance professionals entering the space given the rapidly increasing exposure of the general public to the crypto industry. For instance, marketing professionals are often in high demand from centralised exchanges and NFT projects to attract new users and buyers. Compliance and legal staff will also be sought after as the legislative processes that regulate the continuously growing trading volumes and real life applications of crypto assets evolve.

Cumulative years of team crypto/blockchain experience

	2020 Average	2020 Median	2021 Average	2021 Median
Cumulative years of team crypto/blockchain experience	21	19	27	20

We have seen a substantial growth in the cumulative years of teams' crypto/blockchain experience, from an average of 21 years in 2020 to 27 years right now. The number is expected to continue to grow since funds' existing demand for individuals with deep crypto/blockchain knowledge

(e.g., researchers, consultants, engineers) remains strong. Naturally, due to the desirability of experience in crypto/blockchain, individuals with this experience often gain a competitive edge over peers and tend to remain in the field to compound their industry-specific knowledge and experience.

Percentage of crypto hedge funds using third party research

	2019	2020	2021
Use of third party research	38%	47.2%	45.9%

This year, our data displayed a minor decrease in the number of funds using third-party research, dropping to 45.9% from 47.2%, though it is still larger when compared to the 2019 figure. However, it is still without a doubt a challenge for many in-house research teams to conduct thorough

market analysis on the dynamic crypto space. The increasing number of dedicated crypto research providers offers a much more efficient and in-depth way to approach the market, making third party researchers an attractive and viable option for crypto hedge funds.



Custody and counterparty risk

Percentage of crypto hedge funds using an independent custodian

	2019	2020	2021
Use of Independent custodian	81%	76%	82%

Custodian services are not as straightforward and well-known in the crypto space as those of the traditional financial field due to the nature of public and private keys. Nevertheless, it is an integral part of operating in the digital assets space, especially as interest from institutional investors ramps up⁵. Funds typically have a choice of either using an independent custodian, or following a self-custody approach. Half of the crypto fund managers in our report last year said they used multi-signature wallets, hot/cold wallet set-ups, or other innovative ways to hold the private keys of the fund's crypto assets. For funds using self-custody, having the in-house technology and expertise to design and monitor their own set-up is important.

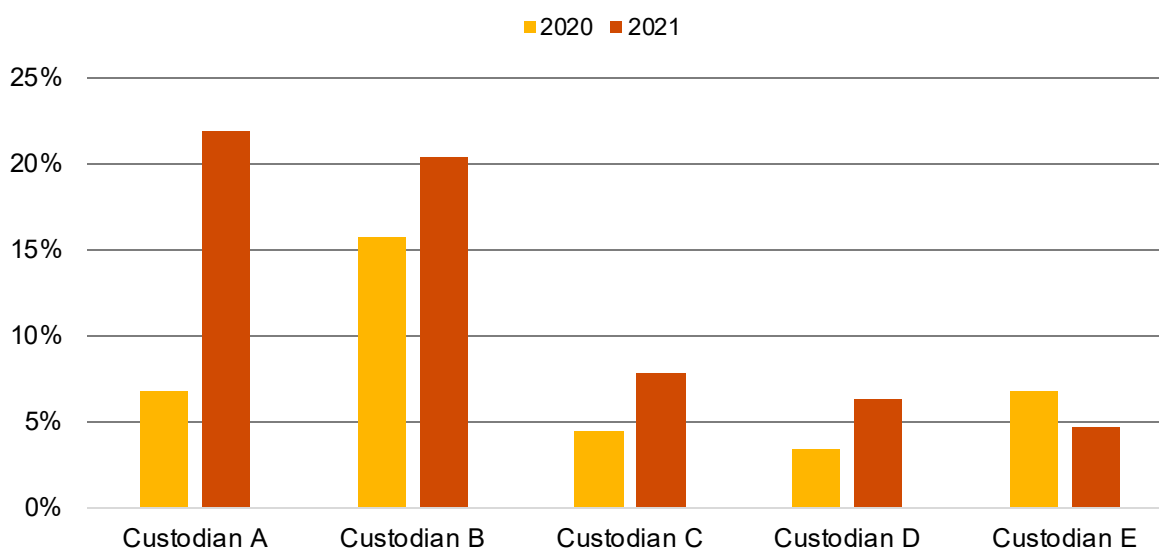
As the crypto ecosystem continues to mature and institutional investors' demands are digested, the digital asset custody market has expanded and there is now a larger number of crypto custodians that can service the industry. This has unsurprisingly led to the utilisation of independent custodians to rise. Indeed, compared to the 2020 data, the use of independent custodians has increased from 76% to 82%, with funds opting either for third-party, or exchange custodians.

Although the number of funds using an independent custodian has increased, we believe that this change is not reflecting the market demand for custodial services yet. The large number of funds created in 2021 suggests that there are more start-ups in this space, which may not have grown large enough to use independent custodians at this stage.

One significant factor we believe that will shape the future of custodian usage is the operational due diligence demands of institutional clients. Funds will continue to need a well-defined and enforced risk management policy, with private key management a core aspect of this. For example, a third of the crypto hedge funds surveyed this year are quant funds. These traditionally store their assets directly with the various exchanges as they trade continuously. This implies that a large number of quant funds also use an independent custodian and regular counterparty risk assessments on these exchanges will continue to be important.

⁵ The Alternative Investment Management Association, Digital Asset Custody Guide: <https://www.aima.org/sound-practices/industry-guides/digital-asset-custody-guide.html>

Most frequently used crypto custodians among crypto hedge funds



Given the relevance of the developments mentioned in the previous section, we took a look at the overall crypto custody landscape. From the chart above, we are starting to see that two 'market leader' custodians are emerging, capturing 42% of our survey respondents, from just 22% total last year. The choice of custodians in the previous year was more fragmented as well. Interestingly, the top two custodians from the previous year are the same as this year, with just their rankings swapped as more funds seemed to have flocked to this year's top custodian.

The nature and importance of private key security and management means that some of the larger hedge funds will use more than one custodian. One important reason for this is counterparty risk management, especially considering the risk of hacking and exploit cases in the industry. The number of widely publicised exploits and hacks has intensified the perceived severity of not using, or using just one custodian. Another fundamental reason crypto hedge funds may use a second custodian may simply be because their primary custodian may not offer custody for all the assets they trade or may trade in the future.

Unfortunately, at the current state of the digital asset custody market, onboarding a second custodian may not always be possible for smaller funds due to the minimum monthly fees that are added to the fund expenses, which could impact their net performance.

Lastly, a positive development and indicator of further institutionalisation of the digital asset custody industry is that the vast majority of custodians in the market are regulated or licensed in some form. Going a step further, a handful of custodians are also starting to have System and Organisation Controls (SOC) reports (or their ISAE 3402 equivalent). These reports provide a level of transparency around financial reporting (SOC 1/ISAE 3402) and operational controls (SOC 2) - helping to build and cement customer trust in their risk management framework. We expect to see an increase in the number of custodians that obtain such public assurance reports going forward, and this should give comfort not only to investors in funds which use these custodians, but also to the funds' service providers.

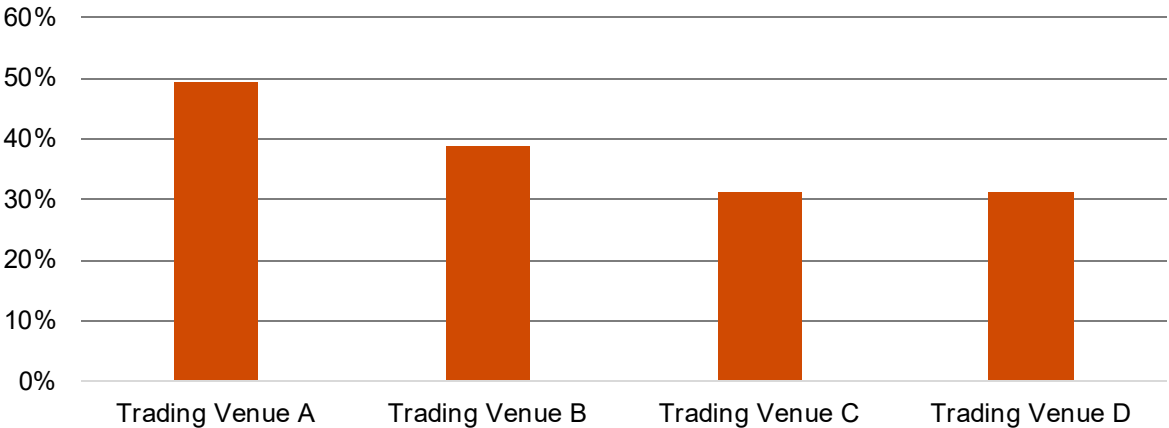
Trading venues used by crypto funds

This year we also asked which trading venues the funds used and the reasons for selecting them. While there are varying responses, we have noted a trend that the vast majority of crypto hedge funds trade in more than one trading venue. This is not unexpected since there are a large variety of trading venues to choose from and most trading venues offer either unique tradable assets and options, or distinctive features

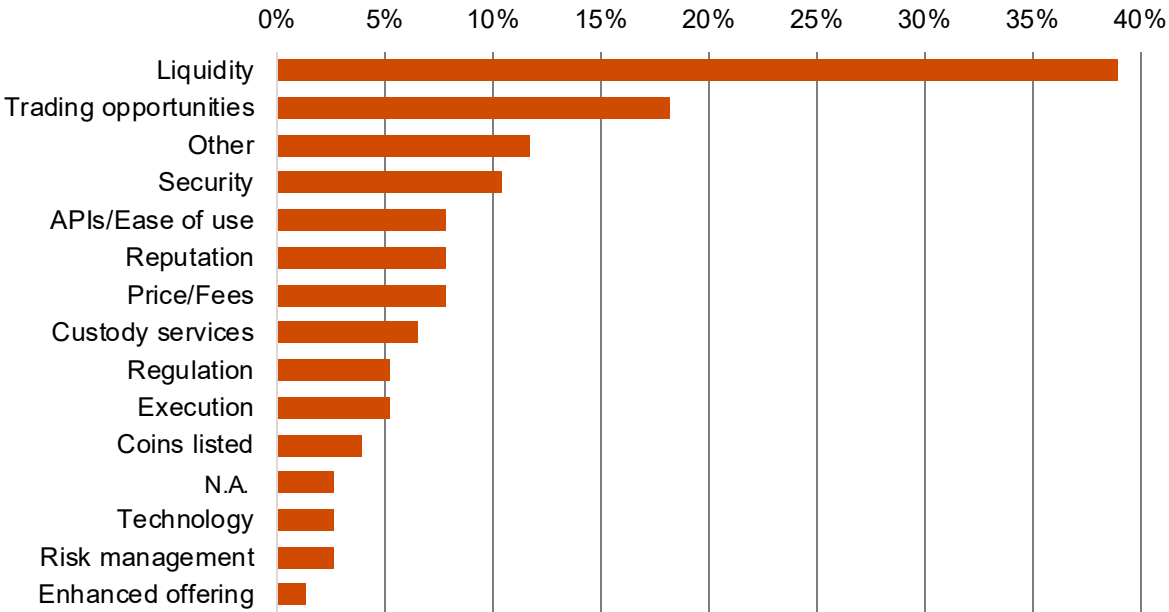
that competitors do not possess, or simply that funds may look to spread larger orders over multiple different venues.

The survey respondents named 36 different trading venues in total. Among these, four venues stood out as they were used by more than 30% of respondents and the most popular venue was used by just under half of all funds at 49%.

Most frequently used trading venues among crypto hedge funds



The most common considerations when choosing a trading venue were liquidity, at 39%, trading opportunities (variety of products, efficient trading, derivatives, etc), at 18% and security, with 11% of respondents suggesting other considerations that could be important such as the vision or other products of their chosen platforms.



Governance

Percentage of crypto hedge funds with independent directors

	2019	2020	2021
Independent director on board	43%	38%	51%

The presence of independent board directors is crucial for the good governance of crypto hedge funds. Their main goal is to keep managers in line with their fiduciary duties towards their clients – which is to make investment decisions that benefit unit holders. In addition, independent directors are generally seasoned professionals from various industries, bringing diversity to the board while also being able to help funds in their investment decisions.

We have seen a significant increase in the number of independent board directors, from 38% to 51%. In certain jurisdictions like Hong Kong, the reason may be tax and regulatory – because most managers are set up as “offshore managers”, a board of directors that is constituted by a majority of non-Hong Kong tax residents is required

and independent directors from offshore jurisdictions play an important role in plugging this gap.

On a broader scale, however, we believe this is likely due to three reasons: 1) a growing number of newly formed, governance-conscious funds driving demand for independent directors; 2) existing crypto hedge funds becoming more structured and financially capable of hiring senior talent, and; 3) a growing supply of board directors possessing industry-specific expertise and knowledge as the industry further matures. This trend will further enable funds to extend their client base and interact with other institutional investors in the space, bringing positive value to the industry as a whole.



Valuation and fund administration

Percentage of crypto hedge funds using an independent fund administrator

	2020	2021
Use of independent fund administrator	88%	91%

An independently verified Net Asset Value (NAV) is a crucial piece of information for fund auditors as well as investors, and this year saw over 91% of the crypto hedge funds in our report use an independent fund administrator.

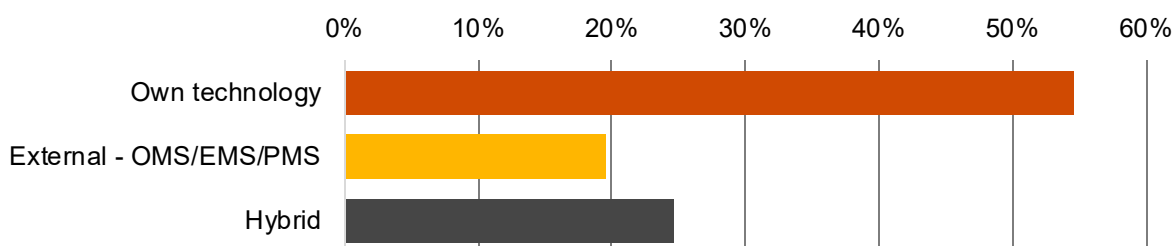
It is very unlikely that institutional investors will select any fund without an independent administrator. While this was acceptable in the early days of the industry, there is no longer any excuse for a crypto hedge fund to calculate its own NAV each month. We expect only a very restricted number of funds, such as those with small AuMs or who hold niche crypto assets, to be able to value part of their portfolio themselves.

Regardless of the choice of fund administrator, the valuation policy needs particular focus. Most funds will have their valuation methodologies and frameworks set out in the Private Placement Memorandum (PPM). It is important for any fund to ensure that it complies with what is set out in its documentation. Management fees are determined based on NAV and performance fees are typically charged on NAV appreciation over a set period (e.g., above a 'high water mark').

Investors expect a monthly NAV to be available and verified by an independent, reputable fund administrator. Cryptocurrency exchanges can provide independent price quotes for certain crypto assets. But for those portfolios made up of less liquid crypto assets, managers may have to source a valuation from an independent third-party which satisfies the requirements set out in the PPM.

Despite all the development so far, accurately valuing a crypto fund remains challenging. This is particularly true for funds that hold illiquid tokens or crypto investments via Simple Agreement for Future Tokens (SAFTs). There are also details that are important for funds trading some of the more liquid crypto assets, such as: the cut-off time for valuation (crypto markets operate 24 hours a day) or how many and which price sources to use (the same crypto asset may be priced differently at different exchanges globally). PwC's report on accounting considerations for crypto assets ('In depth: A look at current financial reporting issues'⁶) could be a useful guide.

Percentage of crypto hedge funds using external or self-developed trading systems



This year we asked from where funds source their technology. The majority, or 55%, develop their own technology

internally, while 19% use external providers. The remaining 26% use a hybrid model, part in-house and part externally sourced.

⁶ In depth: A look at current financial reporting issues <https://www.pwc.com/gx/en/audit-services/ifrs/publications/ifrs-16/cryptographic-assets-related-transactions-accounting-considerations-ifrs-pwc-in-depth.pdf>

Liquidity and lock-ups

About half of this year's survey respondents do not have hard or soft lock-ups in place. Hard lock-ups are where an investor is not allowed to redeem until the end of the lock-up period, while soft lock-ups are where an investor is allowed to redeem early by paying a penalty. However, there are funds that do implement them across various fund strategies and, those who do, usually demand a one-year lock-up period. As for lock-up terms, it has mostly been similar to the previous two years.

The redemption structures of funds have also remained unchanged, with monthly redemptions being the most common.

The expansion of the crypto hedge fund universe has caused the spread of lock-up terms to differ among funds. Among our survey respondents, long-only quant funds reported no hard lock-ups but most have soft locks, seemingly being more flexible for investors. Discretionary long / short funds seem to also offer flexibility to their investors by implementing a shorter lock-up period of six months.

Average crypto hedge fund redemption terms by strategy

Strategy	Redemption Frequency	Redemption notice period	Avg. Lock up period	Hard lock	Soft lock
Market Neutral (*New)	Monthly	30 days	1 year	30%	22%
Discretionary Long Only Crypto	Monthly	30 days	3 year + 2 year extension	18%	18%
Quantitative Long / Short Crypto	Monthly	30 days	1 year	42%	16%
Quantitative Long only (*New)	Monthly	30 days	None	0%	40%
Discretionary Long / Short Crypto	Monthly	30 days	6 months	11%	56%

Crypto hedge fund redemption gates

We do not discuss fund liquidity overall, as each strategy is different and has its own liquidity constraints. We believe that such an analysis could be more interesting for gates.

Gates are a useful mechanism that allow fund directors to put in place restrictions in very limited circumstances, which limit the speed at which investors can redeem. The main purpose of a gate is not to protect the fund manager, but rather the remaining shareholders in the fund, so as to ensure that assets do not need to be liquidated in a fire sale solely to meet the large number of redemption requests.

There are two main types of gates:

- Fund-level gates
 - Triggered only when redemptions are over a certain threshold of the fund (e.g., when over 25% of fund NAV or of total number of shares in issue at a particular redemption day).

- All investors generally receive their redemptions on a pro-rata basis depending on the number of investors redeeming, but the total redemption amount is capped (e.g., at 25% of the NAV or total number of shares).
- As there is no priority, the scaled-down redemption request will be treated on the next redemption day on a pro-rata basis with any new redemption requests.
- Investor-level gates
 - Always applied when an investor chooses to redeem (e.g., investors can only redeem 25% of their investment each redemption day regardless of whether other investors are redeeming at the same time).

Our data shows that more than a third (38%) of crypto hedge funds have some sort of gate mechanism in place. This has slightly increased from the previous year where only 31% of funds had gate mechanisms. As for the type of gate mechanism used, fund-level gates are more prominent (34%) compared to investor-level gates (23%). On the other hand, some funds implement both types of gates (19%). Currently, the type of gates are still mixed, and whether the industry will move towards either of the two gates over the coming years remains to be seen.

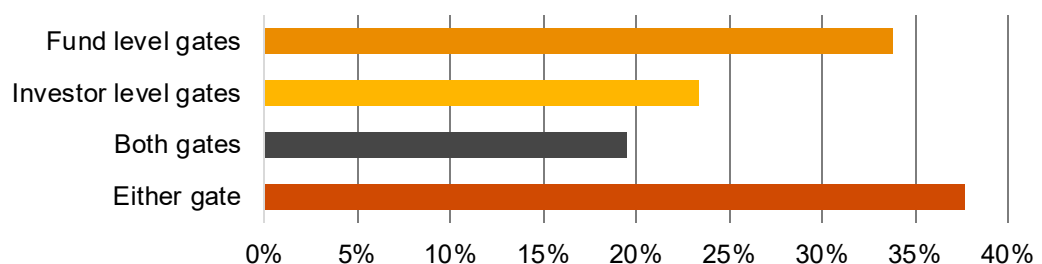
Fund-level gates may be seen as fairer, as they can only be triggered if a certain threshold of redemption requests on a particular redemption day is crossed. For example, if there is only one investor redeeming, with limited impact on the fund, then there is no reason for a gate to be imposed in the first place. The downside for an investor is that they do not know whether their redemption request will be fulfilled, which may cause some cash management issues if the investor has their own liquidity requirements. Fund-level gates also put more pressure on the fund's board of directors, as they are responsible for deciding when to enact the gates.

Investor-level gates can be seen as somewhat favouring the fund manager at first glance, as the investor will never be able to redeem his capital in one go, but rather over a set number of months, during which time the fund manager will continue to collect fees. However, many investors prefer investor-level gates because although they cannot redeem their full investment in one go, they know exactly what amount they will receive, which helps their cash flow management.

Generally speaking, investors are now comfortable with both gate mechanisms. In practice, the final decision as to which one to put in place is often made after consulting with the lead or Day 1 investor on their preference.

Percentage of crypto hedge funds with redemption gates

Either Gates	34%
Investor level gates	21%
Fund level gates	31%
Both gates	18%



Legal and regulatory

Top Crypto Hedge Fund Domiciles		Top Crypto Hedge Fund Manager Location	
Cayman Islands	49%	United States (US)	30%
British Virgin Islands (BVI)	13%	United Kingdom (UK)	10%
Gibraltar	12%	Hong Kong	6%
United States (US)	10%	Singapore	6%
Canada	3%	Switzerland	6%
Germany, United Kingdom, Luxembourg, Liechtenstein, Belgium, Singapore, Australia	13%	BVI, Canada, Germany, Gibraltar, Brazil, Israel, Luxembourg, Netherlands, Portugal, Malta, United Arab Emirates, Ukraine, Liechtenstein, Argentina, Mauritius, Spain, The Bahamas, Belgium, Slovenia, Australia, Cayman Islands, South Korea	42%

The Cayman Islands has maintained its position as the top location for crypto hedge funds to domicile, while the British Virgin Islands has overtaken the United States as the second most popular location. Each location saw its share of the market increase slightly year over year, Cayman Islands from 48% to 49% and British Virgin Islands from 11% to 13%. Gibraltar also surpassed the United States, despite both having a lower market share of 12% and 10% compared to 13% and 46% in the previous year respectively.

This year funds were asked to comment on what influenced their decision on crypto hedge fund domiciles and the most common responses were due to 'crypto friendly' (22%), 'regulations' (20%) and 'fund friendly' regulations (17%). The result is in line with expectations as many governments and authorities still take a rather unfriendly or indifferent approach towards the crypto industry, or rather are still trying to figure out the correct mix of regulation.

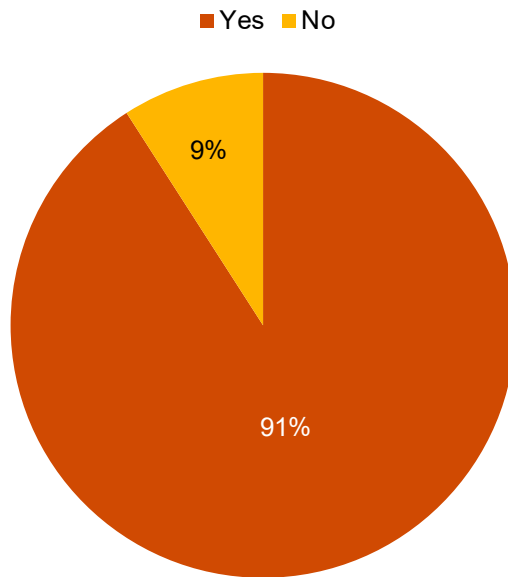
The above responses suggest that crypto hedge funds aim to operate in domiciles that provide the least uncertainty regarding regulatory changes and government

interventions, leaving them to focus on their investment activities instead.

This year, the methodology for evaluating where investment teams are physically located changed slightly, and we limited each crypto hedge fund to choose a single answer instead of providing every location a manager may have been based throughout the year. As a result, the percentages differ compared to the results in 2020. This practice will improve data accuracy over time and allow results to actually represent locations with pools of crypto hedge fund talent.

The United States and United Kingdom continue to occupy the top two spots in the data, representing 30% and 10% of crypto hedge fund managers respectively, while Singapore and Switzerland have joined Hong Kong in ranking third, hosting 6% of crypto hedge fund managers each. As mentioned in previous reports, the expectation is that these results would remain mostly constant, unless particular governments or authorities enact policies that are more attractive (or restrictive) to crypto hedge funds and their respective managers.

Percentage of crypto hedge funds that are audited



91% of survey respondents have acquired external auditors' assistance in carrying out auditing work on their finance statements. This suggests that there is a general consensus within the crypto industry to adhere to compliance and regulatory requirements of traditional financial institutions and will serve the industry positively as it continues to mature in future.





List of Survey Respondents

Each respondent was asked to give consent to CoinShares Capital Markets (UK) Limited and PwC for their firm name to be mentioned. Below we list the participants in this report in alphabetical order.

168 Trading Limited	Digital Asset Alpha Ltd
Alphabeth Capital	Fasanara Capital
Alt Domain Ventures	Ferst Capital Partners
Apollo Capital	Flow Ventures
Arca	FOBS Asset Management
Arrano Capital	German Deep Tech Quantum GmbH
Astronaut Capital	GrandLine Technologies LLC
Belobaba Crypto Fund	Gumbo LLC
BFI Consulting	Hartmann Capital
BKCoin Capital	Hilbert Capital
Block Asset Management	Hunting Hill Global Capital
BLP Asset Mgt.	Hyperion
BXB Capital	IDEG Asset Management
Capriole Investments Limited	Immutable Insight
CMCC Global	Incrementum AG
Coincident Capital	KPTL
CryptAM Fund	Lavaliere Capital Management
Crypto Consulting AG	LedgerPrime
DCY SRL	Les investissements Rivemont

Lima Capital LLC	Silver 8 Capital, LLC
Liquibit Capital	Silver Castle
M31 Capital Management, LLC	Smart Arbitrage Technologies
MaiCapital Limited	Solidum Capital
Mainnet Capital Pte Ltd	SSW Alpha Rock Fund PCC Ltd.
Maquina Capital	ST.GOTTHARD FUND MANAGEMENT AG
Nickel Digital Asset Management	Stratosphère
Nine Blocks Capital Management	Stylus Capital
ODIN88 Asset Management, LLC	Swiss-Asia Financial Services Pte Ltd
Panxora Management Corp	Synchronicity
p-hat fund (former Soft Vision alternative investment fund)	tendex
PostModern Partners GP LLC	Times Three
Protein Capital	Two Prime Digital Assets
Proxima Investments LLC	Tyr Capital Partners Sarl
Pythagoras Investment Management LLC	Whitehall Capital
Q21 Capital	Zenith Investment Management
Rubedo Ltd	
SeQuant Capital LLC	
Sigil PCC Limited	



Part 2: Traditional Hedge Funds

Introduction

The Alternative Investment Management Association (AIMA) is delighted to partner with PwC and Elwood once again on this industry-wide initiative to offer the very latest insights into the growing interest in the digital assets market by “traditional” hedge funds (funds that do not invest exclusively in digital assets).

The AIMA chapter offers insights into the current approach taken by these funds when assessing whether to invest in digital assets and explores the main barriers with respect to investments. Overall, the chapter offers insights into whether “traditional” hedge funds have investments in digital assets, their views on the asset class, and what they believe would be the catalysts for them to invest initially and more significantly in digital assets.

All input to this survey and commentary on its results came via AIMA’s Digital Assets Working Group⁷.

⁷ AIMA’s work in digital assets is overseen by its global Digital Assets Working Group (AIMA DAWG). This Group is a senior-level industry steering committee tasked with driving AIMA’s regulatory engagement, thought-leadership initiatives and operational guidance in the area of digital assets. For further information, see <https://www.aima.org/regulation/keytopics/digital-assets.html>

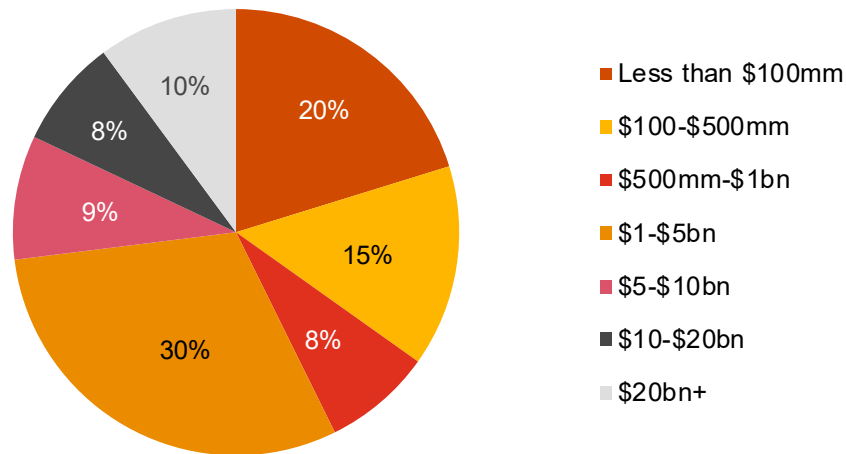
Key takeaways

1. Approximately one in three of “traditional” hedge funds surveyed are currently investing in digital assets, compared to one in five when we surveyed last year. The average allocation to digital assets by these funds measures 4% (a slight increase from 3% last year).
2. By strategy, hedge funds with the most digital assets exposure include multi-strategy (32%), macro (21%), equity (18%), and systematic (12%).
3. Of those hedge funds who are invested in digital assets, 57% have a toe-hold position with less than 1% of their total hedge fund AuM invested.
4. Two thirds of those hedge funds (67%) who are currently investing in digital assets intend to deploy more capital into the asset class by the end of 2022.
5. 29% of hedge fund managers who are not yet investing in digital assets confirmed that they are in late-stage planning to invest or looking to invest.
6. Regulatory and tax uncertainty continues to be the greatest barrier to investing (cited by 83% of respondents). Of greatest concern is the globally fragmented regulatory approach/environment, followed by unclear guidance with heightened threat of rulemaking through enforcement.
7. The lack of infrastructure/service provider availability also remains a challenge with audit and accounting now seen as the market infrastructure area being the most in need of essential improvements (94%), surpassing custody and safekeeping as the major service provider challenge to greater adoption.
8. Around a third of respondents not currently investing say that if the main barriers were to be removed, they would actively accelerate their involvement/investment in digital assets (27%), an increase from 18% last year. While 45% of respondents stated that the removal of barriers would still probably not impact their current approach.

About the research

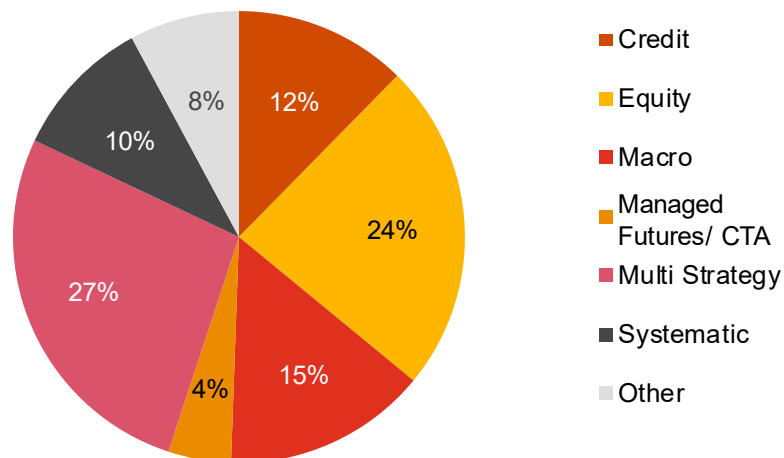
The research contained in the chapter comes from a survey that was conducted in Q1 2022 by AIMA, with 89 hedge funds that accounted for an estimated US\$436 billion in AuM.

Total Hedge Fund AuM



57% of the responses were from hedge funds managing assets in excess of US\$1 billion. Among the most popular strategies of hedge funds that responded include multi-strategy (27%), equity (24%), macro (15%), credit, (12%) and systematic (10%).

Hedge Fund Strategies

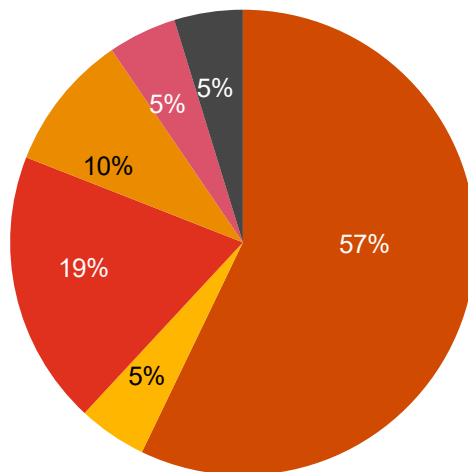


Hedge funds investing in digital assets

Approximately one in three of hedge funds surveyed are currently investing in digital assets, compared to one in five when we surveyed last year (increasing to 38% from 21%). The increase this year is supported by the findings from last year's survey, which indicated that around a quarter of hedge funds were looking to invest over the next twelve months.

When asked what percentage of their AuM is invested in digital assets, hedge funds surveyed have added to their digital wallets — accounting for 4% of their AuM, compared to 3% reported in the survey last year. Among the most popular hedge fund strategies that are investing in digital assets include multi-strategy (32%), macro (21%), equity, (18%) and systematic (12%). Of those who invest in digital assets, 57% have a toe-hold position with less than 1% of their total hedge fund AuM in digital assets. The largest hedge funds (having \$5bn in AuM or greater) all have less than 1% of their total hedge fund AuM in digital assets. Hedge funds active in digital assets that have more than 5% of their total hedge fund AuM invested accounted for 20% of respondents.

Total Hedge Fund AuM % Invested in Digital Assets



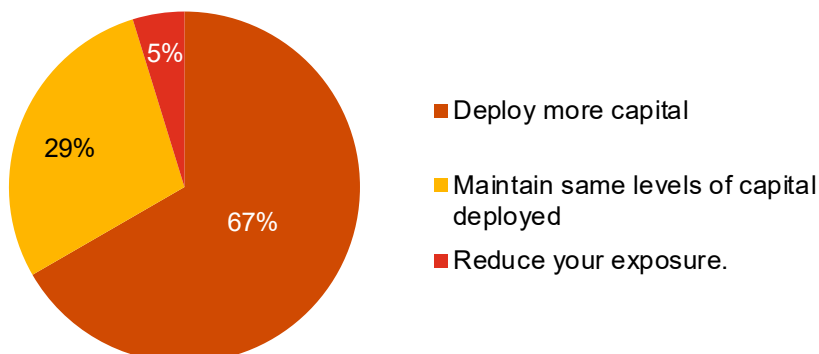
- Less than 1% of your hedge fund AuM
- Between 1% and 2% of your hedge fund AuM
- Between 2% and 5% of your hedge fund AuM
- Between 5% and 10% of your hedge fund AuM
- Between 10% and 20% of your hedge fund AuM
- Between 20% and 50% of your hedge fund AuM



Further investment in digital assets planned

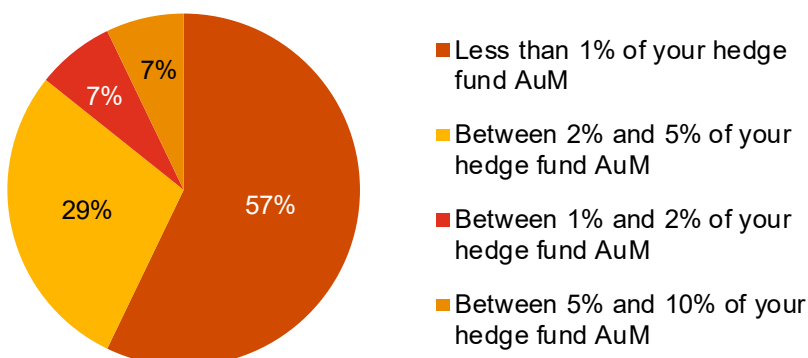
Two thirds of hedge funds (67%) who are currently investing in digital assets intend to deploy more capital into the asset class by the end of 2022, down from 86% last year.

2022 plan



Of those hedge funds intending to deploy more capital into the asset class this year, 57% currently have less than 1% of their total hedge fund AuM in digital assets. A third of respondents (29%) currently have between 2% and 5% of their AuM invested.

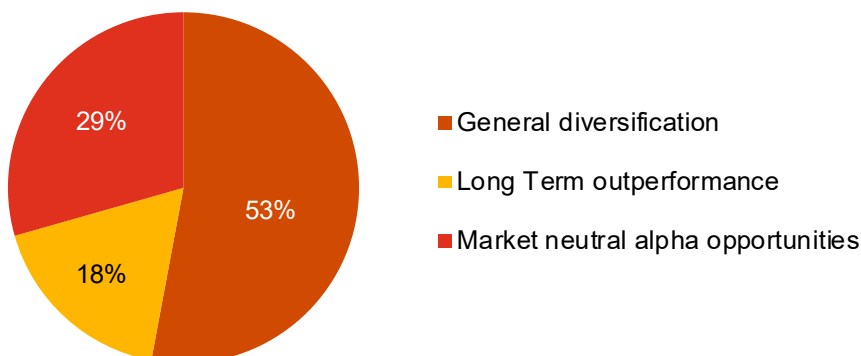
Deploy more capital



Why hedge funds are invested in digital assets

The most common primary reason given by hedge fund managers for including digital assets in their portfolio is “general diversification” – as per 53% of all respondents (down from 57% last year). Of the remainder, 29% stated “market neutral alpha opportunities” as their primary reason to invest while 18% cited “long-term outperformance”.

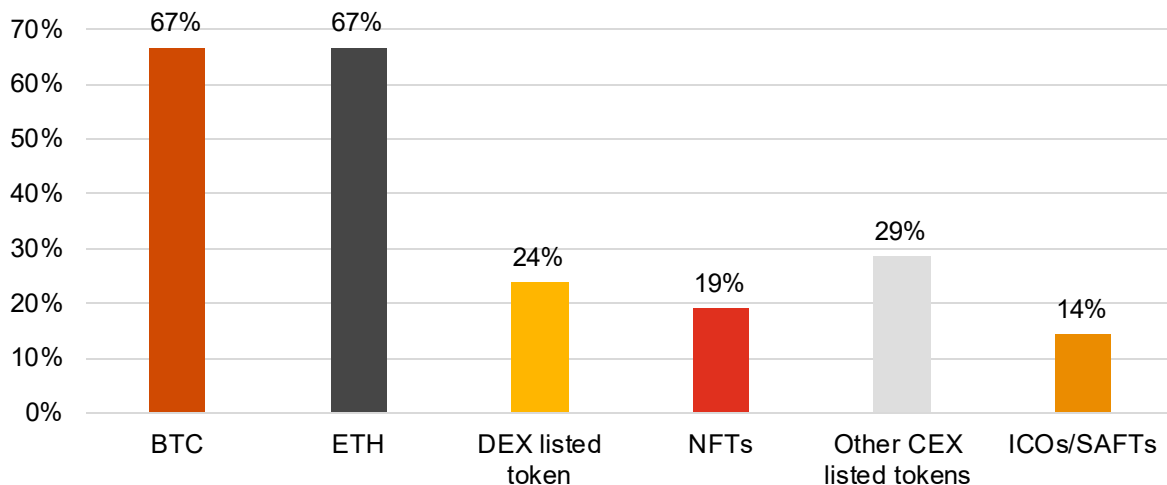
Reasons for Investing in Digital Assets



How hedge funds are invested in digital assets.

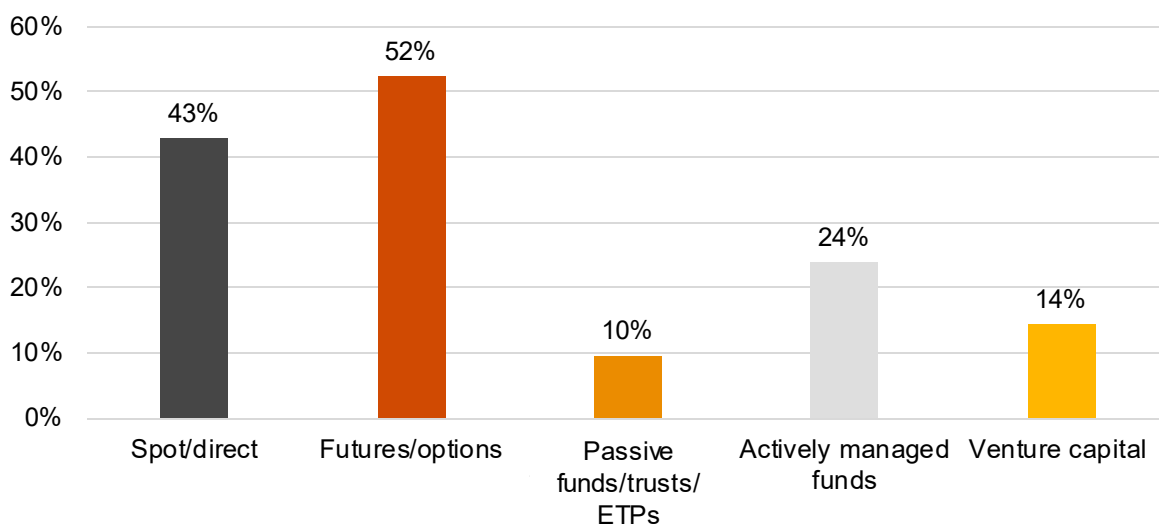
When asked which type of digital assets hedge funds are invested in, the majority responded that they are invested in the two largest cryptocurrencies by market capitalisation and exchange volume, BTC and ETH, with 67% each respectively. Approximately one in three of all respondents (29%) say that they are invested in other tokens listed on centralised exchanges, one in four (24%) say that they are invested in tokens listed on decentralised exchanges, while one in five respondents (19%) say that they are invested in NFTs.

Types of Digital Assets



Regarding hedge funds exposure to digital assets, around half of all respondents (52%) invest in digital assets through derivatives trading (i.e., futures/options), slightly lower than last year's two thirds of respondents. While respondents that say they invest in digital assets using direct/spot trading increased to 43% from 33% last year. Those currently adopting a passive approach to investing in digital assets (i.e., passive funds/trusts/ETPs) include 10% of respondents (down from 29% last year). 24% of hedge funds say they are using actively managed funds to invest in digital assets, while 14% say they are using venture capital.

Exposure to Digital Assets

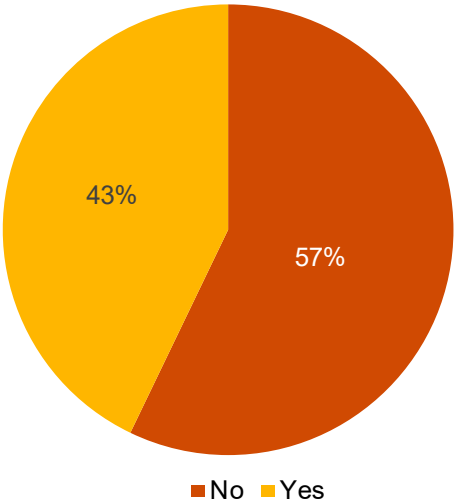


Of those hedge funds who invest in digital assets, 43% of respondents say they are using leverage for investing. Of those hedge funds using leverage, 78% of the responses were from hedge funds who manage assets less than US\$1 billion.

Although there is a nascent interest in gaming, the metaverse, and Web 3.0 in

the venture capital space, survey respondents indicate that the majority of hedge funds are not investing in these areas. Rather, respondents suggest that the biggest growth opportunity over the next 12 months is to be in DeFi, cited by more than half of all respondents (52%).

Use of Leverage



Main challenges for hedge funds who are investing in digital assets.

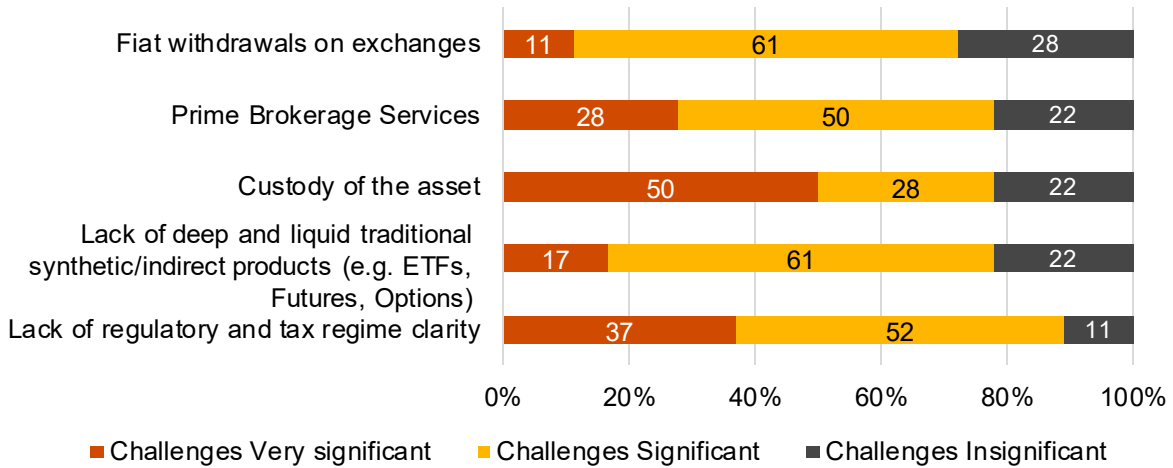
The top five challenges cited by hedge fund managers who currently invest in digital assets as being very significant or significant are:

- Lack of regulatory and tax regime clarity (90%),
- Lack of deep and liquid traditional synthetic/indirect products (78%),
- Custody of the asset (78%),
- Prime broker services (78%), and
- Fiat withdrawals on exchanges (72%).

Following on from the theme reported last year, regulatory uncertainty continues to be the main challenge for hedge funds that are investing in digital assets. In addition, custody and safekeeping of digital assets also continues to remain a challenge. AIMA, PwC and ECI published an industry guide earlier this year on digital asset custody for institutional investors⁸. The guide provides industry guidance on sound practices and key considerations around due diligence for institutional investors determining how to custody their digital assets.

⁸ The Alternative Investment Management Association, Digital Asset Custody Guide: <https://www.aima.org/sound-practices/industry-guides/digital-asset-custody-guide.html>.

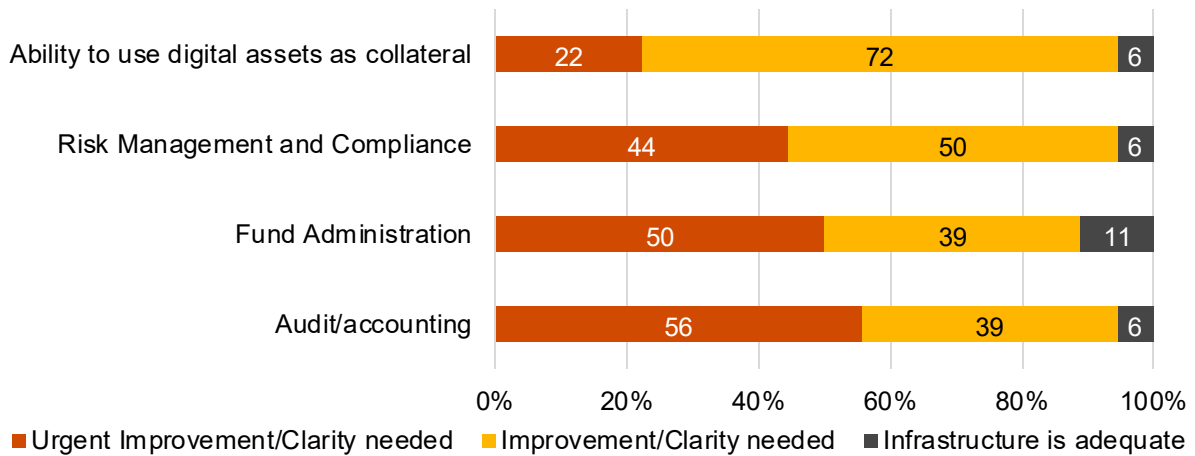
Challenges faced when investing in digital assets



When given a list of market infrastructure areas for potential improvement, it was striking that no area was judged as overwhelmingly adequate, but 'Audit and accounting' is seen as the area being the most in need of essential improvements for digital assets adoption (95%), taking over

from 'Custody and safekeeping'. The other areas cited by respondents this year in need of essential improvements for greater adoption include, 'Risk management and compliance' (94%), 'Ability to use digital assets as collateral' (94%), and 'Fund administration' (89%).

Market infrastructure improvements

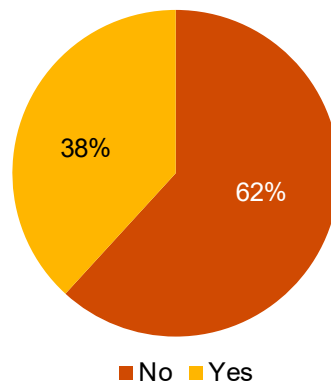


Hedge funds who do not currently invest in digital assets

Around two thirds of hedge fund managers who responded to the survey are not currently investing in digital assets (63%), compared to 79% last year. Of those that do

not invest in digital assets, 64% of responses were from hedge funds with US\$1 billion or greater in AuM.

2022: Investments in Digital Assets



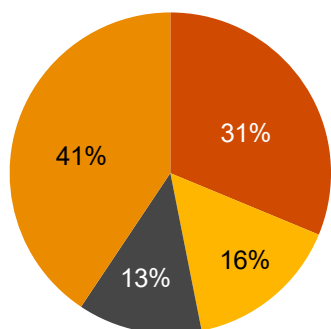
Among the most popular strategies of hedge funds not investing in digital assets include equity (27%), multi-strategy (24%), credit (16%) and macro (11%).

In contrast, 41% of hedge funds not investing say that they are unlikely to invest over the next three years, (compared to 57% of all respondents who answered the same question last year).

Upon closer examination of the results, around a quarter of the respondents who are not yet investing in digital assets confirm that they are in late-stage planning to invest (16%) or looking to invest (13%), a slight increase from the combined 26% reported last year. Of those hedge funds who are in late-stage planning or looking to invest, the majority of those respondents are billion-dollar fund managers.

Of the remainder, 31% of all respondents say that they are curious about digital assets but waiting for the market to mature a little more, before following up their curiosity.

Plans for Gaining Exposure



- Curious about digital assets but waiting for further maturity
- Late-stage planning, will be investing over the course of 2022
- Looking to invest but still researching the space
- Unlikely to invest in the next three years

Reasons why hedge funds are not investing in digital assets

The four main reasons or obstacles to not invest cited by the hedge fund managers we surveyed are:

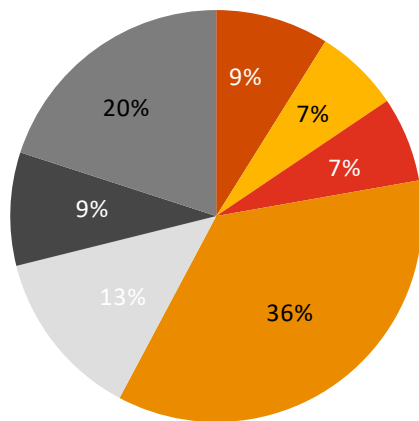
- Regulatory and tax uncertainty (83%),
- Client reaction/reputational risk (79%),
- Lack of infrastructure/service provider availability (77%), and
- Outside the scope of current investment mandate (76%).

The reasons given by respondents are consistent with last year's findings, although

the concerns around the lack of infrastructure or service provider availability is found to be slightly less significant than last year.

In terms of the actual regulatory concerns to investing in digital assets, of those surveyed 36% say that the globally fragmented regulatory approach/environment was the main issue, followed by unclear guidance with heightened threat of rulemaking through enforcement (20%).

Main regulatory concern

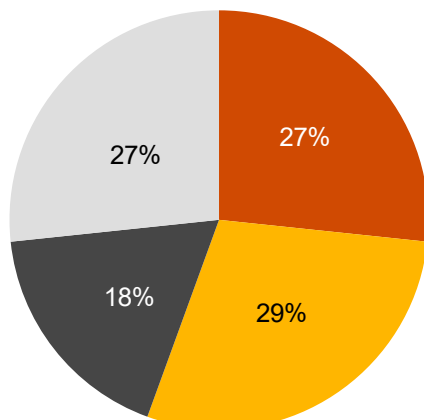


- AML/KYC issues
- Classification of digital assets as financial instruments, or other
- Custody requirements
- Globally fragmented regulatory approach/environment
- Misguided regulation
- Other
- Unclear guidance with heightened threat of rulemaking through enforcement

Around a third of respondents say that if the main barriers were to be removed, they would actively accelerate involvement or investment in digital assets (27%), an increase from 18% last year. While 29% say they would potentially change their approach

and become more involved. 45% of respondents stated that the removal of barriers would still probably not impact their current approach as either investing in digital assets remains outside their mandate or they would continue to remain sceptical.

If main obstacles are removed



- definitely start or accelerate involvement/investment
- potentially change approach and become more involved
- probably not change your approach as obstacles are not relevant (not our space)
- probably not change your approach to digital assets and remain skeptical

About PwC

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 156 countries with over 295,000 people who are committed to delivering quality in assurance, advisory and tax services.

The PwC Global Crypto team is composed of over 200 professionals active in over 25 countries that offer a variety of professional solutions for our crypto clients across our multiple lines of service. Our clients range from crypto exchanges, crypto funds, custodians and token issuers to traditional financial institutions moving into the crypto space, as well as national regulators and central banks with regards to their crypto policies.

John Garvey

Global Financial Services Leader,
PwC US
john.garvey@pwc.com

Duncan Fitzgerald

Financial Services Risk and
Crypto Leader, PwC Hong Kong
duncan.fitzgerald@hk.pwc.com

Henri Arslanian

Senior Advisor,
PwC Hong Kong
henri.arslanian@hk.pwc.com

Matthew Blumenfeld

Director, PwC US
matthew.blumenfeld@pwc.com

Jack Kiernan

Director, PwC United States
Jack.Kiernan@pwc.com

Haydn Jones

Director, PwC UK
haydn.jones@pwc.com

Thomas Campione

Director, PwC Luxembourg
thomas.campione@pwc.com

Pauline Adam-Kalfon

Partner, PwC France
pauline.adam-kalfon@fr.pwc.com

Olwyn Alexander

Global Asset and Wealth Management
Leader, PwC Ireland
olwyn.m.alexander@ie.pwc.com

Peter Brewin

Partner, PwC Hong Kong
p.brewin@hk.pwc.com

Gaven Cheong

Partner, Tiang & Partners*, Hong Kong
gaven.cheong@tiangandpartners.com

Oscar Fung

Senior Manager, PwC Hong Kong
oscar.sk.fung@hk.pwc.com

Mazhar Wani

FinTech Tax Leader, PwC US
mazhar.wani@pwc.com

Luke Walsh

Director, PwC Gibraltar
luke.walsh@gi.pwc.com

Adrian Keller

Partner, PwC Switzerland
adrian.keller@ch.pwc.com

Guenther Dobrauz-Saldapenna

Partner, PwC Switzerland
guenther.dobrauz@ch.pwc.com

* Tiang & Partners is an independent Hong Kong law firm with a close relationship with PwC.



About CoinShares

CoinShares is Europe's largest digital asset investment firm, managing billions of assets on behalf of a global client base. Our mission is to expand access to the digital asset ecosystem by pioneering new financial products and services that provide investors with trust and transparency when accessing this new asset class. CoinShares is publicly listed on the Nasdaq First North Growth Market under ticker CS and the OTCQX under the ticker CNSRF.

CoinShares expanded its footprint into the equities market with the purchase of Elwood Asset Management on 6 July 2021. This acquisition enabled Elwood Technologies to focus on building digital asset infrastructure for financial institutions, creating the bridge between traditional and crypto markets.

The CoinShares Blockchain Global Equity Index (BLOCK Index) offers exposure to listed companies that participate or have the potential to participate in the blockchain or cryptocurrency ecosystem. The BLOCK Index aims to capture the potential investment upside generated by earnings related to the adoption of blockchain technologies or cryptocurrency.

The team that manages the BLOCK Index helped to orchestrate this survey. CoinShares is committed to the continuation of this survey and will be a key contributor and partner with PwC and AIMA in future survey publications.

About Elwood

Elwood Technologies is an established global fintech building institutional-grade digital assets trading infrastructure. Its seamless end-to-end OMS/EMS/PMS platform provides low-latency connectivity to global crypto exchanges and deep liquidity via one single API.

Built by industry experts with decades of combined experience in alternative investment management, Elwood Technologies provides market infrastructure at scale, enabling financial institutions, neobanks, and corporations to access the digital assets market quickly and efficiently.

For further information, visit: www.elwood.io

General Enquiries

info@elwood.io



About AIMA

The Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with around 2,100 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than US\$2.5 trillion in hedge fund and private credit assets.

AIMA draws upon the expertise and diversity of its membership to provide leadership in industry initiatives such as advocacy, policy and regulatory engagement, educational programmes and sound practice guides. AIMA works to raise media and public awareness of the value of the industry.

AIMA's Digital Assets Working Group (AIMA DAWG) is a cross section of around 300 senior industry experts including institutional investors, custodians, exchanges and other service providers. It is tasked with driving AIMA's regulatory engagement, thought-leadership initiatives and operational guidance in the area of digital assets.

AIMA is committed to developing skills and education standards and is a co-founder of the Chartered Alternative Investment Analyst designation (CAIA) – the first and only specialised educational standard for alternative investment specialists. AIMA is governed by its Council (Board of Directors). Find out more at www.aima.org.

Tom Kehoe

Managing Director, Global Head of Research and Communications
tkehoe@aima.org

James Delaney

Director, Government and Regulatory Affairs
jdelaney@aima.org

Michelle Noyes

Managing Director, Head of Americas
mnoyes@aima.org

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.

© 2022 PricewaterhouseCoopers Limited. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.