

# Blockchain and the Capital Markets

## A COMUNYTEK VISION

A lot has been said about Blockchain these last few months, and a lot more remains to be said until it ceases to be the latest topic of conversation. What is real and what is merely hyped up remains to be seen. What is clear is that the present and the near future will be more interesting with regards to the actual role that this technology could play in Capital Markets.

The success of the technology underlying the Bitcoin phenomenon has grown each year as the number of Bitcoins in circulation has increased, creating an alternative fiduciary currency. The viability of this phenomenon has been abundantly displayed, and thus, **many relevant players in the financial world see Bitcoin and Blockchain as both an opportunity and a threat.** Because of this, they are gaining entrance into types of business that up to this moment, they were totally alien to.

This situation is linked to the already well-known recurring tendency of the modes of technology, in which there periodically appear new technological models or paradigms that are sold as if they were the saviors of all existing problems. Under the auspices of the big players in the technology industry, these new models and paradigms tirelessly search cases of use to demonstrate that they contribute real differential value and thus their presence and investment are justified.

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*This technology is useful and necessary, and its development should never cease.*

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It is true that thanks to the many technologies that have appeared in the last decades, the everyday of millions of people has changed radically, facilitating communication, generating an ecosystem of services of contrasted use within reach of any person and company and, of course, equipping new media companies and enabling them to boost their business.

This technology is useful and necessary, and its development should never cease, since changes in our lives, which will determine our progress, will surely continue to come.

### Current Situation

At present, the growth of investment in the development of systems based on Blockchain can be seen to be constantly growing<sup>i</sup>, and **it is expected that in the next few years this will exponentially increase.**

This investment is reflected in new systems that are already in production and in the implementation of cases of use developed through **initiatives** intended to validate their viability, such as the accomplishment of the **supermermarket chain, Walmart**,<sup>ii</sup> in order to guarantee the replication and consensus of information on products supplied by its providers, or

those carried out by the **startup, Everledger**,<sup>iii</sup> to assure tracking in the process of extraction, cutting and selling of diamonds.

## Uses in the financial sector

There have also appeared a number of initiatives in the financial sector, intending to search for agreements between establishments such as **R3**<sup>iv</sup>, **Hyperledger**<sup>v</sup> or **Ethereum Alliance**<sup>vi</sup> (although these last two bring together establishments from various sectors, not only the financial), and also there have been born numerous companies called *Fintech* that have developed concrete solutions, for example, for the execution of transfers (**Ripple**<sup>vii</sup> or **Align Commerce**<sup>viii</sup> – now Veem-) or to manage funds (**BTCLend**<sup>ix</sup> or **BitLendingClub**<sup>x</sup>).

All this indicates that many **important institutions in the financial sector see potential in this technology** and embody this by organizing into associations seeking consensus and response to concrete cases of use while the technology continues to develop.

In the actual case of use applied in the Capital Markets, this growing interest has been translated into initiatives such as those carried out by: (1) **Nasdaq, with its Linq**<sup>xi</sup> **system**, (2) the **Australian Securities Exchange, when it substituted**<sup>xii</sup> **its CHESSE system**, (3) the creation of **FXCH Foreign Exchange Clearing House**<sup>xiii</sup>, (4) **UBS y Clearmatics, with its Utility Settlement Coin**<sup>xiv</sup> and (5) **DTCC, with its project to boost its REPOS**<sup>xv</sup> **clearing and settlement processes**. All these are examples of the implementation of cases of use, or have been converted into a tangible Project at a study of viability phase, or have ended up as a product in production.

The potential uses of Blockchain technology, or rather, Distributed Ledger

Technology (henceforth called DLT) in Capital Markets, can embrace in practice whole areas or phases of the value chain, such as what is gathered in numerous documents and recently written and published whitepapers. The real degree of acceptance of this technology does not include too many areas, and it is easier to find examples in contexts such as Post-Trading or Asset Servicing.

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¿Does this mean that there are areas where its adoption is not possible? It means that at the very least, there are areas where their differential contribution does not seem evident, like for example in Trading or Pre-Trading, which are areas where the current technology relies on a very high degree of maturity and efficiency.

## Open questions

The current situation regarding the adoption of DLT in the Capital Markets without doubt opens up many questions such as, for example: What players display the most interest? What impact can the acceptance of this technology have? Will the use of DLT generate disintermediation in the areas where they are employed? How could the roles of the parties involved change upon the incorporation of DLT? Is this all about a forced search for the use of a certain technology? And most of all, what will the actual benefits of DLT be in business models? Is there a case that can be resolved by solely using DLT?

All these questions, and certainly more, make **the majority of the interested parties**

in the Capital Markets want to be in on the numerous initiatives that are being created. This presence is justified by business opportunity, by real interest in the potential benefits that it may bring to their performance results, by the anxiety of being left on the outside, or by the necessity to try and glimpse what will be their role when faced with the possibility of changes that could be generated potentially with the use of DLT.

## Future Development

And in this situation, does it have to move forward? Where can it go? Clearly, it has to progress. **The DLT technology is going to bring real benefits to the Capital Markets**, facilitating processes, reducing counterparty and operational risks, and automating proceedings, simplifying Access and distribution of information, definitely accomplishing agreement among the participants in the sector.

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*DLT technology is going to contribute real benefits to the Capital Markets.*

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To facilitate the natural incorporation of the technology, a realistic vision of this and of the business must be initiated, trying to deepen it in those cases where the technology may bring real tangible benefits. When a case of use may be resolved with the same results as any other existing technology, it will be necessary to reflect on its use and consider, at least at the start, if the use of DLT is justified.

It must not be forgotten that **the degree of maturity of DLT technology** is not yet optimum and should still improve in key aspects like the management of permission over the information being handled, confidentiality and automatism of Smart Contracts.

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*At Comunitytek, we are working with our clients in the application of Blockchain technology and DLT on real cases of use in the context of the Capital Markets.*

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At Comunitytek, we are working with our clients in the application of Blockchain technology and DLT on real cases of use in the context of the Capital Markets. Our wide experience in functional and technological areas in this sector helps us create a **broad, realistic, mature and impartial vision** that allows the justified use of this technology in the search for improvement of the efficiency ratios of all participants in the value chains.

Our commitment to DLT technology is clear and determined. We believe that, to date, the areas where it is most applicable are in (1) the sharing of reference data, (2) the decrease of settlement processes in those products whose settlement period is very high, (3) the digitalization of assets and transfer of collateral, and 4) increasing of credibility and trust in value chains where there are many interested parties such as Asset-servicing,...



## References

<sup>i</sup> Evolution of the investment in development of systems based on technology Blockchain according to the magazine Bitcoin Magazine: (Progress in investing in systems development on Blockchain technology, according to Bitcoin Magazine): <https://bitcoinmagazine.com/articles/report-blockchain-technology-market-reach-77-billion-2024/>

<sup>ii</sup> <https://www.engadget.com/2016/11/20/walmart-uses-blockchain-for-food-safety/>

<sup>iii</sup> <http://www.diabarcelona.com/es/everledger-blockchain-based-diamond-fraud-detection/>

<sup>iv</sup> <http://www.r3cev.com/>

<sup>v</sup> <https://www.hyperledger.org/>

<sup>vi</sup> <https://entethalliance.org/>

<sup>vii</sup> <https://ripple.com/>

<sup>viii</sup> <https://www.veem.com/>

<sup>ix</sup> <https://cex.io/>

<sup>x</sup> <https://bitlendingclub.com/>

<sup>xi</sup> <http://ir.nasdaq.com/releasedetail.cfm?releaseid=948326>

<sup>xii</sup> <http://www.asx.com.au/services/chess-replacement.htm>

<sup>xiii</sup> <https://fxclr.com/>

<sup>xiv</sup> [https://www.ubs.com/microsites/blockchain-report/en/home/\\_jcr\\_content/mainpar/gridcontrol\\_924706091/col1/teaser\\_1293074766/linklist/link\\_855079897.0586258475.file/bGluay9wYXR0PS9jb250ZW50L2RhbS91YnMvbWljcm9zaXRlcy9ibG9ja2NoYXJzL2NvaW4tb24tYmxvY2tjaGFpbi1nYXR0ZXJzLXBhY2UucGRm/coin-on-blockchain-gathers-pace.pdf](https://www.ubs.com/microsites/blockchain-report/en/home/_jcr_content/mainpar/gridcontrol_924706091/col1/teaser_1293074766/linklist/link_855079897.0586258475.file/bGluay9wYXR0PS9jb250ZW50L2RhbS91YnMvbWljcm9zaXRlcy9ibG9ja2NoYXJzL2NvaW4tb24tYmxvY2tjaGFpbi1nYXR0ZXJzLXBhY2UucGRm/coin-on-blockchain-gathers-pace.pdf)

<sup>xv</sup> <http://www.dtcc.com/news/2017/february/27/dtcc-and-digital-asset-move-to-next-phase>