



# FinTech in the Financial Market

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# FINTECH IN THE FINANCIAL MARKET BETWEEN COMPETITION AND STABILITY

*Maxime Delabarre*

## ABSTRACT

This essay argues that the common competition framework is not to be applied to the financial sector. If traditionally competition brings efficiency and diversity in a market, financial regulators must also ensure the stability of the financial market. Henceforth, some limits and entry barriers have to exist. This is particularly true for FinTech companies. If the potential of those new actors is not to be contested, the risk they can bring is also quite obvious. If regulators want the market to be disrupted and to see consumers benefiting from the power of innovation of technology-based companies, they need to adapt their regulatory framework. Only under this condition will the benefits outweigh the potential risks.

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## I. INTRODUCTION

Efficiency, quality, and innovation are the general arguments in favor of competition.<sup>1</sup> Still, this must be balanced with the first preoccupation of regulators: ensuring the stability of the financial sector.<sup>2</sup> In the era of digital technologies disrupting financial markets, traditional banks are likely to compete or restructure with FinTech.<sup>3</sup>

Hence, the question of entry of new competitors needs to be answered from the dual prism of competition and innovation in the financial market. With more than 31 billion dollars of investment in 2017, FinTech can no longer be ignored by regulators. For this paper, FinTech will describe the current technology-based innovative and alternative financial solutions.<sup>4</sup> They are particularly appreciated by digital native consumers for their convenience and can usually operate at lower costs than banks.<sup>5</sup> FinTech companies are dramatically rising and benefit from strong consumer demand.<sup>6</sup> Accordingly, regulators must take them into account and weigh the pros and the cons of an openness of the financial market. Through their efficiency,<sup>7</sup> rapid development,<sup>8</sup> reliability,<sup>9</sup> and financial inclusion

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<sup>1</sup> Stijn Claessens, *Competition in the Financial Sector: Overview of Competition Policies*, 24 WORLD BANK RES. OBS. 83–118 (2009).

<sup>2</sup> Markus Brunnermeier et al., *THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION* (2009); Paul L Joskow & Roger G Noll, *Regulation in theory and practice: An overview*, in STUDIES IN PUBLIC REGULATION 1–78 (1981); Dong He et al., *Fintech and Financial Services: Initial Considerations* 50 (2017).

<sup>3</sup> Xavier Vives, *COMPETITION AND STABILITY IN BANKING* (2016); Xavier Vives, *Competition and stability in modern banking: A post-crisis perspective*, 64 INT. J. IND. ORGAN. 55–69 (2019).

<sup>4</sup> See Andrea Minto, Moritz Voelkerling & Melanie Wulff, *Separating apples from oranges: identifying threats to financial stability originating from FinTech*, 12 CAP. MARK. LAW J. 428–465 (2017).

<sup>5</sup> René M. Stulz, *FinTech, BigTech, and the Future of Banks*, 31 J. APPL. CORP. FINANCE 86–97 (2019).

<sup>6</sup> Agustín Carstens, *Big tech in finance and new challenges for public policy* (2018).

<sup>7</sup> Thomas Philippon, *The FinTech Opportunity* (2016), NATIONAL BUREAU OF ECONOMIC RESEARCH.

<sup>8</sup> Andreas Fuster et al., *The Role of Technology in Mortgage Lending*, 32 REV. FINANC. STUD. 1854–1899 (2019).

<sup>9</sup> Tobias Berg et al., *On the Rise of FinTechs: Credit Scoring Using Digital Footprints*, 33 REV. FINANC. STUD. 2845–2897 (2020).

possibilities, FinTech disrupts the current financial sector and the question of rising risks is to be asked.

Therefore, the balance between openness and stability is not new. By assessing the question of competition in the financial sector in general (II.) and then the current challenge of FinTech (III.), this essay argues that the openness of the financial sector cannot be avoided but need to be carefully monitored. If the benefits of new entrants and innovations are numerous, regulators should control the emerging risks. (IV.)

## II. IS COMPETITION INCOMPATIBLE WITH FINANCIAL STABILITY?

Bikker and Spierdijk studied in 2009 the relationship between information asymmetries, technology, and the financial sector.<sup>10</sup> The negative correlation between efficiency and concentration in banking has also been demonstrated, albeit only in developing countries,<sup>11</sup> which could induce that competition is in favor of the consumers<sup>12</sup> with the decrease of loan – and the increase of deposit – rates.<sup>13</sup> More, the less banks the more ties between borrowers and institutions.<sup>14</sup> Then, efficiency and development of the financial system could be encouraged by new entrants.<sup>15</sup> Finally, diversification could lead to a more efficient system, more stable.<sup>16</sup> However, the particularity of the financial sector makes its stability at the heart of the concerns. Too much competition

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<sup>10</sup> Jacob A Bikker & Laura Spierdijk, *Measuring and explaining competition in the financial sector*, 9 DISCUSS. PAP. SERIES TJALLING C KOOPMANS RES. INST. (2009).

<sup>11</sup> Asli Demirguc-Kunt, Luc Laeven & Ross Levine, *Regulations, market structure, institutions, and the cost of financial intermediation* (2003).

<sup>12</sup> Claessens, *supra* note 1.

<sup>13</sup> David Besanko & Anjan V Thakor, *Banking deregulation: Allocational consequences of relaxing entry barriers*, 16 J. BANK. FINANCE 909–932 (1992).

<sup>14</sup> *The Benefits of Lending Relationships: Evidence from Small Business Data*, 49 J. FINANCE 3–37 (1994).; Arnoud WA Boot & Anjan V Thakor, *Can relationship banking survive competition?*, 55 J. FINANCE 679–713 (2000).

<sup>15</sup> Stijn Claessens & Neelke Van Horen, *Foreign Banks: Trends, Impact and Financial Stability*, 12 IMF WORK. PAP. 1 (2012).

<sup>16</sup> Klaus Schaeck & Martin Cihák, *Competition, efficiency, and stability in banking*, 43 FINANC. MANAG. 215–241 (2014).

could undermine financial stability.<sup>17</sup> Indeed, concentrated markets allow incumbents to internalize benefits and reduce volatility.<sup>18</sup> Also, the US subprime market has demonstrated that a development in competition can lead to weaker financial standards.<sup>19</sup>

If in a traditional market perfect competition theory could operate, the stability issue of the financial markets makes it inapplicable. This would lead banks to take more risks to reach a profitability threshold.<sup>20</sup> Regulators will respond by increasing banks prudential requirements. In turn, shadow banking will rise. The US is usually a good example to see how regulatory pressure can increase shadow banking activities,<sup>21</sup> including through the guidance provided by the Financial Stability Oversight Council.<sup>22</sup> Overall, it seems that higher market power for banks could reduce the risk they are willing to take.<sup>23</sup>

Henceforth, while competition has undoubtedly some advantages regulators should carefully balance the entry barriers. As banks' attitudes are linked to the degree of openness imposed by authorities,<sup>24</sup> the question is of importance especially since it is not clear at this stage whether the benefit of openness outweighs potential risks.<sup>25</sup>

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<sup>17</sup> Franklin Allen & Douglas Gale, *Competition and financial stability*, J. MONEY CREDIT BANK. 453–480 (2004). For a contrary opinion, see Thorsten Beck, Asli Demirgüç-Kunt & Ross Levine, *Bank concentration, competition, and crises: First results*, 30 J. BANK. FINANCE 1581–1603 (2006).

<sup>18</sup> Mitchell A. Petersen & Raghuram G. Rajan, *The Effect of Credit Market Competition on Lending Relationships*, 110 Q. J. ECON. 407–443 (1995).

<sup>19</sup> Giovanni Dell'Ariccia, Luc Laeven & Deniz O. Igan, *Credit Booms and Lending Standards; Evidence From the Subprime Mortgage Market*, IMF WORKING PAPERS (2008).

<sup>20</sup> OECD, *Digital disruption in banking and its impact on competition* (2020).

<sup>21</sup> Petersen and Rajan, *supra* note 18.

<sup>22</sup> Sooji Kim, Matthew C. Plosser & João A.C. Santos, *Macroprudential policy and the revolving door of risk: Lessons from leveraged lending guidance*, 34 ASSESS. BANK. REGUL. OBAMA ERA 17–31 (2018).

<sup>23</sup> Michael C. Keeley, *Deposit Insurance, Risk, and Market Power in Banking*, 80 AM. ECON. REV. 1183–1200 (1990); Carmen Matutes & Xavier Vives, *Imperfect competition, risk taking, and regulation in banking*, 44 EUR. ECON. REV. 1–34 (2000).

<sup>24</sup> Enrico C. Perotti & Javier Suarez, *Last bank standing: What do I gain if you fail?*, 46 EUR. ECON. REV. 1599–1622 (2002).

<sup>25</sup> Allen and Gale, *supra* note 17; Amit Bhaduri, *Understanding the financial crisis*, ECON. POLIT. WKLY. 123–125 (2009); John H Boyd & Gianni De Nicolo, *The theory of bank risk taking and competition revisited*, 60 J. FINANCE 1329–1343 (2005).

### III. SHOULD REGULATORS ENCOURAGE FINTECH?

The emergence of Fintech is a recent phenomenon difficult to quantify<sup>26</sup> because of the wide range of definitions.<sup>27</sup> A useful measure is the venture capital of investment in the sector provided by the IOSCO. Accordingly, in November 2016, over \$100 billion have been invested in almost 9,000 companies.<sup>28</sup> With such an important and growing singularity, the development of FinTech has inevitably raised the question of the competition mechanisms.

#### *A. FinTech is disruptive and innovative*

Operating in the new technologies field means that FinTech can usually operate with less leverage than traditional banks, which is one of the many reasons as to why it disrupts the financial sector.<sup>29</sup>

Firstly, FinTech is particularly efficient when it comes to access to financial services in isolated regions.<sup>30</sup> For example, according to the World Bank,<sup>31</sup> 25% of Iraqis only have access to a bank account. Implementation of the International Smart Card now allows the government to distribute salaries to more than 7 million Iraqis.<sup>32</sup> The ease of use of such services is a FinTech advantage compared to traditional banks, less flexible and subject to international constraints.<sup>33</sup> FinTech companies are also known to be efficient

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<sup>26</sup> Financial Stability Board, *Financial Stability Implications from FinTech: Supervisory and Regulatory Issues that Merit Authorities' Attention* 65 (2017).

<sup>27</sup> Some studies include bank's technology-assisted activities, other don't. See Greg Buchak et al., *Fintech, regulatory arbitrage, and the rise of shadow banks*, 130 J. FINANC. ECON. 453–483 (2018).

<sup>28</sup> IOSCO, *Research Report on Financial Technologies (Fintech)* (2017).

<sup>29</sup> OECD, *supra* note 20.

<sup>30</sup> Milena Vučinić, *Fintech and Financial Stability Potential Influence of FinTech on Financial Stability, Risks and Benefits*, 9 J. CENT. BANK. THEORY PRACT. 43–66 (2020).

<sup>31</sup> WORLD BANK, *The Global Findex Database 2017* 151 (2017).

<sup>32</sup> Chloe Cornish, *Iraq's financial inclusion drive boosted by homegrown fintech*, FINANCIAL TIMES, April 24, 2019.

<sup>33</sup> For an overview of the effect of international economic sanctions on the banking system of the target, see Kern Alexander, *ECONOMIC SANCTIONS LAW AND PUBLIC POLICY* (2009); Robert Carswell, *Economic sanctions and the Iran experience*, 60 FOREIGN AFF. 247–265

in payment clearings and settlements aspects.<sup>34</sup> Overall, FinTech could improve efficiency, increase the number of customers,<sup>35</sup> and contribute, to some extent, to stability.<sup>36</sup> Big data principles could be led to play a role in the distribution of information produced and communicated by central banks,<sup>37</sup> as well as dealing with asymmetry of information,<sup>38</sup> which could be a strong transparency driver.<sup>39</sup>

Secondly, by encouraging decentralization and diversification of the sector, FinTech could indeed play a role in stability,<sup>40</sup> as the market would be less subject to financial shocks, even though this argument has been quite contested in the traditional banking system.<sup>41</sup> Decentralization could even

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(1981); Emre Hatipoglu & Dursun Peksen, *Economic sanctions and banking crises in target economies*, 29 DEF. PEACE ECON. 171–189 (2018).

<sup>34</sup> This has been noted by Tao Zhang, Deputy Managing Director of the IMF. See, Tao Zhang, *Balancing Fintech Opportunities and Risks* (2019).

<sup>35</sup> The European Banking Authority demonstrated through a survey that current institutions expect the number of customers to rise with the entry of fintech, see EUROPEAN BANKING AUTHORITY, *EBA thematic report on the impact of FinTech on PIs' and EMIs' business models* (2019).

<sup>36</sup> On the links between efficiency and stability, see Hilary J Allen, *Putting the financial stability in financial stability oversight council*, 76 OHIO ST LJ 1087 (2015); Dean Amel et al., *Consolidation and efficiency in the financial sector: A review of the international evidence*, 28 J. BANK. FINANCE 2493–2519 (2004); Thorsten Beck & Thomas Losse-Müller, *Financial sector taxation: Balancing fairness, efficiency, and stability*, 31 VOXEU ORG (2010); Mario I. Blejer, *Economic growth and the stability and efficiency of the financial sector*, 30 J. BANK. FINANCE 3429–3432 (2006); Michael Gofman, *Efficiency and stability of a financial architecture with too-interconnected-to-fail institutions*, 124 J. FINANC. ECON. 113–146 (2017); Schaeck and Cihák, *supra* note 16.

<sup>37</sup> Jonne O. Lehtimäki & Marianne Palmu, *Central Bank Communication and Monetary Policy Predictability under Uncertain Economic Conditions*, 8 J. CENT. BANK. THEORY PRACT. 5–32 (2019).

<sup>38</sup> Kyriaki Kosmidou et al., *Determinants of risk in the banking sector during the European Financial Crisis*, 33 J. FINANC. STAB. 285–296 (2017).

<sup>39</sup> Roman Horváth & Dan Vaško, *Central bank transparency and financial stability*, 22 J. FINANC. STAB. 45–56 (2016); Gil Mehrez & Daniel Kaufmann, *TRANSPARENCY, LIBERALIZATION, AND BANKING CRISES* (2000); Tara Vishwanath & Daniel Kaufmann, *Toward transparency: New approaches and their application to financial markets*, 16 WORLD BANK RES. OBS. 41–57 (2001).

<sup>40</sup> Derrick W.H. Fung et al., *Friend or foe: The divergent effects of FinTech on financial stability*, 45 EMERG. MARK. REV. 100727 (2020).

<sup>41</sup> For the argument in favor of the diversification, see Christian E. Weller & Ghazal Zulfqar, *Financial Market Diversity and Macroeconomic Stability*, WORKING PAPERS (2013). *A contrario*, for an analysis showing that more diversified banks are not systematically safer, see N. Beale et al., *Conflicts between individual and systemic risk in banking and other*

compensate for the new risks inherent to FinTech: for example, cyber risk is preponderant in cloud-based companies, but a decentralized market is less risky than a centralized system.<sup>42</sup> Blockchain could also be useful in P2P transactions if implemented properly.<sup>43</sup>

### *B. FinTech needs to be monitored*

Aware of the new risks posed by FinTech, international organizations and national regulators now consider it. In this sense, the Financial Innovation Network has been created within the FSB. In the EU, the European Banking Authority is closely looking at FinTech activities.<sup>44</sup> Accordingly, many risks have been assessed, particularly by the report of the Financial Stability Board.<sup>45</sup>

The first issue is contagion: losses incurred by a company in the sector could raise concerns about losses from other actors. The FSB argues that relaxed entry barriers could increase the risk of contagion, especially targeting companies relying a lot on unsupervised activities, helped by AI or other machine learning algorithms.<sup>46</sup> Even though big data could play a role in asymmetric information, moral hazard could still be a major issue with FinTech. Vallée and Zeng argued that the quality of the loans could be let decreased, especially in an area where traditional banks have advantages

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systems, 193. BANKING ON THE STATE (2009); Andrew G Haldane, *Rethinking the financial network*, in FRAGILE STABILITÄT–STABILE FRAGILITÄT 243–278 (2013). However, the point made in this essay is more about diversity in the financial sector and not business lines diversification.

<sup>42</sup> Financial Stability Board, *FinTech and market structure in financial services: Market developments and potential financial stability implications* 37 (2019).

<sup>43</sup> Efpraxia D. Zamani & George M. Giaglis, *With a little help from the miners: distributed ledger technology and market disintermediation*, 118 IND. MANAG. DATA SYST. 637–652 (2018).

<sup>44</sup> European Banking Authority, *supra* note 35.

<sup>45</sup> Financial Stability Board, *supra* note 26.

<sup>46</sup> For a similar point made in trading, demonstrating that automation would lead to new sources of contagion, see Andrei A. Kirilenko & Andrew W. Lo, *Moore's Law versus Murphy's Law: Algorithmic Trading and Its Discontents*, 27 J. ECON. PERSPECT. 51–72 (2013).



through soft information.<sup>47</sup> Without the proper regulation, it is unlikely that the benefit outweighs the risk on those points.

More, P2P lending is at the heart of the criticisms, mainly because lenders are not as efficient as banks to assess creditworthiness.<sup>48</sup> P2P loans have been demonstrated to have higher default rates on comparable credit scores.<sup>49</sup> Low prices for capital combined with those high-risk projects is a big threat to financial stability. Moreover, the high reliance of FinTech on third-party service providers makes the failure of the latter particularly worrisome<sup>50</sup> as dependence on cloud services, such as Amazon, has already disrupted consumers' operations in the past.<sup>51</sup>

Another concern is the maturity mismatch – occurring when loans are extended for a period which is longer than the initial one – which constitutes a source of rollover risk,<sup>52</sup> especially if FinTech begins to intermediate funds on their own.<sup>53</sup> Other risks include the liquidity mismatch or leverage considerations. Cyber risks, legal issues, and governance control are controversies that regulators must take into account while assessing the interest of reducing entry barriers.

To conclude, the apparent benefits of FinTech must be carefully balanced, especially because of its rapid pace of development. The rising profitability of these new entrants may put too much pressure on incumbents, which in turn could be tempted to take more risks to compensate for their losses. The 2008 financial crisis demonstrated that the global access to financial products, including but not limited to mortgages, could weaken the system if

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<sup>47</sup> Boris Vallée & Yao Zeng, *Marketplace Lending: A New Banking Paradigm?*, 32 REV. FINANC. STUD. 1939–1982 (2019).

<sup>48</sup> Andreas Mild, Martin Waitz & Jürgen Wöckl, *How low can you go? — Overcoming the inability of lenders to set proper interest rates on unsecured peer-to-peer lending markets*, 68 J. BUS. RES. 1291–1305 (2015).

<sup>49</sup> Tetyana Balyuk Sergei Davydenko, *Reintermediation in FinTech: Evidence from Online Lending* (2018).

<sup>50</sup> Jeffrey Dastin, *Disruption in Amazon's cloud service ripples through internet*, REUTERS, March 1, 2017.

<sup>51</sup> In 2017, Amazon's failure disturbed operations conducted by the SEC, some universities, and other big companies, including Apple. See Minto, Voelkerling, and Wulff, *supra* note 4.

<sup>52</sup> For an overview, see Viral V. Acharya, Douglas Gale & Tanju Yorulmazer, *Rollover Risk and Market Freezes*, 66 J. FINANCE 1177–1209 (2011); Nathan Converse, *Uncertainty, capital flows, and maturity mismatch*, 88 J. INT. MONEY FINANCE 260–275 (2018).

<sup>53</sup> Financial Stability Board, *supra* note 26.

not monitored. That is the reason as to why it is necessary to see regulators adapt their processes to accompany those new operations and their risks.

#### IV. WHAT SHOULD REGULATORS DO?

According to Buchak et al.,<sup>54</sup> 55% of shadow banking growth in the period of study could be attributed to the regulatory burden, which is 20% higher than the part attributable to FinTech. Christine Lagarde explained that the euro area is now receiving 50% of its financing flows from non-bank actors, which is 20% more than before the financial crisis.<sup>55</sup> Hence, regulators can no longer ignore new actors entering the financial markets.

If regulators are too lenient with FinTech, traditional banks will be less profitable and will engage in riskier activities. Reversely, keeping entry barriers as they are today seems unsustainable as this would deprive customers and the market of the power of innovation. A common example of a trade-off that regulators are currently facing is the access of e-money providers to central bank reserves. Doing so would solve the problem of market and liquidity risks of FinTech but, reversely, they would be in such a position to challenge, if not replace, traditional banks. Fostering innovation by granting FinTech access to central bank reserves could be beneficial for the competition in, and access to, the financial system but would affect traditional banks.<sup>56</sup> The only viable option in this scenario for banks would be to try to retain their customers at any cost, thus reducing their profitability.<sup>57</sup>

Some of the existing principles of regulation apply to FinTech activities. For instance, the Core Principles published by the Basel Committee can cover

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<sup>54</sup> Buchak et al., *supra* note 27.

<sup>55</sup> Christine Lagarde, *Opening Statement by Christine Lagarde to the Economic and Monetary Affairs Committee of the European Parliament* (2019).

<sup>56</sup> In any case, such a policy would require central banks to create a central bank digital currency (CBDC) which, despite promoting efficiency, would likely result in a raise of the cost of funds for banks. See Tobias Adrian & Tommaso Mancini Griffoli, *The Rise of Digital Money*, 19 FINTECH NOTES (2019).

<sup>57</sup> For an empirical study on the links between deposit rates and banks market power, see Itamar Drechsler, Alexi Savov & Philipp Schnabl, *Banking on Deposits: Maturity Transformation without Interest Rate Risk* (2018).

FinTech activities. In securities market, the IOSCO Objectives and Principles<sup>58</sup> are relevant and, in the payment and clearing spheres the PFMI principles could be used.<sup>59</sup> However, several countries decided to modify their regulations despite this common framework. Mexico, China, Russia, and Switzerland, among others, all created or modified existing laws to regulate the entry of FinTech in the financial sector. The IMF and the World Bank answered to those preoccupations with the Bali FinTech Agenda which is intended to guide policymakers.

The 2008 financial crisis dramatically modified regulators' approach to competition. In 2015, the UK government granted the Financial Conduct Authority the ability to monitor competition, a policy that has been extended to several other countries.<sup>60</sup> The same year, the FCA brought the concept of a regulatory sandbox for FinTech activities which allows companies to test their ideas supervised by regulators.<sup>61</sup> Fewer restrictions are applied in the sandbox and FinTech can rapidly innovate,<sup>62</sup> investments are easier to acquire, and stability should hence follow.<sup>63</sup> At the same time, regulators can quickly and easily monitor innovations. Still, if a regulatory sandbox is a very useful tool for policymakers, it cannot replace a stable and effective regulatory framework.<sup>64</sup> In this idea, the EU decided to put in place the 2015 EU Payment Services Directive II which open access to some banking data.<sup>65</sup> Other jurisdictions decided to promote and control FinTech activities as well.<sup>66</sup> The Japan Banking Act has recently been revised to facilitate collaboration between banks and other companies. The Canadian

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<sup>58</sup> IOSCO Objectives and Principles of Securities Regulation and the IOSCO Assessment Methodology.

<sup>59</sup> Basle Committee on Banking Supervision, *Core principles for effective banking supervision* (1997); IOSCO, *Objectives and Principles of Securities Regulation* (2010); Principles for Financial Market Infrastructures (PFMI), (2014).

<sup>60</sup> Elena Carletti & Agnieszka Smolenska, *10 years on from the Financial Crisis: Co-operation between Competition Agencies and Regulators in the Financial Sector* (2017).

<sup>61</sup> Financial Conduct Authority, *Regulatory sandbox*, FCA (2016).

<sup>62</sup> Minto, Voelkerling, and Wulff, *supra* note 4.

<sup>63</sup> Fung et al., *supra* note 40.

<sup>64</sup> He et al., *supra* note 2.

<sup>65</sup> Directive 2015/2366/EU 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.

<sup>66</sup> Financial Stability Board, *FinTech and market structure in financial services: market developments and potential financial stability implications* (2019).

Competition Authority is currently studying the situation, such as its Australian counterpart. It is worth noting also that developing technologies and innovations could be used by regulators, through “RegTech” which could help to reduce the cost of reporting.<sup>67</sup>

Overall, it seems that, even if the regulator can be skeptical about the interest of reducing entry barriers, the regulatory framework must be adapted to new categories of services. This is particularly true considering licensing which is focused on banking activities only and can be costly for companies with more limited services. The question of the perimeter of regulation is also to be asked. The fact that FinTech does not answer to a common definition is an important burden for regulators.<sup>68</sup> All of those questions need to be addressed to supervise FinTech activities in a way that society is benefiting from the innovations without making the financial sector too risky.

## V. CONCLUSION

To conclude, the development of FinTech is likely to continue at a fast pace, boosted by demand-side factors. FinTech brings opportunities to the market but also some risks. Those risks need to be addressed by regulators to benefit from innovation without weakening the stability of the financial sector. Decentralization, accessibility, transparency, and other advantages are particularly appealing and innovative. Still, macro and microeconomic considerations need to be kept in mind. P2P lending is on a very positive trend, but it also asks the question of informational differences. Cryptocurrencies are on the forefront of accessibility but very volatile.

The response from international institutions needs to be clear and rapidly implementable. Only then will regulators be able to coordinate themselves at the global level to deal with this international phenomenon. While traditional banks usually operate inside a country (or an economic union), FinTech seems to be willing to operate globally. In this sense, an internationally coordinated response is needed. Regulatory gaps must be filled, regulatory

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<sup>67</sup> Douglas W Arner, Janos Barberis & Ross P Buckey, *FinTech, RegTech, and the reconceptualization of financial regulation*, 37 NW J INTL BUS 371 (2016).

<sup>68</sup> Financial Stability Board *supra* note 26.

sandbox must be accompanied by proper regulations, and processes – such as licensing – have to be adapted to those new actors to encourage technology-based companies to take the question of stability seriously.

Hence, FinTech represents a tremendous opportunity for the financial sector to reinvent itself, become more inclusive and safer. Regulators should then promote the entry of new actors. However, these entries must be controlled to ensure that the risks are managed. Only under this condition will the potential benefit outweigh the risks brought by FinTech companies.

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