The Investment Case for Blockchain

Executive Summary

Blockchain is the brainchild of a person or group of persons known by the pseudonym Satoshi Nakamoto. First devised for the digital currency Bitcoin, the technology community has embraced blockchain's potential beyond cryptocurrency due to its many different use cases across various industries. Blockchain is heralded as an **incorruptible digital ledger of economic transactions on a distributed peer-to-peer network.**[1] Simply put, blockchain is akin to a shared ledger duplicated thousands of times across a network of computers.

The information existing on the ledger is shared and continually reconciled. Since the blockchain ledger is not stored in one location, this means records are **decentralized**, made **public** and more **easily verifiable**. Hosted by a peer-to-peer network of millions of computers, information on the blockchain is stored in **"blocks"** that are identical across the network, making data and transactions **more transparent** and **less corruptible**, without the need for an intermediary.

Blockchain is a mechanism that brings everyone to a higher degree of accountability. The potential of this foundational technology has led many to liken it to the early days of the internet. According to Markets and Markets[2], the global market for blockchain is expected to grow at a compound annual growth rate (CAGR) of 67.4% by 2026 to $4.9 billion.

This forecast does not fully consider the mass economic value of blockchain- enabled applications such as cryptocurrency, tokenization, and smart contracts. If growth projections prove correct, blockchain represents a huge early-stage opportunity for investors. Organizations' global spending on blockchain applications in 2021 increased more than 50% compared to 2020 and are expected to reach nearly $19 billion by 2024.[3]

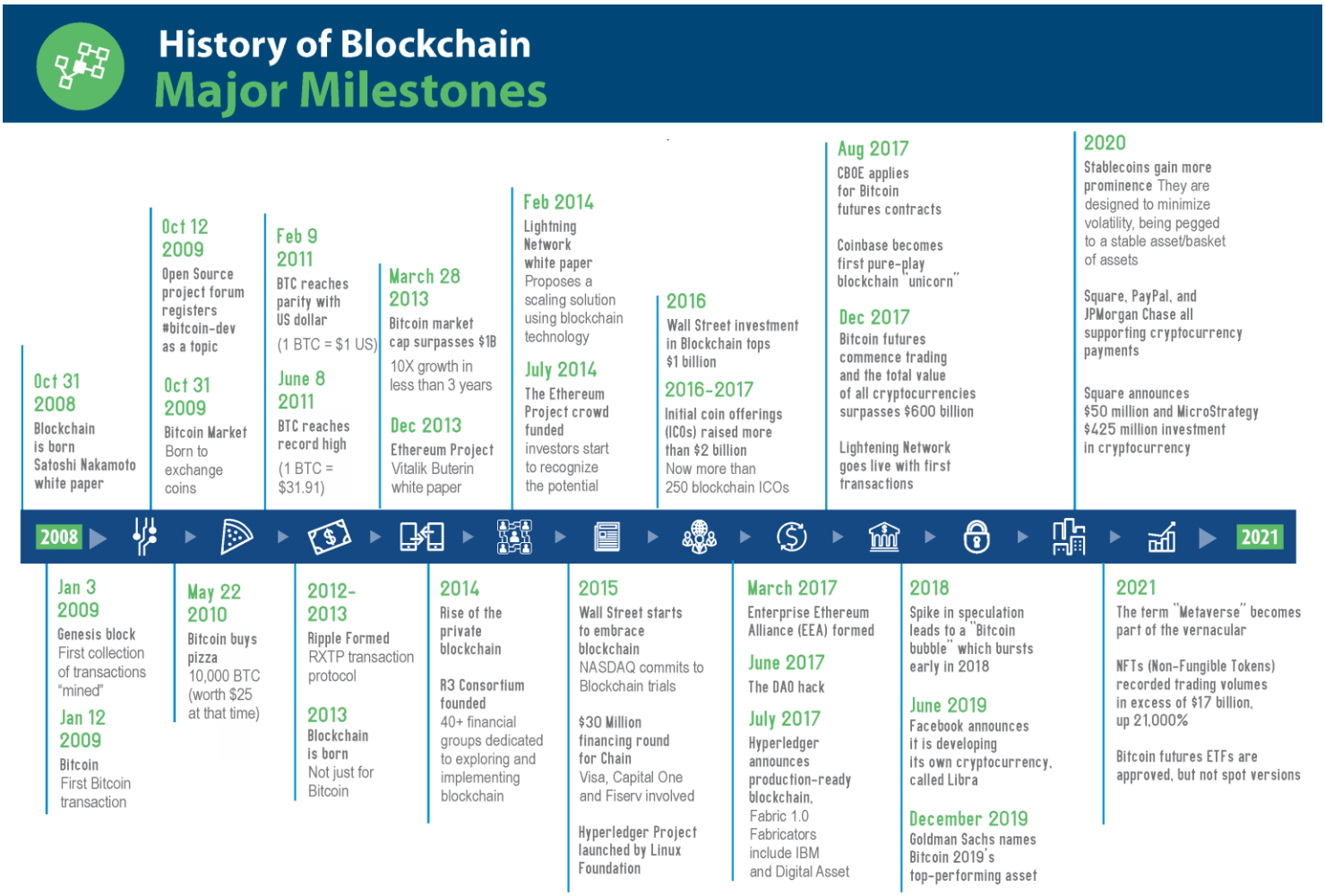
A Brief History of Blockchain

Many of the technologies we now take for granted were "quiet revolutions." Think about the extent to which smartphones have changed our lives, creating a mobile nomadic society untethered and empowered with information. And the smartphone has only been around a mere decade. Blockchain is another such quiet revolution, much like smartphones were a decade ago and the internet a few decades prior.

[1] Tapscott, Don and Alex, *Blockchain Revolution, How the Technology Behind Bitcoin is Changing Money, Business, and the World, Portfolio, May 10, 2016*
[2] *Markets and Markets*, May 2021, https://www.marketsandmarkets.com/Market-Reports/blockchain-technology-market-90100890.html
[3] *Global Spending on Blockchain Solutions Forecast to be Nearly $19 Billion in 2024, According to New IDC Spending Guide,"* IDC, April 19, 2021, https://www.idc.com/getdoc.jsp?containerId=prUS47617821

Consider how blockchain has evolved over the last 10 years, from a digital currency experiment to the realization that blockchain technology can be used for all kinds of inter-organizational cooperation, from smart contracts to supply chain to medical research.

Here's a brief timeline highlighting some of the major milestones in the history of blockchain.



Sources: GEM, CoinDesk, EQM Indexes LLC, Emerita Capital Indices Inc., Nonfungible.com

Value Proposition

Certainly, one of the driving forces behind the growth of blockchain is its unique value proposition, which is extendable to many business verticals.

Sources: EQM Indexes LLC, Emerita Capital Indices Inc.

Blockchain Disruption

Although still in its nascent stage, blockchain is a foundational technology with the potential to disrupt many different industries over the next five to ten years. Research firm CB Insights has identified approximately 65 industries that blockchain could transform[4]. Blockchain has gone far beyond its initial use cases for banking and cryptocurrency. Many industries, including insurance, gaming and health care have started to consider blockchain applications. Here are a few examples:

- **Banking and Payments** – Many believe blockchain will democratize banking just as the internet has done with media and information. It could give billions of people worldwide access to financial services, including those in the Third World without traditional bank accounts. The blockchain could also enable cross-border payments and transactions that occur instantaneously and for reasonably low fees.

- **Messaging Apps** – Encrypted messaging application Telegram is developing a blockchain-based platform called the Telegram Open Network (TON) that extends Telegram's services into payments, file storage and browsing for its 200 million users.

- **Hedge Funds** – With venture capital backing, Numerai is taking the hedge fund model, employing traders and quants, and decentralizing it, creating a meta model to make trades.

- **Voting** –The blockchain has the potential to facilitate secure elections, not subject to voter registration and identity fraud and/or the miscounting of ballots. Creating an immutable, public ledger of voting results would be a giant step toward ensuring fairer and accurate election results.

- **Internet Identity and DNS** – Platforms such as Blockstack and uPort envision a future where a person's identity can be ported around the internet.

- **Cyber Security** – Although data on the blockchain is public, the data is verified and encrypted using advanced cryptography techniques. Data is less prone to being hacked or changed without permission.

- **Ride Sharing** – Using a distributed ledger, drivers and passengers could create a more user-driven, value-oriented marketplace.

4 *Banking Is Only the Beginning: 65 Big Industries Blockchain Could Transform*, CBInsights, March 9, 2022, https://www.cbinsights.com/research/industries-disrupted-blockchain/

- **Internet Advertising** – Users who opt-in receive fewer but better targeted ads, while advertisers get a better return on their ad spending. Brave's Basic Attention Token (BAT) is one example, geared toward compensating advertisers and users. Instead of using a middleman like Facebook or Google, advertisers list directly onto Brave's blockchain browser.

- **Crypto Exchanges** – One-way blockchain reduces conventional cybersecurity risk by removing the need for human intermediation, thus reducing the risk of hacking, corruption or human transaction error. Uniswap, a decentralized exchange protocol running on the Ethereum blockchain, is an example of a Crypto Exchange with billions of dollars in liquidity.

- **Auto Sales and Leasing** – The experience of leasing, buying, or selling a vehicle could be improved with the use of smart contracts. Visa has partnered with Docusign to provide a proof-of-concept streamlined auto lease. Using the Visa-DocuSign tool, prospective customers choose the car they want to lease, and the transaction is entered on the blockchain's public ledger.

- **Supply Chain** – The distributed ledger creates a way to monitor items and transactions in the supply chain transparently and securely. It can be used to manage logistics and monitor parts, costs, labor, and even waste and emissions. A more recent application has been in the area of food safety, where keeping track of crucial data such as suppliers, how and where food was grown, and who inspected it provides an accounting from origin to completion.

- **Internet of Things (IoT)** – The blockchain could facilitate a decentralized network of IoT devices, operating like a public ledger, thus eliminating the need for a center of communications. Devices would communicate with each other, potentially with the assistance of Artificial Intelligence (AI) to update software, manage bugs and monitor energy use.

- **Insurance** – The blockchain could be used to verify the many types of data embedded in insurance contracts. So-called "oracles" can be used to integrate real-world data and blockchain smart contracts. The technology is particularly helpful for insurance types requiring inspection. Drones could be deployed to inspect properties, data securely recorded in the blockchain, and then integrated into the insurance contract. LenderBot is a micro-insurance proof of concept for the sharing economy that demonstrates the potential for blockchain applications and services in the industry.

- **Charity** – One of the concerns facing charitable contributions is that they often fall prey to corruption or mismanagement. Using the blockchain to track donations, donors can be assured that donations go directly to the intended recipients.

- **Cloud Storage** – Blockchain cloud storage solutions allow storage to be decentralized and less prone to attacks, which can cause data damage and loss. Dubbed the "Airbnb for file storage," Filecoin is a crypto project that rewards the hosting of files.

- **Cloud Computing** – Blockchain technology can facilitate decentralized cloud services, while increasing connectivity, security, and computational power.

- **Forecasting** - The research, analysis, consulting and forecasting industries will be transformed by the use of impeccably accurate transaction records to support their data analysis and forecasting, combined with machine learning algorithms to cultivate targeted predictions and insights.

- **Augur,** built on the Ethereum blockchain, allows users to forecast events and be rewarded for predicting them correctly.

- **Health Care** – One major challenge the health care system faces is the lack of a secure platform to store and share medical data and records. This is further complicated by privacy issues. The blockchain could help improve data security and allow medical records to be shared with authorized professionals for the purpose of diagnosis and/or research. Tierion is a blockchain startup that has built a platform for data storage and verification in health care, partnered with Philips Healthcare in the Philips Blockchain Lab in 2018.

- **Energy** – The energy industry is currently highly centralized, requiring intermediaries to facilitate transactions among companies. Energy producers and users cannot transact directly with each other. Blockchain could change that paradigm by enabling peer-to-peer transactions.

- **Media** – The blockchain could be utilized to track the ownership rights and royalties related to music and media. Fans could pay artists directly for content, without involving a record label, studio, or publisher. Muzika, a blockchain-based music streaming platform, partnered with Binance, a crypto-exchange network, to try and help independent artists make money from their listeners. Muzika states that it plans to give 90% of revenue to the artists.

- **Stock Trading** – Blockchain-focused companies has helped automate and secure the securities transaction and trading process. Dutch bank ABN AMRO's investment division has partnered with investment platform BUX to create a blockchain app called STOCKS. T-Zero, a subsidiary of Overstock, wants to enable stock transactions online using blockchain technology. Blockchain startup Chain has developed a live blockchain integration that has successfully connected Nasdaq's stock exchange and Citibank's banking infrastructure.

- **Retail** – The blockchain could facilitate a retail system not tied to a store or marketplace but allowing decentralized purchases between buyers and sellers without a middleman. Smart contracts, secure payment and reputation management could all be provided by the blockchain.

- **Real Estate** – There is much bureaucracy embedded in real estate transactions due to issues such as lack of transparency, fraud and mistakes in the public record. Using blockchain can help speed up transactions, eliminating the need for paper-based recordkeeping, at the same time track and verify ownership, ensuring document accuracy, as well as the secure transfer of assets and property. Blockchain application Propy offers secure home buying through a blockchain-based smart contract platform. Tech startup Ubitquity has created a Software-as-a-Service (SaaS) blockchain platform for financial, title and mortgage companies.

- **Government** – Imagine a transparent system of government held accountable by the blockchain. Government smart contracts could cut down on bureaucratic inefficiency and prevent corruption. For example, Dubai has sought to put all its government documents on the blockchain by 2020. Public benefits such as welfare and unemployment could also be managed more efficiently and securely using the blockchain.

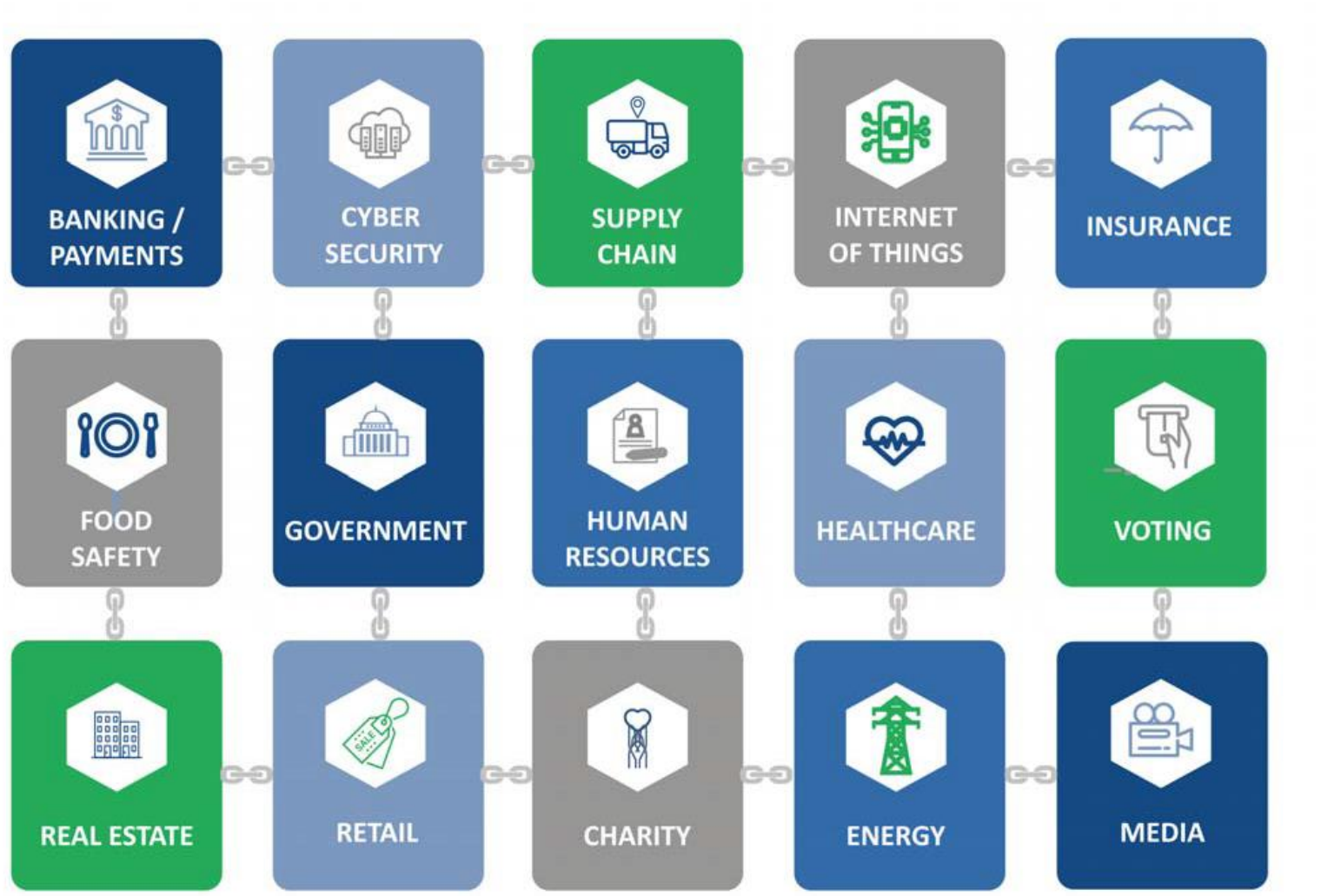
- **Energy Management** – Transactive Grid uses Ethereum blockchain technology to enable customers to transact in "decentralized energy generation schemes," effectively allowing people to generate, as well as buy and sell energy to their neighbors.

- **Gun Tracking** – Gun possession-related information could be logged and connected through the blockchain, providing a connected infrastructure for tracking where weapons come from in the event of unlawful use. A startup called Blocksafe is focusing on creating a blockchain-based system for weapons tracking and accountability, which would enable gun owners to track their guns' locations and stay informed as to whether lost weapons had been fired.

Blockchain Industry Disruption Is Just Starting

Although still in its nascent stage, blockchain is a foundational technology with the potential to disrupt various industries over the next five to ten years.

Top Industries to Benefit from Transparent Distributed Ledger Technology



Need to Blockchain Market Opportunity

The broad-based potential of blockchain technology across many different industry verticals has driven significant investment into blockchain and its applications, fueling innovation and fostering a growing market opportunity. Investments has been made for public, private and hybrid consortium blockchain solutions.

Public - The public blockchain that Bitcoin and cryptocurrency operates on is fully decentralized and open to the public, much like the **internet**. Anyone in the world can read, send transactions, and expect to see these transactions executed if they are valid. The consensus process is also open and decentralized.

Private - A private enterprise blockchain, on the other hand, is shielded by permissions in a closed structure similar to an **intranet** solution. Permissions are central to one organization and read permissions may be restricted.

Consortium - A consortium blockchain is a **hybrid** approach where the consensus process is controlled by a pre-selected set of nodes, such as a consortium of 20 financial institutions, each of which operates a node, requiring that 15 must sign every block for the block to be valid. Some major consortia in existence today are: Hyperledger, the Enterprise Ethereum Alliance, Ripple and R3.[5]

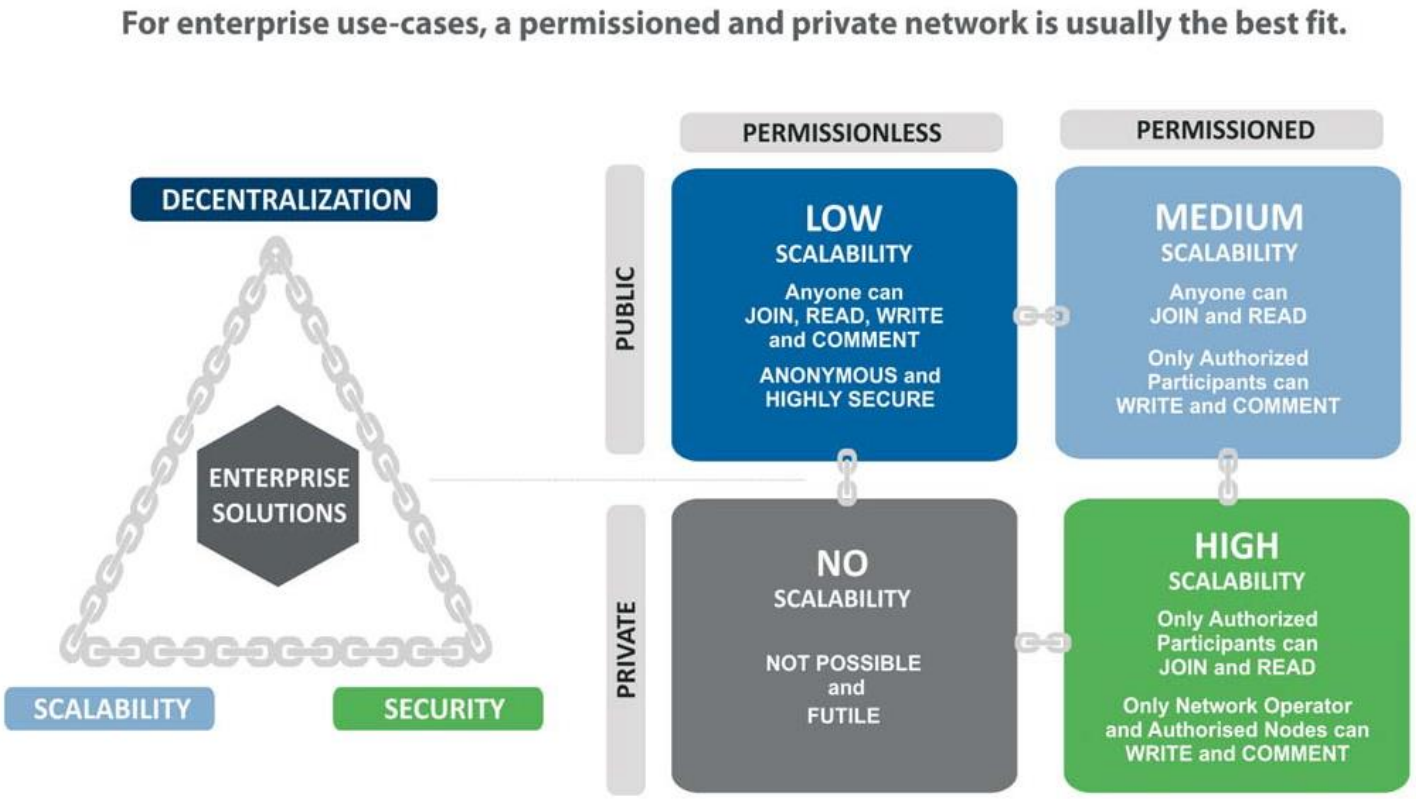
The majority of financial service companies exploring the use of the blockchain are pursuing private or semi-private blockchain solutions. Each approach, public versus private, has its distinct features.[6]

	Public	Private
Access	Open read/write access to the database	Permissioned read/write access to the database
Speed	Slower	Faster
Security	Proof-of-Work/Proof-of-Stake	Pre-approved participants
Identity	Anonymous/Pseudonymous	Known identities
Asset	Native assets	Any assets
Costs	Expensive	Cheaper

[5] CB-Insights, "*Blockchain Investment Trends in Review*, Q3 2017".
[6] Coindesk, "*State of Blockchain* – Q2 2017", https://media.coindesk.com/uploads/research/state-of- blockchain/2017/q2/sob2017q2.pdf

Deloitte's 2021 Global Blockchain survey revealed a huge shift in blockchain driven by the COVID-19 pandemic, but also a "new age in digital assets" as both vehicles of exchange and stores of value. This seismic shift has disrupted traditional finance.[7] As the technology has matured, we have seen a move away from experiments to robust enterprise solutions. The leading platforms will be those that can offer a combination of features to players and consortia-building enterprise solutions. These features are often referred to as the "Blockchain Trilemma," the tradeoff between **scalability, decentralization, and security**. Any combination of the two features succeeds at the expense of the third.[8]

Blockchain's Rapid Innovation Process



Source: Deloitte, March 2020.

[7] *Deloitte's 2021 Global Blockchain Survey – A new age of digital assets*, https://www2.deloitte.com/content/dam/insights/articles/US144337_Blockchain-survey/DI_Blockchain-survey.pdf

[8] *C-Suite Briefing – 5 Blockchain Trends for 2020*, Deloitte, March 2020. https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Consulting/Blockchain-Trends-2020-report.pdf

Corporate Investment in Blockchain

Who are the investors in Blockchain companies?

- **Traditional Venture Capital**
  - According to CB Insights, funding for Blockchain startups landed a record $25.2 billion in 2021.[9]
  - . Of that global total, U.S.-based startups received a little over half that capital.
  - Among the 59 companies that raised over $100 million, cryptocurrency exchange, brokerage, non-fungible token, gaming and payment companies landed the most money.
  - Among firms ranking in the top 10 equity deals globally in Q4 2021, U.S.-based fintech firms topped the list, with NYDIG, Forte Labs and MoonPay landing the biggest piles of cash, respectively, per the report. The U.S. fintechs Celsius Network, Fireblocks, Gemini and Anchorage Digital also ranked in the top ten.
- **Crypto-Focused Venture Funds**
  - Digital Currency Group – has made over 60, mostly seed-stage, investments in Blockchain companies since the company started in 2013
  - Pantera Capital
  - Blockchain Capital
- **Traditional Banking Establishments**
  - Goldman Sachs
  - Microsoft and Bank of America Merrill Lynch
  - R3, Barclays, HSBC and Co.
  - Royal Bank of Canada
  - JPMorgan, Royal Bank of Canada and Australia and New Zealand Banking Group
  - Fujitsu and three of Japan's largest banks
  - State Bank of India and BankChain
  - Monetary Authority of Singapore (MAS) and the Association of Banks in Singapore

[9] Walk-Morris, Tatiana, *Blockchain startups landed record $25 in 2021*, Feb 3, 2022, https://www.paymentsdive.com/news/blockchain-startups-landed-record-25b-in-2021/618209

- **National Central Banks investing in Distributed Ledger Technology**
  - Banks have invested in Blockchain and Distributed Ledger Technology (DLT) in support of the following use cases:
  - Payment systems
  - Central Backed Digital Currencies
  - Retail central bank digital currency (CBDC)
  - Wholesale central bank digital currency (CBDC)
  - Know-your-customer and anti-money-laundering
  - Information exchange and data sharing
  - Trade financing
  - Cash money supply chain
  - Customer SEPA Creditor Identity (SCI)
  - Interbank securities settlement
  - Bond issuance

Rise of Tokens

Digital technologies have given rise to digital assets or tokens, "something represented in digital form that has an intrinsic or acquire value."9 Tokens may be sorted into two categories: Fungible and Non-fungible.

Fungible Token - Refers to the ability of a good or asset to be interchanged for another good or asset for like kind. A fungible token is one which might represent currency, crude oil, shares and bonds. Each token, or fraction of a token, is equivalent to the next.

Non-fungible Token (NFTs) - Represents an asset or commodity which is not interchangeable. NFTs are designed to be special or unique. Two tokens representing different cars are not interchangeable as the underlying asset is different and unlikely to be valued equally.

The use of NFTs have increased significantly. Trading in NFTs spiked 21,000% to more than $17 billion in 2021, generating a total of $5.4 billion in profits.[10]

10 Browne, Ryan, *Trading in NFTs spiked 21,000% to more than $17 billion in 2021*, report says, March 10, 2022, CNBC, https://www.cnbc.com/2022/03/10/trading-in-nfts-spiked-21000percent-to-top-17-billion-in-2021-report.html

Security Tokens

2021 marked the rise of the "security token." These are essentially digital, liquid contracts for fractions of any asset that already has value, like real estate, a car, or corporate stock. Security tokens allow investors to preserve their ownership stake on the blockchain ledger. With their ability to demonstrate value, security tokens could disrupt traditional financial markets in favor of the newer, more hybrid blockchain models.

One example of this concept is The Elephant, the first secondary market for pre-IPO companies, built on the blockchain. By tokenizing the rights to future shares in startups after their public offering, The Elephant's marketplace provides a source of liquidity to the existing market for private company assets.

Stablecoins

Stablecoins are cryptocurrencies designed to minimize the volatility of the price of the stablecoin relative to a "stable" asset or basket of assets. Facebook's yet to be launched cryptocurrency project, Libra, was supposed to be tied to a basket of short-term government securities and bank deposits in historically stable currencies such as U.S. dollars and euros.

Whereas Bitcoin is a store of value, stablecoins are optimized for transactions. Terra is a new stablecoin that has been adopted by several online merchants across Southeast Asia. While less well-known in the United States, Terra is an example of how stablecoins actually work in the real world, a blockchain currency with reliable value that people could actually use to buy things.[11] But on May 11th, 2022, Terra de-pegged from the U.S. dollar, leaving crypto markets reeling and raising concerns about the underlying stability of these assets.[12]

Central Bank Digital Currencies

Central bank digital currency (CBDCs) uses blockchain-based tokens to represent a digital form of the fiat currency of a particular nation or region. A growing number of central banks have started to research distributed ledger-based and digital currency technology.

11 Di Maggio, Marco and Nicholas Platias, *Is Stablecoin the Next Big Thing in E-Commerce?* Harvard Business Review, May 21, 2020, https://hbr.org/2020/05/is-stablecoin-the-next-big-thing-in-e-commerce

12 Kharpal, Arjun, *Cryptocurrency luna now almost worthless after controversial stablecoin it is linked to loses peg*, CNBC, May 12, 2022

Each CBDC unit will act as a secure digital instrument equivalent to fiat currency and can be used as a mode of payment, store of value and an official unit of account. Similar to paper currency that carries a unique serial number, each CBDC unit is uniquely identified.

The Bank of England was the first central bank to propose using a CBDC. The central banks of China, Canada, Uruguay, Thailand, Venezuela, Russia, Sweden, and Singapore have all followed suit. Russia is pursuing the creation of a "crypto-ruble," first announced by President Vladimir Putin in 2017. According to a 2021 survey conducted by the Bank for International Settlements, 9 out of 10 central banks are developing CBDCs.[13]

Investment Case for Blockchain

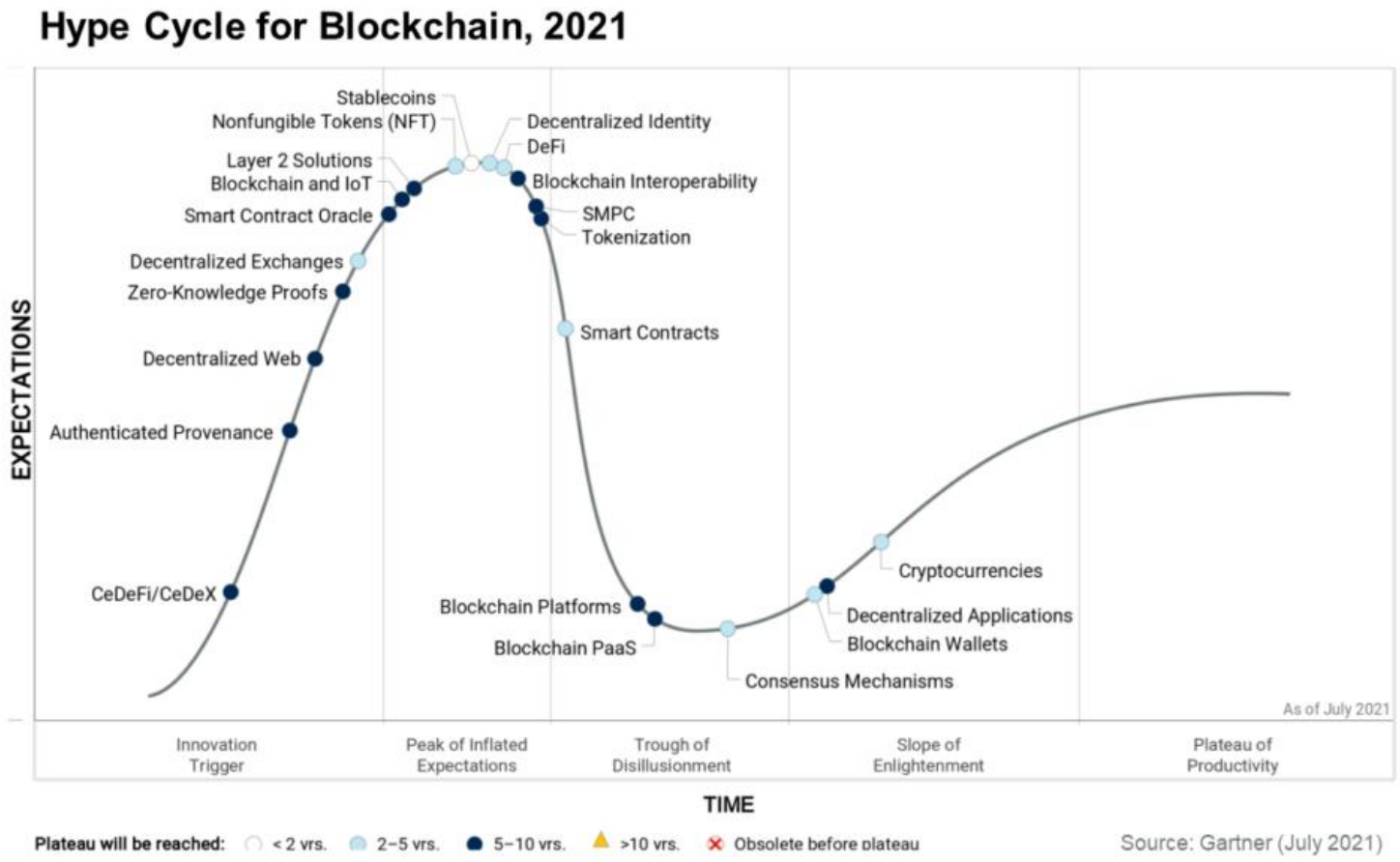
Why are corporate investors investing in the blockchain?

One reason is cost savings. A recent report from Goldman Sachs Global Investment Research estimates that the implementation of blockchain technology could streamline the clearing and settlement of cash securities, saving the global capital markets $6 billion annually.[14] Moreover, the report highlights that blockchain has the potential not only to streamline other existing markets, but to redistribute and create new ones.

Growth potential is another reason corporate investors are investing in the blockchain. According to Markets and Markets[15], the global market for blockchain is expected to grow at a compound annual growth rate (CAGR) of 68.4% by 2026 to $67.4 billion from $4.9 billion in 2021. And these figures do not even include the market value of blockchain-enabled applications such as cryptocurrency, tokens, and initial coin offerings (ICOs).

According to Coinmarketcap.com, the total market value of the cryptocurrency world stood at approximately $4 trillion in November 2021.[16]. Gartner estimates blockchain will generate $3.1 trillion in new business value by 2030, with the technology expected to see mainstream adoption by 2023.[17] The 2021 Gartner, Inc. Hype Cycle for Blockchain Business shows more action than hype, with decentralized blockchains thriving.[18]

[13] Handagama, Sandali, *9 Out of 10 Central Banks Exploring Digital Currency, BIS Says*, CoinDesk, May 6, 2022.
[14] Goldman Sachs Global Investment Research, *"Profiles in Innovation: Blockchain"*, May 24, 2016.
[15] *Markets and Markets*, Nov 2021, https://www.marketsandmarkets.com/Market-Reports/blockchain-technology-market-90100890.html
[16] *CoinMarketCap*, November 11, 2021.
[17] Panetta, Kasey. *The CIO's Guide to Blockchain*, Gartner, September 23, 2019.
[18] Litan, Avivah, *Hype Cycle for Blockchain* 2021; More Action than Hype, https://blogs.gartner.com/avivah-litan/2021/07/14/hype-cycle-for-blockchain-2021-more-action-than-hype/



Source: Gartner, September 2021

How to Invest in Blockchain

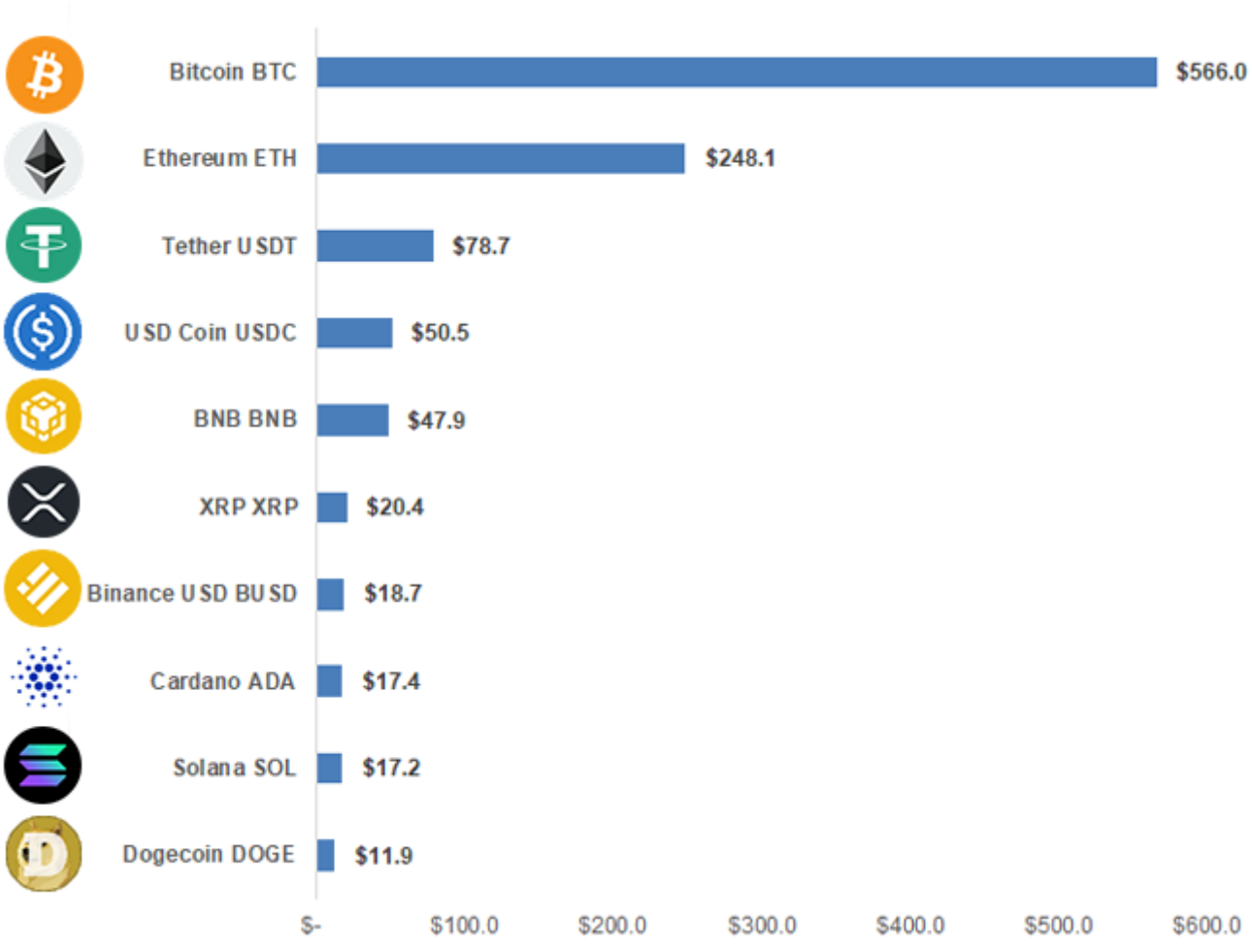
Bitcoin, Cryptocurrency, ICOs, Stablecoins and Tokens

One way to invest in blockchain technology is through cryptocurrency or digital assets. Cryptocurrency is a medium of exchange using cryptography to secure transactions and control the creation of new units. Bitcoin became the first decentralized currency in 2009. Since then, numerous cryptocurrencies have been created. One appealing aspect of Bitcoin and other cryptocurrencies is that they are not issued by a government authority and are therefore not subject to central-bank devaluation. Today, there are more than 10,397 cryptocurrencies, but Bitcoin (BTC) is still by far the largest in terms of market cap).[19]

[19] Statista, *Number of cryptocurrencies worldwide from 2013 to February,2022*. https://www.statista.com/statistics/863917/number-crypto-coins-tokens/

Currently, the top 10 cryptocurrencies by market capitalization are as follows:

Top Ten Cryptocurrencies by Market Cap (US $ Billions)



Source: CoinMarketCap, as of 5/13/2022

Most investors are familiar with Bitcoin, especially given its huge run-up in value since its launch. In July 2010, Bitcoin was worth about 8 cents. As of Mid-May of 2022, its value hovers just above $30,000.[20] However, one uncomfortable aspect of owning cryptocurrencies is their price volatility. Furthermore, with so many cryptocurrencies to choose from and limited research on each currency, individual investment is problematic.

20 www.coinmarketcap.com,as of 5/13/2022

"The "killer app" for the early internet was email; it's what drove adoption and strengthened the network. Bitcoin is the killer app for the blockchain."

— Harvard Business Review[21]

Initial coin offerings (ICOs) once defined the cryptocurrency industry as a popular way to raise funds as opposed to traditional equity financing. But with them brought increased risk of fraud and manipulation because the markets for these assets are less regulated than traditional capital markets. ICOs became incredibly popular after the 2017 growth spurt from Bitcoin.

Since then, there has been a major decline in the number and total value of ICOs. In January of 2018, there were 160 independent ICO projects ready to close. By October 2019, there were none.[22]

Today, ICO offerings have given way to new, more secure structures such as tokens and initial exchange offerings (IEOs). Instead of creating a brand-new token with a brand-new platform, an IEO allows developers to introduce their token using an existing cryptocurrency exchange. It's a way of building confidence among investors. This reduces the chances of fraud, simplifying certain regulatory requirements and taking advantage of an already- established user base.

Investing Directly in Blockchain Companies

There are few public companies focused exclusively on blockchain technologies but many fall into the category of "penny stocks" with small market caps, share prices below $3, and limited volume and liquidity. Like cryptocurrency, investment in these companies is highly speculative. However, there are large publicly traded companies that offer indirect exposure to growth in the blockchain given their direct investment and commitment to the technology.

[21] Joichi Ito, Neha Narula, Robleh Ail, "The Blockchain Will Do To the Financial System What Internet Did to Media," Harvard Business Review, March 9, 2017, https://hbr.org/2017/03/the-blockchain-will-do-to-banks-and-law-firms- what-the-internet-did-to-media
[22] Daisyme, Peter. How Cryptocurrencies are Evolving Past the Traditional ICO, Due, March 10, 2020, https://due.com/blog/how-cryptocurrencies-are-evolving-past-the-traditional- ico/#:~:text=IEOS,using%20an%20existing%20cryptocurrency%20exchange.

The EQM-Emerita Blockchain BLOK 50 Global Index consists of the top 50 leading public players in Blockchain identified using the following criteria to select constituents:

1. Companies actively engaged in the research and development, proof-of-concept testing, and/or implementation of blockchain technology.
2. Companies profiting from the demand for blockchain-based applications such as cryptocurrency and mining.
3. Companies partnering with and/or directly investing in companies that are actively engaged in the development and/or or use of blockchain technology.
4. Member of multiple consortiums or groups dedicated to the exploration of blockchain technology use.

The Index offers exposure to the companies who are believed to be the 50 leaders in the blockchain industry, playing a leadership role in blockchain technology, blockchain research initiatives, blockchain revenue creation and/or blockchain application usage.[23]

> ***"Blockchain, or distributed ledger technology, could soon give rise toa new era of the Internet, even more disruptive and transformative than the current one. Blockchain's ability to generate unprecedented opportunities to create and transform value in society will lead to a generational shift in the Internet's evolution, from an Internet of Information to a new generation Internet of Value." –***
>
> ***World Economic Forum***

[23] *Realizing the Potential of Blockchain – A Multistakeholder Approach to the Stewardship of Blockchain and Cryptocurrencies*, World Economic Forum, June 2017, http://www3.weforum.org/docs/WEF_Realizing_Potential_Blockchain.pdf

Conclusion

Investment in the blockchain is likely an early-stage opportunity with the potential and scope as broad as the internet. Blockchain technology holds the potential to streamline, disrupt and transform many industries. It is no wonder then that corporations are actively investing in the development of the blockchain and its applications. Beyond the hype and buzzwords, there is a silent revolution underway that is still in its infancy, creating a huge investment opportunity for those that recognize the growth potential of blockchain and its far-reaching implications.

As with any disruptive technology, there will be winners and losers along the way, requiring successful investors to be adroitly positioned, stay well informed and remain broadly diversified. Beyond its value as a potentially compelling investment, blockchain holds the opportunity for dynamic and permanent social transformation.

ABOUT US

EQM INDEXES LLC.

EQM Indexes LLC is a woman-owned firm dedicated to creating and supporting innovative indexes that track growth industries and emerging investment themes. Co-founded by Jane Edmondson, a former Institutional Portfolio Manager with almost 30 years in the investment industry, our index design expertise spans a wide range of asset classes and financial instruments. We partner with issuers and work jointly with other index firms to provide benchmarks for Exchange Traded Products (ETPs) such as Exchange Traded Funds (ETFs), Exchange Traded Notes (ETNs), and other similar products. EQM Indexes LLC also assists firms on a fee basis to design and implement their index ideas.

EQM Indexes does not offer investment advice, nor offer the sale of securities.

EMERITA CAPITAL INDICES INC.

Emerita Capital Indices, Inc. is an independent research firm focused on Blockchain and Artificial Intelligence, composed of computer scientists, engineers, and financial experts. Emerita delivers world class research and analysis that evaluates the impact of these technologies on economics, business models, and human interactions. Organizations that do not embrace disruptive change will be at a disadvantage in the future. Emerita Capital's mission is to provide a framework through which 21st century investors can understand and adapt to the transformational technologies that have the potential to upend society as we know it in the years to come.

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Definitions

Blockchain – Is a continuously growing distributed ledger of transactions, called blocks, which are linked and secured using cryptography.

Cryptocurrency – Is a digital asset designed to function as a medium of exchange that uses cryptography to secure its transactions, to control the creation of additional units, and to verify the transfer of assets.

Distributed Ledger Technology – Is the technological infrastructure and protocols allowing simultaneous access, validation and record updating in an immutable manner across a network spread across multiple entities or locations. It is more commonly known as the blockchain technology.

Meta Model/Meta-Modeling – Is the analysis, construction and development of the frames, rules, constraints, models and theories applicable and useful for modeling a predefined class of problems.

Use Case – Is a written description of how users will perform tasks on a website. It outlines, from a user's point of view, a system's behavior as it responds to a request. Each use case is represented as a sequence of simple steps, beginning with a user's goal and ending when that goal is fulfilled.