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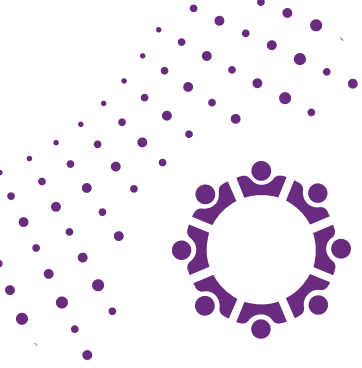


Digital Asset Outlook 2022:

Taking the pulse of
institutional allocators



Digital Assets
Forum 2022



Introduction

According to Research and Markets, the global digital asset management industry is forecast to reach **\$13.4 billion by 2027**, exhibiting a CAGR of **19.2% between 2022 and 2027.**¹

DeFi total value is now estimated to be \$100 billion according to a recent a16z study. If it were a bank, this would make it the 38th largest US bank based on deposits. Last year, VC firms invested more than \$33 billion in to crypto/blockchain start-ups; that's more than all previous years combined. Moreover, as NFTs rise to prominence the growth opportunities look attractive, as the worlds of gaming and Web3 intersect. In the same a16z study, it found that 20% of NFT sales in 2021 came from gaming-related assets.

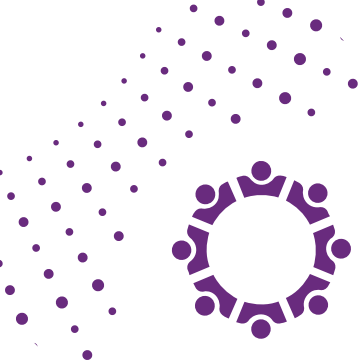
It is important to set this positive context given the aggressive sell-off in cryptocurrencies. One cannot ignore the scale of volatility that has impacted digital assets in recent weeks but this is still an emerging asset class.

While it may share some characteristics with the late 90s dot.com market, the fact remains that tomorrow's Google's and Amazon's will emerge as Web3 takes hold and truly institutional-quality companies rise to the top.



Disclaimer:

The survey results in the following report were collated during the first week of June, immediately following the iConnections inaugural Digital Assets Forum, which was held in Miami between May 31st and June 2nd 2022. We have endeavored to put this report together as quickly as possible, in light of the market movements we have seen, and which continue to play out.



Heightened volatility is unnerving but it is, in many respects, a function of Darwinism. The winners will emerge stronger. The laggards will disappear.

There are reasons to believe that the digital assets marketplace will continue to mature over the next decade. The findings contained in this report, based on the iConnections Digital Assets Allocator Survey produced in collaboration with Galaxy Digital, at least provides a snap shot in to how institutional allocators view digital assets over the next 12 months.

Eighty-two allocators gave their time to complete the 17 question survey and

to each and every one of them we are grateful for their contributions. In respect to allocator breakdown, single and multi-family offices represented 42.5% of survey respondents, followed by fund-of-funds (21%), consultants (15%), endowments and foundations (12%), wealth advisors/RIAs (5%), with asset management firms and private banks accounting for 5%, representing approximately 27 trillion of assets within the alternatives space.

We hope you find the survey helpful as you continue to educate yourself and navigate your way around this fast moving, and at times dizzying, asset class.

While the market volatility has pushed back the timing of some planned allocations, many investors are using the time to assess the operational risks revealed during this period and further refine their ODD processes.

Michelle Noyes

Managing Director, Head of Americas
AIMA

iConnections Q&A

with Mike Novogratz, CEO of Galaxy



Q What's the macro outlook for crypto?

I can't help but think of the song, "Tale as Old as Time," from "Beauty and the Beast." What we're seeing in crypto markets is a tale as old as time. We had an asset bubble fueled by the Fed. And that created a speculative mania around all sorts of assets, from luxury watches and baseball cards to growth stocks and crypto. Within crypto, bitcoin traded as high as \$70,000. Lots of other crypto assets took off.

And so, when the Federal Reserve got hawkish, removing liquidity from the system, everything started to crack. All assets started to fall, including growth stocks, and crypto. And that's where the tale as old as time kicked in. UST and Luna collapsed. Then the big CeFi (centralized finance) crypto players started running into trouble. They had big balance sheets that had taken on far more leverage than I think people understood, knocking bitcoin below \$20,000.

Ironically, the truly decentralized projects and protocols in crypto worked well throughout the volatility. DeFi has worked, and we've seen a number of those players attract assets over the last month.

Going forward, we need money coming into the space. And we need a new narrative. I think that new narrative will be the Fed flinching because we're seeing the economy struggle right now, and concerns of a recession are on the rise. That will hopefully cause the Fed to flinch and pause on tightening.

When that happens, bitcoin leads the way because it really is a macro bet against the debasement of fiat currency. People, myself included, really see bitcoin as a store of value.

Remember, we're facing a bear market in prices, but not innovation. I continue to see significant human capital at work, building a new infrastructure for the online world. Even if the GDP of the real-world declines, I believe the growth rate of the digital world will rise. Also, it's important to remember that bear markets have led to some of the greatest innovations in crypto and financial services so far.

Q How are institutions engaging in this space and how do you see it unfolding in the future?

Crypto's price downturn hasn't resulted in a meaningful downturn in investments or institutional adoption within the space. I'm seeing engagement from all sorts of institutions, from sovereign wealth funds to major institutions, that want to get exposure into crypto or deepen their presence. On the corporate side, we're seeing more involvement, whether it's companies like Block putting crypto assets directly on their balance sheet or firms like Twitter adding services that facilitate crypto payments.

The pickup in institutional activity is a big reason why we're seeing such tight correlations between the Nasdaq and bitcoin. Institutions are managing risk across portfolios of stocks, bonds, and cryptocurrencies amid the headwinds, so it's difficult for investors not to think of crypto as a risk asset in an environment like this. But I see the selling as temporary. Once the Fed starts to ease up on rates, institutions will be in a stronger position to buy the dip in cryptocurrencies.

Q What role is venture capital playing in the development of crypto and blockchain companies?

One of the stronger signs of institutional conviction in this space is on the venture capital side. Even as crypto prices slid over the first quarter, venture capital investors poured over \$18 billion into crypto and blockchain startups so far this year. This isn't an isolated occurrence. Total funding from venture firms also rose during bitcoin's pullback during the summer of last year.

That tells me there's a significant appetite to continue scaling up crypto companies, with a focus on rebuilding the infrastructure of the financial markets in a way that's more transparent and egalitarian. We are a new industry building decentralized infrastructure to allow value and ownership to flow as freely as information on the internet. The community's shared mission isn't changing.

“I believe investing in blockchain technology and digital asset networks can be thought of as investing in one of the greatest technological revolutions in human history.”

Mike Novogratz
CEO of Galaxy Digital

Q Why would some investors engage crypto through funds rather than directly?

For many institutional investors, direct exposure to cryptocurrencies simply isn't feasible. That's where private funds come in. Private funds simplify the process, providing access to crypto that's not dissimilar from how institutions indirectly engage with stocks, bonds, and other assets. Private funds hold the cryptocurrencies, putting the onus for custody and security on the asset manager. Investors who buy those funds indirectly own a piece of its underlying assets via shares or interests. Our passive funds, for instance, are designed to track indexes that mimic the movements of the underlying

cryptocurrencies they own, providing investors with correlated exposure.

We believe blockchain technology is the next natural phase of evolution for information technology. But the space is nuanced and complex, requiring specialized teams of investment professionals to sift through the vast opportunities. Investors who are seeking more of an actively managed model can consider our Galaxy Vision Hill fund of funds, which build portfolios based on a proprietary analysis of funds spanning the full spectrum of the cryptocurrency sector and life cycle.

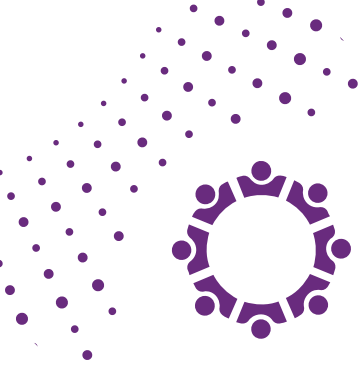
Q What do you see as the biggest opportunities yet to be fully explored in digital assets? And what are the risks to be mindful of?

Blockchain technology has birthed a new asset class that is reshaping major sectors of the global economy, creating tremendous value in the process. I believe investing in blockchain technology and digital asset networks can be thought of as investing in one of the greatest technological revolutions in human history. Blockchains have the potential to revamp how we store and transfer value, digital ownership, and how societies interact and function.

As for risks, we're seeing the biggest one play out right now. The Fed's tightening of monetary policy is squeezing liquidity out of markets, forcing a massive deleveraging that I think has largely played out. For a number of institutions, this is an opportunity to get into bitcoin and various other cryptocurrencies at more attractive prices that are poised to grow in a more sustainable manner over the long term. It's a volatile road for now. But, further out, the implementation of blockchain technology and the metaverse will have a profound impact on economies and societies.

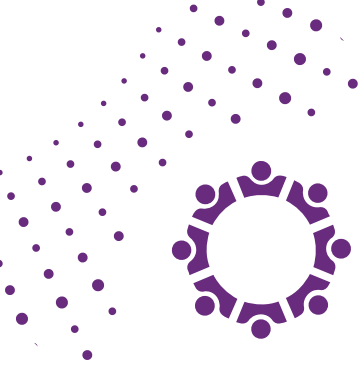
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Bitcoin Bullishness

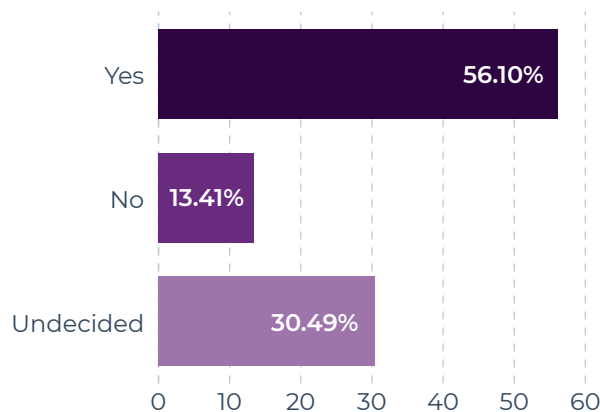




Bitcoin has endured a long and painful sell-off. At the time of writing this report, its price was \$21.5K; a significant fall from its \$69K high-water mark in October 2021. This is not the first time bitcoin has seen price destruction, and it will doubtless be the last. Speculative trading on short-term time horizons is very different to a long-term investor mindset.

As illustrated in Figure 1, over half of those surveyed expect to increase their allocation to bitcoin and ethereum over the next 12 months. Only one in 10 replied in the negative, while one in three allocators said they remained undecided.

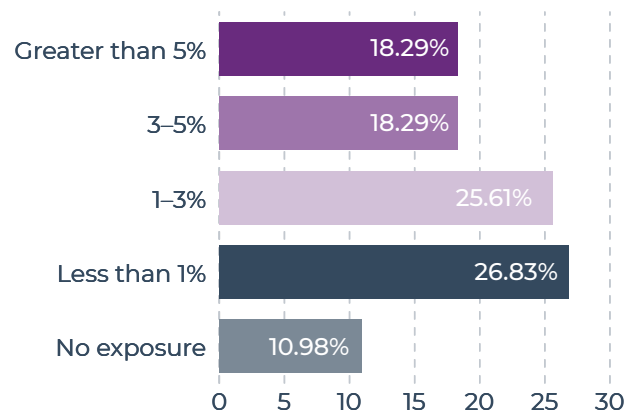
Figure 1. In light of recent price movement, do you expect to increase your allocation to assets like bitcoin and ethereum (excluding venture) over the next 12 months?

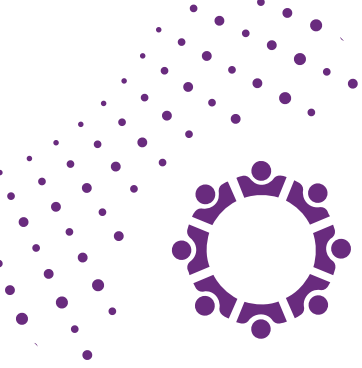


The extent to which allocators are planning to increase their exposure to crypto's two leading currencies, however, is rather varied.

When asked what this increase would likely represent, as a percentage of their overall portfolio, 36% confirmed that it would either be 3 to 5% or higher. Those with a lower conviction — representing 26.8% of allocators — said that bitcoin and ethereum would represent less than 1% of their portfolio. The median response, among one in four allocators, was 1 to 3%.

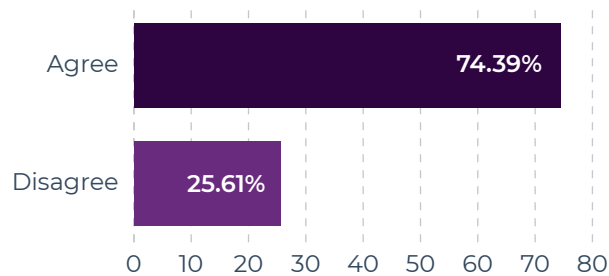
Figure 2. If yes, how large will your digital asset allocation be (excluding venture), as a percentage of your total portfolio in the next 12 months?





One sign that points towards how allocators are developing a long-term mindset on digital assets is an overwhelming consensus that they have potential as a store of value and could replace gold. This was the view shared by 74% of respondents.

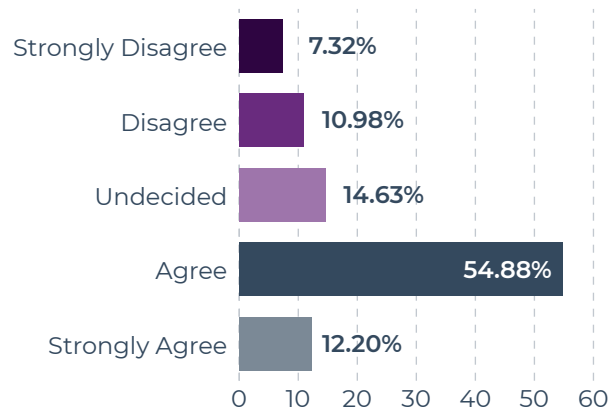
Figure 3. Digital Assets have potential as a store of value and/or means of exchange and can potentially replace gold and/or fiat currencies.

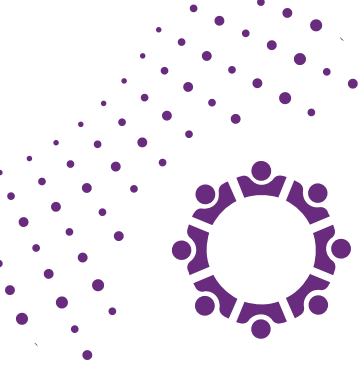


At the start of the year, Goldman Sachs wrote in a research note to clients that bitcoin had a 20% share of the “store of value” market and that this percentage would “most likely” increase over time.² Many others share this belief that bitcoin could replace gold but as prices retreat, it will take longer than people might have expected.

As for the role that digital assets will likely play, two thirds of survey respondents ‘agreed’ or ‘strongly agreed’ that they would become a standard component of institutional portfolios within the next five years. Only 7% of respondents strongly disagreed: see Figure 4.

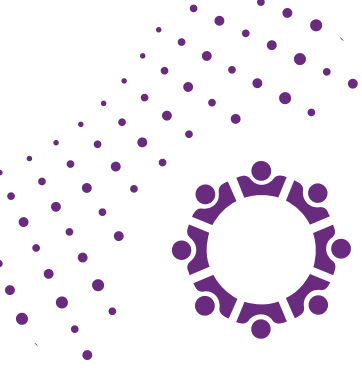
Figure 4. Do you think digital assets will become a standard component of institutional portfolios within the next 5 years?





Crypto Falls Prey to Hawkish Stance

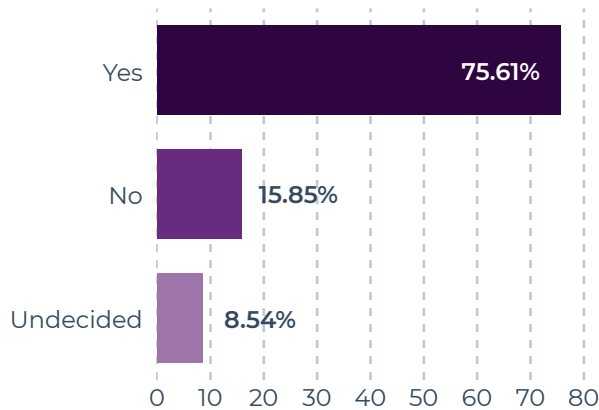




Much of the volatility impacting digital assets is being driven by fear in the market. Celsius, for example, was forced to suspend all withdrawals, crypto swaps and account transfers citing "extreme market conditions". Their liquidity problems were associated with illiquid staked ethereum, in addition to counterparty risk blowups that stemmed from those who lent to Three Arrows Capital.

Liquidity concerns remain top of mind among allocators, as cited by 75% of survey respondents: see Figure 5.

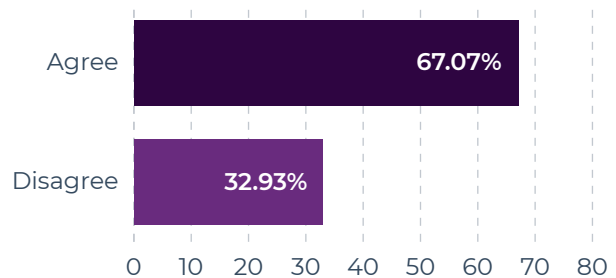
Figure 5. Do you think liquidity is an issue for institutional investors?

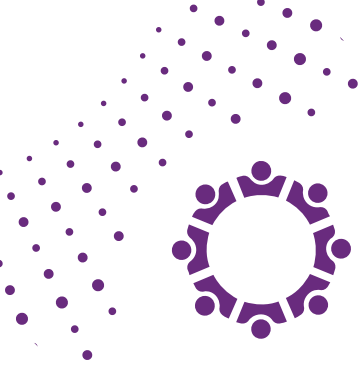


Traders who speculate on what the price of crypto should be worth have seen prices plummet amid concerns over rising interest rates and higher inflation. With the US Federal Reserve raising interest rates by 75 basis points – the highest rate hike since 1994 – the contagion effect has traversed into crypto assets as investors flee risky assets. This 'risk off' sentiment has led to a flight to safety, as witnessed by the strength of the US dollar.

Survey respondents do not appear surprised by this volatility. As Figure 6 shows, 67% of allocators believe that the price of digital assets will continue to rise and fall based on what people think they are worth.

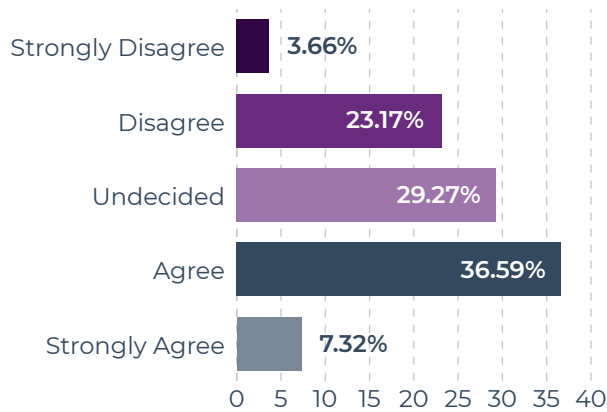
Figure 6. Digital Assets have value based on wishful thinking and will continue to rise and fall depending on what people believe they are worth.





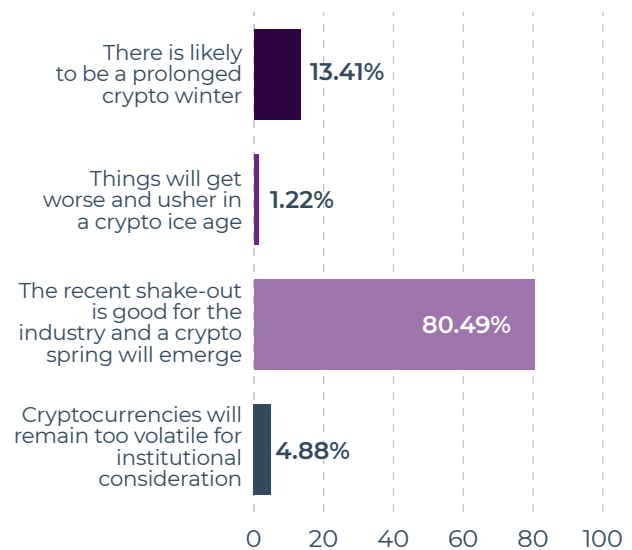
One third of allocators feel that the recent devaluation in cryptocurrencies has been driven by a change in central bank monetary policy, although 30% are undecided on this. One in four disagree: see Figure 7. The US Federal Reserve is now committed to quantitative tightening and raising interest rates to cool the economy. With inflation at levels last seen forty years ago, the Fed is under pressure to contain it without inducing a recession (markets are now officially in bear market territory). This hawkish stance has undoubtedly impacted digital assets in recent weeks.

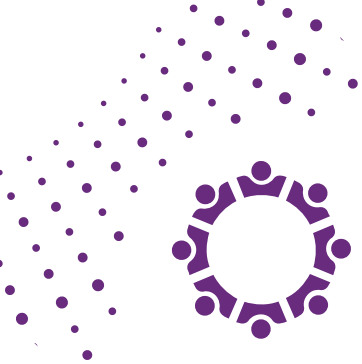
Figure 7. The recent devaluations of cryptocurrencies have been driven by the change in monetary policy narrative. The situation will last as long as the Federal Reserve adopts a hawkish message when it comes to inflation and monetary policy



The overwhelming view, held by 80% of allocators, is that the current shakeout is good for the industry and will lead to a crypto spring. Only 13% think it will lead to a prolonged crypto winter: see Figure 8. This survey finding reinforces the distinction between trading and investing. Right now, crypto feels a long way from moving into spring. However, by taking a step back and looking at the bigger picture, the long-term use case for bitcoin and blockchain-enabled technologies remains strong. Allocators would appear to be cognizant of this.

Figure 8. Which of the following would you most agree with as you assess the long-term opportunity set for crypto?

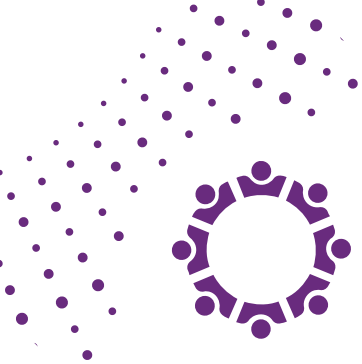




“Cambridge Associates views blockchain at its most fundamental level as a disruptive technology. Ignoring the potentially transformative effect of this technology entirely could be short-sighted. Given this view, blockchain is both a threat and an opportunity for institutional investors. Every investor should evaluate blockchain in the context of their portfolio and its objectives.”

Joe Marena

Partner, Global Head of Digital Assets Investing
Cambridge Associates



Continuing on from the above point, allocators are hoping that cryptocurrency returns will deliver on expectations. Nine out of 10 allocators have a return target in excess of 10%, as Figure 9 illustrates. It remains to be seen if crypto has reached a price floor and will begin its next cycle of momentum. However, with bitcoin now trading at a level last seen in 2020, and ethereum losing 75% of its value since January 2021, this is arguably an attractive entry point for long-term investors.

Looking beyond the volatility of cryptocurrencies, allocators are broadly in consensus that VC-backed companies developing the infrastructure for Web3 and the metaverse represent an attractive opportunity: see Figure 10.

A16z, for example, raised \$4.5 billion in May for its fourth crypto fund, bringing its total funds raised in crypto assets to more than \$7.6 billion. ConsenSys, a leading ethereum software company that designs decentralized protocol software and enables developers to build Web3 applications, raised \$450 million on 15th March this year. Notably, it attracted Temasek, the Singapore Sovereign Wealth Fund and Microsoft.

This is still early days, however. Metaverse projects such as Decentraland, which are being built within Web3, are still developing meaningful applications and products for consumers. If one believes that Web3 is indeed the next unavoidable incarnation of the Internet, then taking VC stakes in 'picks and shovels' companies could prove to be beneficial.

Figure 9. What is your preferred return objective when investing in cryptocurrencies?

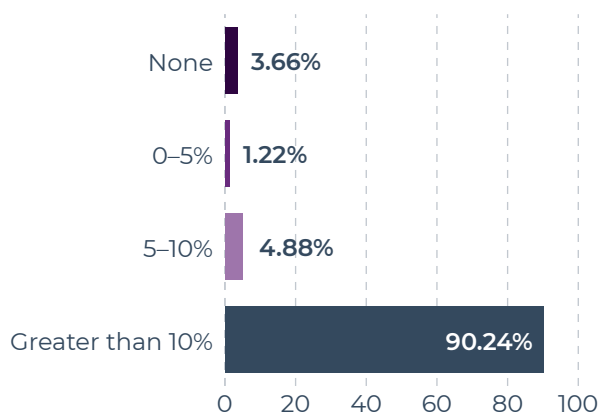
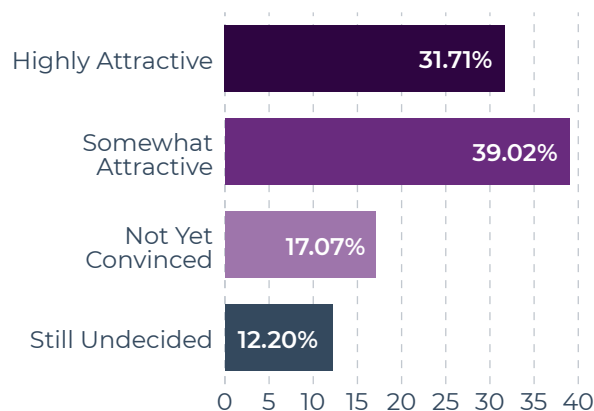
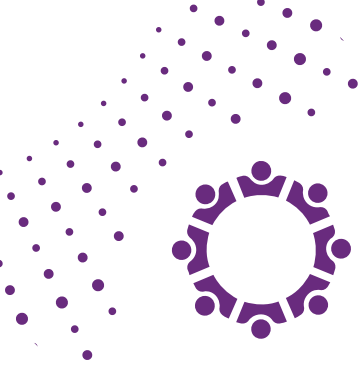


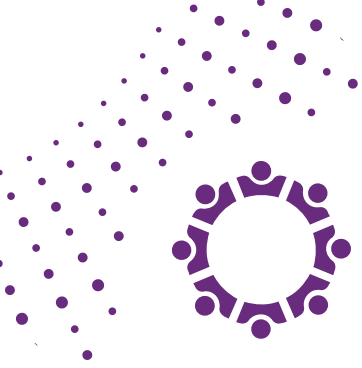
Figure 10. How attractive are investment opportunities in VC-backed companies developing Web3 and metaverse capabilities?





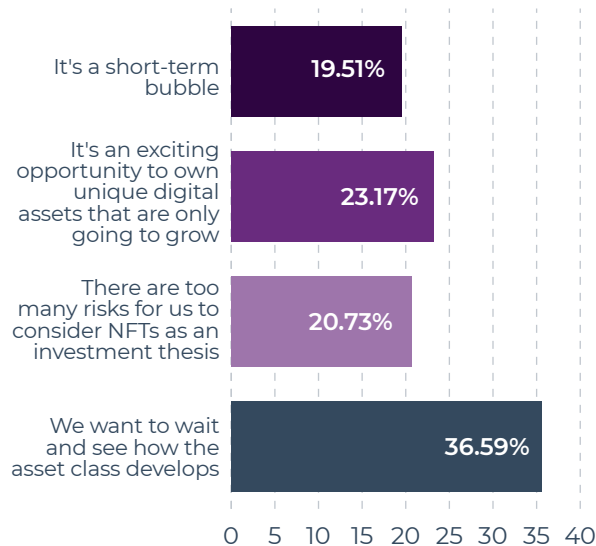
NFT Sentiment Remains Cautious





By comparison, allocators would seem to be slightly more cautious on how they view another rapidly evolving area of the digital assets space: NFTs, or non-fungible tokens. While 20% said there are too many risks associated with NFTs, 36% said they would prefer to wait and see how the NFT space develops: see Figure 11.

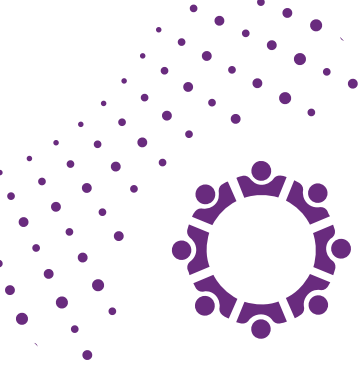
Figure 11. What is your view on the NFT explosion over the last 12 months?



NFTs have, until now, largely been confined to the art world and spawned some high profile investors including Punk6529 and GMoney. NFTs linked to physical assets including real estate, jewelry and cars will likely become ever more popular over the years. As reported by The Verge,³ Lamborghini has already moved in to the NFT space when earlier this year it announced that it would auction off a series of NFTs that it produced in collaboration with Swiss artist Fabian Oefner.



Research⁴ by ReportLinker estimates that the global NFT market will grow from \$3.0 billion in 2022 to \$13.6 billion by 2027. So far, 2022 has seen a fluctuation in the number of active buyers and sellers according to Chainalysis, falling from close to one billion in Q1 2022 to 500,000 in Q2 2022. That being said, transaction value remains strong. Over \$37 billion of NFTs have been brought to market up until the beginning of May; this compares to \$40 billion for the whole of 2021.

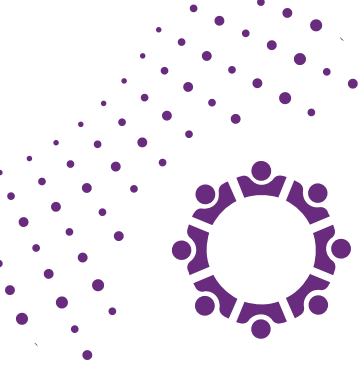


“We are very constructive on the expected growth of blockchain technology. Furthermore, we believe the growth of NFTs will be pervasive – affecting how we shop and consume.”

Katherine Molnar, CFA

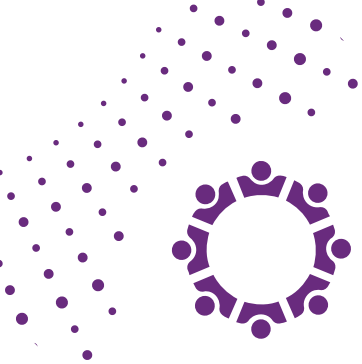
Chief Investment Officer

Fairfax County Police Officers Retirement System



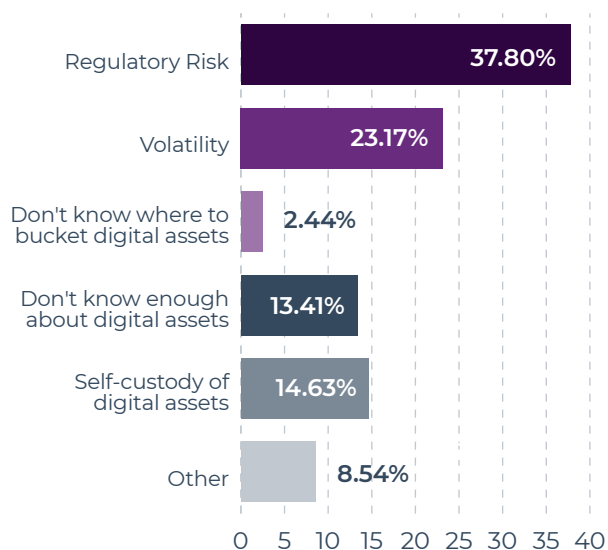
Regulatory Risk is Top Concern





One of the biggest concerns among allocators as they look to deploy capital into digital assets is not volatility, as might be expected, but rather regulatory risk: see Figure 12. Knowing exactly where digital assets fit in to institutional portfolios is not regarded as a primary concern, eliciting a response from only 2.5% of survey respondents.

Figure 12. What is your primary concern when considering making or increasing your digital asset allocation?



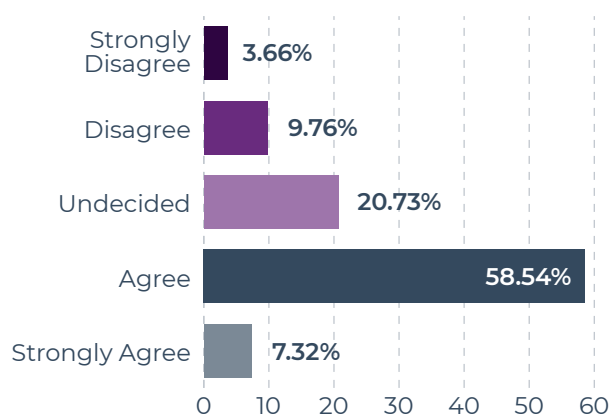
The regulatory risk concern is understandable given that in the US, regulators are still trying to determine how best build guardrails around crypto assets. The Financial Services Oversight Council (FSOC) has overall authority on how state and federal authorities enact legislation. In a prescient annual report, published in December last year, FSOC voiced concerns over stablecoins. It said consumer confidence could be undermined by factors such as illiquidity and a lack of appropriate

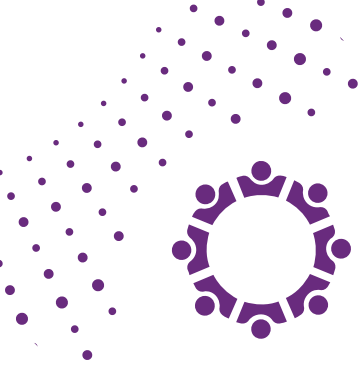
safeguards. This was borne out in May 2022 when TerraUSD (UST), an algorithmic stablecoin, collapsed along with its sister cryptocurrency, Luna.

US regulators are now likely to move towards enacting regulation to protect investors. US Treasury Secretary Janet Yellen told a Senate committee meeting that the TerraUSD collapse “simply illustrates that this is a rapidly growing product and that there are risks to financial stability and we need a framework that’s appropriate.”

There are, however, positive aspects to the changing regulatory environment. Among survey respondents, 58% believed that the introduction of regulation would help to reduce cryptocurrency volatility and encourage more institutional capital inflows: see Figure 13.

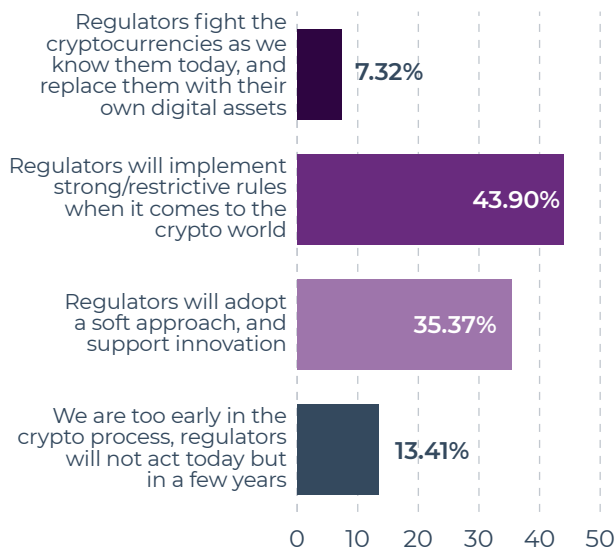
Figure 13. Do you think US regulation will dampen volatility in cryptocurrencies and encourage more institutional flow?





In terms of the broader perspective on how regulation might impact the cryptocurrency market, and how far regulators might go, allocators seem to be split on their opinion. While 44% think it will lead to stronger and more restrictive rules, 35% think a softer approach will be adopted to support innovation: see Figure 14.

Figure 14. Cryptocurrencies are now on the radar of central banks and other regulators. This will have future impacts on the cryptocurrency market. Which of the following statements do you agree with (select 1 only)?



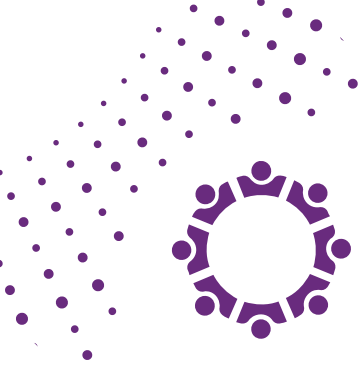
Less than 10% of survey respondents expect the regulators and central banks to tear down the crypto market and replace it with their own digital assets. What is increasingly likely is that national governments like China will compete with crypto and introduce their own

central bank digital currencies (CBDCs): digital forms of fiat currencies built on blockchain technologies. The key difference is CBDCs would operate within a centralized system giving governments unparalleled insights into how the people spend their money.

An [interesting article](#) published by the Brookings Institution in March 2022 points out that the US government faces the “innovator’s dilemma”. As insurgent innovators bring new technologies to market, and get adopted by central banks and large corporations, eventually leading to mass consumption, the US government would need to decide whether to adopt or fight against these disruptive technologies—and if it were to adopt, how it would do so effectively.

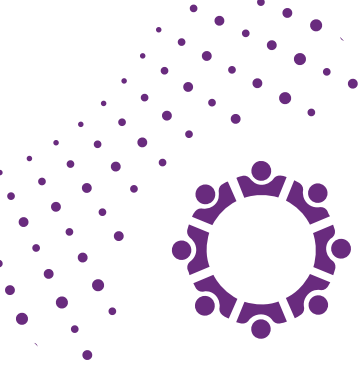


For now, allocators will continue to debate the issue and wait to see how this all plays out over the next few years.



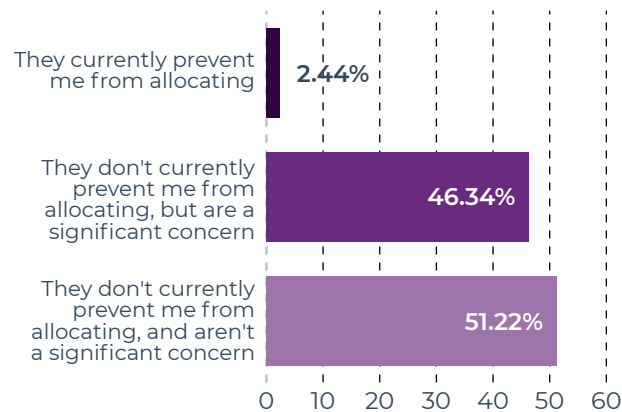
ESG Divides Opinion





This split opinion on regulatory rules was also in evidence when allocators were asked whether ESG considerations influenced how they allocate, or plan to allocate to digital assets. The survey findings show that just over half (51%) of respondents said they do not prevent them and are not a significant concern, while 46% said that while they were free to invest, ESG factors were indeed a concern: see Figure 15.

Figure 15. Do ESG considerations influence how you allocate or plan to allocate to digital assets?

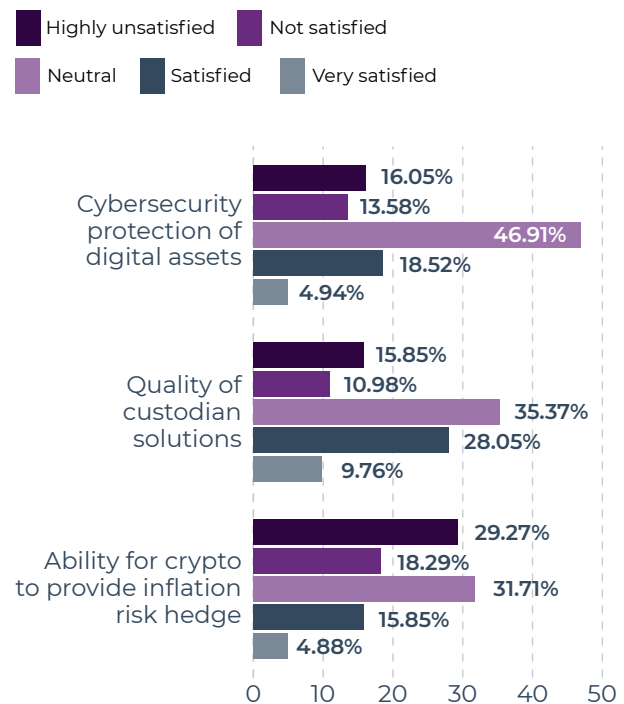


Much is made of the environmental impact of crypto mining because of the sheer scale of computing power needed to validate transactions and add them to the blockchain ledger. But this is starting to change. Bitcoin miners in the US, for example, are tapping in to flare gas generated from oil drilling. Crusoe Energy Systems is partnering with Exxon, the oil and gas giant, to divert methane gas to power mobile generators that in turn keep Crusoe's servers running. Crypto now has an opportunity to drastically reduce its carbon footprint by partnering with major fossil fuel

producers, as well as by developing mining infrastructure close to hydroelectric power facilities.

Looking ahead, allocators still need convincing that digital assets can provide an effective hedge against inflation risk. When asked what level of satisfaction crypto offers, 47.5% were not satisfied overall, while 31% were neutral: see Figure 16. The quality of custodian solutions elicited a more positive response, with approximately 38% of allocators saying they were either 'satisfied' or 'very satisfied'. The quality of cybersecurity protection produced the biggest 'neutral' response, suggesting that allocators are less aware of the key issues on this topic.

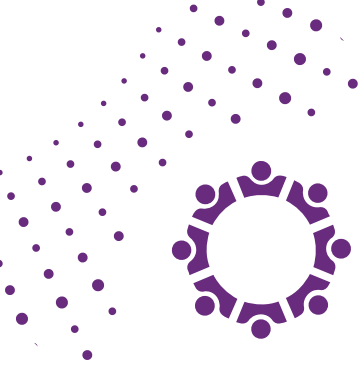
Figure 16. On a scale of 1 to 5, to what extent are you satisfied with the following (with 5 representing highest satisfaction)?





Key Takeaways





1 The message allocators are giving, based on the survey results, is that they remain **long-term believers** in digital assets with eight of 10 saying the recent shakedown is good for the industry.

2 The majority plan on **increasing their allocation** over the next 12 months and while they are excited about the VC opportunities in Web3, they continue to maintain a cautious, 'wait and see' stance in respect to the NFT market.

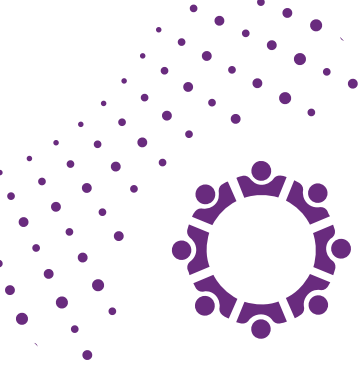
3 Liquidity remains a key issue, however, and while allocators are worried about regulatory risk, they do acknowledge that putting a regulatory framework in place will likely **reduce volatility** and encourage more institutional inflows.

4 Quite how far the regulators will go, however, appears to be polarizing opinion with allocators divided on whether the rules will be **restrictive, or accommodating**.

Endnotes

1. www.businesswire.com/news/home/20220215005696/en/Worldwide-Digital-Asset-Management-Industry-to-2027---Featuring-Adam-Software-Canto-and-Celum-Among-Others---ResearchAndMarkets.com
2. www.coindesk.com/markets/2022/01/05/bitcoin-can-reach-100000-in-hypothetical-store-of-value-boost-goldman-sachs-says/
3. www.theverge.com/2022/1/27/22901181/lamborghini-nft-crypto-blockchain-winkelman-interview
4. www.reportlinker.com/p06277261/Non-Fungible-Tokens-Market-by-Offering-End-user-Region-Global-forecast-to.html





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