

Trading up: applying blockchain to trade finance

Innovation in trade finance

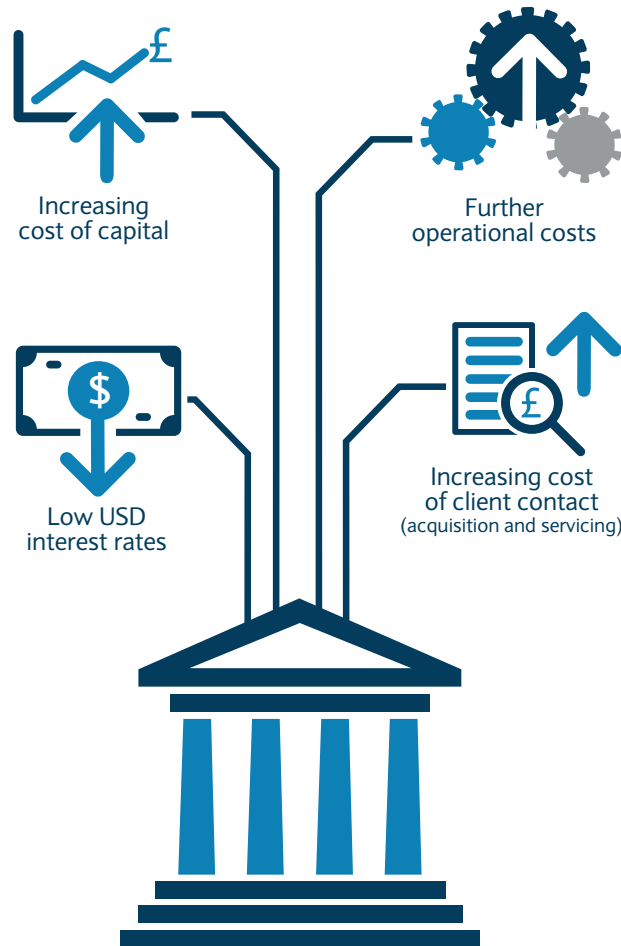
Exciting developments are taking place in trade finance at the moment; for the first time in a while, there are real signs of innovation in this area of banking.

Innovation always emerges from adversity and never before has this area of banking faced such challenge and competition. If you follow current thinkers and industry participants, predictions are awash about how FinTech companies are eating the major banks' breakfast, lunch, dinner and snacks.

We are living in a world of sustained low US dollar (USD) interest rates, bringing into question the transaction banking model which was conceived to replace balance sheet growth with fee-driven growth. There is a lot of discussion about how regulation is muting the trade finance industry by increasing the cost of capital, generating further operational costs for banks and hiking the cost of client contact (including acquisition and servicing). All this is taking place in a world where fees are either flat or declining, and banks are witnessing lower returns and even negative jaws in some cases.

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Consequently, some banks are questioning the models used to estimate the returns needed to recoup the large investments made on expensive platform replacements and new operating models.



Progress

Innovation in trade finance goes back to the Phoenicians in around 1500 BCE who founded maritime transport on a commercial scale and re-established long distance trade between Egypt and Mesopotamia. The merchants of Venice are another prime example of innovation; they introduced factoring in the 16th century and such practices continue to be used in the current day.

The mid-1990s were a watershed moment for many industries, given the dawn of the internet and mass telecommunication. Nevertheless, banks and other long-established financial institutions were slow to incorporate such technologies into their business models due to cumbersome, legacy IT infrastructure.

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This lethargy in banking and financial services spawned a vibrant FinTech revolution, with companies such as Bolero and ELCY coming up with solutions to client challenges like multi-bank access, Bill of Lading dematerialisation and document preparation, to name but a few.

We look poised for another round of innovation, especially with regards to the platforms used to deliver trade finance to clients. Distributed ledger technology, popularly known as blockchain, came into the picture in early 2014 and banks are now beginning to catch onto and further investigate the trend.

Blockchain is revolutionising the exchange of value in a similar way to how the internet revolutionised the exchange of information and communication.

There are two aspects of this technology: the promise of new opportunities and scope for cost savings.

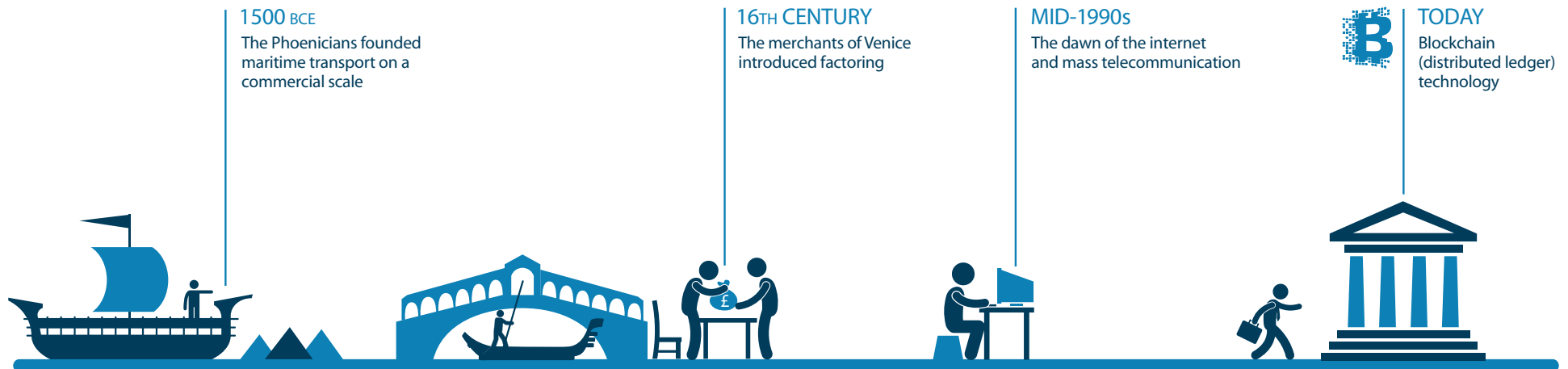
The technology offers a potential medium to exchange assets without centralised trusts or intermediaries, and without the risk of double spending. The tamper-proof nature of the blocks eliminates the possibility of fraud. This technology could also address operational risk through transparency and immutability, thus significantly helping banks reduce their operational costs when executing controls.

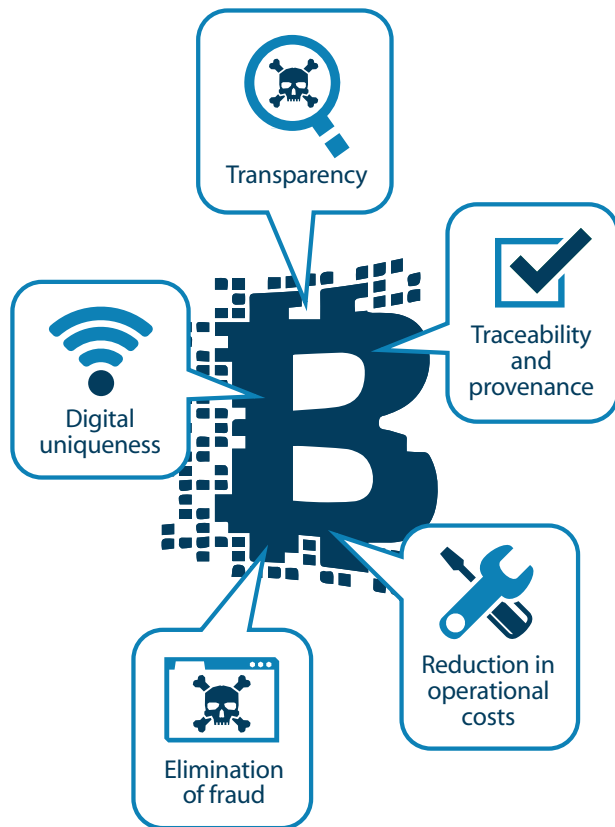
Why this is important for trade finance

The positive properties of blockchain technology look set to address some of the key challenges facing the trade finance sector. For example:

- Capabilities around transparency and consensus will help mitigate the ever-present risk of documentary fraud and hopefully reduce the cost of transaction reconciliation between and within banks
- The traceability associated with blockchain could potentially provide assurance and authenticity of products in the supply chain
- The immutability and digital uniqueness inherent in this technology also offers the potential to provide a secure transfer of value and deliver a solution to the trade finance problem of endorsement

- The challenge of maintaining Chinese walls or data privacy among counterparties to trade transactions could be overcome by utilising tokenisation as a form of cryptography, whereby parties are only allowed to access permissioned information
- Because of the distributed nature of blockchain, there is an indicative promise of resilience and robustness; this could potentially be broadly adopted at a reasonable development cost
- Smart contracts offer the possibility of self-executing contracts triggered by the efficient exchange of digital data, potentially revolutionising the long-serving Letter of Credit.
- Internet of things (IOT) which is still in the early stages of application to trade finance could be used to move physical assets while they are simultaneously tracked and purchased.





Our clients are demanding deep digital integration in a cost-effective manner. This is critical if we as banks are to address our cost of service, especially in our small and medium-size enterprise (SME) segment. At the other end of the spectrum, many large or multinational corporate clients are multi-banked and are probably averse to using multiple standards and interfaces to send and receive information to and from their banks. Blockchain technology can offer solutions to these challenges too.

“Blockchain is a very good solution to eliminate the pain in international trade.”

Gadi Ruschin, Founder, Wave

So what are we doing?

At Barclays, through our Accelerator programme, we have been mentoring a number of start-up companies in order to share our knowledge and expertise and also to learn from them. In the Trade and Working Capital team specifically, we are partnering with a company called Wave in order to use their solution for dematerialising the trade finance Bill of Lading.

Barclays is also a member of the infrastructure protocol initiative ‘R3CEV’, alongside other financial institutions. The members of this initiative will build and adopt a common infrastructure to support a distributed ledger among financial institutions.

The R3CEV initiative manages a private, peer-to-peer distributed ledger, underpinned by Ethereum technology and hosted on a virtual private network (VPN) in Microsoft Azure (the public cloud platform offering Blockchain as a Service (BaaS) in an accelerated development environment).

After such a long period of ‘business as usual’ within trade finance, it will be interesting to see how distributed ledger technology shapes the banking industry of the future.

[Watch this space...](#)

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