European Business Law Review, Forthcoming 2020.

A Truly Future-Oriented Legal Framework for Fintech in the EU

Ilias Kapsis[1]

Abstract

This article reviews critically the recent EU legislation and proposals for the regulation of financial technology ('fintech") and makes recommendations for legal improvements in the proposed frameworks, which will help to accelerate fintech growth, a declared EU goal, in the years to come. The rise of fintech driven by non-bank entities (technology startups, finance, big tech and big retail companies) helps to transform financial services industry, but also threatens the market positions of traditional banks and through them potentially the stability of the financial system. The current EU proposals, as presented in the Commission's Fintech Action Plan published in 2018 and follow-up measures, outlined a number of steps to support fintech, while ensuring the protection of market stability and consumers and the maintenance of level playing field in the financial services markets. The article argues that, while the Commission's proposed policy mix contains certain positive measures for fintech, it remains, overall, conservative and favours the incumbents. It also argues that unless the Commission becomes bolder and adopts a more flexible legal framework for fintech (for which the article makes specific recommendations), the latter will not grow at the pace needed to help build a competitive advantage for the EU financial sector. The Commission's continuing support of the established market landscape dominated by financial conglomerates employing traditional business models risks undermining the ability of the European financial system to adapt to the changing competition landscape created by advancing financial technologies and to fully address stability concerns, which emerged as a result of the financial crisis.

1. Introduction

[1] Senior Lecturer in Banking & Finance Law, University for Bradford, United Kingdom

Financial technology ("fintech") is a term encompassing a wide range of technological innovations which are used by financial services. Using technology to generate efficiencies and improve service to consumer is not a new phenomenon in the sector. The use of telecommunications and computers, the deployment of ATMs and e-banking are technological innovations which had been used in the past to transform financial services[2]. However, the latest wave, which emerged after the last financial crisis, is more radical and is expected to have far-reaching effects in the industry, primarily because in addition to generating efficiencies and other improvements to the business models of established ('incumbent') banks, it has also created new competitors by bringing to financial markets companies from the technology or finance sector. which deliver technology-enabled, data-driven innovative products and services at low cost for consumers. Fintech startups, finance companies, established big tech and big retail companies deploying artificial intelligence, cloud computing, big data analytics, decentralised digital networks and the internet of things[3] belong to this group. The new entrants can offer a wide range of products and services covering the entire financial sector but have particularly strong market presence in consumer credit, personal finance and fund transfer markets[4]. Other, more radical innovations, such as a new generation of privately issued digital currencies (bitcoin, ether), blockchain (or DLT) technology and a financial ecosystem linked to them, create alternative financial and currency markets challenging not only established market structures in financial services, but also central-bank-issued currencies[5]. Finally, companies have discovered new ways to access low-cost finance by selling privately-issued tokens through initial coin offerings (ICOs) to investors in exchange for funds[6].

Currently, market evidence indicates that the standalone fintech solutions, with a few exceptions, have not captured a systemically important part of the financial markets, but their share and market influence increase rapidly. National regulators participating in the 2019 Fi-

[2] Dougas W. Arner, Janos Barberis and Ross P. Buckley, *150 years of Fintech: An evolutionary analysis,* 3 The Finsia Journal of Applied Finance, 22 (2016).
[3] Stijn Claessens, Jon Frost, Grant Turner and Feng Zhu, *Fintech Credit Markets Around the World: Size, Drivers and Policy Issues*, *BIS Quarterly Review*, 29 (2018).
[4] *Ibid.*
[5] For a discussion of the legal implications from the appearance of crypto-assets see Phoebus Athanassiou, *Impact of digital innovation on the processing of electronic payments and contracting: an overview of legal risks*, European Central Bank, Legal Working Paper Series, No 16, October (2017).
[6] For more details about the situation with the regulation of ICOs see Securities and Markets Stakeholder Group, *Own Initiative Report on Initial Coin Offerings and Crypto-Assets,* Advice to ESMA, ESMA22-106-1338, 19 October (2018).

nancial Stability Board (FSB) Global Monitoring Report on Non-Bank Financial Intermediation[7], reported that the fast growing fintech credit was one of the key developments in the non-bank financial space since 2017. The fintech influence in the broader financial industry extends well beyond the non-bank, fintech, sector to traditional banks. Most incumbent banks now seek to follow their competitors by developing their own technology-driven solutions in partnership with fintech companies willing to help them.

A 2017 PWC Global Fintech Survey[8], found that 80 percent of incumbents participating in its survey believed that their businesses were at risk to standalone fintech competitors. In a 2018 EY industry survey[9], disruption from technology was on the top of the emerging risks list with 79 percent (same as data integrity and destruction). The PWC Survey found that 82 percent of incumbents would seek to increase their fintech partnerships in the coming years.

In addition to the competition in the financial markets, there is a parallel race between states for market leadership on fintech, as governments see broader benefits for their national economies from its use.

A 2018 EU study[10] found that US is the market leader with 1500 companies followed by EU with 1020. Other market studies[11] placed EU behind China and US in the global competition for fintech. Around 45 percent of the EU companies are based in UK, which currently is in the process of exiting the EU[12]. EU ranks fifth in the world in fintech investments behind US, China, the UK and India[13]. EU fintech companies have smaller size and receive lower average

---

[7] Financial Stability Board, *Global Monitoring Report on Non-Bank Financial Intermediation 2018*, February 4, (2019) available at http://www.fsb.org/2019/02/global-monitoring-report-on-non-bank-financial-intermediation-2018/ [Accessed 28 November 2019].

[8] PwC, *Global Fintech Report,* (2017) and, Stacey English and Susannah Hammond, *Cost of Compliance 2018,* Report, Thomson Reuters.

[9] EY and Institute of International Finance, *Global bank risk management survey, Accelerating digital transformation*, Ninth Annual EY/IIF Survey, available at https://www.ey.com/en_gl/banking-capital-markets/should-risk-management-rein-in-digital-or-help-accelerate-it [Accessed 28 November 2019].

[10] A. Fraile Carmona, A. Gonzalez-Quel Lombardo, R. Rivera Pastor, C. Tarin Quiros, J. P. Villar Garcia, D. Ramos Munoz, L. Castejon Martin, *Competition issues in the Area of Financial Technology (Fintech)*, Policy Department for Economic, Scientific and Quality of Life Policies, Directorate-General for Internal Policies, PE 619.027, July, (2018), available at https://www.finextra.com/finextra-downloads/newsdocs/ipol_stu.pdf [Accessed 28 November 2019].

[11] E.g. Cambridge Centre for Alternative Finance (CCAF) Academy of Internet Finance (AIF) of Zhejiang University, *The Future of Finance is Emerging: New Hubs, New Landscapes*, 14 November (2018) available at https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2018-ccaf-global-fintech-hub-report-eng.pdf [Accessed 28 November 2019]

[12] Carmona et al. s*upra* n.10.

[13] *Ibid.*

funding compared to EU competitors[14]. In addition to the above countries, EU faces competition also from smaller, but significant players such as Singapore, Hong Kong, Japan, Australia and Switzerland[15].

The current position of the Financial Stability Board (FSB) and other international regulators[16] is that the rapid growth of fintech poses a number of potential risks for consumers and the stability of the financial system, which need to be monitored closely, but that the market size of fintech remains small and therefore there are no immediate systemic risks for the financial system. Regulators also acknowledge their limited knowledge about certain aspects of the new technologies, the inadequacy of existing legal frameworks and the need to use innovative regulatory solutions in these technologies (e.g crypto-assets, DLT and ICOs)[17]. For the time being, existing legal frameworks created for traditional finance (for payments, financial instruments, money laundering etc) are being amended or interpreted flexibly to incorporate aspects of fintech[18] and new frameworks tailored to fintech are being considered[19]. In addition, regulators and financial institutions experiment with tech-based regulatory solutions (the so-called '*regtech*'[20]), which could allow regulators to monitor in real time the market developments and institutions to more effectively comply with regulatory requirements. These technologies are still under development.

While working out a longer term regulatory responses, public authorities have issued a number of warnings to the public about potential risks from the use of more radical fintech applications (e.g crypto-assets) [21] and take a rather cautious approach towards them. In other cases

---

[14] *Ibid.*
[15] *Ibid.*
[16] See e.g. Financial Stability Board, *Financial Stability Implications from Fintech, Supervisory and Regulatory Issues that Merit Authorities' Attention*, (27 June 2017); also the EBA and ESMA findings discussed below.
[17] *Ibid.*
[18] See for example the new Payment Services Directive (PSD2), which came into effect in January 2018, containing amended provisions incorporating fintech-based payment solutions or the 5th Anti-Money Laundering Directive to be enacted in 2020, which aims to include in its scope risks associated with virtual currencies. See also the discussion below about the flexible application of existing rules employed by the Commission and the European supervisory authorities (ESAs).
[19] See e.g. the Commission's proposed regulation on crowdfunding, which is linked to fintech discussed later.
[20] For the use for RegTech see European Securities and Markets Authority *Regtech and Suptech-Change for Markets and Regulators*,14 March, (2019) available at https://www.esma.europa.eu/press-news/esma-news/regtech-and-suptech-–-change-markets-and-regulators [Accessed 28 November 2019].
[21] See e.g. the joint ESAs' warning to EU consumers: *ESMA, EBA and EIOPA warn consumers on the risks of Virtual Currencies*, 12 February (2018), available at https://eba.europa.eu/-/esas-warn-consumers-of-risks-in-buying-virtual-currencies [Accessed 28 November 2018].

(e.g. innovative payments methods) regulators seem more keen to embrace change and market opening and take steps in this direction.

In EU, the Commission proceeded in March 2018 to the publication of its Fintech Action Plan (Fintech AP)[22] with the purpose of building a "*more competitive and innovative European financial sector*". The Plan along with other significant EU flagship initiatives, such as the Single Digital Market and the Capital Markets Union, are aimed at taking EU to the new digital era. In addition, the European Banking Authority (EBA), published on March 2018 a Roadmap for the regulation of fintech[23], which sets out EBA's priorities for the period 2018/19.

The purpose of this article is to critically evaluate the EU Fintech AP and other related EU initiatives with the aim of establishing their suitability for achieving the EU fintech objective of building a competitive industry which can support the economy without hurting market stability and consumers. Following the evaluation of EU initiatives, the article will recommend certain principles and elements which could be incorporated in any future-oriented EU fintech framework to make it more effective. The Commission's AP and other EU policy documents have set as a future goal the creation of such a framework as an essential step for the growth of the industry.

The article is structured as follows: section 2 discusses definitional issues and the fintech market characteristics in EU; section 3 reviews the current legal situation in EU in regards to fintech and focuses particularly on the Fintech AP published in March 2018; section 4 discusses the follow up measures adopted by EU following the publication of the Action Plan; section 5 evaluates the current fintech position of the EU; section 6 presents and discusses the author's proposals for essential elements of any effective future oriented framework for fintech; section 7 concludes the article.

2. Definitional issues and fintech market characteristics in EU

FSB has defined fintech as '*technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect*

[22] *Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions 'Fintech Action plan: For a more competitive and innovative European financial sector'*, COM/2018/0109 final, (8 March 2018).

[23] European Banking Authority, *The EBA's Fintech Roadmap", Conclusions from the consultation off the EBA's Approach to Financial Technology (Fintech)*, (15 March 2018), available at https://eba.europa.eu/-/eba-publishes-its-roadmap-on-fintech [Accessed 28 November 2019].

on financial markets and institutions and the provision of financial services'[24].The European Commission has defined fintech as '*technology-enabled and technology-supported financial services'*, which '*aims to introduce new technological solutions for speedier, securer and more efficient financial product*s'[25].

A McKinsey Fintech Report[26] identified four broad fintech variants each operating in different markets using a variety of business models: a. fintechs as "*new entrants, startups, and attackers*" who seek to establish market positions in financial products and services; b. fintechs as incumbents who seek to improve their market performance; c. fintechs as ecosystems orchestrated by large technology companies (e.g. Alibaba), which have already strong customer base and seek to enhance through fintech their existing platforms; d. fintechs as infrastructure providers, which seek to sell services to financial institutions.

EBA published in 2018 a report[27] where it identified a number of key fintech uses for the financial industry and carried out an evaluation of the opportunities and risks. The report highlighted the following fintech uses:

a. biometrics (e.g. fingerprint recognition in mobile banking applications) for customer authentication. They can be used in addition to existing methods such as passwords, security questions etc. to improve consumer experience and security.

b. Machine-learning and big data techniques to improve the financial institution's risk management and better understand their customers. Credit scoring is one of the prominent areas where the new techniques are used.

c. Automated investment advice through online advice websites and robo-advisors offering mass-scale investment advice.

d. Distributed ledger technology (DLT) and smart contracts in the area of trade finance to simplify processes and reduce paperworks. DLT can also be used to improve the customer identification and verification processes in the context of anti-money laundering compliance.

---

[24] *Supra* n.13.

[25] *Report from the Commission to the European Parliament and the Council on the assessment of the risks of money laundering and terrorist financing affecting the internal market and relating to cross-border activities,* Brussels, 26.6.2017 COM(2017) 340 final.

[26] McKinsey&Company, *Synergy and disruption: Ten trends shaping Fintech*, Global Banking, December, (2018) available at https://www.mckinsey.com/industries/financial-services/our-insights/synergy-and-disruption-ten-trends-shaping-fintech

[27] European Banking Authority, *Report on the prudential risks and opportunities arising for institutions from Fintech*, 3 July (2018), available at https://eba.europa.eu/-/eba-assesses-risks-and-opportunities-from-fintech-and-its-impact-on-incumbents-business-models [Accessed 28 November 2019].

e. Mobile wallets such as Apple Pay with the use of Near Field Communication (NFC). This method allows linking credit/debit cards to mobile devices, which can be used for e-commerce and point-of-sale (POS) payments.

f. Cloud services which allow financial institutions to migrate core systems to public clouds, which offer flexibility lower-costs, scalability and agility.

In the above areas fintech contributes to improved customer experience while assisting banks to lower their costs and improve their services. Financial inclusion may also improve due to the ability of fintech to reach underserved or excluded by incumbents customers. On the negative side, the EBA analysis found a number of risks[28] associated with bank dependence on IT companies for running the fintech applications, the risks inherent to IT (e.g. cyber-security problems), the currently untested status of many of the new technologies, concerns about the management, analysis and exchange/transfer of customer data and jurisdictional issues associated with the decentralised nature of many new technologies which have spread through the internet across different countries and regions.

EBA has also paid particular attention to the impact of fintech on incumbent credit institutions. Its analysis[29], identified the transformative and disruptive effects of fintech in the traditional financial sector, as it helps banks to improve their internal processes, but also disrupts the function of traditional markets creating new financial markets where independent fintech companies can have significant and sometimes dominant presence. EBA's analysis noted that although fintech threatens through increased competition the revenues of incumbent banks, it can also help the latter to become more stable and integrated. Currently, many incumbent banks seek to address the challenge by developing partnerships with fintech companies[30]. Others have accelerated the adoption of fintech-inspired innovations although larger financial institutions with complex structures face significant challenges[31]. The involvement from fintech-side of many big tech companies creates the conditions for increased competition in the financial markets, which could create a new more diverse financial ecosystem in the future.

In terms of the types and features of fintech companies active in EU a market survey by EBA[32] found the following: EU fintech companies provide a wide range of financial services

[28] *Ibid.*
[29] *Ibid.*
[30] European Banking Authority, *Risk Assessment of the European Banking System*, December (2018), available at https://eba.europa.eu/risk-analysis-and-data/risk-assessment-reports [Accessed 28 November 2019]; also *ibid.*
[31] *Ibid.*
[32] European Banking Authority, *Discussion Paper on the EBA's approach to financial technology (Fintech)*, EBA/DP/2017/02, (4 August 2017).

with dominant or strong presence in the markets for payments, clearing, compliance and lending; they apply a wide range of financial innovations such as online distribution channels, online platforms (eg. crowdfunding, peer-to-peer transfers); they target a range of end-users primarily consumers and regulated financial institutions; a significant proportion of them is in control of customer funds; they are subject to highly varied regulatory regimes with some of them being subject to EU law, some to national laws[33], while others are not regulated; national authorisation regimes cover various types of fintech companies and vary in their characteristics.

The EBA's mapping exercise also highlighted the existence in half of EU jurisdictions of regulatory sandboxes, innovations hubs or similar regimes aiming at supporting the development of fintech[34].

3. The current legal situation in EU and the Fintech Action Plan

A 2017 report of the European Parliament's Committee on Economic and Monetary Affairs, called on the Commission[35] '*…to draw up a comprehensive Fintech Action Plan…. which can contribute overall to achieving an efficient and competitive, deeper and more integrated and stable and sustainable European financial system, provide long-term benefits to the real economy and address the needs of consumer and investor protection and of regulatory certainty'*. The Commission should adopt[36] a '*proportionate, cross-sectorial and holistic approach'* to fintech, using lessons learned from other jurisdictions and adapting to the diverse environment of fintech. The European Parliament has also called the Commission to act, where possible, as a first mover in the international competition for fintech[37].

In 2017 the European Council called[38] the Commission to urgently address emerging trends in areas such as artificial intelligence and blockchain, while ensuring "a high level of data protection, digital rights and ethical standards". The European Council also called the Commission to "*put forward the necessary initiatives for strengthening the framework conditions*

---

[33] Ibid.
[34] *Ibid.*
[35] European Parliament, *Fintech: the influence of Technology on the Future of the Financial Sector,* (2016/2243(INI))", Committee on Economic and Monetary Affairs, A8-0176/2017, (28 April 2017).
[36] *Ibid.*
[37] *Ibid.* para. 4.
[38] European Council meeting (19 October 2017) – Conclusions, EUCO 14/17, CO EUR 17, CONCL 5, available at http://www.consilium.europa.eu/media/21620/19-euco-final-conclusions-en.pdf [Accessed 28 November 2019].

with a view to enable the EU to explore new markets through risk-based radical innovations and to reaffirm the leading role of its industry"[39].

The Commission's Action Plan (AP), which was published on 8 March, 2018, highlights the EU decision to create a more "*future-oriented regulatory framework*" which embraces digitisation and creates an environment where "... *innovative fintech products and solutions can be rapidly rolled out across the EU to benefit from the economies of scale of the single market without compromising financial stability or consumer and investor protection*"[40].

The AP stresses the significant market benefits from the use of fintech and its significance for the Capital Markets Union (CMU), another big EU project for which the Commission published an Action plan in 2015[41]. CMU is aimed at unlocking more investments from EU and internationally, connect finance to investments, make the financial system more stable and deepen financial integration and competition[42]. Fintech will help to deepen and broaden CMU, "*by integrating the potential of digitisation to change business models through data-driven solutions in asset management, investment intermediation and product distribution*"[43].

The AP emphasises that EU regulation and supervision should allow firms to benefit from financial innovation, but they should also ensure the protection of consumers and investors and the resilience and integrity of the financial system. Earlier, in the Fintech Consultation document[44], the Commission identified three core principles on which its fintech approach will be based: **technological neutrality, proportionality, and market integrity**. Between proportionality and market integrity the Commission's choice is the latter and should be secured through appropriate regulation[45]. Emphasis is given on measures dealing with cybersecurity, anti-money laundering/terrorism financing, data and consumer protection. Clarifying the EU approach, EBA argued[46] that any inconsistencies in regulation or any regulatory gaps could lose the trust of consumers. Regulatory consistency is to be achieved through the *"same service, same rules"*

[39] *Ibid.*
[40] Preamble of the Plan.
[41] *Communication 'Action Plan on Building a Capital Markets Union'*, COM(2015) 468, 30 September (2015); *Communication 'On the Mid-Term Review of the Capital Markets Union Action Plan'*, COM(2017) 292, (8 June 2017).
[42] 2015 Communication *ibid.*
[43] Mid-term Review of CMU Action Plan s*upra* n. 41, para. 4.3.
[44] European Commission *Fintech: A more competitive and innovative European financial sector*, (16 March 2017), available at https://ec.europa.eu/info/consultations/finance-2017-fintech_en [Accessed 28 November 2019].
[45] See European Banking Authority's response to Deutsche Bank in the context of its 2017 Discussion paper on Fintech (the Document and other responses are available at https://eba.europa.eu/regulation-and-policy/other-topics/approach-to-financial-technology-fintech-/-/regulatory-activity/discussion-paper) [Accessed 28 November 2019].
[46] *Ibid.*

approach. This approach also supports the achievement of other policy goals, such as that of regulatory arbitrage avoidance and of the establishment of level playing field between fintech and incumbent banks.

Other EU legal instruments such as the Payment Services Directive[47] and the Directive and Regulation on Markets in Financial Instruments[48] have also been dealing with similar objectives. The AP emphasises the Commission's earlier proposal, as part of the review of the European supervisory framework[49] that the European Supervisory Authorities (ESAs) should systematically consider fintech in all their activities. The General Data Protection Regulation (GDPR)[50], which came into force in 2018 and eIDAs Regulation[51] are both aimed at regulating the use, management and flow of data, which are essential elements of fintech innovations.

The AP identifies three broad areas of activity for promoting the above-mentioned policy objectives: a. enable innovative business models to reach EU scale; b. support the uptake of financial innovation in the financial sector; c. enhance security and integrity of the financial sector.

a. Measures to enable innovative business models to reach EU scale[52]

The AP highlights the need for an EU-wide "c*omprehensive European passporting regime*" for crowdfunding providers, which will address inconsistencies and ineffectiveness in the current mix of EU and national applicable laws and enable innovative businesses to scale-up across EU, while ensuring sufficient protection for investors and project owners. The proposed regime will ensure the stability, integrity, and fairness of the relevant markets. The AP highlights the need for further efforts to identify diverging licensing requirements that affect fintech firms and highlights follow-up actions to clarify the applicable EU legislative frameworks for

---

[47] *Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market.*

[48] *Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments* and *Regulation EU 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.*

[49] European System of Financial Supervision, available at https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/european-system-financial-supervision_en#reviewoftheesfs [Accessed 28 November 2019].

[50] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).*

[51] *Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.*

[52] Section 1 of the Plan.

services; assess the need for a new framework for fintech business models; and provide guidance to ensure convergence of national regulations.

The AP makes significant mention to crypto-assets, a new generation of digital assets linked to private issuers (e.g. Libra, bitcoin, ether), and initial coin offerings (ICOs), which is an innovative way of raising money using privately issued 'coins' or 'tokens'. These innovations offer significant opportunities and but also risks, which need to be identified and addressed. The AP highlights the decision to incorporate crypto-assets into the scope of the 5th Anti-money Laundering Directive, which will enter into force in 2020, and aims to address money laundering concerns. The AP also calls for an assessment of the suitability of existing EU regulatory frameworks for these assets.

The AP calls for the development of open standards that increase competition, enhance interoperability and simplify the exchange of and access to data between market players, steps which the Commission deems essential for the development of the fintech industry in EU. The AP proposes that the standard-setting processes should be based on the principles of *openness, transparency* and *consensus*, in accordance with Regulation (EU) No 1025/2012 on European standardisation. The Commission would prefer the standards to be developed by the industry and market participants and be global rather than local or regional.

The AP calls for the expansion of "fintech facilitators" and development of best practices, which will allow innovative businesses to test their innovations for compliance with regulation in innovation hubs and regulatory sandboxes where regulators can provide them with guidance. The facilitators can also help regulators better understand the potential market implications from the use of proposed innovations.

b. Measures to support the uptake of technological innovation in the financial sector[53]

Earlier EU legislation did not always support the technology neutrality principle currently adopted by the EU. Paper disclosures and physical presence have been cited as examples of out-of-date legislation together with absence of clear and harmonised processes to identify consumers and businesses online[54].

The AP refers to Commission's initiatives to facilitate cross-border e-identification and remote know-your-customer processes in particular eIDAS, which is used as a key legal instrument, whereas the Commission has set up a dedicated expert group to deal with the issue.

[53] Section 2 of the Plan.
[54] Para. 2.1

The AP also identifies the need for further research in areas with limited EU knowledge, such as the jurisdictional issues around the decentralised blockchain-based applications; issues of validity and enforceability of smart contracts, a type of electronic contracts which are used in some fintech transactions, and uncertainties about the legal status of ICOs and the regulatory rules applicable to them.

The AP identifies deficiencies in the current legal framework for cloud services which are being increasingly used by fintech companies. Cloud services make extensive use of cross-border data flows, which are currently regulated by a nexus of national and EU rules, but the level of harmonisation is not high. The AP calls cloud stakeholders to develop cross-sectoral self-regulatory codes of conduct which will facilitate switching between cloud service providers. The AP calls the financial sector to enable easier data porting for financial institutions. The AP also calls cloud providers and financial institutions to develop standard contractual clauses for cloud outsourcing by financial institutions.

The Commission also proposes a new regulation, which will establish a framework for the free flow of non-personal data in the EU, which will remove unnecessary local barriers to such flows.

The AP identifies the great significance of blockchain and distributed ledger technologies, which could have a transformative effect not only on the financial sector but also on other sectors of the economy and also in society[55]. The AP refers to the need to closely monitor the development of these technologies which are still in early stage, and which in addition to benefits are also associated with significant risks. The AP refers to the EU Blockchain Observatory and Forum, the European Financial Transparency Gateway and other initiatives in the direction of both monitoring potential risks and facilitating the further development of beneficial aspects of the new technologies. An EU Fintech Club operating in a technology-neutral environment is to be established to help increase regulators' and supervisors' knowledge and help the to design appropriate regulatory responses.

The AP notes the high complexity, costs and uncertainty about investment products for retail investors who are engaging with capital markets[56]. Data-driven solutions based on new technologies are currently used to improve access to information, disclosure, transparency and comparability about these investments. Fintech using user-friendly interfaces offers online calculation, comparison tools, automated-advisors and fund supermarkets. The Commission proposes action in the direction of studying the market landscape to offer further improvements.

---

[55] Para. 2.3.
[56] Para. 2.5.

c. *Enhancing security and integrity of the financial sector*[57]

The AP notes that the increasing dependence of the financial sector on digital technologies increases the risk of cyberattacks. In order to build a safe and resilient financial sector, the AP proposes the adoption of a 'security by design approach' and to that effect the creation of an EU certification framework for ICT security products and services.

The AP identifies improved cyber security as one of the top priorities. Issues of cyber security are currently covered by the Directive on security of network and information systems[58], but the AP recognises that gaps in the system may remain. The AP calls for better information and intelligence sharing and regular testing. Enhance cooperation and coordination is essential.

The AP acknowledges that some information sharing may be contrasted by legislation such as the General Data Protection Regulation but notes that the Regulation legitimises the necessary and proportionate processing of personal data necessary for the purpose of ensuring network and information security. The AP also cites the need for more coordination and cooperation across EU and identifies actions in the direction. The AP also invites ESAs to carry out a cost/benefit analysis for the development of a coherent cyber resilience testing framework for the whole EU financial sector.

4. Follow-up measures

The EU efforts to develop the digital economy and enhance the competitiveness of EU industry, continued after the publication of the Commission's Fintech Action Plan.

In March 2018 EBA published its Fintech Roadmap[59] which set out the Authority's next steps for the period 2018/19. These include: the market monitoring and assessment of the current authorisation and licensing approach to fintech and analysis of regulatory sandboxes and innovation hubs; the monitoring of market trends and analysis of fintech impact on incumbents; the promotion of best supervisory practices on cybersecurity and promotion of a common cyber threat testing framework; the addressing of consumer issues arising from fintech; the

[57] Section 3 of the Plan.
[58] *Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union.*
[59] *Supra* n. 23.

identification and assessment of money laundering/terrorism financing issues. EBA also promised to work closely with the industry and with other public authorities in pursue of the above goals.

In March 2018 the European Central Bank published the Guide to assessments of Fintech credit institution licence applications[60]. The Guide applies to licensing applications within the Single Supervisory Mechanism (SSM). The Guide defines fintech banks as those having "a business model in which the production and delivery of banking products and services are based on technology-enabled innovation[61]. The definition captures both fintech subsidiaries of existing authorised banks and new market participants. The purpose of the Guide is to enhance transparency for fintech applicants and increase their understanding of the procedure and criteria applied by the ECB in its assessment of licence applications.

The relevant criteria introduced in the Guide are in addition to the licensing criteria which apply for traditional banks and aim at covering the special features of fintech. By way of example, the guide provides that due to the technology-driven business models of fintech banks, the criteria for the suitability of members of management bodies in these banks, should include IT competence in addition to the standards banking knowledge[62]. Also, given the constant changes in shareholders occurring in fintech banks and the background of the initial shareholders (usually a mix of founders and venture capital providers) the guide provides that any shareholder with a qualifying holding should have management and technical competence in the area of financial activities, including financial services[63]. Fintech banks tend to outsource credit-scoring services or rely on alternative sources of data and alternative credit-scoring methodologies than traditional banks. These banks also tend to have a significant number of customers based beyond the licence-covered country. The credit-scoring processes of the fintech banks will be assessed by the authorities and country-specific credit-scoring processes may be established[64]. There are also provisions for the cloud outsourcing, IT-related risks, data management, the operational environment of fintech banks, which is more unstable and capital, liquidity and solvency issues[65].

---

[60] European Central Bank (2018) "Guide to assessments of Fintech credit institution licence applications", March 23, available at https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.201803_guide_assessment_fintech_credit_inst_licensing.en.pdf?1c99fa2126f6ef80eb61a276bab94379

[61] *Ibid.*, para. 1.2.

[62] Section 2.

[63] Section 3.

[64] Section 4.1.

[65] Sections 4-6.

ECB justified[66] the need for a separate guide for fintech by reference to the steady increase in applications and related questions from fintech banks and on the need to develop a common approach with national supervisors on the matter. ECB's was quick to emphasise that the existence of a separate guide will not result in additional barriers to entry[67] or in treating fintech banks differently than any other banks: fintech banks are subject to the same assessment criteria as traditional banks. Also, the Guide emphasises the technological neutrality of its provisions a statement which is echoed also in the Fintech Action Plan.

In September 2018 EU introduced a new regulation (2018/1724) aimed at establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services[68]. The list of types of information covered includes "*…buying goods, digital content or services (including financial services) from another Member State, on-line or in person*".

In October 2018 the EU presented a proposal for a Directive on the re-use of public sector information[69]. The initiative, part of the EU framework for a Single Digital Market, seek "*…to bring the legislative framework up to date with the advances in digital technologies, such as Artificial Intelligence and the Internet of Things*". At the end of 2018 of a new Regulation by the European Parliament and the Council, establishes a framework for the free flow of non-personal data in the EU[70]. The regulation is aimed at banning data localisation restrictions and allowing companies to choose the cloud providers that suits them best, a step which the Commission and the Council consider that with help to create jobs and facilitate growth[71]. The regulation came into force in May 2019.

---

[66] European Central Bank, *Feedback statement, Response to the public consultation on the Guide to assessments of licence applications and the Guide to assessments of fintech credit institution licence applications*, March (2018), available at https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/licensing_and_fintech/ssm.feedbackstatement.en.pdf [Accessed 28 November 2019].
[67] *Ibid.*
[68] *Regulation (EU) 2018/1724…of the European Parliament and of the Council of … establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) No 1024/2012.*
[69] *Directive of the European Parliament and of the Council on Open Data and the re-use of public sector information (recast) Brussels, 25 October (2018), 2018/0111 (COD).*
[70] *Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union PE/53/2018/REV/1OJ L 303, 28 November (2018).*
[71] See also the relevant statement by Margarete Schramböck, Austrian Federal Minister for Digital and Economic Affairs and President of the Council: *"Strengthening the data sector will improve Europe's competitiveness. The free flow of data is key for growth and creating jobs, and will provide more flexibility for our companies. From now on they will be able to choose the cloud provider that suits them best".* Available at https://www.consilium.europa.eu/en/press/press-releases/2018/11/09/free-flow-of-data-eu-adopts-new-rules/ [Accessed 28 November 2019].

Also, mention should be made to the revised Payment Services Directive (PSD2)[72], which entered into force in 12 January 2016, with deadline for Member State implementation 13 January 2018. The purpose of PSD2 is to bring into the scope of regulation innovative payment products or services offered by fintech companies, many of which previously were unregulated. The Directive also contains certain fintech facilitating measures, such as those opening the market to payment initiation services providers and account information services providers, who provide to consumer easy online payments and purchases, while allowing them to have a global view of their financial situation at any given time. Traditional banks are required to provide access to customer accounts to the payment initiation services providers in order to allow them to prove their services.

5. Evaluation of the EU approach to fintech

The planned initiatives will help to build a more harmonised EU framework for fintech, but a critical question, which will have to be answered is if these initiatives go far enough to help achieve EU's ambitious agenda for fintech. Such an evaluation may seem premature at this stage as it will take some time until all the necessary measures are fully adopted and their market impact is fully understood, but some preliminary evaluative comments can be made:

a. Priority to innovations which improve competitiveness, service to consumers and support market stability and integrity without compromising on consumer protection.

From the overall AP document, it emerges that the Commission is clearly prepared to support the development of financial innovations where the latter would reinforce the stability and competitiveness of the financial system, while improving service to consumers without compromising on consumer protection. Achieving, though, all these goals at once could be difficult as the need to maintain market stability and consumer protection would normally have competitiveness as a victim due to the intensity of rule-making and extensive interventions of regulators in the two other areas. Fintech benefits from the opening of markets and limited regulation and the existence of strong consumer and stability rules could slow its growth.

[72] *Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.*

The Commission’s Open Banking initiative can be a good example of potential benefits and risks for fintech. The aim of the initiative is to improve competition by forcing incumbent bank to share their clients’ data with fintech competitors through measures, such as PSD2 discussed earlier. Significant competitive gains can be expected in certain markets particularly payments, personal finance and consumer advice[73].

It has to be noted though that these competitive improvements do not have the potential to upset existing market balances, which in the eyes of the Commission would create threats to market stability[74]. Thus, despite the market opening, Open Banking does not actually threaten the market dominance of incumbents as the latter remain largely in control of customer data. A closer look to the application of the initiative explains why market balance with not be seriously affected:

Incumbents have built large consumer bases and databanks exploiting their long market presence and the broad relationship with their customers. Most fintechs, as explained earlier, are new with small market size and limited resources, so they lack the ability to offer the same range of services or to build vast consumer networks. For this reason they focus on certain specialist market segments, such as payment and personal finance, where their technology-enabled innovations can make a market difference. But even in these market segments fintechs lack access to adequate data that would enable them to scale up and create wider consumer solutions[75]. Open Banking aims to help them by giving them access to the broad client bases and data controlled by incumbent competitors, but it is clear that incumbents can only share certain types of data and for specific purposes. Broader data access is restricted not only because of incumbent resistance[76] but also by legal barriers, such as those erected by GDPR. GDPR has been praised by Fintech AP for enhancing competition in financial markets while ensuring protection of consumer privacy[77]. Between the competition enhancing provisions of GDPR there is

[73] The Commission’s summary of PSD2 is that *‘it seeks to open up payment markets to new entrants leading to more competition, greater choice and better prices for consumers’,* available at https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32015L2366 [Accessed 28 November 2019].

[74] The Commission has already made clear that maintaining market stability is of paramount importance.

[75] Fintechs need access to big data, which will allow them to understand consumer profiles, preferences and habits. Such data are also needed for machine learning on artificial intelligence applications developed by fintechs. For more discussion on the competitive significance of big data for fintech see OECD *Big Data Bringing Competition Policy to the Digital Era,* Directorate for Financial and Enterprise Affairs, Competition Committee, DAF/COMP(2016)14, 27 October, (2016).

[76] For more details on the competitive significant of private data see Inge Graef; Martin Husovec; Nadezhda Purtova, *Data Portability and Data Control: Lessons for an Emerging Concept in EU Law*, 1*9 German L.J.* 1359 (2018); Orla Lynskey *Aligning Data Protection Rights with Competition Law Remedies? The GDPR right to Data Portability*” 42(6) *E.L. Rev.* 793 (2017).

[77] Fintech AP claims that the GDPR creates ‘…a genuine single market for the free movement of personal data at a high level of personal protection’.

Article 20(1)[78], which establishes for the first time the right of individual to data portability, which includes the right to transfer personal data from one online controller to another but this provision is balanced by other provisions about data processing and consumer consent[79], which restrict or prevent data access, processing and sharing thus raising legal barriers for fintech, which needs them most. Additional legal barriers have been raised (and more such barriers are expected in the future when interpretation of GDPR reaches the Court) by the jurisprudence of the European Court of Justice (CJEU), which has on many occasions where it reviewed fundamental human rights cases[80] , made clear that it is willing to restrict not only private company activities, but also activities of EU agencies. Article 8 of the Charter of Fundamental Rights established the personal data as separate right and set conditions for access to the data by third parties including the state.

The overall therefore impact of the EU legislative package about Open Banking and data access and sharing, constitutes only a moderate improvement for fintech and, despite the Commission AP declarations, it is certainly not ambitious enough to bring European fintech to a global leadership status. In a wider context, the Open Banking case shows the unwillingness of the Commission to relax its consumer protection and market stability standards, in order to allow more innovation in financial services. It makes it also difficult to see how fintech growth can be accelerated when on balance relaxed restrictions in some areas are offset by raised legal barriers elsewhere.

b. The Commission's hesitation towards more radical innovations.

In regards to more radical fintech solutions, such as crypto-assets, ICOs and DLT, the Commission is even more cautious. The latter innovations, although not systemically important, they have such a potential for the future if they are allowed to grow fast and the Commission clearly does not wish to allow this to happen. For these reasons there are no specific legislative initiatives, which will lead towards quick EU-wide access, although the Commission's Fintech AP has requested the European Supervisory Authorities (ESAs) to assess the suitability

[78] According to article 20: *"The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided…"*

[79] Asee Articles 5 and 7 of GDPR.

[80] See e.g Volker und Markus Schecke GbR v Land Hessen (C-92/09 & C-93/09) EU:C:2010:662; Schrems v Data Protection Commissioner (C-362/14) EU:C:2015:650.

of the EU regulatory framework in regards to these assets, with the potential adoption of legislation for these innovations been deferred to the future. Instead, by including these innovations into the scope of the 5th Anti-money Laundering Directive, the Commission may be seeking the further restriction of such activities in the EU. Companies operating in the above areas will have to continue to operate under legal uncertainty and pressure at EU level and rely on national frameworks for some positive legal responses.

c. The "same service, same rules" approach.

The current EU strategy based on its official documents is to seek to incorporate, where possible, the less radical innovations into existing legal frameworks under the *"same service, same rules"* approach, which assumes that technology-enabled products and services are not sufficiently different to justify separate rules.

In July 2019, ESMA published a report on the Licensing of Fintech Business Models[81] in response to a relevant mandate given to it by the Fintech AP. The report contains the findings of two surveys conducted by ESMA in 2018 and 2019 to gather evidence from national competent authorities (NCAs) on the licensing regimes of Fintech firms. The aim of the first survey was to identify gaps in EU regulatory frameworks in regards to Fintech licensing and the second to identify the ways which NCAs use to implement the principles of 'proportionality' and 'flexibility'.

The surveys confirmed[82] the application of the Commission's principle of no distinction between traditional and fintech business models in regards to authorisations and licensing. Any distinction is based on financial activity and not on technology. NCAs confirmed that the application for the principle allows existing EU frameworks to cover most of the fintech business models except ICOs and crypto-assets whose legal status remains undefined[83]. NCAs also called for more clarity in regards to the definition of financial instruments within the existing framework[84]. NCAs requested EU guidance on these issues to avoid diverging applications of law at national level.

These findings confirm the limits of the "same service, same rules" principle in regards to certain innovations. ESMA itself explained these limits in its Advice on Initial Coin Offerings

[81] European Security and Markets Authority *Report on the Licensing of Fintech Business Models,* ESMA50-164-2430, 12 July (2019).
[82] *Ibid.*
[83] *Ibid.* Para.18.
[84] *Ibid.* Para.19.

and Crypto-Assets of January 2019: *"Because the range of crypto-assets are diverse and many have hybrid features, ESMA believes that there is not a 'one size fits all' solution when it comes to legal qualification"*[85].

Then, ESMA's Advice proceeded to a classification of crypto-assets based on their compatibility with existing frameworks. The Advice concluded that certain types of crypto-assets would fall within existing frameworks, while other types would not. Although crypto-asset markets are modest in size, the absence of an accommodating framework is still in the opinion of this author, a gap which needs to be filled. Part of the reason for filling the gap is that the absence of a framework for crypto-assets and ICOs affects also the ecosystem which has been built around them such as crypto-asset exchanges. The regulation of the latter could come under MiFID if crypto-assets qualify as financial instruments[86], but could fall outside the scope of regulation if crypto-assets share the same fate. In addition, crypto-to-crypto exclusive services fall outside the scope of PSD2 due to the fact that the latter covers only transactions in fiat currencies[87].

Finally, there is a strong incentive to bring these innovations in the scope of regulation due to the significance of DLT, the underlying technology, which can have beneficial application beyond crypto-assets and ICOs. Leaving DLT unregulated could result in EU being left behind in the relevant international competition.

d.The application of the principles of proportionality and flexibility

One way to address any fintech gap cases is through the application of the principles of proportionality and flexibility. Various EU documents, discussed earlier including Fintech AP, explicitly suggest to use proportionality to address FinTech issues. The principle is one of the fundamental ones in EU Law[88], and requires EU action to be proportionate to the policy aim. Flexibility, in turn, allows the implementation of law in ways which allows to capture into existing frameworks unique or innovative solutions. The wide diversity of fintech business models and their significant geographical variations call into wider application of these to principles. However this approach is not without risks for the Commission. Given that fintech companies

---

[85] European Security and Markets Authority *Advice on Initial Coin Offerings and Crypto-Assets* ESMA50-157-1391, 9 January (2019).
[86] Supra n. 81, Para.46.
[87] Ibid., Para.48.
[88] It can be found in Article 5(4) of TFEU.

are currently regulated primarily at national level, with national regulators having the main oversight, the broad use of proportionality and flexibility could result in diverging interpretations at national level and regulatory arbitrage as national regulators are given freedom to make such decisions. Conversely, the reduction of flexibility could ensure more harmonisation, but would leave outside of the scope of regulation more fintech business models. The Commission may have to find a fine balance between the two potential risks and to do so it may have to place limits to the extent of flexibility in order to maintain a level playing field between Member States, which is a priority in the context of the Single Market. In addition, the fundamentally different business philosophy and structure of fintech business models compared to traditional ones covered by existing EU laws, places additional limits to the ability of NCAs and the Commission to continue using existing frameworks 'flexibly applied" in the context of fintech. The need for new frameworks and separate rules could become more pressing as fintech grows and the risks of diverging national frameworks grow with it.

The second ESMA survey of NCAs[89] confirms the above view. In this survey NCAs reported that EU legal frameworks allowed them significant flexibility in their application nationally of authorisation and licensing rules, but some of them noted that current EU frameworks were not made with these innovations in mind and that therefore they are ill-suited to cover some of the new business models[90]. There were also opposing views and whether more or less flexibility would be preferable in the context of fintech. Finally, ESMA did not recommend legislative adjustments at this stage, claiming that NCAs could work with innovation facilitators (innovation hubs and regulatory sandboxes) to gather evidence on fintech and develop solutions, but left such a possibility open for the future.

It has to be noted that similar findings to ESMA were found in a relevant BCBS research[91]. It was confirmed there that while most reporting authorities were happy with the application of existing criteria for banks to fintech, they also noted that many fintech models and products such as crowdfunding and digital currencies might not necessarily be covered by bank supervisors. This resulted in nearly half of regulatory authorities in the research considering new regulations and guidance on emerging fintech services[92].

[89] *Supra* n. 81.
[90] *Ibid.* paras. 68-74.
[91] See Basel Committee on Banking Supervision *Implications of Fintech Developments for Banks and Bank Supervisors* (February 2018).
[92] *Ibid. 37.*

The 2019 ESMA Advice on crypto-assets[93] discussed also the possibility of developing an EU-wide bespoke regime for certain-types of crypto-assets falling out the scope of existing rules. Such a regime would tailor the bespoke rules to the type of risk involved in each case and potentially offer different requirements in each case. An EU bespoke regime would help to deter the creation of such regimes at national level, which would produce regulatory divergence and undermine the Single Market. It could offer a short term solution, but it could not offer the certainty the fintech and NCAs need.

e.The "wait-and-see" approach as an impediment to fintech growth

The unwillingness of the Commission to take more decisive and positive legislative action to accelerate fintech growth challenges the achievement of European Parliament's goal for a "cross-sectoral, holistic" EU fintech framework, which will allow speedy fintech scale up and place EU to the position of a leading competitor employing "first mover" methods[94]. The overall impression of the Commission's Fintech AP is that it seeks to address the market fragmentation problem of fintech slowly, while adopting a wait-and-see approach towards more radical (and potentially game-changing) fintech innovations. In such a context, the goal of creating a "*holistic*" fintech framework remains a longer-term one. The Commission does not seem to have concluded either on the type of regulation (static or dynamic, rule or principle based, public or private regulation or mix of both etc) which will have to be used in the holistic framework it desires to create. Most initiatives highlighted in AP require legislative action and rule-based regulation although companies are encouraged to develop operational standardisation and improved technological interoperability.

Supporters of the current strategy could argue that although it is not optimal it still has certain short-term advantages for EU and the industry: an unregulated fintech environment facilitates innovation and raises innovators' short-term speed as they are not subject to any regulatory restrictions and they do not have to incur the costs of regulatory compliance. The absence of a comprehensive regulatory framework can also be justified in some cases given the increased uncertainty about the technical features and prospects of many new technologies, which are still in early stage of development or continuously evolve. For example, the blockchain technology used to support the crypto-assets, still faces speed and scalability problems,

[93] *Supra n.* 85, paras. 182-187.
[94] *Supra* n. 35, para.4.

which challenges its ability to fully serve large markets such as payments[95]. Reliable assessment of market risks in such environments is difficult for any regulatory authority[96] and therefore adopting regulations based on incomplete or inconclusive market data and speculative predictions could cause unnecessary harm to the prospects of the European fintech industry by disrupting its potential. The current size of fintech industry is not large enough to raise systemic risks[97] and this could add further support for a more relaxed approach at this stage.

For affected fintech companies the absence of EU-wide regulation prevents their companies from expanding their customer base as consumers hesitate to engage with unregulated products and services which offer limited consumer protection. In those cases, the existence of an EU framework establishing a minimum set of market rules will offer them legitimacy and enable these companies to grow while it will help to build a level playing field in the markets. The Commission's fintech consultation which preceded the issuing of the AP found significant industry support for fintech frameworks operating under the "*same service, same risk, same rule*" principle for all market players[98]. As already discussed the application of the principle can be problematic in some cases given the fundamental differences between traditional and fintech business models, but can be beneficial for other cases.

f. The case of crowdfunding

Crowdfunding is an innovation where the Commission demonstrated a more decisive stance towards the adoption of a new, tailored-made, EU framework. Crowdfunding is a fast growing fintech industry, which offers alternative sources of finance. Crowdlending, a form of

[95] For more details see Peter J. Brown "*Can Blockchain Power a Cashless World?*", *Asia Times,* 15 February, (2019) https://www.asiatimes.com/2019/02/article/can-blockchain-power-a-cashless-world/ [Accessed 28 November 2019]. However, these currently limitations are not expected to last long as projects are currently underway to improve blockchain speed and scalability. On the matter see also, European Central Bank and Bank of Japan, *Payment Systems: Liquidity Saving Mechanisms in a Distributed Ledger Environment*, September (2017), available at https://www.ecb.europa.eu/paym/intro/mip-online/2017/html/201709_article_stella.en.html [Accessed 28 November 2019].

[96] FSB in its Fintech Report *supra* n.16 at 1, explicitly admitted the regulators' difficulties: "*Currently, any assessment of the financial stability implications of Fintech is challenging given the limited availability of official and privately disclosed data*".

[97] *Ibid.*

[98] European Commission *Summary of Contributions to the 'Public Consultation on Fintech: a More Competitive and Innovative European financial sector'*" (2017), available at https://ec.europa.eu/info/consultations/finance-2017-fintech_en [Accessed 28 November 2019]. Similarly a KPMG Market Report found that EU regulations such as GDPR and PSD2 would increase investments in Fintech (KPMG, *The Pulse of Fintech 2018*, Biannual global analysis of investment in Fintech (2018), available at https://home.kpmg/xx/en/home/insights/2018/07/pulse-of-fintech-h1-2018.html) [Accessed 28 November 2019].

crowdfunding, involves peer-to-peer and peer-to-business lending through online platforms which act as market makers[99]. Crowd-lending includes large numbers of investors who invest small amounts of money, which are then packaged in larger loans by the platforms and offered to individuals and businesses. It shares many of the risks facing traditional lenders (e.g. low quality-borrowers), but also additional risks linked to its online nature (e.g. higher risk of fraud and money laundering due to web anonymity; difficulty establishing the competence of the business seeking the loan; disclosure risks for businesses who share business project information with anonymous internet investors; cyber-security risks). The absence of effective regal frameworks makes difficult the protection of the rights of the parties.

In previous studies, the Commission had acknowledged the significance of crowdfunding for the EU economy in general[100] and for the achievement of important EU policy objectives in particular[101], but it has also identified significant regulatory barriers linked to diverging and conflicting Member States' legal regimes[102]. A 2018 crowdfunding report by Cambridge Centre of Alternative Finance (CCAF)[103], found that significant market discontent from the absence of coherent EU regulation[104]. Previous EU studies[105] also acknowledged as a problem the fact that the market was concentrated only in a few Member States. The Commission proposal included in the AP, was for the adoption of a EU-wide passporting regime for crowdfunding. The Commission also proposed as complementing measure the adoption of a new Directive amending

---

[99] See European Commission *Legislative Proposal for an EU Framework on Crowd and Peer to Peer Finance*" (2017), available at https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5288649_en [Accessed 28 November 2019].

[100] For example crowd-lending could improve access to finance for young and innovative companies such as those involved in Fintech, and for the broader group of Small and Medium Enterprises (SMEs) of EU, which have faced significant access-to-finance problems after the financial crisis (see European Commission, *Assessing the potential for crowdfunding and other forms of alternative finance to support research and innovation*, Directorate-General for Research and Innovation, Final report - Study, January (2017).

[101] For example, Crowdlending can help to achieve one of the CMU flagship policy objectives to mobilise capital and channel it to companies across the EU borders (see European Commission *Identifying Market and Regulatory Obstacles to Cross-border Development of Crowdfunding in the EU*" Final report, December (2017), available at https://ec.europa.eu/info/sites/info/files/171216-crowdfunding-report_en.pdf [Accessed 28 November 2019].

[102] *Ibid.*

[103] Tania Ziegler Rotem Shneor Kieran Garvey, Karsten Wenzlaff Nikos Yerolemou Rui Hao Bryan Zhang *Expanding Horizons" the 3rd European Alternative Industry Report,*
Cambridge Centre of Alternative Finance (2018), available at https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2018-ccaf-exp-horizons.pdf [Accessed 28 November 2019].

[104] See also Philippe Dorin and Martin Vojtko *The European Journey of Alternative Lenders: Towards a Capital Markets Union*? 33 *J.I.B.L.R.*, 385 (2018).

[105] Garry A Gabison *Understanding Crowdfunding and its Regulations,* JRC Science and Policy Report, European Commission (2015), available at http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92482/lbna26992enn.pdf ;

Directive 2014/65/EU on markets in financial instruments (MiFID 2). These are steps in the right direction but attention should be paid to ensuring that compliance costs will not be stifling crowdfunding development.

g. The challenge of crypto-assets

The difficulties associated with the regulation of crypto-assets have already been explained. It will be added here that these innovations do not only offer fundamentally different financial products and business models, but they also challenge the core of regulatory doctrines and principles on which the current regulatory regimes, national and international alike, have been build. For example, many crypto-assets, rely on decentralisation of process control, financial disintermediation and broad anonymity, while their worldwide spread through the internet create significant jurisdictional issues[106]. Many of the individuals and companies involved in cryptocurrency markets, especially issuers, technology controllers and users, do not meet the traditional criteria for regulated entities[107] and are often hard to identify. An approach, which gains favour between lawmakers is to target through regulation more visible and stable market components such as cryptocurrency exchanges and e-wallets or specific activities of regulated entities in cryptocurrencies markets[108]. EU is active in this area with gradual incorporation of certain crypto-asset activities in the scope of regulation. In 2018 the Commission included virtual currency trading platforms and hosted wallets, which are linked to crypto-assets in the scope of the 5th Anti-Money laundering Directive[109] and in its 2019 Advice on crypto-assets[110], already discussed, ESMA advised that several types of these assets could come under existing regulation, but this does not mean that all issues have been resolved. EU, like its competitors, still lacks effective solutions to the core challenges raised by these assets, especially decentralisation, disintermediation and anonymity. Any solution in these cases to be effective, should come

---

[106] For the current work of FSB on crypto-assets and the challenges faced by international regulators see Financial Stability Board, *Crypto-asset markets, Potential channels for future financial stability implications*, 10 October (2018), available at http://www.fsb.org/wp-content/uploads/P101018.pdf [Accessed 28 November 2019].
[107] *Ibid.*
[108] See FSB report *supra* n. 106 at 4.1; also Benoît Cœuré *Fintech for the People,* Keynote speech at the 14th BCBS-FSI high-level meeting for Africa on strengthening financial sector supervision and current regulatory priorities, Cape Town, 31 January (2019), available at https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190131~24b8e3fb49.en.html [Accessed 28 November 2019].
[109] *Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU.*
[110] *Supra* n. 85.

from international regulators, and the Commission's AP promises to bring the matter to these bodies. While this seems to be the correct approach to the problem, due to the global nature of crypto-assets, there is no guarantee of success given the lack of global consensus about how these assets should be regulated. Currently each country goes its own way and the Commission's focus on international efforts may result in EU being left behind if international rules are not created within a reasonable period. Absence of EU initiatives may also undermine the Single Market in crypto asset markets by allowing national regulatory divergence. Crypto-assets and DLT is an area where EU could lead by creating an innovative framework for their regulation, which other jurisdictions could follow.

h. The risk of excessive legal barriers

The efforts to bring fintech under EU regulatory controls could result in a situation of where excessive legal barriers would be created stifling innovation. Fintech companies and traditional banks routinely blame expansive EU regulation as a factor raising barriers to innovation and competition in the industry. The General Data Protection Regulation (GDPR), Markets in Financial Instruments Directive (MiFID), Revised Payment Service Directive (PSD2), and EU AML laws are mentioned in industry surveys[111]. These laws contain a number of restrictions for fintech companies and incumbents with the aim of protecting consumers and market stability, which are top EU priorities. Although there is a convincing argument, supported also by the industry, that the existence of a regulatory framework containing clear principles would also add legitimacy and help fintech to grow, there is also an equally convincing argument that due to its innovative features, fintech demonstrates significant differences from traditional banks, which should be treated differently to avoid stifling innovation. the multiplicity of laws also undermines the ability of EU regulators to apply flexibility in the implementation of the rules to help fintech grow.

A different but related problem concerns the implementation of the fintech-friendly measures included in the recent legislation. There is evidence that some fintech-friendly

[111] See e.g the PwC Global Fintech Report *supra* n. 8.

measures such as those included in PSD2 face resistance from incumbent banks, which are unwilling to share customer data with their new competitors[112]. Incumbent resistance is to be expected as incumbents seek to defend their markets positions, but their resistance in combination with restrictive legal frameworks in other areas could create insurmountable entry barriers to innovation.

Regtech, which uses innovative technology-enabled solutions to help companies comply with their regulatory obligations and regulators to obtain market data in real time, which they can then use to create targeted responses, could be used to reduce the risk of excessive regulation. Regtech can trigger market interventions only when and where needed. The Fintech AP does not contain specific initiatives about regtech, although some of the actions included in the AP (such as data sharing) imply the use of regtech. Regtech will become a big issue in the future for both companies and regulators and EU should ensure that it remains in the frontline of the developments.

6. Designing an effective future-oriented fintech legal framework for EU

Any effective EU legal framework for fintech should incorporate the lessons from previous financial crisis and the signals sent from the markets. It is therefore important to highlight first some of these lessons.

a. The post-crisis landscape in traditional EU financial markets

The last financial crisis revealed a situation of under-regulation in the financial markets and a regulatory regime fragmented along national or regional lines[113]. It also revealed a wide-

[112] ECB cites resistance from incumbent banks to granting technical access to new and innovative payment service providers in line with PSD2 requirements (see Yves Mersch *Strengthening the European financial industry amid disruptive global challenges*, Speech at the European Institute of Financial Regulation (EIFR), Paris, 3 September (2018)).
[113] See e.g. the Lord Turner's Report about the causes of the banking crisis in UK and internationally (*The Turner Review A Regulatory Response to the Global Banking Crisis*, Financial Services Authority, March (2009)). For an EU assessment of the crisis see Liikanen Group Report (*High-level Expert Group on Reforming the Structure of the EU Banking Sector*, Final Report, Brussels, 2 October (2012), available at https://ec.europa.eu/info/system/files/liikanen-report-02102012_en.pdf). [Accessed 28 November 2019].

spread culture of greed and corruption in the financial sector, which undermined market stability[114]. The post-crisis reforms built a new regulatory and supervisory legal architecture, which was more interventionist and contained better international cooperation to restore market stability, improve the protection of investors and consumers and deal with the problem of bank culture. EU led in these efforts. Currently regulators routinely claim[115] that the financial system is more resilient than before, and the consumers are better protected. This claim even if true, came at a significant cost for both banks and the consumers. Banks face serious regulatory restrictions in their activities and substantial compliance costs[116], while consumers face higher transaction costs and more difficult access to finance and credit[117].

Fintech companies exploited the situation by offering excluded or underserved consumers the products and services that traditional banks were unable or unwilling to offer. To do so these companies avoided direct entry into mainstream finance, which had high legal entry barriers and where incumbents had strong business advantage and preferred instead to use innovation to build parallel, technology-enabled, market-driven financial ecosystems, which are either unregulated or lightly regulated and therefore, more flexible.

The rise of fintech is only one part, currently small one, of a much broader global trend, which has seen non-bank financial institutions[118] growing since the financial crisis at a much faster rate than banks and reaching 30 recent of total financial assets. In the eurozone banks

---

[114] For a discussion of the culture of greed and corruption in the industry post crisis see I.Kapsis "Sticks or Carrots? How to make British Banks more Socially Responsible", 40 *Business Law Review* 38 (2019).

[115] See e.g. the FSB 2018 report on the reforms claiming that ten years after the financial crisis, large banks were "much better capitalised, less leveraged and more liquid". (Financial Stability Board *Implementation and Effects of the G20 Financial Regulatory Reforms,* 4th Annual Report, 28 November (2018), available at http://www.fsb.org/2018/11/implementation-and-effects-of-the-g20-financial-regulatory-reforms-fourth-annual-report/) [Accessed 28 November 2019].

[116] Estimates about the cost of bank compliance vary considerably with some industry sources putting the relevant figure to $270 billion worldwide. Other estimates put compliance costs at 4% of the banks' total revenue, with further projected rise to 10% by 2022 (Lucy McNulty, *Compliance costs to more than double by 2022*, Financial News, 27 April (2017); Peter Farley *Spotlight on Compliance Costs as Banks Get down to Business with AI*, International Banker, 4 July (2017)). Despite the varying estimates, there is a consensus in the industry that compliance costs are substantial.

[117] Despite low interests rates post-crisis helping to keep cost of credit relatively low and improved the credit availability (see e.g. FSB report, *supra* n. 115, at 26), many consumers and small businesses have complained over more limited access to it caused by more rigid rules about access to finance for certain market groups caused by financial stability concerns.

[118] The latest FSB *Global Monitoring Report on Non-Bank Financial Intermediation supra* n. 7 reports that banks (defined as "deposit-taking institutions') saw their share of total financial assets globally declining from 45 percent in 2008 to 39 percent in 2017, whereas the share of other financial institutions increased from 26 percent to 31 percent. in 2017 banks grow at 2.8 percent compared to 7.7 percent of non-banks.

saw their share of the total market falling from 66 percent in 2008 to 37 percent in 2017[119], with biggest winners being shadow banks and non-banks (e.g. equity funds, finance companies, companies dealing with securities and derivatives etc) whose share climbed from 22 percent to 48 percent[120]. Part of this development could be attributed to the cost of the crisis for the business models of incumbents due to regulatory restrictions and competition from outside sources, such as fintech. The rise of non-bank, market-driven finance in the post-crisis environment is not a new development as market finance tends to increase at the expense of banking finance as the economies and capital markets grow, which has happened as these markets and economies recovered from the financial crisis[121]. Although the relevant literature is not conclusive on whether bank finance or market finance are superior in fostering economic growth, there is some recent evidence that market finance is more effective at promoting innovation and productivity, as well as finding innovative sources of growth[122]. Europe needs financial innovation to accelerate the growth of the lagging EU economy now that EU banks face challenges. Fintech, despite scaling issues and the use of often untested technologies and business models has the potential to offer it.

It has to be noted that despite fintech and other competitor intrusions, the size of the European banking sector is still larger than that of its peers[123] and within it large universal banks continue to have a dominant market role. Their size has further grown since the crisis leading to a more concentrated banking market[124]. Universal banks have the advantage of flexibility regarding the offers to consumers as their business model allows them to select from a wide range of financial products and services, but they are also more formalistic and bureaucratic. Those denied access face broader exclusion as bank interconnectivity and harmonised regulations

---

[119] ZEB European Banking Study *Navigating the Road Ahead-Market Trends & Strategic Options for European Banks* (2018), available at https://www.ebf.eu/wp-content/uploads/2018/11/ZEB-European-Banking-Study-2018.pdf [Accessed 28 November 2019].
[120] *Ibid.*
[121] See European Central Bank *Financial Integration in Europe*, May, (2018).
[122] *Ibid.*
[123] The Liikanen Report *supra* n. 113 at 12-13, noted that EU banks total assets reached 350% of EU GDP in 2008 when the crisis hit compared with 78% in US and 174% in Japan. Although the crisis slowed down European total banking assets growth, they still exceed the size of the bans of EU competitors. For more recent updates on the situation in the European banking structures and assets see European Central Bank *Report on Financial Structures*, October (2017); European Banking Federation, *Banking in Europe: EBF Facts & Figures 2018*, available at https://www.ebf.eu/facts-and-figures/ [Accessed 28 November 2019].
[124] The increased role of large universal banks is the result of the continuing decline in the number European banks from 9,771 in 2010 to 7,246 in 2017 – a drop of over 2,500 (see ZEB study *supra n.* 117 at 15). See also the FSB finding that the last financial crisis has slowed down but not reversed the trend towards more consolidation in the financial industry (FSB Report on Financial Regulatory Reforms *supra* n. 113, 26).

deny excluded customers alternatives. Large universal banks have also complex structure, which makes it harder to achieve significant efficiencies or respond fast to competitive pressures[125], but regulators in EU and elsewhere prefer them as they are deemed more stable and the cost of regulating them is lower[126]. The complex structure and size of universal banks make the updating of IT systems and the achievement of digital transformation more expensive and more time consuming. As a result, many universal banks continue to run on out-of-date IT systems[127], which makes them vulnerable to attacks from more efficient competitors who use more flexible business models and more advanced technologies. In addition, EU universal banks face low profitability driven initially by the costs of recovery and regulatory burdens after the financial crisis and later by the prolonged period of low interest rates[128]. EU bank profitability is currently at historically low levels with post-tax return on equity being lower than the cost of equity and this despite all-time lows with regard to loan loss provisions[129]. Market valuations also remain at crisis levels[130]. European bank performance lags behind their international competitors especially in US and China[131]. Incumbents, in various industry surveys[132] appear to be more optimistic about the future where they expect improved profits and higher growth, but market analysts consider it difficult without major changes in their business models, given the rising costs and competition pressures they are facing[133]. Some industry experts propose[134] a new wave of cross-border bank consolidation in Europe through mergers and acquisitions, as a way to develop synergies and improve profitability, but the results of past consolidation efforts had not

[125] For a relevant discussion see A. Saunders and I. Walter *Reworking the Global Financial Architecture: is Universal Banking the Best Way Forward*?, 1 *The Journal of Financial Perspectives* 1 (2013).
[126] *Ibid.*
[127] See e.g. the survey carried out by EY and reported in *EY Global Banking Outlook 2018*, available at https://www.ey.com/Publication/vwLUAssets/ey-global-banking-outlook-2018/$File/ey-global-banking-outlook-2018.pdf [Accessed 28 November 2019].
[128] See EBA 2018 report, *supra* n..27, at 9-10.
[129] ZEB European Banking Study *supra* n.119.
[130] *Ibid.*
[131] *Ibid.* at 12.
[132] See e.g. the survey results reported in EY market report *supra* n. 127.
[133] See e.g. *Ibid.* The ZEB European Banking Study *op.cit.*119. at 22 citing market sources, reports that the industry expects a 18 percent increase in IT costs alone between 2016 and 2021. This shows how difficult is the task incumbents are facing in cutting costs and improving their margins. Also, EBA report *supra* n. 27 identifies a range of factors associated with fintech, which could threaten the viability of incumbent banks' business models.
[134] See ZEB European Banking Study *Supra* n. 119, at 17.

always promising[135] and the existence of significant national barriers, which still remain, make any future efforts also uncertain about their outcome[136].

Regulators have made considerable efforts and allocated vast resources to stabilise the traditional banks and seem to prefer the current market structure which favours them, but the risk of contagion and damage to the economy from these too-big-to-fail institutions has not been eliminated. Large universal banks survived the last financial crisis, with significant taxpayer assistance, but they may not be able to survive the next one. Their low profitability and inefficiencies in period of growth guarantee hard times for them in future crisis. Any future crisis linked to these banks could result in them being targeted "*as a malignant institutional form that tends to 'manufacture' systemic risk*"[137]. Moreover, phenomena of greed and corruption, which had major contribution to the creation of the last financial crisis continue to plague the incumbents, further increasing the social and economic costs for banks and undermining the regulators' efforts[138].

Currently, fintech competitors do not seek to dethrone incumbents and are focused more on serving customers excluded or underserved by the traditional banks and the level of competition between the two groups is not intense in all markets, but the situation may change in the future as fintech companies grow and expand their business portfolios[139]. Fintech companies are smaller in size, more flexible and they do not carry skeletons in their wardrobes such as the bad loan portfolios of traditional banks which still burden them[140]. They can also easily adapt their business models to market conditions compared to incumbents who are constrained by their

---

[135] The failure of certain large cross-border banking mergers such as the failed acquisition of Dutch Bank ABN Amro by a banking consortium comprising the UK Bank Royal Bank of Scotland, Belgian bank Fortis and Spanish bank Banco Santander, led to major market turbulence and government intervention during the financial crisis.

[136] There are still a lot of local barriers in European banking markets caused by political, legal and economic (e.g. tax) differences between member states.

[137] Saunders and Walter *supra* n.125.

[138] Bloomberg in 2017 estimated that global banks paid 321 billion in fines since 2008. See Richard Partington *Banks Trimming Compliance Staff as $321 Billion in Fines Abate*, Bloomberg*, 23* March 2017.

[139] The 2018 study on Fintech competition *op.cit.*7 did not identify competition problems from the current market activities of fintech companies and conventional banks, as the two sides seem to have different market priorities: fintech companies have stronger presence in underserved markets where they promote financial inclusion whereas they have more limited role in mature markets where they seek to improve the user experience thus having a role, which complements existing offerings. Also EBA *supra* n. 27, at 15.

[140] See the Fintech Competition report *ibid.*

legacy IT systems, absence of expertise and existing staff resistance to change[141]. These advantages have allowed them to grow fast in significant financial markets, such as retail banking, at the expense of incumbents. Big tech or retail companies, such as Alibaba, Apple and Amazon, which form another group of non-bank competitors linked to fintech, exploit their own established global networks of clients and existing infrastructure from retail operations to integrate efficiently financial services and products within their existing business portfolios. For these companies financial solutions are not currently in their top priorities, but instead they use them to support their core IT or retail businesses. From a competition point of view big tech and big retail have the resources to provoke significant competition which could hurt incumbents.

The future landscape of financial services markets in Europe will be determined by the outcome of competition between strategic groups (traditional banks, fintech startups and big tech/retail companies) as the above. Other financial institutions (e.g. hedge funds, equity funds, etc) could also contribute. The role of technology will be crucial for all these groups as most competitive advantages will be technology and data driven.

Overall, the lessons from the financial crisis and the reforms that followed is that European banking is currently more stable and remain dominant in Europe, but their dominance is weakened and their longer-term ability to maintain its market positions is in serious doubt because the regulatory constraints and technological advances which benefit more their competitors.

EU regulators will have to take these developments into account when designing long-term regulatory policies. Existing market assumptions on which current regulatory regimes are based may soon become obsolete.

b. Principles of a future-oriented framework which would transform EU financial markets.

The analysis in the preceding section showed that achieving a leadership position may not be just a choice for EU, but a necessity given the weaknesses of European incumbent banks.

[141] EBA, *supra* n. 27, at p.14,18. Upgrading the legacy IT systems which still support the core of many traditional institutions is the main current concern of many European Banks. However, IT system upgrades cannot compare with the radical innovation of fintech companies which can test and quickly adopt latest IT innovations based on AI and other sources. Staff lack of innovation expertise and mindset in incumbent banks are deemed as impediments to implementation of innovation.

To achieve a leadership status EU regulators may have to rethink their approach to financial regulation. The EU past record demonstrates robust consumer and privacy laws, comprehensive financial stability and market integrity frameworks and a bold antitrust regime, which has not hesitated to use all its available tools to constrain the behaviour of big tech, where it threatens the level playing field[142]. While the EU achievements in these fields are commendable they are not be enough to secure EU's place as a global leader in the era of fintech and big tech. Fintech requires a different approach, a new philosophy of regulation bolder than that presented in the Commission's AP. Some elements of this new philosophy and corresponding legal framework are presented below:

i. Embrace the future by relaxing the protection of status quo

It is submitted that EU regulators, instead of trying to preserve the status quo, by subjecting fintech into existing frameworks made with traditional banks in mind, they should opt for new regulatory solutions exclusive to fintech, because this is the best way to allow fintech to grow and also to address chronic problems of traditional finance. Fintech has operational advantages (especially technological and operational autonomy and scalability) and can produce genuine innovation, which could allow it to create viable alternatives to existing business models, products and market structures. The result would be a more diverse financial ecosystem than the current, which would offer a far broader range of products and services and will consist of incumbents, incumbent-fintech partnerships, standalone fintech and big tech. The role of traditional banks will be reduced. But to do so fintech needs appropriate regulation which will create a level playing field with the incumbents.

The decision of EU and national regulators to regulate activity and not business model, which was discussed earlier, is a step in the right direction as it allows fintech business models to be developed without facing legal barrier exclusions. The regulation by activity where same rules apply for all (incumbents and fintech alike) is more appropriate as it focuses on what companies offer to consumers and seek to apply same standards ensuring a level playing field. But this approach has also its limits.

For example payments in fiat currency and payments in cryptocurrencies are both "payment" activities, but they are conducted under fundamentally different processes (e.g, bank net-

[142] A series of Commission actions against big tech (Microsoft, Google, Facebook, Apple) confirms the Commission's commitment to the level playing field.

works are used for fiat currency payments when this is not required for cryptocurrency payments which are peer-to-peer) using fundamental different currencies (central-bank-issued currencies versus privately issued ones). Under current rules, payments in fiat currency are fully regulated, but payments in crypto-currencies are not. The application of same rules for all payments does not seem to create a level playing field here because the exclusion of the crypto-asset linked payments (as they fall out of existing law) benefits fiat currency incumbents and this cannot be compensated by the use of bespoke regimes for fintech as proposed by ESMA. Cryptocurrency payments need their own equivalent rules which will offer them legitimacy and a fair chance to compete against fiat currency payments.

The example shows the limits of activity-based regulation, which, it has been argued, '*... does not represent, by itself, the silver bullet that could preserve the robustness of the regulatory framework in the new technological environment*'[143].

The decision to relax support of status quo by treating financial markets as more diverse ecosystems comprising both fintech and incumbents and not as incumbent-dominated ones, is not an easy one as there may be significant operational implications for regulation, but if the Commission wishes to build a competitive advantage for its financial services it may have to follow this path.

ii.Accept new market structures with separate rules

The adoption of separate regulatory rules as a result of abandoning the reliance on incumbent models, will inevitably result also in the creation in some cases, where operational, procedural and technological autonomy allow it, of structurally separate markets for fintech. Crypto-assets, ICOs and DLT are immediate candidates for participating in separate markets, but more such candidates are likely to emerge in the future, such as artificial intelligence (in particular products and services based on machine learning) and smart contracts.

The creation of structurally separate and autonomous market segments may also help to reduce overall financial sector systemic risks, which remain high, despite repeated public reassurances, in the current incumbent-dominated markets. As long as 'too-big-to fail' institutions and phenomena of excessive risk taking, greed and corruption remain in the traditional financial sector, the latter will be always a source of systemic risk.

[143] Fernando Restoy *Regulating Fintech: What is Going on, and Where are the Challenges?* Bank of International Settlements, Speech, Washington DC, (16 October 2019).

This author is sceptical about the market impact of some of the incumbent-fintech partnerships. The history of mergers in the banking sector especially in the run up to the last financial crisis showed that[144] many of these mergers decisions were hastily made from partners responding to market and shareholder pressures for quick profits and therefore many lacked strategic value leading to the creation of large, inefficient banks[145]. The addition of innovative products, such as complex mortgage derivatives and the use of technology to evaluate and manage these products and market risks created, instead, explosive risks which led to the financial crisis[146]. EU regulators should learn from the past experience and take steps to protect the proposed separation by discouraging the incumbents' deep involvement with fintech companies and markets in large scale mergers and market entries[147]. Incumbents need fintech solutions to improve their business models and incumbent-fintech partnerships should be encouraged where this is the purpose, but where the partnership aims at creating new, hybrid business models and products or large scale entry from one market to the other, more detailed scrutiny may be required as a way to prevent systemic risks spreading between the two markets.

Some fintech innovations including disintermediation and blockchain, can be adopted successfully by incumbents within their existing business models. In other cases, though, innovative fintech solutions can not be replicated by the far larger and complex incumbent banks[148]. Regulation should encourage banks to adopt fintech at a pace which will allow them to manage effectively the risks associated with the new technologies. This encouragement should be linked to the establishment of clearer and measurable criteria for evaluating the fintech risks for incumbent business models. Currently incumbents face uncertainty about the regulators' requirements. An EY 2018 industry report[149] found that banks face serious difficulties measuring risks from cybersecurity, technology and information security, which are also linked to fintech and suggest that incumbents look to regulators for more guidance. The Commission's Fintech AP promises significant initiatives in the direction of improving cybersecurity, which will contribute to the improve stability and resilience of IT systems, but the problem of measuring IT risks

[144] See the analysis of the benefits and costs from the creation of large banks in Liikanen Report *supra* n. 113, at Annex 4.
[145] As the Liikanen Report analysis *ibid.* showed, the further efficiencies are more difficult when banks reach very large size.
[146] See e.g. *ibid.* at 13-14; Turner Review *supra* n. 113, at 1.1.
[147] New risks from the fintech mergers could include, *inter alia*, operational risks, financial risks from the investment in the new market and the association with more unstable Fintech partners, increased cyber risks, reputation risks and. For more details analysis see Basel Committee on Banking Supervision *supra* n. 91.
[148] Dealing with the legacy IT systems, lack of specialised and Fintech-savvy staff are often cited between the reasons. (see PwC Global Fintech Report *supra* n. 8).
[149] See Ninth Annual EY/IIF survey *supra* n. 9.

and the adequacy of the banks' available responses remains. The development of solutions by regtech, which can serve both regulators and banks could offer assistance, but more investment in regtech will be needed.

Without clarification about the criteria and standards for cybersecurity and other fintech-related risks it will be difficult for incumbents to accelerate their fintech transformation. The problem of dealing with cybersecurity risks is a broader one going beyond financial services and currently there are no hacker-proof solutions and they are unlikely to be ones in the fore-seeable future. This, in this author's opinion, strengthens the case for the building, longer-term, alternative financial ecosystems, which could operate on different (but related) IT infrastructure and which could continue functioning when the main one is disrupted as a result of cyberat-tacks.

Alternatively, regulators could require structural market separation (following the exam-ple of UK ring-fencing[150]) of the fintech activities of the banks from the more traditional ones. There is an argument, based on some empirical evidence that the regulatory benefits from measures like 'ring-fencing' or other structural separation (including break-up of large banks) would be offset by the costs of the structural separation and the resulted erosion of financial system performance[151]. The UK Independent Commission on Banking (ICB)[152], which pro-posed the ring-fencing for British banks, saw significant benefits from it by helping to sort out the banking system in periods of crisis and by insulating vital banking services for the econ-omy[153]. EU opted against such a solution for European banks[154] but it is submitted that, for the fintech with autonomous function any ringfencing-equivalent measure would be easier to imple-ment as banks are not yet in these markets and fintech presence in traditional markets is not strong. So the cost lot separation could be small.

iii. Consistency is possible with different sets of rules

[150] A decision was made as a result of the financial crisis by UK government to bring legislation which would require from large UK banks to separate their retail banking activities from the rest of their busi-nesses. Ringfencing was implemented in January 2019, and Prudential Regulation Authority has the main responsibility (for more details about the new rules see K. Britton, L. Dawkes, S. Debbage and T. Idris *Ring-Fencing: What is it and How Will it Affect Banks and their Customers?*", Bank of England *Quarterly Bulletin* Q4, 164 (2016).
[151]Saunders and Walter *supra* n. 125, at p.11.
[152] See Independent Commission on Banking, Final Report, September 2011.
[153] *Ibid.* at 35.
[154] See the recommendations of the de Larosière Group *The High-Level Group of Financial Supervision in the EU,* Report, Brussels, 25 February (2009).

EBA claims[155] that the existence of a consistent legal framework is essential to ensure market stability and a level-playing field. EBA also considers regulatory consistency as one of the key lessons from the last financial crisis[156]. But consistency does not necessarily require same sets of rules for all. It is possible to have separate rules, if there is clarity about the boundaries of each framework and they apply consistently.

The Commission has already acknowledged the need for new regulatory frameworks aimed for fintech alone. In the Fintech Credit Institution Licence Guide, the ECB was quick to stress that the Guide was not aimed at subjecting that fintech banks to different assessment criteria, but in the Feedback Statement the ECB also acknowledged, that fintech banks have special features, which have to be addressed separately from other banks[157].

Longer term, consistency can be achieved by replacing the "same criteria" approach with an "equivalence" or proportionality principle. It is submitted that markets are more interested to see what the rules of the game are and would expect a neutral and fair treatment of all competitors, but fairness does not necessarily require equality. Fair treatment and level playing field can be achieved also through different rules especially where competing products are not homogeneous.

For example, both fintech and traditional banks face the risk of non-performing loans but the size and cause of risk can be different as the two groups use different credit scoring systems (many fintech companies use innovative credit scoring mechanisms). There are also asset valuation differences between traditional banks and e.g. crypto-banks and different risk profiles (fintech relies more on technology) which would result in different methods of risk quantification. So while consistency in the application of the rules in essential, it does not necessarily require the use of same rules for each case.

iv. Accept the possibility of relaxing consumer and investor protection rules

The European Parliament *Report on Fintech: the Influence of Technology on the Future of the Financial Sector*[158]*,* para 45 reads: *"….the same consumer protection standards apply to Fintech services as to other financial services, irrespective of the channel of distribution or the location of the customer".*

---

[155] *Supra* n..44; see also European Parliament *Report on Fintech: the Influence of Technology on the Future of the Financial Sector, supra* n. 35, para 45.
[156] *Ibid.*
[157] See the ECB response included in the Feedback Statement on the Guide *supra* n. 66.
[158] *Supra* n.35.

The insistence on this principle may hinter longer term the development not only of fintech, but also of financial services and act against other stated policy priorities such as financial inclusion. strict consumer protection laws could result in consumers being denied access to finance, such as loans and credit cards. While it is legitimate for regulators to make sure that consumers are effectively protected from market abuses, it is also paramount to ensure that **all** consumers are protected, which in turn implies that all consumers have access to finance and the protection. But this is clearly not the case, at least due to the exclusion (partial or complete) of certain types of consumers. Existing consumer laws and bank regulations could share part of the blame for consumers feeling excluded or underserved as the cost of restrictions is more expensive and less inclusive finance. The current rapid growth of unregulated fintech solutions in various parts of EU and in UK is evidence that absence of regulation can help serve consumers and businesses excluded from the regulated sector. It is also evidence of a clear preference in some consumers and businesses to trade part of their protection for more financial inclusion and better service.

The creation of structurally separate markets with autonomous functions proposed earlier would allow the Commission to demonstrate some flexibility in regards to the standards of consumer protection. The Commission for example could accept some anonymity e.g. in e-wallets and allow without control certain lower-value fintech transactions.

v. Use more principle-based and more private regulation

EU Regulators could also resort to more principle-based regulation and allow more private regulation. Principle-based regulation relies heavily on soft law (e.g. guidelines) and self-regulation, which is useful when dealing with innovations for which regulators have limited knowledge. Some countries such as Switzerland[159], which is between the world leaders in embracing fintech, already use principle-based regulation to deal in a flexible way with the fintech challenge. For Switzerland a Federal Council Report of December 2018[160], summarised the country's principle-based approach to the regulation of blockchain and distributed ledger technology, as follows: "*[t]he principle-based approach supports technological neutrality by crafting rules specifying which goal or impact should be achieved, but providing leeway where possible*

[159] For the Swiss approach to Fintech regulation see FINMA *FINMA, Reduces Obstacles to Fintech*", Press Release, 17 March (2017).
[160] See Federal Council *Legal framework for distributed ledger technology and blockchain in Switzerland*, Report, Bern, 7 December (2018).

for how to achieve this in detail"[161]. The Report also highlighted some other principles[162], which demonstrate the Swiss flexibility about fintech: a bottom-up approach letting market and society decide with public policy having a supporting role; b. targeted adjustments to existing legal frameworks to accommodate blockchain; c. technology-neutral approach; legal certainty, clear rules and combating abuse; d. openness and dialogue with the fintech industry. EU regulators[163], similar to their Swiss counter-parties, have accepted the broad adoption of technology-neutral approach and the possibility of using a more principle-based regulation, which will help them to regulate a wider range of companies and make financial markets more inclusive, but the EU approach in regards to the principe-based regulation is less enthusiastic, reflecting the historic EU cautiousness on the matter. There is still a question of how the Commission will combine any principle-based policy, which would help foster innovation with other declared goals, such as that of financial stability and ensuring the same level of protection for consumers and investors for which rules-based regulation is normally used. The inclusion of fintech to the scope of GDPR, the 5th anti-money laundering directive and other hard-law instruments indicates the Commission's decision not to abandon rules-based regulation at least in areas such as consumer protection. Also letting markets and society to decide does not seem to be in the Commission's agenda either.

It is submitted that for market leadership EU will have to use principle-based regulation more often. For example for DLT, crypto-assets and ICOs adoption of principle based solutions are preferable to the alternative of leaving the matter to Member States or seeking bespoke solutions.

In regards to private (or self) regulation, the Commission's AP, makes several mentions to self-regulation especially in regards to the development of industry standards and also calls for closer cooperation with the industry. These calls, while positive should be supported by concrete steps such as those adopted in Japan where in October 2018 the government ap-

---

[161] *Ibid.* at 1.3.
[162] *Ibid.*
[163] See e.g. the EBA response to Paypal question in the process of the fintech consultation available at https://eba.europa.eu/regulation-and-policy/other-topics/approach-to-financial-technology-fintech-?p_p_auth=QlgNrNi5&p_p_id=169&p_p_lifecycle=0&p_p_state=maximized&p_p_col_id=column-2&p_p_col_pos=1&p_p_col_count=2&_169_struts_action=%2Fdynamic_data_list_display%2Fview_record&_169_recordId=2013043

pointed the Japan Virtual Currency Exchange Association, a private body, responsible for regulating cryptoassets[164]. The Japanese government justified its decision on the basis that the industry has better knowledge of the technical aspects and the complexities of these innovations and they could offer more timely solutions[165].

vi. Make increasing use of competition law

Public authorities should also rigorously apply competition laws in fintech markets and the broader financial services sector not only in order to prevent anti-competitive practices from fintech innovators, but also in order to deter the gradual takeover of fintech markets by the more resourceful incumbent banks or big tech. Currently, from competition authorities' perspective[166] there are no major competition issues in fintech markets as these markets are greatly fragmented and incumbents' presence is not strong, but later, risks to competition could emerge, especially as big tech joins the competition.

vii. The cost of regulation in the new era can be low

Some could argue that putting in place separate regulatory principles and mechanisms for fintech companies would increase the overall regulatory costs, but this may not end up being the case if the growth of alternative finance results in shrinking of the traditional financial sector and if the regulation of the alternative markets is less restrictive, complex and costly than in traditional finance. Also, a significant advantage of certain fintech technologies such as blockchain is that they tend to simplify financial processes and make them more efficient. This by itself could result in simpler, lower-cost regulatory frameworks. A cost/benefit analysis of having a more diverse regulatory framework compared to the current one will prove useful.

7. Concluding remarks: building a competitive EU fintech industry.

[164] See Taiga Uranaka *Japan grants cryptocurrency industry self-regulatory status* Reuters 24 October (2018).
[165] *Ibid.*
[166] See EU Fintech competition study *supra* n. 10.

An EY 2018 Ninth EY/IIF global risk management survey[167] found that for European banks implementing regulations and meeting supervisory expectations are two of the top priorities of their boards. Regarding fintech, the banking industry has a set of demands from regulators. These include[168] more regulatory and supervisory certainty around the deployment of new technologies; to ensure the safety and soundness of the financial system; to clarify risk management expectations around new technologies; to clarify privacy/information security expectations around new technologies; to create a level playing field between existing and new firms and competitors; to clarify third-party risk management expectations around new technologies; to ensure compliance with laws, rules and regulations; to clarify cyber-risk expectations around new technologies.

For EU building an effective legal framework for fintech has acquired some urgency given the lower profitability of European banks compared with their international peers and the market lead on fintech, which the EU's main competitors such as US and China and probably India seem to have acquired. Compared to these countries the current EU fintech approach is more cautious. Whilst China and India currently need fintech more than EU in order to catch up with the latter in terms of the provision of basic financial services and financial inclusion, this may change in future rounds of competition where the technological capacity and expertise they currently build could help them gain competitive advantage. Other developed countries such as US, Japan, Switzerland, North Korea, Australia and Canada could also move faster than EU given the latter's more cautious approach to innovation and heavier reliance on traditional banking. EU cannot afford to be left behind.

This article showed that in order to build an effective framework for the regulation of fintech, EU regulators may have to step outside of their comfort zone and adopt a bolder approach than in the past. The Fintech Action Plan and other recent EU initiatives outline some steps in this direction, but bolder action will be needed in the future if EU wishes to remain a global leader on fintech.

[167] *supra* n. 9.
[168] *Ibid.* at 7.