

# Orchard Finance

## B2B Blockchain-based Payments: Can it Beat the Banks?

For those interested in Supply Chain Finance/Trade Finance, there is an increasing amount of articles about blockchain. For those who are not yet familiar with this term: it is the underlying technology behind Bitcoin. The starting point for this technology was to allow two parties to transfer a token of value (Bitcoin) from one to another, in a cheap, reliable and fast way. Three main criteria for it are: the two parties can be anywhere in the world, there should not be a central authority processing a transaction, and the same token (Bitcoin) cannot be spent more than once.

To meet all these criteria, the solution proved to be a distributed ledger containing all transactions, visible for all participants in the network. A transaction is approved by consensus, which is reached by cryptographic encryption. This technology is called blockchain. Many articles about blockchain are focused on the way it works (hence, are very technical), but because of the complex terminology being used, it causes more confusion than clarity. Perhaps the authors of these articles have been inspired by former American president Harry S. Truman when he said: 'If you can't convince them, confuse them'.

Instead of focusing on the technology, it is far more interesting to understand what it can do for businesses. The technology itself is very powerful and it has the potential to radically transform how businesses work and how payments are done. If a Bitcoin can be transferred in such a cheap, fast, reliable manner, why not a Euro or a Dollar?

The current situation of a 'real-time payment' is still depending on cut off times of banks. The party that initiates the payment sees the amount deducted from their bank balance, then the receiver will get the amount some time later. Depending on the sending and receiving bank this can range from a couple of hours up to a couple of days. What happens is that the bank of the sender updates its ledger (the bank balance of the sender), sends the transaction via (most likely) the SWIFT network to the receiving bank. Afterwards, the receiving bank receives the transaction, and updates its ledger (the bank balance of the receiver).

### Blockchain payments; how real-time are they?

As said before, blockchain is a distributed ledger; a shared database. All parties involved have access to this database thus, the participants that are allowed to participate, see the same version of the truth. This means that if one party wants to send a token of value to another party, it updates the distributed ledger. When this update is agreed by the participants, the 'new' state of the ledger is accepted. With Bitcoin, the acceptance is done by miners, validating the transaction via sophisticated cryptographic encryption. A transaction is fully validated in approximately 8 minutes.

The Bitcoin blockchain is a well-developed network with many miners that can vet a transaction. This Bitcoin blockchain, however, might not be the best blockchain for B2B payments. There are providers in the market that are building new types of blockchains that are specifically developed to facilitate payments within a Supply Chain. This means that payments can be done, real-time, worldwide, at low cost. Next to the fast, low-cost payment processing there is another interesting aspect to blockchain-based payments. By using so-called 'smart contracts' payments can be made conditional.

There are a wide array of situations this can be applied to:

- A payment can be executed in case certain criteria are met. For example: a container with bananas arrives in the Port of Rotterdam at an agreed time and by using special scanning equipment, the quality and quantity are checked and approved. When these criteria are met, a payment is executed automatically.
- A budget can be allocated and this budget can only be spent on predefined parties. For instance: a government provides a rental allowance for individuals with a minimum income. This allowance can only be spent at a pre-approved landlord. In case it is not used before a certain moment in time, the allowance is cancelled. →



Kris Wielens

*Senior Consultant*  
Orchard Finance

About Kris Wielens: Kris Wielens is Senior Consultant with Orchard Finance. He has more than a decade experience in (corporate) payments with various firms. He has been active as Head of Strategic Partnerships, EMEA Business Development Manager, Sales Manager and Credit Analyst.

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- Various parties in a supply chain can all be paid when the end consumer purchases the product. For example, a consumer buys a song online. At the moment of purchase, the amount paid is distributed amongst the band, the producer, the studio and the record label. All parties are rewarded based on their added value.

Blockchain-based payments open up many possibilities. Not only is it possible to trade easier and cheaper, but also payments can be made smarter. Banks are particularly interested in this new technology and are closely investigating the potential it may offer to them. It is exciting times for banks and payment institutions as with blockchain the real disruption is knocking on the door. The disruption here is not that things are done a bit smarter, more efficient or faster. The disruption in payments is that there is technology available that makes banks, PSPs, credit card companies redundant. Cutting out these middlemen by making use of technology that provides the same trust and robustness (or perhaps even more) will increase the speed of payments, increase the possibility to trade with each other while significantly reducing costs.