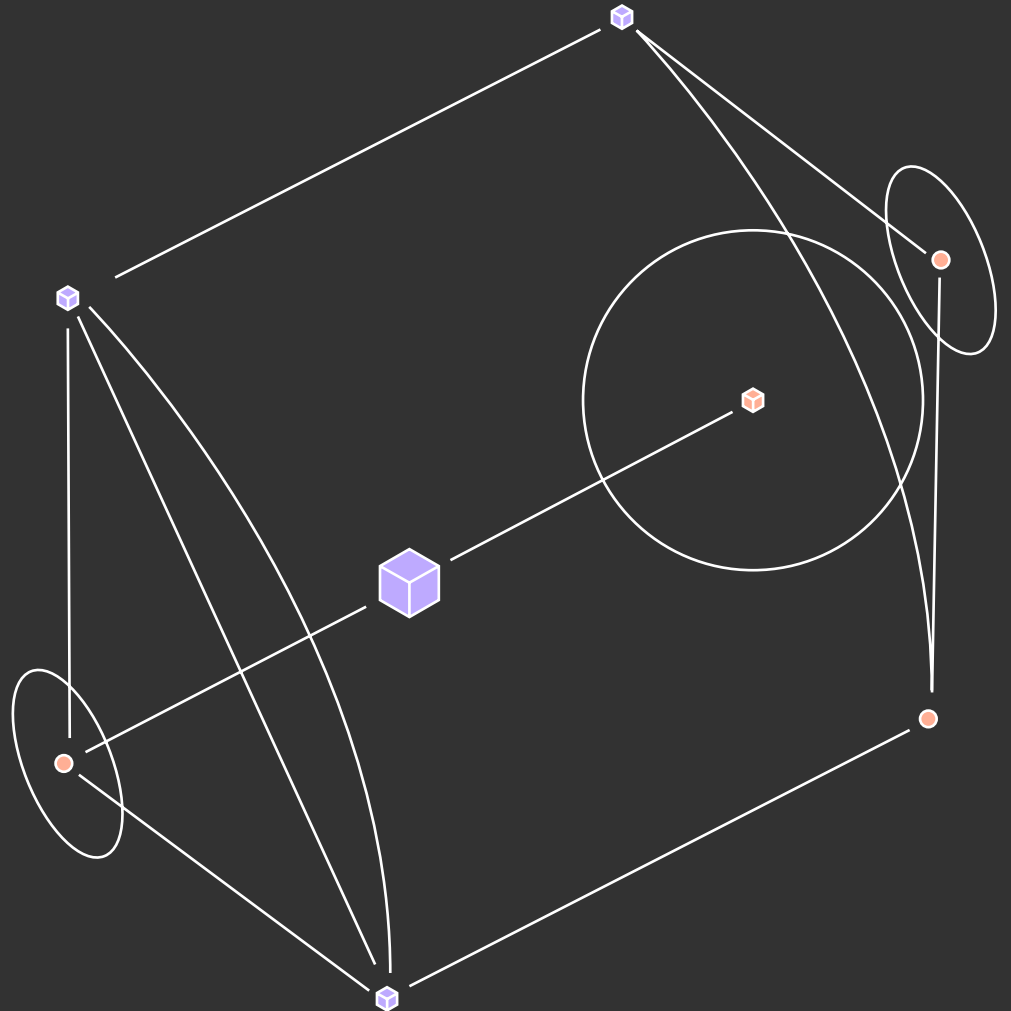


2023 Institutional Crypto Hedge Fund & Venture Report

APRIL 2023



Author & Acknowledgements



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This report is a product of VisionTrack, the leading digital asset buy-side data platform, powered by Galaxy.

This report was written between April 1, 2023 and April 12, 2023.

View our publicly available research at www.galaxy.com/research and the VisionTrack Database at visiontrack/galaxy.com.
Contact us at visiontrack@galaxy.com.

Contents

Key Takeaways	4
Executive Summary	5
Hedge Funds	5
Overview & Context	5
Performance	6
Fund Types	7
Hedge Fund Sizes, Terms, & Fees	9
Venture	11
Overview & Context	11
Fundraising	12
Firm Types	13
Fund Types	14
Venture Fund Terms & Fees	15
Deals	15
Look Forward	18

Key Takeaways

- VisionTrack™ has identified 1,528 crypto-dedicated firms through December 2022; 667 hedge funds, 681 venture firms, and 180 platforms. By historical standards, this has increased from 650 crypto-dedicated firms at the end of 2021 and 450 firms at year-end in 2020.
- Crypto-dedicated firms held \$92.6b in total fund value (AUM) through December 2022. Crypto-dedicated hedge funds and venture funds comprised 75% of all crypto-dedicated AUM with Platforms making up the remaining 25%.
- Market Neutral hedge fund strategies gained significant popularity in 2021 and through 2022 as demand for non-directional ways of capturing alpha amidst market volatility rose. The total count of market neutral strategies increased by 57% in 2021 and 23% in 2022.
- The Top 20 HF firms comprised nearly 75% of the total HF AUM at year end. We have seen continued concentration of AUM among the largest players. 2021's rally and 2022's sell-off encouraged consolidation, driving demand for institutional-quality firms and operations.
- A greater majority of funds launched within the last 1-3 years, though early institutional adopters dwarf new hedge funds in size. It's estimated 45% of crypto hedge fund managers have a 1-3-year track record. Less than 10% of crypto hedge funds have a track record of 3+ years.
- For crypto venture capital specifically, 64 funds closed on new funds in H2 2022, equating to roughly \$5.7b in total amount raised. The 2022 year-end total accounted for 204 crypto-dedicated venture funds with \$33.2b committed; A significant step-up from 140 venture funds that raised \$19.4b in 2021.
- For venture funds, ~90% of all raised assets 2017-2022 were raised in the last 2 years. The most fund value raised occurred in 2022 before TerraUSD/Luna and FTX.

Executive Summary

Fresh off an exuberant 2021, the cryptocurrency sector started 2022 with continued enthusiasm. In Q1 2022, Bitcoin traded within range fluctuating around \$40k. The total amount raised on a quarterly basis for crypto venture capital reached \$13.3b, surpassing its previous historical monthly record in Q4 2021 of \$11.0b. In January, non-fungible token (NFT) trading volumes reached \$4.8b in USD value and half a million active users on OpenSea, two historical monthly records. By the end of March, it was reported there were 4,832 decentralized autonomous organizations (DAOs) the largest number of DAOs on record. The sector continued to smash through record after record, until it didn't.

In April, the market faced numerous questions pending U.S. regulation, blockchain infrastructure, scalability, and the institutional adoption of decentralized finance (DeFi). A market once filled with promise and excitement for the future of finance, saw continual challenges month-after-month. Starting in May, TerraUSD/Luna collapsed, then Three Arrows Capital filed for

insolvency, Voyager and Celsius filed for bankruptcy, Tornado Cash was sanctioned, and by November FTX filed for bankruptcy exposing Alameda Research's infamous fraud. The latter half of 2022 was a year of navigating uncertainty in an already choppy market with dwindling retail activity. By year-end nearly \$3.1b was hacked in DeFi protocols. Further, it was estimated that some 23,600 employees were let go from companies across the sector. Several hundred fund managers closed shop altogether with tens of billions lost or stolen. According to Galaxy Asset Management, in December, it was estimated nearly 40% of market makers were wiped out after FTX.

Despite agonizing headlines and the ceaselessly dark days of the 2022 crypto winter, the sector prevailed. Volumes, values, and the total amount of funds raised dried up in the second half of the year, most significantly in Q4, yet some fundraising persisted. Hedge fund managers were resilient, venture fund managers deployed less, and institutional demand for actively managed crypto fund strategies continued to be explored.

Hedge Funds

Overview & Context

In 2017, Bitcoin climbed to a high of ~\$19k in December, and Ethereum reached \$750. At the time, Initial Coin Offerings (ICOs) proposed a radical new way of investing. Aside from private placements, crypto hedge funds were the first institutional allocation offering capitalizing on the emerging asset class. Long-term investors, technologists, cryptographers, and software developers formulated the first major cohort of hedge fund strategies. Given the nature of the assets, raising a traditional venture fund structure was not as common, as digital assets were viewed as purely speculative and short-term liquidity provisions were often demanded from allocators.

Given the demand of the market, many of the first crypto hedge funds functioned similar to venture investment vehicles through the bear market of 2018-2019. With liquidity scarce, and little depth within the market, crypto hedge funds became a primary method for companies sourcing investments. Early fundamental managers were rewarded for their persistence and patience through the bear

market cycle. Data collected by VisionTrack suggests that crypto hedge funds with a strategy inception date before 2019 make up roughly 10% of the total crypto hedge fund universe count, though they still hold a large majority of the assets today.

In 2020, much changed for the institutional crypto fund landscape. Propelled by driving forces in the growth of centralized exchanges, DeFi, NFT markets, and early retail adoption, a broad web3 ecosystem ushered in an opportunity to capitalize on the tech vertical. The gold rush of opportunity, brought with it the gold rush of investors. A greater majority of funds launched within the last 1-3 years, though early adopters dwarf new hedge funds in size. It's estimated 45% of crypto hedge fund managers have a 1-3-year track record. Less than 10% of crypto hedge funds have a track record of 3+ years.

Outsized returns in 2020 led to a breakout year for crypto hedge funds in 2021, with fund openings significantly outpacing the number of funds in 2018. In 2022, roughly 667 funds were identified as crypto-dedicated hedge fund firms, focused most exclusively

Crypto Hedge Fund Count Percentage Growth with Known Inception Date

VisionTrack™

Source: VisionTrack

Fund Type	2018	2019	2020	2021	2022
Fundamental	44.00%	24.24%	10.81%	21.28%	18.97%
Market Neutral	100.00%	70.00%	37.50%	56.76%	22.92%
Quantitative	93.75%	44.83%	23.68%	20.83%	15.79%
Grand Total	65.91%	38.89%	20.88%	31.06%	19.02%

Data: through 12/31/2022

on investing and trading crypto & digital assets. Several top firms launched multiple fund strategies, offering a much more diversified strategy range to the market. Growth in institutional service providers created a strong basis for allocating to sophisticated investment approaches, complimenting early fundamental managers. While quantitative directional, systematic, and market neutral categories were available, market neutral fund strategies gained significant popularity in 2021 and through 2022 as demand for non-directional ways of capturing alpha amidst market volatility rose. The total count of market neutral strategies increased by 57% in 2021 and 23% in 2022, recorded by VisionTrack.

Performance

Largely, demand from allocators for limiting downside risk while maintaining exposure to the crypto & digital asset growth narrative was a driving allocation in 2022. While Market Neutral funds in aggregate did not perform positively for 2022 (-3.57%), the category vastly outperformed many public market equivalents. On a much longer time-horizon all VisionTrack Indices outperformed select traditional market benchmarks since their inception date in 2018, with Quant Directional strategies as the top-performing category.

Annualized returns, Select Benchmark ETFs & VisionTrack Indices

VisionTrack™

Source: VisionTrack

Name	Ticker	2022 Return	2021 Return	2020 Return	2019 Return	2018 Return	2018 - 2022
VisionTrack Quant Directional Index		-31.11%	105.92%	147.40%	38.89%	-8.80%	344.56%
VisionTrack Composite Index		-37.85%	162.94%	174.27%	28.23%	-28.11%	313.19%
VisionTrack Fundamental Index		-64.17%	326.79%	300.60%	22.40%	-45.02%	312.28%
VisionTrack Market Neutral Index		-3.57%	44.21%	38.71%	16.92%	17.96%	166.03%
INVESTCO QQQ TRUST SERIES 1	QQQ	-32.58%	27.42%	48.62%	38.96%	-0.12%	77.21%
SPDR S&P 500 ETF TRUST	SPY	-18.17%	28.75%	18.37%	31.22%	-4.56%	56.18%
INVESTCO DB COMMODITY INDEX T	DBC	19.34%	41.36%	-7.84%	11.84%	-11.62%	53.68%
SPDR GOLD SHARES	GLD	-0.77%	-4.15%	24.81%	17.86%	-1.94%	37.19%
ISHARES RUSSELL 2000 ETF	IWM	-20.48%	14.54%	20.03%	25.39%	-11.11%	21.86%
VANGUARD REAL ESTATE ETF	VNQ	-26.24%	40.52%	-4.68%	28.87%	-6.02%	19.65%
BBG Galaxy Bitcoin Index	BTC	-63.83%	58.09%	305.91%	94.37%	-74.28%	16.02%
ISHARES TIPS BOND ETF	TIP	-12.24%	5.67%	10.84%	8.35%	-1.42%	9.78%
ISHARES MSCI EAFE ETF	EFA	-14.35%	11.46%	7.59%	22.03%	-13.81%	8.03%
ISHARES IBOX HIGH YLD CORP	HYG	-10.99%	3.75%	4.48%	14.09%	-2.02%	7.84%
SPDR BLOOMBERG 1-3 MONTH T-B	BIL	1.38%	-0.10%	0.40%	2.03%	1.74%	5.56%
ISHARES PREFERRED & INCOME S	PFF	-18.18%	7.14%	7.91%	15.93%	-4.63%	4.58%
ISHARES IBOX INVESTMENT GRA	LQD	-17.93%	-1.84%	10.97%	17.37%	-3.79%	0.94%
VANGUARD TOTAL BOND MARKET	BND	-13.11%	-1.86%	7.71%	8.84%	-0.11%	-0.15%
ISHARES JP MORGAN USD EMERGI	EMB	-18.64%	-2.24%	5.42%	15.48%	-5.47%	-8.47%
ISHARES MSCI EMERGING MARKET	EEM	-20.56%	-3.62%	17.03%	18.20%	-15.31%	-10.30%
ISHARES 20+ YEAR TREASURY BO	TLT	-31.24%	-4.60%	18.15%	14.12%	-1.61%	-12.98%
ISHARES MSCI CHINA ETF	MCHI	-22.76%	-21.73%	27.78%	23.70%	-19.77%	-23.33%
BBG Galaxy Crypto Index	BCGI	-70.19%	153.39%	276.70%	7.08%	-81.14%	-42.52%

Data: Benchmarked data sourced from Bloomberg; through 12/31/2022

Notable mention, the Bloomberg Galaxy Bitcoin Index has returned +16.02% since Jan 2018 and, the Bloomberg Galaxy Crypto Index is down -42.52% in the same period. At first glance, actively managed fund strategies are a more favorable allocation method for liquid strategies, vastly outperforming market beta products.

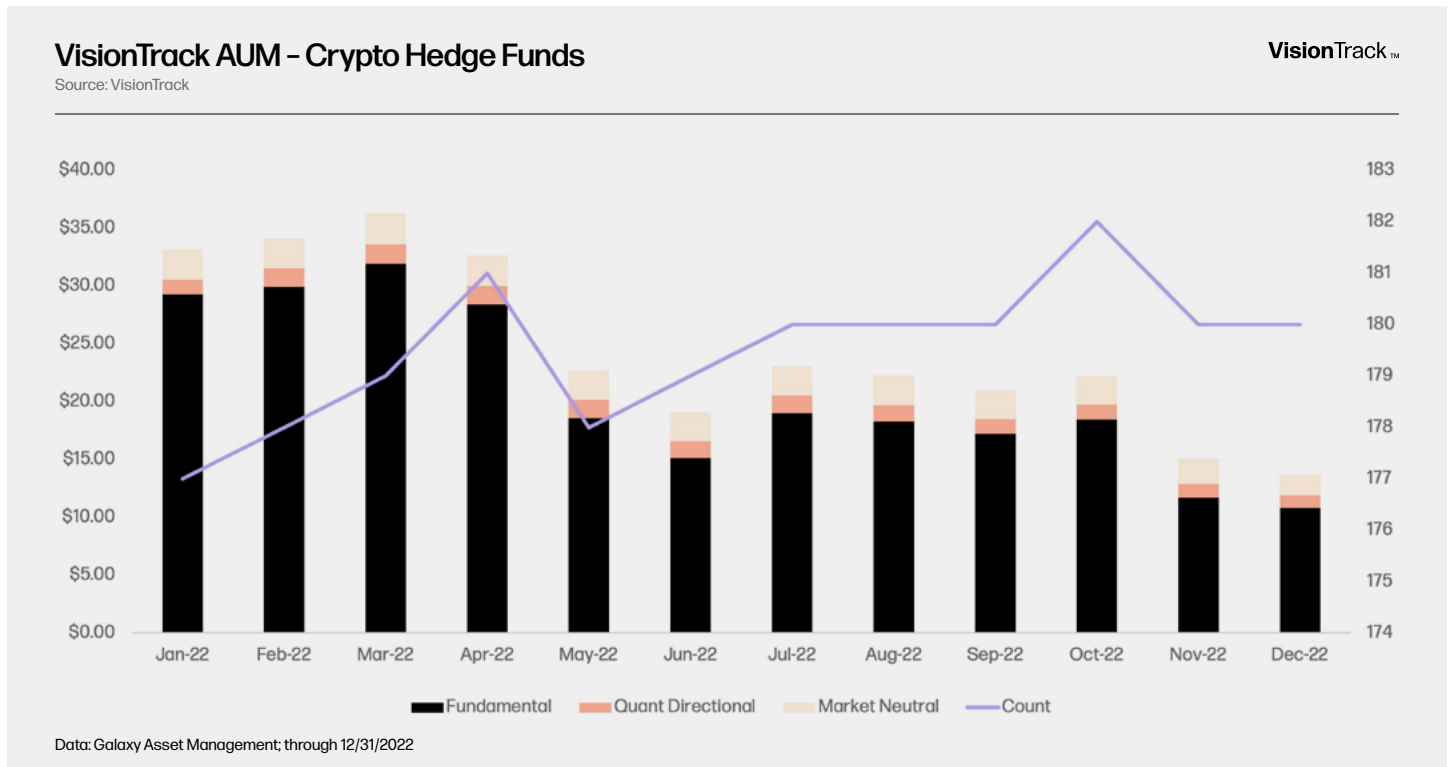
With an increase in fund offerings, the market choices for allocators expanded beyond the popularized allocation method to fundamental and passive managers, in products such as private placements, multi-asset/indexed funds, and ETFs/ETPs. An influx of talent supplemented this. [In February 2022, data provided by LinkedIn's Economic Graph team recorded +615% increase from August 2020 to August 2021 for job descriptions with the keyword "crypto" or "blockchain."](#) The newly categorized asset class attracted a diverse range of prized talent mainly sourced from seasoned traditional financial institutions with decorated backgrounds in equities, fixed income, emerging markets, and academic research. Additionally, a common trend, crypto-native traders profiting from 2020-2021 launched their first funds after successful personal trading in the previous bull run.

At first glance, performance and AUM suggest many of the funds from the most recent 1-3-year cohort have struggled to raise capital while being a newer entrant to the market. We suspect this down-market cycle is a critical time for new fund managers to adopt proper operational controls in addition to being selective on

institutional service providers and qualified custodians. This cohort could amass a significant amount of the market share in the next uptick as more available fund offerings exist in comparison to 2018-2019. Additionally, competitive growth for the industry is healthy for the development of any emerging market.

Data collected by VisionTrack suggests crypto hedge fund strategies amounted to just over \$30b in Assets Under Management (AUM) to start the year in January 2022. By year end and through December 2022, this figure concluded at around \$12b with fundamental managers in the top position, comprising nearly 75% of the total hedge fund AUM. To best assess the total assets under management held by crypto hedge funds historically, reported AUMs are first considered. Where a refreshed AUM is unknown, we've applied our VisionTrack Index performance to each fund exceeding a known AUM figure of \$100m+ in value at any month in 2022. For funds under \$100m in value, the most recently known AUM figure is applied in the subsequent month until further information is collected.

The category with the most substantial loss of value was fundamental strategies, most notably after TerraUSD/Luna in May and FTX/Alameda in November. Reported AUM figures from each event's preceding month were notably larger than the last, as many funds failed to provide an updated figure to VisionTrack as a result of shuttering operations altogether.



Fund Types

The VisionTrack Crypto Hedge Fund Indices track the performance of hedge fund strategies dedicated to trading and investing in crypto & digital assets. VisionTrack segments all crypto hedge fund categories into one of three main strategy classifications: Fundamental, Quantitative, or Market Neutral. The VisionTrack Crypto Hedge Fund Composite Index aggregates all these strategies into one index, The Composite Index, for a full-market view. Designed to capture the breadth of crypto hedge fund performance across all strategies, the indices best represent the crypto hedge fund category as a whole and are often utilized by fund managers, allocators, and traders for much more accurate, credible benchmarks.

Since its inception in January 2018, the VisionTrack Crypto Hedge Fund Composite Index has returned +313.19% compared to BBG Galaxy Bitcoin Index +16.02% through December 2022. The VisionTrack Fundamental Index Returned +312.28%, the VisionTrack Quant Directional Index returned +344.56%, and the VisionTrack Market Neutral Index returned +166.03%. All hedge fund indices have greatly outperformed Bitcoin immediately preceding the first major market uptick in 2017.

Fundamental Strategies

Historically, fundamental crypto hedge funds have been the most common and best-performing category. Comprised of three sub-categories, Long Only, Long/Short, and Multi-Strat,

fundamental funds aim to generate alpha opportunities, most commonly among the top 10 to 25 cryptocurrencies by market capitalization. Additional alpha opportunities present further down the risk spectrum in small and mid cap assets from the top 25-100 tokens. For tokens with sufficient volume and value, Long Only fund structures aim to identify opportunities for growth or appreciation in blockchain-based networks or tokens. Often, quantitative and qualitative metrics, as well as crypto valuation scoring, narrative economics, and technical analysis, influence a manager’s investment process.

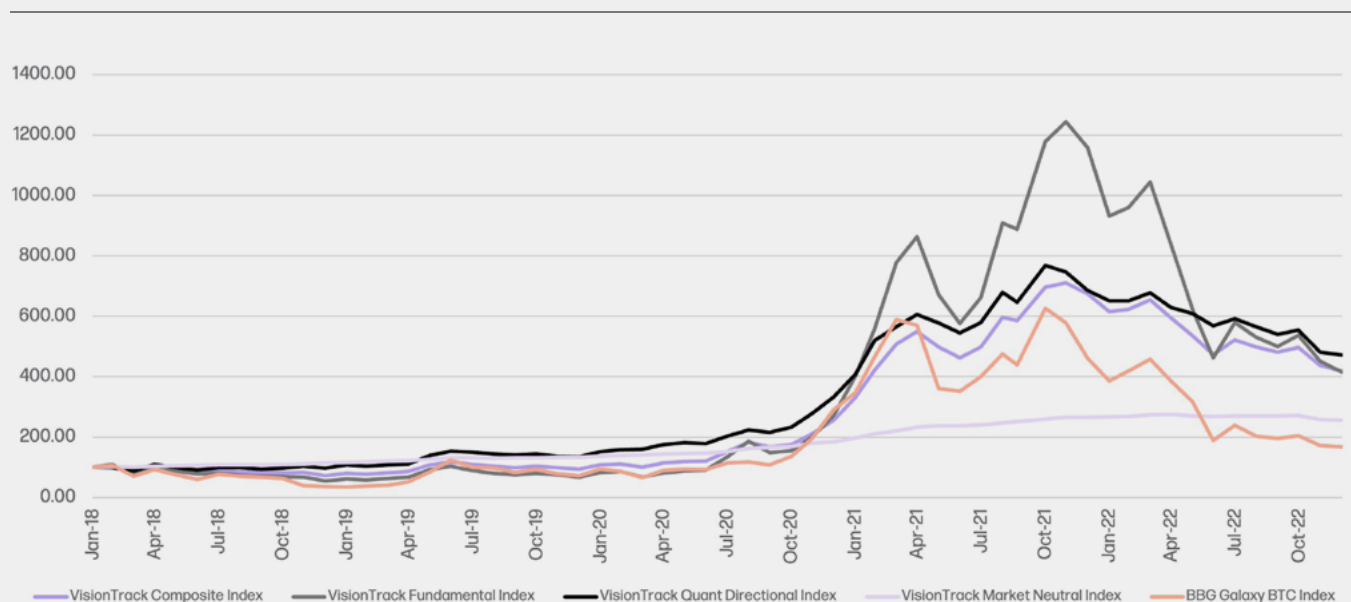
Long/Short strategies are similar in their investment process to Long Only funds in their approach and performance. However, their mandate also includes the ability to short-sell assets via spot, futures, and derivatives products. Long/Short strategies may make directional bets to the upside or downside and may be more directionally neutral by focusing on the relative value between various cryptocurrencies or tokenized products.

Multi-Strat fundamental strategies may offer a combination of Long Only, Long/Short, and exposure to illiquid investments. In the early development of crypto hedge funds, managers side-pocketed investments for illiquid/private market deals, still common today. Two well-established deal types are Simple Agreement for Future Tokens “SAFTs” and Simple Agreement for Future Equity “SAFEs” where fundamental strategies were able to participate in what was typically a venture deal. Fundamental Multi-Strat funds may deploy other investment strategies beyond common Long Only and Long/Short methods.

VisionTrack Indices - January 2018 Inception

Source: VisionTrack

VisionTrack™



Quant Directional

Supported by sophisticated quantitative analytical techniques based on pricing data and various model signals to determine proper timing and execution of directional positions, Quant Directional strategies utilize a fully systematic approach. Human intervention is limited, though some discretionary overlay may exist in quantitative strategies to best interpret signals and optimize the investment model. Directional strategies may prioritize momentum, trend following, mean reversion, sentiment, or another signal-based approach. Additionally, they maintain varying net long or net short exposures to the market over various investment periods and market cycles. No different than traditional hedge fund products, quant directional and market neutral strategies are most often assessed on a risk-adjusted basis. Common hedge fund metrics such as Sharpe Ratio (volatility) and Sortino (downside risk) are often used in this assessment.

Categorization of trading frequencies may vary in the number of trades executed by managers. High-Frequency Trading (HFT) was first well-popularized in the early 2000s in public equities, HFT strategies algorithmically leverage high-frequency data feeds in addition to high order-to-trade ratios executing within milliseconds. Semi-High-Frequency-Trading (Semi-HFT) execute within several minutes. Medium-Frequency-Trading will execute intraday often within minutes or hours. Finally, Low-Frequency-Trading will execute daily or up to a week or two at a time. Given the exchange risk of the market and available data feeds, orchestrating an automated strategy often requires oversight and human intervention during major market movements. Yet, blockchain innovations attract many quant managers as blockchains transactions-per-second and throughout are impressive by [historical standards](#). Additionally, assessment of quality data and information called from exchanges and decentralized oracles impact pricing feeds, and may be limited, requiring more human intervention.

Market Neutral

Market Neutral strategies generally aim to reduce market exposure in various ways, including factor model reduction, beta neutral strategies, delta neutral strategies, or absolute return arbitrage opportunities. While similar to quant directional trading in practice, market neutral differs by reducing the directional exposure to the market as well as reducing volatility. The most common arbitrage strategy in crypto markets is funding rate and basis arbitrage. Other techniques include miner extractable value (MEV), geographically exchange-based arb, centralized exchange to decentralized exchange arb, lending and credit strategies, decentralized liquidity provisioning, yield farming, yield aggregation strategies, volatility trading, interest rate arb, statistical arb, and HFT.

Fund Sizes, Terms, and Fees

Funds reporting to the VisionTrack database vary in size and their terms in fees. The upper range of fund sizes include funds with north of \$1b+ in AUM through December 2022. The smallest fund strategies reporting to the dataset might hold some \$500k in value, largely driven by GP capital. Despite the variability in fund AUMs, the average fund size for all crypto-dedicated hedge fund strategies through 2022 was \$76.1m. The Fundamental category held \$124.3m AUM on average. Quant Directional strategies AUM through December 2022 was \$21.7m, and Market Neutral strategies were \$42.6m.

Lock-up periods are quite prominent in crypto hedge fund offerings, though increasingly becoming less likely. A lock-up period from a hedge fund manager often serves as a means for general partners to ensure liquidity and portfolio stability of the fund strategy. Furthermore, lock-up periods provide capital efficiency on the part of the GP and a diverse base of limited partners. Upon negotiation, a soft lock-up period may be determined prior to an investment. Soft-locks often come with terms where a redemption fee will be provisioned upon withdraw from the fund.

Crypto Hedge Fund Average & Median AUM by Quarter

VisionTrack™

Source: VisionTrack

Fund Type	Strategy Type	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Average AUM Size (\$M)	Fundamental	\$410.95	\$375.19	\$175.99	\$198.15	\$124.30
	Market Neutral	\$63.47	\$65.04	\$59.24	\$60.79	\$42.65
	Quant Directional	\$31.43	\$32.48	\$28.30	\$24.27	\$21.71
Median AUM Size (\$M)	Fundamental	\$31.56	\$25.00	\$24.50	\$30.00	\$24.00
	Market Neutral	\$29.00	\$35.50	\$29.00	\$29.00	\$12.74
	Quant Directional	\$7.95	\$9.20	\$10.00	\$10.00	\$8.70

Data: through 12/31/2022

Crypto Hedge Fund Lock-Ups

Source: VisionTrack

VisionTrack™

	Lock-Up	Soft Lock	No Lock
All Funds	43.67%	3.80%	52.53%
Fundamental	53.57%	1.79%	44.64%
Market Neutral	45.45%	2.27%	52.27%
Quant Directional	30.36%	7.14%	62.50%

Data: through 12/31/2022

Roughly 43.6% of crypto hedge funds reporting to VisionTrack have a lock-up term. Within each fund category, it is much more common to see lock-up periods from fundamental managers than market neutral or quant directional managers. Within fundamental strategies, roughly 53.5% of fundamental funds have a lock-up, whereas 45.4% of market neutral funds and 30.36% of quant directional funds have a lock-up. Due to the investment thesis of fundamental managers, it is much more common to require longer lock-up periods to fulfil the investment mandate.

The most common lock-up period is 12-months. Roughly 27.7% of all fund strategies, including funds with a soft-lock and no-lock, are 12-month locks. 62.3% have a 12-month lock-up for fund strategies with a known lock-up period. There next most practiced period of fund managers with lockups are 6-months, 3-months, and 1-month. Soft-locks are less prominent in the market, encompassing only 8.6% of all fund strategies and, offered most frequently for a 6-month time horizon from quant directional funds.

Fee structures vary as well in the crypto hedge fund market. The average and median management fees are 1.71% and 2.00%. The most common management fee translates to traditional financial market offerings, a very standard 2.00% management fee. For crypto hedge funds, roughly 66.2% of fund offerings require a management fee between 2.00%-2.49%, nearly all being 2.00% in this categorization. 1.00%-1.49%, thus being the next most popular bucket, encompassing roughly 15.9% of offerings. A lower management fee may be indicative of a higher performance fee, though the historical track record and personnel are also factors

Crypto Hedge Fund Management Fee Breakdown

Source: VisionTrack

VisionTrack™

Category	Percentage
0.00% - 0.49%	7.98%
0.50% - 0.99%	0.61%
1.00% - 1.49%	15.95%
1.5% - 1.99%	3.68%
2.00% - 2.49%	66.26%
2.50% +	5.52%

Data: through 12/31/2022

influencing the management fee. For example, a long-time crypto-native manager may charge higher management fees. Conversely, a platform with multiple fund offerings may charge lower management fees to incentivize growth into a new strategy.

Roughly 5.10% of crypto hedge funds offer a tiered share class with varying management fees. As the space expands institutionally, a fund might offer two or three share classes with tailored rights for individuals and institutions. Further, many funds may offer share classes denominated in BTC or ETH, a common theme offered by historically known fund managers. Pulling on this trend, BTC miners and crypto-native investors with sizeable holdings in cryptocurrencies are the main driver of these share classes to diversify, protect, and grow their investment exposure.

Performance fee variance is rare among newer entrants to the market whereas existing fund structures will charge a much higher performance fee given a strong proven track record. Often a trend seen in traditional financial markets, high-performance fees may translate as a means of rewarding the top fund managers for outsized returns. The average and median performance fee for crypto hedge funds is 22.20% and 20.00%. The highest performance fees recorded in VisionTrack is 40.00%, though these funds offerings only make up 2.5% of hedge fund strategies. A 20% performance fee is the most common, nearly 60.5% of all crypto hedge fund strategies.

Crypto Hedge Fund Performance Fee Breakdown

Source: VisionTrack

VisionTrack™

Category	Percentage
0.00%	2.47%
10.00%	0.62%
15.00%	3.70%
20.00%	60.49%
25.00%	11.11%
30.00%	18.52%
35.00%	0.62%
40.00%	2.47%

Data: through 12/31/2022

In addition to mandated performance fees, roughly 12.0% of funds have a listed hurdle rate or high-water mark. Often to incentivize the performance of crypto hedge fund managers, a hurdle rate is the minimum rate of return a hedge fund must earn before it may collect a performance fee. The most standard hurdle rate for crypto hedge funds is 8.0%, with hurdles as high as 30.0% and low as 3.0% depending on the underlying fund strategy. A market neutral, stat-arb fund may have a lower hurdle rate, whereas a fundamental, long-only strategy might charge a higher rate.

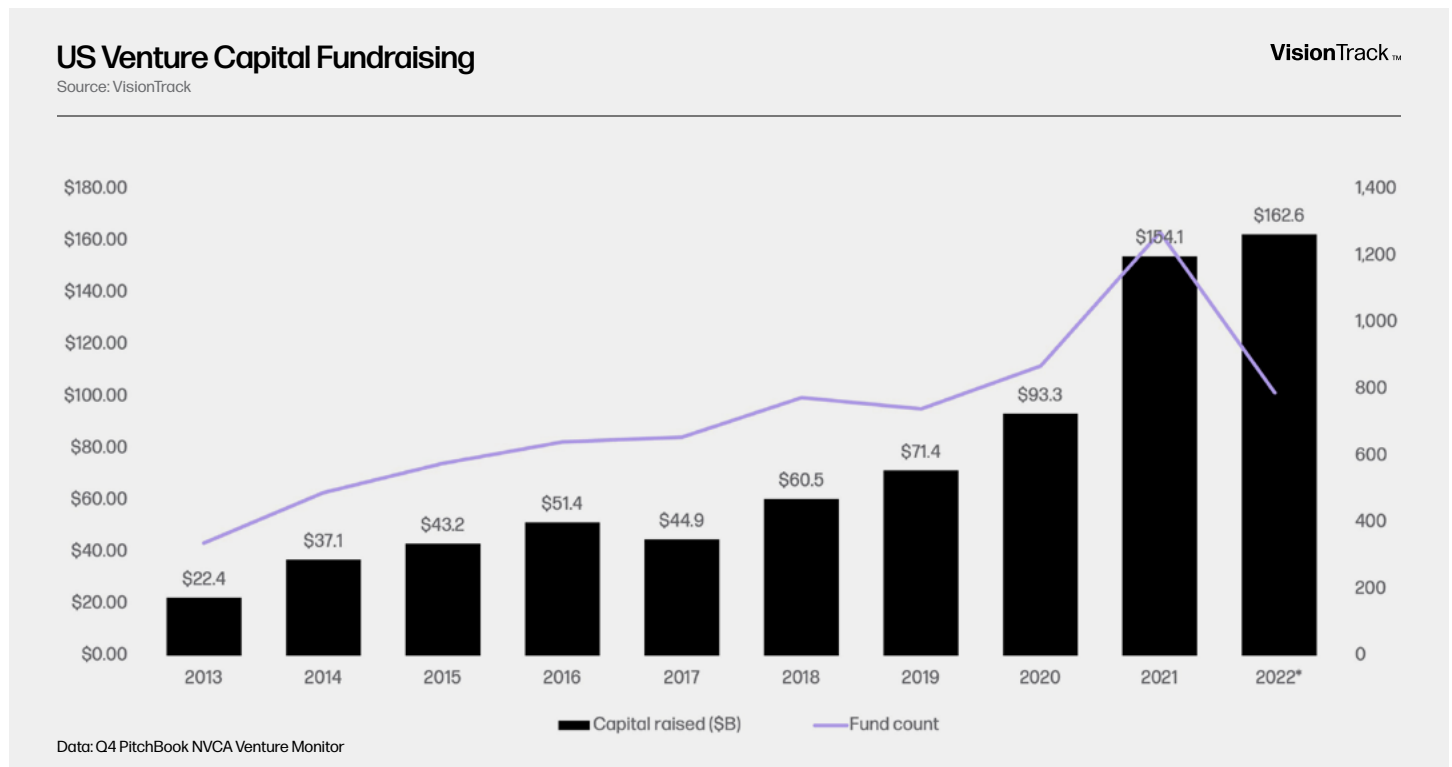
Venture

Overview & Context

The growth of venture capital fundraising in the last decade may be attributed to attractive return profiles, diversification for an allocator's portfolio, and a vast talent pool across tech sectors. In a global zero-interest-rate environment, however, attractive yields pushed allocators further out on the risk curve, seeking better performance and sources of uncorrelated alpha. For this reason, venture capital funds have primarily been one of the main sources of raising capital for out-sized returns historically. At the tail-end of a zero-interest-rate environment and post-covid market flush with highly-priced valuations, fundraising growth in the broader venture capital ecosystem was on fire to start the year. Many more billion-dollar fundraises were prominent compared to years prior,

and the venture market ballooned for many sub-sectors over the last five years. According to PitchBook Data, in 2022, roughly 71% of capital raised was committed to funds with \$500m AUM or larger, a notable achievement for [venture managers](#).

Exceedingly becoming one of the most attractive alternative market investment strategies available, as the macro headwinds shifted, fundraising for crypto venture funds fell off drastically in the second half of 2022, in accordance with the broader market. Fortunately, the crypto sector tallied several of these prominent billion-dollar raises from firms such as a16z, Hivemind, Ribbit Capital, and Haun Ventures in H1.



Fundraising

For crypto venture capital specifically, 64 funds closed on new offerings in H2 2022, equating to roughly \$5.77b in total amount raised. The 2022 year-end total accounted for 204 crypto-dedicated venture funds with \$33.28b committed; A significant step-up from 140 venture funds that raised \$19.4b in 2021. For context to the broader venture markets, crypto-dedicated venture funds globally raised roughly 21.1% of the total value raised by all US venture managers for all tech sectors in 2022. This was the largest increase historically when compared to the US venture fundraising for all sectors outpacing 12.2% in 2021.

Many more traditional venture capitalists raised with the intention of investing in web3 deals; however, our methodology considers fund strategies truly dedicated to the crypto sub-verticals. We screen the investors' previous portfolio companies, token holdings, publicly known preferences, and active participation in the blockchain/ crypto ecosystem dialogue to classify a fund as crypto-dedicated.

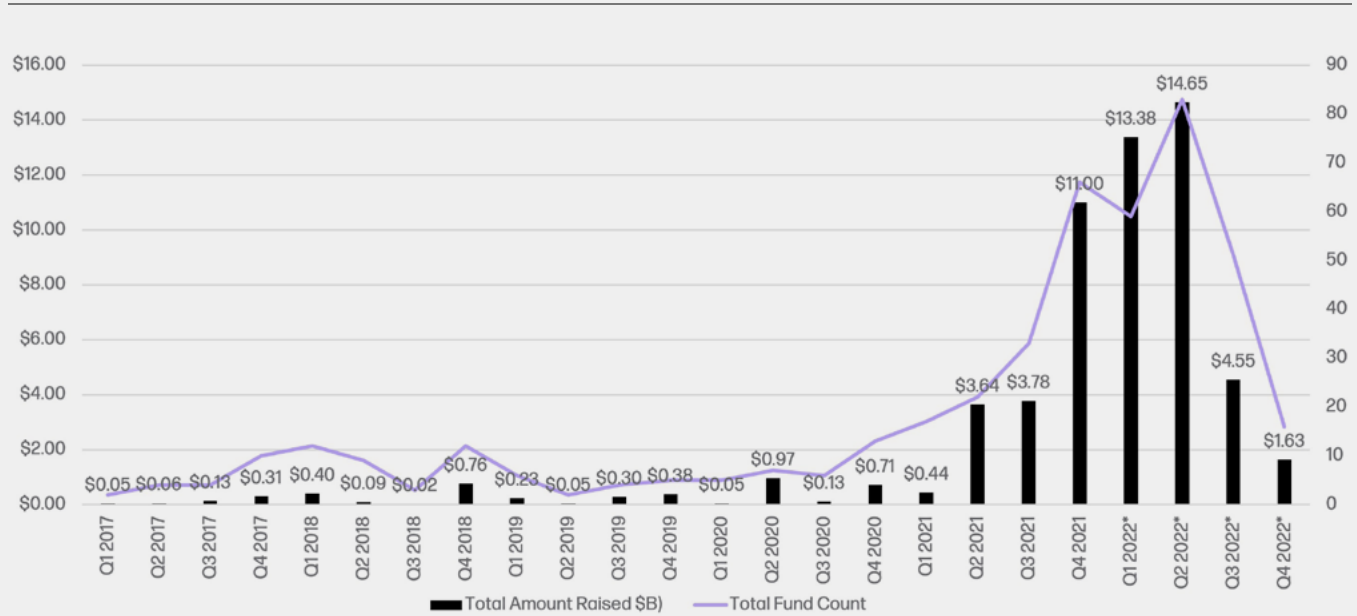
Strong out-performance from early crypto venture fund managers combined with interest from institutional allocators led to a steep increase in fundraising for crypto venture firms in 2021. By the end of Q4 2021 many crypto-native hedge fund managers evolved to become platforms offering a suite of fund products with a dedicated venture vehicle. Existing crypto-venture managers raised their second, third, or fourth funds, building a robust venture program for the variety of deal types in the market.

Among alternative strategies in crypto, crypto venture capital became the ticket of choice in 2022, vastly out-pacing capital allocated to crypto hedge fund products. This trend shows institutional allocators have grown in sophistication for fund offerings and venture capital investors have grown in their ability to raise and deploy larger funds. The number of crypto-dedicated venture capital investors totaled 681 unique firms at the end of 2022, many of which are first-time managers.

Quarterly Total Amount Raised in Blockchain/Crypto Venture Capital

VisionTrack™

Source: VisionTrack

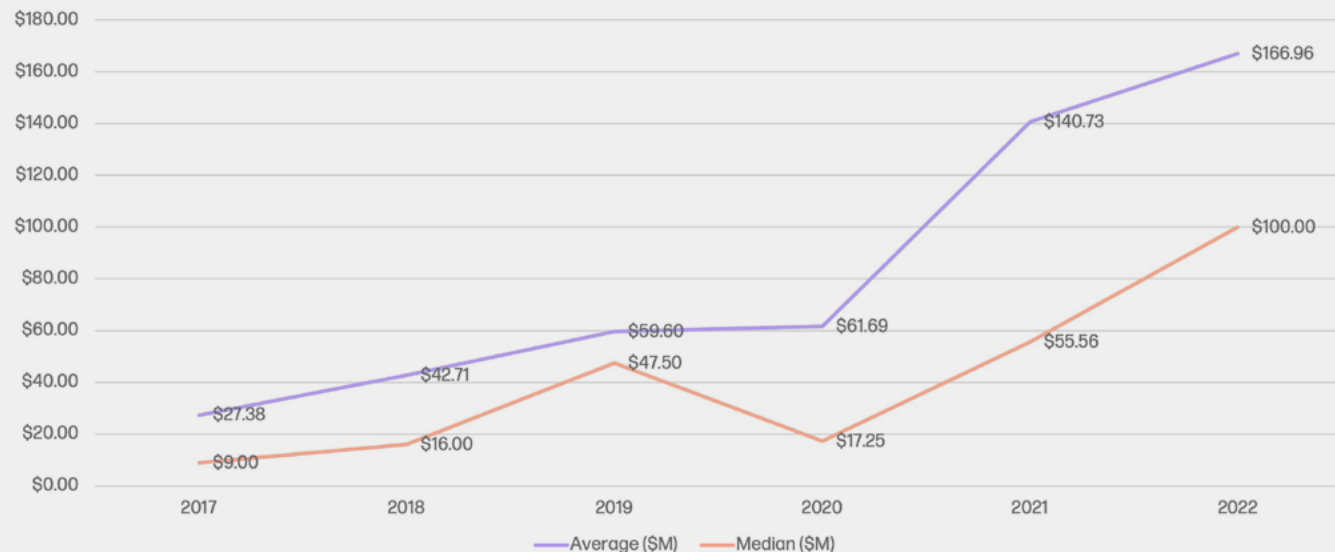


Data: Galaxy Asset Management, PitchBook, Messari, Preqin; through 12/31/2022

Annual Average & Median Blockchain/Crypto Venture Fund Size

VisionTrack™

Source: VisionTrack



Data: Galaxy Asset Management, PitchBook, Messari, Preqin; through 12/31/2022

It's important to note several funds have not yet closed on their raises, and many of the oldest strategies operate as evergreen fund structures. Roughly 52 identified crypto venture funds targeting \$6.85b in total amount raised had not closed through December 2022. We expect these funds to close throughout 2023. In totality, we expect venture funds to be short of their targeted raise amounts given a rising-interest rate environment, global macro uncertainty, poor performance of most major assets market in 2022, and further poor guidance regarding US regulation of the blockchain/crypto sector. Additionally, private capital fundraising commitments are typically cyclical, favoring the first quarter of each year, whereas capital deployment is more common in Q2 and Q3.

For venture capital specifically, roughly 90% of all assets raised from 2017-2022 closed in the last two years, \$18.8b in 2021 and \$34.2b in 2022. The average fund size grew from \$55.5m to \$100.0m in 2021 to 2022, a 79% increase, and the median fund size grew from \$140.7m to \$166.96m, a 18.6% increase.

Firm Types

Categorization of fund strategies might be best determined by their deal track record or investment preference in addition to the fund manager's investment experience. An investor with or without an audited previous track record related to crypto-investing might be included in the crypto-native category. A crypto-native classification is typically based on the portfolio companies which may have received investment, either in the form of an angel deal,

a tokenized personal investment, or even a disorganized fund structure, given the nature of the assets. Historical expertise and considerable working knowledge of blockchain/crypto ecosystem development may be more indicative of the fund managers' familiarity with investing in the blockchain/crypto vertical warranting the terminology.

Crypto-native investors might have an investment track record in traditional, centralized financial markets or through their own personal investment experience in blockchains and cryptocurrencies. Exposure and understanding of popularized categories of L1s, L2s, DeFi, Crypto Infrastructure, and Early NFTs are common investment types from earlier years. Associative projects, protocols, references, aesthetics, and industry memetics signal historical appreciation of the blockchain/crypto development and are often a means to understanding the crypto-native lexicon and crypto-native participants. The term "crypto-native" is subjective and often used as a point of pride among early investors and participants in the market and carries meaning to early adopters of the technology.

To differentiate the taxonomy we use, crypto-dedicated investors include both crypto-native investors and traditional investors who have raised a venture fund specifically for crypto venture deals. It is the focus of the fund vehicle, not the subjective description of the investor which matters for our analysis. Funds with the expressed intention of preference to blockchain/crypto deals are included should they be raised from a crypto-native investor or a traditional investor.

Traditional venture investors in the blockchain/crypto vertical are well-established venture managers investing in the blockchain/crypto vertical, though not uniquely investing in the vertical. These firms may have raised a fund or are completing deals specific to the ecosystem. They may include fund managers investing in other technologies, real estate, or real assets unrelated to the blockchain/crypto vertical.

With every major tech cycle, many verticals will typically experience Tourist Investors. Tourist investors are a traditional venture capital term most exclusively used to define investors that are not specialized in the vertical. These investors compete for deal activity in the space but may not be raising a crypto-dedicated fund. Often, a tourist investor is active in deal activity during bull markets, driving valuations higher but less participatory during bear markets. An easy form of classification is an assessment of how deal activity is obtained and the portfolio's composition through market downturns.

Fund Types

Among crypto-dedicated firms and traditional investors, several crypto-dedicated fund types are offered as allocation strategies. Fund types, among several factors, are best determined by the type of investments by sub-category and deal type. Well-established crypto funds include ecosystem funds, accelerator/incubator funds, NFT funds, DeFi funds, decentralized autonomous organizations (DAOs) among others. Fund strategies might also focus on liquid venture strategies and illiquid venture strategies or a blended mix of both given the mandate of the fund.

Ecosystem funds have been a standard method for companies and protocols to get their start in the blockchain/crypto market. Self-explanatory in the name, an ecosystem fund is often initiatives by blockchains or companies to collaborate with partners of the specific ecosystem or protocol's token to grow and develop applications on top of their blockchain/protocol or to address market challenges. Some of the most significant ecosystem funds raised in 2021 and 2022 included Borderless Capital Algo Fund II (Algorand), Flow's Ecosystem Fund (Flow), FD7 Ventures (Cardano & Polkadot Fund), and Oasis Foundation (Oasis). The Solana ecosystem collectively raised the highest number of ecosystem funds in 2021 and 2022 with four funds across different managers.

Similar to traditional venture investing, accelerator and incubator funds aim to mentor portfolio companies with a vast network and proper guidance in return for future tokens or equity. Differing from ecosystem funds, an accelerator and incubator fund is not dedicated to a particular blockchain ecosystem. From a company's perspective, participation in an accelerator and incubator program is typically in the seed and pre-seed stages before completing a Series A. However, an accelerator and incubator fund might participate in some early-stage deal types beyond the seed investment should the company enter a growth phase. Many well-established venture managers will offer an accelerator/incubator

program to best develop new companies. Managers such as Alliance, Outlier Ventures, Tribe Capital, Animoca Brands, and KuCoin Labs all raised accelerator/incubator funds in 2022 for such cases.

Non-fungible token funds, or NFT Funds, grew in popularity after the early rise in NFT activity in 2021. As a more nascent and less liquid market, NFT funds primarily specialize in buying, selling, trading, and minting cryptographic, NFTs to generate returns. Some of the largest and most well-known NFT funds specializing in this market sub-sector include 6529 Capital, Meta4 Capital, Sfermion, and Metaversal. While these crypto-dedicated managers specialize in NFT investment, often crypto-dedicated venture managers with a more general investment thesis to the market will have a fund vehicle partly for NFT investments. This practice is more common among fund managers such as 1Confirmation, Alphaverse Capital, eGirl Capital, and Hartmann Capital. As NFTs expand in their technological reach and diversify their utility and application, we suspect more funds will have a blended mix of exposures to NFTs or will open new fund vehicles tailored to NFT markets.

Decentralized Finance funds specialize in venture investment into illiquid and liquid tokens & equity, advancing DeFi applications and infrastructure. On the token side, deals are most commonly reflective of tokens with a digital market capitalization below \$2b in value, small and mid-cap investments, but are not limited to pre-token deals. For equity investments, a Simple Agreement for Future Token (SAFT) or Simple Agreement for Future Equity (SAFE) are the preferred methods for investment for many funds. These deal types often occur at the seed and pre-seed levels, increasingly creating competition among DeFi protocols and generalist crypto investors.

Preceding the emergence of crypto-dedicated venture funds in 2021, early DeFi applications and infrastructure, coined DeFi 1.0, hedge funds and liquid venture strategies served as the primary funds for backing. As capital raising outpaced crypto development in 2021 and 2022, deal-making shifted in favor to quasi-equity venture investments. More often than not, many more DeFi companies and protocols have raised capital via SAFTs or SAFEs, institutionalizing the means of raising capital in the early stage. This capital formation was antithetical to the principled approach of decentralized investment access, raising concerns towards fair terms and token launches. However, this capital formation practice ensured longevity of the company or protocol as it aligns core developers with the mission of the investors.

In early-stage defi development, crowd-funding style development did not incentivize core team members to stay and build applications with more longevity as vesting schedules for tokens were often shorter or non-existent. Additionally, concepts of interoperability and composability influenced growth across defi native primitives, often driving developer talent to collaborate across layers of the blockchain technology stack. The influx of more venture funds as well as developer talent shifted the incentive structures for both sides of the table. The result has been overwhelmingly positive as liquidity became scarce in 2022, extending the likelihood of adoption for many early stage defi companies.

Decentralized autonomous organizations (DAOs) are entities with no centralized leadership, rather a community established to enforce a specific set of rules on a blockchain in the spirit of distributed, open-source technology. A crypto-native form of community, most members first experience with DAOs are digital; however, the popularity of web3 created many more formalized, in-person DAOs. In DAOs, decisions are made from a governed community vote often to actioned smart contracts to enforce a proposal. Governance structures vary upon each DAO and each's DAO legal authentication is subjective, however, each DAO is similar in its approach in that proposals are commonly debated on a [Snapshot](#) or social media platforms.

The DAO, a venture-focused DAO, was the first formally launched in April 2016. Since then, several DAOs have sprouted to organize digital, blockchain-adjacent communities. Such examples might include PleasrDAO (NFTs), Lobster DAO (DeFi, Cybersecurity), The LAO (DeFi), ConstitutionDAO (U.S. Constitution), and LinksDAO (Golf, Sports Leisure). DAOs vary in their expertise and interest in blockchain technology and use-cases. AllianceDAO, AlladinDAO, and DAO5 are all examples of investment DAOs aiming to capitalize on venture-building in the web3 space and very much specialize on early crypto primitives.

Liquid venture strategies actively manage investments in early-stage projects related to L0, L1, L2, DeFi, NFTs, the Metaverse, liquid staking, borrowing/lending, and yield farming strategies. Unlike dedicated DeFi funds, liquid venture strategies operate more similarly to a hedge fund strategy in a wider array of tokens, typically less established. Further, liquid venture funds focus on contributing to the fundraising of promising new projects, similarly acting as crypto hedge fund fundamental strategies prior to 2018. Mandates may vary in that a popular method of investing is to exploit inefficiencies in volatile markets. Still, funds may also approach companies by providing actively-managed support along their growth stage. Fund terms, in addition to tokenized investment mandates, are often a strong indication when comparing liquid venture strategies as well as fundamental crypto hedge funds.

Despite liquid venture strategies reporting monthly performance, liquid venture strategies might have lock-up periods and distributions more closely resembling to a traditional venture structure. Most common, distributions may not be realized for 7-10 years with a deployment schedule as long as 4 years. Fund managers of liquid venture strategies are often quite credentialed in the crypto/blockchain sector and collectively have an investment thesis that mirror a macro-driven approach. Additionally, it is common for illiquid venture strategies to hold assets in a cryptocurrency as an investment prior to deployment to liquid token deals. While these funds strategies are liquid in their investment thesis, they are most typically closed-end vehicles and thus are not crypto hedge fund strategies.

The most common type of crypto venture investment fund raised in 2021-2022 was a standard illiquid venture fund. To traditional venture allocators, this fund type differs from liquid venture strategies in that the fund will not invest in tokenized investments.

As the crypto/blockchain vertical grew in popularity, the fundraising method changed, as did deal types. For founders eager to have a more long-term partner with aligned strategic incentives, quasi-equity deals shifted the market in favor of these deal types and allowed venture managers to raise more capital from traditional allocators such as insurance companies, financial institutions, sovereign-wealth funds, and retirement funds. The growth of this fund type fostered robust development and interest from allocators, mainly benefitting the investor class in ways it had not seen capital formation from years prior.

Venture Fund Terms & Fees

Data collected by Galaxy Asset Management and VisionTrack showcase a smaller variability in fund terms and fees compared to crypto hedge funds. The average and median management fee for venture firms is 2.06% and 2.00%. Through 2021 and 2022, roughly 20% of funds recorded a 2.50% management fee, and only 6% of fund managers recorded below 2.00%. In alignment with traditional private capital funds, terms for management fees are often always the same.

Performance fees for venture fund strategies vary considerably, especially when accounting for fund size. While the average and median fund performance fee is 20.02% and 20.00%, respectively nearly 40% of funds will raise their performance fee to 25.00%-30.00% after an, on average, recognized MOIC of 5x. The lower hurdle rate is 3x, and the highest is 8x. Many crypto fund managers recognize the upside potential of the emerging asset class and have argued for more upside should the fund's portfolio perform well. In response to this term, nearly 12% of crypto venture managers reduce their management fee upon realizing their negotiated MOIC or after the deployment period has passed.

Specifically for accelerator/incubator funds and ecosystem funds, the typical management fee and performance fee is 2.00%/20.00%. These terms are often the case for funds raising between \$10-\$30m, the most common fund size in this fund type group. As these fund structures grow in value, a few funds offer a 2.5% management fee; however, these are from investment vehicles that may include mandates to invest in Series A investments. Given their check size and participation in later stages, these funds are much more flexible in their mandate and thus require a higher management fee.

Deals

Tracking deals in the crypto venture ecosystem is still a major challenge for the market in terms of accuracy and transparency. Historically, tokenized venture deals were the major source of venture investment, especially in the seed and early-stages. For fundamental funds participating in tokenized deals prior to the crypto ventures' sharp fundraising cycle beginning in 2021, deals were either side-pocketed or transacted purely as a tokenized sale. For this reason, much of the tokenized deal activity resembling to

an early-stage venture deals are not recordable as they would be liquid open market purchases post-initial coin offering/post-mainnet launch. In the early days of token dealing, a more notable challenge was sourcing detail of the early token rounds pre-ICO, no different than seed and pre-seed deals under-reported by the press, fund managers, or limited partners for traditional venture capital.

Coverage on deal types is still improving as the rise of closed-ended venture fund types gave rise to more classical venture deal types. Galaxy Research’s 2022 year-end report on the venture capital market for deal activity is used as the broad basis for coverage in this report.

At 2022-year-end, crypto venture capital deal counts swelled to 2,938 deals with \$30.72b in deal value, just shy of the 2021 banner year of 2,980 deals and \$31.47b total capital raised. Historically, 2022 was a strong year of deal activity as many newer funds and angel investors deployed previously earned and freshly raised capital into the market. The historically most significant quarter on record for crypto venture fundraising, Q1 2022, took the lion’s share of this deal activity, raising \$12.6b in total value. Notable deals throughout the year included Trade Republic, [FTX US](#), MoonPay, Fireblocks, Blockchain.com, Consensys, and Polygon; all raising

considerable venture deals exceeding \$400m in deal value with post-money valuations in the tens of billions.

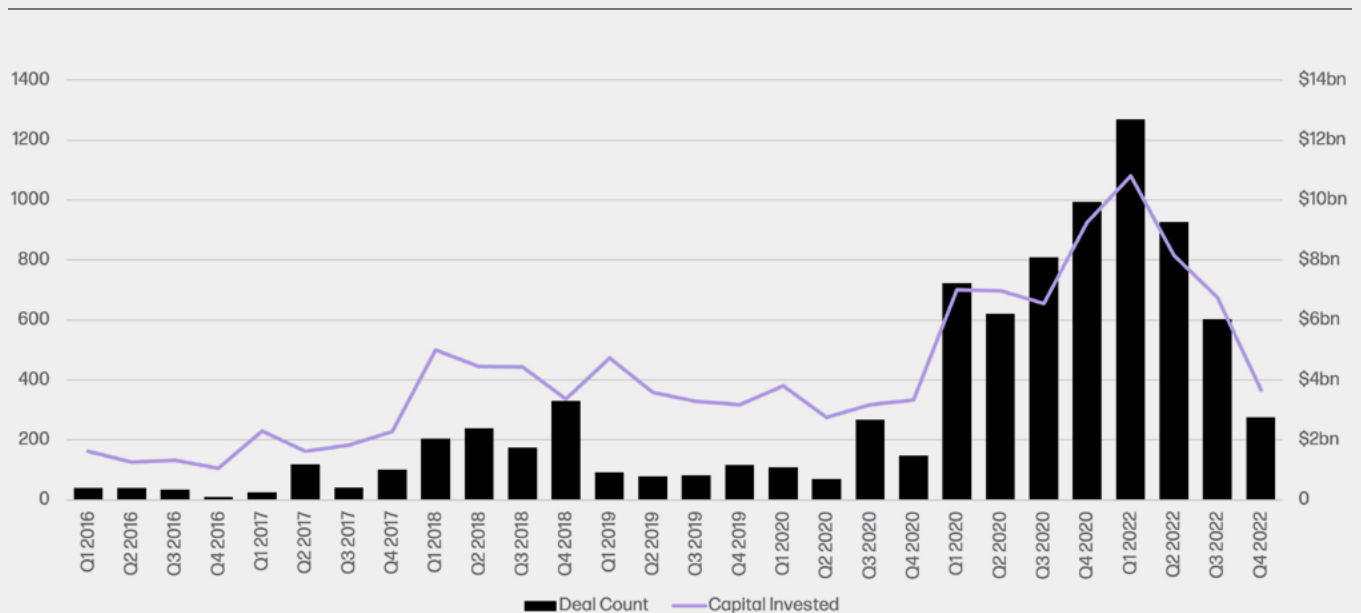
As the crypto wave crazed investors, valuations soared across sub-categories in blockchain/crypto for top deals. Active participation in deals beyond crypto-dedicated investors and traditional investors with crypto-dedicated funds became quite common. Individual deal values had not reached heights since Bitmain’s \$422m Series B financing and Revolut’s later-stage round of \$1.5b, both deals in 2018.

On a quarterly basis median deal sizes and valuations steadily increased across investment stages. The highest recorded median deal size reached \$3.5m in Q4 2021 and stayed within range until Q3 2022 totaling \$4.5m. Pushed primarily by deal activity in seed and pre-seed stages, each quarter since Q2 2022 typically accounts for over 50% of deal counts as funds increasingly compete for the cap table space. Historically, deal counts for seed & pre-seed deals typically accounted for more than 60% of deal activity until the second half of 2022. Only once prior had the total number of deals from seed and pre-seed stages not accounted for over half the deal activity in Q4 2021. Capital consolidated to the prized developments of the industry during this challenging time.

Deal Count & Capital Invested

Source: VisionTrack

VisionTrack™

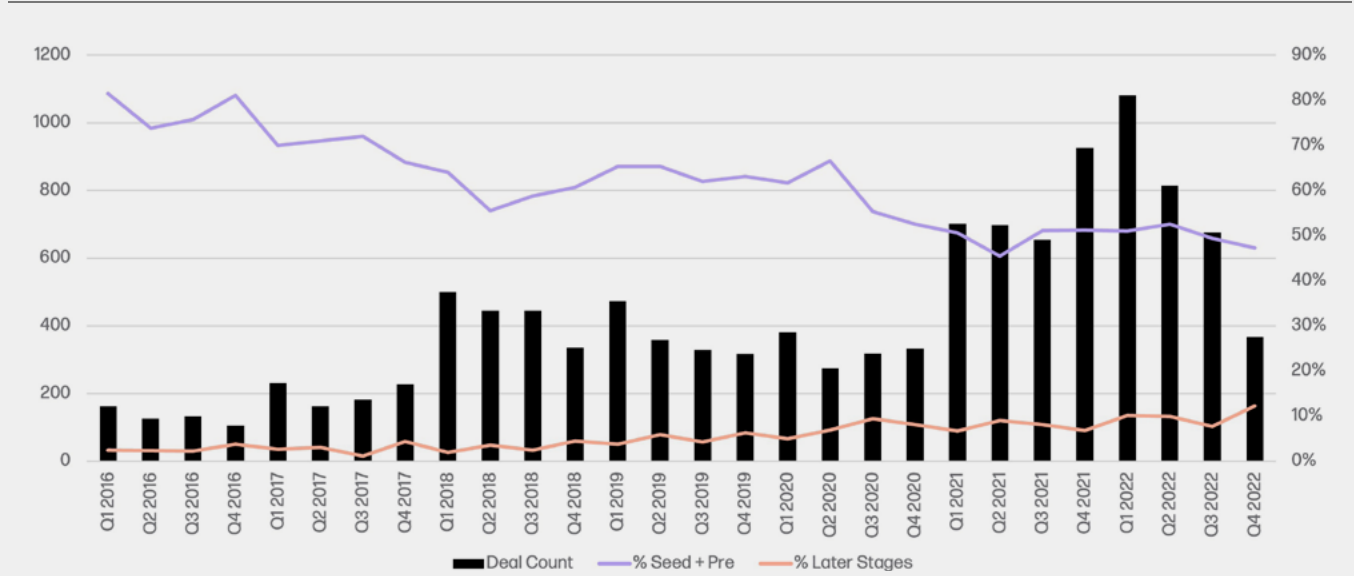


Data: Galaxy Research; through 12/31/2022

Deal Count by Stage

Source: VisionTrack

VisionTrack™



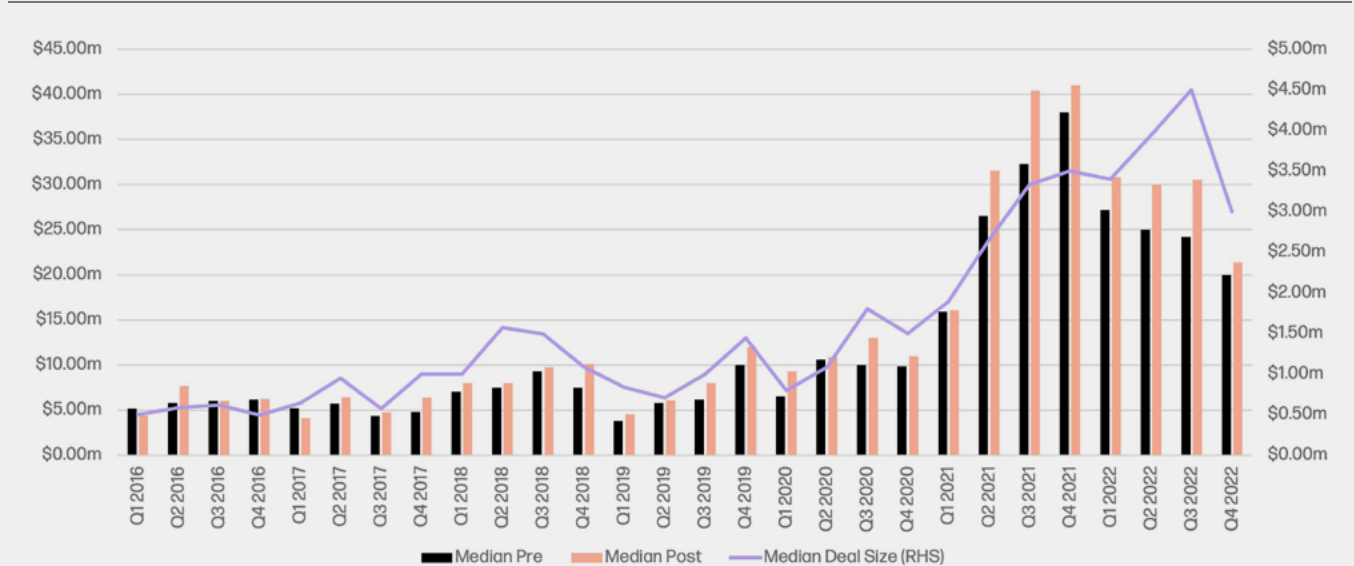
Data: Galaxy Research; through 12/31/2022

Historically, the highest median post-value for crypto venture deals was recorded in Q4 2021 accounting for \$41.00m. For nearly four years, with the analyses inception in 2016, crypto venture deals rarely exceeded \$10.00m post-value with only two exceptions, Q4 2018 and Q4 2019. Valuations had soared drastically for the standard crypto deal in a short time. In Q4 2022, post-valuations recorded were \$21.38m, a much more reasonable reversion to the mean, but likely still pricey on historical standards.

Crypto Venture Deals, Median Pre-Money, Post-Money and Deal Size

Source: VisionTrack

VisionTrack™



Data: Galaxy Research; through 12/31/2022

In addition to assessing deal making activity, data collected on the secondary market by Galaxy Asset Management recorded, on average, the top VC-backed crypto unicorn valuations asking as low as -34.1% in December 2022. The lowest recorded discount recorded was -62.2% since the previous financing round. Driven by the FTX's implosion and bankruptcy, valuations for VC-backed crypto unicorns with an average latest financial valuation exceeding \$1b experienced more than a haircut, rather a buzz-cut.

Look Forward

To start 2023, a resilient pool of firms and funds working within the rails of traditional finance have expanded opportunity sets for allocators beyond the popularized allocation methods to market beta; private placements, single/multi-asset indexes, ETFs/ETPs. While acceptance of single asset institutional products such as Bitcoin and Ethereum remain core objectives for the sector, capital raising, and new opportunity sets have sprouted beyond these vehicles. Large-cap beta products almost always garner more attention to allocations upon first impressions, yet, historically small and mid-cap tokens as well as early and later stage equity capture outsized returns as the cryptocurrency sector expands and the market progresses further with institutional and retail adoption.

Contact Us

- If you are a digital asset fund manager and would like to contribute your performance results to VisionTrack to be eligible for inclusion in our VisionTrack Indices, please reach out to us at visiontrack@galaxy.com.

For more information on our updated methodology as well as downloadable monthly data, please visit our website at <https://visiontrack.galaxy.com>.

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