



# Investing in the Digital Transformation: Accessing Blockchain and Crypto Through Equity Investments and More

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Author: Roxanna Islam, CFA

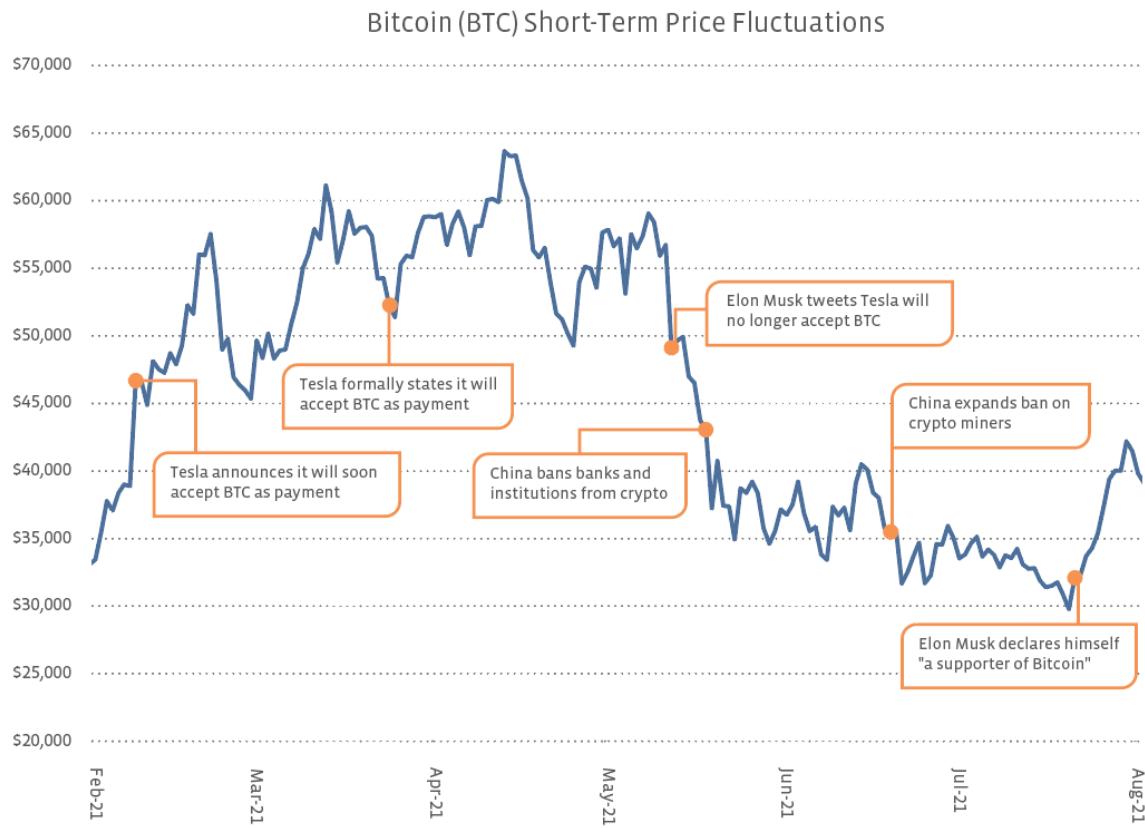
## Summary

- Bitcoin—and the subsequent cryptocurrency and blockchain market—was fueled by a strong investor need for transparency and efficiency beyond the traditional banking system.
- Investor demand continues to be the driving force behind cryptocurrency/blockchain; however, the landscape has evolved to include a much longer-term trend behind digitalization as more companies evolve and modernize their operations.
- Now many banks and large corporations have embraced blockchain and are investing in cryptocurrency, which expands investment options in the market beyond direct investment in Bitcoin or Ethereum.
- Investors can now access the market by investing in stocks of companies which mine crypto assets, enable crypto infrastructure, and utilize crypto or blockchain in their operations—in addition to associated futures and exchange-traded products.

Bitcoin, the first cryptocurrency, was invented in 2008 after the Great Recession shifted public opinion farther away from the traditional banking system as investors demanded more transparency and efficiency. Bitcoin prompted the revolution of “decentralized finance” which included the ability to perform peer-to-peer transactions without an intermediary (e.g., a bank) and created a transparent, shared, immutable ledger also known as “blockchain.” Over the past 13 years, cryptocurrency has grown beyond a method of digital transaction as retail investors learned to take advantage of large price fluctuations in the price of cryptocurrencies. As trading evolved, cryptocurrency and blockchain eventually grew into a unique asset class which incorporates overarching themes of digitalization, transparency, and investor participation. Rather than directly buying and selling Bitcoin and Ethereum, investors can now participate in the crypto market by investing in a range of options—futures, exchange-traded products, trusts, stocks of crypto miners, and stocks of companies that use cryptocurrency or blockchain in their operations.

## The cryptocurrency market continues to grow

The global crypto market cap is \$1.91 trillion as of August 17, 2021. There are over 11,000 different types of cryptoassets on 395 exchanges, although Bitcoin and Ethereum hold approximately 44% and 19% market share, respectively.<sup>1</sup> As an investment, cryptocurrencies lie somewhere between commodity and currency. Like gold, crypto has a low correlation to traditional assets, although crypto also has the advantage of being transferable across the globe with ease, making it a more practical and secure method of transaction. And despite being a type of currency, Bitcoin is almost entirely demand driven, unlike the dollar. Bitcoin has a maximum supply limited to 21 million (currently, circulating supply is close to 18.8 million).<sup>1</sup> On the other hand, the U.S. Treasury constantly prints dollars, while the Fed controls the supply through its policies. Because Bitcoin is largely demand driven, investors have benefited from the use of technical analysis to take advantage of large price fluctuations resulting from widespread media and corporate news coverage—both positively and negatively affecting the price.



Source: Alerian and S-Network Global Indexes; Twitter; Federal Reserve Bank of St. Louis as of August 17, 2021

## Blockchain has applications outside of cryptocurrency

On a high level, blockchain is a shared, transparent record of transactions. Each transaction is considered a “block” which records specific data. Each block connects to the others to form a chain of trusted transactions which is unable to be tampered with.<sup>2</sup> Although blockchain has been traditionally associated with cryptocurrencies, the technology has been adopted across multiple industries. For example, Nestle SA (NESN: SWX) was the first major food and beverage company to digitalize its supply chain with an open blockchain for customers to track their purchases (e.g., track milk from farms in New Zealand to factories in the Middle East).<sup>3</sup> And Bank of America (BAC) recently joined the Paxos Trust Co. blockchain network to evolve its trading operations. With blockchain, it can settle stock trades in a few minutes as opposed to days.<sup>4</sup> As corporations begin to digitalize their operations, many are embracing blockchain, which increases its popularity for both corporate peers and institutional investors.

## Investing in cryptocurrency and blockchain as an asset class

It is important to differentiate cryptocurrency trading (i.e., directly buying and selling Bitcoin, Ethereum, etc.) from investing in cryptocurrency/blockchain as an asset class. Investors who wish to access the growth of cryptocurrency as an asset class—rather than trade on short-term news items—may prefer to invest through an index-linked product. The [Alerian Galaxy Global Blockchain and Crypto Index](#) family offers several different methods for investing in the asset class including equities (these include cryptocurrency miners, enablers, buyers, and blockchain users), cryptocurrency futures, and cryptocurrency trusts and exchange-traded products.

Both index suites provide a pure-play opportunity with 80% weight deriving from companies that have over 50% of their businesses in crypto activity. The remaining 20% tranche consists of diversified companies. The equity portions of both tranches are equal-weighted, which represents a truly diversified portfolio of the crypto ecosystem. Additionally, the indexes reflect the global reach of the crypto/blockchain market with BLKCHN and CRYPT (the equity-only indexes) consisting of only 61% and 37% domestic stocks, respectively.

2. [What is Blockchain Technology - IBM Blockchain | IBM](#)

3. [Nestlé breaks new ground with open blockchain pilot | Nestlé Global \(nestle.com\)](#)

4. [BofA Joins Paxos Blockchain Stock-Settlement Network - Bloomberg](#)

## Cryptocurrency and Blockchain Index Business Segments

Business Segments	Definition	Example Constituents
Cryptocurrency Miners	Companies that mine cryptocurrency assets	Bit Digital Inc. (BTBT) Bitfarms Ltd. (BITF CN)
Cryptocurrency Enabling Technologies	Companies that facilitate buying/selling or provide custody, semiconductors, or mining machines for crypto assets	Alphabet Inc. (GOOGL) Coinbase Global (COIN)
Cryptocurrency Buyers	Companies that report crypto assets on their balance sheets	Tesla (TSLA) MicroStrategy Inc. (MSTR)
Blockchain Users	Companies that engage in R&D of blockchain for non-crypto-related purposes	Facebook (FB) Mastercard Inc (MA)
Cryptocurrency Futures	Front month futures contracts on cryptocurrencies	Bitcoin (CME) Future August 21 Ether (CME) Future August 21
Cryptocurrency Trusts & ETPs	Investment products linked to cryptocurrencies	Grayscale Bitcoin Trust (GBTC) Grayscale Ethereum Trust (ETHE)

Source: Alerian &amp; S-Network Global Indexes

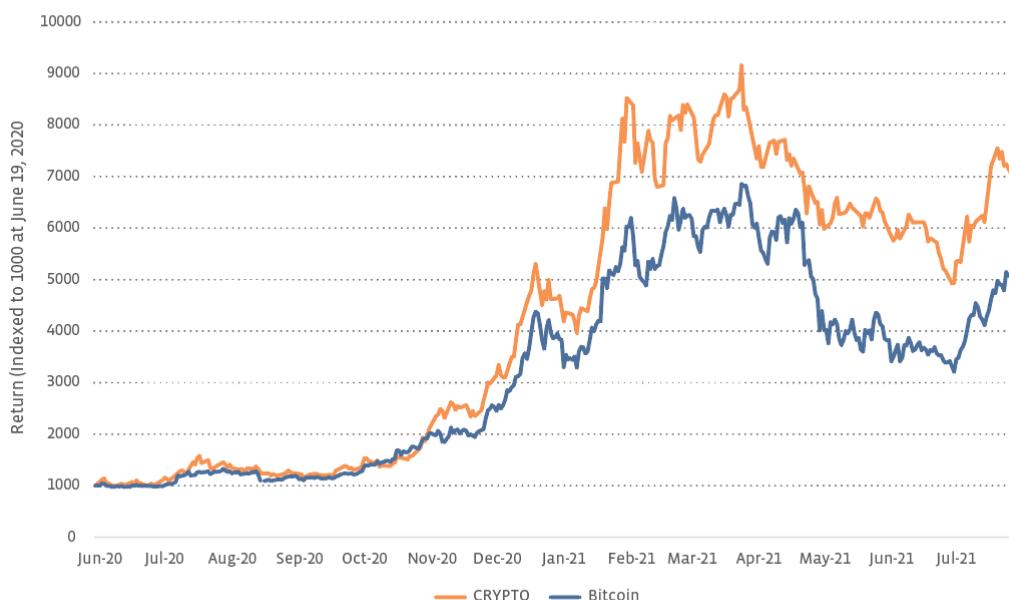
## Cryptocurrency and Blockchain Index Weights as of August 17, 2021

Business Segments	Crypto Miners	Crypto Enabling Technologies	Crypto Buyers	Blockchain Users	Crypto Futures	Crypto Trusts & ETPs
(BLKCHN) Alerian Galaxy Global Blockchain Equity Index	21.2%	34.2%	10.8%	33.8%	-	-
(BLKCNF) Alerian Galaxy Global Blockchain Equity and Futures Index	17.1%	27.5%	8.7%	27.2%	19.6%	-
(BCHAIN) Alerian Galaxy Global Blockchain Equity, Trusts, & ETPs Index	17.1%	27.6%	8.7%	27.2%	-	19.5%
(BLKCNP) Alerian Galaxy Global Blockchain Index	17.1%	27.6%	8.7%	27.2%	13.1%	6.4%
(CRYPTE) Alerian Galaxy Global Cryptocurrency-Focused Blockchain Equity Index	44.2%	40.2%	15.6%	-	-	-
(CRYPTF) Alerian Galaxy Global Cryptocurrency-Focused Blockchain Equity and Futures Index	35.0%	34.0%	12.8%	-	18.2%	-
(CRYPTO) Alerian Galaxy Global Cryptocurrency-Focused Blockchain Equity, Trusts, & ETPs Index	35.1%	34.0%	12.8%	-	-	18.1%
(CRYPTP) Alerian Galaxy Global Cryptocurrency-Focused Blockchain Index (CRYPTP)	35.1%	34.0%	12.8%	-	12.1%	5.9%

Index weightings as of August 17, 2021  
Source: Alerian & S-Network Global Indexes**Bottom Line:**

Cryptocurrencies like Bitcoin and Ethereum have become a household name, especially with daily media coverage and large companies incorporating both crypto and blockchain into their operations. Instead of trading on technical analysis and short-term news items, investors may prefer the option to invest in the long-term trend behind crypto and blockchain—incorporating key themes of digitalization, decentralized finance, and investor participation.

With Exposure to Crypto-Related Equities and Funds, the CRYPTO Index has Outperformed Direct Bitcoin Investment Over the Past Year

Source: Alerian and S-Network Global Indexes as of August 17, 2021  
Bitcoin data is from the Federal Reserve Bank of St. Louis as of August 17, 2021

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### Alerian

alerian.com  
info@alerian.com | 972.957.7700  
3625 N. Hall St., Suite 1200, Dallas, TX 75219

### S-Network Global Indexes

snetworkglobalindexes.com  
info@snetworkinc.com | 972.957.7700  
267 Fifth Avenue, Suite 508, New York, NY, 10016