



Digital Assets

Is institutional adoption gathering momentum?

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Currently, no harmonized regulatory framework governs digital asset activities and services in the EU. However, this will change with the finalization of several regulatory initiatives. Recently, BAI updated [its factsheet on digital assets and electronic securities](#) to reflect the latest regulatory developments in Germany and the EU. This briefing paper builds on the factsheet by highlighting the institutional adoption of digital assets on the occasion of the upcoming 2nd BAI [InnovationsDay](#). We direct resources of our association's work on Blockchain technology and digital assets in particular because we believe that they are one of the significant developments impacting the financial services and asset management industry over the upcoming years, not only as an emerging alternative asset class but in having a significant role in the digital transformation of the entire industry.

Market size reaches institutional dimensions

The capital markets have embarked on the digitization journey. Digital assets have emerged from very early adoption by a small group of individuals to an asset class with a market capitalization equivalent to a medium-sized stock exchange.[1] The year 2021 saw a 50-fold increase in the market for decentralized finance (DeFi), with total value locked in Ethereum-based DeFi applications reaching USD120bn and with interconnectedness to the temporary USD3tn market peak for crypto-assets in November 2021, which has since fallen to around USD 900bn.[2] A BCG forecast suggests that this value may grow to more than USD 10tn before the decade's end, despite the recent bearish market environment.[3]

Given these enormous growth prospects, it would be negligent for traditional asset managers not to address the topic. For example, nontraditional wealth managers currently manage an estimated size of up to USD 1tn in crypto-related wealth, already representing up to 3% of total wealth assets under management as of 2021. [3] As digital assets take the next step toward institutionalization, the stakes are even higher for traditional asset managers.

Although there may be limited quantitative studies about the precise levels of institutional investments in digital assets, qualitative evidence based on surveys and research projects shows growing investment in crypto-assets. Institutional investors have captured the attention, and the discussion of whether digital assets are a serious investment opportunity is in progress. With the eWpG, the purely digital issuance of securities became legally possible in Germany. Electronic debt securities - a new, as yet little-used option - are just the beginning of a digital revolution. Electronic shares will follow. Crypto fund shares (Kryptofondsanteile), electronic share certificates tokenized using distributed ledger technology, and registered in a crypto securities registry are also available due to the strong commitment of the BAI. This development is meeting with a positive response from market participants and is also putting pressure on other jurisdictions.

Switzerland even goes one step further and openly encourages crypto investments for retail and institutional players. On the other hand, China has banned its nationals from owning private digital currencies and has imposed restrictions on crypto mining and trading. Germany falls somewhere in the middle of these two extremes,[3] with high upside potential. Most professional investors expect Germany to take a huge leap forward as one of the market leaders in the digital asset space because of its proactive stance in developing a robust framework for the digital asset sector.[4]

Since the Fund Jurisdiction Act (Fondsstandortgesetz) came into force in the summer of 2021, German special funds (Spezialfonds) with fixed investment conditions may, under certain conditions, invest directly in crypto assets, including cryptocurrencies. Nearly a third of wealth managers and institutional investors surveyed by Nickel Digital expect over half of special funds to allocate to digital or crypto assets over the next two years.

Moreover, 78% of the survey respondents expect special funds to allocate over USD 100bn to crypto and digital assets, representing at least 5% of their combined assets.[4] A very optimistic assessment, keeping in mind that the acquisition of crypto assets still raises many practical questions for their clients, the institutional investors. It has not been finally clarified how crypto assets can be integrated into the current investment regulations for regulated special fund investors. This is especially true for investors directly or indirectly subject to the investment ordinance (Anlageverordnung) or the Pension Fund Supervision Ordinance (Pensionsfonds-Aufsichtsverordnung) since digital assets are not listed as investment types. Therefore, regulatory authorities should soon create legal certainty and include digital assets in the catalog of eligible assets.[5]

Mutual funds can also invest indirectly in crypto assets by acquiring financial instruments such as ETPs that track the performance of the underlying crypto asset. Numbers often show a lack of demand from the institutional investor side. However, there also needs to be an adequate supply for institutional investors to make investments in crypto assets in the first place. The implementation of the before-mentioned regulations in Germany is currently being examined by relevant financial institutions such as asset managers and custodians. But to decide in favor of implementation takes time, so the increased circulation of institutional grade products is probably not to be expected before 2023.[6]

As an interim conclusion, anecdotal evidence by BAI members, German institutional investors, and associations befriended financial market participants indicates that the traditional world, consisting of insurance companies, pension funds, or schemes, is somewhat reserved concerning investments in digital assets. In contrast, family offices, hedge funds, and venture capital funds have a greater propensity to hold digital assets. We also see a substantial increase in dedicated crypto funds, some of which are based here in Germany. All in all, we are still talking about a minimal share of institutional investors in the single-digit percentage range. Far from talking about market penetration, always in mind that we are starting from a very low level.[6]

Is the institutionalization of digital assets overestimated?

In the meantime, custody services for institutional investments in digital assets are established. The range of sophisticated products around crypto assets has expanded rapidly, with the placing of crypto investment funds, exchange-traded products, derivatives, and futures contracts referenced to crypto-assets to target institutional investors. Moreover, some large private (tech) companies announced their interest in using digital assets for cash management or payment purposes. And Wall Street banks are building new trading desks and infrastructure for digital assets. For example, Bridgewater Associates estimates that roughly one million Bitcoin are now held by institutional-like players (including smaller institutions such as family offices and HNWIs) via custodial intermediaries,[7] which would be the equivalent of USD 21bn at present.

One dilemma remains unsolved: the market share of institutional investors is difficult to quantify. Large-scale surveys on institutional adoption of digital assets have been conducted around the world. Many of these studies' fundamental problem is selecting the investor sample composition. Under the guise of „institutional investors“, mostly crypto-oriented HNWIs, family offices, financial advisors, crypto hedge funds, major banks, and tech companies are surveyed. These – for the institutional alternative investor universe – rather non-representative samples of „institutional investors“ mean that the results reflect so-called institutional adoption of digital assets with a significant upward bias which skews the results since those digital affine investor portfolios naturally comprise a greater share of digital assets.

An excellent example of this is provided by the much-cited „The Institutional Investor Digital Assets Study“ conducted by Fidelity Digital Assets among 1100 „institutional investors“,

which concludes a widespread growth in adoption across all institutions surveyed and that 52% of these have an investment in digital assets. If you look closer, the high digital assets adoption is driven by the aforementioned regulatory less-constrained crypto aficionados. However, a different picture emerges when looking at the largest, highly regulated, and most relevant investor groups. 0% of European foundations/endowments surveyed and only 3% of pensions and defined benefit plans are invested, and insurers are not even included in the study.[8] To be clear, this does not mean those studies are of poor quality. Be sensitized and look carefully as soon as there is a reference to institutional digital asset adoption.

Institutional adoption is still in its early stages

Despite some considerable developments of institutional-grade infrastructure and access channels to digital assets, Cambridge Centre for Alternative Finance data also indicates in 2020 that digital asset service providers' customer base is still retail-driven. The institutional conversion rate, from an expression of interest to investments, remains limited.[9]

Nevertheless, some studies map the approach of traditional institutional investors to the world of digital assets. Our association's annual BAI Investor Survey shows that a low single-digit percentage of German institutional investors already invest in digital assets. Likewise, a low single-digit rate would like to enter this asset class in the next few years. A BCBS global supervisory database of cryptocurrency exposures of 178 banks from 26 BCBS member countries shows that their exposure remains at a modest level of less than USD 200mn in 2020. Overall, only seven of the 178 banks reported having cryptocurrency exposure. Their exposure to cryptocurrencies averaged less than 0.02% of total risk-weighted assets.[10] And an EY survey among 103 rather traditional private equity managers revealed that only a small number (4%) of the managers have exposure to digital assets. Moreover, only 5% expect to increase their exposure to crypto-related assets, whereas 87% do not plan to invest.[11] What's more, sporadic reports about traditional institutional investors building exposure to digital assets appear in the media, such as about the Houston Firefighters Pension Fund, the first US public pension plan that has invested USD 25mn in crypto facilitated by Bitcoin investment firm NYDIG.[12]

Crypto Funds

Institutional investors usually prefer fund solutions. This also applies to digital assets. No wonder we can observe a growing supply of active strategies in the form of crypto funds and fund of funds, comparable in certain aspects to a broad universe of single and fund of hedge funds in the traditional world. And the number of crypto investment funds will increase further as more market data to analyze and a clearer regulatory framework will drive the expansion of crypto investment funds, as many investors believe.[4]

It isn't easy to comprehend the size of the private crypto fund market right now. AIMA research shows that there are potentially over 300 crypto hedge funds currently operating with USD 4.1bn, with HNWIs as the most common and most prominent investor type in these funds. 86% of funds have HNWI investors, followed by family offices (66%) and fund of funds (43%). As described before, large traditional institutional investors are rare among the investor base. Also easy to read from the median and average ticket size of USD 0.5mn, respectively USD 1.63mn. Nevertheless, there are exceptions. AIMA reports about endowments being named by one fund as their largest investor and another fund with a small portion of pension fund investors.[13] Traditional hedge fund managers started to invest a growing portion of their assets under management in crypto-based products, largely aiming at arbitrage opportunities to profit from the basis between going long the physical assets or an instrument that provides access on a spot basis to

the underlying asset and short the future.[14] Matching the growing demand of hedge funds for digital asset exposure, Ferko et al. shed light on who trades Bitcoin futures. They find that the market is largely comprised of concentrated traders that hold almost their entire portfolio in BTC futures and diversified traders that hold on to a very small fraction, with large, sophisticated investors increasing their presence in the crypto futures market.[15]

A survey conducted by EY among 107 hedge fund managers reveals that 10% of hedge funds have crypto exposure, with AUM dedicated to crypto relatively small, at one to two percent. Most common are direct crypto investments, followed by derivatives, futures, and VC investments. Investments in dedicated private crypto funds are rare (11%). 26% expect to increase their exposure to crypto-related assets, whereas most do not plan to invest.[11]

AIMA, on the other hand, determines that approximately one in three traditional hedge funds are currently investing in digital assets, with an average allocation of 4% by these funds. On top, 29% of hedge fund managers who are not yet invested in digital assets state that they are soon-to-be investing.[13] A market survey of 100 hedge fund CFOs globally, conducted by fund administrator Intertrust, found that executives expect to hold an average of 7.2% of their assets in cryptocurrencies in 2026, which would equate to a total of more than USD 300bn of crypto assets held by hedge funds if this prediction should come true.[16] The latest poll by Preqin reveals that despite a heavy sell-off of cryptocurrency hedge funds, demand remains strong and is declining only slightly compared to the previous year. Among Preqin's survey respondents, 74% expect to maintain or increase their exposure to crypto hedge funds.[17]

Despite a lack of reliable data, it is therefore quite possible that German institutional investors are also indirectly building up a small crypto exposure through their hedge fund investments.

Tokenization and the democratization of alternative asset classes

Blockchain technology can present further opportunities for asset and wealth managers. This includes the possibility of distributing tokenized non-crypto assets, including pre-IPO funds, private equity funds, and agriculture commodities. These offerings can democratize access to previously inaccessible asset classes.[3]

So far, for example, the initiators of wind farms, as well as real estate groups, have used token-based procedures to issue bonds or registered bonds. The issuances have shown that players are quick to switch to digital strategies if they have been proven to be reliable.[18]

The first pilot projects of this kind have already been launched in Germany. However, we are still in the initial stages. In principle, the technology can be, thanks to its fungibility, transferred to all alternative asset classes, regardless of the investment object. This could also enable private investors to diversify their investments to an extent previously unheard of - even into asset classes that were hardly or not at all accessible to private investors. In a survey of 300 institutional investors, 39% believe that tokenization may bring greater access to private markets for retail investors.[19] This is because tokenization makes the smallest denominations of shares feasible. Participation in private equity funds at the rates of an ETF would thus be possible - at least in theory.[18]

Different ways to build exposure to the digital assets universe

Another look beyond the German horizon reveals that a growing number of sovereign wealth funds are researching digital assets despite taking a conservative approach to investment due to volatility and regulatory

pressures, as Invesco Research recently shows. To this day, direct investments in the form of private equity transactions into companies involved in the broader digital asset ecosystem are a more common approach to gaining exposure. In doing so, 7% of sovereign wealth funds already have some exposure to the digital asset ecosystem, and a further 55% would consider investing in the industry in the future.[1]

However, the investment behavior of those SWFs also shows that there might be a bigger interest in investing in companies involved in the infrastructure behind digital assets than the digital assets/cryptocurrencies themselves. No wonder, then, that in 2021, venture capital funding for crypto and blockchain companies stood at USD 23bn.[20] About 75% of the funding was deployed into infrastructure and centralized services. [21] Blockchain companies located in Germany raised a total of USD 255mn in venture funding in 2021.[20] Another way to get indirect exposure to crypto assets is by investing in corporates with significant holdings (e.g., MicroStrategy, Tesla, Square, Coinbase, or Bitcoin Group) or with activity related to digital assets, e.g. crypto-mining. But what is important to note is that such companies and their actions related to their crypto portfolio are driving to a large extent, market sentiment.[2]

Major barriers

Interest is growing, but the time it takes to make an investment decision is months and often years. In addition, many institutional investors do not want to invest.[6]

The Fidelity Digital Asset Study shows that 90% of foundations, 78% of pension funds / defined benefit plans, and 46% of family offices have a negative attitude towards digital assets. Why is it that many of the institutions still express some reservations? Of course, that may be because of regulatory uncertainty. Pensions and endowments tend to be more risk-averse, have some concerns around market manipulation, and look to allocate to alternative investments that have exhibited long-term growth and low volatility.[8]

Nevertheless, regulatory progress and a broader market offer have been sufficiently demonstrated. In a representative poll, the BAI Investor Survey from 2020 shows that investments fail primarily due to high volatility, know-how, and regulatory pressure. Some barriers, such as know-how and regulatory obstacles, have improved. Still, other main barriers to investment for institutional investors have changed little in recent years.

There are scientific papers confirming the high volatility of digital assets in their price movements as a significant investment hurdle. Cryptocurrencies return distributions are heavy-tailed, subject to extreme tail risks, and show strong positive intra-market correlations. No diversification effect can be achieved by aggregating market risks. From an institutional investor's point of view, risk reduction through portfolio diversification with multiple cryptocurrencies is only promising to a limited extent and does not offer a satisfactory solution to significantly reduce the risk within the digital asset class.[22]

Despite a dramatic increase over the past years, the overall market size and the liquidity of digital assets are still small compared to the value of the global financial traditional and alternative investments. As recently observed in the markets, lower liquidity results in drastic price adjustments in a short period. Bridgewater Associates supposes that Bitcoin, the most stable cryptocurrency, is about 1.4% as liquid as US equities. By implication, institutional investors would hold a much smaller digital asset position in the liquid mix. And yet the high volatility would still give meaningful exposure on a risk-adjusted basis.[7] According to the aforementioned Invesco Survey, liquidity remains one of the biggest obstacles to investment. On top, the high volatility is a disadvantage, especially in a portfolio context compared to other alternative asset

classes. Not to mention that investment committees are generally conservative. A (non-)investment decision is often discussed in a committee, where the vote of some may overturn the proactive crypto vote of crypto affine committee members.[6]

What's more, alternative investments are valued by many institutional investors as an anchor of stability in the portfolio because of their low volatility. Crypto assets cannot offer this yet. The situation is further complicated by existing regulatory requirements (the previously mentioned supervisory law of the respective investors) and uncertainty about future regulatory developments.

In addition, a new hurdle has been widely discussed over the past 12 months, also in the legislative process for the MiCA ordinance: The energy intensiveness of digital assets. It is often cited as a significant challenge for institutional adoption of digital assets due to its conflict with ESG considerations in the investment process. Carbon commitments, sustainability, and environmental aspects are central for many institutional investors. According to the BAI Investor Survey, around 2/3 of German institutional investors have a dedicated ESG strategy in their investment process, which places potential environmental risks in the foreground. However, it should not be forgotten that sustainability is not limited to its ecological objectives. Social and governance aspects play an equally decisive role. The use of blockchain technologies and digital assets can, for example, offer financially weaker communities low-threshold access to the financial system. What's more explicitly, sustainable companies can finance themselves at comparatively low cost, for example, through security token offerings, due to the elimination of intermediaries.[23]

Combining the previously mentioned hurdles with an uncertainty of how those new technologies work, handling its risks, and unclear value proposition, that's a lot of work and education to contemplate for what might, in the end, be a very small allocation based on its volatility alone.[1] Nevertheless, communication of knowledge must be given even greater priority. The BAI will continue to face this challenge with members and partners in the future and significantly contribute to improving public awareness of digital assets and work on regulatory improvements for investors and product providers. You are kindly invited to discuss the topics mentioned above with digital asset experts and us at the 2nd BAI [InnovationDay](#) on Sept 12th at Campus Westend in Frankfurt.

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