

# Is the Financial Market ready for Cryptocurrency ETFs? - A critical evaluation

## Current market dynamics paving the way for crypto ETFs

Growth of cryptocurrencies has provided investors with another asset class where they can invest to diversify their portfolio. Cryptocurrencies are a volatile asset class, and direct investment implies additional expenses of physical ownership, custody charges such as purchase of digital wallets etc. However, in light of increasing correlation between equity and cryptocurrency as evidenced by the 2022 study from IMF which states that correlation coefficient of Bitcoin price with that of S&P500 has increased from 0.01 to 0.36 from 2016–2017 to 2020–2021 as both these asset classes are now seen soaring and collapsing together, cryptocurrency is not only becoming mainstream with emerging use cases but is a risky asset class plagued with co-movement and spillovers to equity and vice-versa.

This amplified correlation in turn may imply more investments into cryptocurrency, opening the possibility for exposure to digital currency to investors who are comfortable with Exchange Traded Funds (ETF) style traditional financial structured products considered more viable option to gain exposure to a basket of cryptocurrencies without having to deal with unregulated exchanges where most of the coins and tokens are currently traded also aiding avoidance of undue exposure to susceptible to fraud and manipulation.

With cryptocurrency emerging as the alternative asset class, there has been a steep rise in the launch of crypto ETFs with more than 34 such ETFs available as of January 2022. Crypto ETFs are currently available in Canada, Brazil and a few European countries with USA permitting only future-based crypto ETFs. Australia, on the other hand, has recently approved few spot cryptocurrency ETFs only.

Though ETFs are considered one of the effortless ways for any novice investor to gain diversified exposure to a cryptocurrency if he or she is unsure of its underlying market dynamics, a closer look paints a different picture as these investment products are found to be fraught with misleading, opaque structures and eccentric risk and performance reporting frameworks.

## Crypto ETFs universe is quite diverse!

From a transactional cost perspective, crypto ETFs offer exposure to cryptocurrency at a fraction of the cost of purchasing crypto directly. However, from the underlying asset perspective, there are four types of crypto ETFs. One that physically holds the underlying cryptocurrency by directly taking exposure into Bitcoin, Ethereum and the likes. There are others which may avoid buying the cryptocurrency physically but take exposure through crypto futures or any other derivative iteration of the cryptocurrency. There also may be another class of cryptocurrency ETF which may invest in another ETF having exposure to cryptocurrency.

Lastly, many crypto funds/ETFs invest into crypto equity, i.e. in shares of companies that are into the business of crypto mining, crypto exchanges, providing crypto mining software, developing blockchain technologies focused on the cryptocurrency ecosystem or simply invest in companies like Tesla which own hefty amount of cryptocurrency in their balance sheets. Such funds are occasionally classified as a crypto fund and labeled as crypto ETF or blockchain ETF for promotional purposes. Nevertheless, the difference between the two is quite apparent



in their returns. Below is a list of few blockchain ETFs indicative of how their assets and returns (annual return of 20% to – 9.22%) vary from a pure crypto backed ETF/exchange-traded product (ETP)/exchange traded note (ETN) (annual return of 100% to –28%):

**Blockchain ETFs return framework**

Symbol	ETF name	Total assets	ETF database category	Inception	ER
BLOK	Amplify Transformational Data Sharing ETF	986310000	Technology Equities	2018-01-16	0.71%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	224899000	Large Cap Blend Equities	2018-01-17	0.68%
LEGR	First Trust Indxx Innovative Transaction & Process ETF	156304000	Large Cap Blend Equities	2018-01-24	0.65%
BITQ	Bitwise Crypto Industry Innovators ETF	102269000	Financials Equities	2021-05-11	0.85%
BKCH	Global X Blockchain ETF	96458000	Technology Equities	2021-07-12	0.50%
GFIN	Goldman Sachs Finance Reimagined ETF	50452500	Large Cap Growth Equities	2019-03-01	0.50%
DAPP	VanEck Digital Transformation ETF	48407900	Technology Equities	2021-04-12	0.50%
KOIN	Capital Link Global Fintech Leaders ETF	27079200	Technology Equities	2018-01-30	0.75%
BKC	REX BKCM ETF	5221706	Large Cap Blend Equities	2018-05-16	0.88%
BCNA	Reality Shares Nasdaq NexGen Economy China ETF	2099636	China Equities	2018-06-20	0.76%

Symbol	ETF name	ETF database category	1 Week	1 Month	1 Year	3 Year
BLOK	Amplify Transformational Data Sharing ETF	Technology Equities	4.04%	-18.52%	-9.22%	134.64%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	Large Cap Blend Equities	4.30%	-9.24%	-8.58%	83.87%
LEGR	First Trust Indxx Innovative Transaction & Process ETF	Large Cap Blend Equities	3.69%	0.95%	14.94%	65.91%
BITQ	Bitwise Crypto Industry Innovators ETF	Financials Equities	3.90%	-26.51%	N/A	N/A
BKCH	Global X Blockchain ETF	Technology Equities	4.80%	-24.91%	N/A	N/A
GFIN	Goldman Sachs Finance Reimagined ETF	Large Cap Growth Equities	9.24%	N/A	20.33%	N/A
DAPP	VanEck Digital Transformation ETF	Technology Equities	4.59%	-28.69%	N/A	N/A
KOIN	Capital Link Global Fintech Leaders ETF	Technology Equities	3.53%	-3.02%	9.56%	83.59%
BKC	REX BKCM ETF	Large Cap Blend Equities	0.31%	N/A	N/A	N/A
BCNA	Reality Shares Nasdaq NexGen Economy China ETF	China Equities	-1.16%	N/A	8.65%	N/A

**Source(s):** [Justetf.com](https://www.justetf.com/en/how-to/invest-in-crypto.html), "How to invest in Cryptocurrencies using ETFs/ETNs," Feb 2022, <https://www.justetf.com/en/how-to/invest-in-crypto.html>

Now, if we look at the structure of the ETFs, some ETFs are structured as closed-ended trusts where a fixed number of shares are issued when the ETF is launched and then those shares are traded “over the counter (OTC)” especially as crypto ETF, in general, cater to niche class of investors. The limited transparency around pricing in such OTC products is the appealing factor for such opaque investments, and these ETFs can trade either at a discount or premium to their underlying assets.

At the same time, revenue authorities in few jurisdictions consider cryptocurrency holdings to be “property” for tax purposes, which leads to taxation of digital currency in the same way as any other assets like stocks, gold or real estate. Hence, frequently, fund managers structure their crypto ETFs through a special purpose vehicle (SPV) structure based out of tax havens under subsidiaries domiciled out of Cayman Island so that the investors do not have to comply with the otherwise mandatory reporting norms and avoid tax implications.

### **Suitability of crypto ETFs reported metrics**

A comparison of the publicly available risk parameters of crypto ETFs stated by financial data aggregators with those reported [1] by cryptocurrency ETFs fund managers in their fund fact sheets reveals a contrasting set of risk analysis:

- (1) The risk/return parameters for crypto ETFs as cited by financial data reporting platforms such as Yahoo! Finance, Morningstar, Financial Times, Barron’s etc. are Alpha, Beta, Sharpe ratios etc. which are akin to those for any pure equity or bond ETFs. However, the financial data aggregators are unable to calculate them due to the nature of the underlying of such crypto funds which makes these traditional risk parameters unfit for a cryptocurrency ETF.
- (2) These data providers ideally require a performance history of 3–5 years to calculate and report the risk return tradeoffs. However, since most of these ETFs have been recently launched, only restricted performance is available.
- (3) Many such platforms try to fit the crypto ETFs into their existing evaluation framework used for equity and debt ETFs. However, due to the inherent nature of this asset class, they are unable to assign a rating or fit the crypto ETF into their pre-existing structures and frameworks. For example, the traditional Morningstar framework tries to map the 21Shares Crypto Basket Index ETP (ticker: HODL)[2] into Morningstar Style box which classifies the underlying cryptocurrency of this fund into large, medium and small cap with an investment styled for value, blend and growth
- (4) Crypto ETFs’ fund managers, on the other hand, are reporting historical performance for such funds from a pure return perspective only, avoiding reporting the traditional risk parameters of Alpha, Sharpe ratio etc. The closest they reported to from risk or volatility perspective is the daily price.
- (5) Crypto ETFs’ fund managers are highlighting the underlying volatility of this asset class through performance scenarios clearly disclosing the investor the possibility that his initial investment can contract to zero in case of an investment into a crypto ETF which is an unlikely scenario in case of an equity or bond ETF. Below is the snapshot of the same HODL fund taken from the Key Information Document of the fund which provides a scenario analysis of stress scenario, unfavorable scenario, moderate scenario and favorable scenario.

Investment USD 10,000		1 Year
Stress scenario	What you might get back after costs (average return each year)	0 USD (-100%)
Unfavorable scenario	What you might get back after costs (average return each year)	3096.38 USD (-69.04%)
Moderate scenario	What you might get back after costs (average return each year)	12256.88 USD (22.57%)
Favorable scenario	What you might get back after costs (average return per year)	46836.13 USD (368.36%)

**Note(s):** This table shows the money you could get back over 1 year, under different scenarios, assuming that you invest USD 10,000

**Source(s):** 21Shares, “Key Information Document for 21Shares Crypto Basket (HODL5)”, June 2022, [https://cdn.21shares.com/uploads/currentdocuments/KIDs/HODL/CH0445689208\\_21SharesAG\(EN\).pdf](https://cdn.21shares.com/uploads/currentdocuments/KIDs/HODL/CH0445689208_21SharesAG(EN).pdf)

- (6) Additionally, the crypto ETFs’ fund managers also report risk indicators to signify the volatility and risk inherent in the underlying cryptocurrency ETFs/ETPs. Below is the risk scale taken from the KID of well-known CoinShares Physical Bitcoin (Ticker: BITC):



**Source(s):** CoinShares, “Key Information Document: CoinShares Physical Bitcoin (Ticker: BITC),” June 2021, <https://coinshares.com/etps/physical/bitcoin#bitcoin>

**The road ahead**

Multiple studies have already established cryptocurrencies as a speculative asset rather than a steady store of value. Cryptocurrency needs a standard volatility measure along with adequate representation of the underlying liquidity and credit risk. As per Yukun Liu and Aleh Tsyvinski, the mean and the standard deviation of returns for crypto assets are in the order of magnitude higher than those for the traditional asset classes and that there is significant time-series cryptocurrency momentum at the daily and weekly frequencies for all three major cryptocurrencies undertaken for study (i.e. Bitcoin, Ethereum and Ripple). A high investor attention predicts high future returns. At the same time, the credit risk for a cryptocurrency holder is the risk of the value of crypto reducing to zero if the exchange on which he is trading closes or becomes non-functional. In addition to this, the research underlines that cryptocurrency returns can be predicted by factors which are specific to cryptocurrency markets. The research concludes that “*cryptocurrency represents an asset class that can be assessed using simple finance tools. At the same time, cryptocurrencies comprise an asset class which is radically different from traditional asset class*”

In view of the foregoing analysis, a mix of traditional, quantitative and qualitative risk factors ideally should be prescribed for reporting crypto ETF risk/return profile with a comparable benchmark. While momentum indicators (e.g. MACD) are often regarded as the best risk indicators in case of assets with extreme volatility, others such as Sharpe ratio, Beta, Alpha do not hold much significance due to limited acceptability around what may constitute the market, an index or a relevant benchmark in the crypto market unless the investor is comparing two similar funds for investment based on his risk/return appetite. Simultaneously, cryptocurrencies have exceedingly high probabilities of exceptional negative and positive daily returns; henceforward, a scenario analysis as disclosed by crypto ETF fund managers explained above should be adopted on mainstream financial reporting platforms rather than just limiting to metrics derived from traditional asset pricing models. These should be further supported with correlation metrics of individual currencies with the rest of the portfolio.

At the broader level, crypto institutions are now accounting for largest fraction of crypto trading where a significant part of it comes from trading with each other. Increased engagement of interest rate sensitive institutional money into cryptocurrency is not only increasing the correlation between Bitcoin and equities but also driving its applicability into other sectors such as real estate, NFTs, payments, financing and lending thus merging cryptocurrency into mainstream financial service activity. As decentralization becomes the new norm, we can foresee widescale acceptance of investment products such as cryptocurrency ETFs and emergence of cryptocurrency focused reporting frameworks from regulators and data providers in the near future.

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#### Notes

1. ETP stands for Exchange Traded Product while ETN stands for Exchange Traded Note used interchangeably across for ETFs. ETP is the bigger universe including consisting of ETFs and ETNs. ETN, on the other hand, are like unsecured debt instruments hence have additional counterparty risk as compared to ETF.
2. 21 Shares Crypto Basket Index ETP (HODL), Launched on Nov 22, 2018. This cryptocurrency fund provides exposure to the performance of 21Shares Crypto Basket (HODL5) (the underlying) and seeks to track the investment results of this index composed of top five crypto currencies ranked by 2050 market capitalization; hence, ideally having sufficient history and data points in terms of calculating the standard risk parameters reported by fund performance data providers.

#### References

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