Risk trend in fintech disruption from a common good view

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Abstract

It is unquestionable that fintech firms are learning how to carry out the credit activity of banks, exposing them to the risks already regulated for the banks. The current financial system is breaking the taboos of the direct intermediation with the consequent assignment of risks to consumers by means of lending platforms. These phenomena seem to undermine theories of financial intermediation. In this context, the main risks for financial system that arise are from technology as it is applied and activity developed, but which are exactly the risks and different impacts operators generate?
The belief that culture contributes to shaping corporate behaviour suggests that the culture of risk in a bank influences its choices in risk-taking. In turn, competition with fintech firms affects risk culture in banking externally (Carretta 2001). This conceptual paper aims to analyse the risks for incumbents (banks) and for fintech firms as has been pointed out by regulators in idiosyncratic and systemic points of view. The methodology of this study is based on drawing a comparison between the effects of innovation in non-financial companies, in particular in the 1990s, with technological integration in the activity of banks. The author compares available literature and reports of consulting firms and regulator outputs on banks and fintech firms. The relevant and practical aspects are highlighted, evaluating the related risks as a consequence of the (risk) culture characteristics. The differences in risk cultures between these two kinds of organizations and the relative competitive dynamics, combined with collaboration among them, may lead to more flexible banks and more rigorous fintech firms. The common good will benefit from this new financial system if new business models are able to manage risks in a sustainable way (EBA, 2018).

1. Identification of risks for sustainable models

The innovations of each decade shape the way that banks adopt their operational models to new challenges. During the nineties, banks focused on expanding the types of services efficiently offered to consumers. In later years, banks were authorized to distribute risks of investment through securitization and to invest in capital markets so as to gain from trading, thus building universal models or groups.
Currently, innovations in technology require a review of financial products and the way they are offered, a trend which presents new challenges to finding sustainable models in banks with an appropriate risk management (Fig. 1) (EBA, 2018).

Fig. 1 Main risks affecting sustainable business models.

Sourse: EBA, 2018

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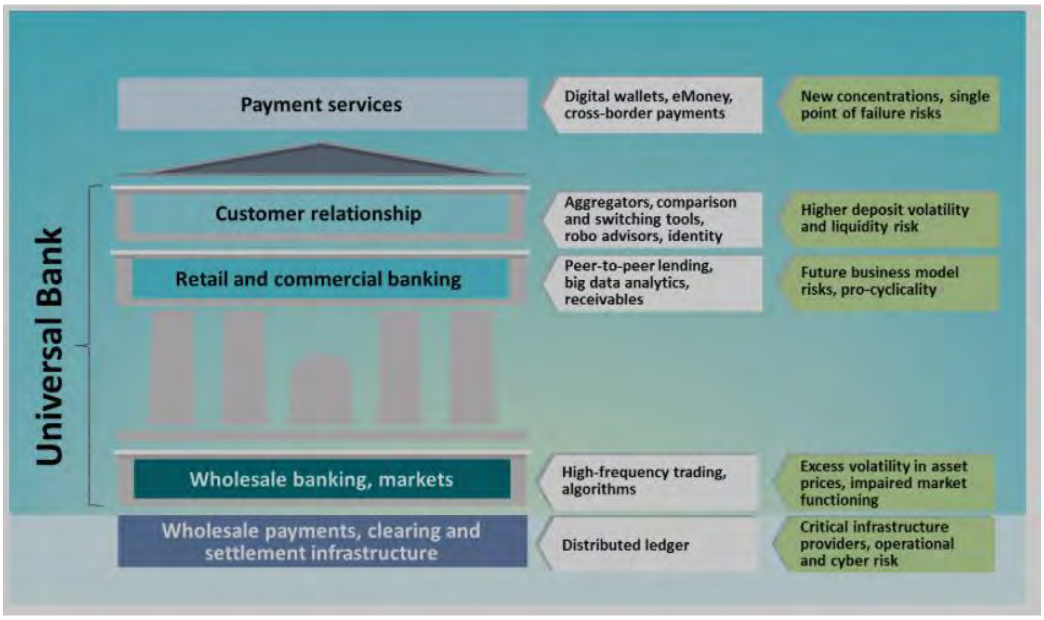
Several forces have shaped the formation of new models, at the same time affecting risk management in this new scenario. The supply of financial products and services generate unidentified risks in incumbents engaged in digital disruption. In any case, most of these risks are similar to those faced by fintechs.
The introduction of innovations, and the consequent irrational exuberance for it, lowers the perception of the relative risks (Gomber et al. 2017; Shiller, 2013).
This happened in dot.com bubble markets, where highly indebted companies raised funds in exchange markets. This may be explained as irrational exuberance or beliefs, which plumped investments in the decade after ((Gennaioli, Shleifer 2018; Shiller, 2013).
In particular, in the current decade new financial system dynamics are undermining theories on the relevance of intermediation (Rossi, 2018; Thakor et al. 2019), which implies that there is a failure to learn from old mistakes. The failures from credit risk raised the alert of the authorities after the first years of fintech (peer to peer for example – Lending Club).
It required fintech activities or/and firms to take part in the control of traditional risks.
New organizations began to manage risks in their choice of a sustainable model that takes into account the risks to which the organisation may be exposed. In any case, the systematic nature of risks from fintech is not shared (Carney, 2017).
An effective balance of benefits and innovations with the potential risks contributes to creating the bases for sustainable risk management (Arner et al. 2015).

This new risk management strategy is predominantly about the digitalisation of the processes, which may be managed internally or in collaboration with one or more partners, generating different critical issues that are difficult to map. The Bank of England has attempted to do this for regulation issues, as shown in fig. 2. At the same time, Carney (2017) believes that the end of the universal bank model is foreseeable; in fact, the implementation of high technology in every stage of supply chains in services is a high cost strategy. Financial institutions are interested in specialization in one or more services as an expression of their core business. In this way, there is the advantage of a less complex risk management even if the offer of as many services as possible will be followed, especially by incumbents.

Fig. 2 Financial services value chain with potential issues for financial stability



Source: Carney, 2017

Through the pursuit of digital transformation strategies, incumbents may obtain different degree of digitalization through partnerships. For example, in open banking the financial value chain may assume four degrees of openness towards third parties.
If financial institutions use platforms, the degree of openness is the fourth. This is the highest degree, and includes an active role of the owner in facilitating third party business by acting as a matchmaker.
When the partnerships with other financial institutions or fintechs are developed to digitalize the production, it corresponds to the third degree, while the distribution of products through in-house solutions or third parties falls under the second degree. The lowest degree of openness is when the banks are owners of all stages of their supply chain.

Accordingly, to be sustainable, the business model needs a strategy that carefully assesses which organizational risks can be sustained and managed (EBA, 2017).
The supply chain, in turn, is changing and becoming a "galaxy" with one or more partners for every stage in network with others. In this scenario, incumbents may reach digitalisation through different options depending on the level of technology they want to adopt, which depends on other variables, for example the value that the banks wants to create in the phases of supply chain they choose to own by offering the products. In fact, in the short term, it is expected that the ownership of supply chain of financial services will be fragmented (Rossi, 2018; Sist, Giannotti, Caratelli, 2017).

2. Level play field

Competition by new entrants in the financial services market is characterized by a low perception of risks from the supply of financial products (Barbagallo, 2018). Higher levels of managed technology lead traditional financial institutions to be exposed to unknown risks in technology (the choice of the right technology, the operational risks, the model to embody innovations and so on), while fintech firms explore financial traditional risks, already well known by incumbents. It is sure that the revision of existing business models is necessary for enabling the bank to offer a better customer experience and to gain advantages from technology.
The changes address both the means for improving their use of technology in their processes and products, and the model of banks employ so as to be positioned to meet their goals. They have to invest in a sustainable way (Philippon 2018; Navaretti Calzolari, Pozzolo 2017;) even if incumbents start in an inefficient condition (for non-performing loan management).
The new model of incumbents has to be sustainable to allow the incumbent to operate in the new technological landscape (EBA, 2018) with contained risks.
A better explanation of the implications of fintech disruption in the financial ecosystem is found in Anagnostopoulos (2018). Will the risk culture make the business model more or less sustainable? Risk culture in banking is one of the factors explaining risk taking in banks.
It is also a determinant in critical strategic decisions about the kind of digitalisation banks need and how to enact them. The sustainability of risks taken by the organizations is surely based on culture of the organization and the approach to risk management, affecting the business model (Di Antonio, 2017).

3. The common good in the systemic risks from high technology landscape

In 2017, within Europe, jurisdictions with risk management requirements for fintech firms were France, Spain and the United Kingdom (FSB-BIS, 2017). Demetriz et al. (2018) confirms that European regulation, while developing and continuing to implement actions aimed at achieving the Capital Marketss Union (CMsU), manages issues relating to the transformation of business models and supply chains.
The establishment of the CMsU is functional to the development of fintech, which in 2017 still represented a small part of the financial system as a whole. In any case, regulation draws attention to the relevance of idiosyncratic risks with systemic effects, in an area in which the systematization of risks from each single organization was overcome for risks known after the crisis (Nava, 2019). The technology risks amplify operational risks, the impacts of which are not yet classified in terms of frequency and magnitude in incumbents and in fintech firms. For banks, operational risks derive from the lack of technological competence, while for fintech firms, operational risk is inherent in their inexperience in managing digital processes. The increased exposure to risks is due to their lack of capabilities: for banks in technological areas, and for fintech firms in the process of traditional financial products. The revision of the first fintech business models has allowed them to strengthen their structures. In this way, they are following the schemes already tested by incumbents, creating more complex organizations and consequently higher costs (EBA, 2018) to avoid the loss in revenue or even to survive (Zveryakov, Kovalenko, Sheludko, Sharah 2019). As banks tend to follow the technology applications of fintech models to improve their efficiency, it is reasonable to imagine an adjustment of strong imperfections used by fintech firms toward a new equilibrium. During these dynamics, fintech firms and incumbents have to confront and manage their exposure to risks (Fig. 3). Some of which will be new given from the new way to offer old products, while others of these will be old for financial system, but new for fintech firms. For regulators, operational failures and conduct problems arise for fintech firms (Claessens, Frost, Turner, Zhu 2018) creating a single point of failure risks (Carney, 2017).
The competition and the interaction through collaboration forms (for example through the Application programming Interfacing - API) between banks and fintechs could mix the cultures between these two significantly different types of financial operators giving new adjustments.

Fig. 3 Main risks for banks and for fintech firms in high technology landscape.

Banks are collaborating with new entrants, thus gaining in flexibility and adopting innovations to compete in a rapidly changing market. These dynamics bring third-party and reputational (Zveryakov Kovalenko, Sheludko, Sharah 2019) risks for banks engaged in planning new strategies as the API, including appropriate security measures to address cyber and privacy risks, paying a high cost for mistakes in planning or implementation (strategy risks). The incumbents expose themselves to reputational risk also as a result of managerial choices that later prove to be wrong (Gabbi, 2014). Technology risk is embodied in operational risk, and it follows from the increase in degree of digitalization of processes and products. The relevance of this kind of risk is growing because (excessive) consumer confidence in new fintech entities may depend on the occurrence of operational risk (cyber-attack, fraud, operational disruption) (Panetta, 2018; FBS-BIS, 2017).

The development of strategies involved in fintech disruption preserves incumbents from the risk of having a low market share. The implementation of new technologies without a careful assessment of ICT risk exposure may bring losses for the incumbent (for example: high amount of investments and low market share). Customers are attracted to lower prices, easy execution and higher returns from fintech activities, but the new technologies contribute to decreasing their perception of risks. Data is another potential issue embodied in ICT & security risk with exposure on data security, privacy, data ownership, impact of algorithms, transparency, data governance (FRS, 2016).

4. Conclusions

As early as 2003, the OECD identified the growing dependence of financial services on systemic risks. The decrease in market share due to inefficiency or to lack of implementation of new strategies makes it difficult for banks to keep the role they previously had in the financial system, with obvious systemic risks (Navaretti, Calzolari, Pozzolo 2017). These systemic risks overwhelm the common good, threating the financial system especially in phases of crisis and in the role of supporting economy (Zamagni, 2015). Fintech is also increasing shadow banking activity, so risks are not easily controllable by regulators (Brogi, Lagasio 2017), which amplifies negative effects on public benefits. The unknown risks derive from activities outside the supervisory framework. For regulated financial institution, compliance risks remain a concern and they raise problems in a level playing field where fintechs and incumbents compete (without considering advantages of big tech). The recommendation to increase the public interest is the understanding of opportunities from innovations supporting effective assessment and management of risks from fintech (FRS, 2016).

From the side of fintech firms, systemic risks derive from the effects of innovation in the sector, such as the physiologic rationalization of new entrants and inefficient operators, but also from the increase in the share of shadow banking.

Fintech firms are taking new risks and financial system needs to avoid problems for accounting in fintech firms and incumbents, investors and consumers as has been seen in past failures of banking system (Barbagallo, 2018).

Sustainability depends on the perception of risks, which itself depends on the culture of the organization (Carretta, Schwitzer, 2017).

Fintech firms are learning that they have to be wary and banks are learning to manage new risks, or risks that were less relevant before. The transfer of risk culture from banks to fintech firms should have common relevance. The view left from finance of only for profit organization is changing also through the SDG aims declared in Agenda 2030 by UN. If from one side this new approach is necessary to obtain a sustainable development and inclusion, the operators view a large amount of investment that have to be financed, creating a strong activity in financial system and this support could be seen as an opportunity for operetors and for financial system to become more oriented toward a more concrete common good.

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