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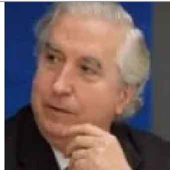

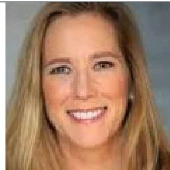

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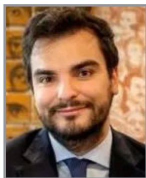
Debunking Fintech Inside and Outside the Blockchain



By Fatjon Kaja, Edoardo Martino and Alessio M. Pacces November 27, 2020

The hype over technology-enabled disintermediation of financial services, commonly known as fintech, seems at a peak. Though fintech firms promise to increase competition in the financial industry, it is unclear how much the various forms of fintech, including those working on the blockchain, will disrupt the current competitive environment.

In our paper, we review the market failures justifying financial intermediation. We find that fintech has the potential to improve the efficiency of financial intermediation in, for instance, the area of payments and financial advice. However, the current hype may be exaggerated and partly misleading. We contend that trust, a crucial element of the theory of financial intermediation, remains essential and that the promise to create a completely new, trustless, system through blockchain-operated fintechs may be illusory.

Are Banks Dead?

This is not the first time that the conventional wisdom asserts that technological innovations will end the financial system as we know it. Back in 1995, John H. Boyd and Mark Gertler disputed the apparently imminent demise of the banking industry in the face of disruptive financial innovations like securitization. The reports were indeed greatly exaggerated, as the banking industry exhibited a remarkable resilience to technological developments.

History does not repeat itself, though there are similarities between the hype over both securitization and fintech and particularly the financial applications of blockchain technology. However, fintech arguably offers greater innovation, as it targets financial intermediation as a whole.

Combining law and economics and the theory of financial intermediation can help to understand this development. Financial intermediation refers to a heterogeneous set of financial services that facilitate the efficient allocation of funds and are carried out through professional intermediaries. Financial intermediation is costly, and this cost has remained relatively constant over the past century. In contrast, fintech promises to decrease the costs of financial services by cutting out the intermediary.

Financial intermediaries are regulated because the industry is particularly prone to market failures. Financial regulation's main objectives are financial stability and investor protection. But how do those goals relate to financial disintermediation? Is complete disintermediation feasible? What are the consequences of disintermediation for systemic stability and investor protection?

We ask these questions focusing on banks, the paradigmatic examples of intermediaries threatened by fintech.

Banking Activities and Fintech

Like many other intermediaries, banks cope with information asymmetry, engaging in costly screening and monitoring. Yet, unlike other intermediaries, banks perform this task by turning liquid, short-term, and safe claims into illiquid, long-term, and risky assets (qualitative asset transformation). Consequently, banks are inherently fragile, prone to runs because assets cannot be liquidated quickly enough to honor all short-term liabilities at once. This is the standard justification for banking regulation. To understand disintermediation, we must look at the asset and the liability side of banking.

Disintermediating Lending

On the asset side, the most prominent example of where fintech plays a role is in peer-to-peer (P2P) lending, providing a platform to match lenders and borrowers without an intermediating bank.

P2P lending does not amount to full disintermediation. Rather, it uses technology to process information substituting "heavy" bank intermediation with a "light" platform intermediation. However, P2P lending platforms are not mere computer codes matching lenders and borrowers, but profit-maximizing entities acting as agents of both. Moreover, there are financial stability concerns.

Platforms do not perform qualitative asset transformation themselves; yet, they may contribute to systemic risk. First, the fee-based compensation schemes of the platforms generate incentives to over-lend, originating riskier and riskier loans. Moreover, lenders investing in these loans are often highly leveraged themselves. Second, the increased competitive pressure may induce banks to engage increasingly in transactional activities, which are more exposed to systemic risk, neglecting relationship banking as did banks engaging in securitization two decades ago. Furthermore, if banks acquire existing platforms or set up their own platforms, the dual threats to financial stability highlighted above may be magnified.

Disintermediating Money and Payments

On the liability side, disintermediating banks means offering investors three crucial features of demand deposits: safety, liquidity, and payments. The question is whether cryptocurrencies are up to the task.

The promise of blockchain technology is to supply a decentralized and trustless financial system replacing licensed intermediaries and central gatekeepers. We argue that a completely decentralized and trustless system is far from becoming a reality and may be impossible.

First, cryptocurrencies are exchanged on the blockchain, but are stored in digital wallets. Even assuming that the blockchain cannot be corrupted, the early cases, such as Mt. Gox, revealed that hacking digital wallets is relatively easy and equally disruptive. Thus, users who rely on the blockchain still need to trust financial intermediaries to store cryptocurrencies.

Second, those users must also code their obligations in "if-then" type digital statements, creating self-executing contracts ("smart contracts"). Because coding contractual obligations is an opaque mechanism, parties must trust the coder, meaning coding is also a form of intermediation.

Third, cryptocurrencies cannot fully replace fiat money. All transactions between private parties and the governments require legal tender. Relatedly, most sellers still do not accept cryptocurrencies for payment. The conversion of cryptocurrencies into fiat money requires intermediaries that have exclusive access to money. Moreover, the conversion rate is highly volatile, undermining investors' demand for safety and liquidity. The first reported Bitcoin transaction is an example. In 2010, two pizzas worth $25 were bought for 10,000 bitcoins. In December 2017, the same amount was exchanged for almost $200 million.

In general, money is been defined according to three functions it performs in the economy: medium of exchange, store of value, and unit of account. Currently, cryptocurrencies seem to perform none of these functions, though projects for creating stablecoins and central bank digital currencies are interesting developments. However, rather than disintermediate, these creations would change the way money and payments are intermediated, exploiting the potential of blockchain technology.

Conclusion

Fintech is an important development in the provision of financial services, but it is far from establishing a completely trustless and disintermediated system. Rather, fintech seems to change the role of intermediaries and gatekeepers in the financial system.

While lowering the cost of financial intermediation, fintech highlights current threats to financial stability and investor protection and creates new, unknown risks. Therefore, there are new challenges for financial regulation. On the one hand, regulation based on licensing unique points of entry may soon be outdated. On the other hand, regulating the convertibility of crypto assets into fiat money may be a promising way to attract blockchain-based fintechs to the regulatory perimeter.

This post comes to us from professors Fatjon Kaja at the University of Amsterdam, Edoardo Martino at the University of Amsterdam and the European Banking Institute, and Alessio M. Pacces at Amsterdam Law School, Amsterdam Business School, and the European Corporate Governance Institute. It is based on their recent paper, "Fintech and The Law & Economics of Disintermediation," available here.

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