



SEPTEMBER 2021

# THE INSTITUTIONAL INVESTOR DIGITAL ASSETS STUDY

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Across each category, we share **general & regional findings** from the study, as well as insights at an **investor segment level**.

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# INTRODUCTION

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The Lumos Digital Assets <sup>SM</sup> 2021 Institutional Investor Digital Assets Study covered a unique year – investors were confronted with a tumultuous election cycle in the U.S., Brexit coming into effect in Europe, and of course, a global pandemic.

From a broader capital markets perspective, the pandemic boosted some industries and hurt others. With much of the workforce remote, tech stocks soared to new all-time highs.

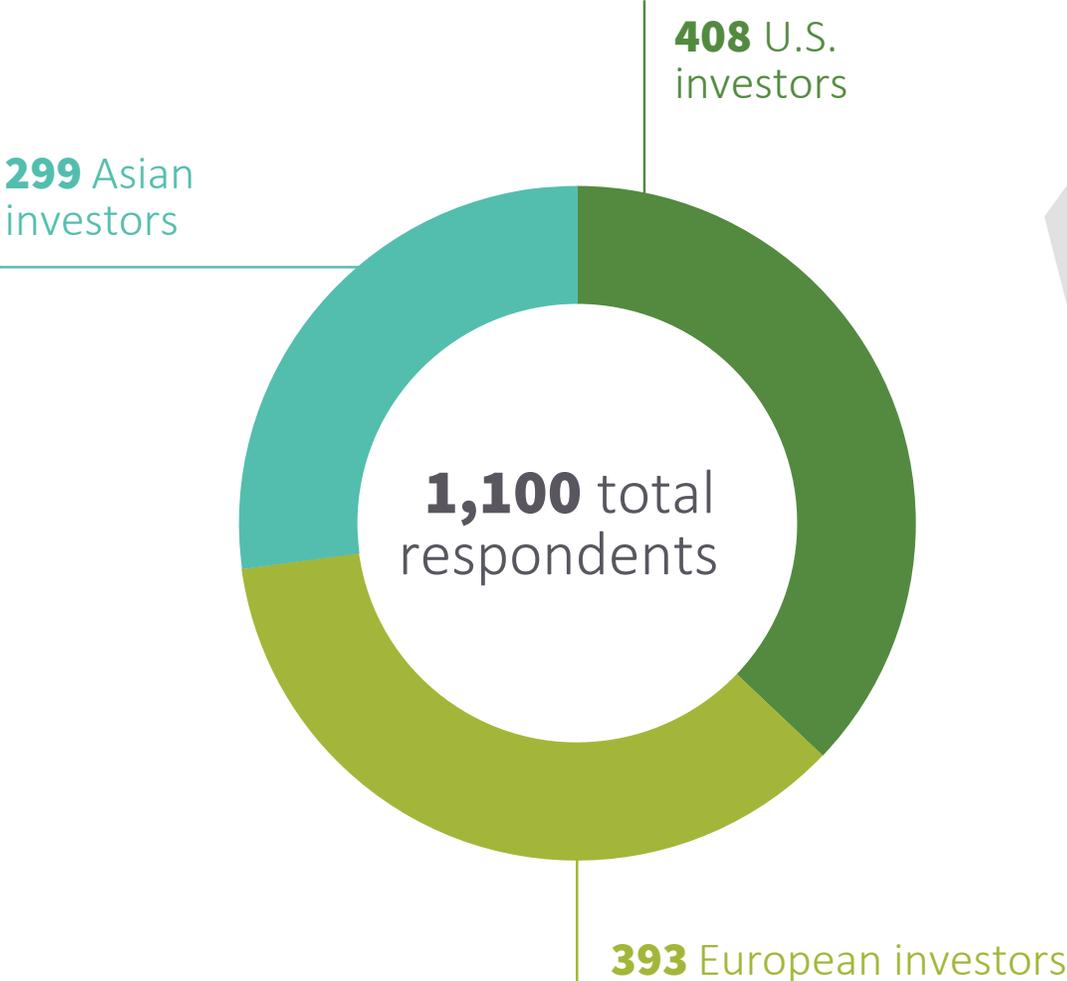
Other sectors, such as travel and hospitality, experienced significant challenges because of stay-at-home orders and social distancing mandates.

This year's survey tracked institutional investors' behavior in the face of an unprecedented health crisis and market turmoil, providing an exciting look at investors' preferences and perceptions of digital assets at a crucial inflection point for the industry. **The results show that the market conditions of 2020 were a catalyst for many investors.**

For **44%** of investors surveyed, it increased their likelihood of investing in digital assets, and for **40%**, it had no impact. For the second year in a row, the survey found that European investors have a more progressive view towards digital assets than Americans when comparing the responses across all categories. Even so, Asian investors, who we surveyed for the first time this past year, are by far the most accepting of digital assets, with more than **70%** of investors surveyed currently invested in digital assets.

Across Europe and the U.S., we saw year-over-year growth across nearly every category, including perception and appeal, current exposure, and propensity for future investment.

# METHODOLOGY

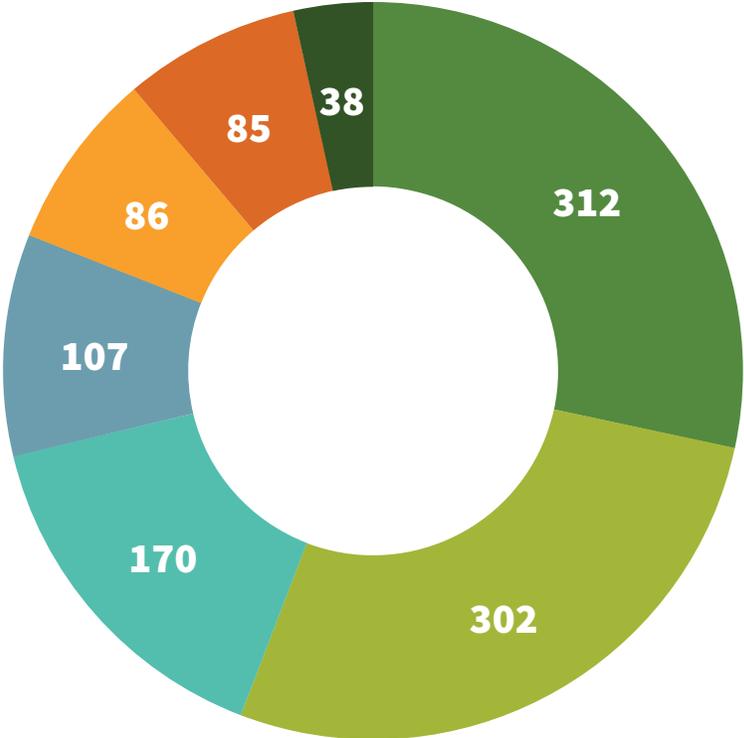


The research survey for this study was led by Lumos Consulting in coordination with Lumos Digital Assets and The Lumos Center for Applied Technology <sup>SM</sup>. Conducted by Coalition Greenwich, the research followed a similar methodology to the previous two years, comprised of a detailed survey to better understand the overall attitudes and behaviors of institutional investors as it relates to digital assets. Field work was conducted between

**December 2, 2020, and April 2, 2021**, with a total of 1,100 blind interviews of professionals from a variety of firms, completed via a mix of online surveys and 111 phone sessions. As in previous years, the survey spanned a variety of high-net-worth individuals and institutional investor segments, including financial advisors, family offices, crypto hedge and venture funds, traditional hedge funds, endowments and foundations, as well as pension funds and defined benefit plans.

While this study summarizes just a portion of the overall survey results, it is intended to serve as a comprehensive overview of the leading insights from the data. Our goal is to provide perspective on trends that may have driven responses from the surveyed investors, along with additional commentary to help interpret the synthesized information.

# METHODOLOGY1 INVESTOR SAMPLE COMPOSITION



- Financial Advisors
- High-Net-Worth Investors
- Family Offices
- Pension Funds & Defined Benefit Plans
- Crypto Hedge Funds / Venture Capital Funds
- Traditional Hedge Funds
- Endowments & Foundations

# HIGHLIGHTS

## Current Adoption & Channels to Exposure

- **52%** of respondents surveyed shared they **are invested** in digital assets.
- In **Europe**, **84% of high-net-worth individuals surveyed are invested** in digital assets.
- In the **U.S.**, there was a **20-percentage point increase in financial advisors surveyed** invested in digital assets.

## Perception of Digital Assets

- **70% of all investors** surveyed had a **neutral-to-positive** perception of digital assets.
- In the **U.S.**, **79% of family offices** surveyed had a neutral-to-positive view of digital assets.
- **Virtually all financial advisors surveyed in Asia** had a neutral-to-positive perception of digital assets.

## Appeal of Digital Assets

- **Nearly 9 in 10 investors** surveyed said they found digital assets **appealing**.
- The most appealing attribute of digital assets for institutions surveyed was the **high potential upside**.

## Barriers to Adoption

- **54%** of surveyed investors believed that **price volatility** is one of the greatest barriers to investment.
- **44%** of investors surveyed shared that the **lack of fundamentals to gauge appropriate value** as a barrier to investment.

## Digital Assets in a Portfolio

- Nearly **8 in 10 investors surveyed** felt digital assets have a place in a portfolio.
- **43%** of investors surveyed identified digital assets as **part of the alternative asset class**.

## Digital Asset Investment Products

- **84%** of U.S. & European investors surveyed indicated they would be **interested in institutional investment products** that hold digital assets.
- **62%** of U.S. investors expressed a **neutral-to-positive view about a potential bitcoin ETF**.

## U.S. Central Bank Digital Currency & Tokenization

- **69%** of all respondents had a **neutral-to-positive view of a U.S. dollar-backed CBDC**.
- **27%** of US & European investors surveyed believed **real estate has great potential for tokenization**, a 12-percentage point decrease from the previous survey.

# CURRENT ADOPTION & CHANNELS TO EXPOSURE

Currently, **52%** of investors surveyed globally have an investment in digital assets, with Asia and Europe seeing higher rates of investment than the U.S.

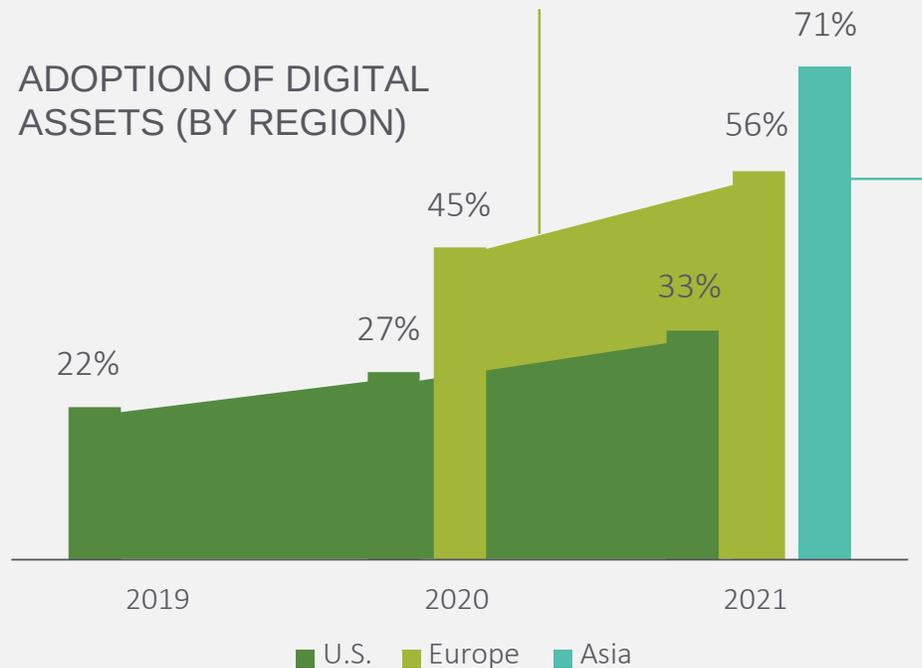
In surveying investors, we considered adoption as an investment directly in digital assets, in an investment product holding digital assets or digital asset companies, or exposure via futures contracts.

In Europe, the investors surveyed who have an allocation to digital assets **increased annually from 45% to 56%**, an 11-percentage point jump.

The U.S. also saw continued acceleration in growth, with **a six-percentage point increase from the 2020** survey to 33%. Asia has the highest adoption rate, with 71% of investors surveyed currently invested in digital assets.

For the second consecutive year, surveyed European investors showed a greater propensity for digital assets than surveyed U.S. investors.

We believe this ongoing trend may be in part due to a greater number of regulated investment products that offer digital asset access in European markets, which offer a familiar structure to retail investors and may help build trust with institutions. Additionally, European investors have historically been more likely to hold alternative assets in their portfolios than U.S. investors, who have seen plenty of upside investing primarily in stocks and bonds over the last decade.



We were not surprised to learn that Asia has the most institutional investors with allocations to digital assets of those surveyed.

Historically, Asian investors have had a more positive view of digital assets and were early adopters of more traditional digital payments. For example, in China, a projected 32.7% of point-of-sale payments are made via mobile, double the UK (15.3%) and US (15.0%), according to OMFIF [1]

# CURRENT ADOPTION & CHANNELS TO EXPOSURE

## In the U.S., surveyed investors increasingly prefer investment products over direct purchases of digital assets.

This year, **18% of respondents in the U.S. said they bought or invested in digital assets through an investment product**, compared to 8% the previous year. This uptick in adoption via investment products is likely supported by an increase in the number of public trust-structured investment products now available in the U.S., in addition to an array of private fund offerings issued by managers throughout the past year. 14% of U.S. investors surveyed shared that they invested directly in digital assets (compared to 16% in the previous year).

When asked how they would likely invest in the future, 30% of U.S. respondents said they would prefer to buy an investment product (compared to 18% in the previous year), potentially signaling investor hopefulness that a digital asset ETF will be approved by regulators.

One may expect this trend to continue as more public and private investment products containing digital assets become available to U.S. investors.

U.S. investment in digital assets through an investment product.



## While investment products are popular in Europe and Asia, surveyed investors in these regions preferred buying digital assets directly.

European investors' preference for buying digital assets directly increased, with 41% surveyed investing in this manner (29% previous year), while **allocations to investment products also rose from 14% to 29%**. In Asia, 52% of investors surveyed shared they bought digital assets directly, while 39% express their allocation via an investment product.

The discrepancies between the U.S., Europe, and Asia could also be influenced by regional regulations. The U.S. market is guided largely by a limited number of national regulators – though there are state-level requirements as well – while European and Asian countries follow a more localized jurisdictional approach throughout each country.

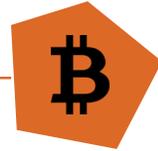
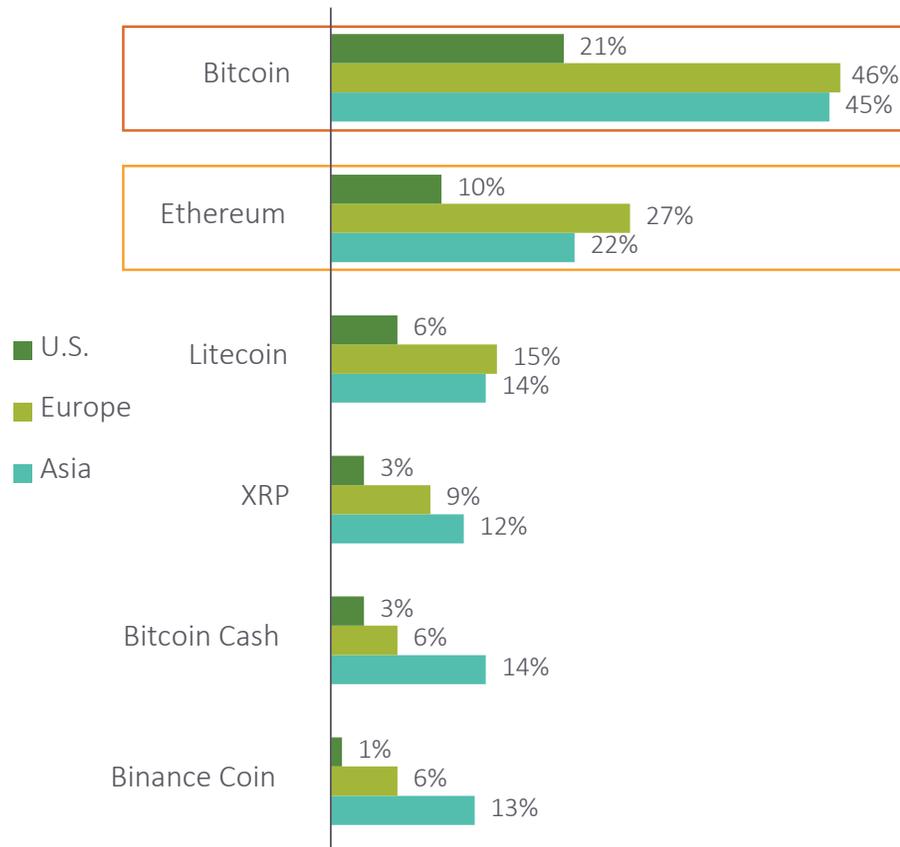
Certain countries in Europe, such as Switzerland, Luxembourg, and Malta, have developed more progressive frameworks that provide a clearer playbook for projects and companies in the digital asset industry, which could enable greater institutional adoption in those areas.

# CURRENT ADOPTION & CHANNELS TO EXPOSURE

**Current ownership of digital assets was largely dominated by the two leading cryptocurrencies, bitcoin and ethereum.**

37% of investors surveyed own bitcoin in their (or a client's) portfolio, while 20% own ethereum.

## OWNERSHIP BY DIGITAL ASSET (REGIONAL)



As with the overall adoption figures, the U.S. appeared to lag behind Europe and Asia in direct investments, with only **21% of investors surveyed owning bitcoin** in a portfolio, versus 46% and 45% in Europe and Asia, respectively.



Similar patterns existed for ethereum, although adoption is nearly half that of bitcoin in investor portfolios, with **10% of U.S. investors surveyed holding ethereum**, 27% in Europe, and 22% in Asia.

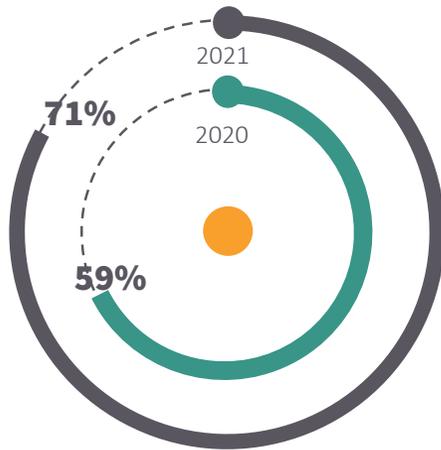
It is worth noting that **U.S. investor ownership of bitcoin increased modestly** from last year's survey, up two-percentage points.

In Europe, bitcoin and ethereum were the **most significant drivers of increased adoption**. Bitcoin adoption increased 13-percentage points from 33% in the 2020 survey, while ethereum adoption more than doubled from 13%.

# CURRENT ADOPTION & CHANNELS TO EXPOSURE

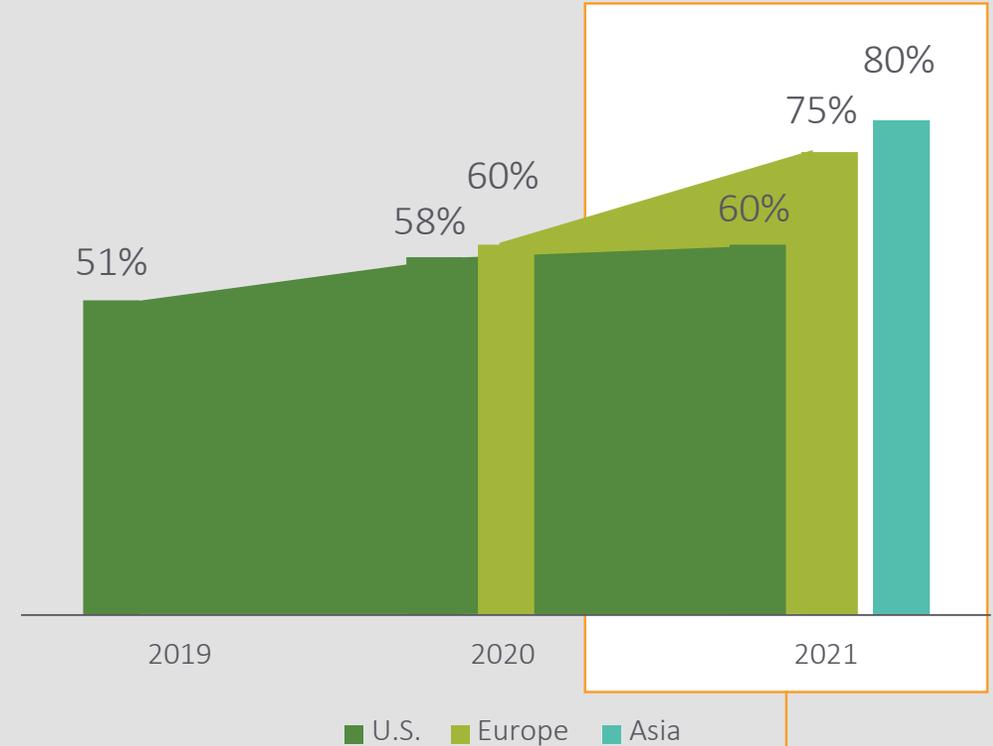
**Future purchase intent for U.S. & European investors has also grown year over year**, with **71%** of those surveyed in these regions planning to buy in the future, compared to **59%** the year prior.

**FUTURE PURCHASE INTENT OF DIGITAL ASSETS (U.S. & EUROPE)**



Europe continues to show considerable gains here as well, with investment intent up **15-percentage** points from last year's survey.

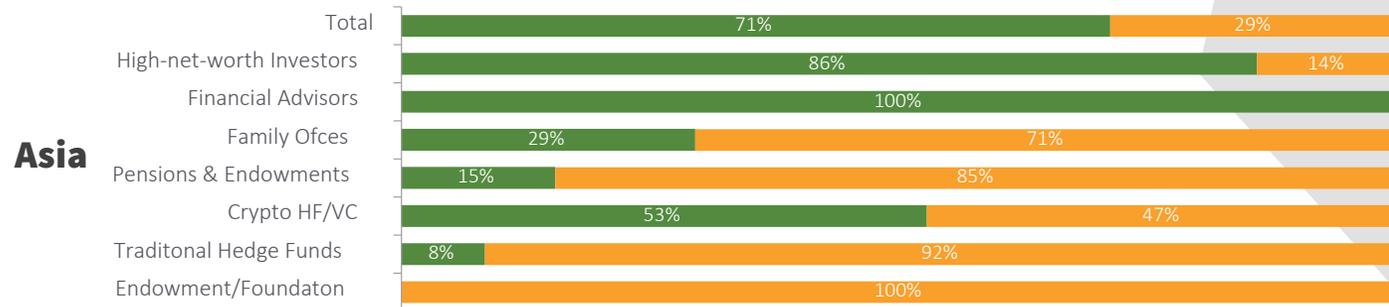
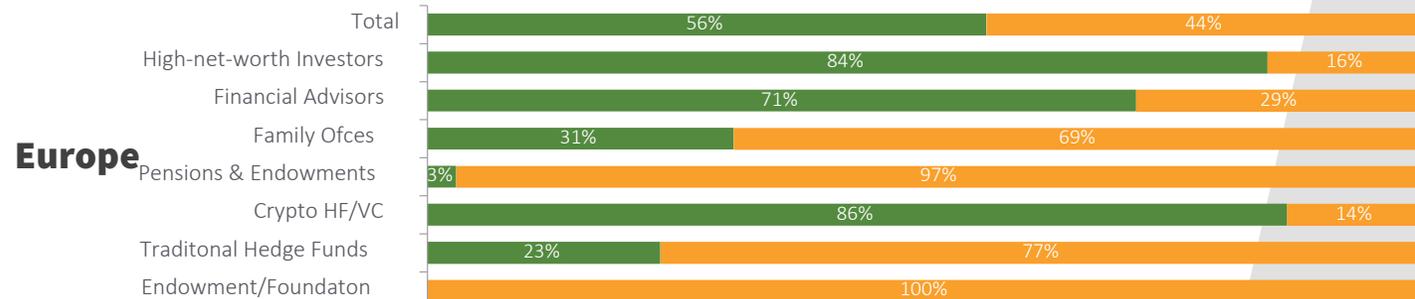
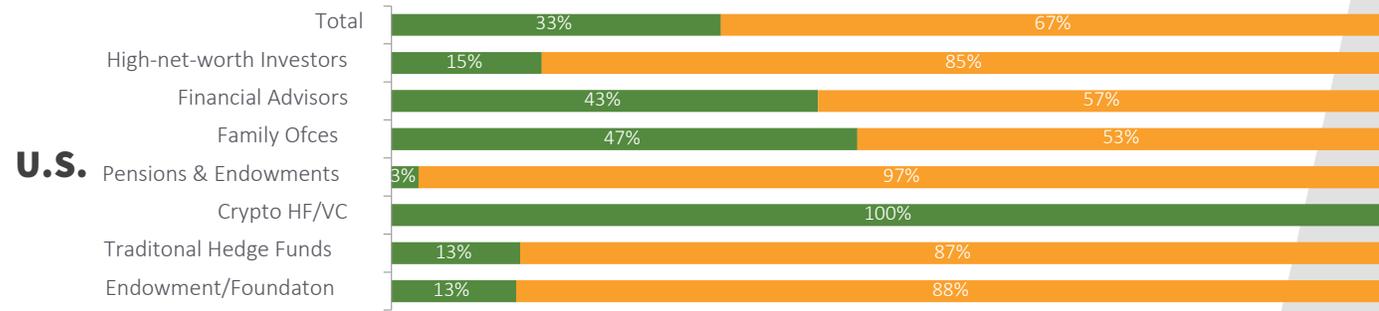
**YEAR-OVER-YEAR FUTURE PURCHASE INTENT OF DIGITAL ASSETS**



In line with how the regional survey data trended, Asia was most interested in future investments (80%), followed by Europe (75%) and the U.S. (60%).

# CURRENT ADOPTION & CHANNELS TO EXPOSURE (INVESTOR SEGMENTS)

Looking broadly across all segments of surveyed investors within the U.S., Europe, and Asia, we get a holistic view of investor types and how their adoption may vary around the globe.



■ Currently buy/invest in Digital Assets
 ■ Do not currently buy/invest in Digital Assets

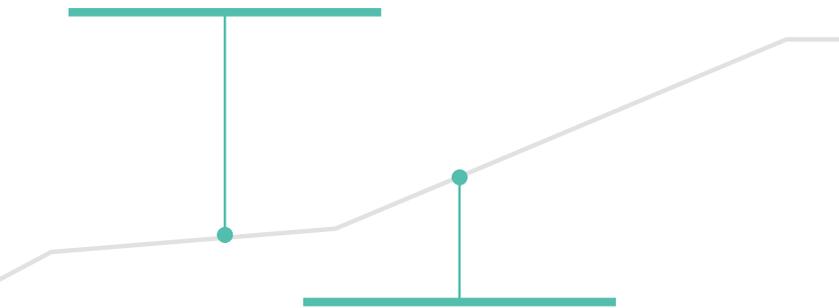
As expected, native crypto hedge funds (HF) and venture capital (VC) funds had the highest adoption levels, though we observed lower adoption for this segment in Europe and Asia compared to the United States. Outside of native crypto hedge funds and venture capital funds, high-net-worth investors, financial advisors, and family offices led adoption within all regions.

Although one may assume that these firms native to the asset class would be 100% invested due to the nature of their business, we believe that their adoption in Europe (86%) and Asia (53%) can be explained by a few factors. There is likely nuance in the classification of investor segment throughout parts of the world, with potential for firms to have a hybrid asset class focus (traditional and digital) but identify as native – even if their exposure may not always be active within digital. Active positions could be fluid and lead to a respondent claiming they are not currently invested in digital assets. Lastly, the 100% adoption by surveyed financial advisors in Asia leads us to believe that new ventures may be forming that cross the advisor and crypto HF/VC segments, leading to additional hybrid models that may challenge distinct investor segment classification.

# CURRENT ADOPTION & CHANNELS TO EXPOSURE (INVESTOR SEGMENTS)

**In both the U.S. and Europe, exposure to digital assets increased year over year.**

Although there was widespread growth in adoption across all institutions surveyed, endowments and foundations, pensions and defined benefit plans, and traditional hedge funds showed to be least likely to invest in digital assets.



Interest from **traditional hedge funds** in the U.S. and Europe increased this year, with **13%** of U.S. and **23%** of European traditional hedge fund investors surveyed now invested in digital assets (a 13-percentage point and 15-percentage point increase respectively over the last year). Still, traditional hedge funds appear to be lagging behind other segments, apart from endowments and foundations, and pension funds and defined benefit plans.

In the U.S., **47%** of family offices, **43%** of financial advisors, and as one would expect, **100%** of crypto hedge funds (HFs) and venture capital funds (VCs) surveyed are currently invested in digital assets.



In Europe, **86%** of crypto HFs / VCs, **84%** of high-net-worth investors, and **71%** of financial advisors surveyed are currently invested in digital assets.

Asian adoption was led by similar segments as Europe. **100%** of financial advisors, **86%** of high-net-worth investors, and **53%** of crypto HF/ VCs surveyed currently invest in digital assets.



# CURRENT ADOPTION & CHANNELS TO EXPOSURE (INVESTOR SEGMENTS)

**Of the investors surveyed, U.S. family offices and financial advisors saw the largest uptick in adoption, increasing 28-percentage points and 20-percentage points, respectively, over the last year.**



Privately-held, smaller wealth management companies may have less “red tape” to get through than other institutions and may therefore move quicker, which could explain the increase in family office investment.

For financial advisors, it is likely that they are receiving direct requests from their clients to better understand digital assets and gain exposure through a familiar and trusted platform.

“The study validates what we’re hearing from Lumos’s institutional and advisor clients – that demand for digital assets is growing rapidly across segments. Family offices have been early adopters and view digital assets as a strategic allocation. There is now also a sense of urgency among financial advisors who are recognizing that digital assets have come of age, driven by increasing end-investor interest in these assets, particularly bitcoin.”

Michael Durbin, Head of Lumos Institutional ®

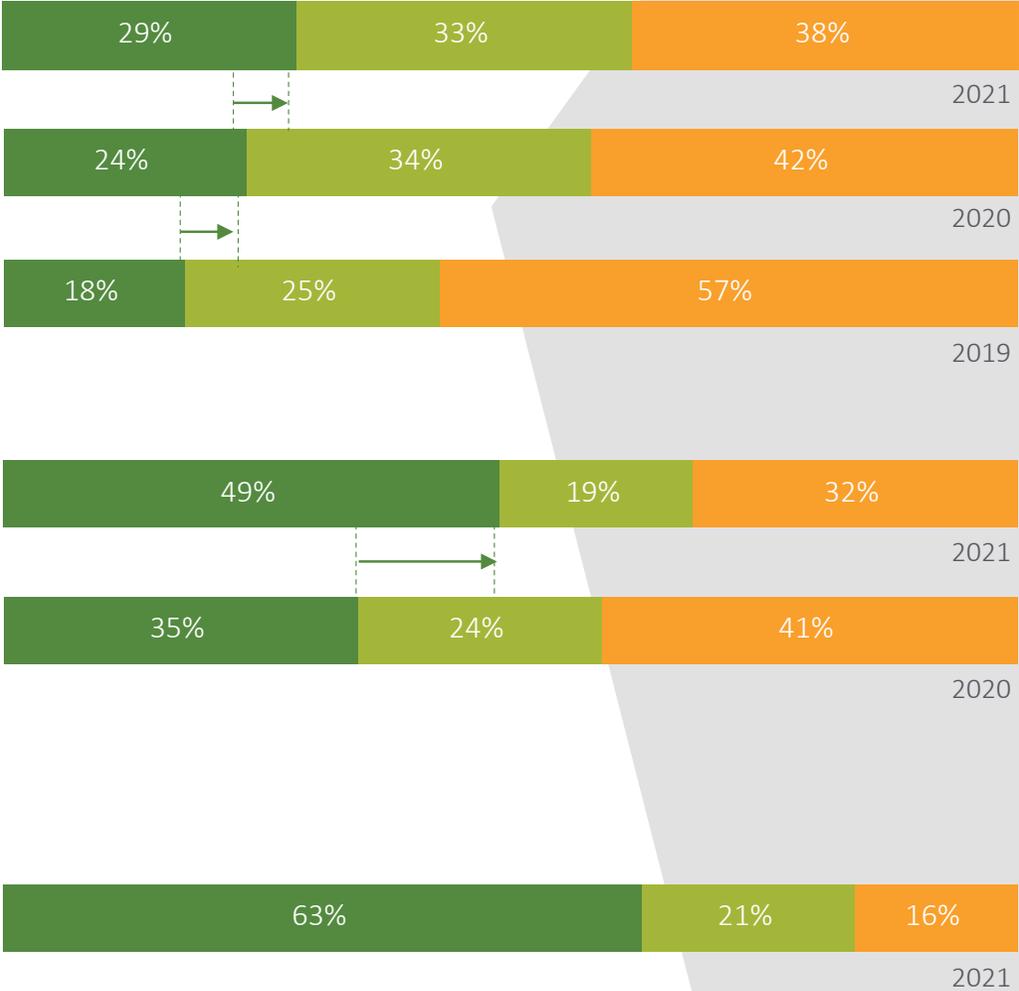


# PERCEPTION OF DIGITAL ASSETS



**70%** of all investors surveyed had a neutral-to-positive perception of digital assets.

- Positive
- Neutral
- Negative



### U.S.

In the U.S., positive perception increased by five-percentage points since 2020. Still, U.S. investors' perceptions were more polarized than other regions, with 33% of respondents having a neutral view and 38% a negative view.

### Europe

The number of European investors who had a positive perception of digital assets was higher relative to the U.S. at 49%. This positive perception in Europe increased 14-percentage points from 2020.

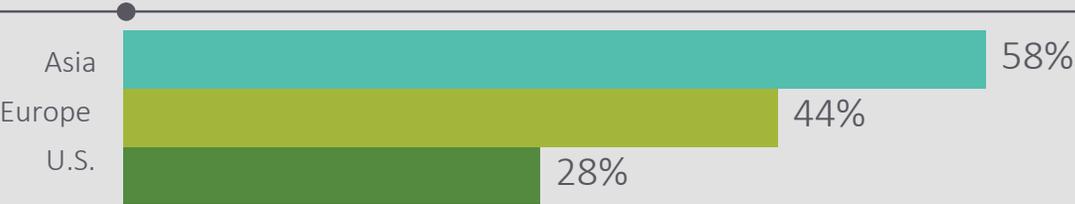
### Asia

Asian investors had the most favorable perception of digital assets, with 63% of respondents saying they held a positive view and 21% neutral view.

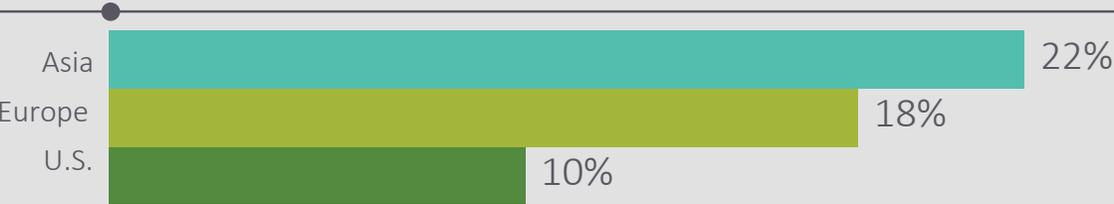
# PERCEPTION OF DIGITAL ASSETS

While this is the first year we've included Asian investors in our survey, institutional investors in the region have been active in the space longer than U.S. and European investors. **In Asia, 44% of investors surveyed have been invested for more than two years and 22% have been invested for more than three years.** Asian investors' time in the digital asset market may be one of the reasons that they view digital assets more positively. Historically, long-term holders of digital assets like bitcoin and ethereum have seen significant upside in price, potentially influencing their likeliness to continue to make allocations.

**% Allocated to Digital Assets for < 3 years: 43% (All Regions)**



**% Allocated to Digital Assets for > 3 years: 16% (All Regions)**



**Overall, investors now hold a more positive view of digital assets than they did the past two years.**

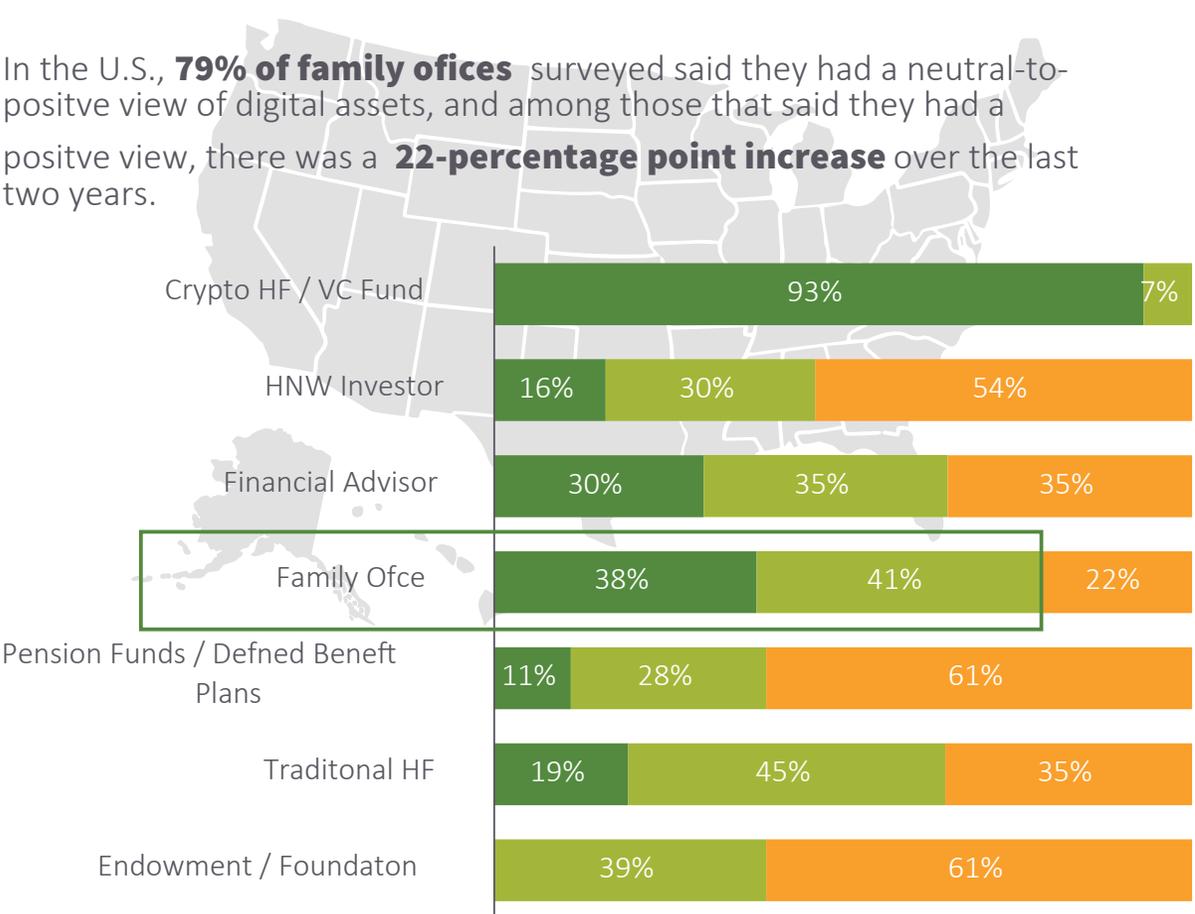
This trend may have been accelerated due to the significant price increases in bitcoin, ethereum, and other digital assets over the last year. Additionally, the perceived career risk of working within or allocating to digital assets has likely reduced, given the outpouring of famous investors and institutions in support of the asset class [1]. Throughout 2020, multiple macro hedge fund investors, public companies, and industry leaders announced investments in the asset class [2]. These public endorsements likely encouraged other institutions to view digital assets more positively and potentially inspired them to also make an investment.

# PERCEPTION OF DIGITAL ASSETS (INVESTOR SEGMENTS)

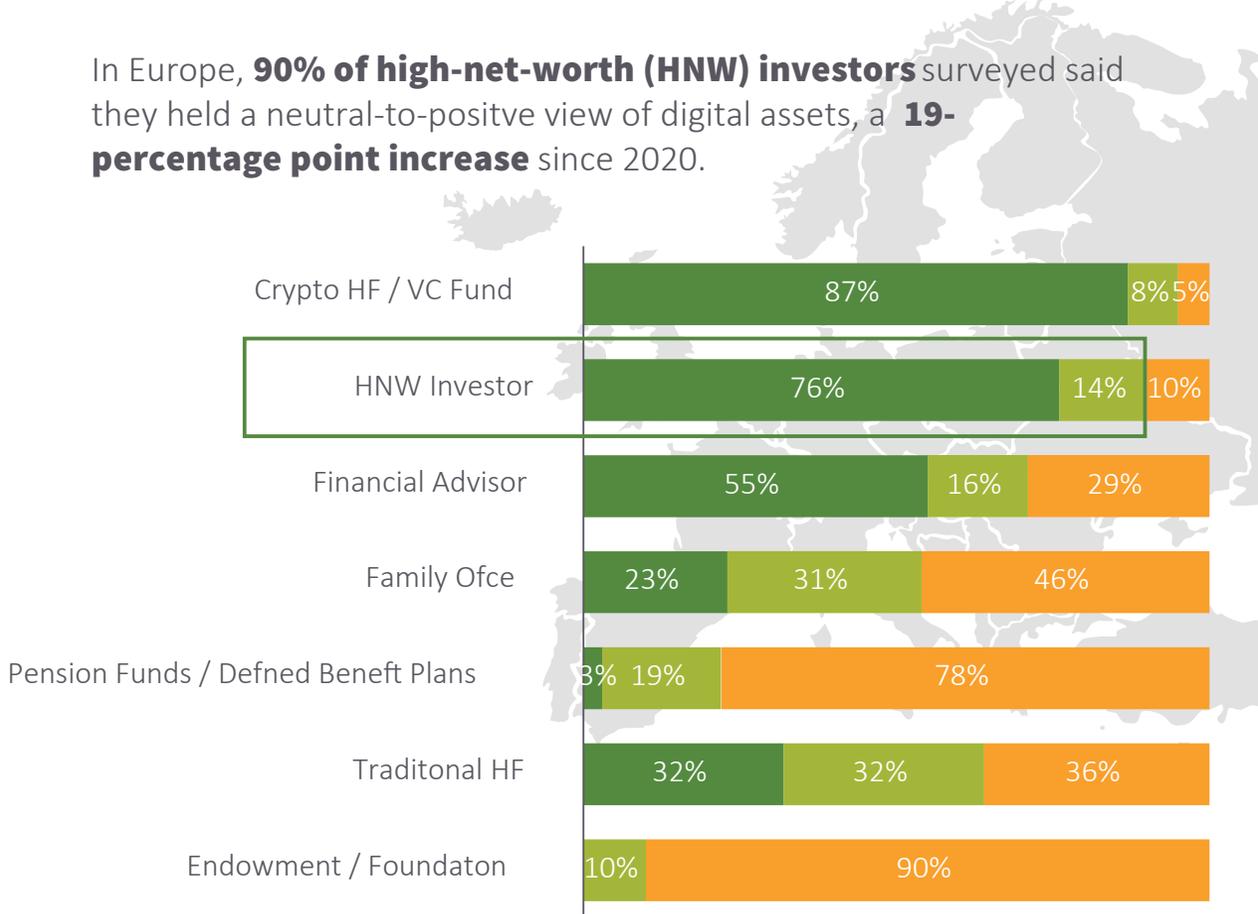
The investor segments with the highest rate of investment tended to have the most favorable perception of digital assets. Unsurprisingly, the crypto HFs / VCs surveyed had the most positive perception of digital assets in the U.S. and Europe.

Positive  
Neutral  
Negative

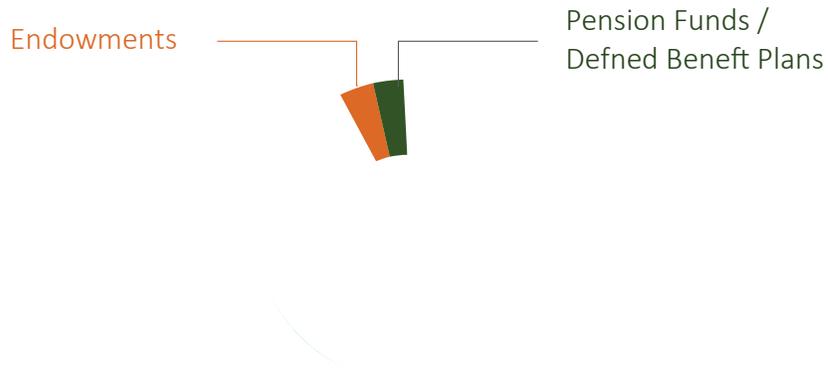
In the U.S., **79% of family offices** surveyed said they had a neutral-to-positive view of digital assets, and among those that said they had a positive view, there was a **22-percentage point increase** over the last two years.



In Europe, **90% of high-net-worth (HNW) investors** surveyed said they held a neutral-to-positive view of digital assets, a **19-percentage point increase** since 2020.



# PERCEPTION OF DIGITAL ASSETS (INVESTOR SEGMENTS)



Across all three regions, pension and defined benefit plans, as well as endowments and foundations surveyed, largely held a **negative view** of digital assets – particularly in Europe and the U.S.

This may be because pensions and endowments tend to be more risk-averse and look to allocate to investment vehicles that have exhibited long-term growth and low volatility.

“The growing diversity of investor segments expressing interest in this asset class is possibly more indicative of the maturation of digital asset markets than the steady year-over-year increase in aggregate institutional adoption.

Institutions are very deliberate in their approach to digital assets. It starts with education, then development of a unique investment thesis and allocation model, and finally a plan to operationalize this interest from a trading, custody, and risk management standpoint.

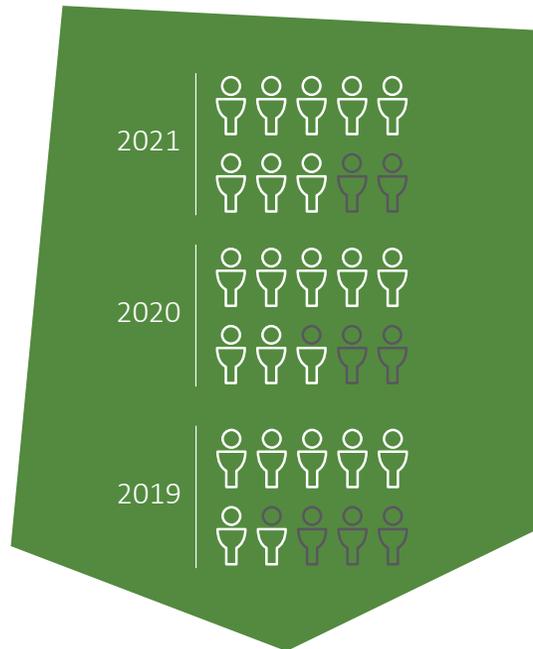
I view the gains in positive perception across multiple segments as a sign that more institutions are progressing into those latter two phases. Many of the institutions still expressing some reservations are at least starting the journey, and I believe with more education, we’ll see some of the negative perception shift to neutral over time.”

- Tom Jessop, President of Lumos Digital Assets<sup>SM</sup>

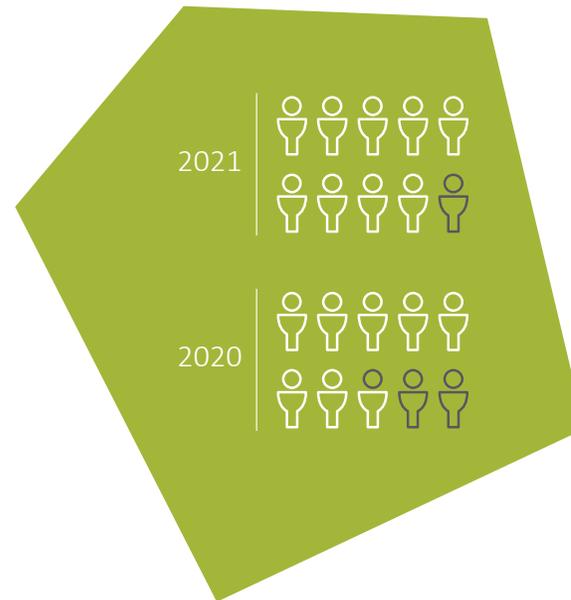
# APPEAL OF DIGITAL ASSETS

**In this year's survey, almost nine in 10 respondents said they find digital assets appealing (86%).**

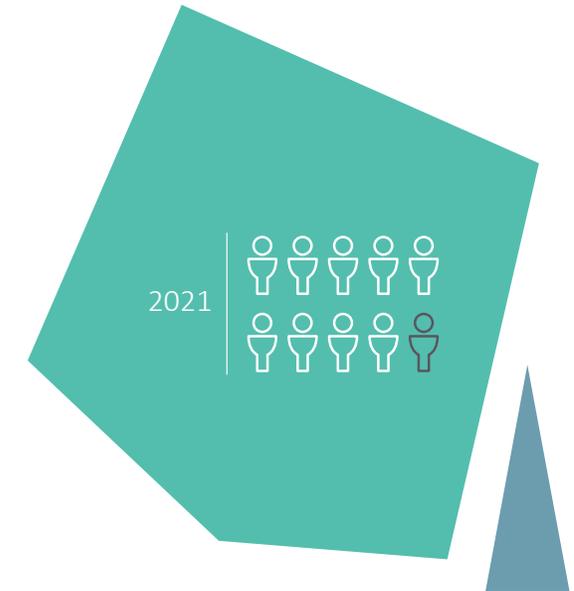
This figure has grown across regions surveyed in prior years.



**In the U.S.**, the number of investors surveyed who find digital assets appealing has grown from 65% (2019), to 74% (2020), to 78% (2021).



**In Europe**, appeal has grown from 76% (2020) to 89% (2021).



**92% of Asian investors** surveyed in 2021 found digital assets appealing, the highest of any region.

# APPEAL OF DIGITAL ASSETS



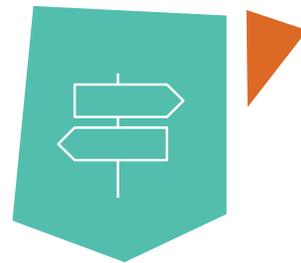
43%

Digital assets' most appealing attribute for all surveyed investors was its **high potential upside**, with 43% of respondents citing this. This sentiment was driven by Europe and Asia, with 48% and 42% weighing in on this appeal factor, respectively.



39%

Viewing digital assets as an **innovative technology play** ranked 2<sup>nd</sup> in terms of appeal, with 39% of investors surveyed sharing this sentiment.



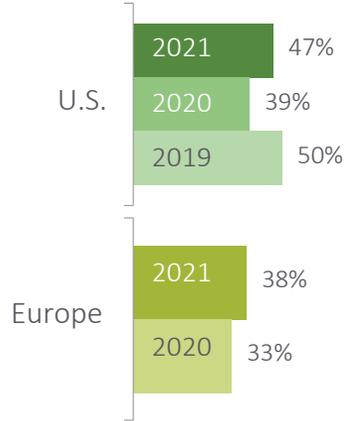
37%

Appeal of digital assets as **uncorrelated to other assets** ranked 3<sup>rd</sup>, with 37% of investors surveyed sharing this sentiment.

While each region weighed the appeals differently, these three characteristics, "high potential upside," "innovative technology play," and "uncorrelated to other assets," were among the top three most cited in every market.

# APPEAL OF DIGITAL ASSETS

## TREND IN APPEAL – UNCORRELATED TO OTHER ASSETS

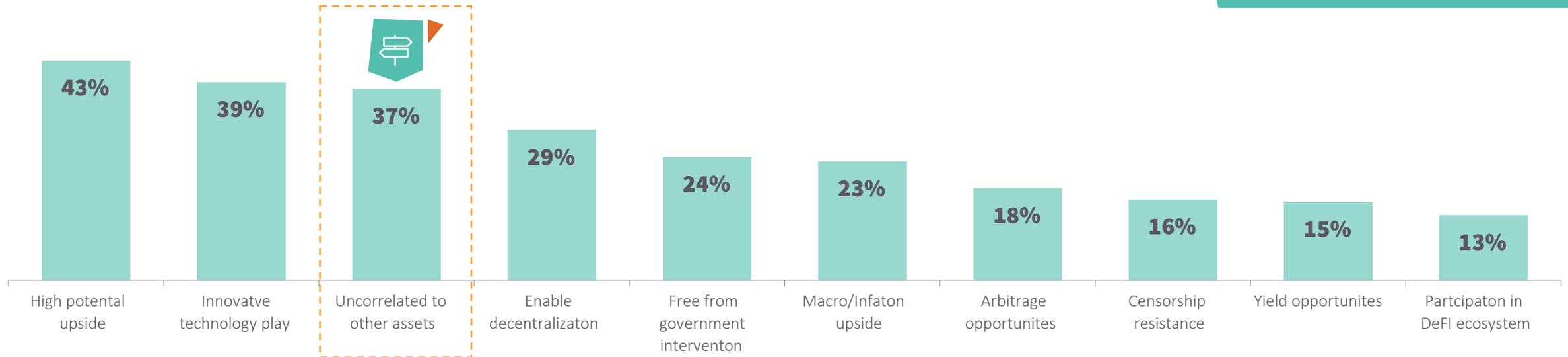


When looking more closely at the U.S., we find that **lack of correlation to other assets stands out**, with 47% of respondents in this market finding this characteristic most appealing.

Lack of correlation has gained momentum in the U.S. and Europe (41%) over the past year. This trend appears at a time when these regions have experienced near-zero interest rates and unprecedented fiscal stimulus, potentially making fixed income less attractive relative to hard assets.

Digital assets today make up a total market capitalization of **around \$2 trillion<sup>[IV]</sup>**, which is much lower than other assets that many investors tend to favor in low interest rate environments, like gold with a market cap of **over \$10 trillion<sup>[V]</sup>**.

## APPEAL OF DIGITAL ASSETS (U.S., EUROPE & ASIA)



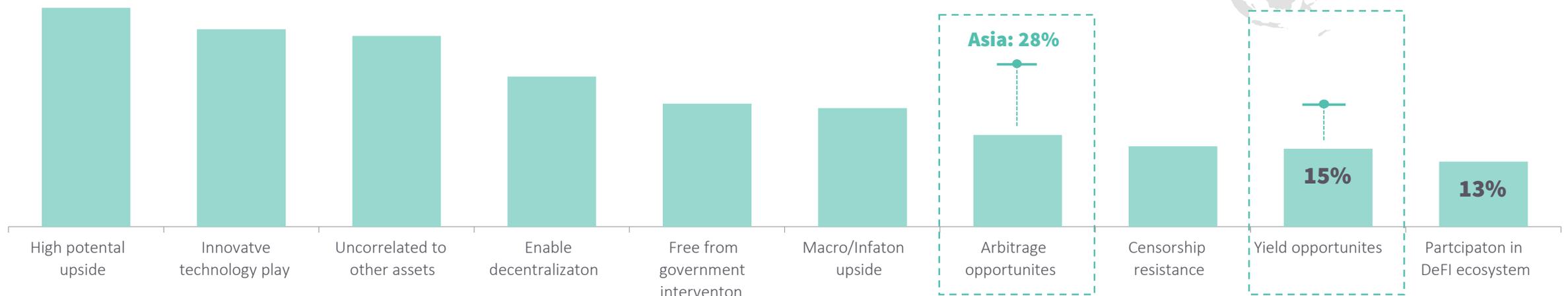
# APPEAL OF DIGITAL ASSETS

Regional divergence in opinion was most evident in how Asian investors surveyed viewed more nuanced aspects of digital assets, such as arbitrage (28%) and yield opportunities (20%).

The differentiated interest in these more complex and cutting-edge spaces of the digital asset market is **yet another display of Asian institutional investors being ahead of the curve relative to the West within this asset class.**

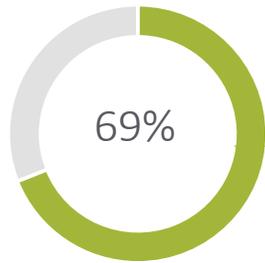


**APPEAL OF DIGITAL ASSETS (U.S., EUROPE & ASIA)**



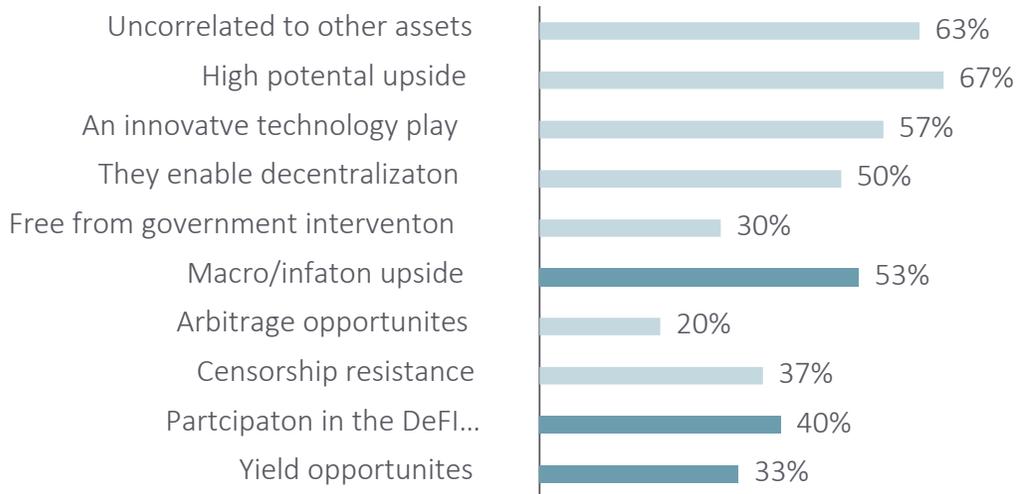
# APPEAL OF DIGITAL ASSETS (INVESTOR SEGMENTS)

The most appealing characteristics among institutional investors surveyed were relatively stable across segments within each region.



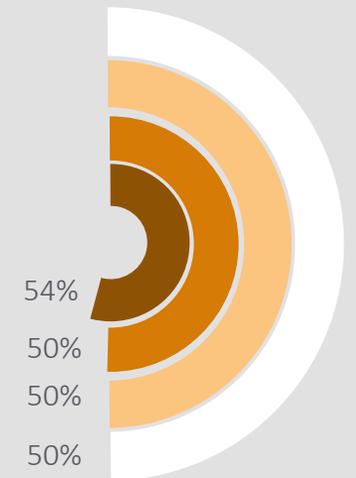
**In the U.S., 69% of financial advisors surveyed found the uncorrelated nature to other assets to be the most appealing attribute of digital assets** – greater than any other investor segment in the region. Given that advisors often hope to maintain a balance between achieving client goals and taking risk in portfolios, the ability for digital assets to act as a diversifier could make them a fit for advisors and their end clients.

## APPEAL OF DIGITAL ASSETS – U.S. CRYPTO HEDGE FUNDS / VENTURE CAPITAL FUNDS



The broadest response of appeals across all regions came from **crypto hedge funds and VCs**, who display notable interest in unique digital asset characteristics.

In the U.S., crypto hedge funds and VCs responded with interest in characteristics such as macro/inflation upside (53%), participation in the DeFi ecosystem (40%), and the opportunity to earn yield (33%), though other characteristics ranked higher.



# BARRIERS TO ADOPTION

Price volatility continues to be the most **significant barrier to adoption**, according to **54%** of investors surveyed.



Concern over volatility has increased year-over-year in both the U.S. and Europe<sup>1</sup>



Asian investors were less concerned with volatility, with 40% of respondents viewing it as a challenge. Again, this is likely because Asian investors have been invested in the digital asset markets longer and therefore have more experience managing the cycles of volatility.



new series of short-and-long-term data metrics to be utilized. On-chain metrics refer to the data that can be analyzed through the observation of an underlying blockchain.

# BARRIERS TO ADOPTION

**Other notable barriers to adoption include concerns around:**



Reflecting their more advanced tenure investing in the space, Asian investors surveyed were less likely to cite concerns around the complexity or newness of the asset class. Concerns around market manipulation and regulatory classification were highlighted by U.S. and European respondents, likely because the regulatory environment in these markets is still evolving and investors seek more clarity.

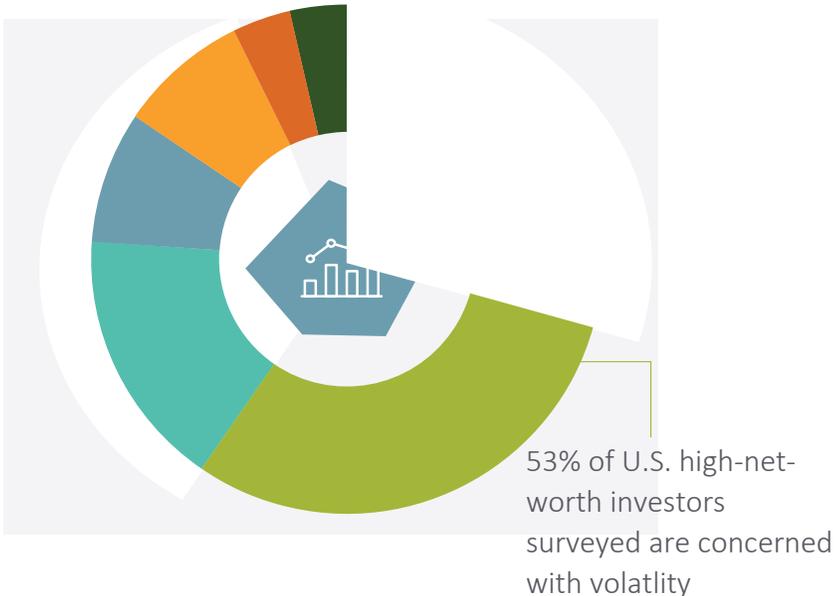
institutions.”

- Chris Tyrer,  
Head of Lumos Digital Assets in Europe

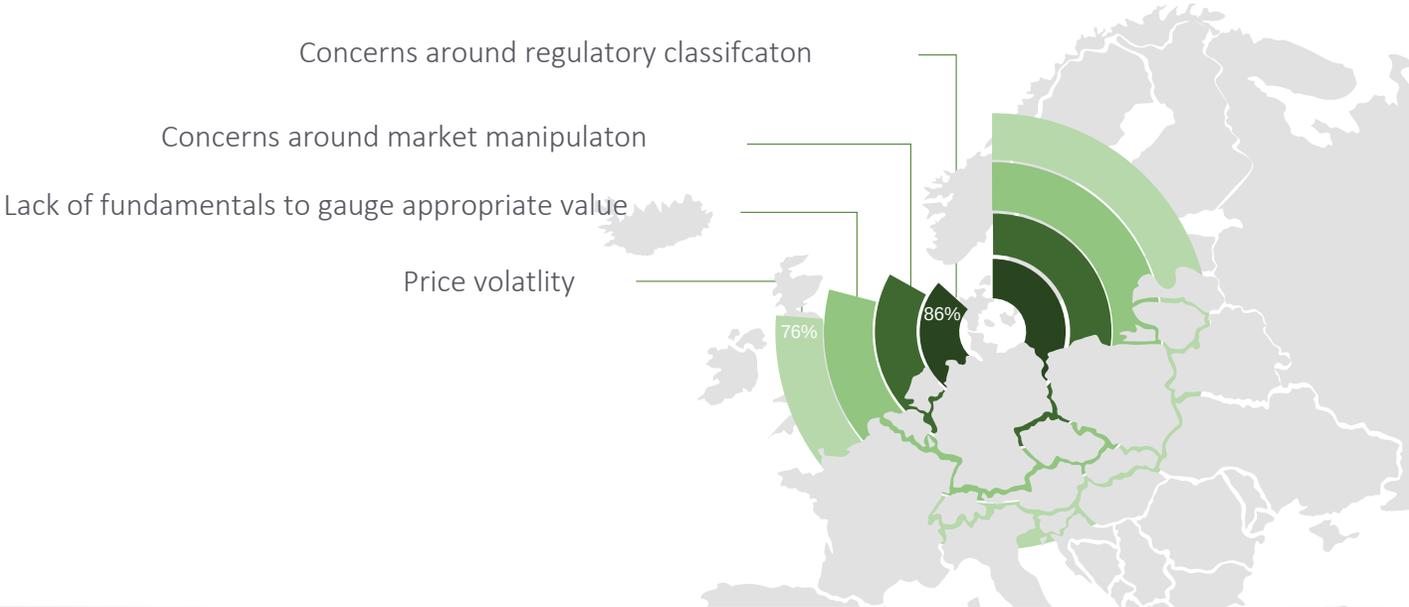
# BARRIERS TO ADOPTION (INVESTOR SEGMENTS)

**While price volatility is the top concern cited across surveyed segments in the U.S.**, pensions and defined benefit plans (DBP), as well as endowments and foundations, appear to be the most concerned with this. Although high-net-worth investors appear to be least concerned with volatility when compared to others, 53% of respondents still shared that volatility is a barrier.

73% of U.S. pension funds / DBPs and endowments / foundations surveyed are most concerned with volatility



**European pension fund and defined benefit plans cited the most concerns**, with over 75% of respondents reporting regulatory classification, lack of fundamentals to gauge appropriate value, concerns around market manipulation, and price volatility as obstacles.

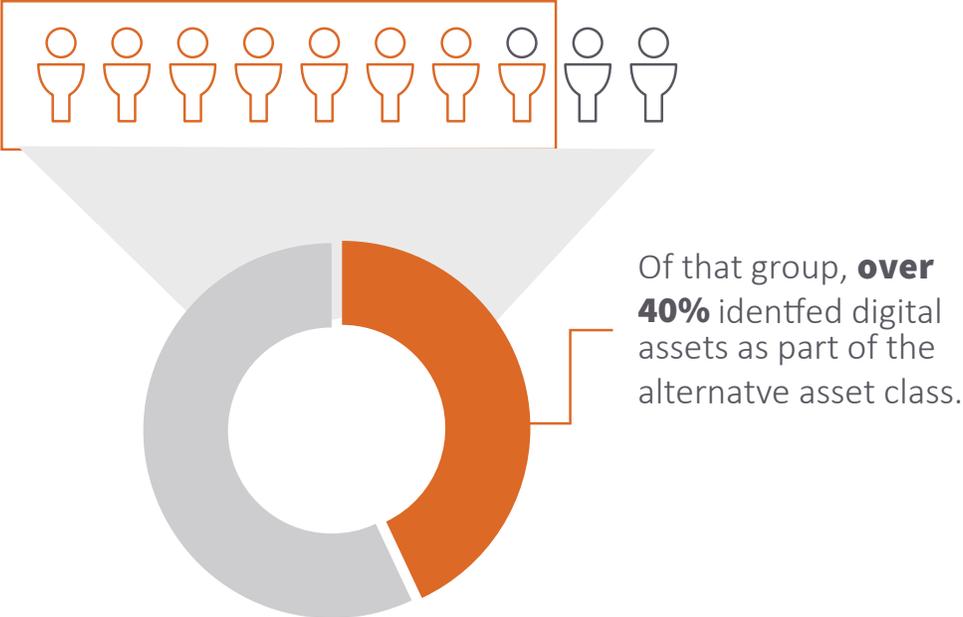


because institutional investors – as well as the financial services industry at large – are still discovering the full potential of the underlying technology.

# CATEGORIZATION OF DIGITAL ASSETS<sup>1</sup>

## DIGITAL ASSETS IN A PORTFOLIO

**Almost eight in 10 respondents felt digital assets have a place in a portfolio.**



Broadly speaking, alternative assets are those that do not fit into the traditional asset category consisting of public stocks and bonds. Alternatives typically help investors gain exposure to non-traditional returns that are not highly correlated with stocks and bonds, provide unusual risk exposure, or generate nontraditional payouts.

For sophisticated investors, classifying digital assets as an alternative is an important step toward increasing adoption, as institutional investment strategies are often organized by categorical allocations.

In prior years, **65%** of U.S. & European investors surveyed saw digital assets as having a role in their portfolio. That belief jumped 8-percentage points in this year's survey to **73%**.

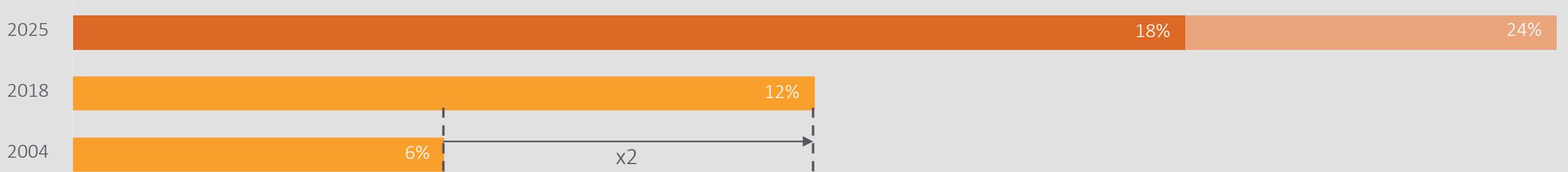


Asian investors, a new population in this year's survey, arguably exhibited the most conviction, with **87%** of respondents seeing digital assets as having a role in their portfolio.

# DIGITAL ASSETS IN A PORTFOLIO

The growth in classifying digital assets as an alternative arises at an opportune time for the alternative asset class.

Investments in alternative assets **doubled** between 2004 and 2018, growing from 6% of investor portfolios in 2004 to 12% in 2018 [VII].



The future looks brighter for alternatives as CAIA estimates they will represent 18%-24% of investor portfolios by 2025 [VII].

**Source**1 Chartered Alternative Investment Analyst Association (CAIA) and their “Next Decade of Alternative Investments” report, April 2020<sup>1</sup>

As investors increase exposure to the alternatives category and digital assets become part of the composition of alternative funds or indexes, future tailwinds for the digital asset class through indirect investment via a broader allocation to the alternative asset category may be present.



# DIGITAL ASSETS IN A PORTFOLIO (INVESTOR SEGMENTS)

as part of the alternative asset class

should not be part of a portfolio

## CATEGORIZATION OF DIGITAL ASSETS - ALL INVESTORS (U.S., EUROPE & ASIA)



43% of all investors surveyed this year agreed that digital assets are more likely to be classified as alternatives than being deemed its own asset class, part of a real estate portfolio, or otherwise.

Surveyed family offices (53%), financial advisors (49%), as well as crypto hedge funds and venture capital funds (58%), felt strongest about digital assets as alternatives, and these investors are more actively adopting digital assets than other segments. One may derive from these survey insights that as investors further adopt digital assets in their portfolio, their conviction around them as alternatives has the potential to become stronger.

# DIGITAL ASSET INVESTMENT PRODUCTS

**84% of U.S. & European investors surveyed indicated they would be interested in institutional investment products that hold digital assets. 90% of Asian investors shared the same interest.**

**44%** of U.S. and European investors within this group expressed interest in investment products that hold multiple digital assets. Although this mirrors last year's findings in product interest overall, there was a noticeable change in preference around product mix this year for U.S. and European respondents, with a six-percentage point increase in products that hold multiple digital assets.

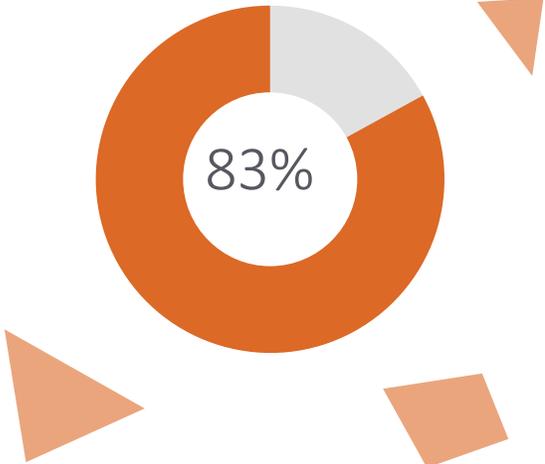
**41%** of U.S. investors and **31%** of European investors surveyed showed interest in both types of products, those with single digital assets as well as products that contain multiple. This increase in each market is in line with broader trends in this year's survey, showcasing increased appeal for a diverse set of digital asset investment products.



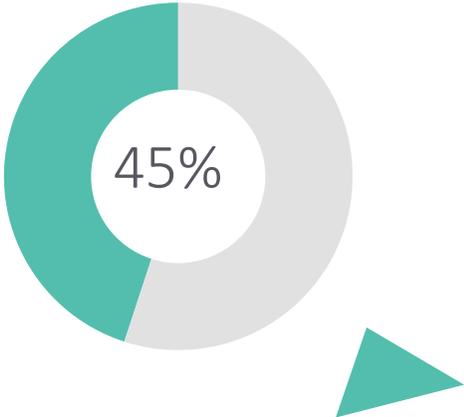
Consistent with sentiment from prior years, many U.S. & European respondents (**61%**) preferred an **actively managed investment product**. Asian respondents showed a similar interest in active management of investment products, with **66%** sharing this preference.

# DIGITAL ASSET INVESTMENT PRODUCTS

**Bitcoin was most dominant when considering the components of digital asset investment products,** with **83%** of all investors surveyed sharing a neutral or appealing view of investment products that hold bitcoin along with other digital assets .



Demand also exists for single-asset investment products that contain bitcoin only, with **45%** of surveyed saying they were likely to invest in such a product.



U.S. investors surveyed expressed an increased likelihood to invest in bitcoin-only investment products. 37% of the U.S. investors surveyed expressed a likelihood to invest in this single-asset structure, up from 33% in 2020.

# DIGITAL ASSET INVESTMENT PRODUCTS

This trend in support of bitcoin could be driven by the recent availability of publicly traded, bitcoin-only investment products as well as investors' interest in regulator-approved exchange-traded bitcoin funds (ETF).

**62%** of U.S. investors surveyed expressed a neutral-to-positive view about a potential bitcoin ETF.

A regulatory structure for exchange-traded products holding bitcoin exists in Europe and Asia and, not surprisingly, these products remain appealing to surveyed investors in these markets – only **33%** of European and **22%** of Asian investors found a bitcoin ETF unappealing.

### NEUTRAL-TO-POSITIVE VIEW OF BITCOIN ETF



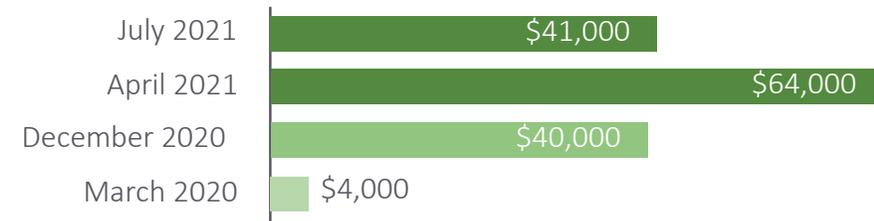
industry to more closely mirror that of other asset classes – whether that's product structure, management strategy, or integraton."

-Peter Jubber, Managing Director,  
Lumos Digital Funds

Financial advisors expressed the strongest interest in active management, **with 71% of those surveyed sharing this preference.**



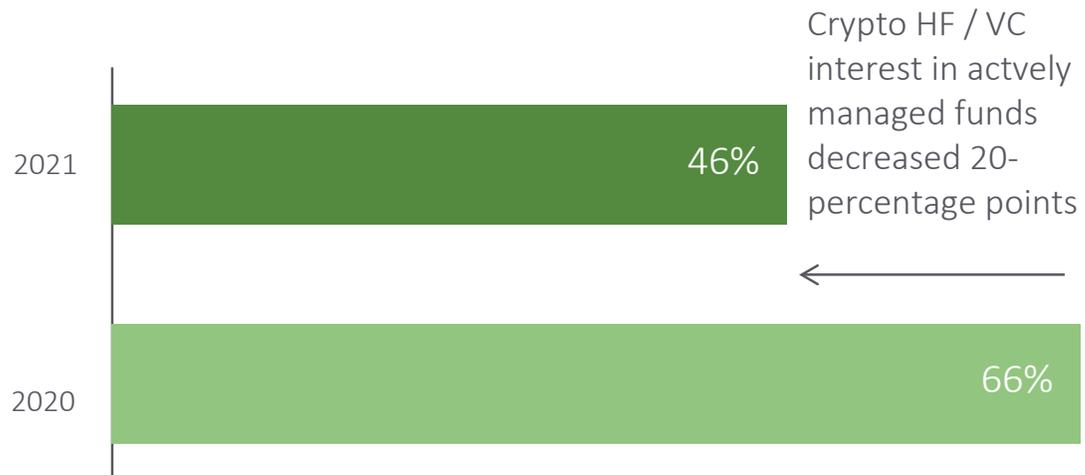
The strong interest in active management could be a reflection of the price movement seen in the past year, most notably bitcoin's climb from below \$4k in March 2020 to above \$40k in December 2020, then to an all-time high of \$64k in April of 2021 before retreating to \$41k in July 2021 [IX]. An actively managed strategy may help investors maximize returns in a volatile market.



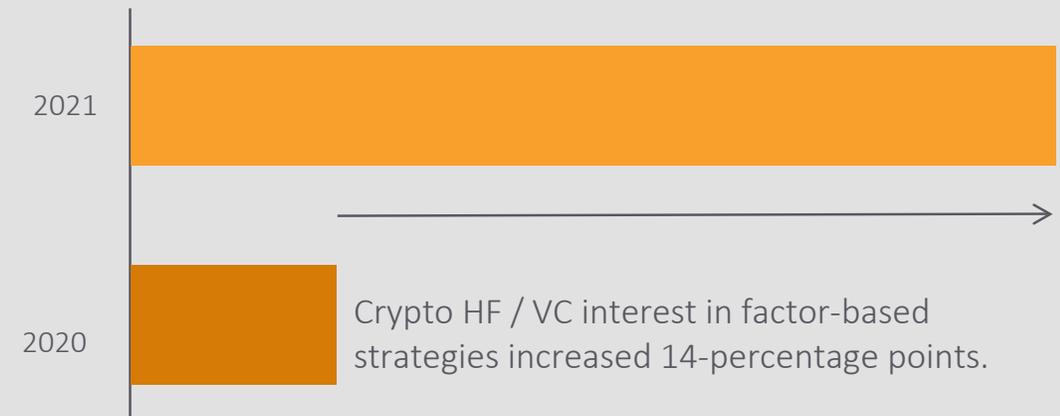
Source: CoinMetrics, 2021

# DIGITAL ASSET INVESTMENT PRODUCTS (INVESTOR SEGMENTS)

Conversely, interest in actively managed portfolios from native crypto HFs / VCs surveyed dropped from 66% to 46% in the U.S. and Europe, which points to increased adoption of more robust, factor-based strategies that feed on market momentum or value return.

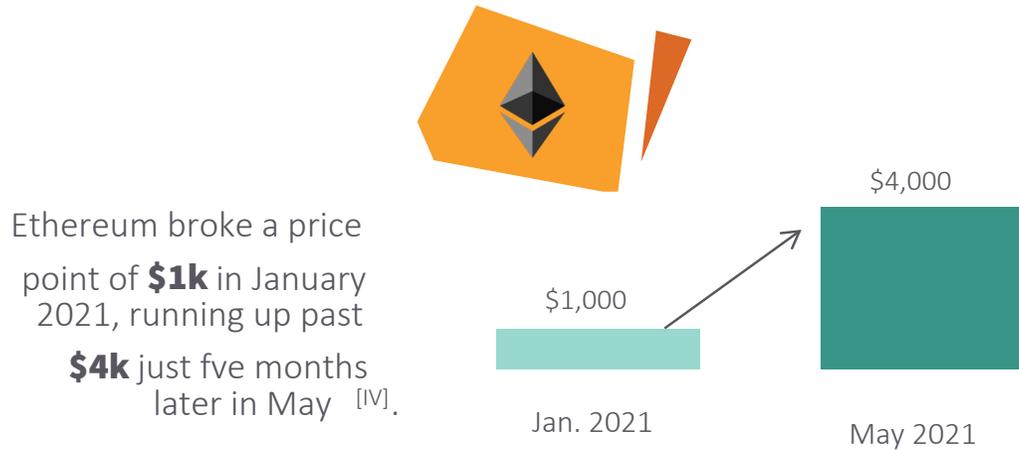


**year's survey (4%).** This decreased interest in active management mirrors the crypto native preferences expressed in 2019, pointing to a likely preference for a more passive strategy during less volatile markets.

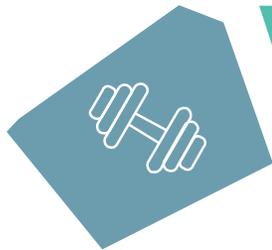


# DIGITAL ASSET INVESTMENT PRODUCTS (INVESTOR SEGMENTS)

A few trends may contribute to this significant uptick in factor-based strategies for crypto native investors. The later part of 2020 and into 2021 was a watershed time period for ethereum, the second largest cryptocurrency by market cap.



Given the Ethereum protocol is an operating infrastructure for **decentralized applications**, a fair degree of value-based assessments may be formulated around this asset. Outside of basic network and wallet growth, analysis of the applications built on Ethereum may help investors **evaluate the potential and unrealized value of the network, and therefore, the value of the underlying asset**. Additionally, many decentralized platforms emerged as true competitors to their centralized counterparts in 2020, most notably in the arena of decentralized exchanges, yield-farming, and liquidity staking.

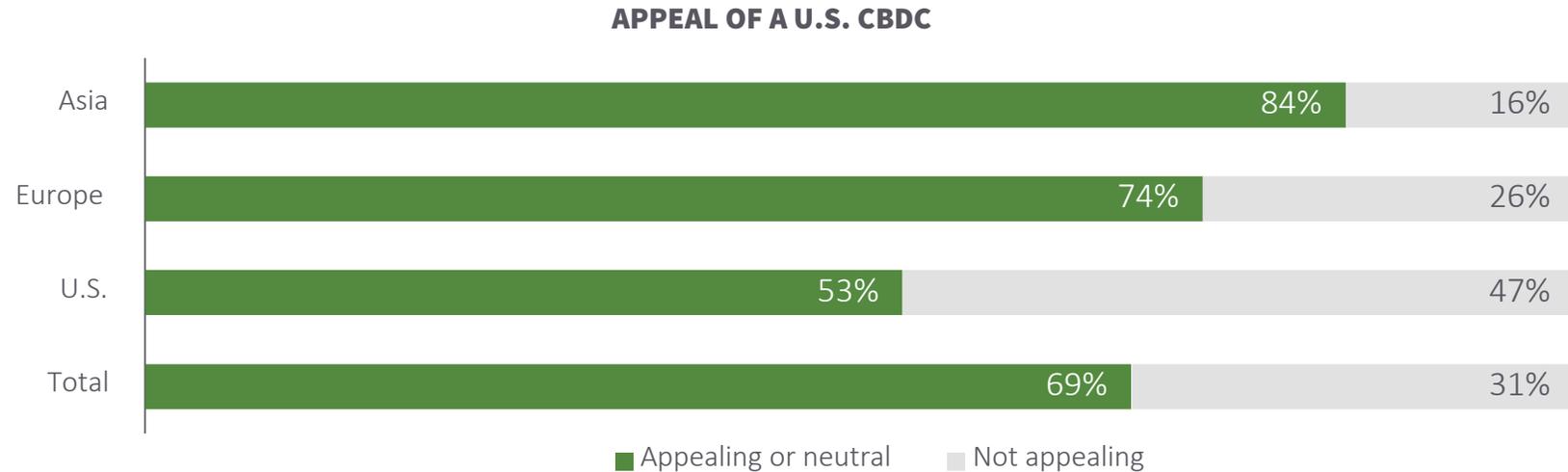


The public nature of **decentralized protocols may provide the most experienced and savvy of digital investors – the crypto natives – opportunity to speculate on value for this new and emerging component** of the broader digital asset ecosystem, as well as the assets that represent them, leading to more robust, factor-based strategies for investing.

# U.S. CENTRAL BANK DIGITAL CURRENCY (CBDC) & TOKENIZATION

**While most of the respondents are open to a U.S. CBDC, appeal is greatest in Asia. More polarization exists in the U.S. with almost half surveyed finding its implementation unappealing.**

This was the first year that we surveyed the entire sample of our investor base around their interest in a U.S. central bank digital currency. Most investors surveyed are open to a U.S. CBDC, with **69%** of them taking a neutral-to-positive view of a U.S. dollar-backed CBDC. Appeal was highest in Asia, with **84%** taking a neutral-to-positive view, followed by Europe (**74%**) and U.S. (**53%**).

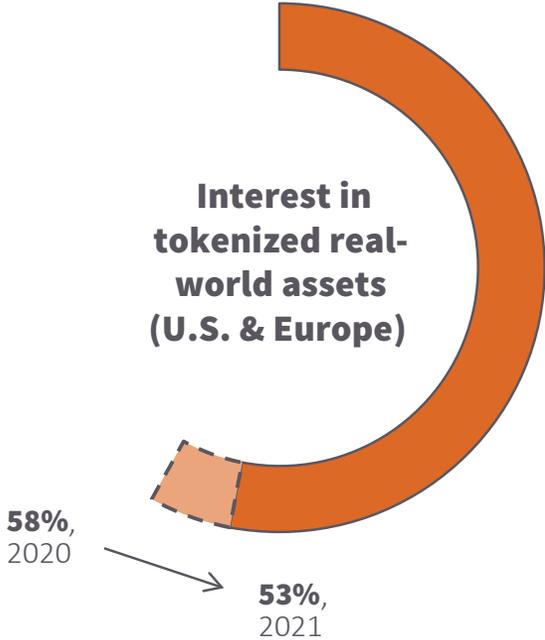


Conversations around a digital dollar have been more prevalent in the past year, with many pundits speculating on the benefits that this monetary innovation would have for faster stimulus payments and as a government-backed alternative to private stablecoins <sup>[VIII]</sup>. This momentum may be contributing to **53% of investors surveyed in 2021 finding a U.S. CBDC likely to be implemented within the next five years.**

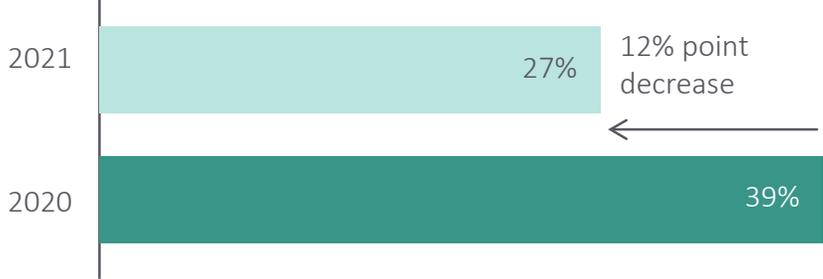
# U.S. CENTRAL BANK DIGITAL CURRENCY (CBDC) & TOKENIZATION

Investors were also surveyed on the possibilities of other real-world assets being tokenized, and **53%** of U.S. & European investors expressed a willingness to invest in a tokenized version of real-world assets.

**This highlights a downward trend from the previous year's survey (58%), with declined interest in tokenized real estate contributing most significantly to the results.**



In 2020, **39%** of U.S. and European investors surveyed felt that real estate had the greatest potential for tokenization. This year saw **a 12-percentage point decrease with just 27%** of investors in these markets sharing the same sentiment.

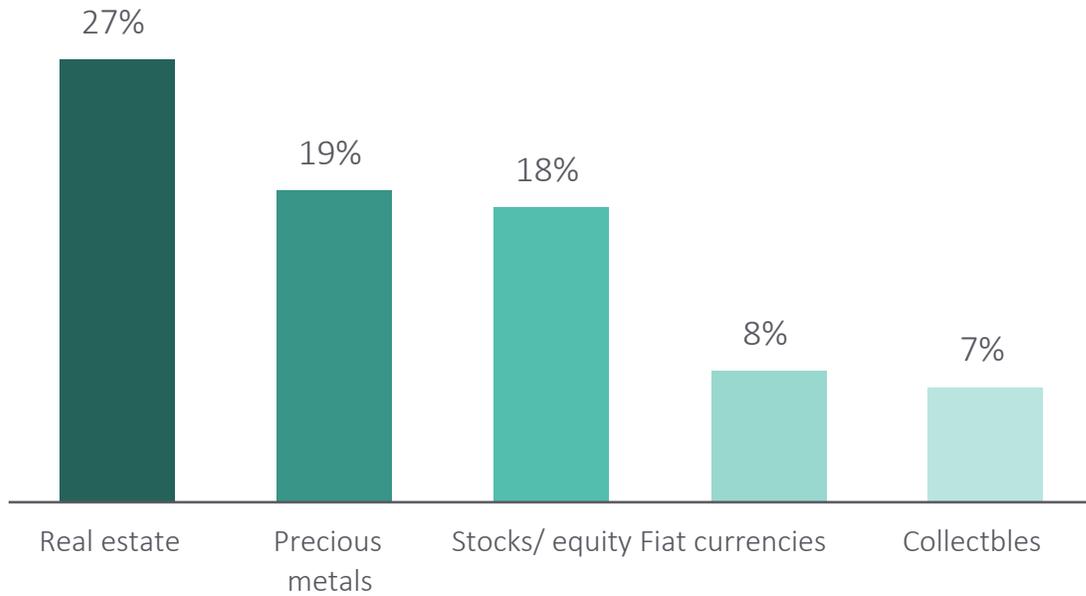


Although this downward trend is significant, we hypothesize that it may have more to do with trends in the housing market than tokenization. In 2021, **home prices in the U.S. increased by 13%** [X] and in Europe by more than **6%** [X], signaling an increase in demand. During a banner year for the housing market, investors may have struggled to determine what benefits tokenization would provide.



# U.S. CENTRAL BANK DIGITAL CURRENCY (CBDC)

Aside from real estate, investors surveyed from all regions recognized the potential for tokenization of precious metals (19%) and stocks (18%).



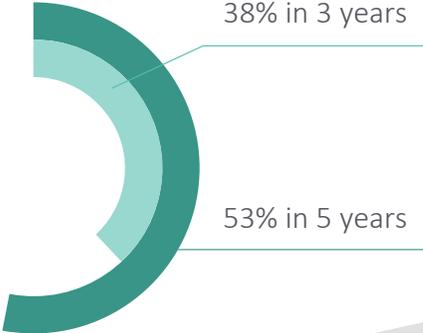
Although 2021 marked a year in which non-fungible tokens (NFTs) grew in popularity and awareness, only **7%** of the investors surveyed felt that collectibles showed the greatest potential for tokenization, signaling that NFTs have not yet gained significant traction with institutional investors and intermediaries.

largely consistent with prior years.

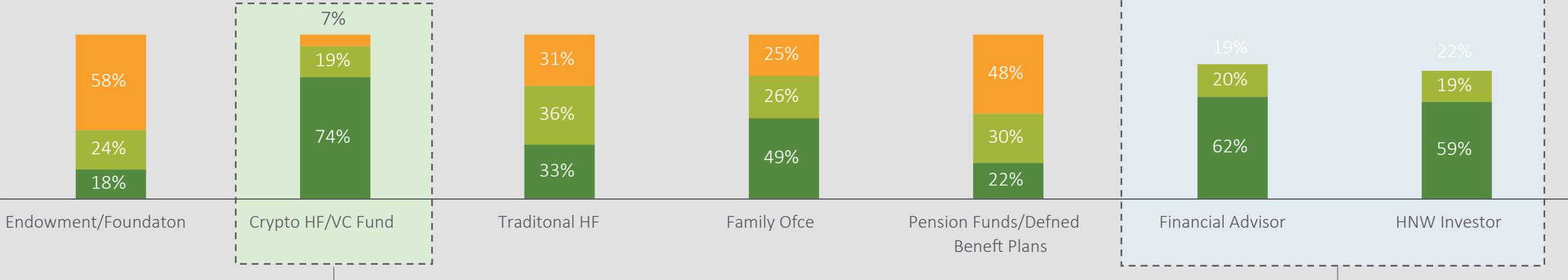
# U.S. CENTRAL BANK DIGITAL CURRENCY (CBDC) & TOKENIZATION (INVESTOR SEGMENTS)



**Over half of surveyed investors worldwide foresee a U.S. CBDC within the next five years, with 38% of them believing a digital dollar is likely to be implemented within three years.**



## LIKELIHOOD OF THE IMPLEMENTATION OF A USD-BASED CENTRAL BANK DIGITAL CURRENCY (CBDC) IN FIVE YEARS



As expected, crypto HF and VC funds surveyed held the strongest conviction around a digital dollar, with **74%** believing the likelihood of existence being within five years.

The survey also showed strong agreement from financial advisors and high-net-worth investors, with **62%** and **59%** (respectively) sharing this five-year time horizon for a U.S. CBDC.