

## **The emergence of disruptive technological innovation in the financial sector: Impact on bank business models and the regulatory framework.**

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The financial sector is currently affected by the emergence of disruptive new technologies – so-called “FinTech” – which look set to profoundly reshape the structure of financial intermediation.

FinTech now spreads across financial market segments and along the value chain. It is present, albeit still at an early stage, in payments, credit provision, investment and financial advice, insurance. And FinTech innovations are increasingly cascading into new areas. For example, the development of instant payments infrastructures has helped develop new markets for mobile payment solutions, which may become a new standard of payments in some areas.

FinTech is a positive development for the financial sector. It leads to greater efficiency, better products and lower prices for consumers. It also has the potential to support financial inclusion, as the impressive development of mobile banking networks in Kenya clearly demonstrates.

FinTech presents an opportunity for new start-ups to compete with established financial institutions in specific financial services, but without the costs of legacy IT systems and a compliance-oriented business culture. FinTech also opens the market for “BigTech” firms such as Apple, Google and Amazon, which have an in-built advantage in digital technology. This threatens to take business away from banks which traditionally offered a package of services, potentially weakening their business models.

What is more, over the longer-term technological innovations, such as distributed ledger technologies (DLTs), originally developed for virtual currencies, such as Bitcoin, could have profound impacts on financial intermediation. Through decentralised update and validation of records, they may even challenge the basic business models of intermediaries or central market infrastructures.

Despite growing awareness of the topic among top global banks and international forums, the impact of this wave of technical innovation on the financial sector remains uncertain. In Academia, FinTech has received limited coverage. This proposal aims at supporting a project by a PhD student in a new and promising stream of research.

Possible research questions may be related to a pair of general issues:

- (1) Banks facing questions about their business models should see the new wave of innovation as an opportunity – to reach out to new customers, to increase efficiency, to revamp their business models. FinTech may be exactly the shock the sector needs to restructure after the crisis. What kind of bank business model may emerge after the FinTech revolution?
- (2) Policymakers and supervisors also need to monitor developments closely. The new approaches should provide full legal certainty to market participants. How will regulatory space evolve in order to let innovation develop without hindering financial stability? How tech change may reshape banking systems in terms of their characterizing features (specialization, concentration, risk management, etc.)

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