

## **Cambridge Centre for Alternative Finance conference on Navigating the Contours of Alternative Finance**

### **Regulatory and Supervisory Issues from FinTech**

**Remarks by Svein Andresen, Secretary General, Financial Stability Board**

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Good morning, everyone. I would like to start by thanking our hosts here at the Cambridge Centre for Alternative Finance for organising today's conference and for inviting me.

In the last few years, we have seen rapid growth and an increasing maturity in FinTech, including peer-to-peer (P2P) platforms, blockchain, algo trading, InsurTech, RegTech, SupTech and others. FinTech, which the FSB defines as technology-enabled innovation in financial services, is transforming – many say “disrupting” – financial services at a rapid pace. This applies to activities performed by both start-ups and incumbent financial institutions. Our focus is on FinTech activities, rather than the entities.

FinTech encompasses a broad range of tech-fuelled innovations, which are not all of a similar nature. Distributed ledger technology, robo-advice, smart contracts, big data applications and P2P lending may all be FinTech innovations, but as we all know, they mean and do very different things. In fact, FinTech innovations are such different animals from one another that it's difficult to classify them as one species, and many instead refer to a whole “ecosystem.”

These trends are being monitored by the official sector, international bodies, the private sector and increasingly by academic researchers. At the FSB, we have been following these developments for several years, with both internal and public reports on different areas of FinTech.<sup>1</sup> Our main task in this regard is coordinate work among our members – senior policy makers from ministries of finance, central banks, and supervisory and regulatory authorities

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<sup>1</sup> For some background, see Mark Carney (2017), “The Promise of FinTech – Something New Under the Sun?” remarks at Deutsche Bundesbank G20 conference on “Digitising finance, financial inclusion and financial literacy”, Wiesbaden, January; and Svein Andresen (2016), “Global Regulatory Developments and their Industry Impact,” remarks at Chatham House Banking Revolution Conference, London, November.

from the G20 countries and key financial centres – to better understand FinTech, its drivers and its implications.

The FSB has a mandate to promote global financial stability, and in this light, we look at FinTech squarely from a financial stability perspective. Our aim is to monitor and evaluate both potential benefits and risks of FinTech innovations to the stability of the global financial system.

Yet recently, FinTech has developed to an extent that we cannot just observe it; rather, members have to grapple with new FinTech developments and make decisions about their regulatory and supervisory approach. In this light, in the context of the German G20 presidency, we have been asked to go beyond monitoring and to identify regulatory and supervisory issues around FinTech.

FSB members are dealing with very practical questions in dealing with FinTech innovations, and it is our job to bring our members together to jointly share experience on these matters. Questions include: How can we best monitor FinTech innovations? Should we create a regulatory sandbox? Should we adapt our regulatory frameworks? Should we regulate technologies or functions performed? Where do we need to cooperate to address common and cross-border problems?

FinTech is new and presents many opportunities, but authorities must stay true to their mandates for financial stability, the safety and soundness of financial institutions, consumer and investor protection, and orderly markets. Our members' aim is to mitigate risks arising from FinTech, while maximising the benefits to the economy and to financial inclusion.

Our latest report, published this Tuesday, is a good reflection of this collective journey. It has benefited from discussions with public sector authorities from within and beyond the FSB membership, with industry as well as with academics from around the world.

Today, I will discuss this work, focusing on:

- the framework the FSB has used for drawing out the potential financial stability benefits and risks of FinTech,
- how FinTech fits within existing regulatory frameworks, and
- the priority issues identified that require greater international cooperation.

Let me emphasise from the outset that the financial stability perspective is only one lens for looking at FinTech. But it is an important one. Financial stability is a fundamental public good upon which economic growth and innovation take place. Financial crises are a bane to society

as a whole, but also to individual financial institutions – whether tech firms or incumbents. Financial stability is needed to ensure trust in the financial system, and in public institutions more generally. Not all innovation has had happy consequences for the financial system. While most FinTech activities are still small, there can be important path dependencies of decisions taken – or rather not taken – at an appropriate time. Hence, this perspective should not be forgotten in the hype around new technologies, or in the drive to encourage innovation and inclusion.

### **FinTech: new technologies, same functions**

The financial system performs a number of important economic functions, and in this light, FinTech is not fundamentally different. For instance:

- Loans can be granted by banks, which engage in deposit taking, money creation and delegated monitoring, or by FinTech credit platforms, which pool funds and streamline the sharing of information outside traditional financial intermediaries. Or as we see more and more, loans be granted by FinTech platforms in cooperation with traditional banks.
- Payments can be executed in physical currency, bank currency or in mobile and web-based payment platforms, and need obviously not be operated by banks.
- Investment advice can be given by a human advisor or by robo-advisors that use artificial intelligence and machine learning.
- Securities and currency transactions can be cleared and settled through traditional financial infrastructures, or in new ways with distributed ledgers.

And, of course, digital interfaces can unbundle and rebundle access to all of these services.

Classifying FinTech by their economic functions is one means of cutting through the fog and understanding what many of these innovations entail.

Looking at FinTech in this way also helps to understand the drivers of its growth, and its financial stability implications. And in principle, financial services through FinTech can be subject to the same microfinancial and macrofinancial risks as traditional finance.

On the microfinancial side, authorities and providers are focused on financial and operational risks. Where there is maturity mismatch, this entails run risk, and where there is liquidity transformation, there is the possibility for fire sales. In this light, it is encouraging that most FinTech credit platforms and digital wallets do not engage in such maturity transformation.

Leverage is not typically associated with FinTech activities, either, though there are exceptions. Algorithmic trading can involve substantial leverage. And in some cases, FinTech business and consumer lending or equity crowdfunding platforms may borrow funds in order to finance temporary holdings (or ‘warehousing’) of bond or equity issuance. FinTech platforms that lend on their balance sheet may also build up leverage. Of operational risks, third-party dependencies and cyber risks are relevant. More on this later. There are also public policy concerns and risks around data privacy.

On the macrofinancial side, we distinguish between contagion, procyclicality, volatility and systemic implications. For FinTech, there may be reputational contagion, particularly where activities interact directly with households and businesses. Potential breaches of confidential consumer data could undermine confidence in the sector more broadly. Procyclicality may arise if FinTech credit platforms grow large and investors suddenly lose confidence, for example due to rising non-performing loans. And in terms of systemic implications, it is possible that new highly connected single point of failure entities emerge in the future.

You will notice that this discussion uses many “mays” and “possibles,” and this is no coincidence. At this point, most FinTech activities are quite small relative to the overall financial system, with the possible exception of algorithmic trading. As such, much of our analysis focuses on conceivable benefits and risks, assuming that FinTech continues to grow and develop. It is likely that FinTech will be adopted increasingly by incumbent financial institutions. And there will be winners and losers. It also seems conceivable that the lines between financial services and technology will blur further, bringing financial regulators into unfamiliar territory.

For these reasons, financial authorities need take FinTech into account in their existing risk assessments and regulatory frameworks in light of its rapid evolution. Indeed, many authorities already do so, and quite a few have already made regulatory changes where existing frameworks were considered inadequate.

### **Regulatory approaches: learning by doing**

A second part of the work looks at approaches of FSB member jurisdictions, and some non-FSB members, to regulating and supervising FinTech. Of the 26 jurisdictions taking part, 20 have taken or plan to take policy measures on FinTech. Other jurisdictions are considering

changes, and only one has decided after review that its existing framework sufficiently addresses current national FinTech developments.

Importantly, the scope and scale of these changes or planned changes vary substantially. This depends, among other things, on the size and structure of domestic FinTech activities – and the flexibility of the existing regulatory framework. Some authorities have recently issued publications or proposals on aspects of FinTech. And several jurisdictions as you know have introduced so-called innovation facilitators – such as regulatory sandboxes, innovation hubs or accelerators – in order to promote innovation and improve interactions with new FinTech firms.

Where authorities have made regulatory changes:

- The policy objectives have been to strengthen consumer and investor protection, to include FinTech in market integrity regulation, to promote financial inclusion and to foster innovation or competition.
- Financial stability considerations have not so far motivated recent or planned regulatory reforms around FinTech. In part, this reflects the small size of activities. However, several authorities see this as an issue going forward.

Looking at the FinTech activities that have been the subject of regulatory change, the focus has been on crowdfunding or FinTech credit, payments, virtual currencies, cybersecurity, and in some cases specific technologies, such as big data or cloud computing. Cross-border issues are not frequently discussed, but will gain relevance as innovations are increasingly used across borders. There are substantial contacts between regulators who are learning from one another's experience.

To summarise, the main commonality across jurisdictions is that authorities are in a process of learning by doing. By engaging and communicating with the sector, and one another, authorities are gaining experience with FinTech developments, are able to influence the development of the sector, and to ensure that regulatory considerations are taken into account.

### **Regulatory and supervisory issues: some near-term prerogatives**

Finally, let me get to the issues we have identified that merit attention from a financial stability perspective.

In our report to the G20, we flag 10 issues, of which three are priorities for international collaboration. Let me focus on these three, as these will be areas of work for the FSB, standard-setting bodies and authorities in the near future.

First, it is critical to manage third-party dependencies.

- While this is not unique to FinTech, many FinTech applications rely heavily on third-party service providers for cloud computing or data services. These may be the same providers for a large number of institutions. The fact that many third-party providers may fall outside the regulatory perimeter places increased emphasis on managing related operational risks, which could threaten financial stability.
- In this regard, authorities need to determine if current oversight frameworks for important third-party service providers to financial institutions are appropriate. Cooperation across financial authorities, and with authorities responsible for IT safety and security, are ways in countries are beginning to address this risk.

Second, there is a pressing issue around cyber risk.

- While FinTech includes technologies to help detect cyber threats, or make more immutable records in some areas (through DLT), there is an obvious potential for greater connectivity to create new opportunities for cyber criminals.
- For FinTech innovations, there may be risks of premature adoption of new technologies where sufficient testing has not yet taken place. While not unique to FinTech, FinTech raises the bar for cyber risk management and IT security standards.

Third, we emphasise the importance of monitoring macrofinancial risks.

- As I have noted, we do not yet see signs of these risks materialising, but experience shows that they can emerge quickly if left unchecked. In particular, systemic importance and procyclicality could emerge from a number of sources, including greater concentration in some market segments, or if funding flows on FinTech credit platforms were to become large and unstable.
- We don't know how large these risks will be, but we do need to follow this with the appropriate official and private data.

These priorities will be important areas for follow-up, and we look forward to continuing to work with our members on each front. Of the other issues, let me just say a few words.

- One area is legal issues, including the enforceability of property rights, bankruptcy, contracts and data disclosure agreements in digital space, and how to navigate different legal frameworks across jurisdictions, and between public and private law.

- Another area is the governance of big data analytics. Big data models are integral to much FinTech, including credit scoring, robo-advice and trading, often in combination with artificial intelligence and machine learning. There are important questions on whether market participants and regulators understand these models, which sometimes are “black boxes” even to their creators.
- Beyond this, authorities need to regularly assess the need to adjust the regulatory perimeter.
- For all of this, authorities need to build staff capacity in new areas of required expertise, and to lines of communication across relevant authorities and.
- Last but not least, in relevant international institutions and fora, thinking needs to start about alternative configurations of digital currencies, and their implications for national financial systems and the global monetary framework.

## **Conclusion**

Let me sum up.

First, FinTech may be a new area, but the economic functions it delivers are not fundamentally different from existing financial services. Healthy innovations can expand on their economic benefits. But FinTech activities are also subject to similar microfinancial and macrofinancial risks. As such, authorities will continue to regulate for the same reasons they regulate traditional financial activities.

Second, authorities are adapting their regulatory approaches in a number of ways, sometimes with innovation facilitators, and sometimes with means of fitting FinTech activities into existing frameworks. For now, regulatory lenses other than financial stability policy considerations are at the fore, but that will likely change as the sector becomes larger.

Third, there are some near-term issues that are priorities for international cooperation. These include: (i) managing third-party dependencies; (ii) mitigating cyber risk; and (iii) monitoring macrofinancial risks.

I will close by noting two recurrent issues in our work in this area: (i) the lack of good data on FinTech developments; and (ii) the subtleties of potential trade-offs between financial stability and other policy lenses. On these issues, we have benefited greatly from interaction with the academic community and enlightened heads in the private sector. In particular, I would like to

thank CCAF for their contributions to the FSB's FinTech work, and to acknowledge all those not here who have contributed to this report and the FSB's monitoring activities.

With that, I would be happy to take some questions.