



Bitcoin, Ethereum, Ripple and co.
Will blockchains become the new banks for the poor?

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Bonn, 5 Februray 2018. Blockchain technology will be ten years old this year. In November 2008, a hitherto unknown author going by the pseudonym Satoshi Nakamoto wrote the white paper "Bitcoin: A Peer-to-Peer Electronic Cash System", which explained the basic principles of blockchain technology. Implemented in practice in 2009, bitcoin became the first digital currency to function without a central authority. This is thanks to the underlying blockchain technology, which allows each transaction to be digitally archived on a highly secure basis and is thus effective at preventing fraudulent activities such as the multiple issuing of the same bitcoin. The pioneering currency has been followed in recent years by numerous other cryptocurrencies and other blockchain-based networks that have further refined the technology.

The peer-to-peer payment system enables users to interact directly with one another without the need for a central authority to act as intermediary. Consequently, as well as being a technological breakthrough, it can also provide low-income individuals with easier access to the financial system. This is especially relevant when you consider that a lack of access to financial services is a significant barrier to development. Indeed, several indicators for the Sustainable Development Goals (SDGs) seek to promote greater participation in financial services. While lowincome individuals are often still denied access to a bank, anyone with internet access can in principle buy cryptocurrency and use it to carry out transactions. However, before people with limited access to the financial system can use cryptocurrency as a payment method, such use must first become far more widely accepted. Additionally, cryptobanking programs need to be made more user friendly so that laypersons can operate them confidently.

Remittances are one financial service that is crucially important for migrants and their families. From a global perspective, the total volume of remittances in developing countries is around three times larger than that of public development expenditure. The SDGs also reflect the great importance of remittances, requiring that their transaction costs be reduced on average to three per cent of the transfer amount by 2030. The digitalisation of the industry has already led to these costs falling from almost 10 per cent to around seven per cent of the transfer amount in the last decade.

Will blockchain technology allow further urgently needed cost reductions in this area? Blockchain-based networks such as Ripple, Stellar, IOTA and NEO enable international transfers to be made free of charge or almost free of charge using cryptocurrencies. However, the sender of the remittance usually needs to first convert his or her local currency into a cryptocurrency and then use the latter for his or her international transaction before the payment recipient converts the cryptocurrency back into his or her local currency. This thus requires two currency exchanges (e.g. euros to bitcoins to Indian rupees) instead of one (e.g. euros to Indian rupees).

At the same time, using cryptocurrencies makes it possible to cut out certain fees and waiting times associated with the use of correspondent banks by conventional providers such as Western Union. In addition to these cost savings, blockchain-based money-transfer operators can leverage synergies by trading on a proprietary basis in cryptocurrencies in addition to their core business. This is how, for example, start-ups Circle and Cashaa can offer money transfers free of charge or at very low cost in several countries. It remains to be seen whether these companies will be able to establish themselves on the market in the long term. However, it already seems conceivable that blockchain technology will be able to help reduce remittance costs in the next few years by removing the need for correspondent banks.

Blockchain technology holds great potential for increasing structural efficiency in many areas of business and administration. This is especially true for areas in which trust between market players has previously been based on the involvement of a central authority. Remittances can be effected relatively easily using existing blockchain technology. As such, there are already solutions available that offer cost advantages over established money transfer operators. However, it will most likely be a few more years until blockchain-based networks can operate as fully-fledged banks offering user-friendly payment services, (savings) accounts and (micro)loans to financially underserved individuals. Actors in the public and private sectors should support this process by actively leveraging the potential of blockchain technology and promoting its further development. The first step in this direction could be to accept cryptocurrencies for certain payments. The Swiss canton of Zug, for instance, joined the ranks of numerous companies in 2016 when it began accepting payments for municipal services in bitcoin.