The rise of fintechs and their regulation

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The 2008 financial crisis led to a loss of confidence and gave rise to a new financial sector landscape. The emergence of the fintech phenomenon is attracting interest from new generations who are turning their backs on traditional players. The digital adjustment of the banking and financial sector at large is based on a move towards greater productivity through the use of new tools that reduce distribution costs. These developments raise questions as to their impact on banks, the reaction of the latter, and the risks incurred with the emergence of new practices. Regulators are facing new challenges that involve ensuring a level playing field for the different players and protecting users.
The term “fintech” is a contraction of the words “finance” and “technology”. It refers to the technological start-ups that are emerging to rival traditional banking and financial players, and covers an array of services, from crowdfunding platforms and mobile payment solutions to online portfolio management tools and international money transfers. Fintechs are attracting interest both from users of banking services and from investment funds, which see them as the future of the financial sector. Even retail groups and telecoms operators are looking for ways to offer financial services via their existing networks. This flurry of activity raises questions over what kind of financial landscape will emerge in the wake of the digital transformation. What role will the traditional banks play? Will fintechs expand with or in spite of the banking sector? And what new risks do they pose for users of banking services?

This article addresses all of these issues, focusing in particular on the role of financial regulation and how it can contribute in the future. The first part looks at the reasons behind the rise of fintechs. These include supply-side factors, with the onset of the digital revolution, and demand-side factors, with the emergence of new modes of consumption. The 2008 financial crisis also played an important role, by prompting tighter regulation of traditional players and a growing sense of mistrust among consumers towards the banks. In the second part of this article, we analyse the responses of the large traditional players, and examine the various strategies that are open to them. We look at how incumbent firms and new entrants are creating links that could offer a foretaste of the future structure of the financial sector. We then go on to look at the challenges faced by regulators, and explore different approaches they could adopt to ensure a level playing field for incumbent firms and newcomers and protect users of financial services.

1| The emergence of fintechs

In this first section, we look at three aspects of the recent changes in the banking and financial sectors. We start by discussing the impact of the 2008 financial crisis, both on the regulation of incumbent players and on the trust placed by customers in their banks. We then go on to examine changes in the behaviour of banking service users. Lastly, we look at the digital transformation, the true catalyst behind the fintech phenomenon.

1|1 The financial crisis, regulation and trust

The 2008 financial crisis triggered a series of major upheavals in the financial and banking sectors. The first was the realisation that the activities of the major financial institutions generate systemic risk. This led to the development of different measures designed to quantify that risk. Bank financial regulation was tightened. In particular, the notion of a financial entity’s contribution to systemic risk led to the definition of systematically important financial institutions (SIFIs). The Basel Committee on Banking Supervision (BCBS) increased banks’ regulatory reserve requirement in order to take account of individual contributions to global risk. This regulatory tightening placed a dual burden on banks: directly, by forcing them to set aside greater reserves and therefore scale back their activities; and indirectly, in that they were singled out as the main culprits behind the financial crisis.

As the global economy emerged from the crisis, it became clear that many customers, and notably the younger generations, had lost all faith in banks. How could they trust the very economic agents that caused the trouble in the first place? And to make matters worse, those agents had only managed to avoid bankruptcy thanks to massive injections of public money. If the banks themselves were incapable of managing the risks they took, why should anyone take their advice or trust them with their savings? New generations of clients are only too willing to turn their backs on the traditional players, and are keen to see new companies emerge who played no part in the recent crisis and can offer an innovative approach to finance.

1|2 From consumers to users of financial services

As well as taking a dimmer view of the banks, younger generations have developed very different consumer habits from their elders. They have grown up used

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to having access to personalised solutions, tailored to their needs, in stark contrast with the mass marketing approach of the banks and other traditional financial players. The conventional model of the customer who consumes whatever he/she is offered has been left behind and replaced by the “user” of financial services. The old customer was passive, content to choose from a finite selection of products or pre-defined services, while today's user is active, expecting to be provided with the tools he/she needs to construct a personalised solution. The example of asset management is a case in point. Whereas a banking network offers the same savings product to a maximum number of clients in order to generate economies of scale, the user-client expects a flexible solution that can be adapted to his/her individual needs and investment objectives. Matching products and services to the expectations of the user requires close interaction, and this is only possible via online platforms.

From the outset, fintechs have targeted younger generations who are used to interactivity and to bespoke solutions. Yet this strategy is not without risks. On average, younger generations own fewer assets than the rest of the population, and the gap is particularly wide with respect to the oldest generations who tend to have substantial financial wealth. In order to be economically viable, newcomers quickly need to attract large quantities of assets. And there are two pivotal factors for this: the number of clients and the average amount of assets per client. Even if they attract large numbers of young clients, fintechs will still struggle to turn a profit as long as younger generations’ wealth remains low. Will fintechs have time to grow in parallel with younger generations' assets, and eventually become profitable? Even if the answer is yes, there is no guarantee that they will be able to retain these clients. As younger generations age, they will face increasingly complex savings challenges, and robot-advisers only offer basic solutions that are not really suited to these demands. There is a clear difference between robot-advisers, which are ideal for clients with few assets who mainly want to avoid high bank charges, and traditional firms whose clients tend to have more assets and require much greater expertise. Fintechs will struggle to make money if they lose their clients as soon as the latter become profitable.

Conversely, if the traditional players are to attract profitable clients, they will have to evolve and offer the same level of interactivity as their fintech rivals. Today's robot-advisers are just one example of the way incumbent firms are innovating in order to transform their client relationships and offer new approaches to banking. For the time being, this type of service is reserved for private banking clients. However, in the future it will be opened up to a broader range of clients in the traditional banking networks. This is the only way the sector giants can survive the transition from consumers to users.

1|3 The digital transformation

Digital transformation is nothing new in the banking and financial sectors. High-frequency trading and related arbitrage strategies are good examples of the impact new technologies have already made. It has become common practice to monitor changes in market prices over tiny fractions of a second, construct arbitrage strategies based on statistical rules and move in and out of positions at high speed to profit from very short term fluctuations in prices. In this case, the most important aspect of the digital transformation is the ability to process a sequence of repetitive tasks at speeds previously unknown in trading. However, for a long time, the high cost of implementing these systematic approaches prevented their widespread use. The acquisition and processing of information in particular were extremely expensive, raising a barrier to entry for new players. In addition, in the asset management sector in particular, this first digital transformation only really affected the production side of the business, and not distribution. Investors who purchased a share in an investment fund from their banking network continued to receive standard quarterly reports on the performance of their savings, but these took no account of their specific investment objectives (retirement funding, investment for a future real-estate purchase), or of any other holdings in their portfolio.

The second stage in the digital transformation, linked to the emergence of fintechs, has been more far-reaching, and began with the dissemination of tools that could simultaneously improve the entire value chain. Recent IT developments have brought solutions both for the production side (databases, decision-making tools) and for distribution (digital channels, knowledge of clients, flexibility of client offerings). These advances are enabling new entrants to find a place in the industry, by developing niche
offerings based on the interactivity and customisation sought by younger generations, all at a much lower cost than conventional firms.

In banking and finance, client relationship management was for a long time thought to be the preserve of the major networks, due to the high cost of client acquisition. Now, however, both newcomers and other non-financial agents (telecoms operators, retail chains) can use emerging technologies to offer new services to their existing client base; they can also build up new client bases more easily, as consumers are eager to buy services rather than ready-made products. In the asset management industry, this second digital transformation has affected both production and distribution simultaneously. On the production side, investment managers increasingly use sophisticated data-analysis and risk-management tools to create new products. But the biggest change this time has been in distribution, with clients – or service users – now receiving offerings that are adapted to their needs. To achieve this, distributors need to know as much as possible about their clients; hence the widespread use of metrics, quantitative information that distributors collect by closely analysing their clients’ overall consumption trends. By statistically inferring the level of a client’s income, for example, as well as his/her monthly outgoings, an asset manager can calculate the monthly saving capacity and offer suitable investment strategies. These analytical approaches are particularly effective with large client bases, where the behaviour of new clients can be simulated on the basis of the past behaviour of existing clients belonging to the same group. It is also possible to predict the future behaviour of a client based on his/her particular characteristics, and use this to provide a personalised approach.

2| The response of traditional players

The traditional sector players have not remained idle in the face of the rising threat from fintechs. Their digital strategy can be summed up in one simple question: make or buy? In this section, we look at these two alternatives and then describe a third path, midway between the other two, which could form the basis for a new business model, whereby traditional players combine their skills in core banking systems with the agility of new entrants.

2|1 The challenges of making

In the previous section we discussed the in-depth digital transformation currently changing the face of the financial industry. As in other industries that are being affected, this revolution is being spearheaded by market newcomers and not by incumbents. In the financial industry in particular, fintechs have a competitive advantage due to the technical debt accumulated by traditional players, notably the banks. The concept of technical debt is directly linked to that of financial debt: developing an IT system generates future costs, which can be likened to a form of interest payment, and the total amount of these costs makes up the technical debt. The more complex a system becomes, the more frequently it needs to be upgraded and the higher the associated debt. A good example of this is a large banking group created through the merger of several different banks: the overall information system has had to integrate various pre-existing components; as a result, it reflects the history of the bank and the major stages in its construction, but it will never be as efficient as a comprehensive IT system, built to cover the current scope of the bank’s activities. Asset management is another good example. Financial innovation has created increasingly complex tools, requiring the development of more and more sophisticated storage and control systems. The introduction of tighter regulations has also had a similar effect. Indeed, the vast majority of the IT resources deployed in recent decades have been in response to these two phenomena. Today’s IT systems are like a “millefeuille”, built of multiple versions that have been layered on top of each other as new financial innovations or regulations have emerged. For a long time, this complexity was a barrier to entry for new participants. But all that is changing. Fintechs now have access to technical solutions enabling them to integrate the impact of financial innovation and regulation from the outset, all at a much lower cost. There seems to be no holding them back. In contrast, incumbents firms have more limited room for manoeuvre due to their technical debts, leaving fintechs ideally placed to take the lead.

The industry incumbents have responded by trying to expand the technical skills of their IT teams, and by changing the way they are structured. The digital transformation has thus led to changes in the way projects are managed, with large groups adopting more agile IT development methods, similar to
those used by tech start-ups. It is still important to know the business, notably due to its regulatory complexity, but the key factor now is the ability to develop interactive tools that match new user habits. Traditional players have all the elements they need to succeed in this transformation: knowledge of the business, a network, a track record in client relationship management, transaction security and financial resources. It is easy, therefore, to imagine them launching a digital version of their conventional banking model, drawing on their existing industry expertise to offer a different client experience. A number of traditional players have already tried this, albeit with mixed results. There are various reasons why they have struggled: fear of cannibalising their existing activities, the failure of previous attempts or difficulties in effectively mobilising staff – all these can explain why traditional players have been reluctant to invest massively in the digital transformation. Banks will only succeed if they can encourage their staff to adopt new working methods, while at the same time capitalising on their main strength: knowledge of their clients. This synthesis will not be easy to implement.

2|2 The temptation to buy

The traditional banking and financial players have not been very active when it comes to investing in or acquiring fintechs. Indeed, banks have made almost no investments at all in this segment, despite regularly taking indirect capital stakes in start-ups via investment funds. The few cases where they have taken a stake have been for a set purpose: to modernise an existing service offering, acquire a new technology or foster the development of a specific fintech. Indeed, for fintechs, having a bank as a stakeholder can reassure the regulators and make it easier to get a licence for their activity.

Acquisitions of fintechs by traditional players are even rarer. Banks seem to be afraid they will slow their target’s momentum, or will struggle to merge the new entity with their existing development teams. The main motive for purchases by incumbent firms seems to be, again, to acquire a new technology or development team that can help them upgrade their offering as quickly as possible. Combining a fintech with conventional banking services is a way of developing new services in the short term and makes it easier to shift traditional client relationships towards a more interactive and personalised model.

2|3 A possible synthesis

A third method of collaboration is emerging, specifically in the banking and financial sector. In order to sell their financial services and products, fintechs need to have access to partners who know how to operate a core banking system; banks in turn can provide this service, and can sell their products to third parties in unbranded form. A number of banks have opted for this solution in order to create ties with fintechs, positioning themselves as a service-provider and giving guidance on their core banking business. Some payment fintechs, for example, operate using existing platforms, while a number of platforms for the distribution of savings products sell solutions constructed using bank products. In return, the partner bank can directly observe how the client relationships evolve, and adapt its offering to suit the needs of the fintechs, and ultimately of the final users.

This type of relationship is raising fundamental questions about the way the distribution of financial products is currently structured. It is possible to imagine a new distribution model with the banks operating as product design platforms, selling unbranded solutions to captive or non-captive fintechs, and capable of adapting more readily to changes in user needs. In this case, acquiring a fintech as a subsidiary would make sense as it would enable banks to secure their distribution channels. The only risk with this model is that the fintech, which is in charge of the client relationship, might outgrow the platform supplying the financial products. Do financial institutions really have the capacity to keep pace with the fintechs’ growth?

3| The role of the regulators

Faced with these profound changes in the banking and financial sectors, regulators need to take care to avoid two pitfalls. The first is overprotecting incumbents by erecting barriers to entry for newcomers. Doing so would discourage financial innovation and stifle competition in the very sector they are supervising. The second potential pitfall is choosing instead to...
favour newcomers by regulating them less stringently than incumbents. These challenges can be illustrated by two examples: client identification in internet payments and in bank account aggregation services. In the case of payments, clients now have access to a range of different options, and the trend is towards using simpler and more user-friendly identification solutions than the standard login and password approach. However, these solutions differ starkly from the traditional approaches used by banks, raising concerns about security. The same problem occurs with bank account aggregation services. These applications need to retrieve information from the banks on their clients’ banking activity. The client thus has to send credentials for his/her different accounts to the aggregator, who in turn uses them repeatedly to construct an overview of the client's finances. Again, this raises the issue of security. Regulators can respond by issuing recommendations on the security of cashless payment systems or online access to bank accounts, but ultimately it is the users who decide whether or not to adopt a technology.

The European directive on access to banking information\(^2\) covers the range of new uses and innovative services that are positioned between the banks and their clients. Under the directive, new payment service providers are subject to the same rules as other payment institutions. However, in return, banks are obliged to give service providers access to information on their clients. This means, for example, that a bank cannot prevent an aggregator from accessing its clients’ banking activity by advising the latter not to give a third party access to their accounts. This poses the question of who should pay for the infrastructure needed for this kind of interconnectivity. The most crucial issue it raises, however, is that of security, as the sharing and use of client identification details heightens the threat of cyber-attacks. If a payment services provider is hacked, it could unintentionally propagate the attack to all its clients’ banks. Banks are thus calling for tighter security regulations for newcomers and raising concerns about the authentication systems they use. Banks are constantly receiving requests for data using client identification codes, without knowing whether they come from the client or a third-party operator. Clearly, the first step would be to improve the traceability of these connection requests. However, the banks think more needs to be done and are also demanding the use of strong identification systems. In this case, third-party operators would need to request authentication each time they send a request to the bank. But an account aggregator that needed to ask its clients to re-enter their credentials each day, for each of their accounts, would soon lose its appeal. These examples demonstrate the difficulties regulators face in reconciling innovation and security.

3|1 Equal treatment and competition...

Regulators have a difficult role to play as their decisions have both a direct and indirect impact on competition between incumbent firms and newcomers. They have to provide a level playing field for all participants, but at the same time foster an innovative, secure and competitive financial market. The Swiss regulator’s action against money laundering is an interesting case in point. The Financial Market Supervisory Authority, or FINMA, has modified its Anti-Money Laundering Ordinance to directly reflect changes in technology, and the revised version covers internet payments and identification procedures. Online authentication is now permitted, but FINMA has defined specific thresholds below which clients do not need to formally identify themselves. This is a good example of how regulation can evolve to avoid hampering new technologies and new ways of using financial services.

In addition to the regulation itself, rule-setters need to look more generally at the incentives offered to market agents, and how these lead them to modify their behaviour. They also need to keep a harmonised set of rules in place and avoid applying different regulations to specific categories of player. This would have the effect of compartmentalising the financial industry, preventing the emergence of new players and discouraging financial innovation. Keeping newcomers out would distort the market in favour of existing players. Conversely, authorities might tend to regulate existing players more tightly as they know their business well, while taking a laxer stance towards market entrants whose activities are new, and who have not been through sufficient crises to fully understand the risks they pose. Clearly, regulators face a difficult task in finding the right balance, one that allows existing players to survive demanding the use of strong identification systems.

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\(^2\) See the European Banking Authority's revised Payment Services Directive or PSD2, (2015).
but also facilitates innovation by new entrants, and ultimately promotes healthy competition in the financial market.

It is possible, however, to outline a number of general principles. Obviously, the first should be to maintain a neutral stance with regard to technological advances. Regulations should foster healthy competition between players, regardless of whether they offer conventional approaches or use new technological solutions. We need to make sure we remove all obstacles to growth for new entrants. The second principle is that we keep in place a harmonised set of rules, covering all players simultaneously, rather than treating players differently according to their characteristics, an approach that would artificially segment the market and hence limit competition. Whether a transaction is processed online or using conventional methods should not affect how it is seen by the regulator. Only the risks related to the transaction itself should be taken into account, and not the manner in which it is performed. Lastly, the third principle should be protecting the users of the financial system as well as the system itself. Regulators must act in the interests of users, protect them in a changing environment that can pose new, unanticipated risks. Respecting these principles will clearly be difficult, and giving one principle priority could undermine the others. The role of the regulator is to find the right balance. To remain neutral with regard to technological progress, for example, regulators need to assess the potential benefits of financial innovation and identify existing rules that could hamper those advances. In the introduction, we discussed the example of client authentication. Numerous technologies are now available to simplify this step, each entailing very different risks. Rejecting the notion of online identification outright would stifle innovation and prevent new solutions from emerging to tackle problems already identified. In contrast, allowing online identification for transactions below a specific threshold would encourage the development of new solutions, and eventually give rise to more efficient tools that limit the minimal risk of fraud. This approach would allow regulators to meet two of the above-listed principles, despite them being hard to reconcile.

It is also difficult to see how we can treat fintechs – which are often highly specialised – in the same way as traditional players – which are much more generalist. The solution here could be to create new categories of financial intermediary, subject to less stringent requirements than banks. Certain rules could be relaxed under specific conditions, for example if the entities in question are not exposed to liquidity mismatch. A market newcomer does not really qualify as a bank if it has no liquidity mismatch, and its clients are less exposed to risk; as a result, it does not need to be regulated in the same way as a bank.

3|2. … without ignoring the new risks

Technical progress fosters innovation, but it also entails new risks, as shown in the two examples described above. At the same time, the primary mandate of the regulator is to protect the users of financial services and the stability of the financial system. In this section, we analyse two issues the regulator needs to focus on: the threat of cyber-attacks and the risks related to the outsourcing of certain traditional bank activities.

Companies in the banking and financial sectors are prime targets for cyber-attacks, and the emergence of online services, designed to be simple and interactive, only heightens this risk. In a worst case scenario, it is possible to imagine a wave of concerted attacks triggering a liquidity squeeze in the markets and threatening the solvency of sector participants. For regulators, however, the difficulty is knowing how to evaluate these new risks. There are no historical examples that can be used to construct realistic scenarios. All regulators can do is take a pragmatic approach, defining plausible attack scenarios and testing the defence mechanisms put in place by digital enterprises. This task is made difficult by the lack of historical data and the fact that ongoing financial innovation is constantly opening up new possibilities of attack. Only by developing in-depth expertise in this field can the regulators effectively fulfil their role.

The second source of risk is the outsourcing of certain tasks in the financial transaction processing chain. Before the technological revolution, it was usual for banks to carry out all tasks in the value chain internally, so that only one overall entity was subject to regulation. These days, this is increasingly rare, both for conventional players and new market entrants. In the case of conventional banks, cost pressures have pushed them to offload some
traditional tasks, such as computerised transaction processing, onto external service providers. In the case of tasks with a high technological content, there is a particular temptation to outsource them to new and more nimble players, who are better at using new technologies and more likely to be cost-effective. The value chain is thus split between the regulated bank and other players that are not necessarily subject to oversight. This creates holes in the supervision system, and makes it hard to predict how the relationship between the bank and its service providers would evolve if a crisis threatened the bank's solvency. Would the service provider agree to continue processing transactions if the bank were in trouble? Although economically viable in normal times, outsourcing clearly raises a new risk of coordination in times of crisis. Similarly, would a default by a service provider with a monopoly position create a new systemic risk?

The question of outsourcing also concerns newcomers to the market. In the previous section, we saw how many fintechs use the services of traditional banks in core banking systems. In some cases, this helps them obtain the licences they need to launch their activity. It also allows them to concentrate on adding value, via client relationship management, without having to pay to develop their own service production tools. These new players are therefore highly likely to use outsourcing. They have also evolved in today's sharing and virtual economy, so will always feel the need to look for efficient and low-cost solutions to handle the least profitable tasks in the value chain. Today, it is the traditional banks that provide these services. But what about tomorrow?

For regulators, outsourcing has many different consequences and, in this case, the challenges of technological innovation affect both historical and new market players.

CONCLUSION

Up to now, the traditional players have responded largely by collaborating with fintechs rather than seeking to acquire them. As a result, a number of partnerships have emerged between major institutions and newcomers, a trend that could shape the future of the banking and financial sectors.

The digital transformation offers huge growth potential for the financial sector. However, we need to make sure that the necessary regulatory changes do not stifle innovation, and at the same time provide the stability the sector needs to meet client expectations.