

Evidence for House of Commons Treasury Select Committee Digital Currencies Inquiry

by the Electronic Money Association on 1 May 2018

The Electronic Money Association (“**EMA**”) is the trade body representing electronic money (“**e-money**”) issuers and payments service providers in the UK and EEA, and we have been operating for over 15 years. Our members include leading payment and e-commerce businesses worldwide, prepaid card issuers, payment initiation service providers, acquirers, bill payment providers, corporate incentive providers, mobile payment specialists, business to business services, and an increasing number of digital currency providers and exchanges. A list of our members is provided at the end of this paper. Input to this paper was also provided by other digital currency providers.

Are digital currencies ultimately capable of replacing traditional means of payment?

Digital currencies (“DC”) are used to describe a broad range of products, of which those based on distributed ledger technologies (“DLT”), sometimes called cryptocurrencies, have captured the greatest attention. This is because they are capable of being offered and run in a distributed manner, with no central governing body. Bitcoin is the most well known.

There have however historically been a number of technological developments that have been regarded as ushering a new age for payments, such as prepaid cards in the 1990s and wallets and mobile products in the early 2000s. Ultimately, a successful payment product must satisfy a range of attributes, and have a compelling product proposition for it to have significant adoption.

Recent experience has shown that success is usually built on a niche proposition that may slowly find wider adoption. Such products would however have to compete with existing successful payment services, and displacing these is not a trivial task.

DLT has a number of advantages over centralised databases, but also suffers a number of shortcomings including the absence of a regulated framework for their operation. On the other hand the decentralised peer to peer model could enable rapid adoption if a compelling user proposition emerges. Examples in other industries include file sharing for music and video as well as familiar products such as email.

Current use of many DCs has been characterised by investment related transactions rather than those for payment. Where they are used for payment, the payees will typically convert the payment received into fiat currency to manage the volatility risk.

In the future, it is likely that DCs of various attributes will evolve to meet the payment needs of consumers and businesses in a range of circumstances, and will likely occupy a

significant part of the payments space. Despite technological, regulatory and business challenges, the opportunities that DCs offer are likely to be exploited and to bring about new payment functionalities.

To what extent could digital currencies disrupt the economy and the workings of the public sector?

There are a number of attributes for DCs that may give rise to challenges for the public sector, but these have not yet materialised in a meaningful manner:

- DCs as an alternative to cash, reducing income from seigniorage: volatility has not helped the adoption of DCs for payment, and the absence of a regulated framework means that users will always be cautious when using such products. The likely displacement of cash is therefore low.
- DCs as an alternative to mainstream digital payment products: bank payments, cards and electronic money currently offer users a range of statutory protections, established means of dispute resolution and broad acceptance. DCs are just now being captured by legislation focused on financial crime but are still some way from falling within the scope of financial services regulation. Industry will need to compensate for this on a voluntary basis if it is to compete with other means of payment. On the other hand, finality of payment - a key feature of DCs - has advantages in some sectors such as travel and the sale of digital goods.
- There are some users who will adopt DCs on the grounds of privacy or convenience in specific circumstances, but these are not yet mainstream.
- DLT can increase transparency in the public sector by enabling public audit of spending and of taxation, reducing opportunities for waste and the potential for corruption.
- DCs could be used for making illicit transactions that seek to avoid tax liabilities: this is always a risk with any new payment product that falls partially outside of the regulated sphere, but the transparent nature of DLT should mitigate part of this risk. The distributed peer to peer functionality poses a particular challenge that will need to be addressed through better monitoring and transaction analysis capabilities. The volume of DC payment transactions to date however does not lend itself easily to the concealment of large amounts of money. Similarly, the immutable nature of transactions means that the opportunities for analysis and investigation of transactions is considerable. Tools are continuously evolving, and criminals are weary of using a DLT based payment product to conceal or transfer assets.
- The immediate and final nature of many DC payments can provide a more efficient means of making payments, that reduces the need for clearing and settlement steps in the value transfer chain. This may over time introduce efficiencies into a number of financial services and commercial systems where this is desirable.
- This characteristic also helps in the process of making a payment, enabling instant transfers of value to be executed by users, assisting in micro-payments, payments for services such as toll and parking as well as pay-as you-go consumption of content.

- There are use cases for DLT and DCs that are specifically targeted at increasing financial inclusion, and these should be encouraged, and may eventually grow to become of general application.
- Ancillary technological developments such as smart contracts, which seek to automate events based on conditions being met: for example automatic payment upon delivery of a good or service, could enhance the adoption of DC technology where the two functionalities are linked.
- On the other hand, other technological developments such as Open Banking may provide a competing direction for the evolution of payments, at least for the user facing part of the service, or may combine with DC technology to enable more efficient transfers of value utilising the immediate and final nature of these products.

What risks and benefits could digital currencies generate for consumers, businesses and governments?

Risks for users:

- Many of the risks are associated with the early stages of the development of the sector, and consequently of a regulatory framework. Users have fewer statutory protections than would be the case for card or bank or e-money payments.
- The current price volatility also means that DCs may not be preferred as stores of value; and users may purchase the DC immediately before use and the recipient may similarly exchange the DC back into a fiat currency equivalent upon receipt. Increasingly users are holding on to DC value as they perceive its value holding or increasing over time.
- There have been some high profile attacks on exchanges and custodians in the past that have led to the loss of user assets, and industry has since addressed specific vulnerabilities.
- Law enforcement regard the pseudonymous nature of the block chain as giving rise specific risks, and may sometimes equate these with anonymous products. This is not however the case as the information available through digital analysis tools can yield significant information that would enable the tracing of transactions and of users.
- The immediate and final nature of payments can also pose a challenge to law enforcement seeking to freeze assets, which can be easily moved. However on the other hand they will always be visible on the blockchain.

Benefits to users:

- There is increased efficiency and therefore a lower cost associated with a DLT system, with finality of payment being complete upon execution of the transaction without a need for clearing and settlement.
- There is also increased transparency, as payment transactions are public and can be scrutinised.
- The cost of DLT based DCs may be lower than centralised models, but this will need to be assessed based on a more complete user proposition that would include all operational and customer facing services.

- A more global regulatory model that could emerge may also be more effective at managing risk and avoid jurisdictional variations that introduce risk and inefficiencies, but this will need to be developed.
- Pseudonyms may offer users a means of making private transactions and therefore more secure transactions that are less vulnerable to data compromise and identity theft.
- The combination of smart contract functionality with that of payment, gives rise to many potential innovations.

How is distributed ledger technology being applied in the financial services sector, and how might it be applied in future?

The use of DLT in the financial service sector focuses on exploiting a number of attributes: the instantaneous nature of value transfer, the accessible nature of a shared ledger, the instantaneous trust that is generated in a shared ledger, the low cost associated with transactions, the ability to associate data and rules with transactions to automate processes etc.

Increasingly, DC technology is being used as representations of underlying assets, and the recent rise in initial coin offerings (ICOs) is a reflection of this trend. Here DLTs are used to represent equities, bonds or other rights, interests or privileges related to underlying assets. This is simply a dematerialised and distributed means of representing assets.

What work has the Government (and its associated bodies) done to understand, prepare for and, where relevant, encourage changes that may be brought about by increased adoption of digital currencies?

The UK government has been encouraging financial services innovation and creating a favourable regulatory and economic environment. Other countries, including Japan, Russia, Sweden, Singapore, Senegal, Tunisia and Estonia have launched or are considering the launch of national cryptocurrency systems.

How might the Government's processes adapt should digital currencies be adopted more widely (e.g. tax implications, anti-money laundering measures)?

The challenges associated with the prevention and deterrence of financial crime in the financial services system will be similar to those faced by DCs. The technology brings some advantages to law enforcement, such as that of transparency, and also poses some challenges such as the peer to peer nature of transactions.

The online nature also makes cross border transactions trivial to undertake and will therefore require a more global response to the challenges. This should be assisted by the single continuum that such products represent, and contribution of the different actors to a single pool of knowledge and the ability to put together data at a global level.

These could have anti money laundering and anti tax evasion consequences and will need to be addressed within the current legal framework. Where gaps remain, and legislative development is needed, these should be coordinated with industry and with other institutions globally.

Is the government striking the right balance between regulating digital currencies to provide adequate protection for consumers and businesses whilst not stifling innovation?

Yes, the government has held back from introducing a financial services regulatory framework whilst the industry matures and the risks become more apparent. The need for a financial crime regime to be applied has been coordinated at a European level, and the amended fourth money laundering directive (“5MLD”)¹ will be implemented in the UK in 2019, making DC exchanges and custodians subject as obligated entities under the UK Money Laundering Regulations.

Could regulation benefit digital currency start-ups by improving consumer trust?

The business proposition should become clearer before further regulation is adopted. It is furthermore better to coordinate at a global level to ensure effective regulation and enforcement. It is important for any regulatory initiative to be proportionate and to be appropriate to the technology and business models.

How are governments and regulators in other countries approaching digital currencies and what lessons can the UK learn from overseas?

The need for financial crime regulation is recognised and has been applied where DCs are converted to Fiat currency. The need and the means of regulating a distributed system for financial service is less obvious and requires some regulatory innovation. Regulators who have proposed financial services regulatory models have suggested the creation of centralised governance structures, that may not be in conformance with underlying technology and culture of the sector. Additional work in this area would be beneficial.

Comments and questions should be addressed to:

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¹ Proposal for a directive of the European Parliament and of the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (COM(2016)0450 – C8-0265/2016 – 2016/0208(COD)) <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2018-0178+0+DOC+XML+V0//EN&language=EN>

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