

: Knowledge Exchange Seminar – Minutes under the Chatham House Rule

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Topic: Fintech

Date and Location: November 13th, 2018, Geneva

The seminar was opened with welcoming words by the SFI's Managing Director, François Degeorge.

The seminar was structured into two presentations by Alexander Lipton, each followed by a discussion moderated by Damir Filipović. The topics of the two presentations were “the current payment system and opportunities in the blockchain environment” and “digital cash and tokenization”. The seminar ended with a teaser-presentation by Florent Garcin on “quantamental investments”, which will be the topic of the next seminar.

The first presentation highlighted the importance of the payment system, its inefficient architecture, and how blockchain technology could improve it. The discussion further focused on the security, transparency, and risk of the current and future payment systems.

In general, a payment is defined as the process of transferring fiat currencies from one individual or entity to another in exchange for goods or services. Apart from the main agents (issuing and beneficiary individual or entity, issuing and beneficiary banks, and money transfer operators) involved in a payment process, there further exists a long list of other agents (corresponding banks, local clearing networks, regulators, and SWIFT - Society for Worldwide Interbank Financial Telecommunications) supporting the process. At the global level, the payment volume is immense and growing, meaning that the cost and inefficiencies associated with such a system are substantial. Although the current payment system is working, it is expensive and slow. Blockchain technology could allow payments to be executed more efficiently. Such technology could improve different levels of the payment process, such as allowing for real time regulatory oversight, as well as simplifying the post-processing through an access to the transaction records, both of which are available in the distributed ledger system.

The first presentation raised a question regarding the reasons that have led to the current payment system. One of the participants explained that security is one of the main reasons why the current payment system is so tedious. This led to a discussion on whether a new payment system based on digital cash could guarantee a similar high level of security. The speaker referred to the possibilities of fraud that today's credit card system allows and stated that the current payment system is not as secure as it is generally perceived. A similar concern also exists for the cryptocurrencies as some of the peripheral cryptocurrency exchanges have reportedly been hacked. Such fragility calls for changes in the system, yet they do not necessarily require the implementation of a completely new system, but the simplification of the current one. A blockchain-inspired technology could provide a potential solution though its full implications are yet to be investigated. It is forecasted that such a technology could maintain a high level of security, similar to today's payment system, yet reduce the financial costs involved.

The discussion continued with one of the participants raising concerns regarding the finality of payment operations and the transparency involved. Even though the SWIFT Global Payments Innovation (GPI) system is going to bring more transparency and improve cross-border payments by bypassing some steps, the SWIFT GPI is still based on the same outdated technology. The speaker acknowledged the importance of this concern and further emphasized the inefficiencies in the global payment process as opposed to other systems, such as Amazon, which are far ahead from an efficiency perspective. Following this analogy the speaker pointed out that having a barcode in the payment system could have simplified the whole process. Another point mentioned by the participants was that profitability of the banking business in the payment process makes banks less willing to change the architecture of the overall process. Banks are the main beneficiaries of the inefficiencies in today's payment system, whereas in a well-functioning payment system clients would be the main beneficiaries.

Another question raised by the participants was the potential systemic technology risk that could arise due to the malfunctioning of a new system. The speaker acknowledged such conjecture but also remarked that the ledger technology would work as a standard language for communications in the payment system. Such standardization is absent in the current system due to the differences in the internal systems of banks. A systemic technology risk would be the price to pay for such a huge simplification, and perhaps a more elaborate ledger-based system could increase security and alleviate the likelihood of potential systemic events.

The second presentation focused primarily on digital cash and tokenization. Digital cash could be a means of payment that potentially eliminates much of today's inefficiencies. While digital cash is not flawless, it is aligned with the modern world and has numerous fintech applications. However, it was also emphasized that it is a difficult task to achieve the desired level of efficiency and privacy while fighting with potential crime associated with digital cash. Digital cash can be issued by narrow banks which are licensed by central banks. The assets of a narrow bank are solely central bank reserves and currency, and its liabilities are solely demandable deposits and shareholders' equity. Narrow banks cannot default because of credit and liquidity risks, but because of operational failures, a risk which cannot be minimized. The speaker argued that tokens, to be stable and thus practical, have to be partially centralized. There are four approaches on tokens: fully fiat-backed tokens (e.g. tether), partially fiat-backed tokens (e.g. saga), tokens over backed with cryptos (e.g. ether), and finally dynamically stabilized tokens (e.g. basis). All tokens need to be regulatory compliant to survive. Lastly, the speaker outlined the features of the asset-backed tokens which are different from fiat-backed tokens.

The discussion opened regarding the status of tokens and the extent to which the banking system is threatened. The speaker emphasized that the fiat-collateralized token is now a reality, but which now needs to mature. Such tokens are a way to build real value outside the banking system but in a regulatory compliant way. This would be where the existing banking system would face real competition. The speaker also believes that there are new changes on the way and banks will lose some of their income sources. A participant mentioned the utility settlement coin (USC) as an example of digital cash, which is now in place and being tested. However, the USC is only for a consortium of participating banks rather than for other businesses.

Another question was raised regarding the architecture of the proposed narrow banking system and more specifically if such banks could also act as commercial banks. The speaker explained that the narrow banking system does not preclude the existing conventional banks. However, regulators are concerned about a massive flow of funds from conventional banks to the narrow banks during stress times. In general, in a world with only narrow banks, one can envision specially designed institutions that will only issue credit. One participant also pointed out that the recent initiative known as the "Vollgeld-Initiative", which would have meant completely replacing the conventional banking system by a narrow banking system, was voted against by Swiss citizens. This rejection though does not ban the existence of narrow banks along with the current banking system.

It was also pointed out by one participant that because banks are not quick enough, nor do they have the incentives to reduce the inefficiencies in the current system, tech companies, such as Google and Amazon, could step in to fill the gap. The speaker acknowledged that newcomers could appear, but also explained that such companies are likely to be unwilling to be constrained by financial regulations and may therefore prefer to finance other entities to take such a role.

At the end, Florent Garcin outlined the agenda for the next seminar on quantamental investments.