Economic Purpose of BlockChain

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There are many views on the validity of cryptocurrencies. For ease of discussion, we will limit our comments to Bitcoin and its fundamental economic use case. Our premise is that there is a long-term economic value to the blockchain in recording the transfer of ownership of assets. As such, there must be validators of the transactions, and they must be paid for their efforts. As we know, the payment is an "reward" in the form of a Bitcoin.

WHO USES BLOCKCHAIN?

Blockchain technology is still very early in its evolutionary process, but in our opinion, it will eventually impact all businesses. One relatively narrow example of the enormous business scope for blockchain technology which will impact every securities broker, investment firm, custodian, and securities exchange in the U.S., is the "clearing" of buys and sells on exchanges.

The Depository Trust and Clearing Corporation (DTCC) processes and settles the virtually all securities transactions in the U.S. In 2023 it processed $3 quadrillions' worth of securities with trillions cleared and settled on a daily basis.[1] In 2023, DTCC purchased a company, DTCC Digital Assets, to apply its blockchain-based technology.[2]

> "DTCC Digital Assets is at the forefront of driving institutional adoption of digital technology with a steadfast commitment to innovation anchored in security and soundness." - DTCC

WHY USE BLOCKCHAIN?

DTCC sees tokenization, which is the recognition of an asset or security on a blockchain in digital form, as simply the next step in securitization. It foresees building a set of rules into a token that allow for the automation of risk and compliance functions, of repeatable rule sets for securities creation and issuance, and the integrating of specific securities regulations into smart contracts. What can these enable? Much of this is about faster, near instantaneous clearing and settlement, reducing errors, reducing redundancies in reconciliation and accounting for transactions. It also may shorten the capital raising process and allow more easily accessible secondary markets for traditionally illiquid assets.

SAFER, FASTER, CHEAPER

DTCC is one of the largest and most trusted financial institutions in the world and effectively has a monopoly on clearing US securities. It doesn't need to save money. It is using the blockchain because of its safety and cost reduction. However, the Bitcoin blockchain can be extremely inexpensive. To put this in context, a block on the chain can be comprised of as many as 18,000 transactions. Recent transaction costs have averaged $2.36.

From the perspective of cost savings, even a basis point of efficiency improvements—meaning a reduction of expenses relative to revenues of 0.0001—applied across $3 quadrillion dollars' worth of securities, is an enormous amount. (One basis point on $3 trillion is $300million. If you multiply that by 1000, you start to get a sense of potential cost savings).

The blockchain initiatives of infrastructurally important companies like DTCC, among many others, should lay to rest any doubt that cryptocurrency, in its many applications, is happening.

The potential is to reconfigure the clearing and settlement using end-to-end instantaneous processing, utilizing the blockchain for improved compliance, efficiency, and interoperability.

INCREASING ACCEPTANCE

Another narrow indication of the vast eventual scope of the crypto/blockchain sector is simply the trading volume of

Bitcoin itself, which is only one of what some day might be many varieties of digital trading assets.

On-chain[3] transfers of bitcoin alone now exceed that of the most liquid blue-chip companies. As an example, recently the average transfer value for Apple over the prior seven-day period was about $10.3 billion.[4] The Bitcoin average adjusted transfer value was $3.5 billion.[5] Each such example has its flaws, but the reported dollar volume of Bitcoin on so-called crypto exchanges amounts to about half of the New York Stock Exchange stock trading volume, and about a quarter of NYSE volume if you just include on chain adjusted transfer value.[6]

The more people use it, the more it becomes accepted. Like phone lines, fax machines, email addresses, and Facebook use, redeeming social value or time waster, Bitcoin is now part of the lexicon, an asset class, and is a form of digital currency.

HOW TO PARTICIPATE

There are many potential ways to be involved. There will be winners and many more losers. It is hard to know what will work in the long run. Like applications that run on the internet, and the companies that built wildly profitable businesses because the internet existed, the biggest beneficiaries may not exist yet.

In technology investing, what often works best are businesses tangential to - or seemingly unconnected to - the technology itself, yet which are distinct beneficiaries of its adoption and success. Paradoxically, these new-technology beneficiaries can be far more profitable and sustainable than the producers of the technology.

We have thoughts on how to participate in future developments but will limit this discussion to whether Bitcoin itself is likely to be a survivor and, to some degree, a “winner”. (Spoiler alert: We believe it will be.)

INSTITUTIONAL ADOPTION

The largest ETF, the iShares Bitcoin Trust, has $56 billion of AUM.[7] Over 20% of the fund is traded every week. This packaging of crypto within an ETF is likely to continue for a long time even as ETFs and other assets are tokenized onto a blockchain. A working premise of the Blockchain is that the regulated securities exchanges have opened the door to the legitimization of cryptocurrency as an institutional-grade asset class.

The DTCC’s blockchain initiative would not happen without at least tacit approval or coordination with the securities regulators. Traditionally, regulators have preferred a very limited number of regulated exchanges. Working with established, time-tested parties, lessens regulators’ oversight burden. This practice applies globally and implies limited competition for exchanges. It makes the regulated exchanges the natural on-ramp for the increased number of products and volumes.

In the past year, global regulated exchanges have taken steps to position themselves as beneficiaries of cryptocurrency activity and tokenization. Examples:

- CME has become the largest market for bitcoin futures, by open interest, passing Binance.
- CBOE, Nasdaq, and the Intercontinental Exchange all have Bitcoin ETF equivalents trading on their exchanges and allow options trading: and
- Deutsche Boerse launched a regulated multi-lateral trading facility for cryptocurrencies in March 2024.

We have already discussed here why we believe securities exchanges are likely to be a significant beneficiary.

Our hypothesis is that as long as the blockchain has enduring economic value it will continue to exist. To operate, it needs validators (aka miners) and the miners must be paid. As the amount of payment is cut in half every four years, the price of that payment will reflect the cost of the service (computer hardware plus energy) rendered. It is our opinion that the value of Bitcoin will rise over the next decade, perhaps meaningfully. Further, we fully anticipate speculators will push interim prices much lower and much higher than their economic value.

We recommend people ***with less than a 7-year time horizon avoid owning cryptocurrencies***. The volatility will tempt many into making poor timing decisions.

The joke about being able to hold on through thick and thin relates to Amazon and its stock price 90% collapse.[8] It is said only two people held their shares through the entire time - Jeff Bezos and his mom. Most of us don’t have that ability.

DOLLAR COST AVERAGE

For the brave, take the lower-risk way to accumulate this exciting, but not fully mature asset class. Invest a little each month in one of the largest, least expensive ETFs. Expect, and don’t be surprised, to see the value of the ETF go down 50% to 70% from peak to trough in the next five to seven years.

We believe, but cannot guarantee, this will work for those who, like Jeff Bezos's mom, can hold on for the long term.

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[1] https://www.dtcc.com/annuals/2022/performance/https://www.dtcc.com/-/media/Files/Downloads/Annual%20Report/2023/DTCC-2023-AR-Print.pdf
[2] https://www.dtcc.com/digital-assets
[3] On-chain transactions refers to transactions that are recorded directly on the main blockchain. In contrast, off-chain transactions refer to digital asset transactions that take place outside of the main blockchain using intermediaries or other network layers. Off-chain transactions do not affect the state of the blockchain until recorded on-chain.
[4] https://www.nasdaq.com/market-activity/stocks/aapl
[5] https://www.blockchain.com/explorer/charts/n-transactions
[6] Adjusted transfer value attempts to capture successful value transfer between different parties, as opposed to the unspent transaction output returned to the original sender.
[7] https://www.ishares.com/us/products/333011/ishares-bitcoin-trust-etf
[8]https://www.cnbc.com/2018/12/18/dotcom-bubble-amazon-stock-lost-more-than-90percent-long-term-investors-still-got-rich.html

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