This is a post-peer-review, pre-copyedit version of an article published in The Rise of Tech Giants. A Game Changer in Global Finance and Politics. The final authenticated version is available online at: https://doi.org/10.3726/b15941

The Fintech Ecosystem: an Italian perspective

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Introduction

Digitalisation has brought substantial change to the world of banking and finance. Changes that have been happening for over a decade already, with consequences that we still cannot fully comprehend on all fronts, such as the decline in the use of cash, the reduction in the number of bank branches and bank employees, the role of new channels for communicating with clients, and the digitalization of banking and financial activity.

The digitalisation of the financial system is not, therefore, something that has emerged only in recent years, but we are experiencing profound changes to financial and banking business models, where information has become not just the data at the base of every service offered, but often the very source of competitive advantage, and partly in the speed at which changes are constantly emerging, including a continuous redrawing of the lines of competition. Several digital pressures, both internal and external, are significantly changing financial institutions, and banks in particular.

If we consider the external pressures, the Observatory considers the following three push factors to be particularly significant:

- Ambitions of technology companies in the financial sphere. The experience of PayPal and some Mobile Banking and Mobile Payment solutions in unbanked markets, such as China, have shown how some stakeholders totally removed from the financial market can have a significant impact on some segments of financial services. This is corroborated, for example, by the 51

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large international companies from non-financial sectors (retail, telecom, consumer electronics, etc.) that offer over 120 solutions between banking and insurance.

- The vitality of Fintech startups. It is already documented that funding received by startups in the Fintech sector are in the tens of billions of dollars: We recorded over 25 billion for the period 2014-2017. Few, however have turned out to be real disruptors of market components or have managed to become market makers in a financial service or segment, in that they have conquered only a modest market share. What is often significant to note, however, is the initial footprint left by these companies, indicating new directions, and opening frontiers, new ways of operating and distinguishing competencies that gradually show up in the organisational structures of the traditional stakeholders too, resulting in profound changes. This is borne out by the fact that startups working in areas that are not yet regulated get on average 205% more funding; that startups that automate client management more assertively receive 192% more funding; and that more and more Fintech startups are collaborating with traditional stakeholders. Against this backdrop, the Italian world of banking and finance, which had always remained on the side-lines of these phenomena, more concerned with fundamental structural matters, now seems to have woken up and is trying to catch up via various initiatives, the effects of which can already be seen, even in the short term.
- The emergence of ecosystems that offer an alternative to bank trust, one of the founding factors, the value proposition of the world of finance, with blockchain and bitcoin being the most relevant technical and market examples. In fact, bitcoin opened the door to new ways of managing trust in transactions, offering alternative systems to the traditional methods. Even if it is still too soon to define the limits of its application, it is evident that some environments have already shown clear potential and benefits from this and similar technologies and there is no doubt that it will leave a significant mark. The figures related to cryptocurrencies demonstrate how fluctuating the situation still is: in addition to bitcoin, which alone accounts

for around 61% of the overall monetary mass in cryptocurrencies, there are at least 898 other cryptocurrencies in the world, but, it is important to note, when taken all together, on a global scale, they do not equal even 0.5% of the monetary aggregate of bank notes, coins and financial activities that can be used as means of payment.

Historically, external pressures on the financial market have largely prevailed over internal ones to become drivers of change for financial institutions. Recently, however, we are witnessing the emergence of important change drivers coming from inside some banking and financial organisations too. Of these, we would like to highlight three in particular:

- An increasing awareness of data management as a means of value creation. Banks and financial institutions are sitting on enormous deposits of data, of "digital black gold" that should be located, extracted and refined by the appropriate organisations, able to express its value in every business process, especially the core processes, i.e. risk assessment and management. Although the road is still long, awareness of this value is gaining strength and currency: in the last year alone the Italian market for Big Data Analytics for the banking sector grew by almost 30%, the biggest growth of any sector, even in terms of market share, which stands at 28%, despite strong growth in sectors linked to Industry 4.0 who have benefited significantly from incentives. The world of insurance is still lagging behind however.
- Artificial intelligence is starting to become a tangible reality. The world of finance, which has historically made substantial use of automatic algorithms to manage some services such as payments or trading, is seeing the blossoming of initiatives that use artificial intelligence and machine learning in various ways. We surveyed more than 50 chatboxes used by financial institutions at international level (by no means exhaustive), and we analysed more than 110 forms of Robo advisoring at international level. Some of these experiments have already resulted in a marketable proposition, they have paved the way, and are gaining a lot of attention from many market stakeholders.

- The emergence of new organisational structures that are more suited to Finance with a digital DNA. Organisational models mutated from the agile and lean startup paradigms are becoming an increasingly frequent experiment for at least some sections of banking organisations, supported by digital instruments that help the bank working context better respond to the demands of a digital market in continuous and rapid evolution, and which have even made the bank work context more enjoyable. This can be seen in the fact that financial institutions start to stand out among the best places to work, in the by now noticeable presence of advanced client relationship models, such as bank spoke branches, better able to manage intrinsically digital omnichannel processes, and in the confirmed interest among top university students in the world of finance.

It is clear therefore that the context is still very fluid, not very consolidated, especially regarding the boundaries that can delimit the various stakeholders and the various market segments. In addition, there is a technological component, APIs (Application Programming Interfaces) with strong organisational implications, fundamental for governing such fluid boundaries. The APIs allow for considerable increases in flexibility in terms of cost and time with which a banking or insurance institute can change its own sphere of activity, even in light of the advent of PSD2.

1. Innovation in retail banking and business model

From the survey conducted on over 50 banks and 15 banking groups, aimed at monitoring the state of the art in the Italian retail banking world and of the relationship channels most used with clients, we can see the start of a transformation process in interactions with clients, although not always with clearly defined strategies.

A study of the physical network of branches and ATMs, which are the traditional points of contact with clients, shows how institutions are willing to rethink spaces and service modes for users, although frequently with different strategies.

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Banking institutions are consolidating and are seeking to automate some operations to reduce the need to actively involve operators, which has led to a reduction in the number of bank branches in Italy, according to Banca d'Italia, in fact, the number of bank and post office counters shrank by 4% over the course of last year, from 43,160 to 41,600 with the drop almost entirely attributable to the banking sector (down from almost 30,300 to just over 29,000 branches). The survey conducted by the Observatory shows how the majority of branches are still traditional, that is, based on a counter that customers use for any type of operation. A minority of banks have installed self-service kiosks inside some branches (generally between 10% and 20% of the branch network), that allow clients to conduct some informative and deposit operations by themselves (including, for example, lodging checks, paying F24 and MAV/RAV forms), thus reducing workload for the employees and reducing queueing times for clients.

Some institutions are pursuing the same objective but focusing on the functions of the ATMs located outside the bank. Our survey shows that practically all institutions have a totally multifunctional park of ATMs, and a large percentage of these are ATMs that also allow customers to make lodgements in cash and/or cheque. More specifically, over 20% of ATMs are "advanced" and accept lodgements, but here again we see differing strategies: some banks believe firmly in this tool, and around 50% of their ATMs are of this type, while others have not pushed in this direction, and have just over 10%.

Only very few banks have decided to dedicate space inside their branches to allow clients to call an operator in a video call from a specially equipped station and to conduct transactions linked to shares or loans. Only two of the banks interviewed offered this possibility and a further two are testing it, but without much conviction.

Moving on to more digital channels of communication – PC, Smartphone and Tablet – we can see that these are becoming the carrier channels of banks' retail strategy. Data shows that on average

38% of total bank clients are active online banking users via PC (up 5% from last year), and in some institutions this is over 47% of total clients. Each PC user executes an average of around 14 transactions per year, with some banks recording peaks of 30 transactions.

The Mobile channel (Smartphone and Tablet) is currently slightly less commonplace, but with reasonable certainty we believe it will become the channel of choice for interaction with clients. On average, 15% of clients of the banks interviewed are active Smartphone or Tablet users, up from the 9% recorded by the same banks in 2015. Some institutions who have focused heavily on digital channels, introducing a multichannel relationship with their clients right from the outset, have already recorded peaks of 28-30% of users active via mobile channels. Each active Smartphone or Tablet user conducts an average of six banking transactions per year, with peaks of nine transactions.

2. Fintech startups: driver of digital transformation?

Digital has revolutionized the financial sector, both in terms of actors involved and tools available to them. The offer of financial services is constantly expanding with new players coming in as suppliers or competitors to the traditional financial institutions. Among these players, new companies play a fundamental role, Fintech startups launched in recent years with the aim of entering the financial market, positioning themselves as serious competitors (mostly in the initial phases of the phenomenon) or as suppliers to banks (a much more recent trend, especially in Italy and in the European Union).

Internationally we have surveyed 730 Fintech startups that received over 1 million dollars, for a total of almost 26 billion dollars of financing from institutional investors, banks, large technology providers and Business Angels. In fact, there is no lack of partnerships between startups and traditional actors, with 1 startup in 3 that has started at least one. A strategic collaboration that can allow a financial institution to innovate more quickly, testing new roads with more limited investments.

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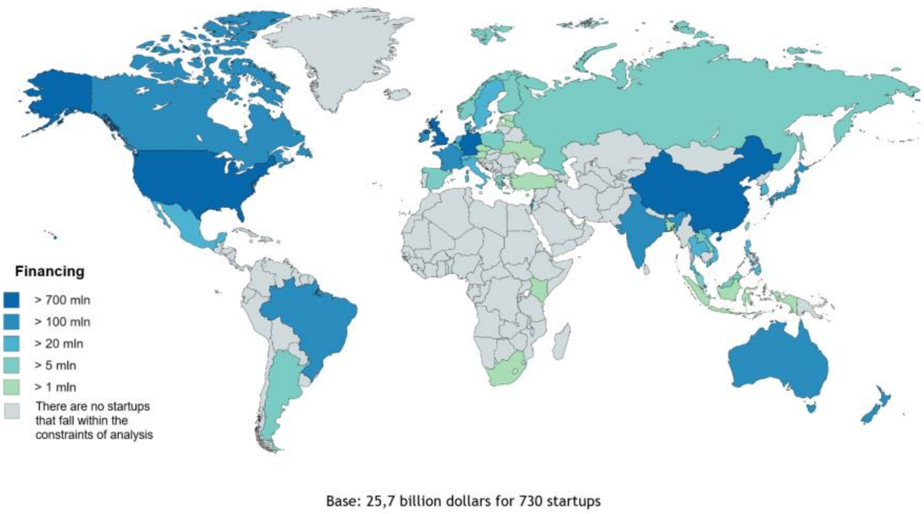

Figure 1 - The distribution of startups by geographical area

Specifically, most of the funding was raised in the US ($ 15.6 billion) and in China ($ 4 billion). On the European continent, the United Kingdom (2 billion dollars) and Germany (0.7 billion dollars) are the countries in which more funding has been collected (see Fig. 1).

Only 5% of the analyzed startups explicitly offer a service to banks, effectively establishing themselves as their supplier or collaborator.

The remaining 95% of startups, on the other hand, are a concrete alternative to banks, dividing almost equally among those that target the final consumer (B2c, identified with "Consumer", 50% of the sample, 70% in terms of financing) and those that refer to a business target, such as SMEs and corporate companies (B2b, 35%). However, it is important to underline how, among these, there are some startups that address at the same time more than one kind of non-bank actor.

The startups have the advantage of being able to exploit some differential levers such as the possibility of operating without the need to have a physical network on the territory and the opportunity to exploit in a native way the large amount of data that collect, or to move with greater ease within the gray areas of regulation.

A dynamic energy movement with large resources available that makes available to the financial world significant solutions and proposals (in ideas, in people, in experimentation, in business models, etc.). For a financial institution, the management of the change brought by digital can not be separated from the monitoring and acquisition of value from the new actors and from the elaboration of a strategy to use the tools that digital makes available.

These new companies are of various different types (Fig. 2), and include some who offer purely banking services (opening and managing an account, payments, loans and financing…), others who propose investment solutions, insurance and finally, some startups are not strictly financial, but they provide support services specifically for the Finance sector (for example, marketing, Big Data management).

The largest category, 60% of startups and 73% of financing), is Banking services which includes services related to account management, payments and financing, followed by 19% by Investment Services which include services related to Asset Management and in general to capital markets, from the Other Services category (16% of startups) with services that are not strictly financial but which address the financial world, and finally a remaining 5% of Insurance services.

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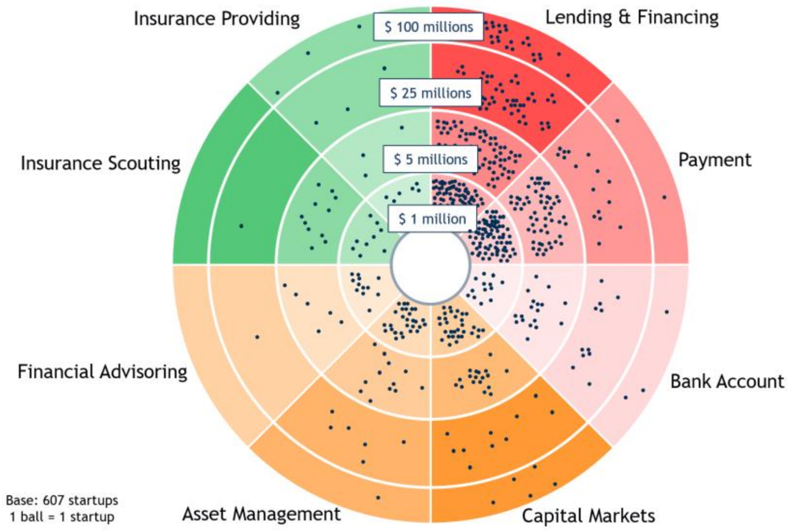

Figure 2 - The distribution for the main types and financing

The relevance of the Banking category (red zone in Fig. 2) is almost entirely due to the Lending & Financing startups, which have met with great success, gathering 60% of total financing (about 15 billion dollars).

The category of payment services, instead, compared to the high number of startups (34% of the Banking category), has collected a significantly lower percentage of financing (10% of the banking category which corresponds to 7% of the total).

Although almost one fifth of startups focus on Investment Services (orange zone in Fig. 2), this type of service only accounts for 9% of funding, recording the lowest average funding.

Insurance startups (green zone in Fig. 2) are the one that overall receive the highest average financing with 61.5 million dollars. Startups scouting insurance policies account for more than half of the total number of insurance startups, but receive only 9% of fundings.

About 90% of startups in the Other Services category are distributed almost equally between the Security, Accounting / HR and Big Data sectors.

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Regardless of the type of service offered, the success of every initiative depends on various factors (financial, strategic, entrepreneurial, luck, etc.). We have identified some factors linked to the business model that many startups who have received funding have in common, and that we therefore believe can increase the chances of success of the solutions developed (see Fig. 3). In the specific case of Fintech startups we have identified the following attributes that also show real behaviours observed in the new companies and that attract higher than average capital investment:

- The intention to take advantage of grey areas in regulations, that is, operating in areas that have not yet been regulated by legislators. Startups who operate in this area have been rewarded with financing of on average 205% higher than average for the sector;
- The mass use of Big Data. New companies in the financial market who create their own key assets with the careful use of Big Data receive an average of 192% more funding than the mean;
- Developing special digital channels to provide their service. Fintech startups that develop their own business model focusing on an intensive and efficient user of digital channels receive on average 85% more than the average for the sector.

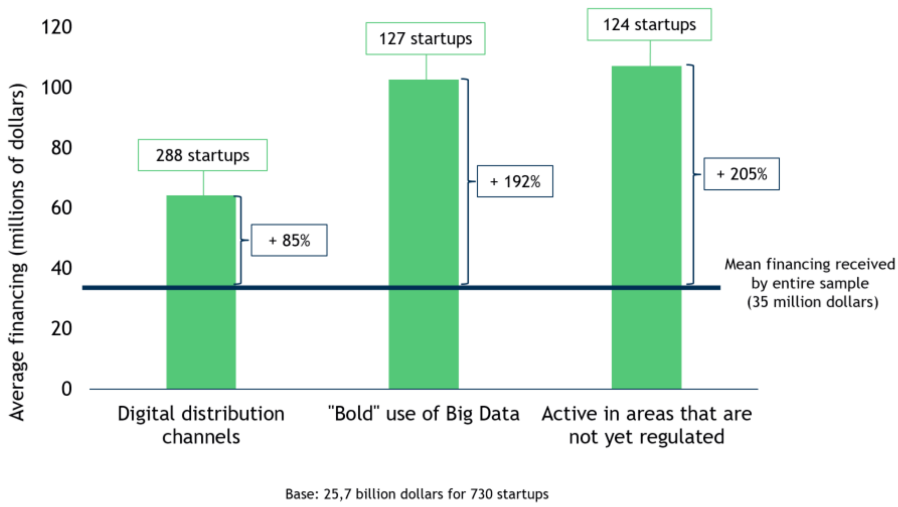

Figure 3 - The difference in funding according to the individual success factors

The importance of these factors is even more striking if taken all together: the more key success factors the startups use, the more the average financing grows. Startups that do not present any of these three success variables receive 56% less financing than average, while those who blend all three success factors are rewarded with an average financing that is 482% more than the average for the sector.

It is evident therefore that traditional companies must also monitor these factors closely, even if it is just to monitor the traces that this strong investment will leave on the market, regardless of whether the startup is successful of not.

3. BigTechs are moving… but in what direction?

Diverse players, not purely financial (we surveyed 51 at international level) are increasingly expanding their own initiatives into financial activity segments, offering one or more proprietary solutions (we polled 123, with a total of 157 financial services), developed in-house (60% of the solutions) or in collaboration with traditional financial players such as banks and insurance companies (24% of solutions) or with other types of stakeholders (non-financial companies, Fintech startups, service providers, 16%).

40 businesses who offer financial services, accounting for 78% of the sample, are stakeholders who we believe pose the biggest threat to the incumbents of the financial world. They are particularly diversified; and include large corporations (50%), digital stakeholders (22%), technology providers (10%) and telecommunication companies (18%).

The large corporations are mainly subdivided between retail (55%) and automotive (40%). 60% of these stakeholders have their main base in Europe and most operate globally (70%). Specifically, five retail stakeholders have already launched their own online and in-store bank. The companies based in the USA such as Walmart, ASDA (operating in the United Kingdom, but part of the Walmart group),

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Costco and Kroger on the other hand offer various solutions in partnership with other players, taking advantage of their physical and digital presence to offer financial and diversified services.

Turning to the digital stakeholders, we see that they mostly operate at global level (89% of all digital players) and are of American (56%) or Asian (44%) origin. They include ICT service providers (70%) who mainly offer digital payment solutions, such as Facebook, Google or Microsoft and pure e-commerce players (30%) who offer additional types of financial services (for example, Alibaba offers wealth management, financial consulting and credit rating services). There are four technology providers and they offer digital payment solutions with digital wallets that are accessible from Smartphones or from smart watches or other devices. This category includes solutions offered by companies such as Apple and Samsung. The telecommunications companies, finally, mostly offer digital payment solutions, but then there are cases like Orange, for example, who have launched an online and mobile bank in both France and Poland.

As in Fig. 4, 5% of the financial solutions mapped are Complement (see Methodology Notes), correlated to the core business of the non-financial company and mostly aimed at existing clients while 8% of cases are Concentric, correlated to the core business, but aimed at both existing and new clients. 31% are Horizontal, that is, not directly correlated to the core business of the non-financial company and are aimed solely at existing clients, while the remaining 56% of cases are Conglomerate, that is, solutions dedicated to both new and existing clients and not correlated to the core business of the company.

In total, 64% of the solutions are offered to new clients, highlighting the fact that most players tend to offer solutions to break into the financial sector, and not with the sole objective of expanding and strengthening their own offering of products and services.

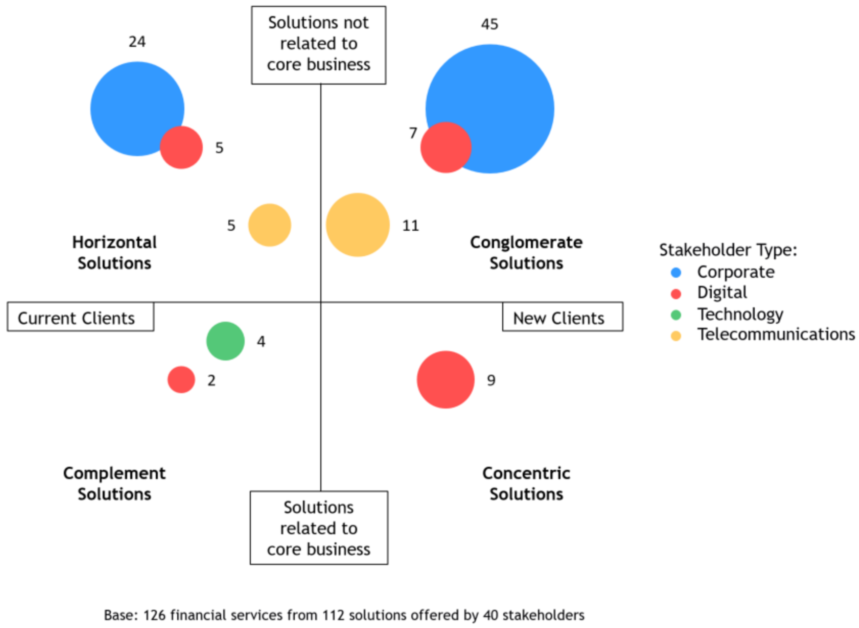

Figure 4 - The strategic positioning of the financial services offered by non-financial companies

Research methodology

The results presented were attained using various research methods, as described below.

Literature review

We analysed hundreds of indirect sources that we deemed most relevant for each strand of research. The sources used were mostly academic articles, professional reports, strategic plans and other documents issued directly by financial institutions. We also analysed the main national and international news reports related to each area of analysis.

Quantification of innovative retail banking channels

In order to outline the impact of digital innovation on the evolution of retail banking channels, we distributed a survey to over 50 Italian banks and 15 banking groups, representing over 90% of the Italian market, and aimed at monitoring the state of the art of Italian retail banking, and at monitoring which communication channels are used most often to communicate with clients.

The analysis looked closely at the key aspects regarding the type of communication channel between the financial institution and their clients:

- Branches, self-service stations and video calls in branches with consultants;
- Advanced ATMs;
- PCs;
- Mobile, comprising Smartphone and Tablet.

We also analysed other innovative services, such as Robo Advisors.

Census of Fintech startups

The census, conducted in December 2016, looked at all startups in the area of Finance that were set up after 2011 and who had received funding between 01/06/2014 and 31/05/2016 from institutional investors, banks, large technology providers and Business Angels. We excluded startups that, by the end of May 2016 had received less than 1 million dollars in total funding. The total number of startups in our poll was around 730 who had received a total of almost 26 billion dollars in funding.

We also monitored new startups financed during 2017 via secondary sources.

Analysis of extended competition

This analysis concentrated on financial services offered by non-financial international companies or by financial companies belonging to a non-financial company (for example, a retailer), selecting only large stakeholders (classification based on size according to “European Commission Recommendation 2003/361/EC”).

The sample selected in this way consists of 60 international businesses that provide a total of 122 solutions that can be classified as banking, insurance or other financial services. The data was collected from analysis of the companies’ websites, and from articles published in specialist and generalist press. The sources consulted include reports (for example, from leading consulting

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companies), international press (for example, Fintech and Financial services newsletter, Financial Times) and sector-specific press (for example, Finextra, Fintech weekly).

The survey looked only at the solutions offered.

We excluded financial solutions such as credit cards that can only be used in one specific company, fuel cards or finance for purchasing specific products and payment in instalments.