All-Party Parliamentary Group on Blockchain (APPG Blockchain)

Evidence Meeting 4 – Impact on Fraud

Overview

Boothroyd Room, Portcullis House

4th September 2018

The mission of the All-Party Parliamentary Group on Blockchain (APPG Blockchain) is to ensure that industry and society benefit from the full potential of blockchain and other distributed ledger technologies (DLT) making the UK a leader in Blockchain/DLT's innovation and implementation.

We bring evidence, use cases and future policy scenarios while considering industry and societal implications as well as environmental opportunities.

Chaired by Damien Moore MP

Watch the full evidence session, https://bit.ly/2SosSBd

Get involved

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Content

1. Details

- Date: 4 September 2018
- Time: 5:30 – 7:00 pm
- Location: Boothroyd Room – Portcullis House

2. Purpose

Evidence Meeting 4: Impact on Fraud. The fourth APPG on blockchain evidence meeting was held on Tuesday 4th of September in the Houses of Parliament. The group discussed the impact of blockchain technology on fraud.

3. Evidence Givers

- John Reynolds, CEO & Co-founder, Blockchain Digital
- Paul Worrall, Founder & CTO, Zonafide
- Adam Furgal, Head of Delivery, R3

4. Questions for Inspiration

- Is blockchain a way to end Cyber-fraud or does it facilitate it?
- What degree of transparency is needed to create trust?
- What are the regulatory issues we need to consider?

5. Summary

The group met on the 4th of September to discuss the impact of blockchain technology on fraud. The discussion focused on data privacy, control and trust and significant impact the current data use by platform companies has on people.

The speakers agreed that blockchain could facilitate building trust in that the technology can serve as a guarantor. However, does having a new tech middle man as a trustor mean we trust less in good faith of people we transact with in everyday life?

5.1. Misrepresentation of Data

John Reynolds, CEO & Co-founder, Blockchain Digital and Adam Furgal, Head of Delivery, R3, both spoke about how blockchain can enable creating an infrastructure that supports the accurate source representation of information. This use case is best seen in both cyber fraud, which is vastly enabled by the Internet and lack of security measures in-built in it, and one of the most significant fraud examples: tax fraud.

Blockchain Digital specifically discussed this example in terms of the work they conduct with the HMRC together with R3 using Corda- the R3 blockchain product in support of building the infrastructure for Land Registry services on blockchain.

John Reynolds described the business to government context on fraud and focused primarily on misrepresentation of information, that is, passing something on that isn't true.

- "*If you ask about blockchain use, it is about that source of truth that it can help with what you see is what I see*" (John Reynolds, Blockchain Digital).

Blockchain can particularly help minimise cybercrimes enabled by the Internet. John pointed out that the Internet-enabled fraud to go on a massive industrial scale and the ability the internet must manipulate and change data is staggering. He says that cybercrime breaks into two buckets: new crimes enabled by the Internet and old crimes that are helped by the Internet.

The biggest fraud against the public is tax fraud. Blockchain can help in tax gap (i.e. what HRMC should get and what they do get) and tax avoidance. The Internet made it worse. However, blockchain as an ecosystem, is based on shared protocols will have the power to change that scenario. If every small business is connected on the network and every transaction between the party A and party B is recorded in the real time, then the party A and B transacting on the same network can avoid misrepresentation, given that the blockchains are. Blockchain will, therefore, enable digital tax with analytics in tax gap and debt.

The same use case can serve in relation to trust and transparency: what is the source of the truth? John gave an example of property ownership. In order to verify property rights, an individual must seek information from the Land Registry and trust that the records are consistent, have not been amended and reach the source. Blockchain can build such history of the transaction- it is a source transparency.

For this to happen, it is crucial that the government regulates the clean-up of data and moves beyond the Proof of Concept into action. Having a regulation that can support that move is necessary for Blockchain to enable public and private sectors to make it harder for individuals to commit fraud.

5.2. Minimising specific risks

Adam Furgal, Head of Delivery, R3 discussed how much of blockchain design is explicitly aimed at minimizing specific risks – most noteworthy addressing the risks of financial crime (double-spend, forgery, fraud) where much research and intellectual effort has gone into the design of cryptography, reliable consensus and digital signatures to ensure only one accurate version of the truth is stored on a blockchain.

At its core, blockchain technology is far more secure than any computer systems deployed to date, yet the fact that it is new and often poorly understood leads some regulators to question its safety as a general matter.

Adam Furgal described how on a permissioned ledger where participants are known, transparency with those who have a need to see information is enough to create trust. R3 built Corda that operates in such a way; it is a permissioned network where the data has limited distribution (only those who need to see data are able to see it). That means that not every node has a full copy of the network and there is no one "golden copy" of the ledger.

Corda uses notaries to prevent double spend and notarization is the point of deterministic (not probabilistic) finality in the system. Importantly, Corda has built into its nodes for regulators, which gives regulators transparency into the information they have a need and a right to see, enhancing both trust and oversight.

The guards against cyber-fraud in place now should be applied to blockchain as well. However, blockchain provides a very useful tool to detect, trace and even prevent fraudulent activity. In order to capture those benefits, regulators should learn about blockchain and engage with it actively. R3 works with over 20 regulators and has begun onboarding regulators to the Corda Network.

5.3. Digital Wallet

Paul Worrall, Founder & CTO, Zonafide presented a Digital Wallet for Securing Activities. Zonafide is based on the Ethereum blockchain and its Smart Contract technology. Paul described two use cases that demonstrate how blockchain can be used to prevent fraud:

According to the Law Society the fastest growing cybercrime in the UK legal sector is the Friday Afternoon fraud. This is where house purchase instructions are hacked, and fraudsters receive the payment. To resolve this problem the blockchain has enabled Zonafide to provide the house purchaser, the solicitor and the bank with a universally accessible cryptographic record. A record where only those involved know who the other parties are, that can only be changed by them in prescribed ways and proves a payment instruction is valid. People being duped by fraudsters impersonating organisations like their bank or telephone company using calls, texts and emails are hard to differentiate from the real thing. To resolve this problem Zonafide uses the blockchain to enable the genuine organisation to refer customers to a universally accessible cryptographic record of an Activity that they would like to engage their customer in. Like the familiar “lock” on a website web page these Activities prove they are genuinely engaging with the right organisation.

Paul Worrall offered two recommendations regarding steps towards policy for blockchain implementation:

Currently fraud prevention is a process carried out in isolation by individual people and organisations. Blockchains are “ecosystems” and their benefits are only possible if they motivate people and organisations to collaborate collectively, while free to act independently and committed to a shared protocol. It is recommended that these characteristics should be demonstrated by blockchain solutions for preventing fraud.

Cryptography was considered a munition and subject to controls that physically restricted what benefit we could get from the technology. The blockchain and crypto assets industry is a global phenomenon and has proved impervious to national legislation. There is existing regulation that will restrict the UK from being able to lead with this technology. It is recommended that there is a process to accelerate revisions to resolving such conflicts in legislation.

Annexe I -Written Evidence from Speakers

Adam Furgal, R3, Head of Professional Services

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