



# Is Blockchain Technology Really the Solution to All Our Problems?

by Marc Robert-Nicoud, CEO, Clearstream Holding



**A**lthough blockchain technology has been around for years, it seems that the financial industry has only now started to realise its potential. While blockchains certainly offer exciting possibilities for the consolidation of transaction flows, the CEO of Clearstream Holding, Marc Robert-Nicoud, advocates a balanced approach.



record of past transactions. Alternatively, access to blockchain databases can also be configured to participants' needs in a permissioned network.

This customised access means that in post-trading, banks could be given access to a blockchain while the underlying client data could only be seen by the relevant banks and by all regulators.

For the post-trade industry, it could be attractive to replace the current process of trade reconciliations by such a consensual approach to distributing information. In addition, the settlement cycle could be reduced from two days to a matter of seconds or minutes. Blockchain could also be used for handling new asset types or for currently untapped markets that lack supporting infrastructure. While post-trade service providers should certainly embrace any technology which improves their service to the market, we at Clearstream believe that market infrastructures currently in place guarantee a level of safety and legal certainty which a network of computers is unlikely to match.

While we can use new technology to make securities services more efficient, it is important to recognise that the industry has gone to a considerable amount of effort to provide a safe, stable infrastructure for people's money. We must avoid a trade-off between efficiency and safety; removing intermediaries will also remove the integrity they bring to the market. Against this background, the removal of major intermediaries in existing, well-developed financial markets by blockchain seems rather unlikely at this stage. It is important to refocus the discussion on the barriers the new technology could overcome while keeping in mind the major contributions that financial intermediaries could bring to models based on blockchain in terms of trust, legal certainty and safety.

At Clearstream, we are exploring ways of leveraging blockchain to support our mandate to make markets more efficient. The technology could be integrated into the existing post-trade landscape. In any case, widespread changes to the financial industry based on blockchain will not happen overnight. This said, the technology has the clear potential to contribute to market efficiency and is therefore likely to continue to attract interest. □

Blockchain seems to be the buzzword of 2015. The technology underlying bitcoins has suddenly evolved from a niche area of expertise to a key skill. As a result, representatives of the financial industry are grappling to understand the complex disruptive impact blockchain could potentially have on well-established financial structures.

While possible scenarios range from simple process optimisation to disintermediation of key players in financial transactions, it is actually very hard to make accurate predictions on what will happen. Since the technology was only used in certain niche sectors in the past, its true scalability to the financial industry and viable adoption paths are little understood. A multitude of new partnerships between the financial industry and technology were formed with the aim of bridging this knowledge gap, for example the R3 consortium with major banks. While it would be unwise to ignore the innovative potential of blockchain, it would be equally short-sighted to completely discard the current set-up with its well-established safety mechanisms and the legal certainty they bring.

At Clearstream, we are currently investigating blockchain opportunities with our parent company Deutsche Börse Group. For example, we are engaging with start-ups and entering into collaborations with clients to see how we can leverage the technology to make post-trading more streamlined and efficient.

Blockchain is essentially a distributed database of transactions that removes the need for centralised ledgers, trusted parties, golden copies and manual interventions. For bitcoins, this distributed database is updated every ten minutes. During these updates, pending transactions are included in the blockchain through a distributed consensus mechanism such as the bitcoin mining process.

In a public database, all participants have a complete and agreed

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