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# Summary of Discussion of the roundtable on Digital Disruption in Financial Markets

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This document is the summary of discussion of the roundtable on Digital Disruption in Financial Markets.
More documents related to this discussion can be found at
http://www.oecd.org/daf/competition/digital-disruption-in-financial-markets.htm

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# *Summary of Discussion of the Roundtable on Digital Disruption in Financial Markets*

By the Secretariat

## Introduction

The **Chair** of the Competition Committee, Frédéric Jenny, introduced the topic of the roundtable discussion: FinTech, or Financial Technology, which is creating digital disruption in the financial sector, because it is significantly impacting competition as well as consumers and regulation. The disruption is occurring because retail banking is no longer required to be branch based and is increasingly conducted through smartphones along with the use of Big Data or potentially blockchain. In effect, the role of the intermediary in the banking sector is profoundly changing and banks are facing competition to their core business. The Chair noted that FinTech could solve some problems affecting the banking sector, in particular the difficulty of switching banks and the lowering of transaction costs in the digital versus the real world.

The Chair explained that the roundtable would focus upon: (1) the degree to which digital disruption is occurring from FinTech and Big Tech, and how likely they are to impair the stability of the banking sector; (2) whether these players need a different type of regulatory oversight; (3) and if FinTech and Big Tech do indeed create systemic risks to the traditional banking model, should they be regulated as a financial service provider?

Before introducing the panellists, the Chair outlined the three parts of the session: (1) analysing the changing competition landscape; (2) what the reaction has been or should be from regulators and competition authorities as well as what solutions they have identified; and (3) looking at the few enforcement cases that do exist.

Next, the Chair introduced the panellists: **Professor Xavier Vives** of IESE Business School who authored the background paper shared in this session; **Janos Barberis**, a senior research fellow at the Asian Institute of International Financial Law who is also the founder of a FinTech start-up, Super Charger; **Jérémie Rosselli**, the CEO of N26 France; **Steven Drury**, Director of Innovation at Santander in the United Kingdom; and **Dr Thomas Deckers** from BaFin, the Federal Financial Supervisory Authority of Germany.

## 1. Analysing the changing competition landscape

To begin the discussion, the Chair invited **Professor Xavier Vives** of IESE Business School to take the floor and present an overview of the digital disruption of FinTech. First, Professor Vives noted that banking is not currently an easy business, in particular for European and Japanese banks because of low interest rates, legacy assets and hardware, and toxic assets. He then noted that the impact of digital disruption is also large in Asia, China and some African countries. He explained that because banking concerns information processing, the disruption is partly occurring because few banks have transitioned to the Cloud to operate services.

Next, Professor Vives gave an overview of FinTech’s advantages. FinTech is a superior technology, free of mainframes, and it has linear or operational practices. The consumer interface is also much friendlier and offers a newer standard of consumer experience, which is particularly important to the younger generation. As for disadvantages, Professor Vives discussed how FinTechs do not have an installed base of loyal customers and have limited access to soft information. They also have a lack of reputation and brand recognition as well as a high cost of capital.

According to Professor Vives, incumbent banks have a wealth of data but they are not processing it with new techniques like artificial intelligence, machine learning, etc. Therefore, the potential entry of Big Tech platforms is more potentially disruptive for the traditional banking business than for small FinTechs. He said that incumbents typically have two possible strategies, one is to accommodate the entrant and the other is to try to prevent the entry of the incumbent. Therefore, FinTech strategies can be accommodating or more aggressive, with accommodating basically meaning that they commit to remain small. Other strategies are forming partnerships with incumbents; entering as a licensed digital bank; growing enough to be self-sustaining; or choosing to consolidate or sell to incumbents later on.

As for incumbents and Big Techs, Professor Vives explained there are two basic possibilities, either partnerships or competition head-to-head. He cited the partnership of Amazon and Bank of America as an example. He also explained that head-to-head competition has two different forms. In the first form, Big Techs effectively become banks as they become intermediaries, and they bundle their offers and exploit economies of scope using different activities within their platforms. The second form is to use the marketplace and become a multi-sided platform, because in quite a few industries platform delivery is the dominant distribution channel.

Professor Vives pointed out that banks may be contemplating becoming more like Big Tech platforms but there are questions around trust because banks' reputations were damaged by the financial crisis. Overall, banks still have a better reputation in terms of data security, as most people would entrust their banking data to a bank rather than to Facebook. On the other hand, Big Techs do have larger lobbying pressure and know how to navigate the regulatory mains. Overall, he said that banks will have to transform themselves extensively. To match the Big Tech capacity, they will need to bundle and cross-subsidise products as well as provide complimentary financial and non-financial products.

Next, Professor Vives explained that the first input on market structure and consumers of digital disruption is to increase competition and erode incumbents' margins, which will increase competitive pressure and contestability. The incumbents will have to restructure and invest heavily in information technology but will have to do so in a low profitability environment. In the long term, he said, the impact will depend on the extent of Big Tech entry. Model regulation will depend on how regulation treats the digital disruption, particularly from tech. Overall, it is possible that banking could go from the imperfect oligopoly now seen in many countries to another type of imperfect oligopoly with some dominant platforms in the market.

Professor Vives then covered two main questions regarding regulation: (1) how to level the playing field between entrants and incumbents, and (2) how to ensure consumer protection. In the latest consultation, more than 30% of FinTechs reported to be unregulated and open banking was making some progress. He said this shows that data ownership and portability as well as interoperability of platforms will be keys in determining the degree of competition in the future. In this sense, he noted that Europe is perhaps better positioned to have more competition. Market fragmentation and impediment of international operations are also possible, because of different asymmetries and treatments in everything from data protection regimes to liability rules among countries.

On regulation and financial stability, Professor Vives made three points. (1) That increased competitive pressure on incumbents may entice them to increase restating because their profitability is not very high. (2) There are new sources of systemic risk such as the potential contamination of bank and non-bank activities in platforms that may pose systemic problems along with step-in risk for incumbents or big techs of ownership, partnership, or sponsorship of financial activities that end up in trouble and may need to be saved. (3) The failure of third-party providers and cyber-attacks, which is where consumer protection comes to the forefront because of data privacy issues. Professor Vives concluded by raising concerns around open banking operations, particularly around the integrity of the process and traceability of transactions due to liability. Finally, he shared that price discrimination becomes a major issue because now platforms, big techs and intelligent players can price discriminate extremely well, meaning standards of consumer protection have to be high. Therefore, so do the standards of transparency and commitment of not exploiting potential behavioural biases.

The Chair thanked Professor Vives then gave the floor to **Janos Barberis** of the Asian Institute of International Financial Law and founder of Super Charger.

Mr Barberis began by describing his two focuses: (1) discussing market dynamic in the financial services industry and how FinTech startups or Big Tech companies have changed the market; (2) focusing on the regulatory side, looking at how financial services and digital financial services have changed over time. He explained that FinTech startups entering the market created the need for a new regulatory method that demanded looking at regulator technology. Mr Barberis then commented upon the previous example given by Professor Vives about the consumer trust level of Facebook providing financial services. In Europe, he said this may not be the case but in China it is already occurring, so the cultural reception on who should provide financial services changes over markets. In particular, in emerging economies where there is not as many preconditions as in developed markets people are less reluctant to use Big Tech for financial services. He noted that blockchain artificial intelligence's largest spender is the financial services industry.

Next, Mr Barberis explained that currently, 14% of revenues in UK banking are being generated by challenger banks whereas five years ago, the notion of a challenger bank barely existed. In terms of Europe, out of the EUR 800 billion profit made in the banking industry, EUR 53 billion is done by challenger banks. Mr Barberis emphasised that these numbers are significant enough to warrant looking from both a regulatory and competitive standpoint. He then noted that although speed is a competitive advantage when in a start-up, the issue from a competitive standpoint is more about Big Tech companies versus financial institutions. They have exactly the same capacity in terms of distribution, which is client size. The client size of Google or HSBC is equivalently large and their cost of capital is cheap. However, even though financial institutions have always been a high spender in technology, Big Tech companies have a competitive advantage on data due to regulation.

After giving a brief history of financial technology, Mr Barberis highlighted that in developed countries FinTech was a reaction to the financial crisis. In developing markets, financial technology was a market reform mechanism to have more efficient financial technology firms. For example, China is looking at financial technology and trying to regulate it in a way not yet seen elsewhere because it now has critical mass.

Mr Barberis then discussed at what moment competition should be regulated. He explained it is a matter of timing and size by offering the example of FinTech startups or Big Tech companies having an exponential capacity to go from “too small to care” to “too big to fail”. He noted that it took 1.5 years for Revolut to acquire 200 000 clients in Spain; eight months for Goldman Sachs to acquire 200 000 clients for their new challenger bank; and eight days for Kakao in Korea to acquire 1.5 million clients. Overall, Kakao went from “too small to care” to “too big to fail” in a week. Mr Barberis highlighted that this is exactly where regulators or social competition authorities have to look on a more granular level to supervise that industry.

The Chair thanked Mr Barberis for his presentation. Before turning the discussion to the banking sector’s evolution and antitrust issues, the Chair gave the floor to **Spain** for remarks on specific country experiences.

**Spain** discussed a 2018 market study about FinTech that analysed its opportunities and challenges. Although FinTech may be a milestone in achieving higher efficiency and greater diversification in the financial industry, the disruptive feature stems from the information-intensive nature of financial activities and its long lasting impact on the financial sector. Spain explained that the advantages, opportunities and risks of FinTech can be observed through distributed ledger technologies, payment services, asset management and crowdfunding. As such, Spain’s National Commission for Markets and Competition (CNMC) study concluded that the FinTech phenomenon should be generally welcomed by regulators and that regulatory sandboxes can be useful to facilitate new business models. However, regulators should rethink the appropriateness of existing regulation. Spain concluded that even if current policy seems to be having a positive impact on competition in their financial sector, the extrapolation of these policies to other sectors must be addressed case by case.

The Chair thanked Spain for mapping out some of FinTech’s challenges beyond those already heard about in Asia and Africa. He then gave the floor to **Peru** to discuss research in Latin America.

**Peru** explained that the financial digital market is relatively poorly developed in the country, mainly because of the slow growth of broadband and high-speed internet services. Despite this, FinTech companies are growing fast, with transactions occurring at a rate higher than the average 8% rate of other Latin American FinTech industries. According to the Inter-American Development Bank (IADB), access to financial services in the country is still very low, as 70% of the entire economy is comprised of informal markets. In Peru, FinTechs are mainly focused on lending and payments. However, incumbent banks are working together with FinTech start-ups and are already offering integrated digital services that were not available before. Indecopi, Peru’s National Consumer Protection Authority, are following FinTech because of the great opportunity it offers to consumers and small firms to access a more diversified and simple financial services supply. FinTechs are already moving around 140 million dollars, especially in crowdfunding and currency exchange in financing.

Next, Peru noted that although there is no specific legal framework from FinTechs, the financial regulatory agency and the stock exchange regulators are working on some regulations for crowdfunding services. Peru also highlighted that the financial regulator is considering that future regulations be selective, which is interesting because it acknowledges that regulators do not want to create unnecessary regulatory barriers that may distort competition.

The Chair thanked Peru then gave the floor to the **European Union**.

The **European Union** explained that European incumbents face post-crisis resource constraints, with a need to invest significantly in IT upgrades. In the EU, the FinTechs focus on specific parts of the banking value chain where profits are the highest, less regulated and where there are gaps in user experiences that can be exploited. Therefore, entry is mostly felt in payments and retail banking, in particular deposits and lending. However, the way incumbents collaborate with FinTechs are not mutually exclusive. According to a European Banking Authority (EBA) survey, one of the main reasons for this is that incumbents want to address increasing competition and reduce competitive constraints, which FinTechs exercise. They do want to accelerate their own incumbent innovation strategies and also expect cost savings and improved ways of retaining customers. The most commonly observed ways of collaboration are currently partnerships between banks and FinTechs. The other ways are investments or direct investments of our venture capital.

The Chair thanked the European Union then gave the floor to **Sweden**.

**Sweden** explained a national service called Tink, where someone can download the structured data from their personal bank account and compare its construction, see trends in their private consumption patterns, and get suggestions on how to improve their economic situation along with different loans and insurances. Sweden noted that this service began as a private and independent interbank company but that the big incumbent banks have invested heavily to maintain the tradition of Swedish incumbent banks' internalising and integrating themselves into essential parts of Swedish financial infrastructure. Sweden highlighted that Tink is the only common application of the PSD2 directive that attracts any serious amount of users. However, as with other Swedish financial mobile and online applications based on the ownership of the big incumbent banks, the integrity of its independence should be questioned. Sweden noted that the competition authority is currently unsure of the overall affects upon competition, but that these services can potentially act as a serious barrier to new entrants if the incumbents continue their investments in start-ups because it limits the possibility for newcomers.

The Chair thanked Sweden then gave the floor to **Romania**.

First, **Romania** explained some of the benefits of the EU Revised Directive on Payment Services (PSD2) to consumers. They include more and better services that will lead to better prices for consumers; innovative services that are faster and more economical; and the possibility for consumers to create their own selection of smaller service providers that will lead to tailored services for individuals and greater control over their finances. Romania then pointed out their main challenge is winning trust in these new entities. Despite FinTech's low level of development in Romania, Revolut reached over 100 000 users in about six months, which was fourth place after the United Kingdom, France and Poland. Regarding the benefits for small business, Romania explained that the most important fact is that small businesses will have access to capital to invest in innovation, products and services.

The Chair thanked Romania then turned to **Jérémie Rosselli**, a representative of FinTechs.

**Mr Rosselli** began by explaining that although N26 is a FinTech it is a fully regulated bank, with a banking license for a credit institution in Germany. With just one banking license, N26 is capable of operating across all 24 European markets with zero brick-and-mortar branches and will be expanding to the United States, Brazil and further locations in the future. Even though, N26 has raised more than USD 500 million, from a banking perspective, that is still a low number. With more than 1 000 employees, most are working on the technology, hence it should be defined as a Tech company rather than a bank.

Mr Rosselli noted that technology can change the customers' pained approach to banking. He discussed how FinTechs are rethinking banking from scratch and using the best-in-class tools to provide the best digital experiences. He then explained that N26 is a fully mobile bank account in which mobile phones can open the account then do any customer transactions, transfers, payments, and can block or link a banking card, or even change a PIN from their telephone. However, because it is recognised by the regulator, N26 provides the same level of security digitally as a regular bank's security features, mobile payment, financial products but all with a different business model that is enabled by technology but also regulation as a framework.

The Chair thanked Mr Rosselli then asked him to speak about the regulatory aspects of expansion such as the obstacles experienced because of different regulations in various markets.

Mr Rosselli explained that most FinTechs consider regulation an asset as it protects customers and the whole system. In general, as a trusted authority for customers it is critical to comply with regulations. He noted that although European regulation is standardised and comes from directives, there are regulation variations across markets. He then offered the example of the European directive, which is the same regulation but implemented in three different ways across Germany, France and Italy. Therefore, it would be helpful he said if there was a more standardised way of doing regulation. In terms of data protection, there is the General Data Protection Regulation (GDPR) but all the countries have different data protection and enforcement, which also needs some local implementation, terms and conditions.

The Chair thanked Mr Rosselli then before giving the floor to the **United Kingdom**, noting that the UK has been actively encouraging innovation in the financial sector.

The **United Kingdom** began by briefly describing the Competition and Markets Authority's (CMA) experience with open banking, which enables consumers to share their data with trusted third parties such as FinTechs. This open banking initiative stemmed from the CMA's 2015 report focused upon market investigation into the retail banking sector. One of its main findings was that the market was characterised by very low levels of shopping around, which is helpful for incumbents but difficult for new entrants to the market. The CMA put forward some remedies but one was a requirement for the largest nine banks covering over 80% of the market to implement an open banking standard by 2018. There are currently around 50 providers of open banking services active in the markets with a further 150 applications for registration or authorisation in the pipeline. The volume of activity via the open banking API (application programming interfaces) rose from 2 million calls in July 2018 to 48 million in April 2019. The United Kingdom noted that continued customer adoption will depend on the value that these services offer, their simplicity, and consumer confidence in the security of both the data and the services. The United Kingdom concluded that open banking is a good example of where the intervention of competition authority has, alongside new regulation, been instrumental in driving innovation and encouraging competition within the market.

Next, **Mr Roselli** took the floor and noted that Fintechs are seeing multi-banking, meaning the consumer does not close an account and switch banks, but instead open multiple bank accounts.

The Chair reminded the audience that Professor Vives had proposed several strategies for incumbents to react to new competition in his discussion. He then posed two questions to **Steven Drury**, Director of Innovation at Santander in the United Kingdom, from the earlier discussion: Have FinTech and Big Tech been an absolute game changer in terms of competition for banks? And in the list of possible strategies to react to as an incumbent, what was his experience at Santander?

**Mr Drury** began by discussing innovations focusing on leveraging data to make things happen faster. He gave the example of a mortgage application process, taking a one-time access to data that enables a much quicker process of application decision for a consumer. He noted that FinTechs and larger firms looking to come into the market are working to leverage such capabilities.

In terms of Santander innovations, Mr Drury noted that there is a group level of investment funds that invest in FinTechs, generally minority stakes, which gives a fantastic opportunity to learn and address the opportunity to look at disruption. This disruption could be international trade, learning related to data or open banking.

He then highlighted that looking at Big Tech, the network effects and the potential scenario that creates effective barriers to entry and dominant platforms in the market could create challenges in the future to accessing customers with multiple product options from various providers at the point of need. He also cited the ability of leveraging open banking to connect transactional bank data with other data to make decisions on things such as lending to Small to Medium Enterprise (SMEs) or providing credit to consumers as very powerful new models. However, he also noted the importance of the customer's understanding and decision-making when they take that credit.

Asymmetric regulation is linked to the decision of where to regulate, which is a key challenge: on the one hand there is regulation at entity level, and on the other hand, regulation at activity level. Looking at the future, he said it will be necessary to look very carefully at regulating the activity. It is also important to consider how that creates the right platform and environment for competition for incumbents, banks or established players to have the opportunity to compete fairly with big techs and FinTechs.

In his conclusion, Mr Drury outlined four key points: (1) In terms of access to data, open banking is showing that opening up a safe, secure way for consumers to consent access to third parties for a new product or service can be incredibly powerful; (2) a for access to infrastructure, several potentially dominant platforms are emerging, so access to delivering competitive products and services to consumers at the point of need will require the ability for different providers to compete, which requires more openness for access; (3) in terms of the regulatory framework for banks, looking at how entities and activities are regulated to achieve the ability for existing established players in the market and financial services to compete on the same level playing fields as Big Tech and new tech firms is needed for comparable activity; (4) finally, fair taxation is very important as the market opens up because it can ensure the industry works in the best interests of customers. As it transforms and new players enter the market, taxation should be fairly appropriated, which will require a much greater degree of collaboration across markets.

The Chair thanked Mr Drury. Before giving the floor to the **Bureau Européen des Unions de Consommateurs (BEUC)**, he posed two questions to prompt the discussion. First, the Chair asked BEUC if they could see the benefits for consumers from these developments? And also, whether consumers trust the digital banks or if they worry about the privacy and security of their personal data?

**BEUC** explained that banking inclusion is ensuring that access to financial products and services for consumers are tailored to meet their needs. While the financial sector is responding, the banking market is the one sector for which consumers are the least satisfied within the European Union due to lack of competition, product complexity, and difficulties in accessing quality advice. Due to this, BEUC supports the objective of increased competition promoted by open banking. However, to allow regulators to serve as market arbitrators, BEUC formulates double vigilance. The first element of this is for open banking to fully allow favourable competition. The second element is to ensure that this competition is beneficial to the consumer.

BEUC further explained that the promise of open banking is an opportunity for consumers due to increased competition, especially contingent charges on financial services. As such, BEUC wants to remove all unjustified barriers to competition by establishing standard communication channels within all of the European Union. That said, this is not a blank cheque given to FinTechs because BEUC wants them to be fully regulated and supervised by the national authorities, which consumers support. To meet these challenges, BEUC prioritises setting limits for the purpose of the data, which means FinTechs must have access to the data that will enable them to carry out the service for which consumers have subscribed. Beyond that, there are limitations, because without them it would create an anticompetitive advantage against other players along with a niche that would run counter to Open Banking Europe (OBE). BEUC also wants to ensure data security due to the arrival of big data actors to the market.

The Chair thanked BEUC then asked **Business at OECD (BIAC)** to take the floor and discuss the importance of the disruption caused by Big Tech.

**BIAC** began by affirming that FinTech is a success story for business, competition and consumers that is arising from extraordinary developments in the financial environment. BIAC noted that Big Tech firms have their own strengths on which they are relying such as their large customer and databases, established reputations, powerful brands, access to capital and the technology to offer an ultra-tailored service on a large scale.

Although a success, looking ahead there needs to be assurance that disruption does not lead to less competition, new systemic risks or destabilisation. BIAC explained that in terms of competition law issues with Big Tech, they do not see the entry into financial services markets as raising any unique questions, different from those of the entry of big Tech into other markets. As to the need to adapt existing regulation of banking, BIAC supports the need to ensure that financial services regulation serves to level the playing field, which means not favouring entrants or incumbents. Regulation that favours entrants may increase further competition in the short term but in the long term any unbalanced advantages to entrance, whether in terms of data access, risk and compliance obligations. BIAC supports best practice that regulation should be targeted, proportionate and non-discriminatory, including technology-neutral and forward compatible. BIAC concluded that as new entrants operate globally, it is encouraged that initiatives such as this one continue to aim at increasing co-ordination between the regulatory authorities in this field.

## 2. Regulation of new entrants

The Chair thanked BIAC then noted that the second part of the roundtable was beginning and would focus more on regulation such as regulation on privacy of data, portability of data or banking regulation and the way in which it may apply to FinTech. He also invited discussion on how the payment service directive is enforced in different countries and the overall challenges and proposed solutions.

Next, the Chair gave the floor to **Thomas Deckers** from the German Federal Financial Supervisory Authority (BaFin) to present an in-depth study on the relationship between big data, artificial intelligence and the impact on prudential regulation.

**Mr Deckers** explained that BaFin looks at and analyses digital disruption in the financial market from the starting point of the technology, meaning big data and artificial intelligence, or machine learning. The three main areas that BaFin is responsible for are: (1) the bird's eye view of financial stability or the macro prudential perspective; (2) the micro prudential supervision of insurance companies, banks and securities; (3) and consumer protection.

Mr Deckers said that changes in the financial market are always based on Big Data and Artificial Intelligence (BDAI), with data and artificial intelligence being a self-reinforcing cycle. With BDAI, a company or bank can create new insights from building up models to create innovations, which can be launched into new products, processes or services for the market but also internally. He gave the example of a mobile phone app that asks the user to share his or her geolocation, creating data that can be fed into the BDAI machinery, and from that data even more insights are created.

Mr Deckers then discussed the external forces entering the market through application programming interfaces (APIs), like external findings, external software solutions or cloud service solutions. These new processes and products can be offered by new companies such as FinTechs or big techs, which have fast scalability. However, sometimes the companies providing software solutions like cloud services are also the ones launching products on the financial market, which is changing the market's structure. Also, he noted that it is a challenge to see how the market changes and to identify risks early enough because the supervisors themselves have to increasingly rely on technological solutions.

Mr Deckers then discussed the micro-prudential perspective and noted that there should be at least some level of explained ability and traceability of algorithms results so as to make it technologically neutral. This was basically already laid down in financial regulations but what the market would like to see is some more translation of how the regulation applies to very complex models. Next, he explained that big data and artificial intelligence allow companies to extract so much information about each individual customer that they can approximate the individual willingness to pay of each customer. In the financial market, financial supervisors require from the companies they supervise that they have price differentiation. However, financial services are also about data protection, consumer protection and competition.

Mr Deckers concluded by noting that the speed of innovation in the self-reinforcing cycle is increasing. Therefore, the question is, should basic regulatory principles be changed? BaFin does not think the answer is to proscribe the market to use certain technologies or not to use them. Instead, they can in a principle based way give a broad framework within which innovations can grow and do so in a level playing field. Finally, he highlighted the importance in the digitalised world of international and interdisciplinary cooperation because there are many questions on the border of different supervisions of various market activities, like competition and financial regulation. In the future, supervisors also need to do their homework and also need to have some BDAI capabilities.

The Chair thanked Mr Deckers then gave the floor to **Professor Vives** who asked to intervene before his departure with a remark on regulation versus activities or entities. He explained that the basic trade-off is between regulating by activity versus protecting against systemic risk of failed entities. In his opinion, the regulators are learning how to cope with this trade-off. He suggested that perhaps the best way is to try to regulate by activity as much as possible, but control for potential interactions of the activities in larger entities so that systemic risk does not go uncontrolled. Currently, the cost of compliance for financial intermediation banks is very high so perhaps digital technology may help lower the cost of this compliance to improve the efficiency of the system in general.

The Chair thanked Professor Vives for his contributions to the roundtable then offered a comment on one of Mr Decker's points about there not being a "black box" excuse by tech institutions. The Chair noted that in a previous roundtable on artificial intelligence it was shared that there was no way to go back to what was happening in the artificial intelligence program. The only thing that could be done was to control the data on which the program functioned, but there was still a black box.

Mr Deckers replied that while working with a research institute on the report, they cited that transparency is perhaps a bit too much. Instead, the most important force is to explain the ability of deep learning algorithms, because for regulated businesses it is important to offer that.

The Chair thanked Mr Deckers then gave the floor to **Canada** to explain the Bureau's suggestions to level the playing field in this area and if their suggestions had been followed.

**Canada** began by highlighting that the Bureau has been working hard to promote competition and a level playing field in Canada's financial services sector. The speaker then explained that an 18-month extensive study of FinTech had been carried out and that since 2016, the Bureau has also provided eight submissions to Canadian regulators on a variety of FinTech and finance related topics. The recommendations presented in the market study and subsequent submissions urged regulators to develop principle-based frameworks that promote a competitive playing field between industry participants.

The study itself focused on three main areas: retail payments and retail payments systems, lending and equity crowdfunding, as well as investment dealing and advice. Based on the findings, 11 broad recommendations were developed for financial sector regulatory authorities and policy makers in Canada to ensure that future regulatory change creates space for innovation while also ensuring that Canadian consumers are protected. The recommendations in the FinTech study was a call for regulation that is function-based, principles-based, proportional to risk and technology neutral.

Overall, Canada noted that since the study's completion there had been significant progress made by Canadian policymakers and regulators in modernising the regulatory frameworks overseeing this sector. In 2018, a follow-up report was issued citing the changes to Canada's regulatory framework for financial services and that many of the positive steps taken by the regulators reflected recommendations made by the Bureau. Currently, the federal government is focused upon open banking.

The Chair thanked Canada and noted that their principles were very close to the ones that BIAC put forward, except for one. In terms of being non-discriminatory, Canada seems to be moving in the direction of adopting more function-based regulation. The Chair then gave the floor to the **United Kingdom** to explain their experiences with the sandbox approach that they have followed.

The **United Kingdom** described how the Financial Conduct Authority (FCA) has three operational objectives: consumer protection, market integrity and effective competition.

The United Kingdom views innovation as a positive driving force behind effective competition. The United Kingdom wants to see innovation come to the market that has genuine potential to improve the lives of consumers across all areas of financial services. This means offering products that are better suited to their needs, provide greater access and lower prices. The United Kingdom also wants to see innovation delivered by a diverse range of participants.

In 2014, *Project Innovate* was launched to encourage innovation in the interests of consumers. The United Kingdom explained that the sandbox allows businesses, both start-ups and incumbents, to test out new innovative financial products, services or business models in a live environment with real customers, appropriate customer safeguards and robust supervision. The advice unit provides tailored feedback for firms, developing automated models to drive lower cost service in the advice space. Overall, the Project provides policy responses to innovation that are proportionate given the potential opportunities and harms. Red Tag looks at solutions that either help firms meet their regulatory obligations or improve the ability to supervise and monitor markets. Now on the fifth cohort of the innovation sandbox, they have supported around 700 firms.

As for impact, the United Kingdom noted that if *Project Innovate* is operating effectively, three things usually happen: (1) Firms can establish their innovations in the market with greater regulatory certainty than had they not interacted with the project; (2) Firms bring improved offerings to the market and increase competitive pressure on incumbents who also then respond by improving their offerings; (3) Project Innovate contributes to the UK supportive regulatory environment for FinTech and encourages positive innovation to come to the market both domestically and internationally. The United Kingdom shared that from a recent report they are seeing that regulatory certainty helps firms develop innovation and deliver at speed. These firms have been able to get authorised faster, secure access to funding and show signs of sustainability. The FCA views the regulatory awareness curve as an important factor in building a sustainable business model.

Overall, the United Kingdom highlighted that the FCA’s *Innovate Project* is supporting a more vibrant financial ecosystem in the UK, which is reflected through the pace of providing clarity on the regulatory position for firms and the policy documents developed. As they look to the next stage of the innovation journey, further international cooperation is going to be a key part of the picture. The Global Financial Innovation Network (GFIN) is a joint initiative which can complement existing international activity.

The Chair thanked the United Kingdom then gave the floor to **Janos Barberis** to comment on issues of regulation, in particular competition versus stability.

**Mr Barberis** noted that the financial crisis forced regulators to look backwards for five plus years but now regulators seem to have the capacity to look forward. With that momentum, discussion can shift toward where to go in terms of regulatory frameworks. There is consumer protection as well as why prudential regulation should be more proportionate, meaning using supervisory technology to regulate tech or financial firms. He also noted that financial regulation should now promote good behaviours such as promoting stability and that should be rewarded by regulators. Financial networks are also going to be critical and from a competitive standpoint, so will understanding the new barriers to entry. Mr Barberis said this is a two-fold issue of infrastructure and the capacity to understand data.

Currently, Mr Barberis highlighted, there are 32 jurisdictions with regulatory sandboxes in the world, but the real question is "where do we go from there?". The first step is automating the sandbox and supervision of FinTech firms, which are usually smaller, giving regulators leverage to be able to impose new standards on them as opposed to established financial institutions. Finally, he noted the need for smart regulation. Financial services are digitising and therefore, regulators not only have to be digitally led but the digitisation of financial services needs to forcibly have digital regulators. In conclusion, Mr Barberis noted that every country is specific so there are cultural and market dynamic differences. For example, Hong Kong is still very much a rule-based regulator, but the UK has moved towards being principles-based.

## 3. Enforcement issues in financial markets subject to digital disruption

The Chair thanked Mr Barberis then noted that the next part the roundtable would be focused upon enforcement by different jurisdictions. He gave the floor to **Norway** to discuss their payment system merger.

**Norway** explained that historically and presently their payment landscape was characterised by common collaborative solutions between banks operating in the country. The banks have usually entered into agreements facilitated and governed by the Bank Association in Norway regulating different payment solutions such as clearing a settlement or credit cards. Most of these, and the national payment system card, accept the electronic identification solution, BankID. However, Norway noted that the banks did not collaborate on price and quality but competed and still do to attract customers and businesses. Norway then briefly outlined the lead up to the 2018 merger between Vipps, BankAxept and BankID Norge to combine payment units and create the uniform payment solution now used.

The assessment by the Norwegian Competition Authority expressed concern that the merger could lead to input foreclosure in the market for mobile payment solutions and that it could give the merged entity incentives to deny its competitors access to BankAxept and/or to Bank ID Norge, thus leading to foreclosure in the downstream markets. When assessing the possible input foreclosure, the authority also found that the merged entity would also have the ability and incentive to foreclose its downstream competitors. This could lead to restriction of competition in the market for payment solutions raising the barriers to entry, resulting in increased prices, a lower level of services and reduced innovation. The parties proposed a set of remedies to the Authority which were agreed upon: Vipps committed to undiscriminatory terms and provided access for third-party providers to BankAxept and BankID; committed to offer to third-party providers access to BankAxept as a standalone service; and committed to a three year duration of the commitments, and to appoint a trustee to monitor its compliance with their commitments.

In conclusion, Norway highlighted that the collaborative uniform payment solution was easily accessible with low entry barriers for the banks and highly efficient, which Norwegian customers and businesses have benefited from. The merger improved cost efficiency, strengthened innovation and enhanced users’ purchasing experience in Norway’s retail and consumer markets. It also served to combat increasing global competition in the payments and digital ID space.

The Chair thanked Norway then turned to **Brazil** to discuss the Bradesco case with the country’s largest bank.

**Brazil** explained that the ongoing case began in September 2018 and involved a Brazilian application to be used on smartphones. Created in 2014, the application was a platform on which consumers could synchronise their bank accounts. As soon as users entered their bank account's password in the application, they should not have had to input it again. However, Bradesco imposed on their banking clients that they needed an additional token password every time they entered the application. Therefore, unlike other banks on the platform that did not request an additional password, Bradesco was making it difficult for their clients to access the application and therefore the services provided by other banks.

In its defence, Bradesco argued that the additional password was requested in order to protect consumer security and consumer data. However, according to Brazil's protection law, once the owner of information gives third parties their permission, it should be sufficient to ensure their access. Therefore, Bradesco should not prevent the application from having access to this information. For this reason, the Administrative Council for Economic Defense (CADE) opted for further investigation because they wanted to measure the effects of Bradesco's practice on the competitive dynamics of this particular market.

The Chair thanked Brazil and noted that the case is an interesting one in terms of instrumentalisation of data privacy law. The Chair then gave the floor to the **European Union** to discuss a merger case between FinTechs.

The **European Union** explained that they have a limited track record in FinTech mergers notified to the Commission. This is a result of the merger notification system within the EU threshold where they only look into mergers that significantly impede competition in the European Economic Area (EEA) or a substantial part of it. The result has been that the vast majority of mergers in this field have been dealt with at the national level; or the notified measures to the EU did not pose any competition problems and were cleared after routine reviews.

Next, the European Union described a 2016 remedies case. Worldline wanted to acquire Equens, and a fully integrated subsidiary named Paysquare. They were both active in the payment services market but Worldline was a fully integrated payment services and terminals provider that also carried out financial processing and software licensing. There was a horizontal overlap with regard to merchants acquiring services in Belgium, where Worldline was the former incumbent and Paysquare was a recent anchor entrant that had exerted significant price pressure. Therefore, there were concerns that the removal of an important competitive constraint would lead to higher prices. There was also a vertical overlap with regard to merchant acquiring services in Germany, where Worldline operated particular software that was essential for carrying out payment services in Germany. As a result of the analysis, divestment of Paysquare's business in Belgium occurred and licences were granted for the software in Germany for a period of ten years. The European Union highlighted that with further consolidation expected in the field, there is expectation that case practice will increase in terms of retail banking and payments.

The Chair thanked the European Union then gave the floor to the **United States FTC and the Department of Justice** to discuss the Avant case and a business review letter concluding that a joint venture between 24 US banks was positive.

The **United States** Federal Trade Commission (FTC) noted that the Avant case, a consumer protection case, serves as an excellent example of a technologically neutral application of general principles. As a FinTech, Avant is an online lending platform that is consumer facing and markets, advertises and facilitates the extension of credit to generally high-risk consumers. In April 2019, the FTC announced the settlement of an enforcement action against them, principally related to issues about payments. It was alleged that Avant had falsely advertised with respect to payments by saying it would accept credit and debit card payments of interest and principal amounts on the loans, but in a number of cases failed to do so. Avant also made misrepresentations with respect to the ability of consumers to pay off the loans and the amount that they had to pay. Similarly, there were alleged violations of the prohibition against unfairness. They were also using "remotely created checks", while using telemarketers which under US law is illegal. Critically, about USD 3.85 million was returned to consumers as part of the settlement. In conclusion, the United States noted that this case demonstrated the application of consumer protection laws.

The United States Department of Justice (DOJ) then took the floor to explain a 2017 business review letter involving The Clearing House Payments LLC (or "TCH"), a joint venture among 24 banks that operated a clearing house and several other payment platforms. Under DOJ's business review program, businesses can seek from the DOJ a representation about its enforcement intention, under the antitrust laws, regarding newly proposed business conduct. According to TCH's representations, it proposed to create a new payment platform that would enable the real-time transfer of funds between depository institutions, called the Real Time Payment System ("RTP"). TCH indicated that it would create and operate RTP; the real-time funds transfers would enable banks to offer faster fund transfers for their end-user customers, for payroll and other purposes. As an incentive to participate in the platform, the biller's bank would provide the payer's bank an incentive fee—a flat amount set by a panel of outside economists. The DOJ issued a favorable business review letter, indicating that it had no present intention to challenge TCH's proposal as a violation of the antitrust laws. Based on TCH's representations, the DOJ concluded the new payment system had the potential to provide significant procompetitive benefits—due to, among other things, increasing the speed of transactions and the consequent reduction in banks' risk—and it presented minimal risk to competition.

The Chair thanked the United States and the DOJ then gave the floor to **Portugal** to speak about a paper on technological innovation competition.

**Portugal** explained that in 2018 they published a paper on barriers to entry to FinTech players and put forward recommendations to mitigate them. The first set of barriers identified were of a regulatory nature. Some FinTech providers reported having obtained a license in other EU countries to provide services in Portugal to avoid the regulatory burden there. The paper advocated for a regulatory framework that follows the principles of efficient regulation, so that the regulatory requirements that apply to low-risk activities should be proportional to those risks, and less restrictive than those that cover higher systemic risk. Portugal also highlighted that the paper warned that the delays in implementing the open banking directive, PSD2, discouraged market entry due to the legal uncertainty it created as well as identified risks of market foreclosure by incumbent banks.

In secondary legislation, Portugal recommended that incumbents' degrees of freedom for granting access to account data should be reduced. Also, access should be given free of charge. Finally, they advocated for the adoption of innovation hubs and the regulatory sandboxes, in tandem, and articulating all the financial service regulators. These recommendations were for any innovation that was set up by the three financial regulators so in banking, insurance and capital markets. In closing, Portugal explained they are paying close attention to market developments by holding regular hearings and meetings with stakeholders, and they continue to try to avoid an evolution toward less open systems to the detriment of innovation efficiency and consumer welfare.

The Chair thanked Portugal then turned to **Israel**, where the Israeli Competition Authority (ICA) has been actively involved in trying to promote the principles of a payment service directive.

**Israel** began by describing the domestic banking sector, which suffers from high concentration, limited innovation and barriers to entry, and where the payments market is controlled by a few leading banks. As a result, credit card companies exhibit similar illness characteristics to the whole of the banking system. One important demand-side characteristic is that most households in Israel purchase most of their financial services from the bank in which their main current account is managed. The vision of the ICA is to create the infrastructure that will allow FinTech companies to enter financial markets and new products.

There was a draft legislation to regulate advanced payment services, and this legislation was based on principles of PSD2 that were adapted to the Israeli market. The principle was open markets to non-bank players maintaining the stability of the payment system, insuring consumer protection, and promoting technological and business innovation. Two bills were created, with one already passed and the other one yet to be passed, hopefully after the election in September in Israel.

The Chair thanked Israel and then gave the floor to **Mexico** to discuss their new FinTech law.

**Mexico** explained that in 2014 the Commission carried out a market study and issued recommendations regarding competition conditions in the financial sector. The study identified several competition problems, such as low mobility, penetration and inclusion on one side and high concentration and high bank profitability on the other one. The study also found that the structure, performance and competition levels in the financial sector could be improved with the introduction of new technologies to reduce costs and increase the productivity of the sector.

Mexico explained that in October 2017, the executive branch sent a FinTech bill to the Senate and most of those recommendations were enacted in the March 2018 FinTech law. Mexico outlined key points of the FinTech law which states that users of financial services are the owners of their information so that they can move it to different banks; that the transfer of data takes place under non-discriminatory conditions; and that credit institutions must provide banking services to FinTech companies. The law also prevents unreasonable interruption of information from traditional financial institutions to FinTech and promotes the use of open standards to facilitate the compatibility and interoperability of systems. Mexico noted that there are recommendations to favour innovation and the entry of new competitors without generating barriers to competition. With these initiatives, Mexico concluded that the country is confident that FinTech will introduce much-needed competition.

The Chair thanked Mexico then moved on to conclude the roundtable. The Chair noted that the financial sector has seen the first wave of disruption and is now waiting for a second. Next, he highlighted that there is huge potential in this new way of distributing financial services and that it may be quite favourable for consumers because it could resolve the complexities around the high switching costs between banks and reduce transaction costs. In the long run, the risks are largely centred around the idea that access to infrastructure, data and software have to remain open so that competition continues when there is disruption.

As regulation, the Chair noted that competition authorities have a role to play but they are certainly not the only ones. There is a need for co-operation between different types of regulators from data protection to banks overall. Some common observations were that regulation should be shifted from actors to functions. Also, because competition in this field is going to be the result of a combination of numerous regulations there was an appeal for regulators to work together, both nationally and internationally. This was to maintain interoperability, data privacy, stability and to protect consumers.

The Chair also reflected upon the number of principles that showed the need for regulation to be technologically neutral, non-discriminatory, proportional, and to have ensured interoperability. Finally, the Chair noted that within Canada, Portugal, Mexico, Israel and the United Kingdom, there was a large number of examples of successful advocacy in the form of recommendations on what regulation should look like. For example, Mexico adopted a law on FinTech where all the recommendations were taken on board by legislators. This is probably an avenue through which competition authorities could become more involved.

After offering the floor to the experts for their last comments, the Chair turned to **Mr Barberis**.

**Mr Barberis** noted that this forum's value was the breadth of countries present, as it is important to understand what FinTech or Big Tech competition means in different countries. Emerging markets or markets of unmet demand are the reason why an Alibaba or a Tencent can actually operate as they do in their markets in Asia. In the context of developed countries like the United States or Europe, competition will be more head-on immediately and that is because there are developed financial centres, which delivered poor service and customer experience. The value is in the comparison. For example, what China has done with Big Tech firms is something that Europe or the United States has not approached because of the market's state and because of the market definite objective that different countries have. Overall, Mr Barberis noted that there needs to be more cross-fertilisation of ideas across developed and developing countries; but also the experience of specific countries is highly valuable and should be built upon.

The Chair then gave the floor to **Mr Drury** to add his closing comments.

**Mr Drury** said that it is clear there is an opportunity to create fair, open and safe competition that provides customers with choices and fair access to data. There is also a key theme around regulation in terms of same activity, risk, rules and supervision.

The Chair in his closing comments noted that he agreed with Mr Barbaris about the differences among countries in terms of maturity of their markets and that the objectives or goals of regulation should be different depending on the level of development of each financial sector. He then thanked all of experts who brought their professional and academic experience to this roundtable.