

# Joining the chain gang

*Finbarr Bermingham looks at how blockchain is starting to be used for trade finance transactions and whether this represents a breakthrough for the technology*

In May, HSBC announced that it had completed its first live trade finance transaction on blockchain technology. Using Corda, a blockchain-based platform developed by US fintech consortium R3, the bank processed a shipment of soybeans exported from Argentina to Malaysia, via Singapore. The buyer on both ends of the transaction was Cargill, while HSBC issued a digital letter of credit (LC) on to Corda, with ING acting as advising bank.

Crucially, the use of blockchain – a decentralised, distributed ledger shared across a public or private computing network – allowed the transaction time to be reduced from anywhere between five and 10 working days to less than 24 hours. The deal made headlines in the financial press, with many articles reporting this as the first live trade finance transaction using blockchain. That was incorrect: many live transactions had taken place prior to this, most notably a deal that saw Commonwealth Bank of Australia and Wells Fargo fund Brighann Cotton, a US company, for the export of cotton from Texas to Qingdao, China, in October 2016.

But it is not difficult to understand why some areas of the press and industry became excited about the HSBC deal. HSBC bills itself as the biggest trade bank in the world and raked in \$2.52bn in trade finance revenues in 2017. Research from East & Partners, an Australian banking consultancy, shows that HSBC has the largest primary trade finance market share among banks in Asia. Around the world, it is viewed as a market leader.

There is also considerable hype about this particular technology. Blockchain became known as the rails on which bitcoin is traded but it has also been identified as an application that can be used to digitise trade finance.

Blockchain provides a digital platform on which trade finance can be conducted. Documents can be issued and stored there in digital form. Funds can be disbursed, and payments made, digitally. Trade finance is primarily paper-based, which leaves it vulnerable to fraud, and is extremely inefficient. For decades, digitisation has been on the agenda. Now with blockchain, it appears to be within reach. According to the McKinsey consultancy, 90 per cent of major Australian, European and North American banks are “already experimenting or investing in blockchain”.

Investment in the technology is also soaring: a study from

Greenwich Associates, a management consultancy, shows that the financial services industry is now spending \$1.7bn a year on blockchain, with banks’ blockchain budgets growing by 67 per cent in 2017. IBM, meanwhile, one of the technology companies selling blockchain services to the trade finance sector, has a team of more than 1,000 dedicated to distributed ledger technology (DLT).

So when one of the dominant players announces that it has made a breakthrough that it estimates can cut transaction costs by up to 31 per cent, the industry is ready to listen.

## The Corda debate

HSBC is one of more than 70 banks that have been developing R3’s Corda platform. The Cargill deal came out of the Corda programme Voltron, a platform within a platform for the digitisation of LCs. But, in getting the transaction over the line, HSBC took the consortium’s work and developed on top of it, independently.



**Blockchain evangelists view banking and tech consortia with suspicion**

The use of Corda is interesting. Duncan Wong, whose company CryptoBLK is HSBC’s blockchain development partner, says it chose Corda as it enabled it to keep proprietary and customer information confidential.

“We could have used Hyperledger Fabric or Ethereum, but Corda has the advantage of having the segregation of data. This makes our lives much easier,” Wong says, referring to the other prominent technologies being used to develop blockchain projects in the industry.

For some, however, this defeats the purpose of distributed ledger technology. The ethos of blockchain is one of openness, decentralisation and collaboration. In reality, though, big banks would never sign up for something that would allow competitors to access their customer information. Blockchain evangelists view banking and tech consortia with suspicion, claiming that for fear of disintermediation, the banks are attempting to own something that is, in its very essence, un-ownable. By taking its development work off that consortium and working

independently, some claim that HSBC is trying to do the same, albeit alone.

There is also some dispute as to whether Corda really is blockchain technology. One fintech insider, comparing the use of Corda with other “more pure” blockchain technologies, says it is “like walking into a McLaren store and being sold a Honda engine”. Corda is “not blockchain”, he says, “but more closely resembles an email server”.

Even R3 in its early literature said: “It is heavily inspired by blockchain systems, but without the design choices that make traditional blockchains inappropriate for the execution of real-world business transactions.”

### What's next?

There is plenty of activity on other platforms. Hyperledger Fabric-powered we.trade, another consortium involving nine European banks, made its product live in June, with plans to launch to the market over the coming months.

This platform allows the managing, tracking and protecting of open account trade transactions between SMEs. They can access finance from participant banks Deutsche Bank, HSBC, KBC, Natixis, Nordea, Rabobank, Santander, Société Générale and UniCredit through the platform, which is being built by IBM.

“In terms of scale and ambition, this project is really interesting,” says Brian Behlendorf, Hyperledger executive director. “These digital chains become a way of establishing history and performance, which makes for a good way to extend trade finance to the good operators, to distinguish those from the fly-by-nights.”

In India, meanwhile, a blockchain solution to prevent double financing of trade receivables went live, also powered by Hyperledger. The solution enables three receivables marketplaces to share information on the invoices that have been uploaded to their platforms, ensuring they are not financed more than once. The use of blockchain allows sensitive information to remain cryptographically obscured.

There are many other projects in the pipeline. Blockchain experts and trade finance banks alike asserted that in 2018 we would start to see some of the myriad proofs of concept involving blockchain being brought to full production use. This is starting to happen.

For HSBC, there are plans to take this transaction to the next stage imminently. On the Cargill transaction, the LC was executed on blockchain, but other elements of the transaction cycle were not, such as the bill of lading, a document issued by a carrier to acknowledge receipt

of cargo for shipment. The bank is working with a trade documentation company to bring the other documents onto blockchain, at which point further live transactions will take place.

“In the next run we’re working with HSBC and other banks to support the next phase, to integrate the bill of lading into the transaction,” says Wong. The next transactions will involve other banks, he adds, with HSBC discussing conducting deals with as many as 10 bank members of the R3 consortium. We are still a long way from critical mass.

“*While many companies are experimenting, meaningful scale remains three to five years away*”

In a report entitled *Blockchain: beyond the hype*, McKinsey identified 90 possible use cases for blockchain, including trade finance. But the consultancy warned: “While many companies are already experimenting, meaningful scale remains three to five years away.”

First, common standards need to be developed around the trade products, such as a digital letter of credit. Second, digital trade finance is only worthwhile if the underlying trade is digitised too, meaning the entire process must be brought online.

“We hear a lot about blockchain, but it all still seems to be theoretical at the moment,” says Lishi Fong, a trade and commodity finance lawyer at Norton Rose Fulbright, an international law firm. “Those doing the actual work aren’t seeing any change and won’t for a few years.”

Fong’s view is common, if less noisy than the hype. It will be a long time before blockchain materially changes the way trade finance works, but recent months have brought definite progress. ■



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