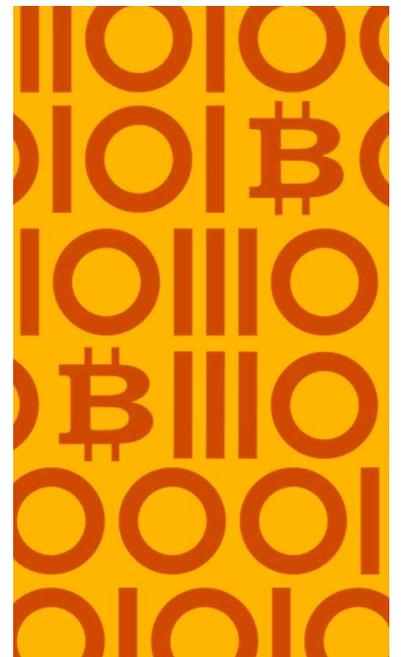




Rebuilding confidence in crypto

5th Annual Global Crypto Hedge
Fund Report (2023)



CoinShares



Contents

Introduction	2
Executive summary	3
Areas of comparison	5
Part 1 – Crypto hedge funds	6
Survey introduction	7
Investment strategies	8
Weathering the storm	14
Optimism despite a challenging environment	17
Evolving market structure	19
An industry looking to mature	24
List of survey respondents	28
Part 2 – AIMA Chapter: Traditional hedge funds	30
Introduction	31
Key findings	32
Hedge funds investing in crypto-assets	34
Hedge funds not invested in crypto-assets	41
About PwC	45
About CoinShares	46
About AIMA	47



Introduction

The 2023 Global Crypto Hedge Fund Report examines the current state and evolution of the crypto hedge fund market over the past year. The data contained in this report comes from two surveys:

The first from research conducted in Q1 2023 across a sample of 131 crypto native hedge funds. The first survey specifically focuses on crypto native hedge funds (i.e., hedge funds created with the intention of dealing primarily in crypto-assets) and excludes data from crypto index funds and crypto venture capital funds. We have worked with CoinShares to obtain survey responses from crypto native hedge funds.

For the second survey, we worked with the Alternative Investment Management Association (AIMA) to obtain data from 59 'traditional' hedge funds (i.e., hedge funds with some or no exposure to crypto-assets). Specifically, the survey questions were designed to understand the impact that notable market disruptions from last year had on fund managers and the report highlights key trends observed from the survey results.

Executive summary

Despite the underlying volatility and broad declines in crypto-asset valuations over the course of 2022, crypto hedge funds remain popular investment vehicles for investors seeking exposure to the crypto-asset market.

Part one of this report examines the current state and evolution of the crypto hedge fund landscape over the past year. Our analysis focusses on how the fallout from last year's events is impacting market participants and whether this is changing their needs and behaviours.

Key themes have emerged among investors – namely greater demands for regulation, risk management and custody as a direct result of last year's events.



Crypto hedge funds are demanding the following regulatory requirements of trading venues: **mandatory segregation of assets** (75%), **mandatory financial audits** (62%) and an **independent statement of reserve assets** (60%).



Crypto hedge funds place increased importance on **platform security** when selecting a trading venue (110% YoY increase), whereas previously liquidity was the only dominant factor.

Furthermore, industry players themselves appear to be preparing themselves for this new market dynamic via:



Increased use of standard liquidity management tools: a 100% YoY increase among crypto hedge funds.



Improved counterparty risk management processes: 53% of crypto hedge funds reported taking action to update their policies.



Increased sophistication of custody solutions: 59% of crypto hedge funds use multiple types of custody. Among those that use one type of custody, 67% use a third-party custodian.



Increased use of decentralised exchanges (DEXs): 44% of crypto hedge funds trade on DEXs – a modest climb from 31% in 2021's report and 42% in 2022. For those that are not using DEXs, the main reasons were potential regulatory and cybersecurity concerns.

Consequently, crypto hedge funds are working towards achieving a new industry dynamic which centres around rebuilding confidence and making their needs heard. They are also taking proactive measures themselves to better adapt to this new industry dynamic.

Looking ahead, we note that 93% of crypto hedge funds expect the capitalisation of the crypto-assets market to be higher at the end of 2023 than at the end of 2022.

Executive summary

Part two of this report looks at the current sentiment around investment in the crypto-asset market by traditional hedge funds. The findings from our survey suggest that:



The market events of 2022 slowed institutional adoption of crypto-assets, with reputational risk seen as the greatest barrier to investment.



The number of traditional hedge funds choosing to invest in crypto-assets has reduced from 37% last year to 29% this year.



Regulatory tightening in the US for crypto-assets has led to around a quarter of traditional hedge funds currently investing in crypto-assets to state that they may reconsider the viability of their crypto-assets strategy.

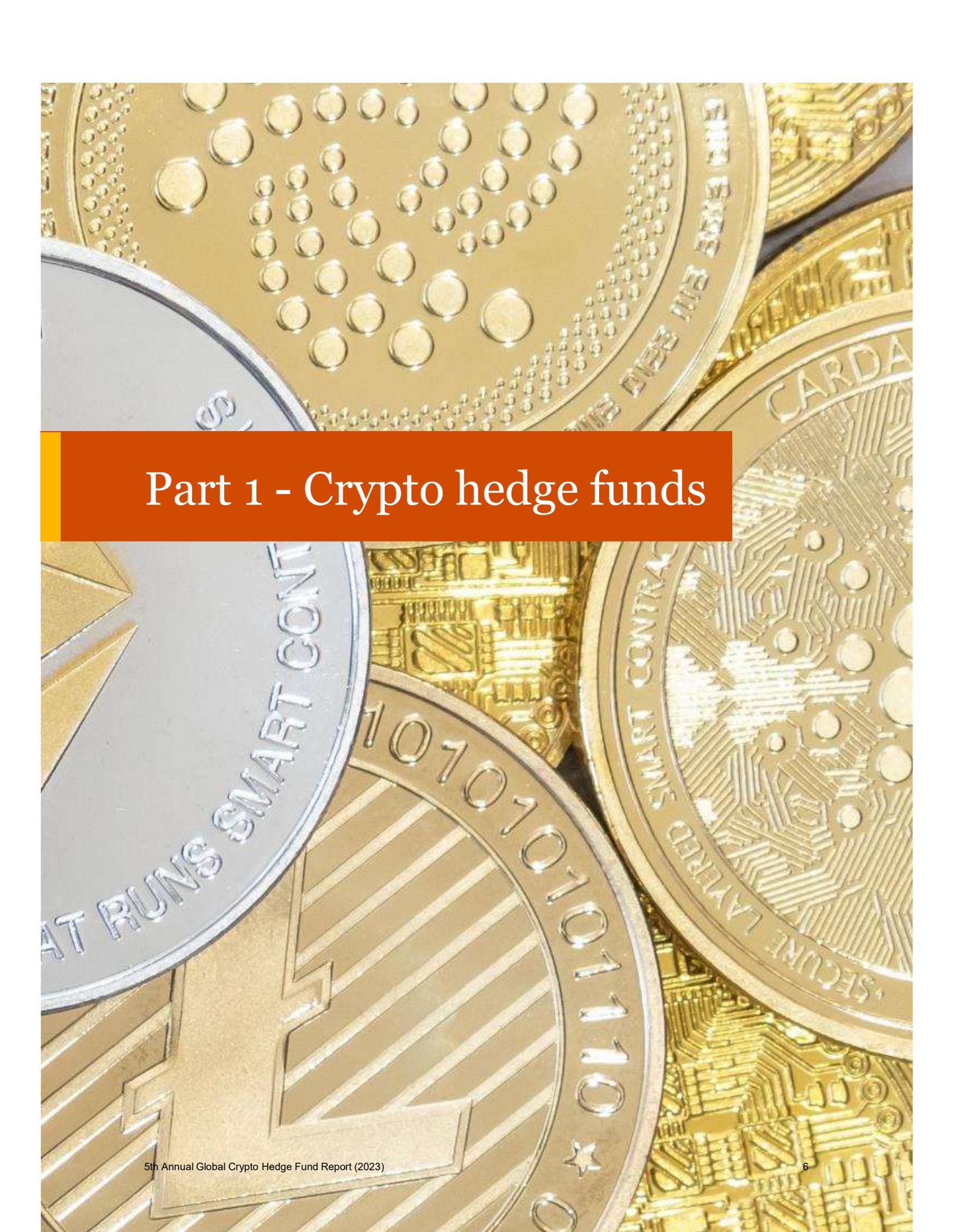
Despite the challenging environment, many parts of the blockchain and crypto-asset sector show potential for useful innovations that could lead to more efficient financial solutions. One such area is the tokenisation of assets and funds. As our survey shows, one in four traditional hedge funds (including those not invested in crypto-assets) are exploring tokenisation.

Areas of comparison

We note some interesting similarities and differences between the responses provided by crypto hedge funds and traditional hedge funds:

- 1 Market events:** Following the events of last year, the percentage of traditional hedge funds opting to invest in crypto-assets has decreased. However, the proportion of AUM among those that remain invested in the asset class has almost doubled (up to 7% from last year's 4%), while no traditional hedge fund currently investing in crypto-assets intends to reduce their exposure in 2023. When asked how last year's disruptions have changed investors' outlook on the crypto-assets industry, 50% of crypto hedge funds surveyed reported no change and 27% expressed a positive change in their outlook. Confidence in the value proposition and long-term sustainability of crypto-assets remains, particularly among crypto-natives.
- 2 Custody types:** Both traditional and crypto hedge funds are embracing a diversified approach to custody of crypto-assets. Demand for third-party custody is especially strong, with 80% of crypto hedge funds and traditional hedge funds adopting it as their primary custody choice.
- 3 Yield farming:** Comparable proportions of respondents are utilising yield farming techniques such as staking and lending to put their crypto-assets to work, with 53% of crypto hedge funds and 43% of traditional hedge funds currently involved in such activities.
- 4 Regulatory needs:** There is noticeable demand by both crypto and traditional hedge funds for increased regulation of trading venues. Client asset segregation is the most welcome regulation for exchanges with whom hedge funds trade
- 5 US regulatory tightening:** Traditional hedge funds are apprehensive of increased regulatory engagement by the US government and its relevant bodies. Around a quarter state that it could lead them to reconsider the viability of their crypto-assets strategy going forward. In contrast, crypto hedge funds seem relatively untroubled by these developments. Only 30% expect greater legal and compliance costs and just 12% are considering relocating to crypto-friendly jurisdictions with greater regulatory clarity. The slight disparity in sentiment between the two groups may be influenced by differences in AUM size, fund age and team size, as crypto hedge funds tend to be smaller in these respects.
- 6 Tokenisation:** Compared to crypto hedge funds, traditional hedge funds are more curious about tokenised assets and securities, as well as tokenising funds. This suggests that traditional hedge funds perceive the crypto-assets market as a single asset class to which they have some exposure, and they recognise the potential for blockchain technology to enhance the efficiency and liquidity of other traditional asset classes in which they have invested.





Part 1 - Crypto hedge funds



Survey introduction

This report presents the findings of a survey conducted in Q1 2023 by CoinShares, which focuses on actively managed crypto hedge funds that trade or invest in liquid, publicly traded crypto-assets and other financial instruments. This year's survey differs from previous years, as we have made significant changes to the types of questions asked to crypto hedge funds. Our aim is to analyse their responses, identify the key themes in the crypto hedge fund space, and describe them in this report.

It is worth noting that crypto index funds and crypto venture capital funds (i.e. equity investments) have been excluded from our study. This year saw a 69% increase in the number of crypto hedge funds responding compared to last year'. Any year-on-year comparisons should be viewed with the possibility of survivorship bias in our sample.

It is important to mention that none of the data provided has been independently verified by a third-party fund administrator. All responses were provided by the fund managers directly. The most common jurisdictions in which respondents are domiciled are the Cayman Islands (34%), the United States (28%) and the British Virgin Islands (11%), with no more than 10% in any other jurisdiction.

Finally, all participants were requested to provide their consent for CoinShares Capital Markets (UK) Limited and PwC to share their name in the report. Some firms requested their name not to be disclosed. Those who gave their consent are listed in the appendix. This report does not explicitly reference any fund by name.

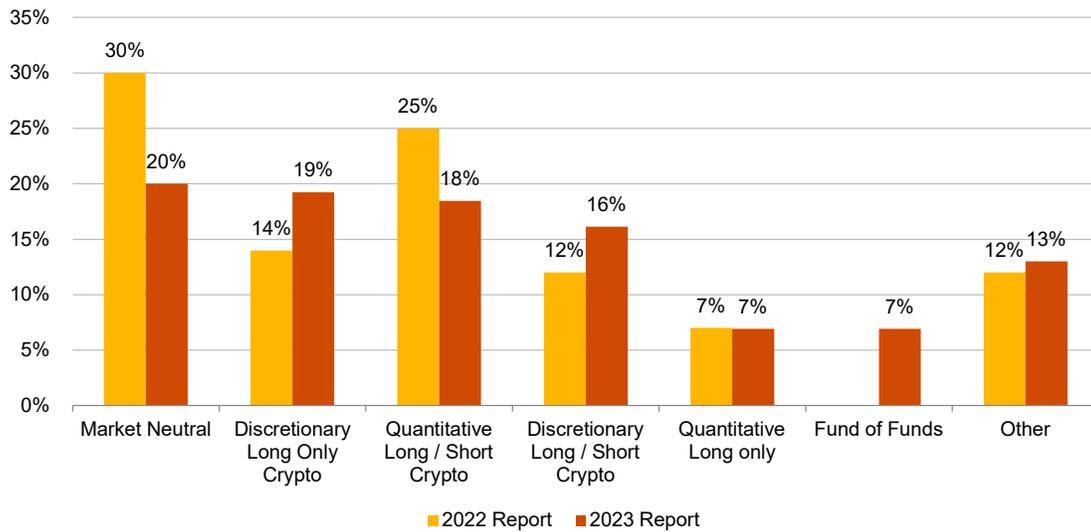


Investment strategies

Although the Market Neutral strategy remained the most popular among respondents, its usage declined to 20% from 30% in the previous year's survey (**Figure 1**). By contrast, the use of Discretionary Long Only Crypto rose to 19% from 14% last year, while Quantitative Long/Short Crypto fell to

18% from 25% in the previous year. This change likely has more to do with the current market environment than a longer-term shift in overall trading strategies.

Figure 1: Crypto hedge fund strategies



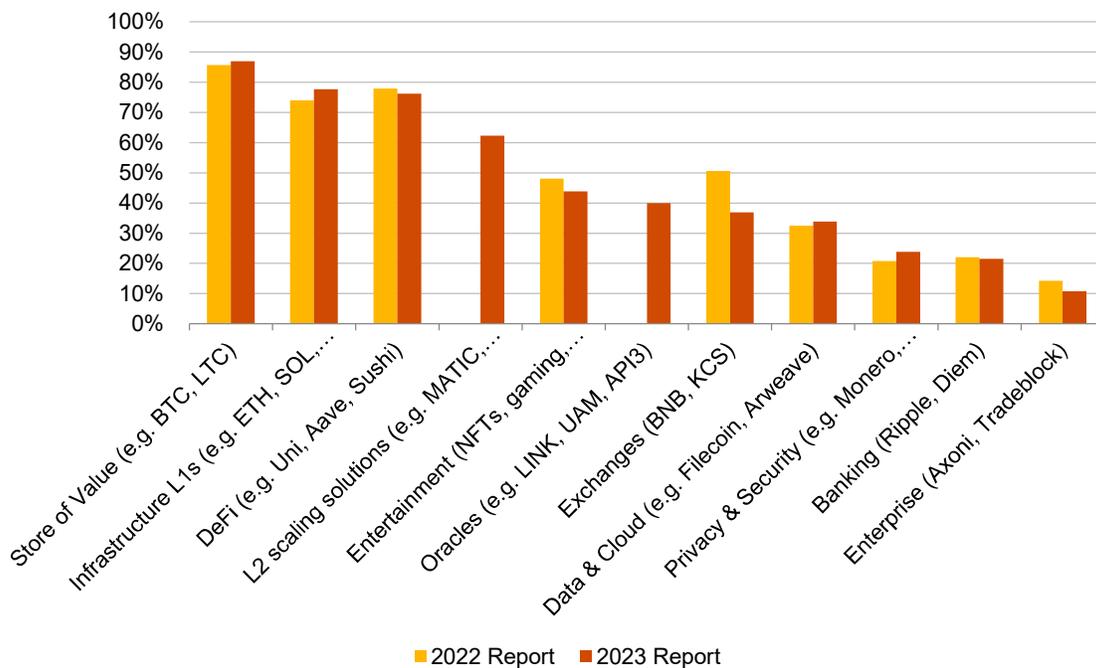
Targets of crypto hedge funds' investments

Ethereum continues to maintain its market share dominance in the Layer 1 (L1) blockchain space, with \$32 billion Total Value Locked (TVL)¹. For reference, the 2nd ranked L1 has \$5.1 billion TVL. This should come as no surprise following its successful transition from Proof of Work to Proof of Stake in September 2022, through upgrades to the network that greatly reduced concerns around energy usage and improved scalability². However, recent upgrades alone cannot resolve the network's capacity constraints, which have resulted in slow settlement times and high gas fees.

In order for Ethereum to maintain its market share it must continue to scale, which will require the advancement of Layer 2 scaling solutions (L2s). Our respondents expressed strong demand for L2s, with 62% invested in L2s (Figure 2).

Separately, exchange tokens experienced a decline in demand from the previous year, likely due in part to the fallout from exchange failures in 2022.

Figure 2: Investment categories by crypto hedge funds



L2 scaling solutions and Oracles are new categories in this year's survey, hence comparable data from last year is unavailable.



¹ Sourced from <https://www.coingecko.com/research/publications/most-popular-cryptocurrencies>

² Sourced from <https://www.pwc.com/us/en/tech-effect/emerging-tech/business-impacts-of-the-ethereum-merge.html>

Performance

The market value decline between Dec 2021 and Dec 2022 had a significant impact on both the average and median AUM levels, which decreased by 31% and 52% respectively (refer to **Figure 3**). All crypto hedge fund strategies, with the exception of Market Neutral, experienced losses, as shown in **Figure 4**. Despite the

decline in crypto-asset values and negative investment returns, AUM levels appear to be resilient, although there is a possibility of survivorship bias in our sample.

Furthermore, there are signs of optimism among crypto hedge funds, as 20% of those surveyed launched operations in 2022, up from the 19% that launched in 2021.

Figure 3: Historical AUM

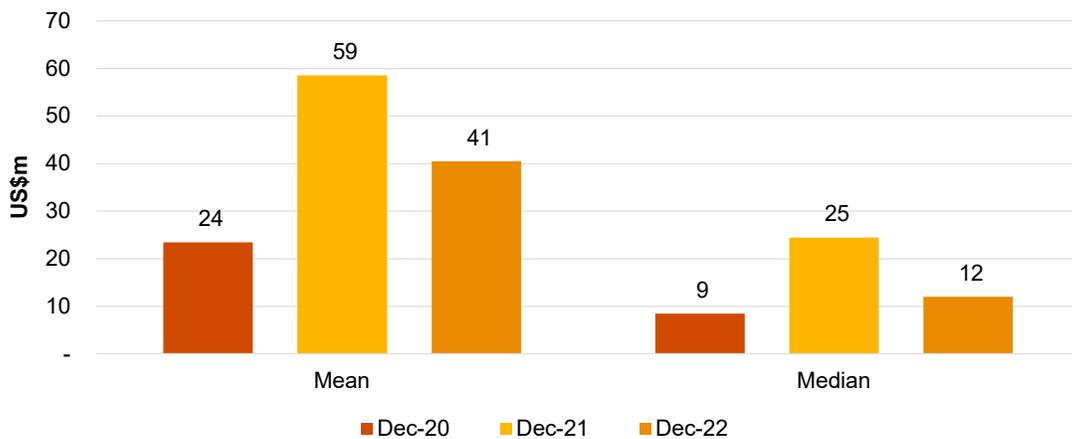


Figure 4: Fund performance by strategy

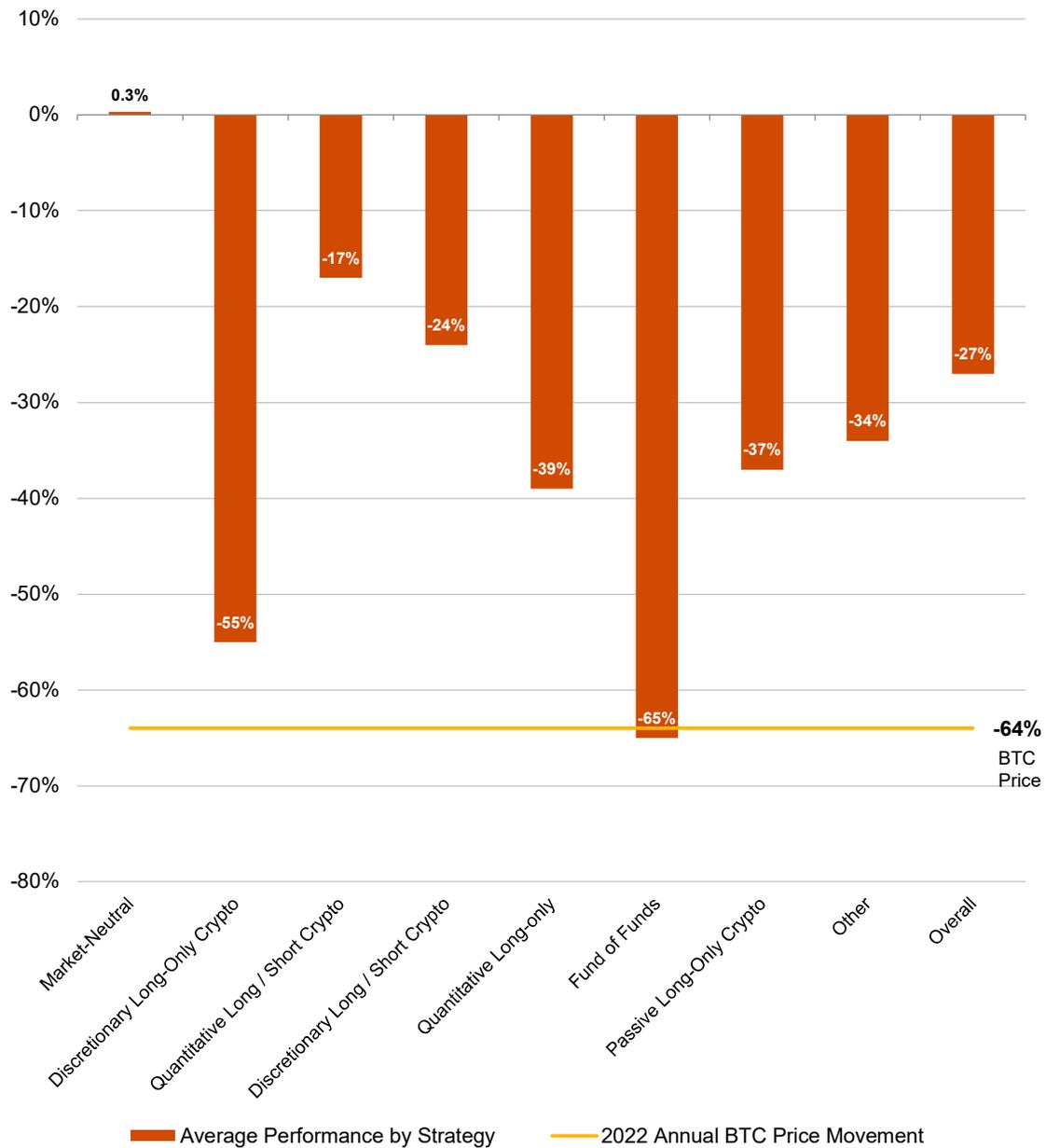


Figure 4 compares overall strategy performance against the -64% movement in BTC price from 31 December 2021 to 31 December 2022. While most strategies were down for the year (with the exception of Market Neutral), the majority of crypto hedge funds performed significantly better than the price of BTC.

93% of respondents expect total crypto-asset market capitalisation at the end of 2023 to be higher than the end of 2022, displaying confidence in the future of the industry and the asset class, despite the disruptions of the past year, and emphasising their long-term focus.

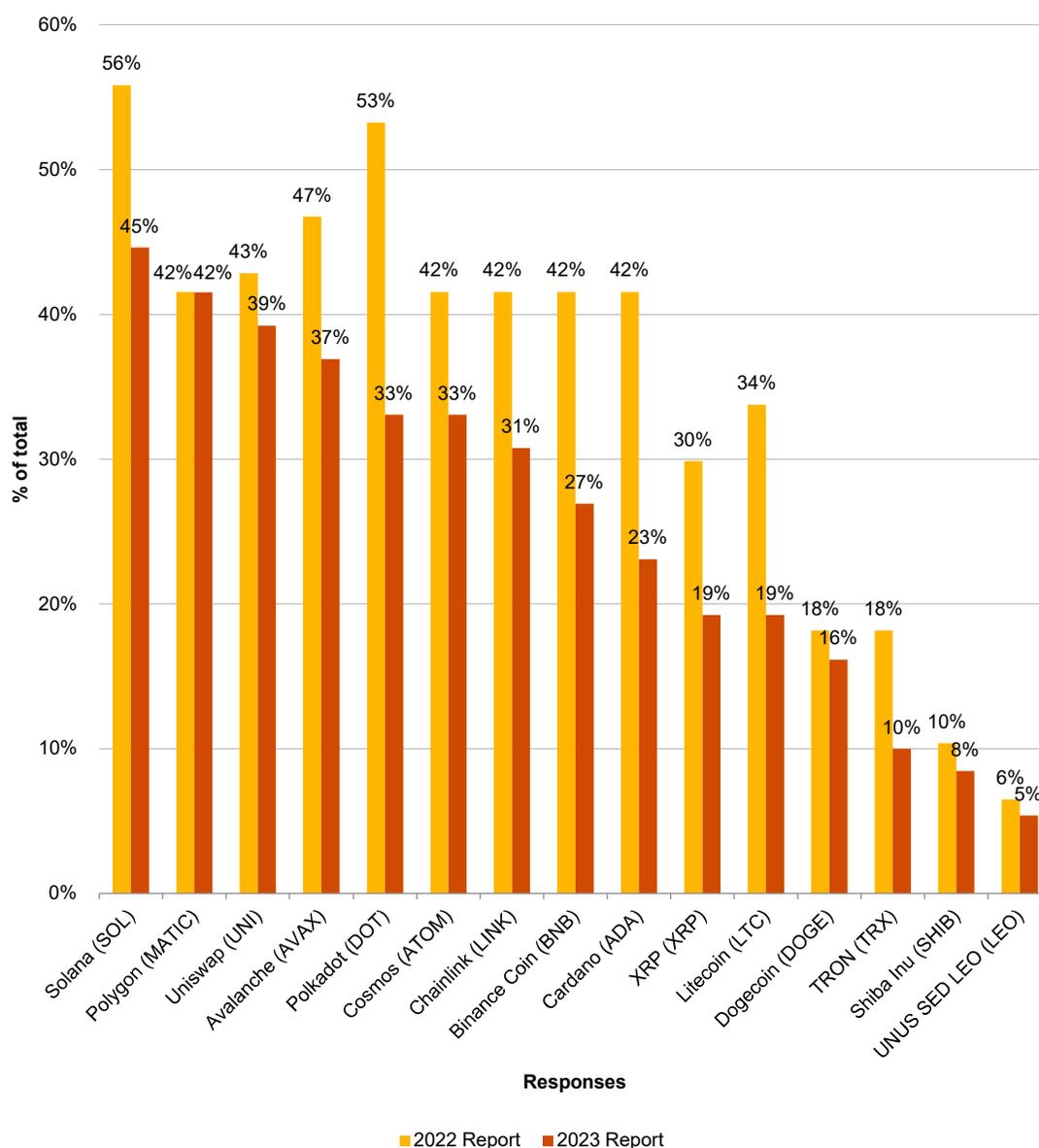
Altcoins traded

While bitcoin (BTC) and ether (ETH) tend to dominate the headlines, there was significant investment across the category of tokens known as altcoins³. Solana (SOL) maintained its position as the most traded altcoin among our respondents, despite a YoY decline from 56% to 45% (Figure 5). Polygon (MATIC) and Uniswap (UNI),

which accounted for 42% and 39% of trades this year respectively, remained relatively stable YoY. Meanwhile, Polkadot (DOT), Cosmos (ATOM), and Chainlink (LINK) all saw declines YoY:

- DOT: 53% → 33%
- ATOM: 42% → 33%
- LINK: 42% → 31%

Figure 5: Altcoins traded by crypto hedge funds⁴



³ Altcoins are all crypto-assets excluding BTC and ETH

⁴ Only including altcoins that were in the Top 20 for both years

Stablecoins

As stablecoins are typically presumed to provide protection from market volatility, it was somewhat surprising to see a reduction in the use of stablecoins compared to the previous year (**Figure 6**) given last year's market events. However, more than half of respondents indicated their intention to maintain their current exposure to stablecoins, as illustrated in **Figure 7**. With uncertainty around stablecoin regulation, ongoing research into CBDCs and a changing global interest rate environment, it will be interesting to compare the continued use of stablecoins in next year's report.

Figure 6: Stablecoins used by crypto hedge funds

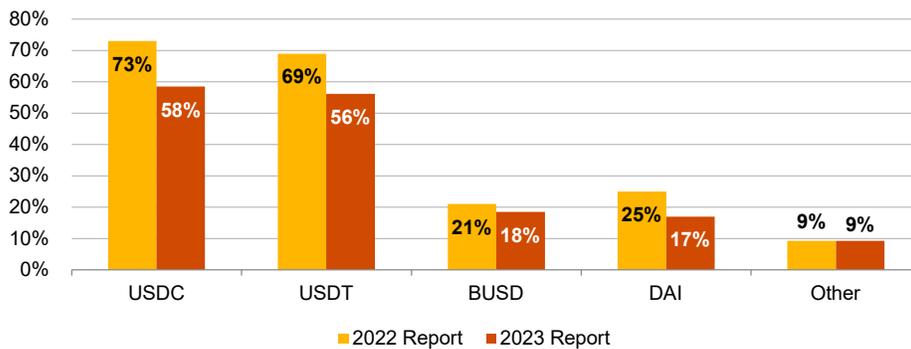
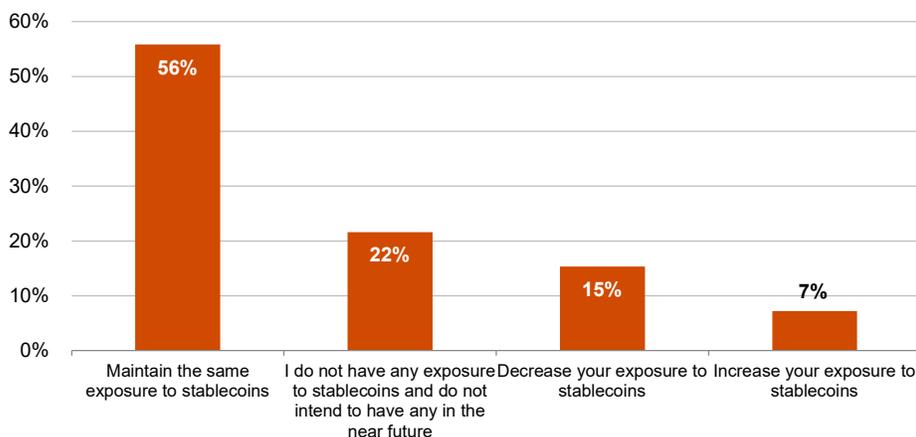


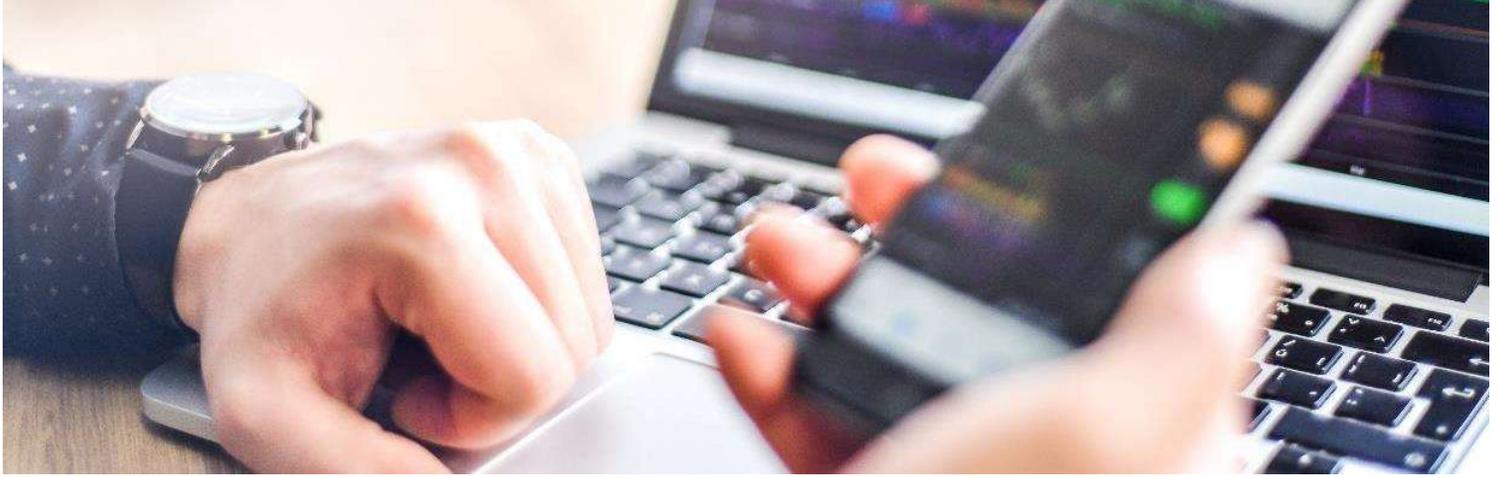
Figure 7: How crypto hedge funds intend to modify their stablecoin exposure after last year's events



In May 2022, TerraUSD (UST), an algorithmic stablecoin created by Terra, depegged from the US dollar, causing its value to plummet to less than US\$0.10⁵. This was followed by the collapse of Luna, its support coin, which aimed to absorb volatility and stabilise UST's peg to the USD. The fall of Terra-Luna revealed the systemic risks associated with algorithmic stablecoins that lack hard fiat asset backing. Furthermore, the recent banking crisis in the US has created uncertainty about the security of asset-backed stablecoin reserves. As a result, respondents anticipate a greater shift towards reliable asset-backed stablecoins and increased regulatory clarity on stablecoin management. Major stablecoin regulations are being developed this year and next by jurisdictions such as Hong Kong, Singapore, and the EU.

⁵ Sourced from <https://www.coindesk.com/learn/the-fall-of-terra-a-timeline-of-the-meteorite-rise-and-crash-of-ust-and-luna/>





Weathering the storm

Exposure to negative events in 2022

The events of 2022, including the collapse of several companies, have unquestionably had an impact on the industry. When questioned about their direct exposure to FTX or Terra-Luna, 48% of respondents stated that they had exposure to one or both of these entities (see **Figure 8**).

Among the funds surveyed, Market Neutral funds had the highest exposure to these events (**Figure 9**), with 78% reporting exposure. There did not appear to be differences in levels of exposure by strategy to Terra-Luna.

Figure 8: Exposure to FTX and Terra's UST and Luna (% of all respondents).

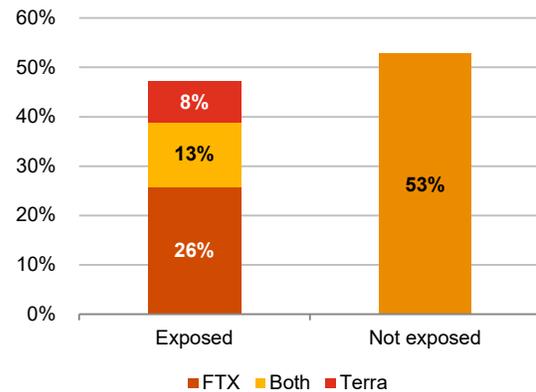
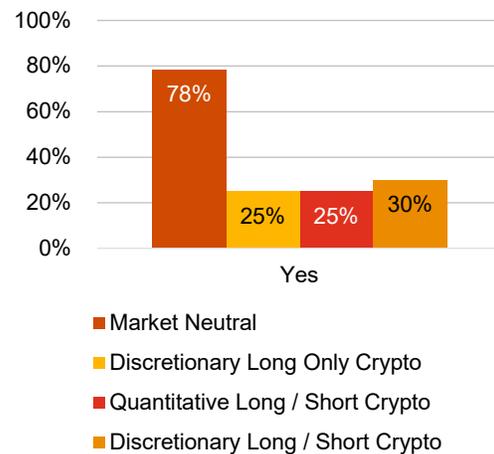


Figure 9: Exposure by fund type

Percentages calculated as a proportion of all funds adopting each particular strategy (e.g. 78% of Market Neutral funds were exposed to FTX).





Market Neutral strategies inherently keep more assets on exchange, due to the high frequency nature of their trading strategies. As such, they have notably higher exposure to counterparty risk and consequently greater need for alternative measures to manage this risk.

We asked about the use of liquidity management tools, which are typically used to manage the inflow and outflow of capital, as well as to safeguard investors during market turmoil which could lead to a sudden liquidation of positions (**Figure 10**). Before the events of 2022, 32% of all crypto hedge funds reported implementing one or more standard liquidity management tools. For reference, 15% of all respondents deployed tools due to the events of 2022 (either additional tools or first-time deployments). 6% of respondents had no tools in place prior to the events of 2022 but deployed them subsequently. (**Figure 11**).

Figure 10: Crypto hedge funds using liquidity management tools prior to events of 2022

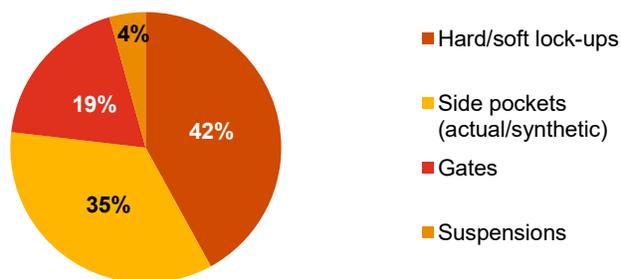
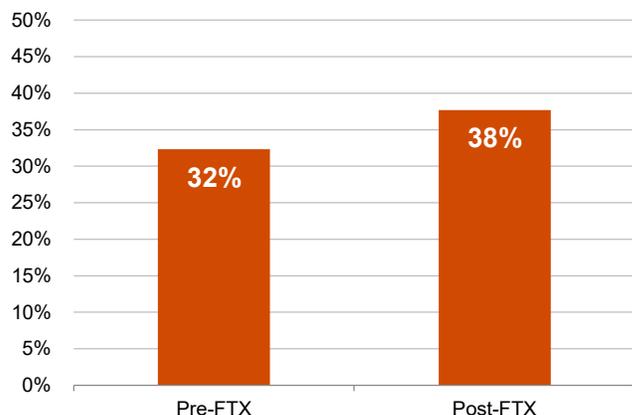


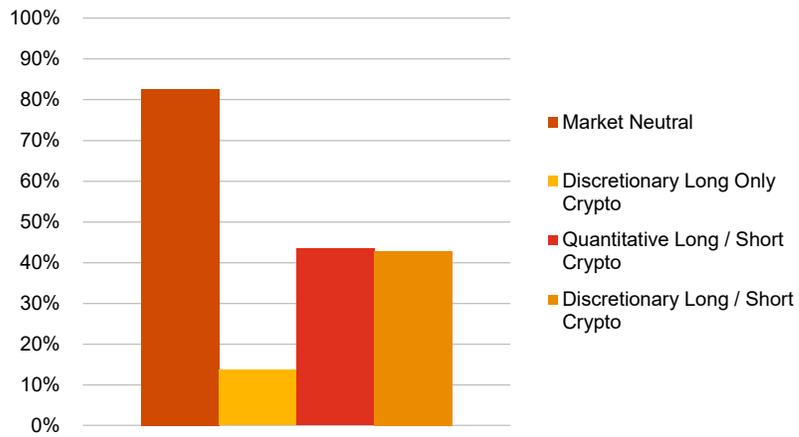
Figure 11: Crypto hedge funds using liquidity tools – pre- vs post events of 2022



Leverage

Leverage is most popular among crypto hedge funds adopting a Market Neutral strategy and least popular among those adopting a Discretionary Long Only strategy (Figure 12).

Figure 12: Fund leverage usage



Optimism despite a challenging environment

Perception change after last year's events

When asked how last year's collapse of certain players in the crypto-asset market had affected their perception of the industry, half of respondents reported no change. Despite the impact of these events on overall market sentiment, there have also

been significant technological advances in the past year. 27% of respondents feel positive about the current market – possibly because of greater investment opportunities as a result of a broad decline in crypto-asset valuations (**Figure 13**).

Figure 13: How have events from last year changed your perception of the crypto industry? (overall)

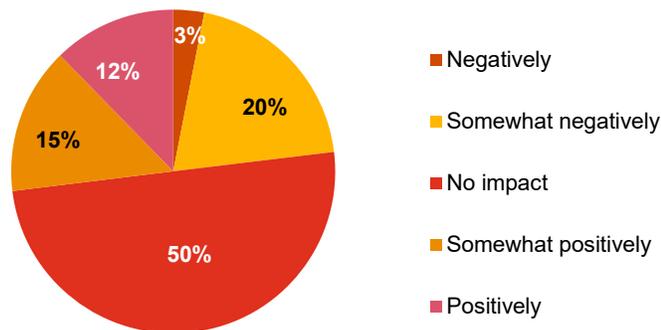
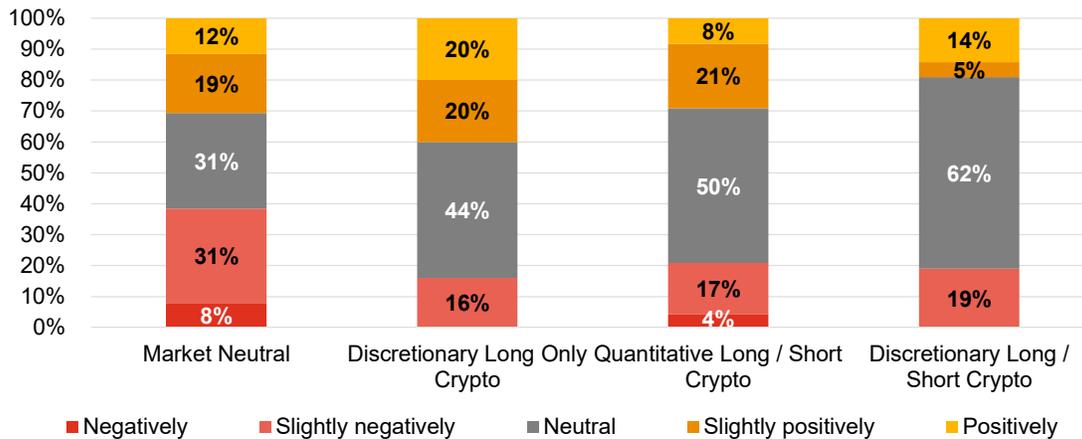




Figure 14: How have events from last year changed your perception of the crypto industry? (by top four strategy)

Calculated as a % of the number of funds adopting each strategy (e.g. of the Market Neutral funds, 8% felt negatively and 12% felt positively)



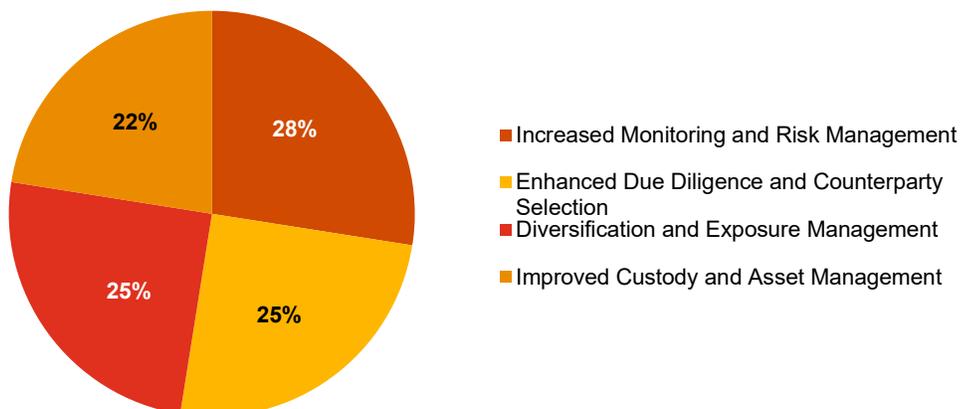
39% of Market Neutral funds felt negative about the sector as a result of last year’s events. As they had the highest exposure to these events (**Figure 14**), their negative sentiment is likely correlated with their financial losses.

Counterparty risk management

Crypto hedge funds appear to be acting prudently in adapting to the new market dynamic of rebuilding confidence in crypto. When crypto hedge funds were asked how their counterparty risk management processes have changed since last year, 53% reported taking action to update their policies. These actions are categorised below (**Figure 15**). For the 47% who reported no change, this was often because they already had robust procedures in place.

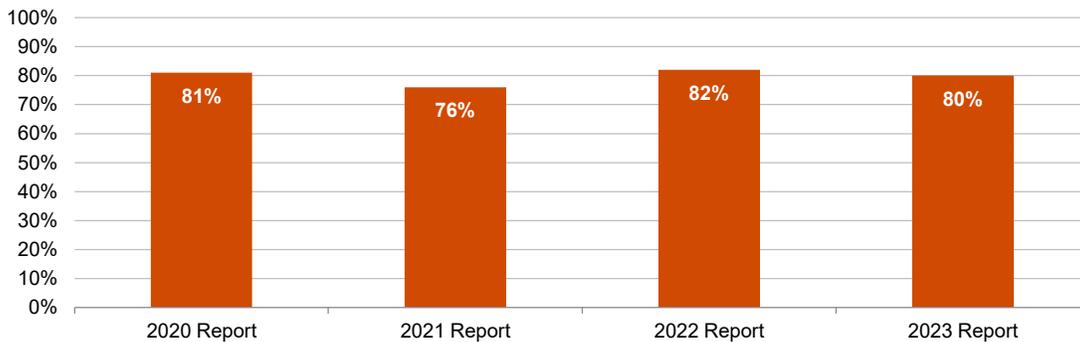
Figure 15: Changes in crypto hedge fund counterparty risk management processes

Calculated as a % of the crypto hedge funds who made changes since last year.



Evolving market structure

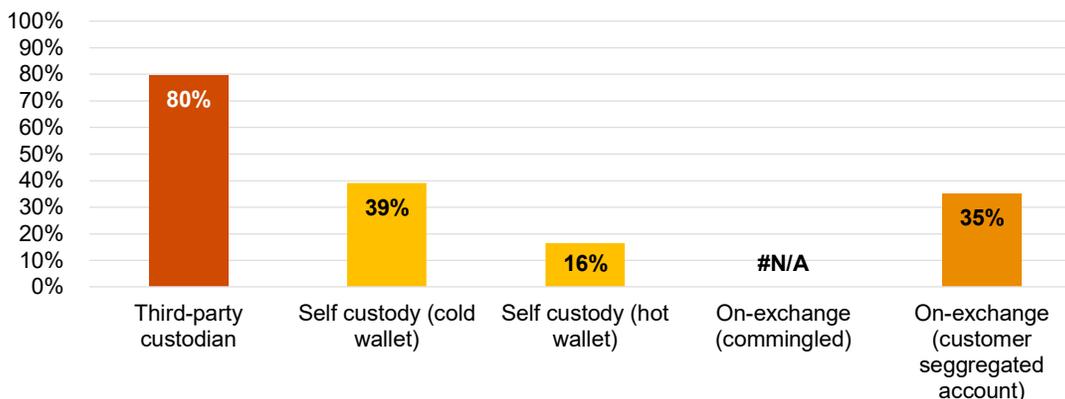
Figure 16: Historical use of third-party custodians



In this year's survey we asked respondents to list all the custody types which they are currently using to safeguard their assets⁶. Use of a third-party custodian has remained consistent, as shown in **Figure 16**. This is remarkable considering the changes in the types and total number of survey respondents.

Most respondents use multiple forms of custody to safeguard their assets and only 9% keep their crypto-assets exclusively on-exchange (**Figure 17**). It seems the overwhelming majority of crypto hedge funds are seeking to mitigate as much risk as possible after the events of last year, keeping only those assets required for day-to-day trading on-exchange.

Figure 17: Custody types overall

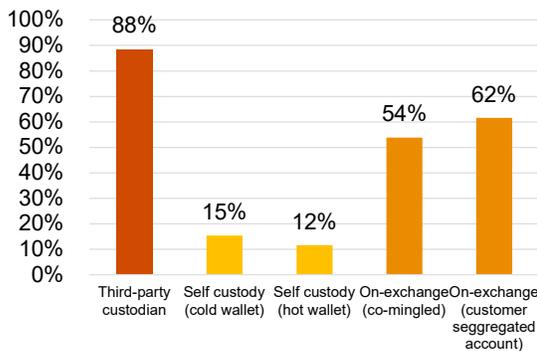


We have further analysed custody types based on the four largest strategies adopted by respondents. Market Neutral strategy funds had the least amount of assets held in cold storage and the highest amount held on exchanges. Discretionary Long Only funds had the lowest amount of assets held on exchanges – both commingled and segregated accounts. 77%

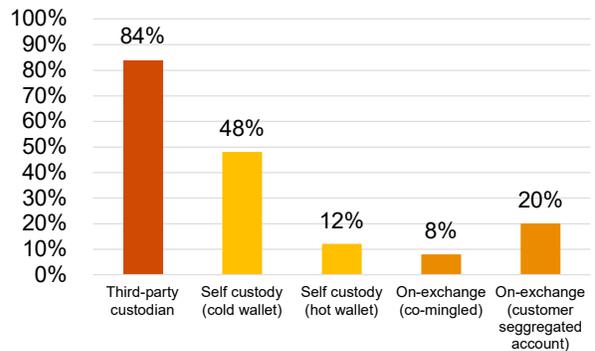
of Market Neutral crypto hedge funds had some assets on exchange (either commingled or segregated accounts), with only 15% using cold storage. However, just 2% of Market Neutral crypto hedge funds kept all their assets on exchange, with the majority adopting a multi-pronged approach (see **Figure 18**).

Figure 18: Custody types by top four strategies

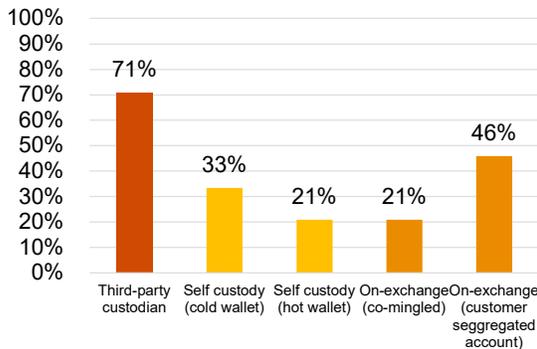
Custody types - #1 Market Neutral



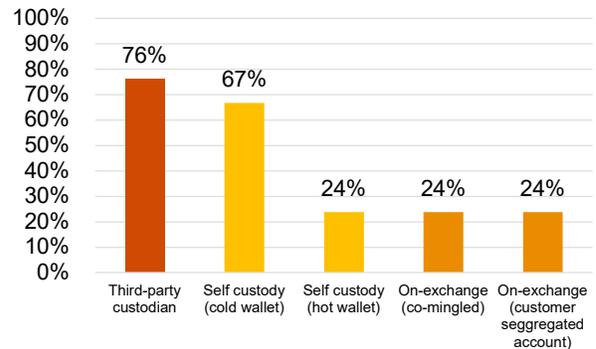
Custody types - #2 Discretionary long only crypto



Custody types - #3 Quantitative long / short crypto

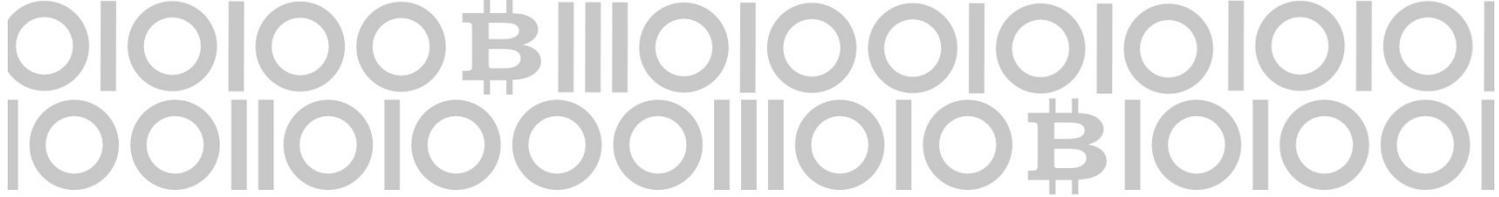


Custody types - #4 Discretionary long / short crypto



Crypto hedge funds often leave some assets on exchange for day-to-day trading liquidity, especially those implementing a high-frequency trading strategy. However, last year's market events appear to be leading to a shift away from on-exchange, centralised custody as more funds are

choosing to use a self-custody solution. Only 9% of respondents store all their assets on exchange, while 59% of crypto hedge funds use multiple types of custody. Of the respondents who use only one form of custody, 67% are using a third-party custodian.



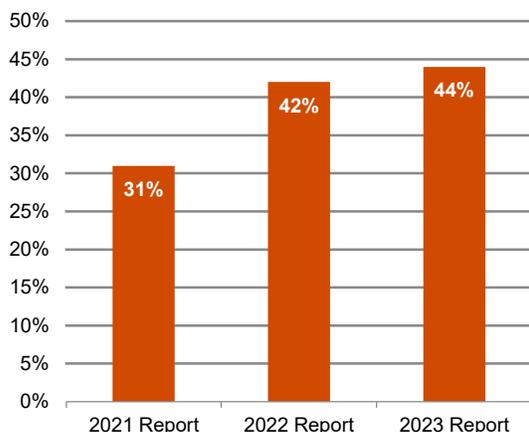
Decentralised exchanges (DEXs)

DEXs allow users to retain control of their funds without relying on a centralised entity. Market events have raised concerns among investors regarding the safety of storing crypto-assets on centralised exchanges, leading many to consider DEXs as a safer alternative. As a result, the popularity of crypto hedge funds trading on DEXs has

steadily grown over the years (**Figure 19**). Notably, dYdX and PancakeSwap have seen a significant increase in popularity among crypto hedge funds trading on DEXs, accounting for 5% and 2% respectively last year. However, Uniswap remains the most popular DEX, with its usage surging from 20% last year to 75% this year (**Figure 20**).

Figure 19: Crypto hedge funds trading on DEXs

Total Crypto hedge funds using DEXs



Proportion of strategies using DEXs in 2023

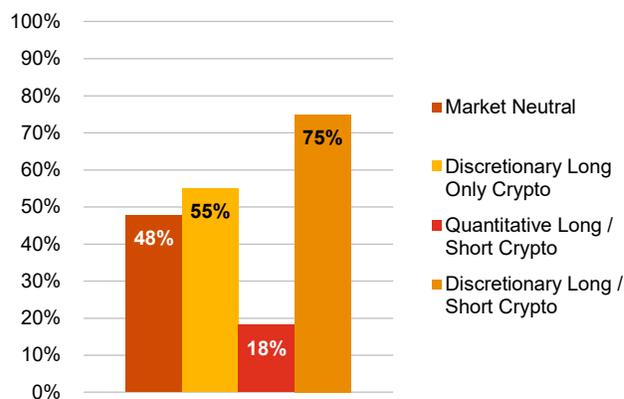
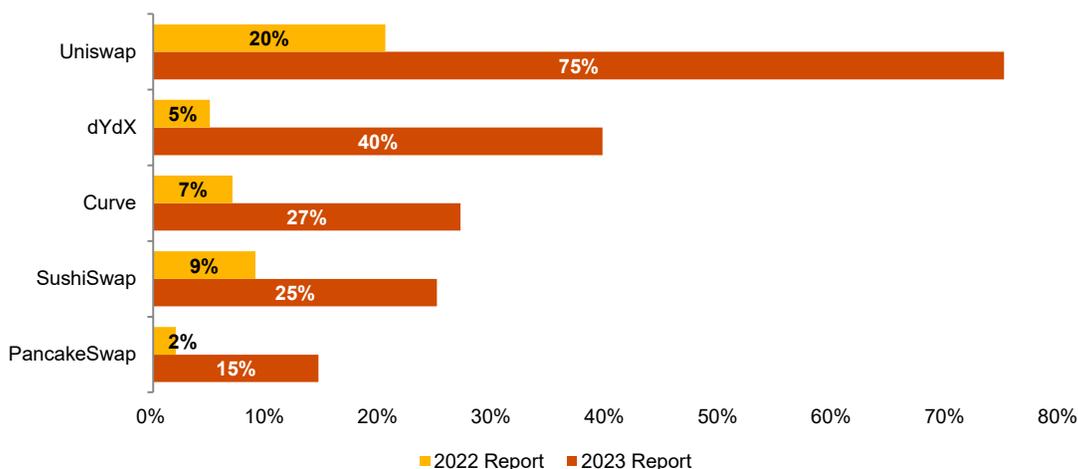


Figure 20: Top 5 DEXs used by crypto hedge funds⁷

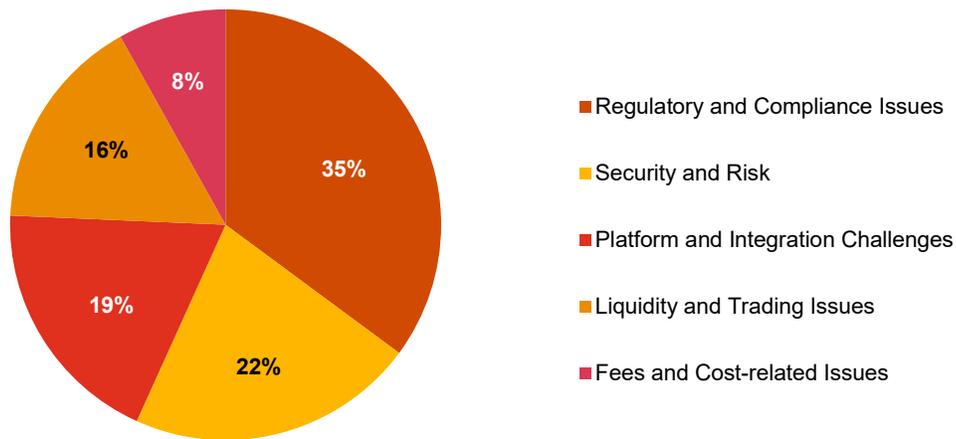


⁷ In both years there was a long tail of other DEXs used by a few respondents, which are not shown.

This year's survey demonstrates the consolidation, growth, and strength of decentralised finance (DeFi), which is in contrast to the high fragmentation seen in DEX usage in last year's survey. However, despite the perception that DeFi provides a secure alternative to centralised exchanges,

56% of respondents do not currently trade on DEXs due to a variety of concerns, including regulatory limitations and cybersecurity risks. These are listed in **Figure 21**.

Figure 21: Crypto hedge fund concerns about using DEXs

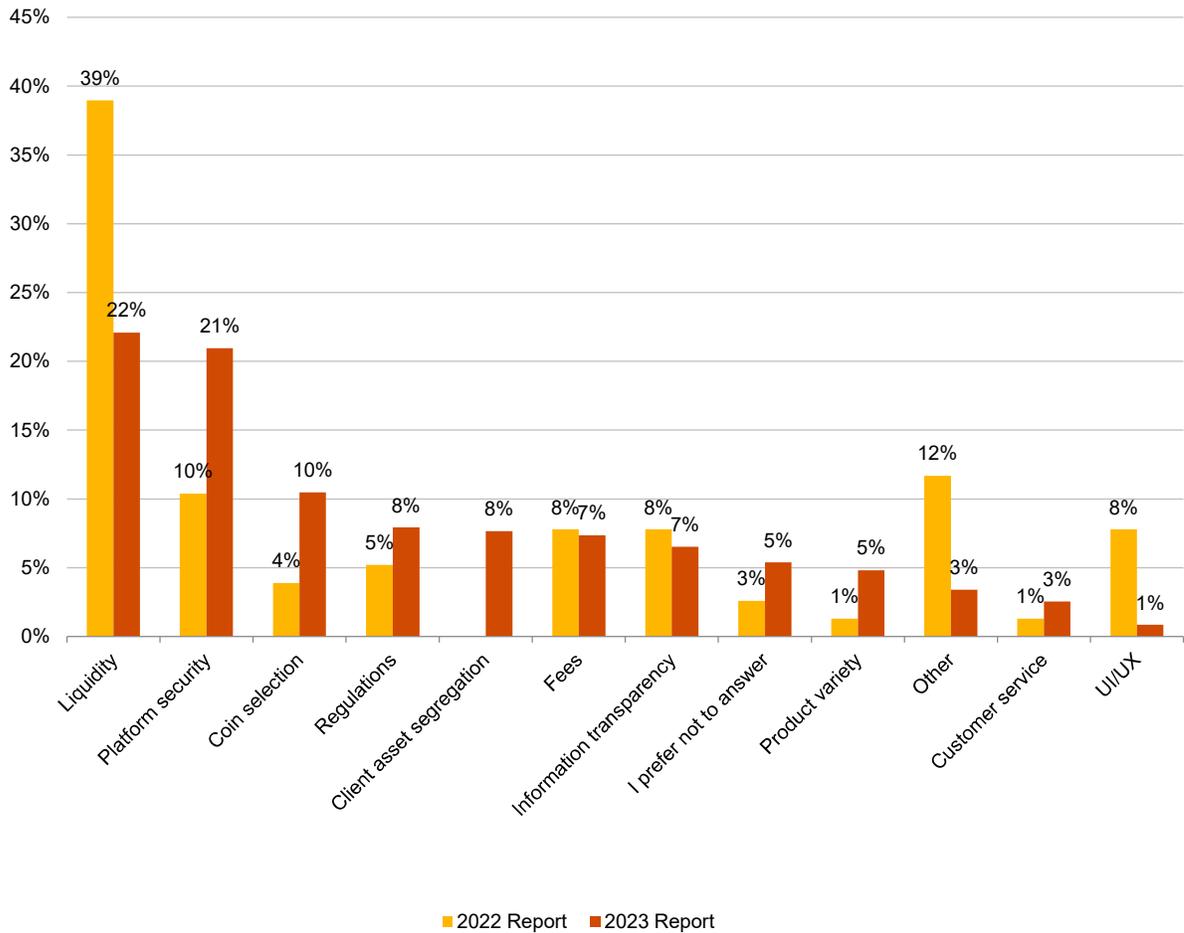


Centralised exchanges (CEXs)

The CEXs that were most popular in last year's survey continue to be favoured this year. When asked to rank the top three factors they consider when selecting a trading venue, respondents place significantly more importance on platform security, which now comes a close second to liquidity. The percentage of

respondents who viewed platform security as a top factor more than doubled from 10% to 21% in the current survey (**Figure 22**). Liquidity was by far the dominant factor last year.

Figure 22: Top factors when selecting a trading venue



An industry looking to mature

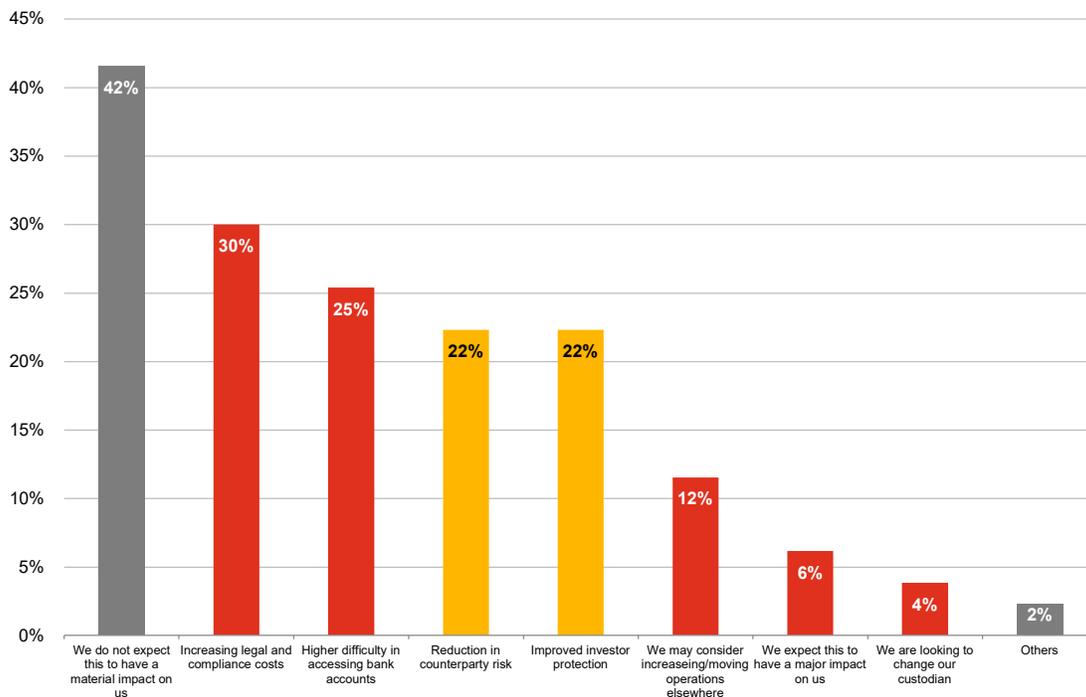
United States regulatory landscape and impact

Regulations for crypto-assets continue to evolve globally, but each jurisdiction has developed its own unique approach. While regulators in Europe and Asia offer clearer guidance, the United States (US) has taken a more cautious and enforcement-focused stance which aims to promote financial market stability, protect investors, and combat money laundering, tax evasion, and other illicit activities. But doing so may have unintentionally driven innovation to other regions with less strict regulations. Another

effect is that compliant businesses in the crypto space struggle to find banking partners to hold their fiat deposits and may consider relocating outside the US.

More than half of respondents (54%) have US operations, but when asked about the impact of US regulations on their business, there were no significant differences between funds with or without US operations. **Figure 23** provides an overview of all the surveyed funds' views on US regulation.

Figure 23: How crypto hedge funds expect US regulation to impact their operations



Responses to how increased scrutiny from US regulators may impact business operations were varied, with both positive and negative views. There is a small but

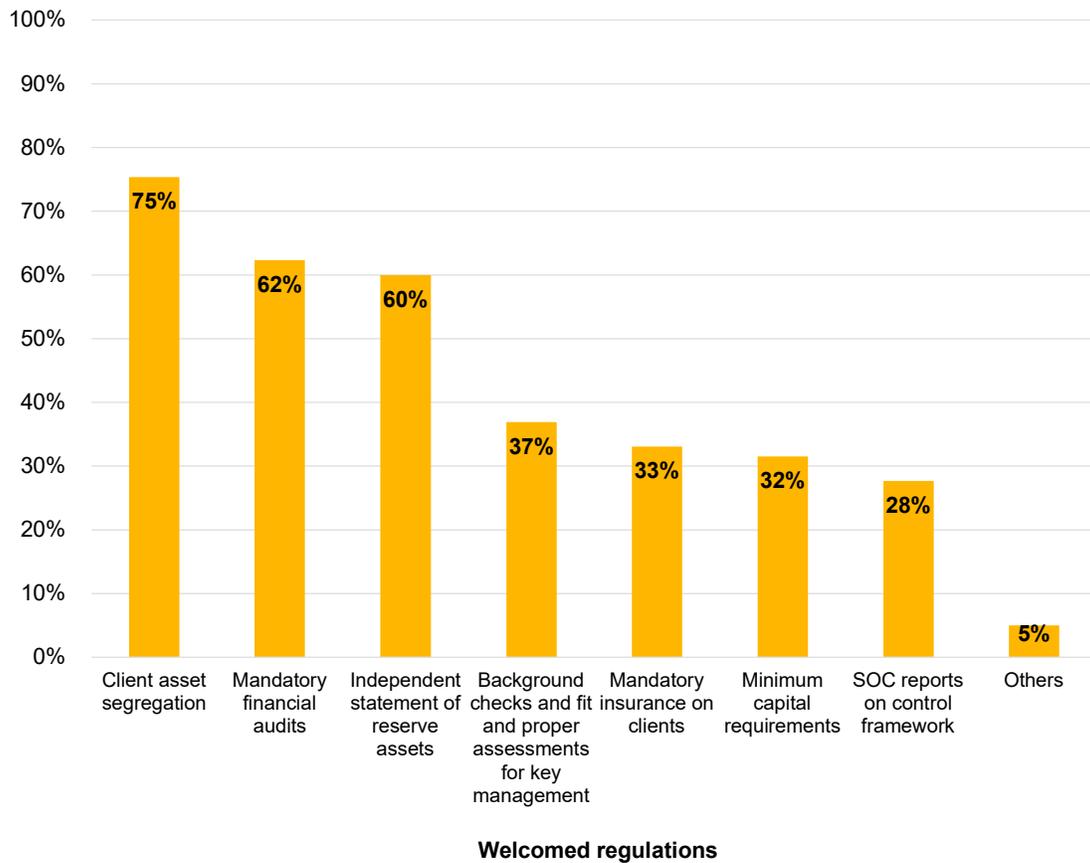
vocal minority that sees these changes having a major impact on their business, with 12% stating that they may consider moving operations overseas.

Regulation is needed

Some market participants have failed to provide transparency and accountability, while investors have shown irrational exuberance and ignored warning signs. These factors have enabled behaviours and practices that would not be permitted in more tightly regulated markets, resulting in losses for investors. As a result, there has

been a re-evaluation of what went wrong and demand from investors for better regulation, additional disclosures, and greater transparency. Crypto hedge funds, being some of the largest customers of crypto exchanges, were asked to provide insights into the types of regulation they would value most. Their responses are given below.

Figure 24: Forms of trading venue regulations demanded by crypto hedge funds



Tokenisation

The tokenisation of real-world assets is an emerging trend in 2023. However, only 15% of crypto hedge funds reported exploring investments in tokenised securities. Tokenisation is perceived as a way for traditional financial institutions to achieve greater scale, reduce settlement times, and enhance liquidity for traditional asset classes.

This may not be as relevant for hedge funds investing solely in crypto-assets. Nevertheless, 4% of crypto hedge funds are presently tokenising units of their fund, and 23% plan to tokenised units in the future. **Figure 25** outlines the assets crypto hedge funds are looking to tokenised, and **Figure 26** illustrates their most common interests in tokenisation more broadly.

Figure 25: What kinds of tokenised securities are you considering?

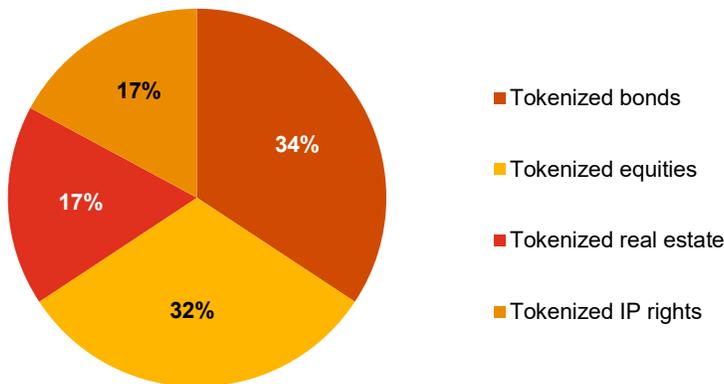
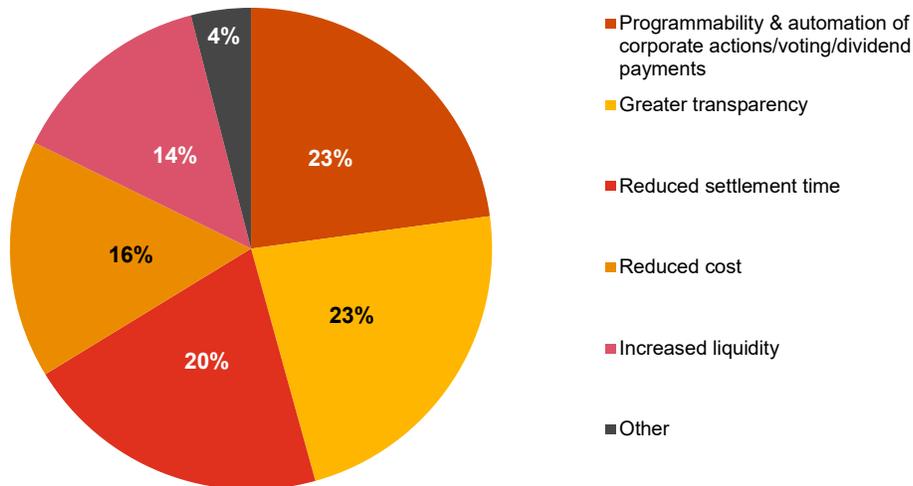


Figure 26: What is it that interests you most about tokenisation?



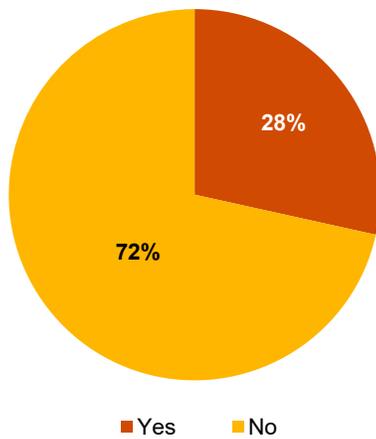
Predictions

The crypto market is known for speculation. Following Ethereum's successful completion of The Merge in 2022 – which has often been compared to changing a plane's engine in mid-air – just under a third predict

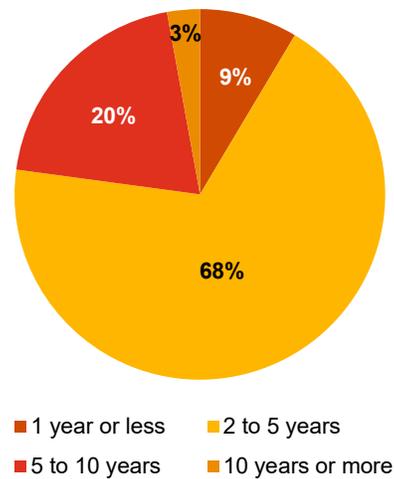
that it is only a matter of time before ETH's market capitalisation surpasses BTC's (commonly referred to as 'the flipping'). This was among several predictions given by our survey respondents this year, as shown in **Figure 27**.

Figure 27: Predictions

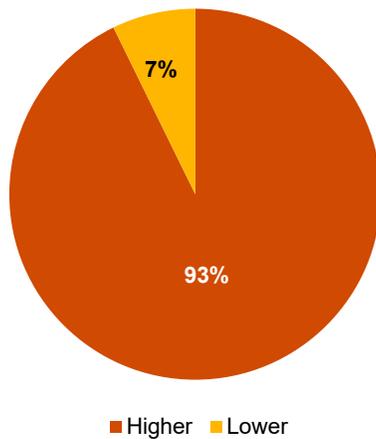
ETH to overtake BTC?



For the 28% who said "Yes", within what time frame will ETH overtake BTC?



Total crypto market cap at end of 2023 vs end of 2022 - higher or lower?



List of survey respondents

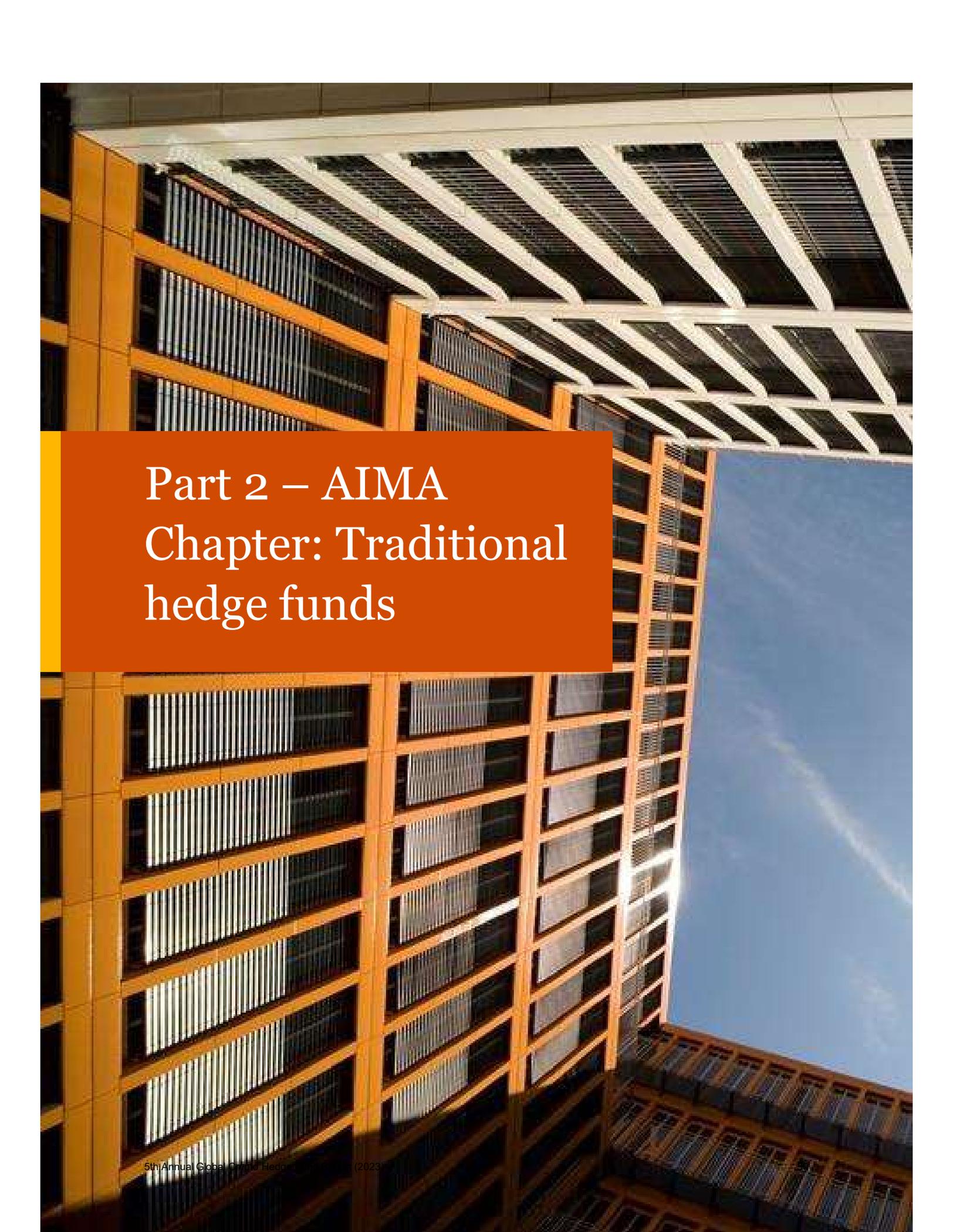
Each respondent was asked to give consent to CoinShares Capital Markets (UK) Limited and PwC for their firm name to be mentioned. Below we list the participants of this report in alphabetical order.

List of survey respondents – Part I

168 Trading Limited	CMCC Global
AGE Crypto Investments	CoinIX Capital GmbH
Algo Capital PCC	Constella Capital
Alpha Omega Digital Assets Fund	CredoCoin Capital™ (AMC 3C Capital Ltd)
Alpha Sigma Capital	Criptonite Asset Management SA
Alphabeth Quant I Limited	CryptAM Fund
Alt Tab Capital Ltd	Crypto Consulting AG
AltAlpha Strategies	Crypto Finance AG
Apollo Crypto	DACM
Arca Investment Management	DCY SRL
Arena Digital Capital Management LLC	Digital Asset Funds Management
Asha Capital Partners	Digital Capital Management
Astronaut Capital	Eltican
Atomic Fund	F5 Crypto Capital GmbH
axessum GmbH	Fasanara Investments Master Fund
Axon Enigma GP Ltd	GrandLine Technologies LLC
Belobaba Cryptoassets Fund LP	Gumbo LLC
BitBull Capital	Hartmann Capital
Bitrock Capital	Hilbert Capital
Block Asset Management	Holland Park Capital
BlockArrow LLC	Hunting Hill Global Capital
Blockchain Founders Fund	Hyperion Decimus LLC
Blockforce Capital	ID Theory Management Ltd
BLP Crypto Asset Management	Incrementum AG
BXB Capital	iVi Crypto Intelligence
ByteTree Asset Management	JKL Group

List of survey respondents – Part II

Lavaliere Capital Management LLC	SeQuant SPC
LibertyRoad Capital	Sigil PCC Limited
Lima Capital	Silver Castle
Liquibit	SkyBridge Capital
Lotus Investment Strategies	Soft Vision
M31 Capital	St. Gotthard Wealth AG
MaiCapital Limited	Stathis Strategies
Maquina Capital	Strix Leviathan
naos.xyz	Stylus Capital Partners LLC
Nickel Digital Asset Management	Swiss-Asia Financial Services Pte Ltd
Nine Blocks Capital Management	SwissOne Capital AG
Off the Chain Capital LLC	Teks Capital Ltd
Opportunity Fund	Tellurian-ExoAlpha
Panxora Management Corp	tendex GmbH
Plutus21 Blockchain Capital LLC	Times Three
Portal Asset Management	Trade terminal
Postera Capital GmbH	Tradecraft Capital LLC
PostModern Portfolio Advisors	TRYM Capital
ProChain Capital	Two Prime
Protein Capital	Typhon Capital Management
Protein Capital Management	TYR Capital Partners
Pythagoras Investments	ValidAlpha
Re7 Capital	Vestun
resetfunds	Walden Bridge Capital
Rubedo	Warwick Capital Management, Ltd
Runa Digital Assets LLC	XBTO



Part 2 – AIMA Chapter: Traditional hedge funds

Introduction

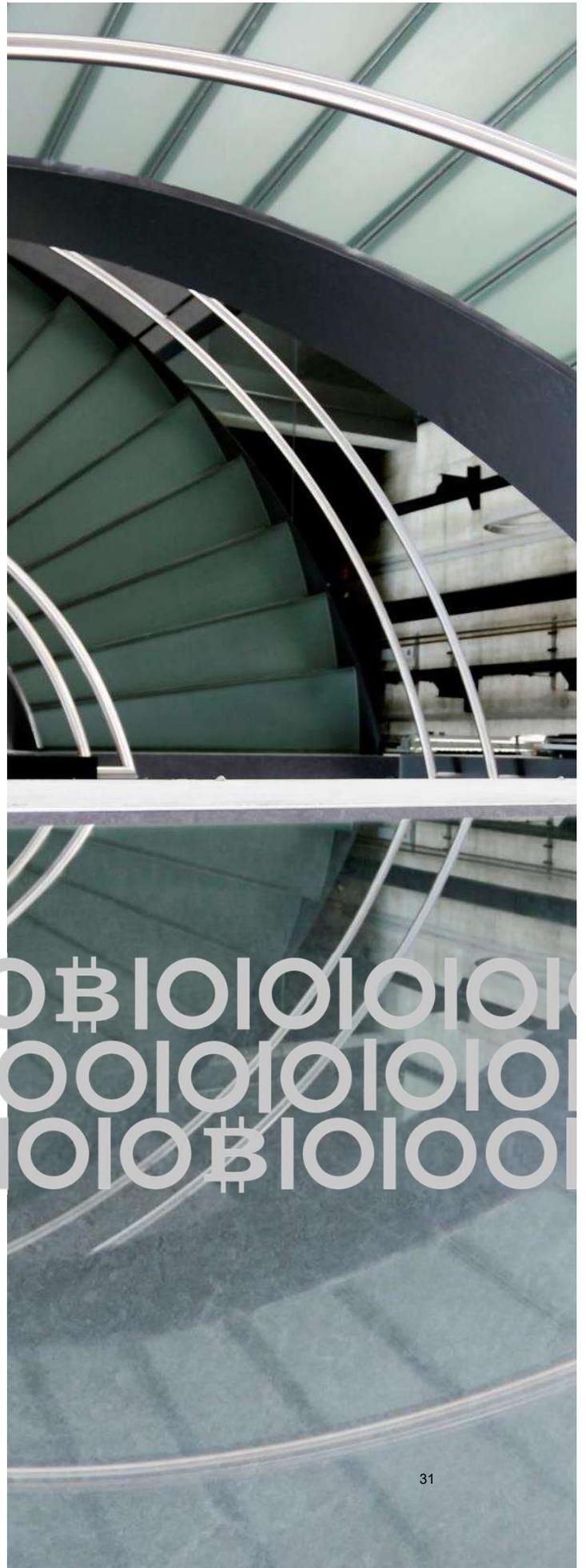
The Alternative Investment Management Association (AIMA) has partnered with PwC for a third year to offer insights into the evolving crypto-asset investment landscape for 'traditional' hedge funds (i.e. funds that do not invest, or do not invest exclusively, in crypto-assets).

AIMA's findings provide an insight into the current sentiment around crypto-asset investment by traditional hedge funds. They offer an industry perspective on some of the barriers to investing in crypto-assets and on the institutionalisation of this nascent asset class.

All input to this survey and commentary on its results came via AIMA's Digital Assets Working Group ^[1].

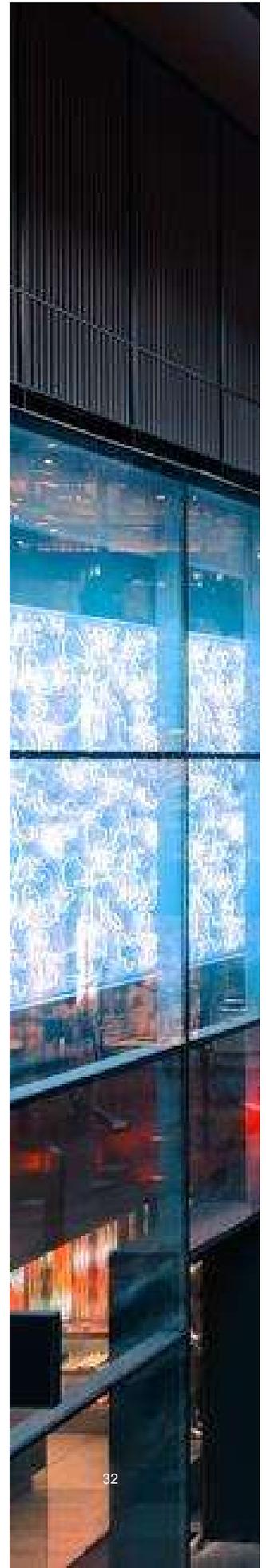


[1] AIMA's work in crypto-assets is steered by its Digital Assets Working Group. This group oversees AIMA's regulatory engagement, thought-leadership initiatives and operational guidance in the area of crypto-assets. For more information, visit www.aima.org.



Key findings

- 1** The number of traditional hedge funds investing in crypto-assets is lower than last year – 29% compared to 37%. However, average AUM invested in the asset class has increased from 4% to 7%.
- 2** Just over half of hedge funds that invest in crypto-assets intend to maintain the same levels of capital deployed this year. The remainder stated that they intend to deploy more capital into the asset class by the end of 2023. Notably, no hedge funds said they were reducing their exposure this year.
- 3** Around a quarter of hedge funds that are currently investing in crypto-assets say that increased regulatory uncertainty in the US will have a major impact or may lead them to reconsider the viability of their crypto-assets strategy. Around one-third stated that the regulatory approach in the US will increase legal and compliance costs. A third of respondents stated that it is leading to increased difficulty in accessing banking services.
- 4** A key trend coming out of this year's findings is that a quarter of hedge funds, including those that are not currently investing in crypto-assets, confirmed that they are now exploring tokenisation in the asset management sector. Around a third of hedge funds currently investing in crypto-assets believe that tokenisation of real assets will be the biggest growth opportunity in this space over the coming year.





Hedge funds not invested:

- 5** Around a third of the respondents that are not investing in crypto-assets confirmed that they are curious about the asset class, but waiting for further maturity. Just over two-thirds of these are billion dollar hedge funds.
- 6** 'Client reaction or reputational risk' has this year replaced 'regulatory uncertainty' as the greatest barrier to investing in this asset class. Around half of hedge funds not investing stated their outlook was 'negatively' or 'strongly negatively' impacted by last year's events.
- 7** Just over half of respondents confirmed that they would change their approach and become more interested in the asset class if perceived barriers – such as lack of regulatory clarity – were removed. 40% stated that the removal of barriers would not prompt them to invest in this asset class.

Hedge funds investing in crypto-assets

29% of hedge funds surveyed are currently investing in crypto-assets – down from 37% in 2022. Events such as the collapse of several companies may have caused industry participants to take a step back and re-evaluate the role of crypto-assets in their portfolios. This is particularly so for those that increased exposure as part of their broader momentum / macro strategy.

Hedge funds committed to the asset class have continued to add to their digital wallets — accounting for 7% of their AUM on average, compared to 4% last year.

A number of funds may have seen the drawdown in the wider market as an opportunity to enter at a favourable level, thus increasing their exposure.

Around half of hedge funds invested in crypto-assets have a toe-hold position, with less than 2% of their total AUM committed. Of these, 63% are hedge funds with more than US\$1 billion AUM.

38% of hedge funds active in crypto-assets have more than 5% of their AUM invested, compared to 20% last year.

Figure 27. Total hedge fund AUM % invested in crypto-assets

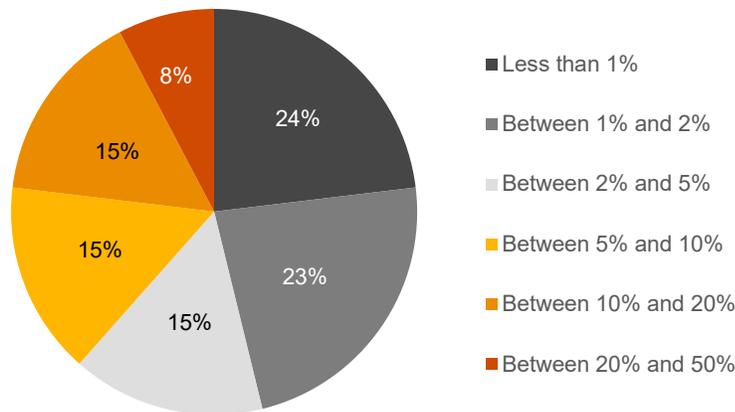
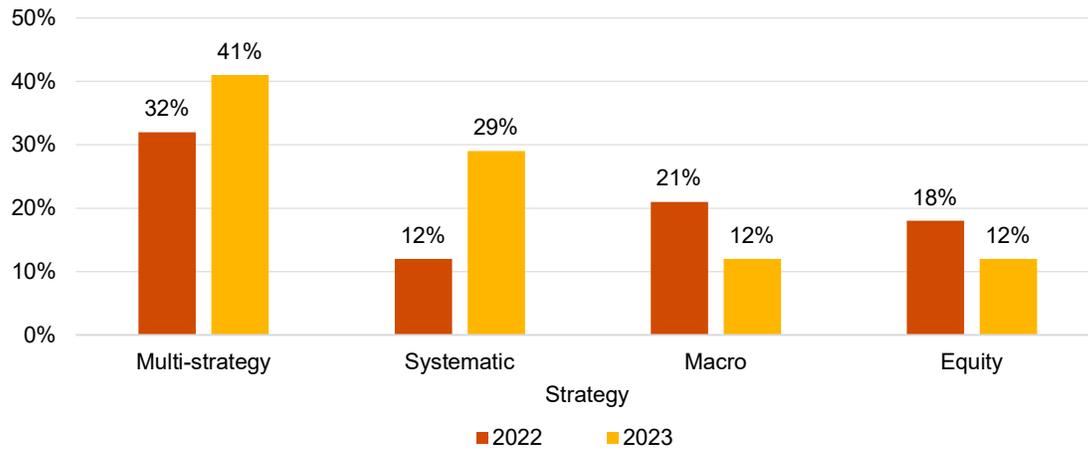


Figure 28. Hedge fund strategies, YoY comparison

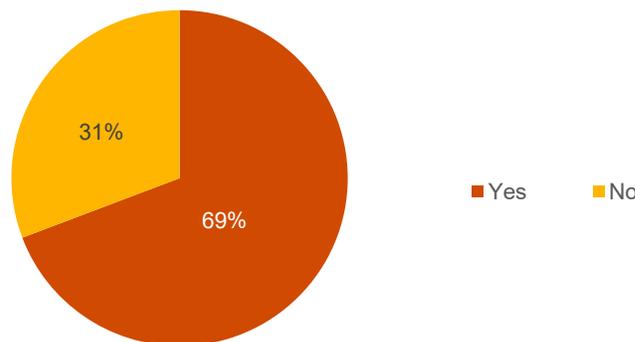


The most popular hedge fund strategies for investing in crypto-assets are multi-strategy (41%), systematic (29%), macro (12%) and equity (12%).

Impact of 2022 crypto market events on crypto-asset investment

69% of respondents who are investing in crypto-assets stated that the 2022 crypto market events impacted their hedge funds' intention to deploy more capital into crypto-assets last year (Figure 29).

Figure 29. 2022 crypto market events impact



Further investment in digital assets planned

More than half of hedge funds who are currently investing in crypto-assets intend to maintain the same levels of capital deployed this year. 46% state that they intend to deploy more capital into the asset class by the end of 2023 – down from the 67% reported last year (Figure 30).

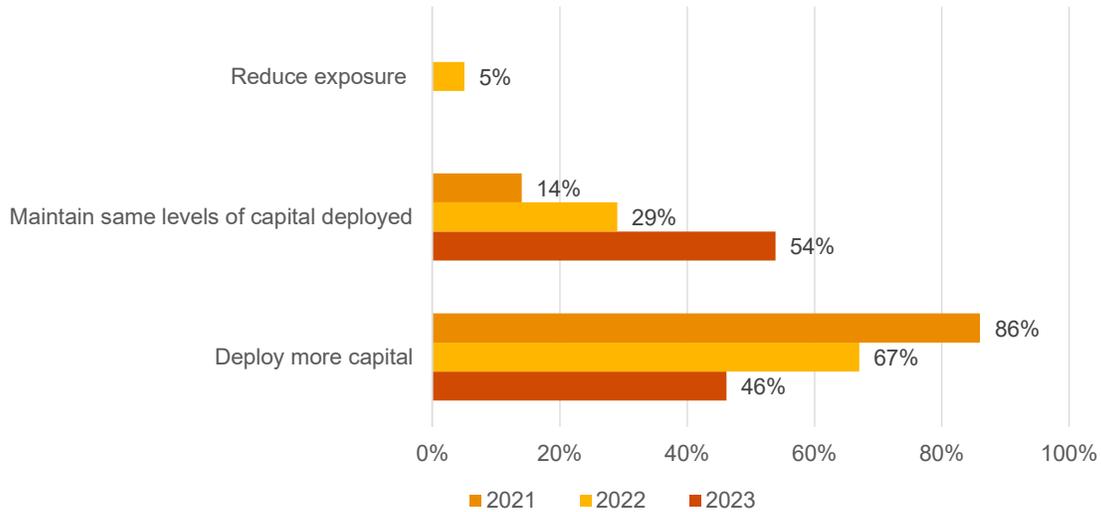
44% of hedge funds intending to deploy more capital into the asset class this year

currently have less than 2% of their AUM in crypto-assets.

Many of these funds may be awaiting further maturation of the crypto-assets ecosystem. Notably, none of the respondents said they were planning to reduce their exposure this year.



Figure 30. Crypto-asset investment plan, YoY comparison

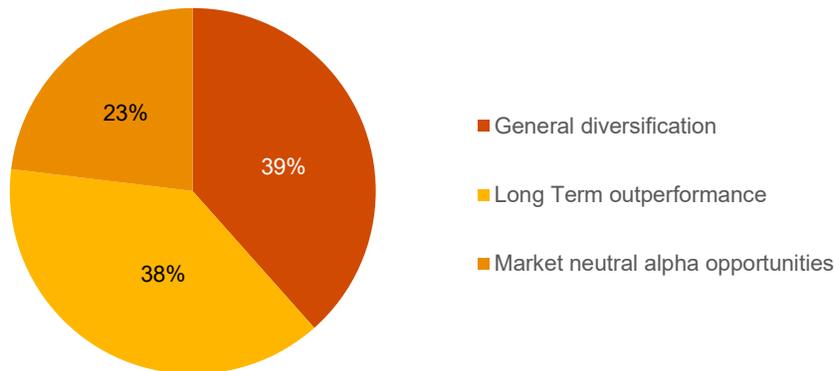


Reasons for investing in crypto-assets

As shown in Figure 31, “General diversification” or “long-term outperformance” were the most common reasons given for including crypto-assets in

portfolios (77% of respondents chose one of these survey options). The remaining 23% stated “Market Neutral alpha opportunities” as their primary reason.

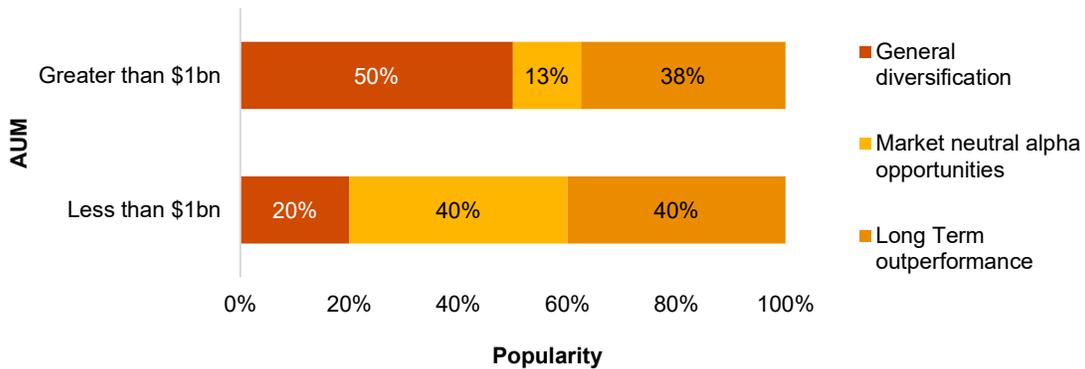
Figure 31. Reasons for investing in crypto-assets



40% of smaller hedge funds (with AUM under \$1 billion) selected “Market Neutral alpha opportunities” as their primary reason

for investing, compared to 13% of larger funds. The latter mostly chose “general diversification” as their primary reason.

Figure 32. Reasons for investing in crypto-assets, by hedge fund AUM



How hedge funds are invested in crypto-assets

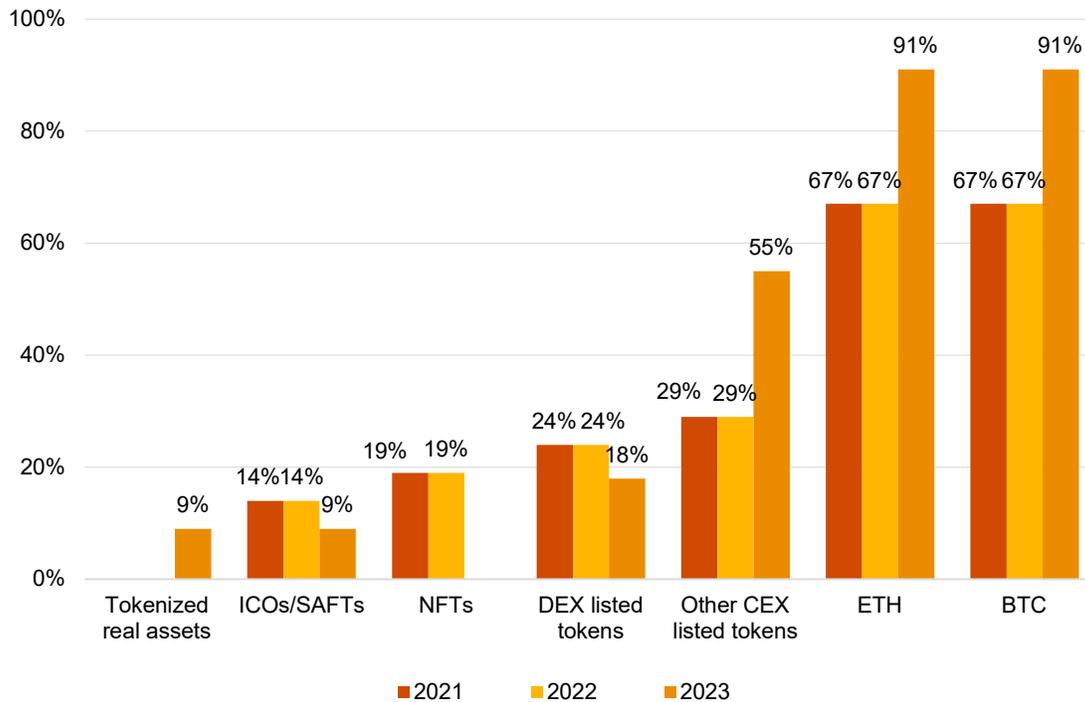
Figure 33 shows that the vast majority of respondents (91%) are invested in the two largest crypto-assets by market capitalisation and exchange volume: BTC and ETH. This compares to 67% last year.

This could indicate that traditional hedge funds are being cautious and mindful of regulatory issues. Even those investing in crypto-assets are held back by uncertainty around US regulation. The rise in popularity of Crypto Exchange-Traded Products (ETPs – see below) could be another manifestation of this.

Around half of all respondents (55%) say that they are invested in other tokens listed on centralised exchanges. 18% say that they are invested in tokens listed on decentralised exchanges. No respondents report being invested in non-fungible tokens (NFTs), compared to one in five last year. This correlates with the considerable cooling off of the NFT market since its 2021 peak.



Figure 33. Types of crypto-assets, YoY comparison



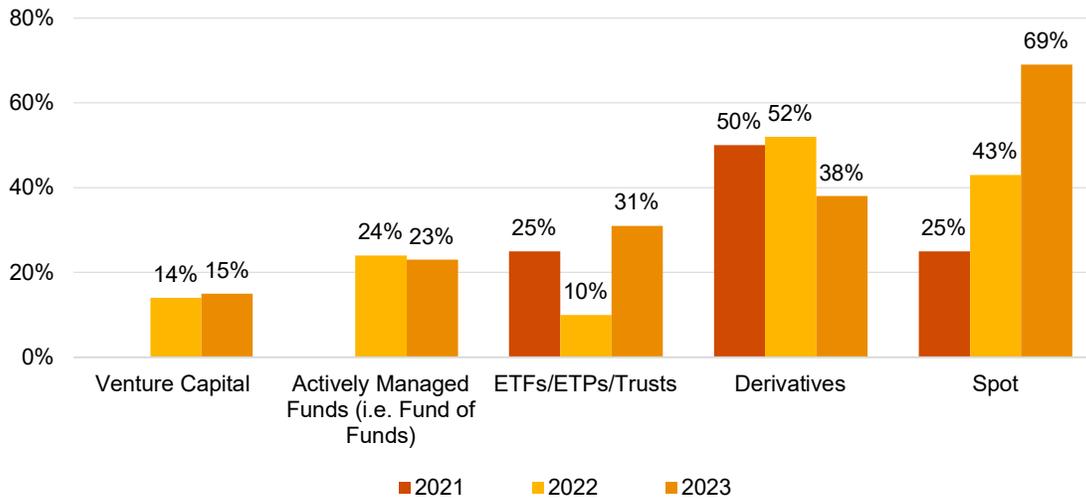
This year, we also surveyed hedge funds on their interest in tokenisation in asset management (i.e. the digitalisation of an asset or fund using blockchain technology). A quarter of respondents from across the alternative investments industry, including hedge funds not currently investing in this asset class, confirmed that they are now exploring tokenisation. The tokenisation of a fund could increase efficiency and reduce the friction that is commonplace across the asset management world, such as by enabling faster settlement times.

More than two thirds of all respondents (69%) invest in crypto-assets through spot trading – up from 43% in last year’s report (Figure 34). Respondents investing in crypto-assets through derivatives reduced to 38% from 52% last year. This could be due to increased awareness of counterparty risk.

Those adopting a passive approach account for 31% of respondents, up from 10% last year. Unless deeply involved in this space, the technology can be difficult to understand. So an increasing number of fund managers appear to be allocating to passive strategies to gain exposure.

23% of hedge funds say they are using actively managed funds/fund of funds to invest in crypto-assets, while 15% say they are invested through venture capital.

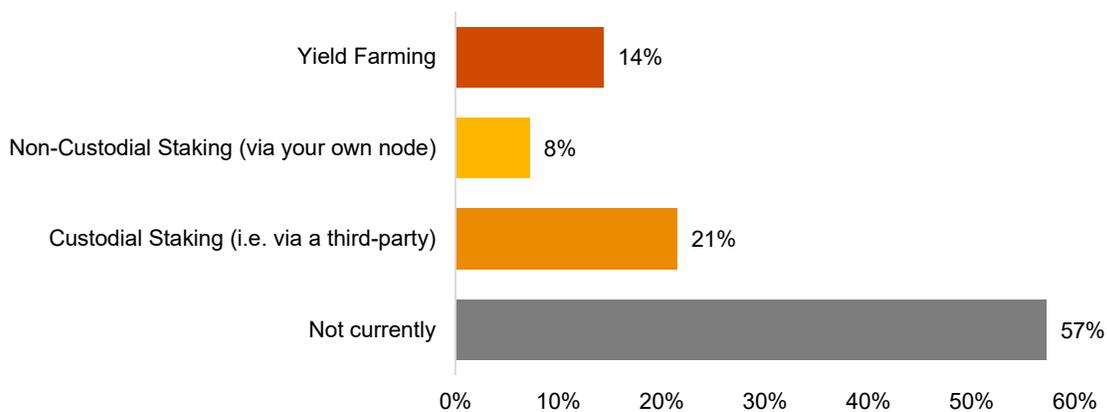
Figure 34. Exposure to crypto-assets, YoY comparison



43% of hedge funds investing in crypto-assets say they are doing so to earn passive income. If they are holding tokens long term, they could earn yield through staking income.

21% use a custodial staking service (i.e. depositing their crypto-assets in a third-party wallet) versus 8% using non-custodial staking. 14% of respondents are using yield farming (i.e. locking their crypto-assets in a decentralised application for token rewards) (Figure 35).

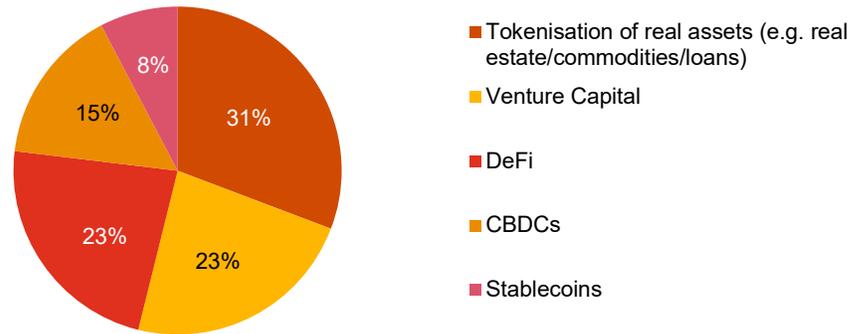
Figure 35. Earning passive income



31% of hedge funds in this asset class believe that the biggest growth opportunity over the next 12 months will be tokenisation of real assets. Tokenisation involves converting the partial or full ownership rights to an asset, such as real estate, into a digital representation in the form of a token that is stored and administered on the blockchain.

Other growth areas include opportunities in decentralised finance (23%), and venture capital (23%) (Figure 36).

Figure 36. Biggest growth opportunities in the crypto-assets market



Impact of US regulatory tightening

Regulatory tightening, exacerbated by the collapse of several companies in 2022, has altered the landscape. 23% of hedge funds state that it will have a major impact or will lead them to reconsider the viability of their crypto-assets strategy. More than one third (38%) expect higher legal and compliance costs, while 31% say it is leading to increased difficulty in accessing banking services.

Trading and custody

More than half (54%) of respondents selected mandatory client asset segregation as the most welcome regulation for centralised exchanges. This gives greater user confidence when depositing (and leaving) assets on exchange. 15% selected the need for independent statements of proof of reserves. However, while helpful, these are not audits and so do not provide any indication of the exchange's liabilities and assets.

The remaining choices were evenly spread and included: background checks and fit and proper assessments for key management; System and Organisation Controls (SOC) Reporting on control framework; mandatory financial statement audits; and minimum capital requirements.

Of the various custody mechanisms being adopted by hedge funds, 92% are using a third-party custodian, 31% are using self-custody and 38% have their crypto-

assets on a custodial crypto-asset exchange. In the wake of the events of 2022, increased attention is being paid to where the assets are stored and a multi-pronged approach is being widely adopted.

Main challenges for hedge funds investing in crypto-assets

The top four challenges cited by hedge fund managers are (in descending order):

- Concentration risk or lack of transparency (contagion risk)
- Access to traditional banking services
- Lack of regulatory and tax regime clarity
- Insufficient or unreliable third-party data

Market infrastructure improvements needed

As with previous years, no particular area of market infrastructure was judged as being overwhelmingly adequate.

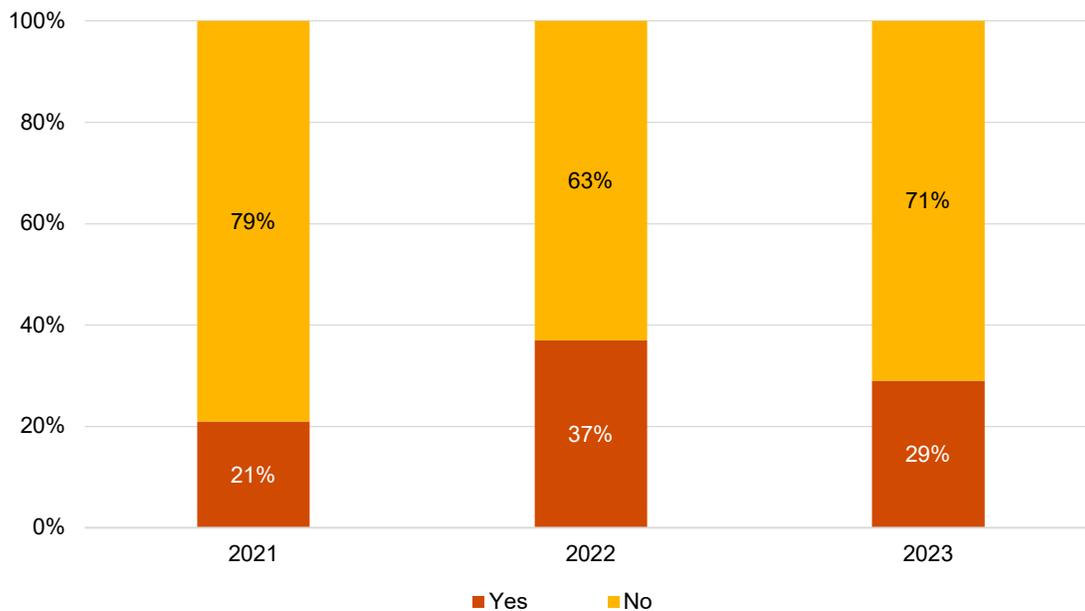
Custody services are viewed as the area most in need of essential improvements. This might correlate with the US Securities and Exchange Commission's proposal in February 2023 to expand the advisers' custody rule to apply to crypto-assets. This requires further clarity over how funds can trade crypto-assets in an efficient manner while complying with the proposed rule. Other areas cited by respondents include 'accountancy, audit and tax services' and 'compliance and risk services'.

Hedge funds not invested in crypto-assets

More than two thirds of the hedge funds that responded to the survey are not currently invested in crypto-assets (71%) (Figure 37), compared to 63% last year. The events of 2022 would appear to have slowed institutional adoption.

Of those not invested in crypto-assets, 60% are from hedge funds with US\$1 billion or more in AUM.

Figure 37. Investments in crypto-assets, YoY comparison



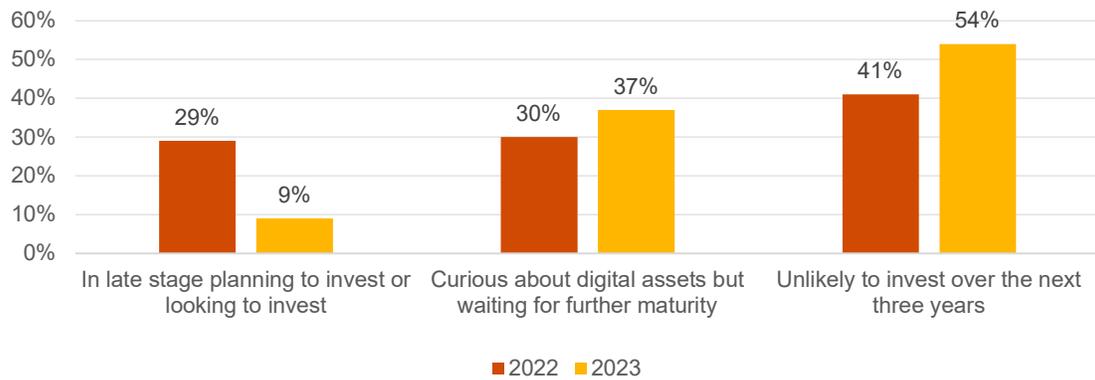
As shown in Figure 38, more than a third (37%) of respondents not yet invested in crypto-assets confirm that they are curious but waiting for further maturity – this is an increase from the 30% reported last year.

More than two thirds (69%) of those curious about the asset class are billion dollar hedge funds.

54% of hedge funds not currently invested say that they are unlikely to invest over the next three years (compared to 41% last year).

Of the remainder, 9% say that they are in late stage planning to invest or looking to invest but still researching the space.

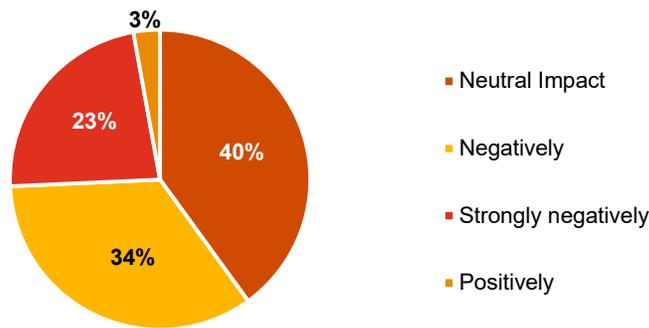
Figure 38. Crypto-asset investment plan, YoY comparison



Last year’s crypto-asset market events were seen overwhelmingly negatively by traditional hedge funds. 57% stated their outlook on the asset class was negatively or strongly negatively impacted. Of those funds, 70% manage in excess of US\$1

billion. Meanwhile, 40% said that last year’s events had a neutral impact on their outlook for the crypto-assets market.

Figure 39. 2022 crypto market events impact



Reasons for hedge funds not investing in crypto-assets

The four main reasons or obstacles cited by hedge funds are (in descending order):

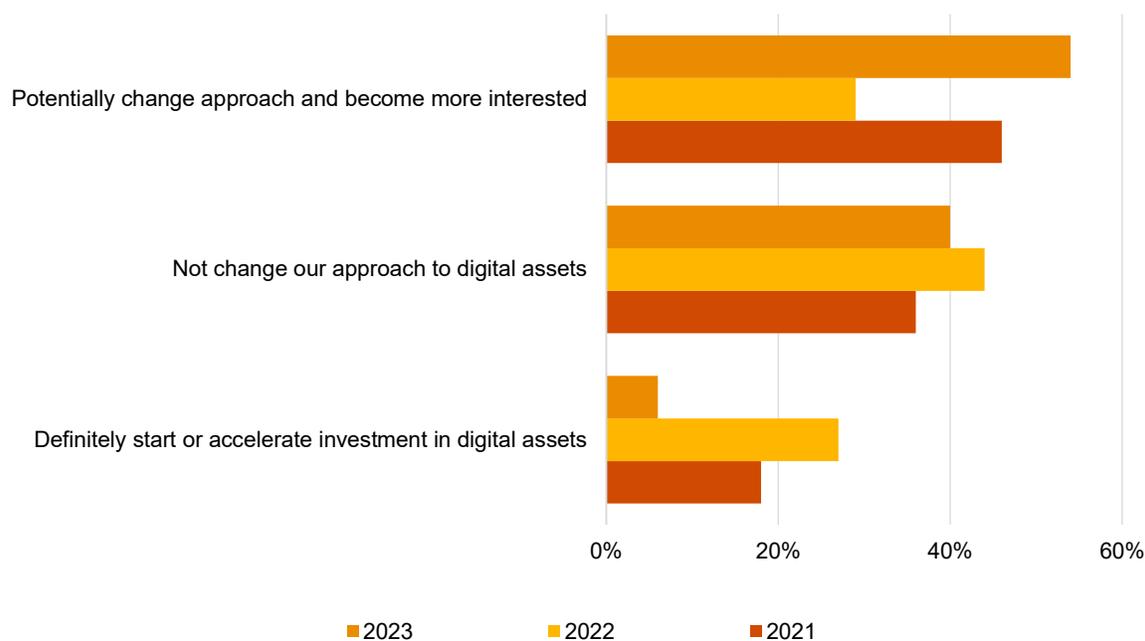
- Client reaction or reputational risk
- Lack of regulatory and tax clarity
- Insufficient or unreliable third-party data
- Outside the scope of current investment mandate.

These are largely consistent with last year’s findings, although ‘client reaction or reputational risk’ now exceeds regulatory uncertainty.

The maturity and availability of infrastructure and service providers for crypto-assets fell off the list of the greatest barriers this year. This is perhaps indicative of the growth of crypto-asset service providers and mainstream financial institutions also entering this market, though there is clearly still room for further maturity and development of institutional-grade infrastructure, such as triparty agreements to increase trust within the space.



Figure 40. Removal of main obstacles to crypto-asset investment, YoY comparison



As shown in Figure 40, around half of respondents (54%) say that if perceived barriers were removed, they could change their approach and become more interested in the asset class, an increase from 29% last year.

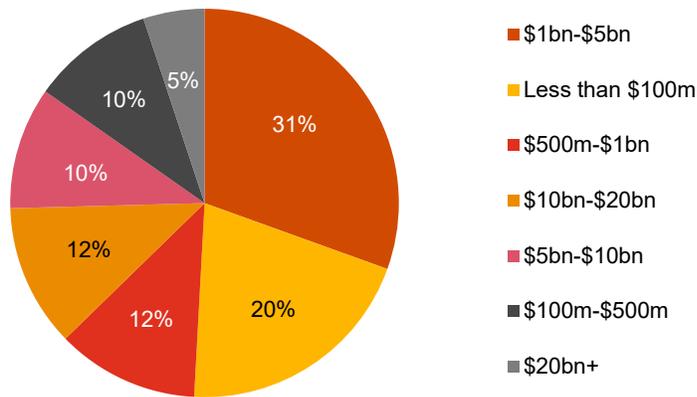
6% of respondents stated that if the main barriers were removed, they would definitely start or accelerate investment in crypto-assets, compared with 27% last year.

40% stated that the removal of barriers would still not impact their current approach.

About the research

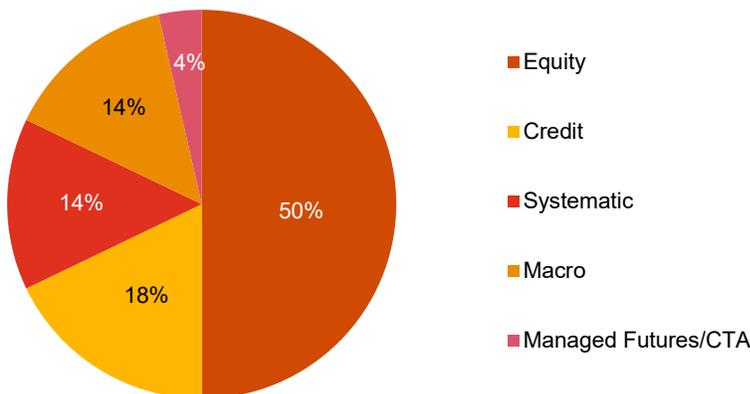
The research contained in this chapter comes from a survey that was conducted in Q1 2023 by AIMA, with 59 hedge funds that accounted for an estimated US\$280 billion in AUM.

Figure 41. Total hedge fund AUM of all survey respondents



58% 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 to the survey were equity (50%), credit (18%), systematic (14%) and macro (14%).

Figure 42. Hedge fund strategies of all survey respondents



About PwC

At PwC, our purpose is to build trust in society and solve important problems. We are a network of firms in 152 countries with nearly 328,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

The PwC Global Crypto team is composed of over 200 professionals active in over 25 countries who offer a one-stop shop solution 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.

Editorial Team & Contributors

John Garvey

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

Peter Brewin

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

Gaven Cheong

Partner, Tiang & Partners
gaven.cheong@tiangandpartners.com

Joe Wiggins

Global Alternatives AWM Leader, PwC US
joe.wiggins@pwc.com

Colleen Crowley

Partner, PwC US
Colleen.Crowley@pwc.com

Matthew Blumenfeld

Director, PwC US
matthew.blumenfeld@pwc.com

Matthew Livesley

Manager, PwC Hong Kong
matthew.m.livesley@hk.pwc.com

Olwyn Alexander

Global AWM Leader, PwC Ireland
olwyn.m.alexander@ie.pwc.com

Josephine Kwan

Partner, PwC Hong Kong
josephine.wt.kwan@hk.pwc.com

Adrian Keller

Partner, PwC Switzerland
adrian.keller@pwc.ch





About CoinShares

CoinShares is the European leading alternative asset manager specialising in crypto-assets, that delivers a broad range of financial services across investment management, trading and securities to a wide array of clients that includes corporations, financial institutions and individuals. Focusing on crypto since 2013, the firm is headquartered in Jersey, with offices in France, Stockholm, the UK and the US.

CoinShares is regulated in Jersey by the Jersey Financial Services Commission, in France by the Autorité des marchés financiers, in the US by the Financial Industry Regulatory Authority. CoinShares is publicly listed on the Nasdaq Stockholm under the ticker CS and the OTCQX under the ticker CNSRF.

Alexandre Schmidt

Investment Analyst

CoinShares



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 set up the Alternative Credit Council (ACC) to help firms focused in the private credit and direct lending space. The ACC currently represents over 250 members that manage US\$800 billion of private credit assets globally.

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). For further information, please visit 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.

© 2023 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.