1. A taxonomy of regulatory approaches to FinTech

The timing of this event is particularly apt to discuss FinTech developments, and the related challenges for banking regulators and supervisors. Yesterday, the European Commission issued its comprehensive and ambitious FinTech Action Plan, which includes several mandates for the EBA. Next week, the EBA will publish its Roadmap on FinTech, which defines a series of priorities for the coming two years, reflecting the results of a public consultation on our Discussion Paper launched in August 2017 and the new mandates under the Action Plan.

Before moving into the core elements of our Roadmap, I would like to share with you some thoughts on the attitudes of public authorities towards FinTech.

The policy debate on technological and financial innovation often focuses on two opposite approaches. The first, which I label “regulate and restrict”, entails the attraction of any new product, process or business model under the remit of existing rules, often coupled with the outright ban of innovative business that doesn’t fit into the rulebook. Market dynamics are constrained and innovators forced to adapt to the existing regulatory environment. The over-

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1 FinTech is defined at the EU and international standard-setting level as “technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services”.

regulated financial environment that prevailed in many countries worldwide until the end of the 1980s is a good example of this approach.

The second approach, which sits at the other end of the spectrum, can be represented by the motto “let things happen”. It has its roots in the strongly held belief that a dynamic financial sector needs some breathing space to innovate, free from the burden of regulation and the intrusive oversight of public authorities. It allows new players to conduct bank-like business in an unregulated environment and to experiment freely new products and business practices. This is what happened in the US at the beginning of this century, when the liberal attitude adopted by the authorities allowed the so-called “non-bank banks” to compete with regulated banks in a number of areas, without having to comply with the same requirements.

In reality, both these regulatory strategies have already shown their limits. The “regulate and restrict” approach is most often ineffective. The constraints imposed by national authorities may be easily circumvented in markets open to international business. Furthermore, the low speed of reaction of regulators to technological and financial innovation significantly impairs their ability to repress new business initiatives. Where their action is successful, the curb on innovation is likely to cause a significant loss of efficiency and competitiveness, which can be detrimental to the economy and not sustainable in the long term. The “let things happen” attitude has allowed a formidable increase in the risks in the unregulated sector, outside supervisory scrutiny. When the risks materialised, the complex web of interconnections between unregulated firms and regulated banks gave rise to a systemic crisis of unprecedented proportions. The idea that authorities could intervene, ex post, to clean up the mess and limit the damages to the economy, has proven misguided.

Most of the current regulatory approaches sit in between these two extremes. They are generally based on three components: (i) monitoring of innovation; (ii) assessment of risks vis-à-vis the public interest (micro-prudential, financial stability, consumer protection and market integrity); and (iii) selective application of the existing rulebook, where needed adapted to capture the innovation. In general, this pragmatic attitude revolves around a tiered regulatory structure, with differentiated regulatory requirements according to the risks for the firms, their customers, the financial sector and the economy at large. In principle, the objective is to deliver “same risk – same rules” outcomes.

Although this approach looks sensible, its practical application is fraught with difficulties. It may produce an overly complex regulatory structure, organised in numerous and sometimes overlapping layers. The boundaries separating different types of firms could be unclear, could quickly become obsolete and be circumvented via technological and financial innovation. Differences in national implementation often generate room for international regulatory arbitrage.

Making this pragmatic approach work requires a lot of commitment on the side of regulators, extensive dialogue with firms, and integrated approaches within the Single Market. Since its establishment, the EBA has been moving along this path. We have identified common challenges facing European regulators, have conducted deep dive analyses and published for consultation a

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number of specific reports and discussion papers addressing particular products or business practices, recommending common EU-wide regulatory approaches. When needed, we issued warnings for consumers. Issues such as virtual currencies, crowd-funding, contracts for difference, robo-advice and big data have been covered in our work so far. The EBA’s roadmap on FinTech aims at moving further in this direction.

2. Main takeways of the public consultation

The EBA Discussion Paper triggered a very rich set of responses. I will share with you what I believe are the main takeways of this consultation, as they have been instrumental in defining the agenda for the EBA work on FinTech. The feedback was generally positive. The consultation also illuminated some interesting tensions and possibly competing objectives that regulators and public authorities will need to address.

2.1. The need for pan-European approaches

One point on which we received unanimous feedback is that FinTech issues need to be tackled through consistent and comparable approaches across the Single Market. Not only to ensure that entities across the EU are indeed receiving equal treatment and compete fairly, while prudential and consumer risks are treated equally in all jurisdictions, but also for opportunity. FinTech firms, whether they be incumbent or new entrants, must be able to scale up new technology to offer services across the Single Market providing the associated benefits to all EU citizens.

Competition in the FinTech space is developing at the global level. As it often happens in innovative markets, the key for success lies in a large domestic market, which allows successful companies to achieve a scale enabling them to aim at global leadership. In the long term, European FinTech players would be at a significant disadvantage vis-à-vis their US and Chinese competitors, if the European markets remain segmented along national borders, with different sets of rules and uncoordinated actions by local authorities.

2.2. The perimeter of regulation

A key challenge, possibly the most relevant for banking regulators, concerns perimeter issues, i.e. whether – and if so by how much – we should extend regulatory and supervisory requirements to new FinTech players. According to our survey, 31% of FinTech firms in the sample were reported as not being subject to a regulatory scheme under EU or national law. Although this figure needs to be read with great caution (the survey was not comprehensive and did not relate to volumes of activity), many respondents – particularly incumbents such as traditional banks – focused on this finding to advocate for level playing field and effective policing of the regulatory perimeter. Same service and same risk should be subject to the same supervision and same rules, they argued.

This argument resonates with regulators. But things are not this simple. Even though FinTech firms may offer some bank-like products and compete with banks for the same customers, this doesn’t necessarily mean that they should be licensed, regulated and supervised as banks. We need to
make a key distinction, here, between the cluster of services that represent the essence of banking, and as such should be reserved to licensed banks, and those additional services that may be offered, on a standalone basis, also by other intermediaries, in competition with regulated banks.

I am of the view that the key feature that emerged through centuries, and painful systemic crises, as the essence of banking is the ability to provide liquidity on demand to the other sectors of the economy, allowing for both credit and debit position — i.e., the joint provision of deposit and credit. John Hicks\(^3\) identified this as the origin of the watershed in the history of financial markets, the passage from an “auto-economy” to an “overdraft economy”, that is from an economy in which financing needs can be satisfied only if savings have been previously accumulated to one in which banks can grant access to liquidity on demand through the debt instruments. This is the role commercial banks play in the process of money creation, as they generate deposits — the vast majority of broad money aggregates — by making new loans.\(^4\) The ability of commercial banks to create what James Tobin\(^5\) dubbed as “fountain pen money” gives them also a special role in crisis situations, as they act as lenders of next-to-last resort, i.e. they benefit from access to central bank facilities and channel liquid resources where they are most needed. This function has great relevance for financial stability and should be strictly reserved to banks and subject to enhanced levels of regulation and supervision.

However, we also have services that may be provided by banks, but are not intrinsically related to their essential function. These services, such as payments and the issuance of electronic money, may well be provided by other intermediaries, in competition with banks. Monitoring of innovation, risk assessment and a selective application of the rulebook — the three pillars I mentioned earlier — should be at play here. While paying special attention to consumer protection, this approach should be proportionate and might well be less intense than that applied to banks, due to the lower potential for systemic risk. In these areas of business, we may well let innovators experiment with new products and business practices. But we should never let de facto banks combine deposit-taking and lending outside the umbrella of strict regulatory requirements and effective supervision.

In fact, this is the underlying rationale for the definition of banking that is embodied in European legislation since the Second Banking Coordination Directive of 1988: deposit-taking is strictly reserved for licensed banks; any financial firm combining deposit-taking and lending should be regulated and supervised as a bank; banks may perform a long list of activities, which could also be provided by non-banks. This looks to me as a balanced and durable definition of banking.

An excessive extension of the regulatory perimeter, attracting most FinTech firms under the scope of bank-like supervision just because they compete with banks in some market segment, is likely to be a sub-optimal solution. It would risk excessively constraining financial innovation, as the compliance burden placed on banks is not sustainable for small innovative start-ups. Importantly, it would also risk lending credibility via regulation to firms that do not deserve it, legitimising


activities that could carry high risk and generating an expectation of public protection in case something goes wrong.

Let’s consider for a moment the current debate on crypto-currencies. In principle, they could be confused for a legal tender, as they allow to perform payments, also on an international basis, relying on an innovative mechanism, the distributed ledger technology (DLT). Recently, several central banks have argued that crypto-currencies lack the institutional back up of a central bank and cannot fulfil the traditional functions of money – unit of account, means of exchange and reserve of value. The very large fluctuations in the valuations recently experienced by most crypto-currencies seem to confirm this view. Still, I am yet to be convinced that this is a sufficiently strong argument to attract crypto-currencies under the full scope of regulation. In its 2014 Opinion, the EBA sketched a possible regulatory framework that would be required for crypto-currencies to be regulated comprehensively but suggested that the framework would enter uncharted territory and would require many years to develop. In the short term, a more nuanced strategy was preferable, built around three pillars: (i) full application of customer due diligence obligations under the anti-money laundering and counter terrorist financing (AML/CFT) regulations – a point that has now been included under the revised Anti-Money Laundering Directive (AMLD5); (ii) warnings to consumers that investments in these assets are not protected by any regulation and, therefore, by any safety net, so that they may lose all the money invested – a step that has been accomplished through a recent warning we issued jointly with ESMA and EIOPA; and (iii) preventing regulated financial institutions from buying, holding or selling these products – and possibly also from establishing direct or indirect connections with managers of crypto-currencies –, so as to segregate the two sets of players and avoid contagion. This strategy would avoid granting any official recognition to a sector that is still very heterogeneous, changing fast and, as such, difficult to regulate and supervise. It would also convey a clear and credible message to users and investors, that there is no form of public protection to investment in these often highly speculative assets.

This example shows the difficulties in dealing with perimeter issues. Regulators need to continuously review the boundaries and consider including new players under their remit. But they need to maintain an informed and measured approach.

2.3. Interconnectedness and ‘step-in’ risk

An additional element of complexity emerges when new entrants start offering increasingly specialised, or fragmented, elements of the supply chain of banking services, which could then be “rebundled” onto single consumer platforms, or remain a source of systemic risk due to the involvement of banks at some stages of the production process – generally, the provision of guarantees or liquidity lines. We have seen this complex relationship at work in the run up to the financial crisis, with the emergence of the “originate to distribute” business model. As we know from that experience, activities which may appear outside of the traditional banking model may in fact be intimately connected to those same banks. We saw this at work with securitisation and the relationships, both financial and reputational, between banks and Special Purpose Vehicles (SPVs). In a nutshell, we experienced ‘step-in’ risk.
When I see the complex web of partnerships, joint ventures, associations and other links between FinTech firms and more traditional banks, I wonder whether the same dynamics are at play. In some instances, banks own FinTech firms, sometimes they partner with them, sponsor them at a distance or in a lab and sometimes they refer clients to them, such as crowdfunding platforms. Thus, the links can be complex and may be directly financial, indirect through support agreements, or reputational. As the conduct redress costs of recent years show, these links can have a major impact from both a consumer and prudential perspective. And, moreover, if risks arise, we need to be mindful of the prudential impact of banks “stepping in” to support firms that may not form part of the consolidated group.

Thus, heightened monitoring and rigorous analysis are needed in the coming years, focusing also on the interconnections between new FinTech firms and traditional regulated entities and on the possible migration of risks outside the radar screen of supervisory authorities.

2.4. Proportionality and technological neutrality

Perhaps contrary to the calls for tough policing of the perimeter, was the request from many respondents that regulators should be proportionate and ensure that any existing, new or modified regulations are technologically neutral, such that regulation allows for the substitutability of technology and does not result in firms being locked into vertically integrated technology monopolies. In this instance, comments came largely from those FinTech players actively seeking “disruption” and seeing new business opportunities.

At a first look, this call for proportionality is not different from what we experience in almost any area of our work. But proportionality too takes on a special flavour in relation to FinTech. Regulators and supervisors should not be blind to any inadvertent bias in their dealings for the status quo. Indeed they should be actively cognisant of such bias and remain neutral on how financial services are provided and actively take steps to avoid impeding the emergence of new technology and new entrants.

Let me try to offer some practical examples of challenges we face in the area of technological neutrality. The first is the developing practice amongst banks to rely on cloud outsourcing providers. The approach we developed is that the provision of cloud services is permitted but has to be subject to appropriate governance arrangements so that operational risks are mitigated in the same way they would be if the technology were provided in-house. The responsibilities of the senior management of the bank are not delegated to the third party and this enables firms to embrace specialist technologies regardless of their business models.

A second example is in the area of strong customer authentication and secure communication under the revised Payment Services Directive (PSD2). PSD2 has the explicit objective of facilitating innovation and enhancing competition in payment services, allowing new service providers to access customers’ payments accounts at incumbent banks in a secure and standardised way. In developing technical standards, we faced a clear trade-off between technological neutrality, which required to refrain from including detailed technological specifications for the account interfaces,
and the integration of the Single Market for payment services, which pushed, instead, towards detailed standards including technological specifications, to be applied by all players across the EU. We strived for a balanced approach, which did not specify requirements for Application Programming Interfaces (APIs) and referenced instead a number of standards of the International Standardisation Organisation (ISO) with which the interfaces would have to comply.

There are a number of routes we should follow to pursue a proportionate, technologically neutral approach. One is through the review and monitoring of new and existing regulatory products to avoid inherent bias towards the status quo. Another is in the area of authorisations and the creation of sandboxes to facilitate proportionate but ultimately consistent rules to support new technologies, and the adoption of innovative business models. And finally another way is to take active steps to promote ongoing knowledge sharing and best practices to ensure supervisors understand new technologies. For this, the EBA intends to create a knowledge hub and build technological neutrality into supervisory guidelines and best practices. I shall offer some more details in a moment.

2.5. Protecting consumers

Another set of comments to our discussion paper focused on the need to ensure that customers benefit from this new technology but stay protected. The potential benefits are large, as the cost of financial service provision falls while the choice, accessibility and quality may potentially increase. But the possible downside risks for customers are also huge.

New technologies and new channels for the distribution of products may generate confusion in consumers, who could end up buying highly speculative products without properly realising that they risk losing all the amount invested, without any type of public safety net. These dynamics have been clearly at play in the recent bout of volatility in the valuations of crypto-assets. Authorities have to consider the applicability of existing rules to new products, warn users of potential risks and consider banning products that may generate consumers’ detriment.

Cyber security is another key area for concern, as end consumers may well be affected if firms are vulnerable to attacks and contracts do not offer reliable forms of redress, nor any other protection from losses.

Individual data protection and privacy are also a key challenge, as greater choice and tailored offerings rely on the use of big and personal data (i.e., it relies both on access to mass datasets but also our own data as individuals).
3. The EBA’s roadmap

Let me now walk you through how we plan to address these issues according to the Roadmap.

3.1. Authorisations

Following up on a previous targeted review of the prudential treatment of financial intermediaries carrying out credit intermediation activities outside a prudential framework under EU law,6 the EBA performed new work that indicates that there remain variations in the treatment of FinTech firms in the EU. We need to investigate this to determine whether they give rise to level playing field issues, or result in regulatory arbitrage or consumer protection risks. Our investigations must look beyond a silo approach based on the status of the firm providing, or supporting the provision of, the financial service. Instead a dynamic and wide ranging approach is needed, to understand the nature of the provision of financial services via new technologies, the opportunities and risks presented, and any interlinkages with other participants in the financial system, for instance as a result of partnership or outsourcing arrangements. To investigate the perimeter issue, whilst ensuring proportionality and technological neutrality, requires two actions in the authorisation space.

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The first concerns the regulatory treatment of FinTech firms which, during the course of the EBA’s 2017 work, were identified by the competent authorities as carrying out financial services pursuant to a national authorisation or registration regime, or where no regulatory regime could be identified. Here, the EBA will analyse in further detail the nature of the services being provided and their regulatory treatment with a view to ensuring that similar services, entailing comparable risks, are regulated in a consistent way across the EU. The EBA expects to report its assessment before year-end.

The second set of actions relates to regulatory sandboxes, designed to support innovation by creating the safe space for testing emerging technologies. These are schemes intended to enable innovative products, services, business models and delivery mechanisms to be tested without necessarily being subject to the full set of regulatory or supervisory requirements. In principle, such schemes can offer a range of benefits, for example by facilitating a strong dialogue between firms, regulators and supervisors about the deployment of new technologies and enabling low-risk experimentation in a closely controlled environment. Indeed, over half of the Member States have already put in place some form of sandbox. However, the results of preliminary analysis by the EBA show that the characteristics of the schemes vary, for example, in terms of whether they are open only to new entrants or also to incumbents, the scope of financial services that may be carried out, the applicable regulatory obligations and licensing limitations, and exit criteria.

We need to ensure that firms can enter and participate in the internal market for financial services on an equal footing and that a high standard of consumer protection is maintained. With this in mind, in line with the Commission’s Action Plan, in 2018, the EBA will conduct further analysis of sandbox regimes with a view to completing an assessment of their characteristics and identifying best practices. If appropriate, we will consider developing Guidelines. The EBA will also look more generally at competent authorities’ approaches to licensing, in order to review the extent to which any discretions or special capacity under national licensing schemes are been used. The work will inform an EBA Report reviewing the approaches adopted and setting out best practices and procedures. If necessary, we will also recommend adaptations of EU financial services legislation in order to ensure a proportionate and technologically neutral approach.

3.2. Prudential monitoring and cybersecurity

The EBA will further refine its monitoring of risks, in an effort to better understand the context in which technological changes are taking place and their impact on firms from a prudential, operational risk, and business model perspective. The scope will not be limited to incumbent banks, as we are also interested in understanding the effects of FinTech on payments and e-money institutions.

These efforts are part of our risk analysis and regulatory role, to monitor whether regulation remains current, to share and update supervisory practices while remaining technologically neutral. In particular, we recognise the need to support the supervisory community in building appropriate knowledge of the new technologies used in supervised entities and their interaction with other market participants and technology providers. All these aspects are important for ensuring a level
playing field and fostering supervisory practices that avoid unnecessary impediments to cross-border activity.

As part of our efforts to ensure the robustness of supervisory approaches we will also be paying special attention to enhancing the cyber resilience of financial market participants. Our efforts will focus on improving and harmonising supervisory practices for assessing the management of cybersecurity risk and standards for resilience testing.

3.3. Adapting anti-money laundering and counter terrorist financing controls

Financial technology finds early adopters amongst those needing to move money quickly and quietly. Whilst it is a boon for consumers, there is a risk that these technologies could weaken anti money laundering and counter terrorist financing (AML/CFT) safeguards. At the same time FinTech, and specifically the use of new technologies for smoother and more effective regulatory compliance (RegTech), may also create opportunities to improve the effectiveness and efficiency of AML/CFT controls. To this end, the EBA, together with other ESAs, published a joint Opinion on the use of innovative solutions to enhance the effectiveness and efficiency of AML/CFT compliance. Going forward, the EBA will focus on the identification of further ML/TF risks associated with FinTech providers and innovative solutions to address them.

3.4. Fostering the protection of consumers

The instruments for protecting consumers need to be upgraded to reflect the new technological realities. Our work programme includes work on virtual currencies as a follow-up to the publication of the warning for consumers that was published on 12 February 2018. This will entail an assessment of whether the current framework is appropriate and in particular, as I mentioned above, whether, how and at which speed should we consider attracting virtual currencies providers within the perimeter of regulation.

Also, we will be looking closely at cross-border issues. This work stream will aim at identifying potential national barriers, stemming from differences in consumer protection and conduct of business requirements across Member States, and consider steps to remove them and allow innovations to be scaled up at the Single Market level, to the benefit of all EU citizens. This work should include an understanding of the allocation of responsibilities between home and host authorities, also with reference to activities performed via the internet.

We will be looking also at disclosure to consumers and in our monitoring and coordination of national initiatives on financial literacy we will develop a specific focus on FinTech.

3.5. Towards a FinTech knowledge hub

To facilitate the all-important task of sharing supervisory intelligence and identify best practices, we will establish an EBA knowledge hub. This initiative will support the exchange of information between competent authorities and the dialogue with market participants about innovations in the
provision of financial services and risks that they may potentially pose. The hub will help detect emerging trends and monitor the impact of FinTech on the whole financial ecosystem, changes in business models, risks and opportunities (including ML/TF), consumer protection and other areas under the EBA’s competence.

This knowledge hub will be a key tool to ensure that all the initiatives included in the EBA’s Roadmap are based on an appropriate understanding of developing business practices and promote joined-up and technologically neutral responses from the European regulatory community.

4. Conclusions

The debate on how to regulate innovation is often laden with prejudices and undue simplifications. Kevin Werbach, from the Wharton School, identified three points that I find useful to conclude my remarks. First, he argued, it is a misunderstanding to assume that the online, digital world is inherently different from the offline world and that therefore we need a totally new set of rules. Current rules may well apply, and be effective, also in dealing with technological innovation. The first step for regulators is to understand how the new products and business practices fit in the existing regulatory framework. Second, he challenges the assumption that innovation needs an environment with no regulation to thrive. The conscious choice by regulators of not imposing the full set of rules on a nascent technology can lead, as the technology gains pace, to a more mature and productive dialogue among innovative firms and regulators, which is Werbach’s third point. In some areas, the regulation itself may become more algorithmic and data-driven, simplifying the compliance process for firms and the supervisory activities for the authorities. Along the lines of Werbach, can we only imagine what today’s business communication would be if Skype’s IP technology had been left outside the regulatory framework? Competition policies also play a supportive role, as we have clearly seen also in the EU with reference to payments services.

I think our Roadmap moves within this framework. Rigorous but proportionate policing of the perimeter, accommodative but safe sandbox regimes, and sharing of intelligence and best practice amongst supervisors and with market participants via a knowledge hub are the tools we will deploy in the coming years, in the attempt to achieve a proper balance.

Thank you very much for your attention.

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7 Kevin Werbach, How to Regulate Innovation – Without Killing It, Interview on Knowledge@Wharton, 3 February 2017