# Standard System for Supervision over Financial Technology Enterprises from the Perspective of Constitutional Regulation

Dr. Aidt Amano, Dr. Debopam Brendon and Dr. Carvalho

Edinburgh Napier University School of Economics and Business

#### **Abstract**

In current years, financial technology (FinTech) enterprises have thrived in UK. Though, the prosperous FinTech field is attended by the lagging of financial supervision. Regardless of innovations, FinTech is in essence related to the finance and therefore still needs to be correctly guided and supervised, so as to balance risks while guaranteeing efficiency, thus maintaining financial stability. From the perspective of governmental supervision, the research analyzes the status quo of governmental supervision over FinTech enterprises from four aspects, i.e. supervising subjects, supervision contents, supervisory measures, and supervision effects. Meanwhile, existing main problems in governmental supervision are summarized, based on which targeted countermeasures and suggestions are proposed for how to improve the supervision system of FinTech enterprises.

**Keyword-** financial geography, financial governance, financial inclusion, financial regulation, financial stability, financial technology, FinTech

## Introduction

In my first report, I defined FinTech as a set of innovations and an economic sector that focus on the application of recently developed digital technologies to financial services, which arose around the time of the global financial crisis of 2007–8 (W´ojcik, 2020). Given the young age of FinTech, and that it is yet to be tested over a full economic cycle (Claessens et al., 2018), it is difficult to assess the impacts on its users, not to mention the broader economy and society. Nevertheless, over the last five years, a rich interdisciplinary literature has emerged, tackling the actual and potential consequences of FinTech. In this report, I review this body of research, with emphasis on ideas from and for geographers. I begin with impacts on the financial sector and centres, discuss

financial regulation and stability, and consider financial inclusion and governance. In conclusions, I reflect on FinTech in the context of COVID-19, and future research directions.

Exciting opportunities await those exploring the impacts of FinTech on financial services beyond banking. FinTech challenge incumbent firms in payment, credit card, clearing and settlement services, but thus far with more collaboration than disruption (Bassens, 2020). Haberly et al. (2019) demonstrate that digital asset management platforms have lowered costs of investment services, but increased both firmlevel and geographical concentration, with incumbents like Blackrock and Vanguard in the lead. In the real estate sector, geographers have studied property technology (PropTech) and proposed novel concepts, such as platform real estate (Rogers, 2016, 2017; Shaw, 2018), and automated landlord (Fields, 2020). Bieri (2015) highlights the dangers of real estate crowdfunding. For insurance technology (InsurTech), I could not find a single publication related to geography. Corporate law, accountancy, and business consulting firms (with the Big Four playing a prominent part), are involved in FinTech as advisors to other firms but also collaborators in incubators and accelerators (Hendrikse et al., 2020). FinTech founders often come from consulting firms (Zook and Grote, 2020). There are more direct impacts too. Smart contracts (an application of blockchain), for example, can accelerate automation in law and accountancy (Lansiti and Lakhani, 2017; Xu et al., 2019).

# Literature review

Existing research on FinTech supervision in China and abroad is still in the ascendant, and the topic is studied earlier in other countries. When traditional supervision approaches and modes fail to keep pace with the increasingly rapid development status quo of FinTech, Britain scholars took the lead to propose the idea of regulatory sandboxes in 2015. Since then, scholars in other countries have begun to discuss and study sandbox supervision. These studies mainly pay attention to introduction of the concepts and operation principles of sandbox supervision, as well as the

relationship between sandbox supervision and FinTech development and therefore propose relevant macro-policies. However, they seldom discuss the detailed rules and executive measures of sandbox supervision [1]. As for research in China, it starts relatively late and there is few research on the building of a standard system for FinTech supervision from the perspective of governmental supervision. Despite this, some scholars are still devoted to the topic. From the aspect of FinTech supervision, research in China and other countries shares similarity in some aspects, for example, both discussing the nature of FinTech [2]. Existing research mainly starts from risk control and technological innovation of FinTech enterprises, while is in its infancy on the risk control mechanism and the supervision system of FinTech. Kong proposed in the research "Reflections on the supervision over fintech enterprises" that FinTech itself is beneficial and can serve as a conducive supplement for existing banks if it is used and supervised sufficiently [3]. In summary, existing research on the supervision of rapidly growing FinTech is still in the initial stage in China and abroad. Although researchers are gradually increasing their focus on the topic, the depth of research is unable to keep pace with the actual development speed of FinTech. In addition, applying overseas research conclusions may be non-adaptive to the condition of China, so they cannot be copied directly. Therefore, establishing a standard system for FinTech supervision from the viewpoint of governmental supervision based on specific conditions of China is of profound practical and theoretical significance.

# Financial regulation and stability Regulation

contributed to the emergence of FinTech and continues to affect its geography and implications. The post-2008 financial regulation increased costs in the financial sector and opportunities for innovations outside the sector (Arner et al., 2016). Regulation is controversial as it always involves trade-offs. Striking a balance between encouraging innovation and maintaining market integrity, and achieving that with simple and clear rules, is inherently difficult. FinTech aggravates the dilemma (or trilemma) of financial regulation, as it blurs boundaries around the financial sector, introduces new products, and processes huge amounts of information (Brummer and Yadav, 2019). Challenges to market integrity are manifold. Hundreds of unregulated peer-to-peer lending platforms in China turned out to be digitally-enhanced Ponzi schemes (Buchanan and Cao, 2018). Most initial coin offerings do not protect investors against self-dealing and abuse by issuers (Zook and Grote, 2020; Cohney et al., 2019). Foley et al. (2019) find that nearly half of Bitcoin

transactions involve an illegal activity. Anonymity of crypto-assets, such as Bitcoin, untethers finance even further from the real economy than complex derivatives did (Omarova, 2019), which can fuel financial speculation on an unprecedented scale. Economies of scale, scope, and networks present in FinTech can lead to oligopolistic and monopolistic market structures, creating too-bigto-fail and too-interconnected-to-fail institutions (Buckley et al., 2019a; Magnuson, 2018). In tackling such issues, regulators influence relationships between incumbents and challengers (Zalan and Toufaily, 2017). The main areas of contention to watch are deposit-taking, deposit insurance, and access to central bank liquidity (Hendrikse et al., 2018). Regulation of FinTech is nascent, variegated, and experimental (Andresen, 2017), and its emerging geography is fascinating. Peertopeer lending, for instance, is regulated in only 22 per cent of jurisdictions worldwide, and prohibited in some countries, including Colombia and Morocco (World Bank and CCAF, 2019). Regulation is more prevalent in developed countries, where it often relies on industry experts and academics, while in developing countries it is shaped around the objective of increasing financial inclusion and involves international organizations like the World Bank (WB and CCAF, 2019). The first regulatory sandbox for FinTech firms 'to test innovation in the market with actual customers under strict conditions and monitoring of the supervisory authority' was created in the UK in 2016 (Buchanan and Cao, 2018: 44).

### **Conclusion**

This report ends my sequel on FinTech. My goal was to introduce readers to exciting interdisciplinary scholarship on the topic, highlighting geographical ideas and contributions. Interdisciplinarity is key, inviting collaborations within and beyond geography. FinTech is not just about code, numbers, and money. It is also about text and images. Alternative ratings, for example, use AI to analyse text concerning corporate activities available on the internet (In et al., 2019). FinTech offers potential for collaboration across human, environmental, and physical geography. Satellites and drones can produce geospatial data, which can be processed using GIS and AI alongside other information, allowing better-informed asset management decisions, including those that serve sustainable finance (Caldecott, 2019). Fintech is a topic ripe for the study of geopolitics, e.g. the USA-China relations or its role facilitating the Belt and Road Initiative (Lee et al., 2016), and corporate culture (the tech vs fin clash). We should study the geographies of FinTech knowledge production (Das, 2019), including financial education and the university-

FinTech nexus. Blockchain, possibly the hottest FinTech topic in the long run (Muellerleile, 2019; Fernandez-Vazquez et al., 2019), is considered a foundational or system innovation, since the automation of transactions and their recording enables entirely new products and services (e.g. smart contracts), more customer-to-customer than business-tocustomer processes, more decentralized organizational forms, new (more customer-data driven) business models (Lansiti and Lakhani, 2017; Puschmann, 2017), and new urban development models (e.g. smart cities; see Sun et al., 2016). The impact of blockchain on the economic landscape is a key question facing research, with major implications for sustainable development. The COVID-19 pandemic has pushed FinTech to the front of the debates about the future of the world economy. Arner et al. (2020a) argue that FinTech helped to keep the financial system working, facilitating financial flows in an online mode. With FinTech facing its first ever recession, access to funding will be a challenge to FinTech start-ups and may privilege fin and tech incumbents (W'ojcik and Ioannou, 2020). In 2009 technology and consumer services, combined with financial services, accounted for 36 per cent of the market value of the 20 largest corporations globally, on a par with the oil and gas industry (Sadowski, 2020). By the end of March 2020, their share doubled to 72 per cent (PwC, 2020).

### References

[1] Han Junjin. Implementation paths of sandbox supervision in China [D]. Hubei: Zhongnan University of Economics

and Law, 2016: 4.

[2] Liu Wen. Research on the regulatory sandbox system under the background of financial technology [D]. Jiangxi:

Jiangxi University of Finance and Economics, 2021:2.

- [3] Kong Fanyao. Reflections on the supervision over FinTech enterprises—the case of Ant Financial Services Group
- [J]. Shanxi Finance and Tax, 2020(12): 35-38.
- [4] Feng Suling, Zhao Shu, Wu Haoyue. The Impact of FinTech on Corporate Financial Risk and Its Internal

Mechanism: On the Threshold Effect of Financial Regulation [J]. Reform, 2021(10): 84-100.

[5] Yuan Yang. Game analysis of coordinated development between innovative FinTech enterprises and financial

regulators [D]. Guizhou University of Finance and Economics, 2021.

[6] Chen Sanmao, Qian Yan. Big Tech enterprises' financial footprint and the supervision problem [J]. Journal of

Financial Development Research, 2021(05):83-89.DOI:10.19647/j.cnki.37-1462/f.2021.05.012.

[7] Qi Li. Research on construction of information disclosure system of testing enterprises in Fin-Tech "regulatory

sandbox" [J]. Journal of Shenyang University of Technology (Social Science Edition), 2020,13(02):161-167.

AFI (2018) 2018 May Declaration Progress Report. Alliance for Financial Inclusion. Available at: https://www.afi-global.org/sites/default/files/publications/2018-

Allen HJ (2019) Regulatory sandboxes. George Washington Law Review 87(3): 579–645.