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"Trends in financial intermediation and implications for the regulation and supervision of the European financial sector"

Ladies and Gentlemen, dear students,

It's a pleasure to be at the Aix-Marseille School of Economics today to discuss the trends affecting a key channel of the financing of the real economy: financial intermediation. This topic is well chosen the year of the tenth anniversary of both Lehman bankruptcy and Nakamoto's paper underlying the Bitcoin. This is not just a coincidence. For crypto-assets' proponents, the "old world" of bank-centric financial intermediation failed in 2008 and had to be replaced by disintermediated peer-to-peer systems like Bitcoin.

Where do we stand now?

Central bankers, regulators and supervisors have worked to strengthen the traditional bank centric model of intermediation, and the highly intensive finalisation of Basel III has concluded ten years of regulatory efforts in that field. Banks are stronger and more resilient than before 2008. At the same time, quite ironically, the Bitcoin itself has generated the biggest bubble ever, which is now bursting.

So, in 2018, are there new developments in financial intermediation?

Yes, indeed. A number of factors contribute to push the European bank-centric model towards a more diversified, unbundled financial intermediation model. Hence, I will focus the first part of my presentation on those drivers and their impact on financial intermediation (I). I will then highlight the financial risks that go hand-in-hand with the changes underway (II). Finally, I would like to emphasise that a safe move towards a more diversified intermediation model as we see it developing cannot be achieved without further financial integration at European level. To that end, advancing the European regulatory agenda is of prime importance (III).

1. From bank-centric financial intermediation towards unbundled financial intermediation in the digital era

To date, in Europe, we have been accustomed to a bank-centric intermediation model. However, this model is being increasingly challenged by new players emerging in the digital era, the so-called Fintechs and Bigtechs, as well as by the growing weight of the asset management industry. We thus need to prepare to new intermediation models, which can be classified in four categories:

- 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, to finance in particular 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 the blockchain and the peer-to-peer economies.

Let me first discuss the new models stemming from the digital era (A) and I'll come back afterwards to asset management (B).

(A) The digitalisation of finance is prospering thanks to cutting-edge technologies (big data analytics, cloud computing, artificial intelligence and blockchain) that beyond the promise of better consumer experiences is lowering the entry barriers to the financial sector for new players, the tech firms, and make it possible to unbundle financial services into an array of distinct core functions such as channelling payments and money, providing financing, sharing risk, and allocating capital.

Balance-sheet-light payment services have so far been the main gateway to the financial sector for tech firms, but after doing so tech firms may then expand their business further along the value chain, from payment to retail and commercial banking, wealth management and insurance.

Among these tech firms, the Fintechs and the Bigtechs will have a different impact on financial intermediation.

Fintech startups have already been a game changer in the financial sector: they have imported from the internet industry a customer-centric culture 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, 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 to 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: not to recreate the universal banking model, but rather to **integrate 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 by Bigtechs' platforms**. Such a move is already gaining considerable traction in China.

So, to conclude on the new players emerging in the digital era and their impact on financial intermediation, digital finance 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.

(B) Beyond native digital intermediaries, we have also witnessed the steady growth of the asset management industry in the wake of the great financial crisis.

The asset management industry plays a key role in the economy by channelling savings towards investment, both for companies' and governments' capital needs. In other words, asset managers play an important intermediary role in the financial system.

In 2008, assets in the fund industry amounted to about EUR 13 trillion. Ten years later, the outstanding amount of assets is more than 3 times higher at EUR 42 trillion. Half is located in the United States and about 35% in Europe.[1]

The asset management sector is the largest component of non-bank financial intermediation defined by the Financial Stability Board as "*credit intermediation involving entities and*

[1] Sources : EFAMA, International Statistical reports

activities outside the regular banking system". It's true that in many respects, investment funds have bank‐like financing activities: they don't collect deposits but they do collect funds, they carry out liquidity and/or maturity transformation and, in certain cases, they perform their intermediation with leverage. And like banks, more than two-thirds of investment funds (in asset value) are susceptible to runs.[2]

I would like to conclude this first part of my speech by some anecdotal evidence showing how **the traditional bank-centric intermediation model is shrinking, while a more diversified intermediation model is gaining traction**:

- in 2010, 60% of the new leveraged loans (that is, loans made to indebted corporates) were granted by banks in Europe;
- in 2018, 69% of the new leverage loans were granted, not by banks, but by asset managers.

A more diversified financial intermediation model, with new players, Fintechs but above all Bigtechs and Asset Managers, is welcome in that it will bring more sources of financing for the real economy. This nevertheless raises a big issue: they are performing bank-like activities without being regulated in the same way as banks. Beyond unlevel playing field considerations, this situation could have major financial stability implications.

2- Old issues, and new ones that need to be addressed by regulators and supervisors

This leads me to my second point. The move from a bank-centric intermediation model toward new unbundled financial intermediation models performed by multiple players does not eliminate the need for central bankers (fortunately!) and regulators. But it does force us to revisit old questions (A) and to address new ones (B).

(A) I would like to highlight three of the old issues we must revisit.

First, the question of the scope of financial regulation. Just as an example, the use of the public cloud is becoming mainstream for performing core banking operations. Fintechs and Bigtechs have adopted a strategy of "all in". 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**

[2] Sources: FSB, Global Monitoring Report on NBFI 2017

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 to a large extent out of the reach of supervisors.

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 when privacy concerns or discriminatory bias are at stake.

Third, the question of anti-money laundering and counter-terrorist financing. Consider, for instance, crypto-assets: the pseudo-anonymity of Bitcoin and altcoin has facilitated the laundering of money stemming from illegal activities such as drug transactions or tax evasion. Not surprisingly, the sharpest decline in Bitcoin prices thus far happened in 2013 when the infamous darknet marketplace, The Silk Road, was shut down by the FBI.

(B) Let me now turn to **new risks** which are non-financial in nature but closely intertwined with the digitalisation of finance. Three in particular merit central banks' scrutiny.

First, the question of 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 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 question of cyber-risk. With greater interconnections between technologies and the financial system, 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 need to be addressed. This perspective is widely shared among public and private decision markers and it should not come as a surprise that cyber-security will be one of the priorities of the French presidency of the G7 next year.

Third, the question of market structure and private monopolies, in particular as regards clearing services. In Europe, this topic has a specific dimension that results from the Brexit

outlook. The clearing of interest rate derivatives deserves in particular attention since the UK clearing houses have a virtual monopoly in the sector. Beyond handling transition issues in case of a “hard Brexit” **we must ensure that critical key players do not become “too big to fail”**. Of course, by its very nature clearing is an activity that generates major economies of scale, and thus encourages concentration. But greater competition is absolutely necessary to stimulate financial innovation. In addition, it translates in a market structure that is more attractive from a financial stability perspective and easier to oversee from a supervisory standpoint.

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. 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. **To manage the financial stability risks stemming from an unbundled financial intermediation model**, **what we need is to develop**:

- First, well-articulated and complementary **regulation and supervision** going from micro-prudential to macro-prudential, 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; and
- Thirdly, **an activity-based regulation and supervision**, to ensure a level playing field between all entities pursuing the same financial activity.

3- The need to advance the European regulatory agenda to support a more diversified and integrated intermediation model

All these new trends in financial intermediation – digitalisation, non-bank financial intermediation, Brexit – plead for **advancing the European agenda to support a more diversified and integrated intermediation model**. At the same time, these changes represent an incredible opportunity to restructure the European financial system in order to unleash growth and innovation.

Steps towards a more integrated financial system at European level have already been taken since the crisis, with the Banking Union and the Capital Markets Union projects. These projects need to be further developed and implemented.

The Banking Union, which was set up to put an end to the link between sovereign risk and banking risk, is now operational. What remains to be done in order to finalise it includes completing the resolution pillar by implementing a backstop and adopting a common framework to enhance the provision of liquidity and putting in place a European deposit insurance scheme. Finalising the Banking Union is of prime importance for the development of pan-European banks, and will make it possible to achieve a better balance of risks, economies of scale, a better allocation of savings towards productive investments and increased competitiveness of European banks at the international level.

The other major initiative at the European level to strengthen financial integration is the Capital Markets Union project which aims to boost investment in the EU. Speeding up this Union will not only foster growth but will also enhance risk-sharing across European countries and mitigate the procyclicality of bank financing. We, at the Banque of France, support in particular three initiatives which should have a decisive impact on cross-border investment: First, the harmonisation of the insolvency procedures framework and its implementation by companies to promote investment in equity across Europe. Second, the development of pan-European individual retirement savings products to increase workers' mobility and offer a new source of long-term financing for European companies. Third, the reinforcement of ESMA which is necessary to supervise capital markets in a harmonised way, while duly involving national authorities when appropriate.

Completing the Banking Union and accelerating the Capital Markets Union will therefore be essential in order to lay the basis for a sound, diversified and integrated financial intermediation. Yet, we should go even further and achieve a real "financial Eurosystem", made up of stronger and pan-European financial institutions and shared market infrastructures. Brexit, in this sense, represents an opportunity. Let's be clear: there will not be a single City for the continent, but rather an integrated polycentric network of financial centres, with specialisations based on areas of expertise.

Our ability to adequately regulate and supervise these changes in financial intermediation will be determinant for growth and innovation. Europe must effectively transform its own savings, in order to enhance its ability to finance the real economy. This is what Governor Villeroy de Galhau calls the Financing Union for Investment and Innovation. This involves better steering the euro area's abundant savings to absorb shocks within the euro area more effectively and

to meet investment and innovation needs in fields such as digital technology, energy transition and the equity financing of SMEs.

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 Napoléon –, 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 (which has supported more than 300 Fintechs), 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 the industry: the latest working group on artificial intelligence will deliver its conclusion by end of this year.

But this call for action is addressed to everyone, and especially to you, the next generation. As students at the AMSE and as future economists, analysts 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.

[3] *The Road ahead*, 1995
[4] Madre