# Denis Beau: Financial regulation and supervision issues raised by the impact of Tech firms on financial services

Speech by Mr Denis Beau, First Deputy Governor of the Bank of France, at the ESSEC – Centre d'excellence, Paris, 30 January 2019.

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Ladies and Gentlemen,
Dear students,

It is a pleasure to be at the ESSEC Centre d'excellence today to discuss the financial regulation and supervision issues raised by the impact of Tech firms on financial services.

To date, in Europe, we have been accustomed to a bank-centric intermediation model. However over the last decade we have witnessed the rise of Fintech start-ups and the entry of Bigtechs in the financial sphere. Do they bring anything new to the way financial systems operate? According to some commentators they should bring a structural shift and see the replacement of the "old world" of bank-centric financial intermediation with disintermediated peer-to-peer systems. Others consider that rather than eliminating intermediation, if left on their own these new comers will more likely bring new intermediation models, in which Fintechs and Bigtechs intermediate banks.

Hence I would like to focus the first part of my remarks on the possible impact of these new competitors on the traditional bank-centric financial intermediation model (1). I will then highlight some of the risks that go hand-in-hand with the changes underway and the regulatory and supervisory challenges they raise (2). Finally, I would like to explain how at the Banque de France we address them in order to strike an appropriate balance between, on the one hand, the objective of fostering innovation and the overall efficiency of financial services and, on the other hand, the objective of ensuring a secure and level playing field for all suppliers and their customers (3).

### 1. From Fintechs to Bigtechs: a decade of digitalisation of the financial intermediation's value chain

Understanding how the Fintech sector emerged and has been structured (A) is critical to assessing its impact on the future of intermerdiation (B).

(A) The concept of Fintech, contraction of Financial Technology, designates both a structural shift – the digitalisation of finance – and the main actors of this shift: the Tech firms.

The digitalisation of finance is prospering on the grounds of cutting-edge technologies. The combination of big data analytics, cloud computing, artificial intelligence and blockchain is transforming the way financial products are designed, processed and distributed. For its advocates, this transformation promises:

- better consumer experiences;
- more diversified financing of the economy; and
- greater efficiency of the financial system.

In addition to these promises, cutting-edge technologies also lower the entry barriers to the financial sector for early adopters: the Tech firms. This should not come as a surprise: internet and smartphones have lowered the distribution costs, big data technologies have lowered production costs and the shrinkage of banks' balance sheet in the wake of the Great Financial Crisis has given space for new players to conquer market shares.

Balance-sheet-light payment services have so far been the main gateway to the financial sector for Tech firms. From there, Tech firms have an avenue to expand their business further along the value chain, from payment to retail and commercial banking, wealth management and insurance.

The Tech firms' model is based on the unbundling of traditional universal banking into an array of distinct core functions (such as channelling payments, providing financing, sharing risk and allocating capital), which are reassembled in an online platform. In this model, the control of the platform is more strategic than the provision of financial services itself.

(B) Among these Tech firms, the Fintech start-ups (also known as simply "Fintechs" with an "s") and the Bigtechs are likely to have a different impact on financial intermediation.

Fintech start-ups have already been a game changer in the financial sector. They have imported a customer-centric culture from the internet industry into the financial sector and they have targeted and called into question many of the long-standing financial rents. However, Fintech start-ups do not have the capital resources to disrupt incumbent banks and their future role is likely to be shaped by two main alternatives: to be acquired by an incumbent bank or to compete on niche segments such as equity crowdfunding or market place lending.

It could be different with Bigtechs. The market capitalisation of the GAFA companies – Google, Amazon, Facebook and Apple – is 25 times higher than that of the whole Fintech universe. Bigtechs already have a material footprint in financial services, and not least in payment services: Amazon Pay operates in 10 countries, Google Pay in 22 countries and Apple Pay in 25 countries. Facebook Messenger allows peer-to-peer payments in 3 countries and a Facebook wallet is reportedly in preparation.

Moreover, Bigtechs like the GAFA companies have competitive advantages in terms of expanding their activities further in this area, including massive financial resources, strong brand recognition, a worldwide customer base and privileged access to cutting edge technologies.

Therefore, Bigtechs, more than Fintechs, have the potential to fundamentally redefine financial intermediation by integrating the entire landscape of financial services into their own digital ecosystems. This does not mean that banks will be disintermediated; but rather that banks may be interfaced with Bigtechs' platforms. Such a move is already gaining considerable traction in China.

So, digital finance driven by Tech firms may not lead to a more decentralised system as the centripetal forces of network effects may benefit large conglomerates the most. Rather than eliminating intermediation, if left on its own, digital finance will more likely lead to reshuffling the cards, with the most digitally-agile incumbents and the most financially-able challengers becoming the new dominant (and potentially systemic) intermediaries in a landscape where there would be four coexisting intermediation models:

- The traditional banking intermediation model for certain financial services, like mortgages;
- A non-bank financial intermediation model (formerly known as "shadow banking") performed by the asset management industry, in particular financing the corporate sector;
- A re-intermediated model, in which Fintechs and Bigtechs intermediate the banks, on the retail segment in particular;
- And a fully disintermediated model supported by blockchain and peer-to-peer economies.

### 2. The digital revolution forces public authorities with an interest in financial stability to revisit a wide array of policy issues

This move from a bank-centric intermediation model toward new unbundled financial intermediation models performed by multiple players does not eliminate the need for central banks, regulators and supervisors. But it does force us to revisit old questions (A) and to address new ones (B).

(A) I would like to highlight two old questions that we must revisit.

**First, the activities to be covered by financial regulation**. Just as an example, the use of the public cloud to perform core banking operations is becoming mainstream. Fintechs and Bigtechs have adopted an "all-in" strategy. Incumbents are also migrating, although more cautiously, to the public cloud. However, the cloud computing market is highly concentrated and Amazon Web Services has built a dominant position. As the core financial functions lift and shift to the cloud, the risk of a single point of failure will emerge, and yet cloud providers are unregulated and out of the direct reach of financial supervisors. This raises questions about the effectiveness of the strategy followed so far by regulators vis-a-vis financial institutions' third party service providers, which in essence consists in setting requirements on financial intermediaries regarding their contractual relationships with their service providers. The evolving balance of power to the benefit of dominant Bigtechs service providers may challenge the effectiveness of such a strategy going forward.

**Second, the question of conduct**. Our regulation deems certain practices acceptable and others not. Technological developments are making it possible to use information that was previously out of reach of a financial intermediary. This could potentially allow a more accurate assessment of risk or a more "responsive" pricing of service. But what is possible may not be (socially) acceptable – to take one example, the current development of "social network informed credit scores" raises questions about financial intermediaries' governance and risk control frameworks, when privacy concerns or discriminatory bias are at stake.

(B) Let me now turn to new risks, which are non-financial in nature but closely intertwined with the digitalisation of finance. In my view, two in particular merit financial supervisory scrutiny.

**First, the strategic independence of incumbent banks**. If incumbents depend on Bigtechs for key infrastructure such as cloud computing, if they rely on the same Bigtech to distribute their products through their platforms and then compete with Bigtechs on certain segments, they will see their strategic independence challenged in the same way as hotels and retailers did. This process of commoditisation of incumbents may lower credit standards to compensate for higher pressure on margins and exacerbate their funding gap because of lower customer stickiness.

**Second, the development of cyber-risk**. With greater interconnections between technologies and the financial system and the opening up of information systems, the Banque de France observed in its Financial Stability Report of December 2017 that cyber-risk is moving from an idiosyncratic risk to a potential source of systemic risk which needs to be addressed. This perspective is widely shared among public and private decision makers and it should not come as a surprise that cyber-security will be one of the priorities of the French presidency of the G7 this year.

So, to conclude my second point, the completion of the regulatory decade to strengthen banking financial intermediation is not the end of the story; it's just the end of the beginning of a new era. The transformation of financial intermediation is full of opportunities but it also highlights the limitations of sectoral and entity-based regulations and the need to adapt regulation and supervision to a morphing financial intermediation.

This leads me to my last point.

### 3. The Banque de France's approach to all these new trends in financial intermediation is to harness the Fintech opportunities while preserving the financial safety nets and a level playing field

(A) Managing the financial stability risks stemming from a more diversified intermediation model pleads for advancing sound principles and for tightening the links between financial and non-financial regulation. In that respect, the Banque de France's stance is threefold:

- First, well-articulated and complementary **regulation and supervision** ranging from micro-prudential to macro-prudential, and from prudential to consumer protection, anti-money laundering, data protection and anti-trust laws;
- Secondly, **a technology-neutral stance**, which accommodates Fintech innovation while preserving financial stability. In this respect, finding the right balance implies an open-minded approach and an in-depth understanding of innovation. That is why in 2016 we created a specific Fintech-innovation hub at the ACPR to engage in a dialogue with innovators: around 400 of them contacted us through this dedicated channel;
- Thirdly, **an activity-based regulation and supervision**, to ensure a level playing field between all entities pursuing the same financial activity. The current multiplication of licensing categories to reflect the diversification of business models entails the risk of a loss of regulatory clarity and regulatory arbitrage which needs to be addressed.

(B) Of course, the financial stability implications of the morphing of financial intermediation that is underway are not limited to France, and cross-border challenges need to be answered. Doing so requires the smooth articulation of national initiatives, European convergence and international cooperation.

To seize the opportunities and address the risks stemming from highly evolving financial technologies, initiatives often start at the national level. The case of crowdfunding is a good example. In 2014 France was a pioneer in issuing a new bespoke regime for crowdfunding and marketplace lending platforms. This new regime opened a playing field for new players while limiting the regulatory burden and strengthening the protection of consumers and investors. As a result, although crowdfunding will not replace traditional lending in the near future, the French market is today the biggest market in continental Europe for alternative financing for the fourth consecutive year.[1] The latest figures for 2018, released by KPMG and Financement Participatif France (FPF),[2] show that more than 33,000 projects, for a total amount of EUR 402 million, were financed by crowdfunding platforms. Compared to 2016, the total amount financed has increased by 20%. In the last three years, it has been multiplied by 2.4.

Further to national initiatives, European convergence is always the ultimate goal. National initiatives are beneficial because they can be swiftly implemented and tested. By contrast, the European decision-making process is not known for its rapidity. But the size of the European market is critical for allowing our Fintech start-ups to reach an appropriate scale for their activities. That is why the Banque de France advocates a European regulation of crowdfunding platforms based on the French model.

Because forefront technologies are based on the World Wide Web, central banks, supervisors and regulators will eventually need worldwide cooperation to ensure that their powers are still effective. Let's take the example of crypto-assets. Everyone in France can bet their money in Bitcoin and the likes today (but think twice before doing so!). Yet, none of the Top 10 exchange platforms are located in France. This is the reason why back in February 2018 the Governor of the Banque de France and the French Minister of the Economy Bruno Le Maire, along with their German counterparts, asked that the issue be escalated to the G20 level. Thanks to this initiative, an international monitoring of the financial stability risks of crypto-assets is now in place and many initiatives are taken by international bodies to address the most pressing issues such as anti-money laundering, market integrity and consumer protection.

(C) Finally, financial technologies should not only be seen as opportunities for the provision of new products and services or as a further threat to financial stability. Financial technologies can also be an asset to enhance compliance with regulation or risk management practices: that's what we call "Regtech". They can also help the supervisor to perform its task more efficiently: we then speak about "Suptech" (supervisory technology).

In both areas, the prospects are promising. Think of the potential gain of efficiency for a supervisor if he could take advantage of big data and artificial intelligence, for example, to analyse the huge amount of quantitative and qualitative data reported regularly to him as well as weak signals collected in the market. Or if a supervisor could turn his backward looking monitoring tools into predictive processes.

Of course, supervisors are just at the beginning of the learning curve and they will clearly face a number of challenges: facing risks inherent to innovative projects, understanding the capabilities and limitations of new technologies, enhancing a modern data culture in supervision, hiring people with new and rare skills.

But these challenges must be overcome because the stakes are high. And it is not only a question of efficiency: it also has to do with supervisory credibility. How can a supervisor be in a position to supervise processes based on new technologies if he has no in-depth experience of it? On the contrary, a supervisor who engages in the "suptech journey" gives a clear and positive signal to market players: he is willing to accompany an evolving sector so that supervisory methods can be adapted and remain relevant and consequently, the financial system can remain safe and trustworthy. That is clearly the road that we, at the Banque de France and the ACPR, want to take.

## Conclusion

I would like to conclude my speech by quoting Bill Gates:

"*We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction.*"[3]

The Banque de France tries to heed this warning. Although we do belong to the (very) "old world" – the Banque de France was created more than 200 years ago by Napoleon –, as any incumbent, we need to adjust and adapt to the "new world". In order to do so:

- We have adapted our organisation and governance with the creation of a Fintech hub within our supervisory function, the appointments of a Chief Digital Officer and a Chief Data Officer, and the launch of a Lab to foster innovation within the Banque.
- We experiment with new technologies: the Banque de France was the first central bank to implement a full-scale project based on DLT which is fully operational[4] and we successfully run eight artificial intelligence projects.
- We also host discussions between regulators, academics and industry: for example, the ACPR task force on artificial intelligence delivered an issue paper last December for a two-month consultation period (ending 28 February).

But this call for action is addressed to everyone, and especially to you, the new generation. As students at the ESSEC business school and as future economists, bankers, start-upers and researchers, you will have a big role to play to ensure that, irrespective of the big changes to come in tomorrow's financial intermediation, our compass continues to point toward the common good of financial stability.

Thank you for your attention.

[1] Cambridge Centre for Alternative Finance, *3rd European Alternative Finance Industry Benchmarking Report,* 2018.

[2] Baromètre 2018 du crowdfunding – KPMG/FPF (January 2019).

[3] *The Road ahead*, 1995.

[4] Madre.