Blockchain Finance:

Massive Disruption or Status Quo?

by

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Abstract

There has been a great deal written in the popular press recently on the massive changes that will happen due to the introduction of blockchain technologies. Unfortunately, there has been a tendency for these article to lean toward hyperbola. This article will assess the likely the immediate effects of blockchain on the financial markets, and identify some of the forces that will likely limit change.

Keywords: Blockchain, Alliterative Currency, Bitcoin, Initial Coin Offerings

Introduction

Much has been and is being made of the impact of Blockchain in many industries. In a recent study done by the IBM Institute for Business Value (2018), over fifty percent of the 1,600 C-suite executives they surveyed expected blockchain to reshape their business model. But few industries will be more disruptive than that on Finance. Smart contracts, distributed ledgers, real-time settlements, tokenization and fractionalization of securities, and the democratization of the industry are all terms being used to warn of the impending seismic shift that will completely turn the financial services world on its head. Although on the surface these alarmist views may have some credibility, the reality is likely to be very different, and certainly more mundane than is feared. The reality is that the above - mentioned transforming factors are just new tools to be applied to deliver efficiency. They need to be managed and regulated but are far more likely to have a positive incremental impact than anything else.

Let’s first explore the history of these tools in finance. The first real use of blockchain technology in financial services was that of cryptocurrency. Although the thought process behind the technology is transformative and the attention to the technology in the media is

highlighting its transformative nature, the actual application is rife with problems.

The current infrastructure was developed over time based on both the needs of the process and the available technology. In the rush to keep pace with technological changes it is important not to lose the important elements of the process itself. As we go forward the challenge will be to identify those element s of the process that are still necessary, and those which are anachronistic.

If cryptocurrencies became the global norm for transactions, long standing systems for trade would need to be completely reformed to deal with this type of competition. For this reason, cryptocurrencies could possibly be the single most disruptive technology to global financial and economic systems (DeVries, 2016, p. 1)

Additionally, the ability to have a store of wealth outside of the control of regulatory and legal authorities brings with it a many other problems – inability to tax, and control the money supply, being the primary governmental objections and the likely reasons why the cryptocurrencies may never be fully adopted as true currencies on the world stage unless and until this issue can be resolved. Add to that, the anonymity that a cryptocurrencies give, not only as a repository, but as a manner with which to transfer wealth makes these vehicles

attractive to exactly the wrong type of individual. Money laundering, financing of unsavory activities such as terrorism and tax evasion are all easy to accomplish in this ecosystem. The radical changes that will occur here are not likely going to be in the traditional finance space, acceptance of cryptocurrencies into the existing industry, but rather within these currencies, adopting controls that allow them to join the accepted means of commerce (Zetzsche, Buckley, Barberis, & Arner, 2018).

The next application of these tools occurred in the creation of digital securities in the form of coins. They came in two forms, utility tokens and security tokens. As their names imply, utility tokens allow you the ability to do something with it, such as utilize a particular platform you would otherwise have to pay to use. Security token represented something akin to a share of stock denominated in one of several cryptocurrencies (Jackson, 2018). Several problems arise from this situation. The first among them is, exactly what are these tokens? Are they securities that need to comply with rules? Are they something new entirely? If they are securities, whose jurisdiction do they fall within? The decentralized, anonymous nature of the tokens does not lend itself to any sort of regulatory compliance and again provided opportunity for fraud and other unsavory activities. Although the Securities Exchange Commission has recently issued some

guidance that both types of tokens are considered securities, there will be no easy way for these companies to ever comply (Vigna & Michaels, 2019). Simply knowing who the investor is may be forever beyond their ability due to the nature and method of the token's release. To date, these issuances have been in the form of an ICO, an initial coin offering, that protected the anonymity of the end investor.

It is evident from these two early adoptions of this technology, that these pioneers did not recognize the inherent conflict between the technology and the industry it looks to capture. These technologies are designed to decentralize, distribute and allow any individual, anywhere to participate. The entire financial services industry has been built around a model that centralizes and controls for efficiency and economies of scale. These opposite ends of the spectrum starting points require a thoughtful and deliberate approach to have success in the deployment of these new tools.

There are some hugely advantageous situations to be gained from blockchain. These benefits will likely be captured only after the technology works with the industry and not against it. Foundation to Blockchain is the distributed peer-to-peer network that is at its core. The network is both open and anonymous unless modified for specific needs. This ability to modify and add controls is a critical element to

adoption. Each transaction is recorded once and is visible to all parties within each network. Transactions cannot be changed. They can be modified via another transaction, leaving a record of both the original transaction and the modification (Chaudhuri, 2019). This auditability and transparency is very attractive in the world of trade finance, especially in the international arena. This strength of the platform can be harnessed to achieve tremendous efficiencies.

There are six primary areas that leveraging blockchain solutions can enhance the financial industry. These are Transparency, Efficiency. Opportunity, Cost, Accountability and Liquidity. In the area of Transparency, the current dynamic has multiple intermediaries involved in the creation of a security or financial contract. These include banks, investment banks, attorneys, broker dealers and the like. Although many eyes on an issue mitigates the likelihood of mistakes, they are still possible. Additionally, the ability to avoid systemic problems such as market manipulation, insider trading, improper transfer, as well as other issues with a lack of regulatory adherence is limited without the application of large compliance staff. Blockchain could make this much simpler and effective. There is a high probability such a system could lead a digitized platform could likely eliminating human errors. Smart contracts have the potential to ensure the promote a process where all parties and activities

involved with any transaction are captured, verified and auditable (Werbach & Cornell, 2017).

The second area is Efficiency. For example, the current underwriting process of a loan or a security is lengthy and rudimentary. There are a variety of intermediaries from Issuer, investment bank to a law firm to the SEC to approve a security, real estate deal, ETF trade, or commercial loan. This always takes more time than is desirable for an issuer to see possible funds. Smart contracts could eliminate paper-based contracts, and the need for lengthy third-party review periods, making it more efficient and certainly less bureaucratic for all participants in the process (Veatch, 2018). In the area of Opportunity, in private equity or venture funding, entrepreneurs can only get funded by accredited investors via a Reg D offering. This makes the access to funding limited for every start-up. A start-up must meet specific criteria to get funded which also requires the intercession of expensive legal advice. If you consider there may be several rounds of capital raising, the ability to access investors more directly equals greater opportunity (Cummings, Rawhouser, Vismara, & Hamilton, 2019). Another example is in the real estate market, where costly real estate investments such as those in larger commercial buildings are only available to institutional investors. Blockchain opens the door to the creation of global

investment pools where retail investors can participate in the funding of start-ups or ownership of commercial property. Another real benefit that can be delivered through adoption of blockchain is in the area of cost, specifically transaction costs. The current underwriting process of an asset invariably involves multiple parties, each adding their cost to the overall cost of the transaction (Kamenetskii & Yas'kova, 2018). Having a single fee for a transaction in the block chain platform could lower the costs. Accountability may become more enhanced as well. In the current financial sector, we cannot determine with any certainty the exact people involved with any portion of the process from the creation to the negotiation of an asset. With blockchain, the exact identity of each participant in a transaction is captured, recorded and visible. Finally, blockchain could enhance liquidity, especially for traditionally-less liquid assets. Private equity funds and real estate investments take a long time to provide liquidity for their investors. For private equity funds, it will take 10 years on average, while for commercial real estate the time frames can be much longer. Liquidity can be hard to find in these scenarios. Blockchain can help via he fractionation of an asset. This enables a global pool of retail investors to participate; thus, creating more liquidity for investors. The benefits are both tangible and numerous, leading to a desire to find ways to adopt this technology into the industry. These new tools

have the ability to transform the industry in many positive ways. Their eventual adoption is inevitable, the path to adoption is, however, not an easy one.

Just as important, the financial services providers need to ensure the deployment of these new technologies is done correctly. When a single technology touches almost every core part of your business model, you need to pay attention, as it will be a challenging encounter. Banks will be required to apply rigorous thinking to flush out their plans and positions vis-à-vis each one of these major blockchain parameters. They cannot ignore what happens when their core is potentially threatened.(Mougayar & Buterin, 2016)

The basic operational path will likely not likely change – money will be transferred via the financial intermediation process from those participants with a surplus to those participants with a deficit and need. Over the last 50 years, the industry has deployed technologies that simply automated the manual processes that existed before. Now with the advent of Blockchain, they will need to design new processes that cope with the new technology – while maintaining the key underling needs that have not changed, and that the original process was developed to support. Liken it to the replacement of the interstate highway system, where the new roads are all straight lines

that can go to multiple places at the same time. Banking procedures are built around the concept sequential steps. Parallel processing, simultaneous processing and the elimination of any geographic concerns will dramatically change the world of financial services, creating both the risk of decline for those unprepared and the potential for entrepreneurial success for those who are ready.

Although the use of a blockchain network started in the cryptocurrency marketplace with Bitcoin, its maturity and development into an ubiquitous platform for the financial industry depends on its evolution away from its roots. If this is to happen, the fact that anyone can access the network and see every transaction ever recorded is highly problematic in an industry that depends on privacy and security. Additionally, the complete anonymity of all participants and the very heavy security overlays to protect that anonymity, does not inherently lend itself to being able to work for the most heavily regulated industry on the world stage, finance. As such, a private blockchain network, or exchange, needs to be built to limit access to those invited to participate, facilitating business transactions. The network would need to run on permissioned logic, only giving access to those parties on the network who are relevant to a particular transaction or exchange. Additionally, smart contracts, business logic built into the network, are used to enhance trust and

avoid disputes among participants. The permissioned network, only those invited to participate and only those assigned access rights by other participants, can work together on the distributed ledger to facilitate commercial activity between the participants. A great benefit is that this can all happen in real time, with all parties having access to the entire process simultaneously. Agreements, approvals and exchanges can all happen digitally and immediately with complete confidence in the security of the network. The benefits are both meaningful and tangible, and while the hurdles to adoption may also be meaningful, the end result is likely to be worth the pain of adoption. The key to success lies in recognizing that it is only through the giving up of some of the core strengths of the technology, that it can begin to mature and gain acceptance with industry participants and regulators. Blockchain technology is largely between the research and pilot stages at most financial services industry firms, largely this is due to ambiguity of guidance from regulators, but the expectation is that rapid deployment will occur once clarity is delivered in the form of rules and regulations. The industry needs to prepare itself for what will likely be a quantum shift in the core engines of its business.

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