

CF CRYPTO FUND RESEARCH

2022 Q4

Crypto Fund Quarterly Report



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Introduction

Purpose

Crypto Fund Quarterly Report Q4 2022

Crypto Fund Research's quarterly crypto fund reports provide a snapshot of the industry at quarter's end, as well as a detailed look at industry trends across time. We hope the quantitative data and related insights provided by these reports play a positive role in continuing to improve the crypto fund industry's transparency and provide useful metrics for crypto funds and other participants to benchmark their growth, operations, and best-practices.

In the interest of providing the broadest possible coverage, the report covers crypto hedge funds, venture funds, hybrid funds, private equity funds, fund of funds, and passive funds. Where not otherwise noted, the term "crypto fund" is used in a manner inclusive of this wide variety of fund types.

Market Overview

As of the end of Q4, 2022 there were more than 880 crypto funds across the globe with primary offices in more than 80 countries. While the pace of new fund launches was considerably slower in 2022 than in previous years, new fund launches still outpaced closures.

In Q4, crypto funds lost 18.6% versus a drop of 14.8% in Bitcoin. While crypto funds generally outperform in bearish conditions, the fallout from the collapse of FTX caused writedowns in a significant number of funds.

In the News

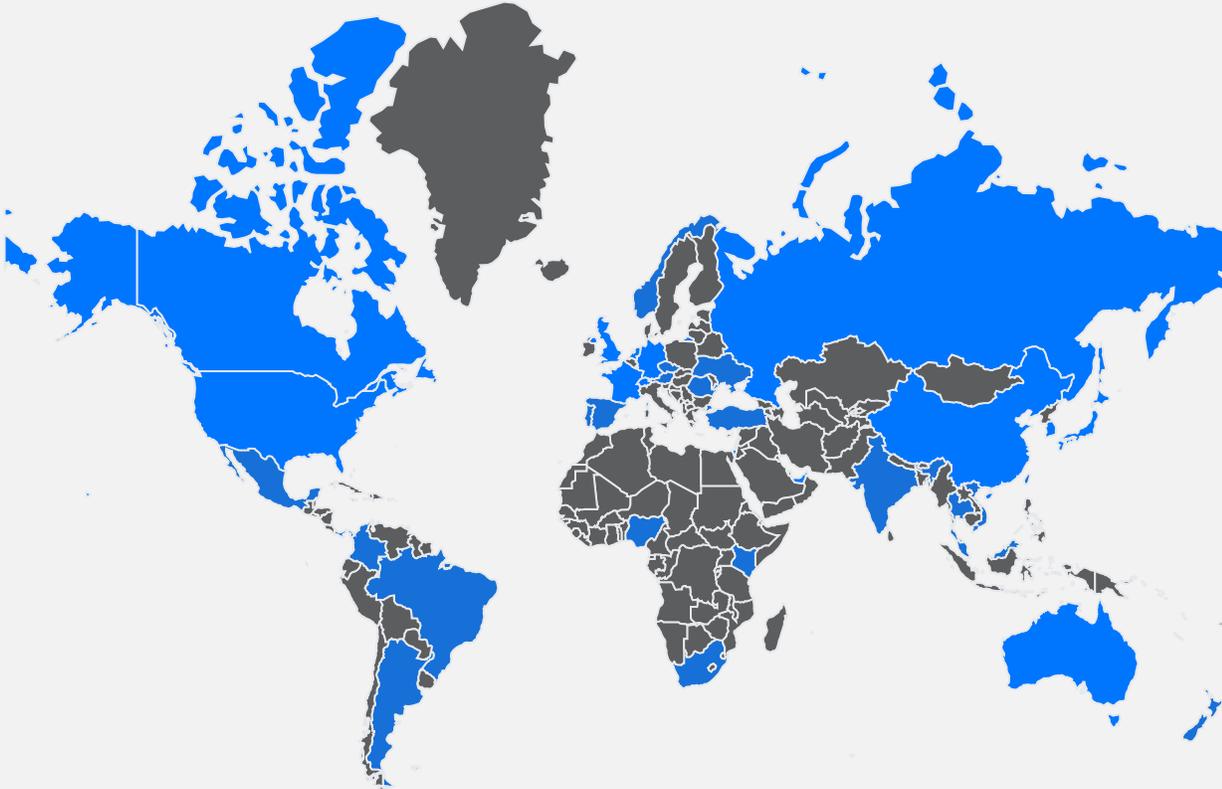
The Bad

- The collapse of FTX and its trading partner Alameda Associates caused chaos for many crypto funds that were unable to pull client assets from the exchange. Several funds had half or more of client assets suddenly become inaccessible.
- The chaos from FTX was not limited to just crypto hedge funds. The ProShares Bitcoin Strategy ETF had trading halted briefly after tripping the exchange's circuit breakers.

The Good

- Fidelity Investments' crypto division offered its clients access to Ethereum via its Ethereum Index Fund.

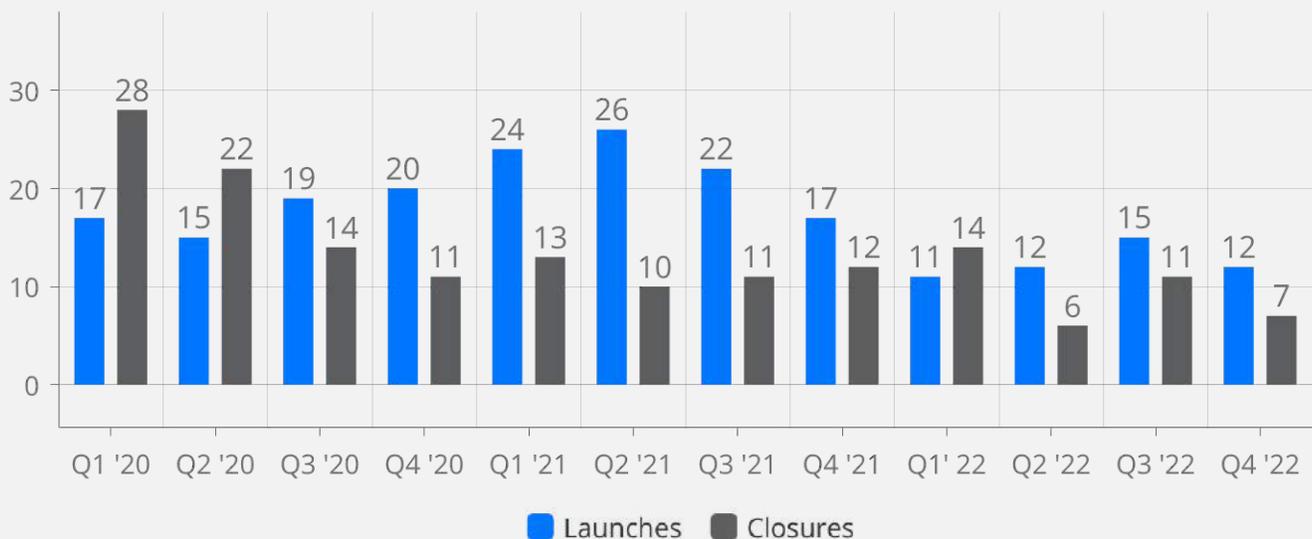
Crypto Fund Industry Overview



The pace of new fund launches remains tepid, but new launches exceeded closures for the third consecutive quarter in Q4.

Crypto Fund Launches vs. Closures

Q1 '20 - Q4 '22



Crypto Fund Industry Overview

Just over half of all crypto funds are based in North America - most in the US. Europe and Asia are each home to around 20% of funds.

However, it's important to note that crypto funds tend to be more likely to have "distributed" workforces than traditional funds.

A 2022 [survey of crypto funds](#) by Crypto Fund Research found that rather than maintaining one or more physical offices, 34% of funds do not rely on a physical office and instead have employees working from home or other locations around the world.

While the majority of crypto funds have a primary office location in the US, less than 20% are technically domiciled there (as a Delaware company, for example). For a variety of tax, legal, and regulatory reasons, the Cayman Islands and the British Virgin Islands are the predominant offshore legal domiciles for crypto funds. Together these offshore locales are the domicile for 49% of crypto funds. This is relatively consistent with studies of traditional hedge funds that have found about one third are domiciled offshore with only 20% domiciled in the US.

Crypto Funds by Continent
Primary Office Q4 '22



Crypto Funds by Legal Domicile
Q4 '22



Crypto Fund Industry Overview

A plurality of crypto funds can be broadly categorized as venture funds, followed closely by crypto hedge funds.

Crypto Funds by Type
Q4 '22



Crypto fund assets under management (AUM) fell in the fourth quarter of 2022. This was a result of client redemptions amidst the uncertainty surrounding FTX as well as drop in cryptocurrency prices more generally. In fact, the drop in crypto fund assets in Q4 was the largest quarterly drop to date.

Cumulative Crypto Funds' AUM
Q2 '19 - Q4 '22 (Millions USD)

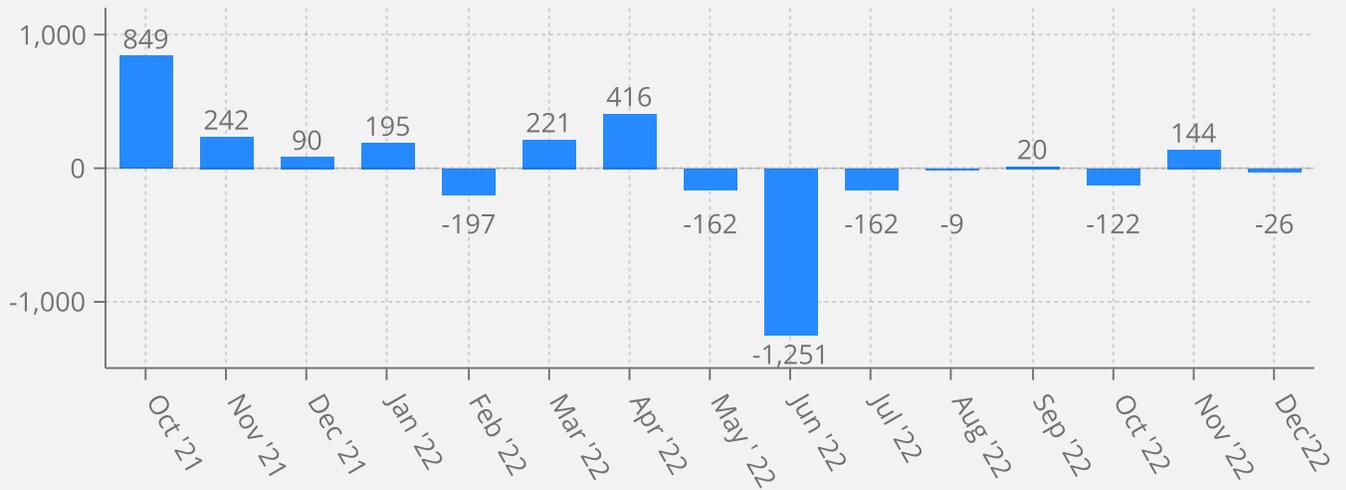


Crypto Fund Industry Overview

Crypto fund flows are an important indicator of investor sentiment. They are the net of new investor subscriptions and redemptions and are calculated independently of changes in the performance of funds' underlying assets.

Crypto Fund Net Flows

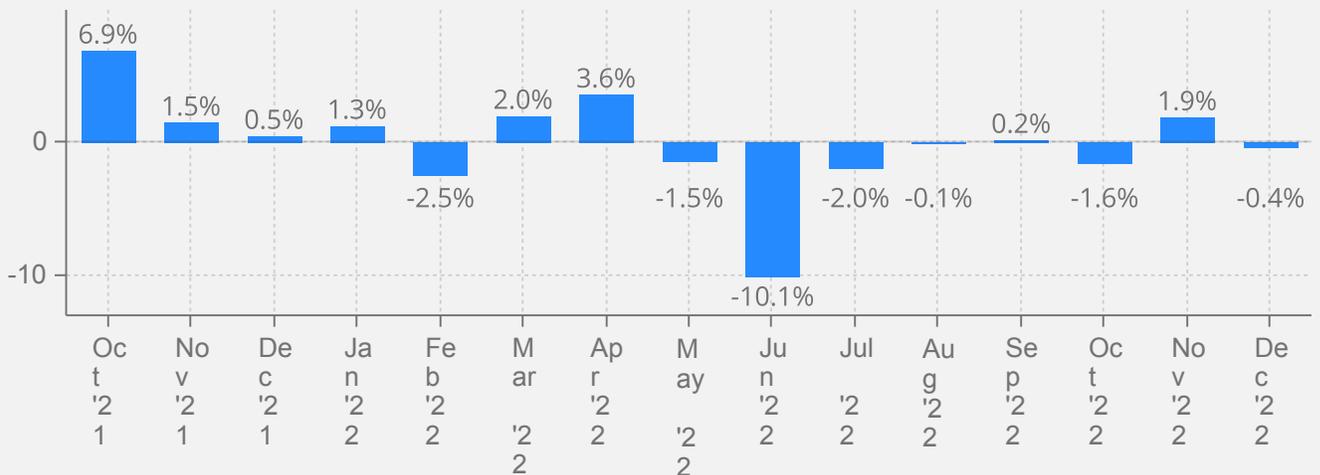
Monthly absolute net in/outflows for crypto hedge funds (\$ millions USD)



Crypto fund outflows were minimal in Q4. However, we expect to see greater outflows in Q1 2023 as redemption requests following the FTX blowup are processed.

Crypto Fund Net Percentage Flows

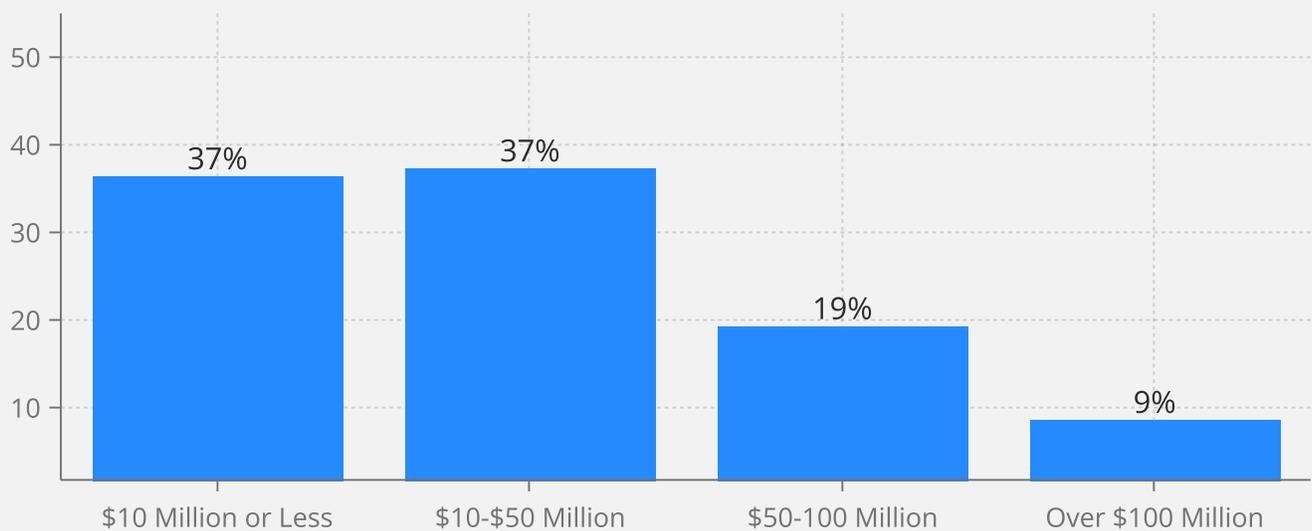
Monthly crypto hedge fund net in/outflows as a percentage of assets reported in the prior period



Crypto Fund Industry Overview

Though crypto fund AUM has continued to grow, assets remain highly concentrated in the hands of a couple dozen funds. However, until Q4, the recent trend had been one of growing size of crypto funds. This is primarily due to strong performance as well as attrition by some smaller funds.

Crypto Fund Asset Size
By Fund AUM Q4 2022



\$48.3 Billion

Crypto Fund Research estimates that as of the end of Q4 2022, crypto funds collectively managed approximately \$48.3 billion in assets. This includes crypto hedge funds, venture funds, and index funds and represents a significant decline from the end of 2021 when crypto fund assets peaked.

36.5%

Q4 was a bit of an aberration from the recent trend of a growing number of large funds. In Q4, partly as a result of the failure of several larger funds, the proportion of funds with assets of less than \$10 million snuck up to 37%.

Crypto Fund Industry Overview

Due to the variation in size and vintage between crypto funds, it can be useful to look at median figures for some key operational metrics as shown below:



Median Fund AUM

Crypto fund assets are quite top-heavy and highly concentrated in the hands of a couple dozen funds. In fact, more than a quarter of all assets are managed by the 5 largest crypto fund companies. 37% of crypto funds manage USD 10 million or less in crypto assets.



Median Number of Employees

Though some crypto funds have a dozen or more employees, most funds are relatively small. The median number of full-time employees in non-advisory roles is eight.

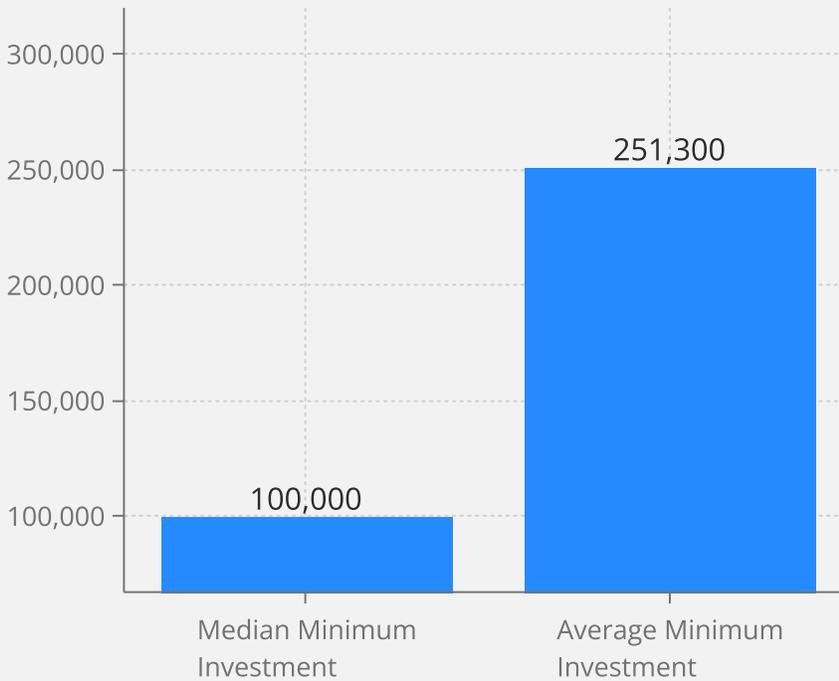


Median Number of Investments

Among crypto/blockchain-only venture funds, the median number of investments made since inception is 32. Most of these investments are early-stage investments and older vintage funds tend to have made a greater number of total investments.

Crypto Fund Industry Overview

Crypto Fund Minimum Investments
All Fund Types (\$USD)



20%

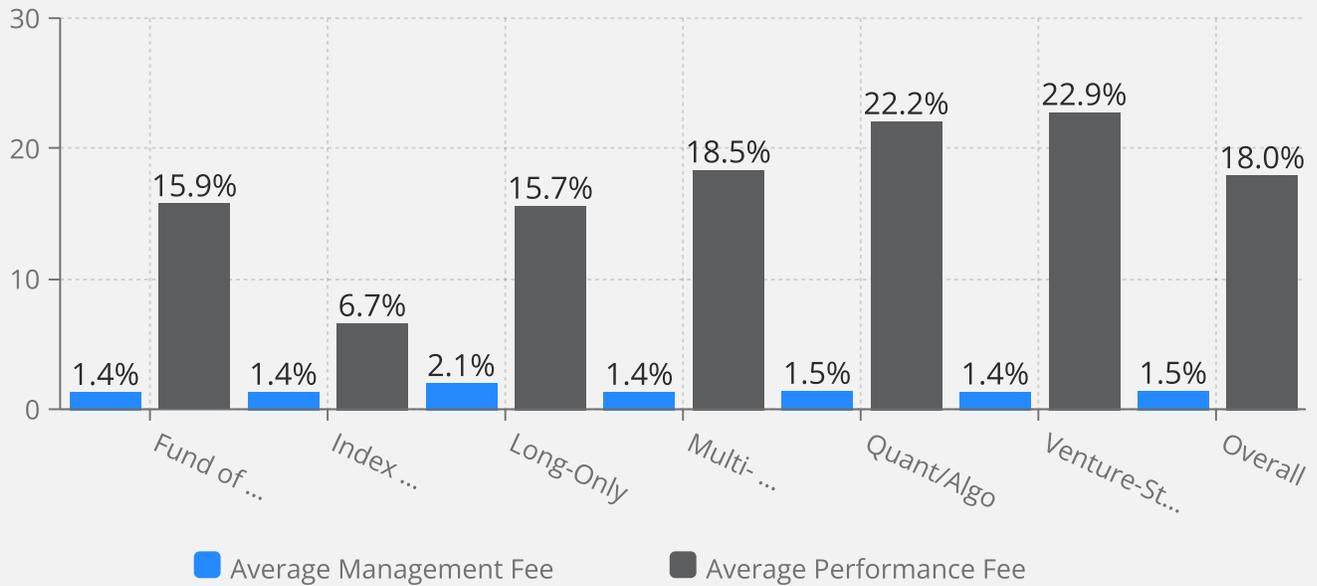
20% of crypto hedge funds have a minimum investment of \$500,000 USD or more

Minimum investments in crypto funds vary significantly across fund types. Crypto hedge funds and fund of funds typically have the highest minimum investment, while tokenized funds have low or non-existent minimums. Some index funds also have high minimum investments.

Type	Median Min. Investment	Average Min. Investment
Fund of Funds	\$100,000	\$180,357
Hedge Fund	\$100,000	\$255,500
Index Fund	\$50,000	\$218,750
Investment Trust	\$37,500	\$37,500
Managed Account Platform	\$6,250	\$6,250
Mutual Fund Trust	\$1,000	\$1,000
Tokenized Fund	\$0	\$5,000
TOTAL	\$100,000	\$251,300

Crypto Fund Industry Overview

Crypto Fund Average Fees
By Fund Category Q4 '22

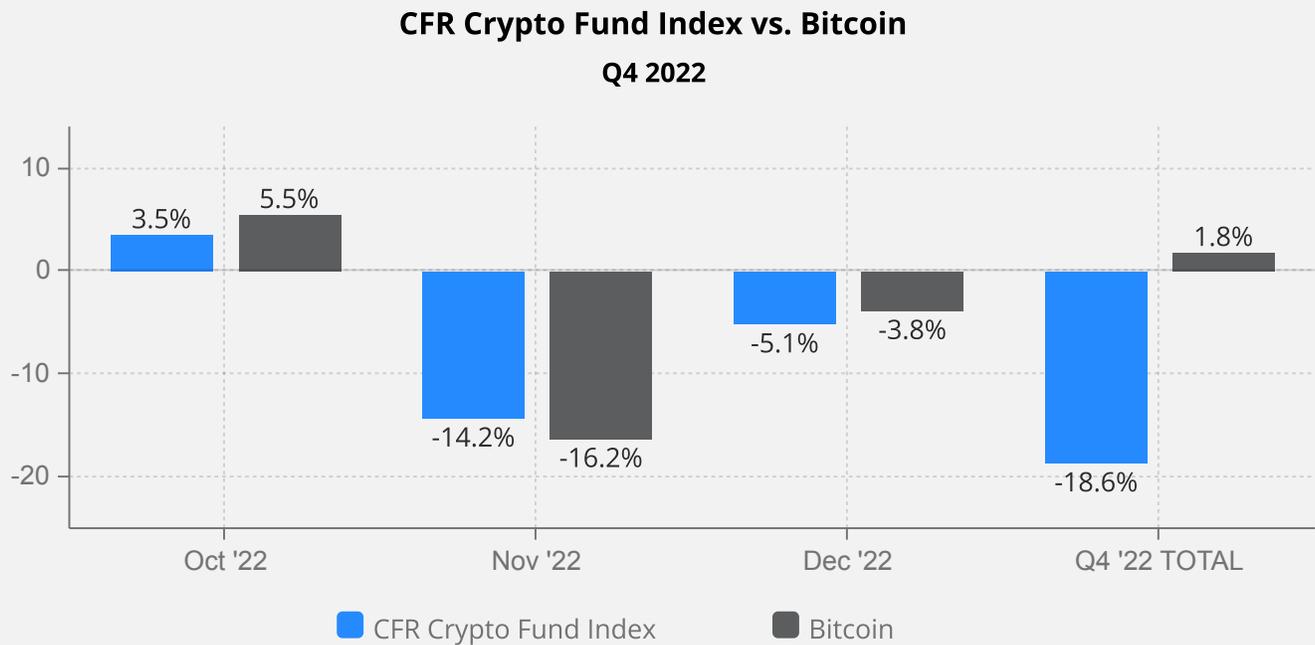


A 2% management fee and 20% incentive/performance fee (2/20) is the most common fee structure among crypto funds. However, the average fees across all funds tend to be lower and vary slightly between fund types. Index and other passive strategies often don't charge a performance fee, while funds with more active investment strategies tend to have higher performance fees (and sometimes lower management fees).

Fund Type	Average Perf. Fee	Average Mgmt. Fee
Fund of Funds	15.86%	1.39%
Index Fund / Tracker	6.67%	1.41%
Long-Only	15.68%	2.07%
Multi-Strategy/Other	18.45%	1.40%
Quantitative/Algorithmic	22.16%	1.48%
Venture-Style/ICOs	22.86%	1.43%
TOTAL	18.21%	1.49%

Crypto Fund Performance Data and Metrics

The CFR Crypto Fund Index, which measures the mean return, net of fees, of around 200 actively managed crypto funds, fell by 18.6% in Q4, 2022.



-18.6%

The CFR Crypto Fund Index lost 18.6% in Q4 2022. Q4 was one of the few quarters in which Bitcoin fell and crypto funds still underperformed.

48.4%

48% of crypto hedge funds outperformed Bitcoin in Q4

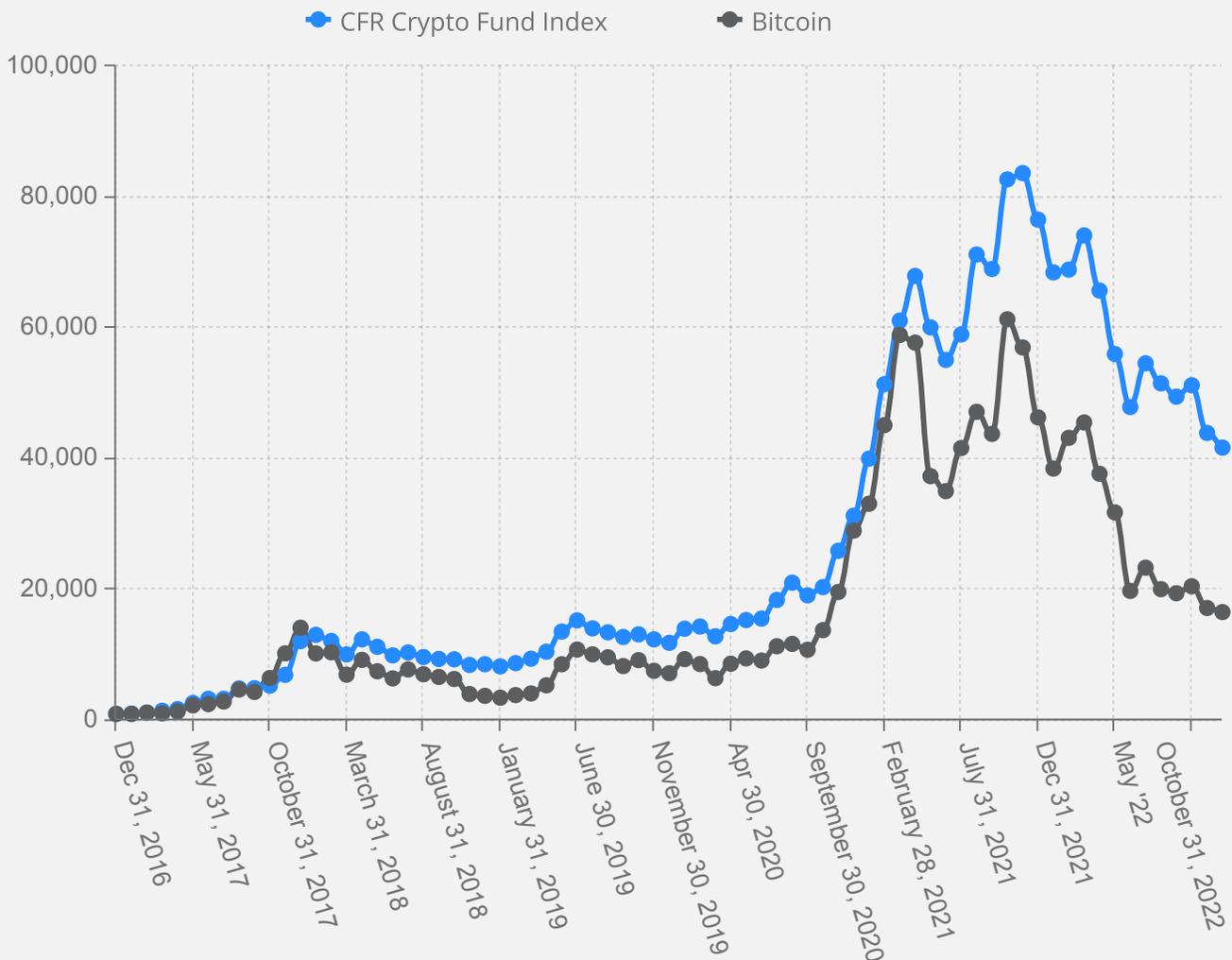
For the latest results from the CFR Crypto Fund Index please visit:
<https://cryptofundresearch.com/cfr-crypto-fund-index/>

Crypto Fund Performance Data and Metrics

Between inception in January of 2017 and the end of Q4 2022, the CFR Crypto Fund Index, has returned 4,069%. Bitcoin is up 1,555% during this same period. Much of the index's historical outperformance has occurred during bearish or choppy market conditions like those in the last several quarters.

CFR Crypto Fund Index vs. Bitcoin

December 31, 2016 - December 31, 2022

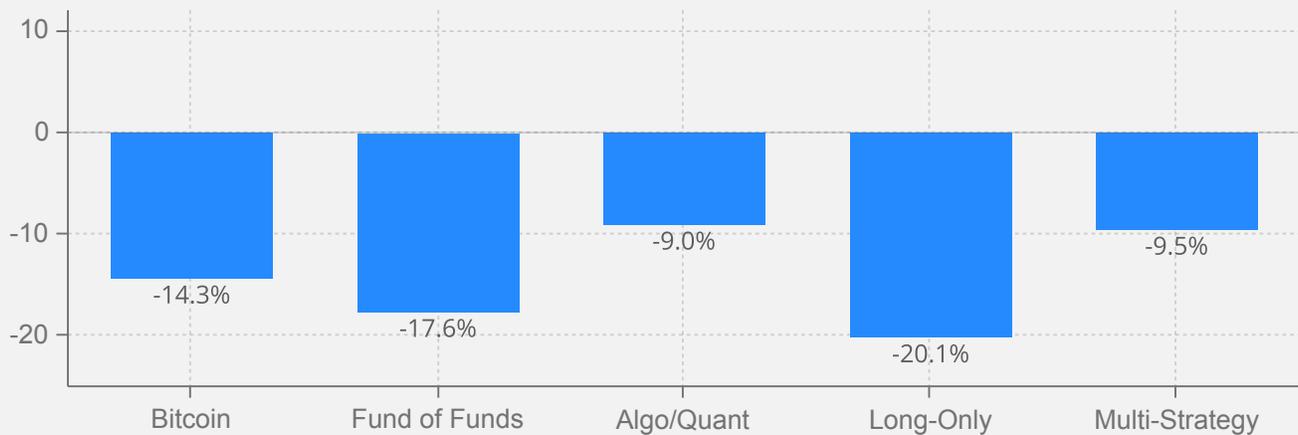


For more information on the CFR Crypto Fund Index, including methodology, monthly returns, and other performance metrics, please visit <https://cryptofundresearch.com/cfr-crypto-fund-index/>

Crypto Fund Performance Data and Metrics

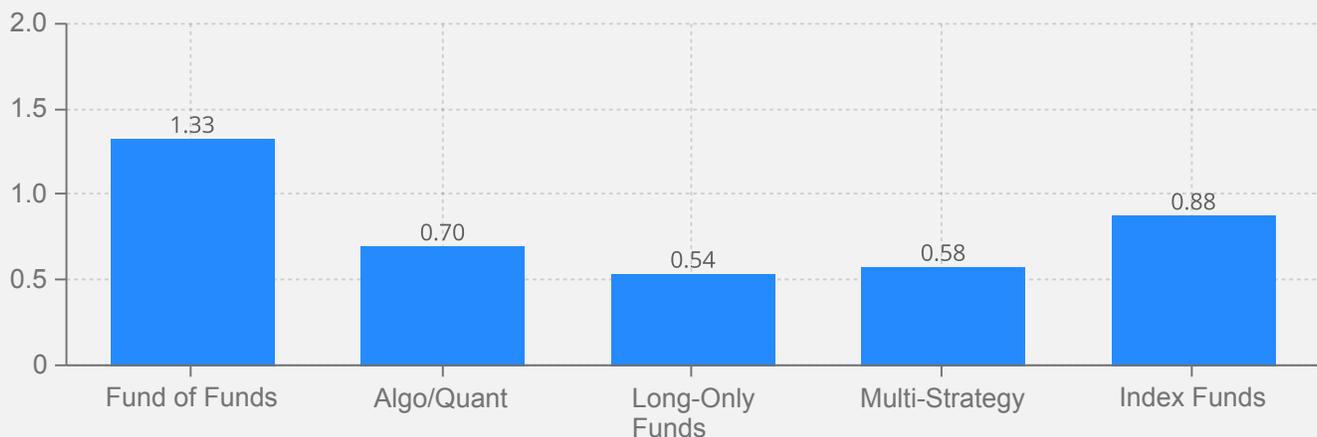
Crypto funds lost 18.6% in Q4, 2022. All strategies were down for the quarter. Despite losing 9%, Algo/Quant funds were the best performing category.

**Q4 2022 Crypto Fund Performance
By Fund Strategy**



Beta is used in traditional finance to measure market based risk and, by using Bitcoin as a proxy for market returns, allows us to determine how much of a given fund strategy's returns could be simply due to market exposure to Bitcoin. Fund of funds tend to have the highest beta, while quantitative and multi-strategy funds tend to have the lowest.

**Beta / Relationship to Bitcoin
Q1 '17 - Q4 '22 by Fund Strategy**

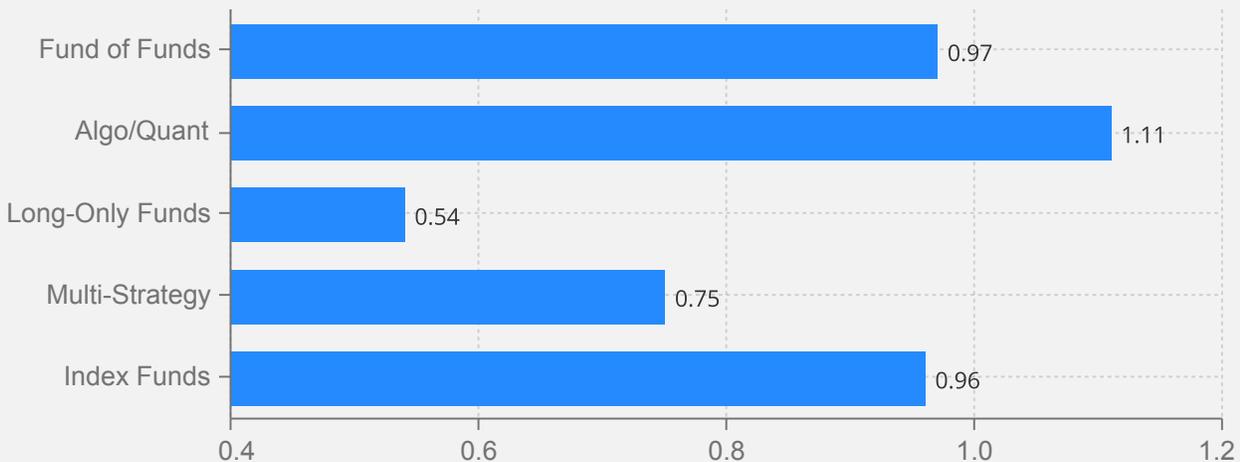


Crypto Fund Performance Data and Metrics

"Skew" captures the shape of the distribution of returns and can be defined as the extent to which returns vary from a normal distribution. Most crypto fund strategies demonstrate a positive skew, or a longer or fatter tail on the right. It's important to keep in mind that the accuracy of skew calculations depend on large quantities of return data, which are not necessarily available for most crypto funds.

Median Skew Across Fund Style

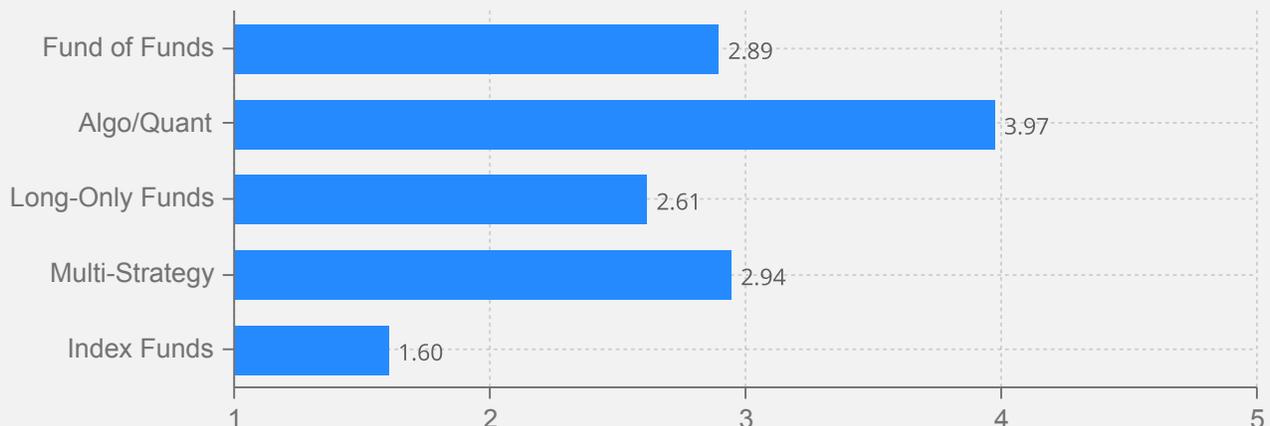
Q1 '17 - Q4 '22 by Fund Strategy



Like skew, kurtosis is a measure of returns relative to a normal distribution. Kurtosis measures the size of extreme returns compared to a normal distribution of returns with a positive kurtosis captures the size of these extreme returns. The kurtosis of a normal distribution is 3.

Median Kurtosis Across Fund Style

Q1 '17 - Q4 '22 by Fund Strategy

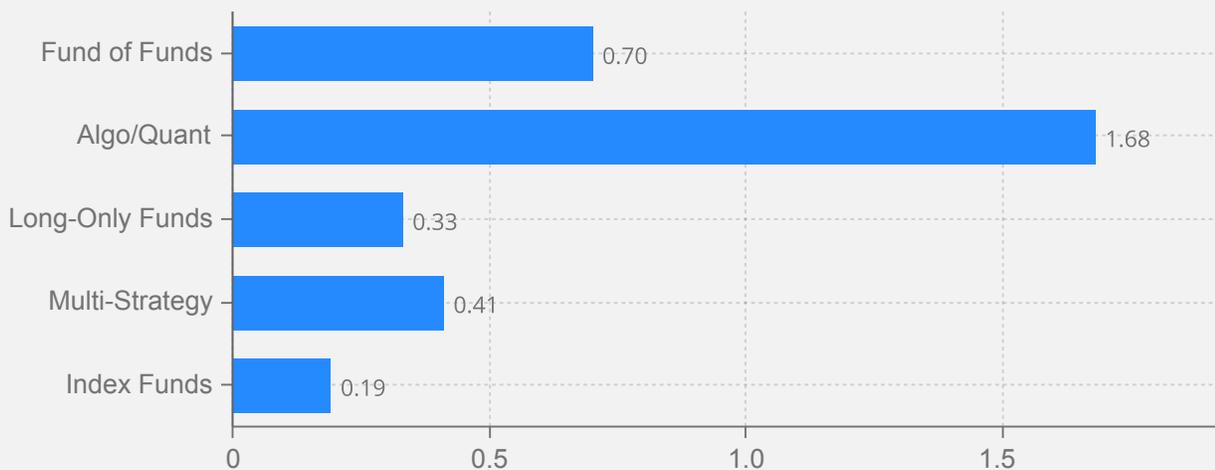


Crypto Fund Performance Data and Metrics

The Sharpe Ratio is a performance metric often used by investors to help them better understand the relationship between risk and returns of an investment. When comparing like investments, a higher Sharpe Ratio may indicate a better return relative to the amount of risk taken. Sharpe Ratio's can use either arithmetic or geometric returns. We use geometric returns in our calculation below.

Median Sharpe Ratio Across Fund Style

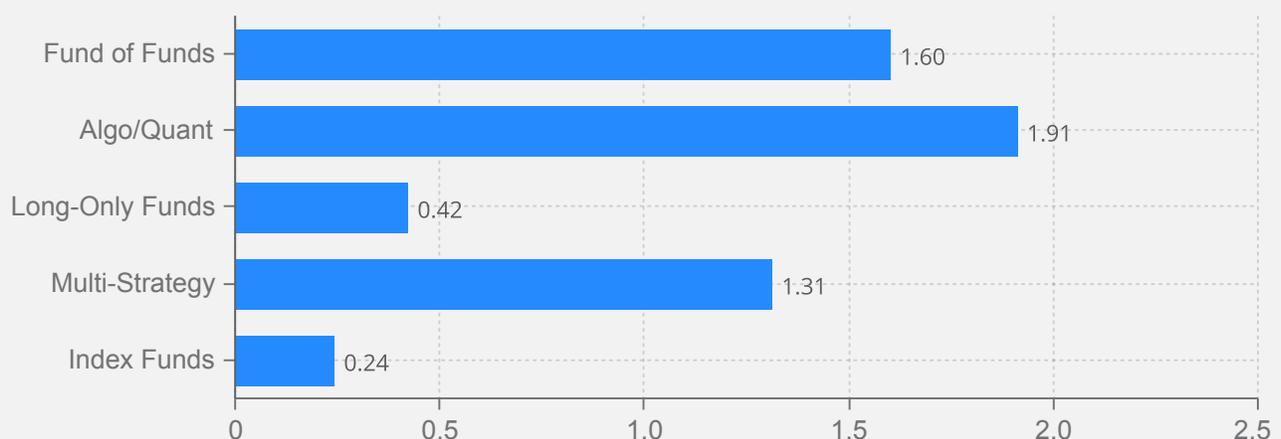
Q1 '17 - Q4 '22 by Fund Strategy



Like the Sharpe Ratio, the Sortino Ratio helps investors understand the relationship between risk and returns of an investment. However, the Sortino Ratio focuses solely on the risk (standard deviation) or negative returns. By using only negative returns, the Sortino Ratio can help investors identify bad/downside risk, while ignoring good/upside risk.

Median Sortino Ratio Across Fund Style

Q1 '17 - Q4 '22 by Fund Strategy



Crypto Fund Performance Data and Metrics

Q4 '22 Crypto Fund Research Performance Awards

Crypto Fund Research tracks the performance of more than 200 crypto funds - primarily crypto hedge funds, fund of funds, and hybrid funds. At the end of each quarter and year, we announce awards for the top performing funds in each period, net of fees.

Below are the Crypto Fund Research Performance Award winners for Q4, 2022:

Top Performing Crypto Funds Overall, Q4 2022



Top Performing Crypto Funds by Strategy, Q4 2022



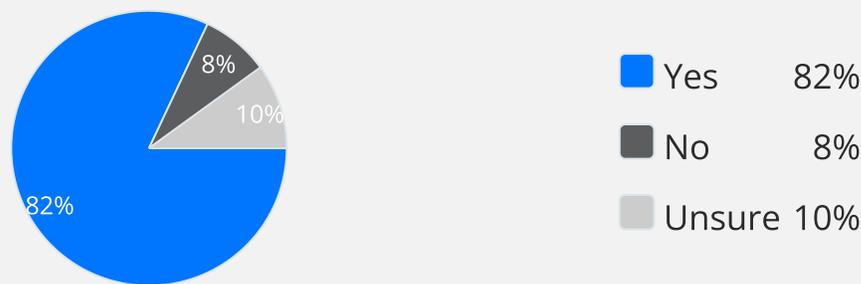
For additional award winners please visit: <https://cryptofundresearch.com/crypto-fund-performance-awards/>

Crypto Fund Survey

A recent survey of over 60 crypto funds was conducted to gauge investor sentiment and provide further insight into the crypto industry. The survey covers crypto venture funds, hedge funds, hybrid funds, index funds, and fund of funds and was conducted between July 12 and August 23, 2022. Full survey results here: <https://cryptofundresearch.com/2022-crypto-fund-survey/>

Crypto Fund Expectations to Increase AUM in 2022

All Fund Types



Crypto Fund assets under management (AUM), despite a few setbacks, have continued to grow and exceeded \$60 billion at the time of this survey in Q3 2022. It may therefore come as no surprise that most crypto funds anticipate growing AUM in 2022. However, unlike in our 2022 survey where virtually all funds expected to grow their AUM, 82% of funds surveyed expected to grow AUM in 2023.

28% of crypto funds think its likely or very likely that Bitcoin will surpass its all-time-high price of approximately \$64,000 USD in the next 12 months (this is more than double the average price during the period in which the 2022 survey was conducted). Crypto funds are significantly more bearish than in 2021 when over 70% thought Bitcoin would more than double over the following 12 months.

Crypto Fund Expectations for Bitcoin to Surpass \$65,000 in Next 12 Months

All Fund Types

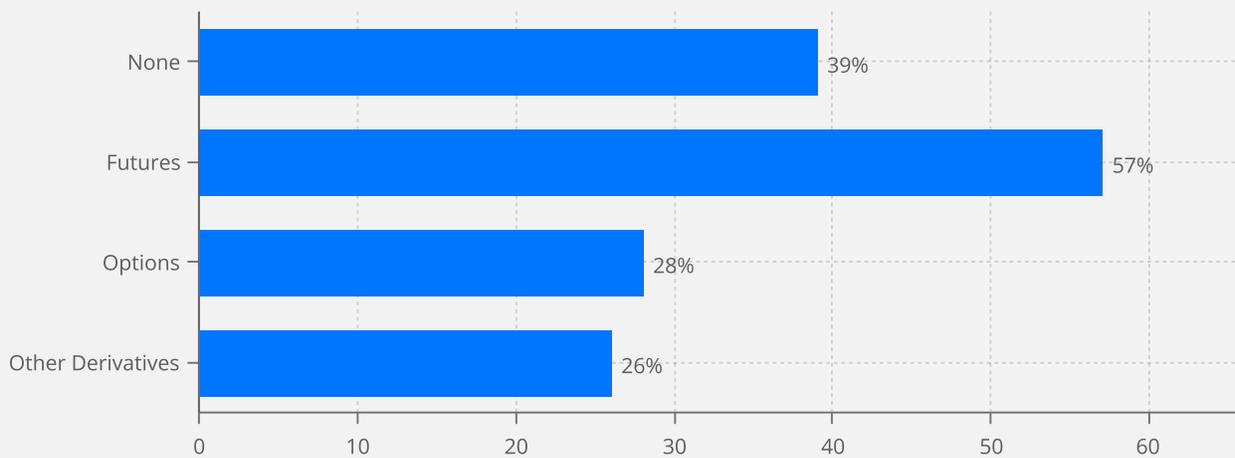


Crypto Fund Survey (cont.)

The majority of crypto hedge funds and hybrid funds use some sort of derivative product either for risk management, leveraged exposure, or other purpose. About two thirds of both crypto hedge funds and hybrid funds use derivatives, with hedge funds more likely to use futures and hybrid funds more likely to use options or other derivatives. Venture funds are least likely to use derivatives.

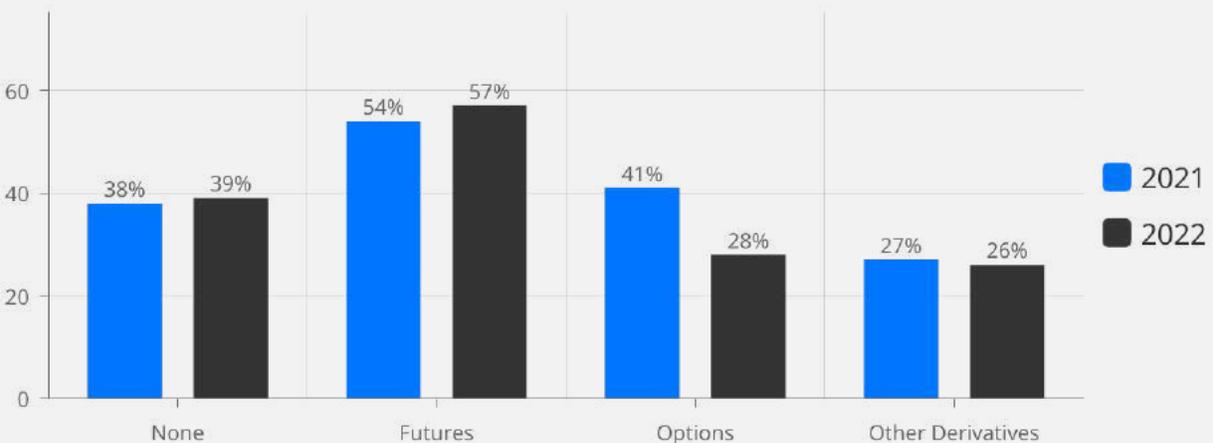
Crypto Fund Derivative Use

All Fund Types



Crypto Fund Derivative Use

All Fund Types

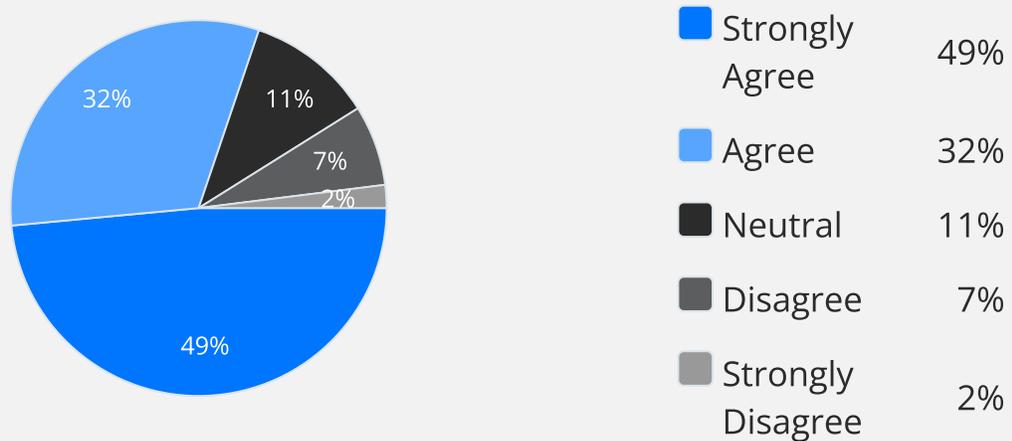


Crypto Fund Survey (cont.)

Derivatives play a vital role in investment strategies, according to most respondents. The survey results reveal that roughly 81% of crypto funds agree that derivatives and structured products are healthy components of the crypto industry. Only 9% of crypto funds disagree on the benefits of these securities in the crypto industry, citing counterparty risk and the misuse of these products as the primary rationales against their usage.

Crypto Funds View Derivatives as Healthy for Space

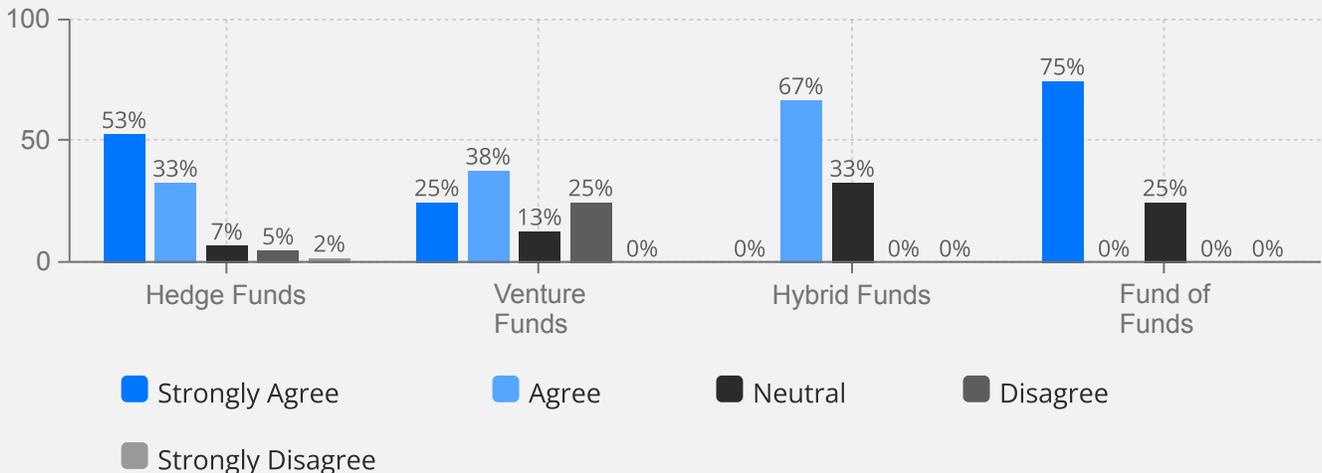
All Fund Types



Venture funds are least likely to believe derivatives are healthy for the crypto investment space. Venture funds are also the least likely to use derivatives.

Crypto Funds View Derivatives as Healthy for Space

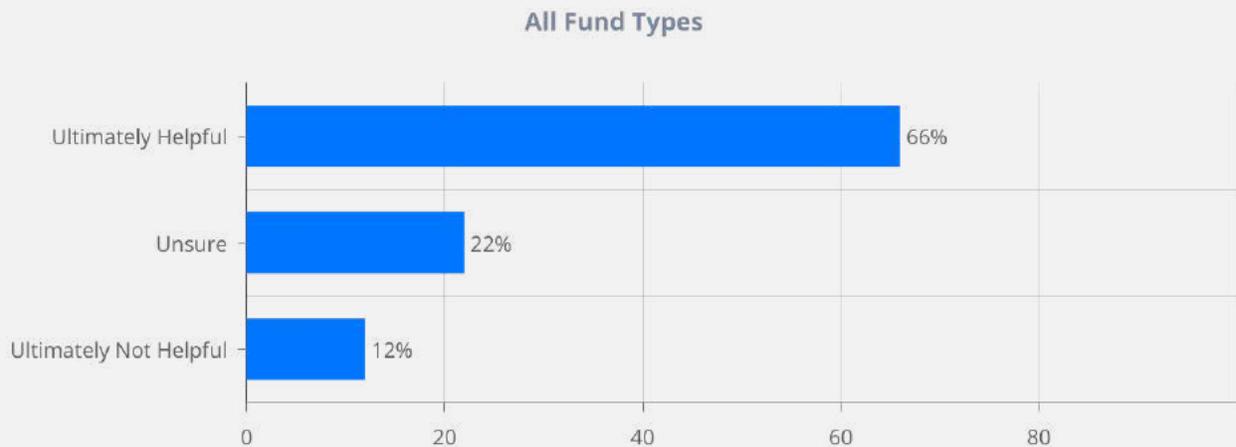
By Fund Type



Crypto Fund Survey (cont.)

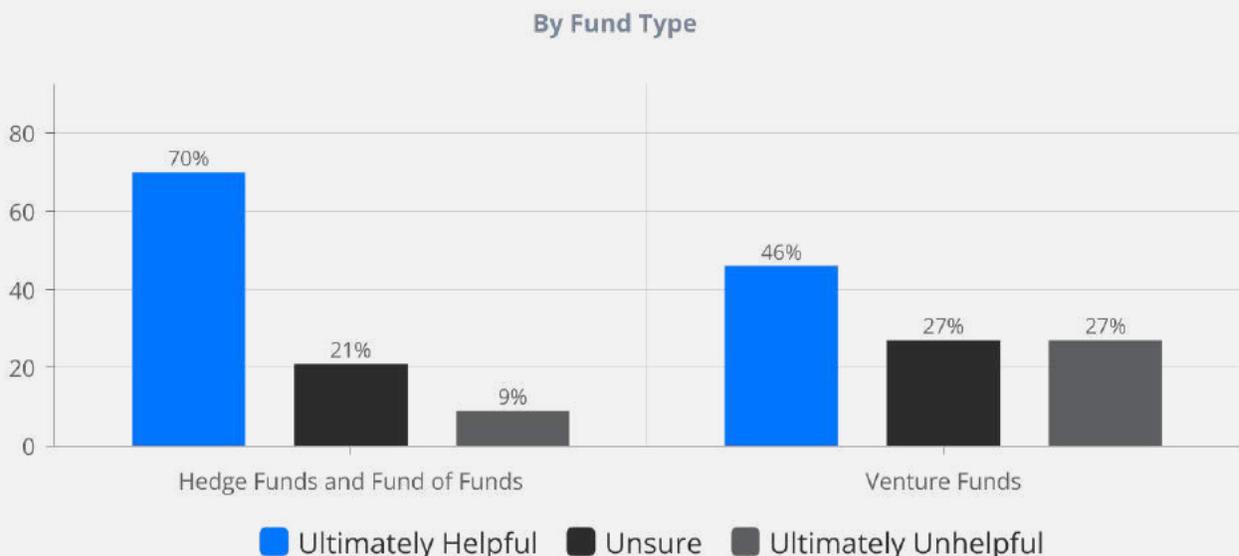
In light of various issues in 2022 with regards to DeFi, stablecoins, exchange risk and the like, we asked crypto funds if increased regulation would ultimately be helpful to increasing investor confidence in the crypto the space. About two thirds of funds felt greater regulation would be helpful.

Would Greater Regulation Ultimately be Helpful to Increasing Investor Confidence in the Space?



Hedge funds and fund of funds were more likely than venture funds to think regulation would be helpful to building investor confidence. In fact, venture funds were three times as likely as other funds to think increased regulation would be unhelpful or harmful.

Would Greater Regulation Ultimately be Helpful to Increasing Investor Confidence in the Space?

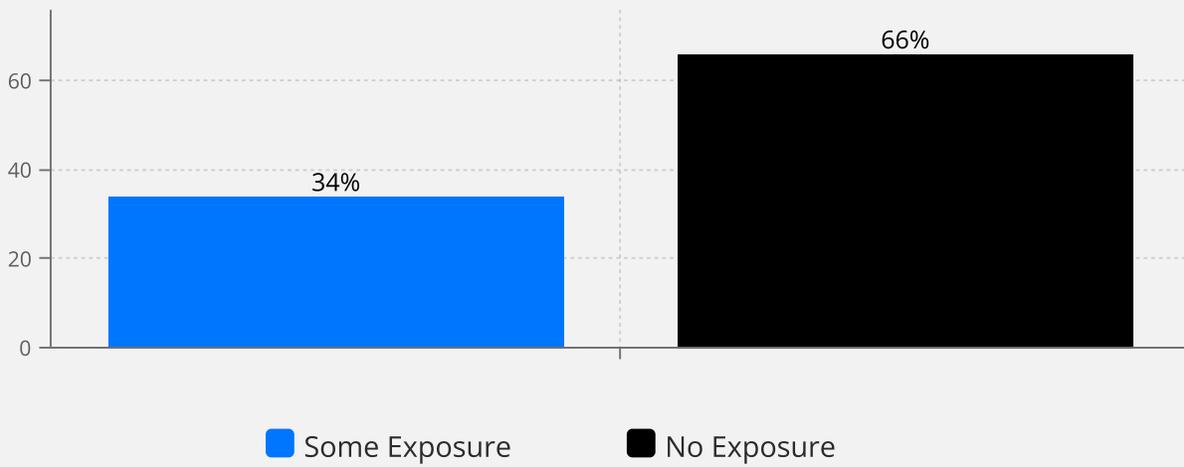


Crypto Fund Survey (cont.)

Though the 2022 survey was conducted before the collapse of FTX, we followed up with funds to better understand the impact and potential fallout. The full results of the FTX Fallout Survey can be found here: <https://cryptofundresearch.com/ftx-crypto-funds-report/>

Proportion of Crypto Funds with Direct Exposure to FTX

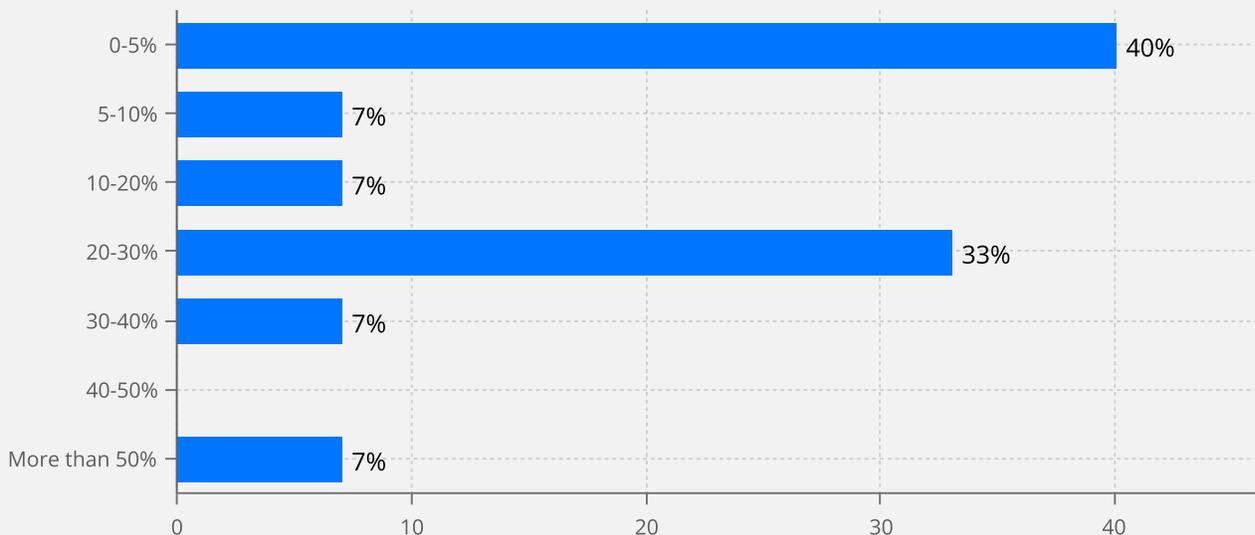
All Fund Types



Just over a third of funds reported having some direct exposure to FTX or its subsidiaries. However, among the funds reporting some exposure, that exposure was generally modest. More than half of exposed funds had less than 20% of their assets directly exposed.

Percentage of Assets (AUM) Exposed to FTX Among Funds Reporting Some Exposure

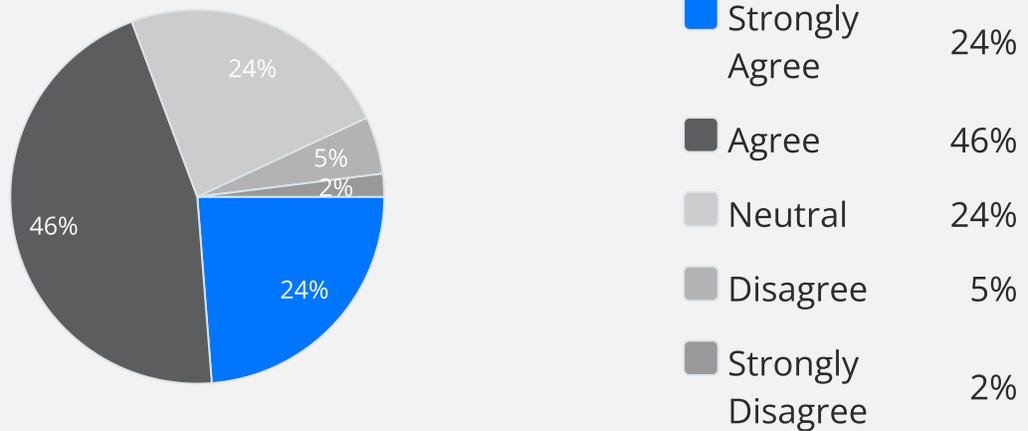
All Fund Types



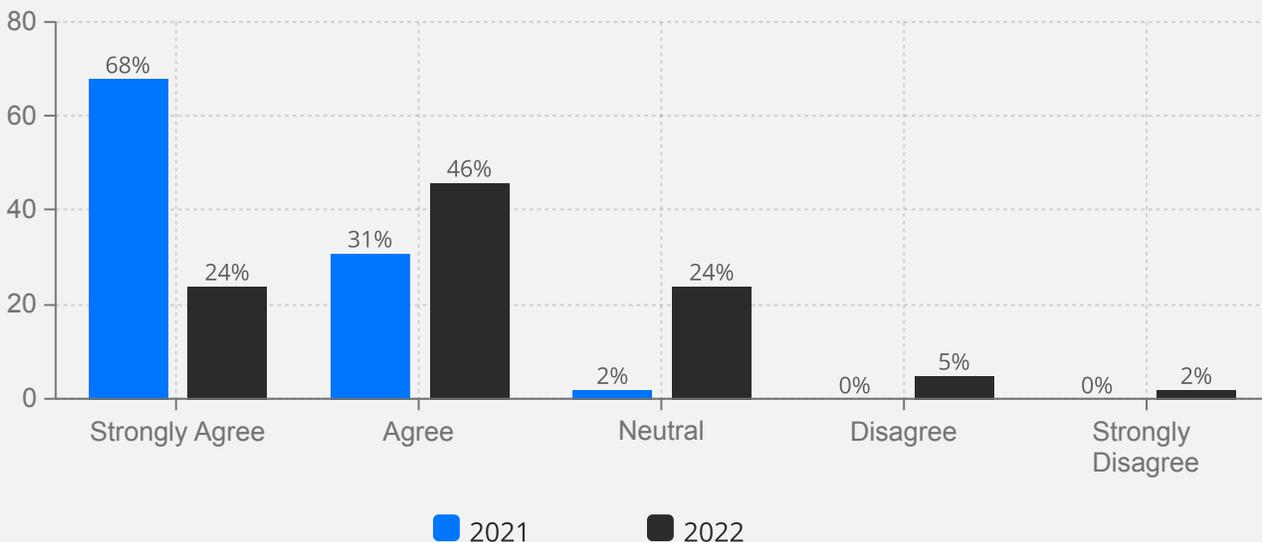
Crypto Fund Survey (cont.)

Despite the various setbacks and scandals, 70% of crypto funds reported that institutional interest in crypto increased during the first half of 2022. However, this is down from 2021 when nearly all funds felt institutional interest had increased.

Crypto Funds Believe Institutional Interest in Crypto Increased in H1 2022
All Fund Types



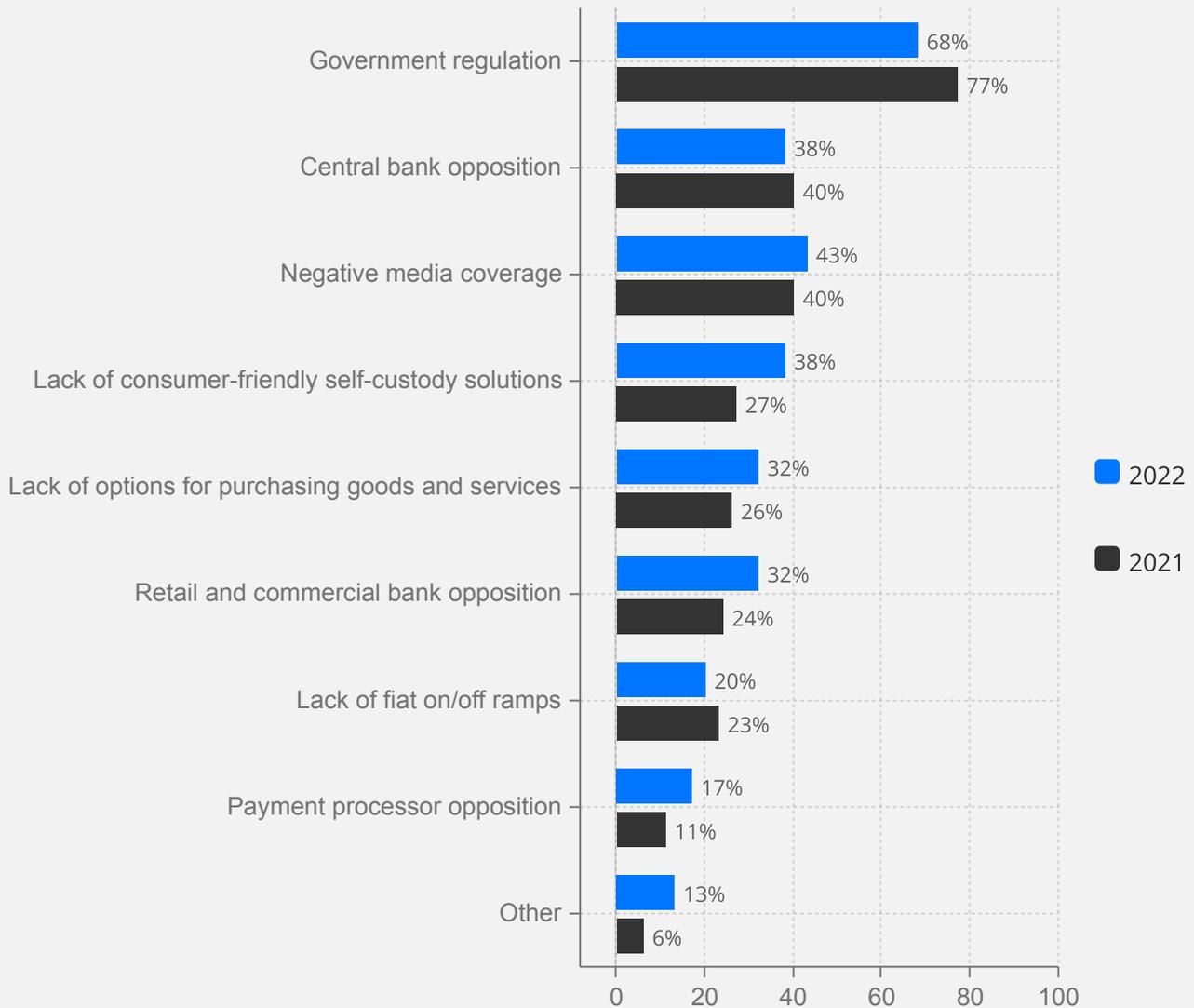
Crypto Funds Believe Institutional Interest in Crypto Increased in First Half of Year
2022 vs. 2021



Crypto Fund Survey (cont.)

While crypto investors believe that institutional interest has and will continue to increase in 2022, they believe there are several obstacles that continue to prevent the widespread adoption of cryptocurrencies.

Crypto Fund Views of Top Obstacles to Widespread Crypto Adoption
All Fund Types



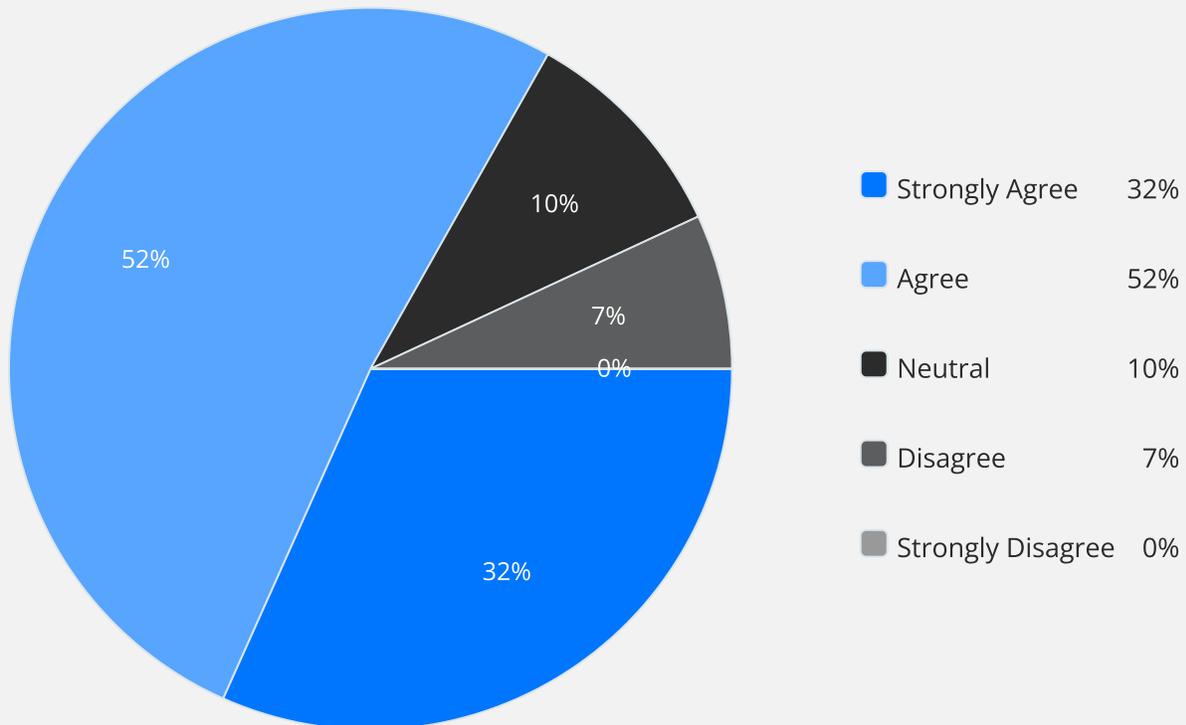
Crypto funds continue to report that government regulation is the largest obstacle to widespread adoption of cryptocurrencies.

Crypto Fund Survey (cont.)

A question on the role of increased money supply and inflation expectations in shaping crypto adoption, particularly as a store of value, was added to our survey for 2021. In 2022, 84% of funds agreed with this assertion, compared with 87% of fund in 2021.

Though not shown above, there was no disagreement from funds based in Europe/Other. Funds based in Asia were somewhat more likely to disagree.

Crypto Funds Agree Increases in Money Supply and Inflation will Drive Crypto Adoption
All Fund Types



Crypto Fund Survey (cont.)

Thank you to the more than 60 crypto fund respondents that completed our survey including:



Altana Digital Currency Fund
ARCA
Astronaut Capital
Baekdu Technologies
Belton Capital
Bitrock Capital Partners, LP
BKCoin Capital
Blockchain Coinvestors
Blockchain Strategies Fund
Blockforce Capital
Bohr Arbitrage Crypto Fund
Cambrian Asset Management
CityBlock Capital
Coincident Capital
Crypto Fund AG
Dfi Labs
Digital Capital Management
Galois Capital
Hartmann Capital
Icoinic Algorithmic Fund
Kenetic
Lavalieri Capital Management
Leonidas Cryptocurrency Fund

Liberty Bitcoin Fund
Liquibit USD Market Neutral Arbitrage Fund
M31 Capital
MaiCapital - Blockchain Opportunity Fund
MVPQ Limited
NamNar Alternatives fund lp
ODIN88 Elite Crypto Fund
Off the Chain LP
Permian Capital Fund, LP
ProChain Capital
Protein Capital Fund
Proxima Investments
Pure Crypto LP
Pythagoras Investment Management LLC
Rivemont Crypto Fund
S2F CAPITAL LP
Smart Index Crypto Fund Limited
Stylus Capital
Tally Capital
The Bitcoin Fund (TSX:QBTC)
Tradecraft Crypto Asset Fund
Waterdrip Capital

About the Report

About Crypto Fund Research:

Crypto Fund Research is an independent research firm founded in 2017. The firm focuses exclusively on crypto funds, including crypto hedge funds, venture capital funds, hybrid funds, index funds, fund of funds, and managed accounts. Crypto Fund Research provides a variety of free research and market intelligence, maintains the CFR Crypto Fund Index, and provides the largest and most comprehensive [database of crypto fund performance](#).

For partnership opportunities, or to be included in our next survey, please contact us at [institutional\(at\)cryptofundresearch.com](mailto:institutional@cryptofundresearch.com)

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