

FinTech Report 2020



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FinTech Report

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Executive summary

FinTech refers to Financial Technology companies, particularly businesses that use technology to provide products or solutions in the field of finance. The main goal of this report is to depict the Iberian FinTech environment. In order to do this, the report can be broadly divided in three different parts. The Global and European FinTech Environment, that show the growth of financial technology and its main players both in Europe and in the rest of the World, and a deep dive in Iberia, where the FinTech market is showcased through a comprehensive research of its main players, sectors and industries.

Keywords: *FinTech, Iberia, Portugal, Spain*

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Introduction

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This report looks at the FinTech ecosystem in Portugal and Spain (Iberia) in an attempt to shed some light on the size and characteristics of the FinTech market in this particular geography. To do so, the report will start by presenting the Global and European FinTech ecosystems to then dive deeper into the Iberian FinTech ecosystem. In this part, the report will contain information regarding sectors, market share and financial data, as well as presentations of the top players from Portugal and Spain and interviews with FinTechs and financial institutions. The goal of this report is to understand the Iberian FinTech ecosystem and the future of FinTechs in the region.

WHAT IS FINTECH

Emerging technologies have given companies a low-cost way of creating convenient, personalized, data-intuitive products and services. It wasn't until 2015 that the term FinTech started to be heard and attracting significant investment from venture capitalists. Nearly \$100 billion has flowed into FinTech ventures since 2010.

The name FinTech refers to Financial Technology companies that leverage on technology to provide financial products or solutions. As customers and their behaviours shift towards increasingly digital-first preferences, technology has allowed to adapt traditionally remote financial services and products, into digitally appropriate alternatives. In short, FinTechs can be defined as organizations that combine innovative business models and technology to enable, improve and disrupt financial services.

While FinTechs seem to be quite recent, FinTech is an industry that has evolved beyond its early stages. FinTech challengers are looking less like start-ups and more like professionally managed companies with large operational capabilities, a wide range of products offered and a global reach.

The typical fields in which FinTechs operate are payments/billing, insurance, capital markets, wealth management, money transfers/remittances, mortgage/real estate, personal finance, regulation, blockchain/crypto and lending.



METHODOLOGY

The report gathered a comprehensive list of all active FinTechs in Portugal and Spain and attained financial information for the ones that had this available in an attempt to understand the scale, profitability and potential of the Iberian FinTech ecosystem. The full list can be consulted in the appendix (appendix 1).

TOP PLAYERS

The top players of all Iberian FinTechs were picked based primarily on their operating revenues, but also on the amount of funding they have raised. One of the challenges of using this method was the lack of financial information available. Only 160 of a total of 242 FinTechs had financial information available. This gives rise to the possibility that a top player was not identified as such because it did not publish its financial data. To reflect the market share of Spain and Portugal in the Iberian FinTech ecosystem (85% and 15% respectively), in every trio of top players identified 1 is Portuguese and 2 are Spanish.

FRAMEWORK

The list of Iberian FinTechs was obtained through a framework employed to clean the data. This framework eliminated FinTechs that had been dissolved, that were inactive or had dormant social media accounts, that had no financial or funding information available or that had no financial information available after 2015, that were still in ideation stage, that were not founded in Iberia despite having activity in the region or that were ultimately a company of technological nature rather than financial nature. The framework can be seen in the appendix (appendix 2).



Key Report Findings

242

Iberian FinTechs identified

206 Spanish

36 Portuguese

This represents an 85% Iberian market share for Spain and 15% market share for Portugal.



Out of the 242 FinTechs examined, the report was only able to gather financial data for 162 of them (67%). 41% (66) of those FinTechs had negative profit figures.



The FinTech pocket with the greatest number of FinTechs is Lending & Credit with 60 FinTechs, 8 of which are Portuguese and 52 Spanish. This pocket was segmented into Credit SME and Consumer Credit. There are 14 Credit SME FinTechs and 41 Consumer Credit FinTechs in Iberia. The remaining 5 FinTechs offer both Credit SME and Consumer Credit solutions.

Top 3

Iberian FinTech players

Pagatelia - €58,973,798 operating revenue

Creditea - €20,928,169 operating revenue

Feedzai - €18,944,662 operating revenue



For these 162 FinTechs, the total operating revenue figure of Iberia is €275,363,287.

Portugal contributes to 20% of that with operating revenues of €56,446,302

Spain contributes the remaining with operating revenues of €218,916,985



The second biggest pocket is Payments & Transactions with 43 FinTechs, followed by Financial Management Platforms with 42.

Top 3

Most profitable FinTechs identified

Innofis (Crealogix) - €2,838,725 after tax profit

Sipay - €1,105,456 after tax profit

T-advisor - €1,038,209 after tax profit

The most profitable Portuguese FinTech is EbankIT with a profit after tax figure of €902,628.



The Iberian FinTech net income figure is negative by a total of €22,810,443.



FinTech Environment

Global

DEALS

As seen in figure 1, the first half of 2019 accounted for 838 FinTech deals worth \$15.1 billion. In the second quarter of 2019 FinTech funding surpassed \$8.3 billion, boosted by a record quarter of funding rounds of \$100 million or more. Funding in the second quarter of 2019 was powered by 25 funding rounds of over \$100 million worth approximately \$5 billion. These rounds were largely to established late-stage (Series D and Series E+) FinTech startups.

Challenger banks continued to secure multimillion-dollar rounds to fuel international expansion and customer acquisition. The second quarter of 2019 saw challenger banks raise \$649 million across 17 deals.

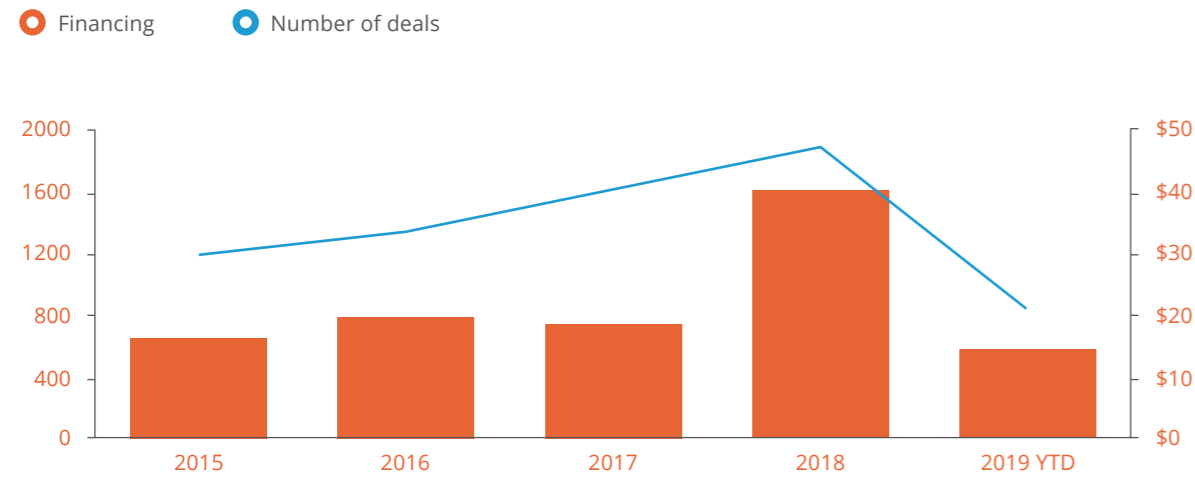


Figure 1 - Total FinTech Deals and Financing in \$ billion between 2015 and 1H 2019

Despite an increase in funding, venture capital backed deals fell in the second quarter of 2019 as visible in figures 2 and 3. FinTech deals in the second quarter of 2019 dropped 22% on a quarterly basis and declined 23% compared to the same quarter in 2018 while venture capital backed funding to FinTechs grew 24% in the same period. Early-stage (seed/angel and Series A) deal share fell to 55%.

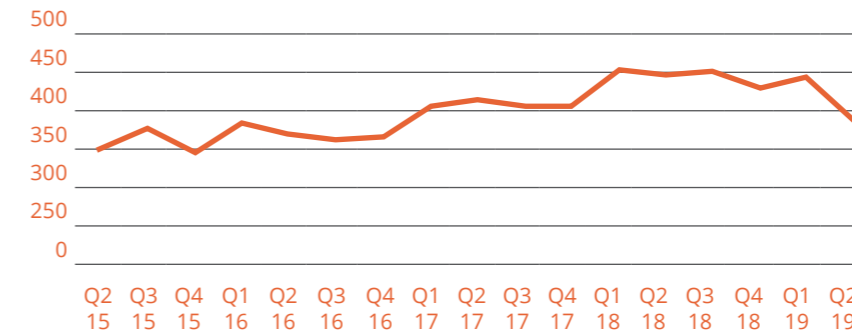


Figure 2 - Deals per Quarter between Q2 2015 and Q2 2019

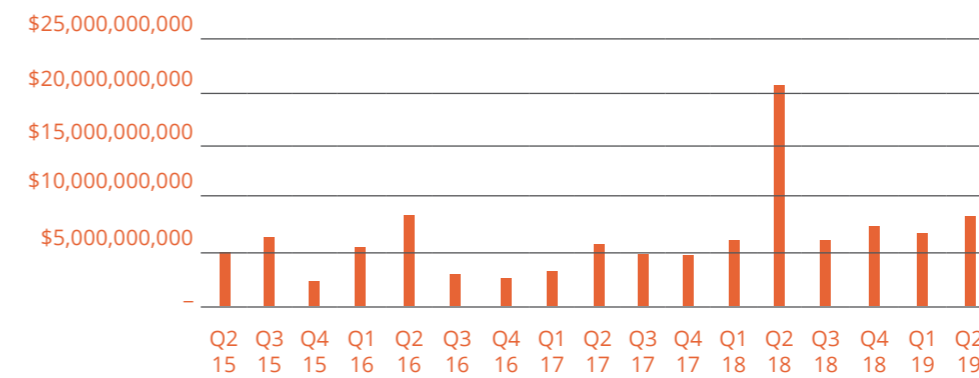


Figure 3 - Financing per Quarter between Q2 2015 and Q2 2019

REGIONAL COMPARISON

Comparing regions, as per figure 4, in the second quarter of 2019, North America registered the highest amount of quarterly FinTech funding. For the same period, Europe registered a larger amount of quarterly FinTech funding compared to Asia, despite a decrease in the amount of funding in Europe and an increase in Asia when compared to the previous quarter. Overall, for the period depicted in the figure, North America and Europe saw the amount of quarterly FinTech funding increase, while Asia saw this figure decrease.

Figure 4 also indicates that between the second quarter of 2018 and the second quarter of 2019 FinTech there were quite significant changes in the amount of FinTech funding in Africa, Australia and South America. Comparing the beginning of the period to the end, while South America saw the amount of quarterly FinTech funding increase, Africa and Australia saw this figure decrease notably.

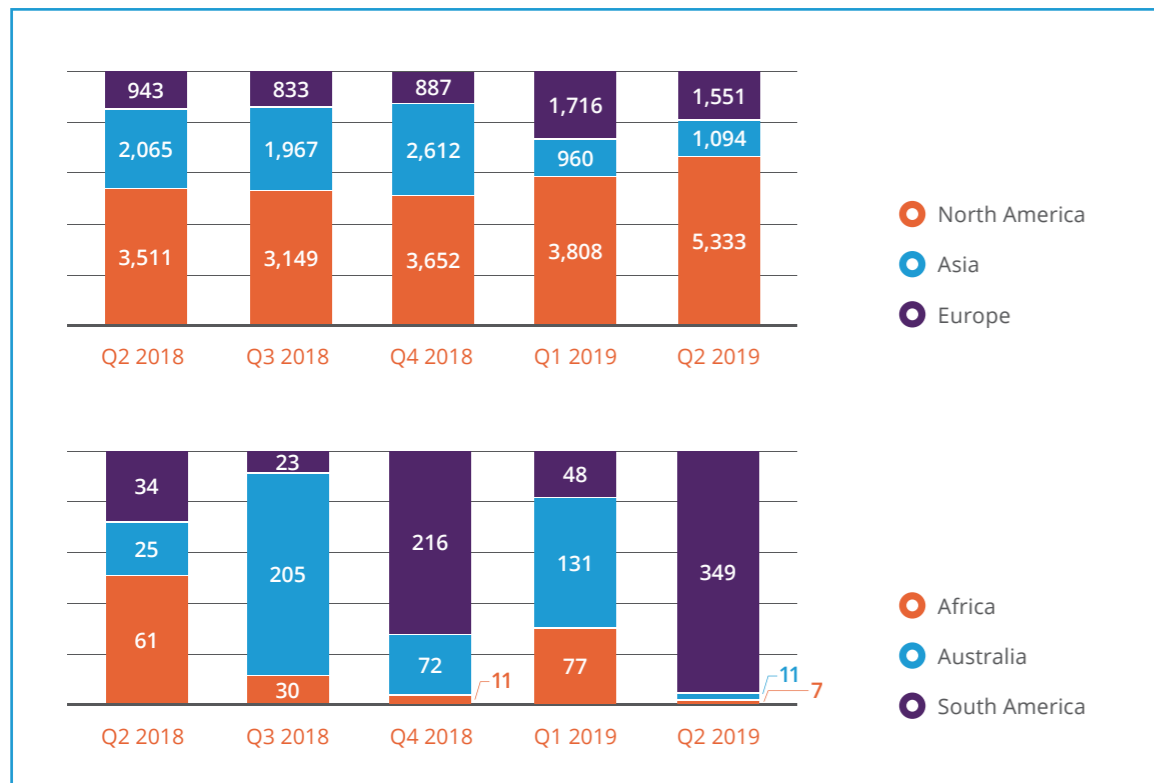


Figure 4 - Quarterly Funding per Continent (\$ million) between Q2 2018 and Q2 2019

As per figure 5, every continent saw the number of FinTech deals decrease in the second quarter of 2019. Taking North America, the region saw the number of deals drop by 21%. However, funding to North American FinTechs surged powered by 15 mega funding rounds in the second quarter of 2019 that resulted in 3 new United States based unicorns. In the second quarter of 2019 Europe surpassed Asia in the number of quarterly FinTech deals. In this period there were 82 FinTech deals in Asia worth \$1.1 billion, an historical low. India topped China in FinTech deal activity for the first time in 2019 with 23 venture capital backed deals, surpassing China by 8 deals. In terms of funding, China hit \$375 million in FinTech funding, beating India, which saw \$350 million invested in its FinTechs.

Latin America has become one of the fastest-growing regions for FinTech funding. In the second quarter of 2019 Latin America has topped China and India in FinTech deals with 23 FinTech deals in Latin America worth \$481 million.

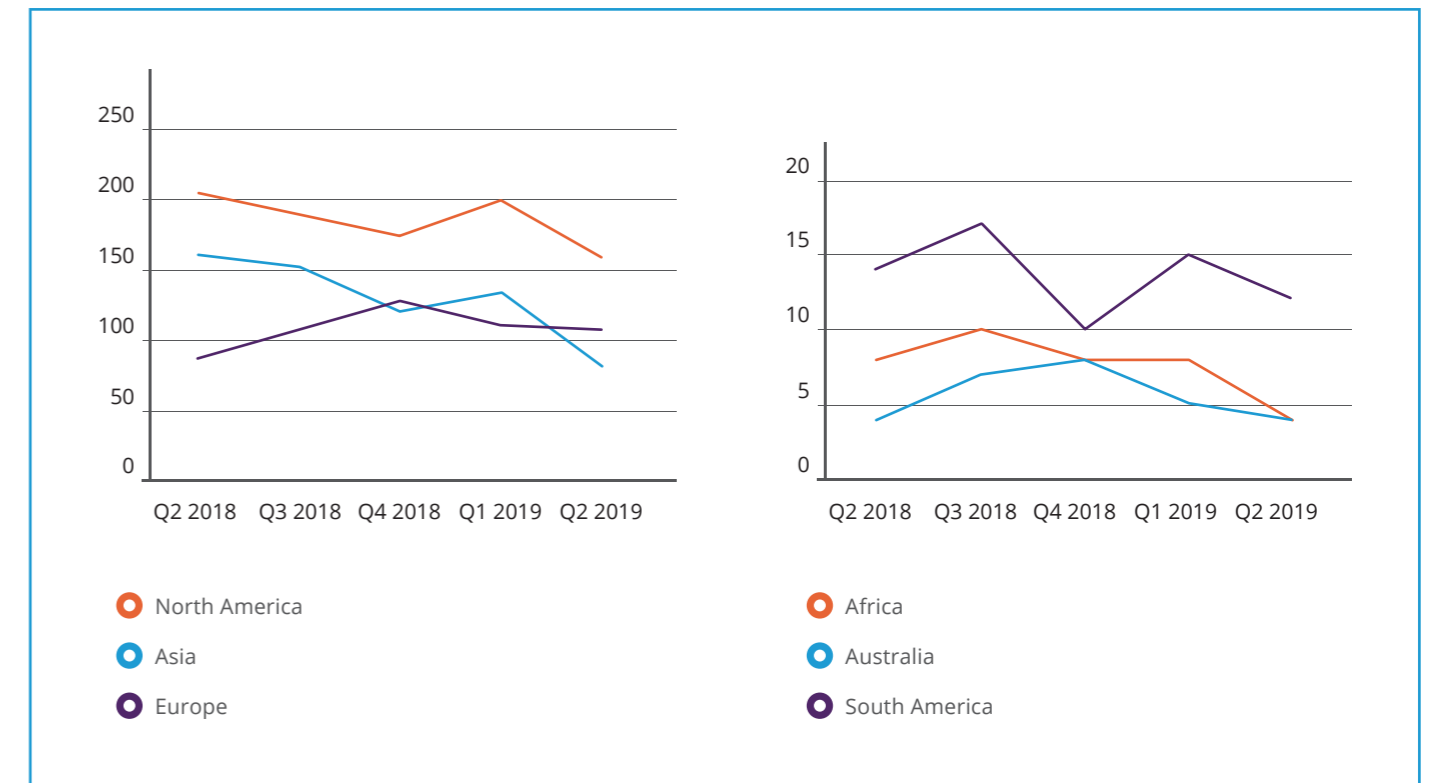


Figure 5 - Quarterly FinTech Deals per Continent between Q2 2018 and Q2 2019

UNICORNS

There are 48 venture capital backed FinTech unicorns worth a combined \$187 billion in the world as shown in table 1. In the second quarter of 2019 seven new FinTech unicorns were born (Marqeta, Bill.com, Carta, Lemonade, Checkout.com, Ivalua, and Liquid) and another two in the first month of the third quarter of 2019 (Hippo and Judo).

#01 Stripe (US)	#11 Dataminr (US)	#21 Hippo (US)	#31 Revolut (UK)	#41 Lu.com (CN)
#02 Coinbase (US)	#12 Bill.com (US)	#22 Symphony (US)	#32 Ivalua (UK)	#42 TWD (CN)
#03 Carta (US)	#13 Gusto (US)	#23 Tradeshift (US)	#33 Monzo (UK)	#43 CGTZ (CN)
#04 Affirm (US)	#14 Root (US)	#24 Avant (US)	#34 OakNorth (UK)	#44 Tongdun (CN)
#05 SoFi (US)	#15 Marqeta (US)	#25 DevotedHealth (US)	#35 Greensill (UK)	#45 Liquid (JP)
#06 Oscar (US)	#16 Robinhood (US)	#26 Zenefits (US)	#36 N26 (DE)	#46 Toss (KR)
#07 Brex (US)	#17 Avidxchangr (US)	#27 Toast (US)	#37 Klarna (SW)	#47 PolicyBazaar (IN)
#08 Lemonade (US)	#18 Kabbage (US)	#28 Credit Karma (US)	#38 NuBank (BR)	#48 Paytm (IN)
#09 Circle (US)	#19 Clover (US)	#29 TransferWise (UK)	#39 Airwallex (AU)	
#10 Plaid (US)	#20 Chime (US)	#30 Checkout.com (UK)	#40 JudoBank (AU)	

Table 1 - FinTech Unicorns

KEY TRENDS



Investor's interest in cybersecurity is growing with the increase of digital threats and opportunities. FinTech investors are switching their focus to increasing cyber security and monitoring risk in response to increasing cyber threats and regulatory requirements.



Tech giants are making bold moves. They have made some significant moves in the first half of 2019. Apple unveiled the Apple credit card, backed by Goldman Sachs and carrying a Mastercard logo, while Facebook proposed the creation of cryptocurrency Libra. Other tech giants continued to actively participate in many of the larger deals during the first half of 2019 including a significant investment by Tencent into N26 and Ant Financial's acquisition of WorldFirst. As tech giants continue to move into the financial services arena, they bring with them the benefit of strong brands and a consumer perception of simplicity and ease of use.



There are some trends to watch for globally. The FinTech market is expected to be headed into a bright future, particularly given the large M&A deals that are to close in the US in the end of 2019.



The payments sector is expected to continue as the hottest area of investment, while regtech, cybersecurity, wealthtech and proptech are all well positioned for growth. Consolidation in payments and other mature areas of FinTech will likely speed up as winners continue to solidify their market share.



Global expansion of FinTechs and global investments are also expected to continue in the foreseeable future.

TOP 50 GLOBAL FINTECHS

The top 50 global FinTechs are determined based on the average annual capital raised, rate of recent capital raising, geographic diversity and sectoral diversity. The full list of the top 50 global FinTechs can be seen in the appendix.

It is being observed that traditional industry boundaries are blurring around the customer. As industries converge, players motivated by the need to solve customers' problems or remove friction points are entering financial services. Fueled by more accommodating policies and regulator settings like virtual bank licenses, open banking or others, these players are using their customer bases, technology platforms and data to help them deliver payments, lending and other service needs.

As a result, FinTechs are globalizing rapidly across multiple jurisdictions. Examples include Grab, Ola, OakNorth, Revolut, Monzo, N26 and Klarna. These companies that have achieved a significant size in their domestic markets are looking to larger markets for future growth.

One more trend happening worldwide is that global FinTechs with monoline product propositions are now diversifying to meet a greater set of customer needs. This is often being pursued through banking licenses, supported by favorable regulatory developments to facilitate greater levels of competition.

It has also been observed that there are more Asia Pacific based companies on the top 100 FinTechs of 2019 than from any other region. Of the 11 companies that have raised over \$1 billion since 2016, 8 are from the Asia Pacific, namely China, India and rapidly emerging markets in South East Asia. Moreover, out of the top 10 FinTechs in the world, 7 are Asian.

SECTORS

From the top 50 most valued FinTechs in 2019, 8 of them operate in Insurtech, 12 in Payments & Transactions, 7 in Capital Markets & Wealth Management, 10 in Lending & Credit, 6 in NeoBanks, and 7 in other sectors.

In terms of location, 42% of the top 50 FinTechs are in Asia Pacific, which includes Australia and New Zealand, 34% are in the American Continent and 24% are in the EMEA region that comprehends Europe, the Middle East and Africa.

As for country distribution, the country that has the highest number of top 50 FinTechs is the United States (26%), followed by China (14%), the UK (12%), India (8%), Brazil (6%), Germany (6%), Australia (6%), Japan (4%), Singapore (4%), Indonesia (2%), Sweden (2%), Canada (2%), Korea (2%), Israel (2%), Lithuania (2%) and Vietnam (2%).

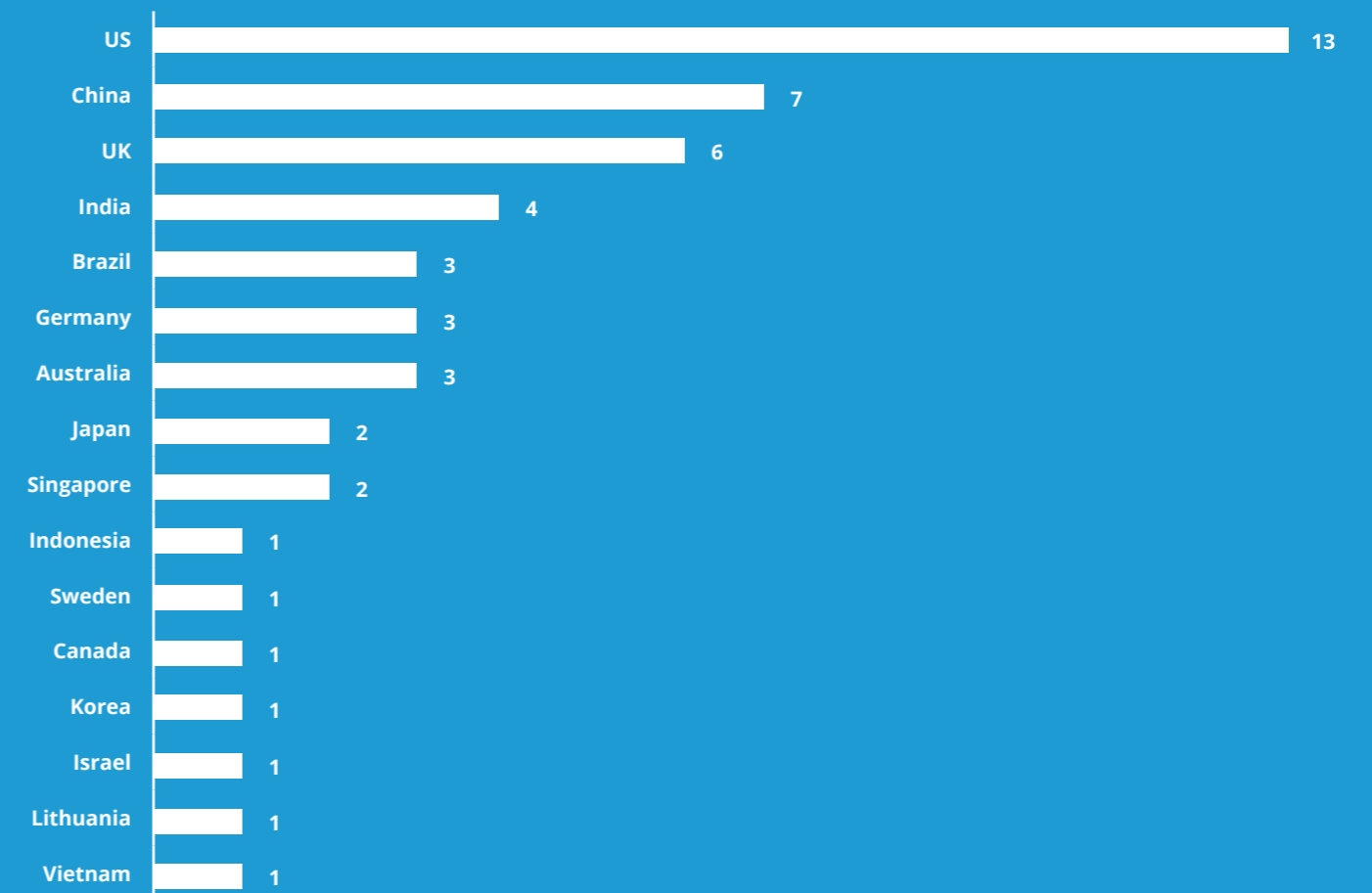


Figure 6 - Distribution of the Top 50 FinTechs of 2019 per Continent

RELATIONSHIP WITH BANKS

Banking has historically been one of the business sectors most resistant to disruption by technology. As banks remain uniquely important to the economy, they continue to be the gateway to the world's largest payment systems and they still attract most requests for credit. Nonetheless, the financial crisis had a negative impact on trust in the banking system and mobile devices have begun to undercut the advantages of physical distribution performed by banks. New digital entrants are also having an impact on bank performance, particularly by threatening customer relationship. Banks are also losing share in some products, especially in emerging markets.

When it comes to customer's decisions about where to place their money, research shows that banks enjoy greater trust. As banks move from their traditional focus on products and sales to customer-centric marketing, they must ensure that their source of distinctiveness is still to deliver good customer experience and build the digital capabilities needed for the long term.

Partnerships, mergers, and collaboration between large banks and startups are happening more and are better facilitated. Large banks (and big corporations, overall) lack the ability to move at speed and with agility.

FinTechs are in the opposite part of the spectrum, which makes partnerships beneficial for both parties involved. Through collaboration, FinTechs can scale at speed, and banks are able to release products at the same pace. Furthermore, large banks and corporations are not limited to one partnership at a time, they can engage in multiple collaborations at the same time.

When asked what strategic objectives they consider very important to their FinTech partnership strategies, 85% of Europe's top banks cite improving customer experience, 55% creating new capabilities or competencies, 53% strengthening existing core positions, 42% reducing operating expenses, 38% reducing fraud, 32% expanding product line, 32% reaching new customer segments and 19% expanding geographic area.

When asked what areas of focus they consider very important to their FinTech partnership strategies, 73% of Europe's top banks cite digital account opening, 54% payments, 52% lending and credit, 38% risk management, 27% new banking products, 19% personal finance management, 11% investment management, 6% insurance and 3% international remittances.

Concerning the relationship between banks and FinTechs, banks have some advantages over FinTechs while FinTechs also have some advantages over banks. Starting with customer acquisition, FinTechs still need to acquire clients, while banks already have them and already have a long-lasting relationship with them. As for cost advantages, FinTech lenders, in particular, have cost advantage over banks as they have no physical-distribution costs.

As for segment specific proposition, the most successful FinTechs will not revolutionize all of banking or credit at once. They will select, with the customer segments that are most likely to be receptive to what they offer, while banks can still cover the other segments all at once.

Working for both FinTechs and banks, FinTechs will embrace cooperation with banks and leverage on existing infrastructures to find ways to engage with the existing ecosystem of banks. Still, a challenge for FinTechs will be managing risk and regulatory stakeholders.

Still, banks should be less concerned with individual FinTechs and more focused on what these challengers represent. There are four main topics that banks should focus on:

- Using data-driven insights and analytics to build a comprehensive data ecosystem to access customer data from within and beyond the bank, creating a full view of customer activities and a robust infrastructure.
- Creating a well-designed, segmented, and integrated customer experience, rather than using a one-size-fits-all physical distribution approach.
- Building digital-marketing capabilities that equal e-commerce giants as banks are not only competing with other banks for customers, but also with FinTechs.
- Leveraging and deploying the next generation of technologies, from mobile to agile to cloud and all other tools available.

KEY FINDINGS

- Top European banks saw the potential of the FinTech market a few years ago and have already incorporated FinTechs in their portfolios as FinTechs often provide services that overlap with those provided by banks (loans, wealth management, personal finance, etc.) and, therefore, compete with banks. Even smaller, locally-operating banks are trying to get into the FinTech sector by running some acceleration programs for FinTech projects.
- Thanks to such investments, FinTech companies not only receive funds for business and product development, but they receive credibility and trust for being associated with well-known banks that have existed for a long time.
- The customer-centric approach from FinTechs reflects the expectations of customers and shows how financial services should look like in today's world.
- The new generation of European citizens has become acutely aware of their financial position and security and FinTechs seem to be arriving at the perfect time to serve these needs. Established institutions have a loyal customer base and strong institutional trust. This creates the perfect opportunity for partnerships between banks and FinTechs.
- The collaboration with FinTechs, the established industry and those regulating the industry will determine the future of banking. The landscape and digital experience will be very different from the one we see today as, for example, a third of millennials believe that they will no longer need a bank in five years time. Instead, they will rely on tech startups to shape their financial future.



REGULATION

The regulatory and supervisory response to FinTechs has evolved through three stages. Initially, the response was to focus on the benefits of FinTechs and supporting the growth and adoption of new FinTech solutions. Regulatory intervention was limited and considered the impact of FinTechs in the ways in which financial services were provided.

Then, regulators and supervisors began to worry about the risks arising from FinTechs. These risks were risks to consumers and investors, risks to financial services firms and risks to financial stability.

Lastly, regulators and supervisors adopted specific actions in response to the risks identified above. This has included the development of international standards, the implementation of national rules, guidance, and shifts in supervisory priorities. These initiatives cover a wide range of areas, including technology risks, cyber security, data privacy, consumer protection, etc.

Why does regulation matter?

Many concerns arise due to the use of technology in banking. Regulators worry about the possibility of artificial intelligence obtaining money by deception, the risks associated with the use of cryptocurrencies such as anonymity, the rise of money laundering operations, especially in jurisdictions beyond their control, the possibilities that distributed ledger technology offers to evade tax, sanctions and other regulations, among other concerns.

FinTech has created possibilities within financial services that were not available a few years ago. Technology is outpacing legislation, but regulators are acting. For example, the European Commission has created the FinTech Action Plan, introduced in 2018, to increase competition and innovation, maintain the integrity of the financial service and tackle the rapid advancement of technology, making sure it is used for the benefit of the European economy and its citizens and industries.

At the same time, one of the key drivers behind the rapid growth of FinTech in Europe is the spread of open banking, as mandated by the European Union's Revised Payment Service Directive, known as PSD2. Under this rule, banks are required to establish open application program interfaces (APIs) that allow customers to share their data with third-party providers, including FinTechs, that offer financial services. PSD2 has stimulated innovation across the financial landscape and FinTechs can play a critical role by facilitating API integration and data aggregation between banks and third-party providers.

RESPONSE FROM REGULATORS

While some regulatory authorities in Australia, the UK and Taiwan recognize the need for larger, longer sandboxes, other regulators, such as the SEC in the US, have warned against relationships between regulators and non-bank lenders. As a result, legislation and regulations vary widely.

Currently, regulators take months, or even years, to respond to changes in financial practices.

FinTech makes this kind of timescale infeasible for any effective regulatory system as fast online transactions demand equally fast regulatory capacity. Additionally, regulation and the law must address artificial intelligence and the use of robots in financial services, which must eventually be regulated.

While innovation can be great for businesses and customers, it can also bring risks, especially to financial firms. It is essential for banks working with FinTechs to consider how their risk management processes ensure FinTechs do not become a tool for fraud, money laundering or funding criminal organizations.

Also, regulators are increasingly setting rules or guidelines that focus on ensuring firms' governance bodies have enough awareness and understanding of the FinTech applications being used by the firm, in order to manage risks effectively.

MAJOR CHALLENGES

In recent years, various issues have been identified as the major challenges of the future, and they will remain firmly on the agenda for the financial sector and regulators.

In regard to payments, the major milestone in 2018 was the enactment of the new Payment Services Directive (PSD2), which seeks to foster competition and strengthen payment security in Europe.

As for regulation of data access, use and protection, in Europe, two regulations have been issued: the General Data Protection Regulation (GDPR), which came into effect in May 2018, and the e-Privacy regulation, which is still under discussion. Privacy concerns also intensified in other regions, such as the U.S., where some states have already begun to update their legislation.

As for cybersecurity, the increase in the frequency and complexity of cyber attacks demanded work to improve harmonization and international cooperation. Cybersecurity was at the center of the priorities of the European Commission and European Central Bank in 2018, as it was for other regulatory institutions.

European

DEVELOPMENT OF FINTECHS IN EUROPE

Historically, Europe has been behind regarding the development and adoption of FinTechs. European FinTechs make up 17% of the total global value of FinTechs (around \$2.26 trillion), while U.S. FinTechs make up 48%. Nonetheless, this could change soon, as European regulators have started implementing new plans to promote FinTech development.

The arrival of the PSD2 and open banking, Brexit, and the understanding from European regulatory bodies that financial services must be stimulated by technological advances, are creating condition for FinTechs innovation.

PSD2

PSD2 will likely be a major catalyst for FinTech innovation in Europe as its main objectives are to improve competition, and therefore lower the costs of financial services to consumers, and to create open access to banks' financial data.

SUCCESS CASES

There are already examples of successful European FinTechs. For instance, there are five FinTech unicorns in Europe: N26, Klarna, Revolut, TransferWise and Monzo.

These five companies are each valued at over \$1 billion and they have been included in the Global Unicorn List of 2019, which is further proof of the dynamic nature of investments in FinTechs in Europe.

Furthermore, the UK in particular has focused in recognizing FinTechs potential and developing a favorable environment for FinTechs to flourish. Massive amounts of money are flowing through the financial services industry in the UK which makes the region a prime candidate for attracting FinTechs.



VENTURE CAPITAL INVESTMENT

The large volume of venture capital investments has been crucial for the development of FinTechs in Europe. In 2018, investments in European FinTechs hit \$34.2 billion, accounting for 536 deals made. This translates in a median investment of \$62.6 million. Of these investments, half of the top 10 deals were made in the UK.

The FinTech sector in Germany, Sweden, France and in the UK recorded a massive growth in investment in the first six months of 2019, while the amount of funding received worldwide fell. This was due to funding being redirected towards a large deal in the same period, the Ant Financial \$14 billion funding. In the UK, investment in FinTechs in the first six months of 2019 almost doubled to \$2.6 billion compared to the same period in 2018. A similar increase was also seen in Germany where investment doubled to \$812 million. As for Sweden, the country had the highest proportional increase of investment in FinTechs in Europe with \$573 million, which is four times the value of the same period in 2018. Lastly, France registered a 48% increase in FinTech investment to reach \$423 million.

The total value of FinTech deals made globally in the first six months of 2019 was \$22 billion, which is lower than the \$31.2 billion registered for the same period in 2018. However, removing the Ant Financial \$14 billion deal that is unusually large, FinTech investment would have increased by 28% in the first half of 2019.

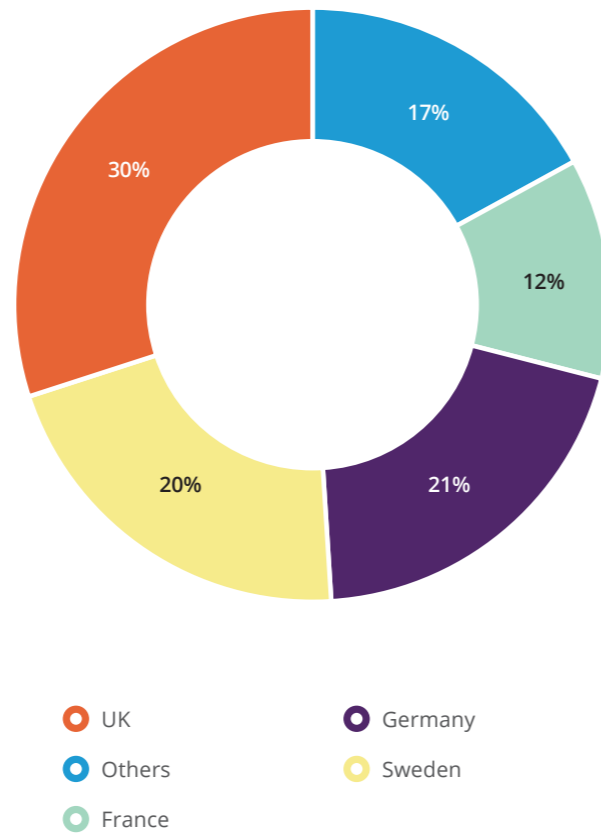


Figure 7 - Venture Capital Investment in European FinTechs per Country in 1H 2019

FinTech is Europe's largest venture capital (VC) investment category, having received 20% of all VC investment in the region between 2017 and 2019, surpassing enterprise software (17%), health (13%), transportation (8%), food (6%), energy (5%), marketing (5%) and travel (4%).

In Europe, FinTech investment is gaining momentum, and the continent is outperforming Asia for the first time since 2015 with \$5.1 billion raised by European FinTechs in the first half of 2019 against \$2.2 billion raised by Asian FinTechs in the same period. European challenger banks and payment companies have raised the largest amount, with both verticals raising €2.4 billion in the first half of 2019.

The sale of European FinTechs via IPOs or acquisitions has amounted to €83 billion between 2016 and 2019. This is twice as much as the value registered for sales of enterprise software and highlights the scale of opportunity for investors and the growing maturity of the FinTech market.

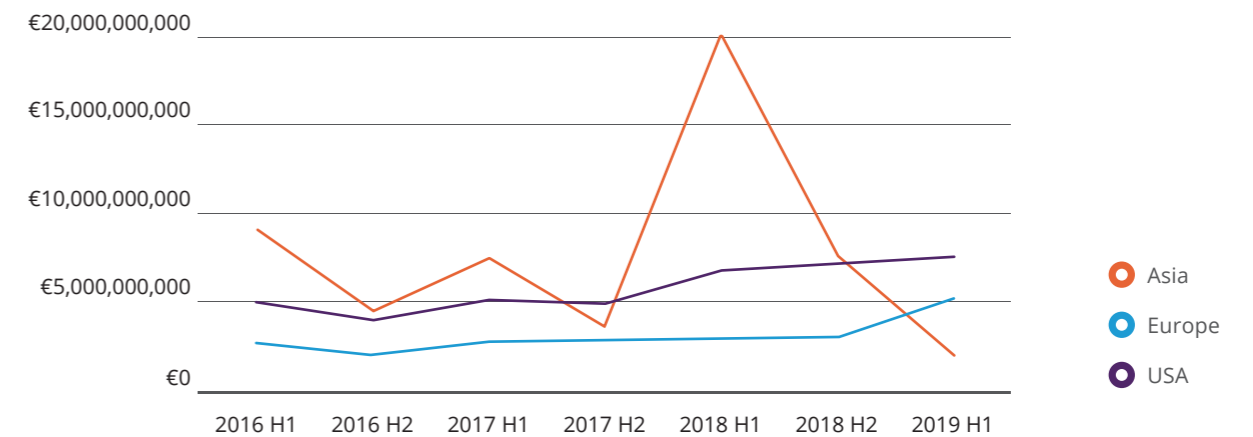


Figure 8 - FinTech Investment in Europe, Asia and the USA

CONSUMER TRENDS

The use of FinTech applications has grown significantly throughout Europe. FinTech adoption among digitally active consumers has reached 73% in the Netherlands, 71% in Ireland and the UK, and 64% in Germany, Sweden and Switzerland, while the global average is 64%, as seen in figure 9.

Focusing on the pace of growth, in the UK, 14% of digitally active consumers were FinTech adopters in 2015. That percentage grew to 42% in 2017 and 71% in 2019.

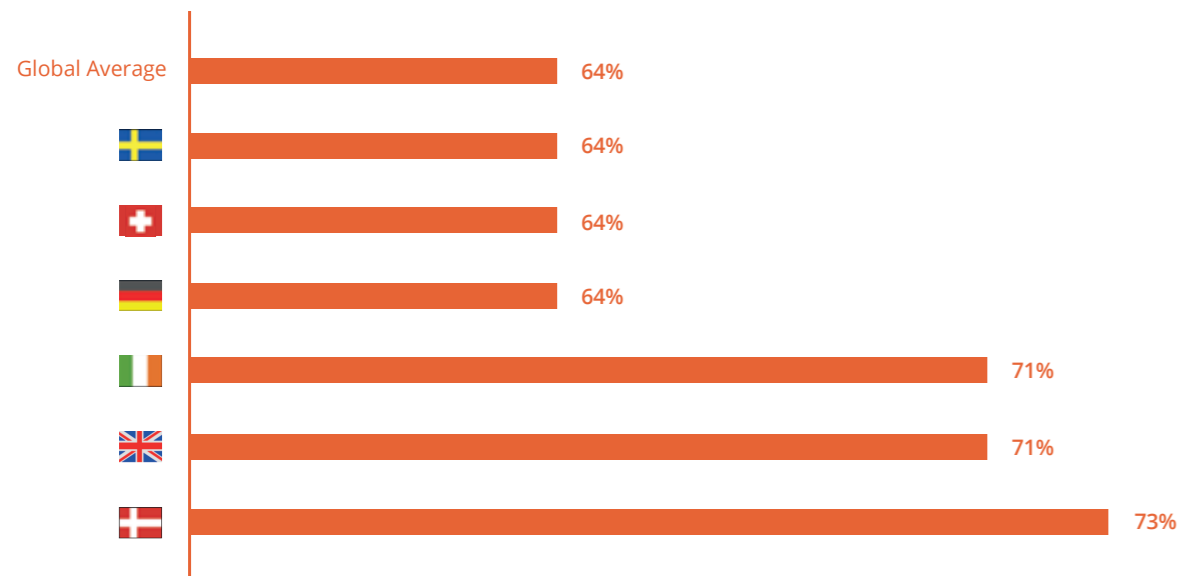


Figure 9 - FinTech Adoption among Digitally Active Consumers

BIGGEST HUBS

Some of the biggest FinTech hubs in Europe are London, Stockholm, Berlin, Amsterdam, Dublin and Zurich. London is one of the main FinTech hubs in the world with some of the biggest FinTechs being present in England's capital city; Stockholm receives around 20% of FinTech capital investments in Europe; Berlin is known for having a good financial structure and a lot of investors and networking possibilities; Amsterdam is forecasted to have a big growth in the FinTech sector with the help of Rabobank and ING, and it also has good projections in the bitcoin market; Dublin is an interesting hub for digital entrepreneurs as some of the most important American technology multinationals are headquartered there; and Zurich is an important FinTech hub as the Swiss government applies soft and beneficial regulations for these types of companies.

SUMMARY

- 20% of all venture capital investments in Europe are made in FinTechs, which is more than what is invested in FinTechs in Asia and in the United States through venture capital.
- European FinTechs have created over two times more value than any other tech sector in Europe.
- Over the last 50 years, the rise of information infrastructure has powered FinTech development. After being driven by financial software, electronic payments, and digital challengers trends, FinTech is now being driven by artificial intelligence and the internet of things. The growth of FinTech is in part due to the money that financial institutions spend on software. It is expected that these institutions continue to increase their positions in FinTechs, particularly as AI/ML models mature.
- The number of transactions and the amount of money invested in FinTechs in recent years clearly shows the strength and potential of this sector in Europe. The growing number of users is proof of the high demand for innovative, customer-centric financial services.
- The introduction of directives such as PSD2 show that FinTechs are becoming an even more important part of the European financial landscape.

KEY TRENDS

- Challenger banks are transitioning to multiline services as they expand beyond holding customers' deposits or issuing credit and debit cards to other areas including wealth and insurance. Open banking and open data are central for incumbent and challenger banks alike. FinTech companies are providing customer-focused solutions, but they are also seizing opportunities to help incumbent banks leverage open banking.
- Wealthtech companies are adopting artificial intelligence to improve investment decisions, as well as robot-advisory platforms and blockchain technology to make asset management more accessible and customizable.
- Several UK and Germany based challenger banks are also looking to expand, including Monzo, which announced plans to offer services in the United States, Revolut, that announced the launch of a beta version of its app in Australia, and N26, that announced plans to launch its retail banking service in Brazil.
- Similarly, payments companies are transitioning from single payment solutions to full banking services and emerging as diverse providers. Payments companies have also started enhancing anti-fraud solutions using blockchain and cryptography.
- Digital banks continue to draw significant venture capital interest not only in Europe, but globally. Digital banks in Europe have matured quickly, and some of them are now focused on international expansion.

TOP 50 EUROPEAN FINTECHS - SECTORS AND DISTRIBUTION

From the top 50 most valued European FinTechs in 2019, 3 of them operate in Regtech, 3 in Insurtech, 16 in Payments & Transactions, 6 in Capital Markets & Wealth Management, 7 in Lending & Credit, 5 in Financial Management Platforms, 8 in NeoBanks, and 2 in Blockchain & Crypto. The full list of the top 50 European FinTechs can be consulted in the appendix.

In terms of location, most of the top 50 European FinTechs are located in the UK (44%), followed by Germany (14%), France (14%), Sweden (8%), Switzerland (6%), Denmark (4%), Italy (4%), the Netherlands (2%), Spain (2%) and Portugal (2%).

As for value, the top 50 European FinTechs in total are valued at \$68 billion. Most of this value is based in the UK (43%), followed by Italy (13%), the Netherlands (12%), Sweden (12%), Germany (10%), France (4%), Switzerland (4%), Denmark (1%), Spain (1%) and Portugal (1%).

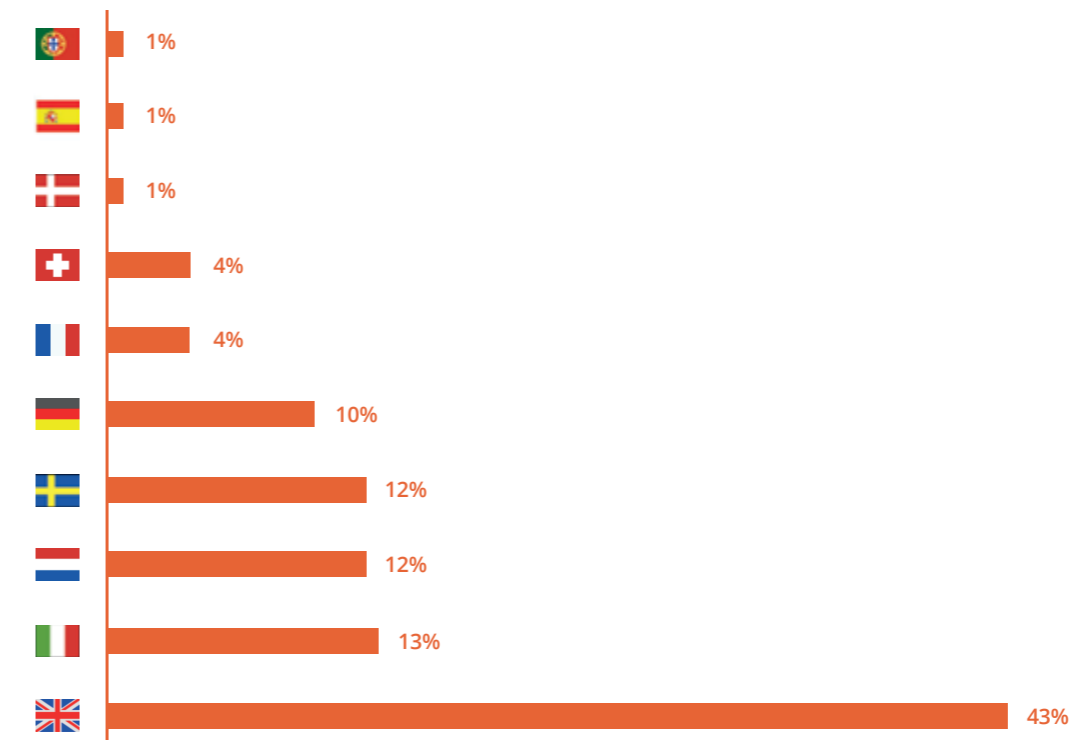


Figure 10 - Value of the Top 50 European FinTechs per Country (\$68 billion in total)

IMPACT OF BREXIT

The resolution of the UK's decision to exit the European Union, Brexit, has an impact in the FinTech Environment, particularly in Europe. During the 2019 Paris FinTech Forum the possibility of a no-deal Brexit was discussed among European FinTech companies.

A no-deal Brexit will drastically influence FinTech innovation, as well as the existing FinTech landscape. The UK has been a leader in the European FinTech environment, fostering innovation through sandboxes and encouraging entrepreneurship. The prediction is that the UK will suffer, but, at the same time, Brexit is likely to increase FinTech development in the rest of Europe.

The EU intends to design sandboxes and innovation hubs to foster cross-border FinTech companies.

The sandbox or controlled environment that some countries offer FinTechs for testing new applications was first launched in the UK and is recognized by the FinTech sector as having helped London become a major FinTech hub.

The UK's impending departure from the EU has put pressure on Brussels to step up and encourage FinTech firms to establish themselves in the EU. Thus, the European Commission has developed a FinTech action plan that aims to raise its level of regulatory and supervisory capacity, as well as share knowledge about new technologies in order to get a more competitive and innovative European financial sector.



PSD2

PSD2 is part of a global trend in bank regulation emphasizing security, innovation, and market competition. By requiring banks to provide other payment-service providers access customer account data and to initiate payments, PSD2 represents a significant step toward commoditization in the EU banking sector and opens attractive opportunities for established payments organizations. But to succeed, banks will need to capture this disruption and turn it to their advantage.

By enabling FinTechs, large technology firms, other banks, and certain retail organizations to compete with banks as payment-service providers, PSD2 aims to provide lower costs and higher security for consumers and to give merchants greater flexibility to differentiate customer experiences.

While PSD2 is an European initiative, it provides an example for other markets such as China and the United States that are taking gradual steps toward open banking.

CHALLENGES

While PSD2 poses serious threats to current business models, it also creates opportunities for banks to compete as technology innovators, wielding powerful analytical tools to extract valuable insights from their data. If third parties do not gain the full trust of customers, banks could retain their role as trusted financial institutions, as customers would not find it attractive to provide third parties access to their data or accounts unless recommended by banks.

But there are no guarantees that banks will be able to defend their status as secure trusted advisors. The implementation of PSD2 will generate success for some players, but it will also threaten other players, with banks facing strong attacks from NeoBanks. Agile organizations with capital to invest in innovative solutions and new business models stand a better chance of countering these challenges successfully.

To sustain strong returns under PSD2, a smaller bank might attack with an integrated payments and financial management solution, while a large incumbent might build its own ecosystem, offering access to a broad selection of applications from diverse providers. In either approach, banks must design highly efficient, scalable technology architecture to support innovative solutions. If they strike the right balance of financial asset management and data augmentation, they have the potential to boost revenue, strengthen margins, and increase market share.

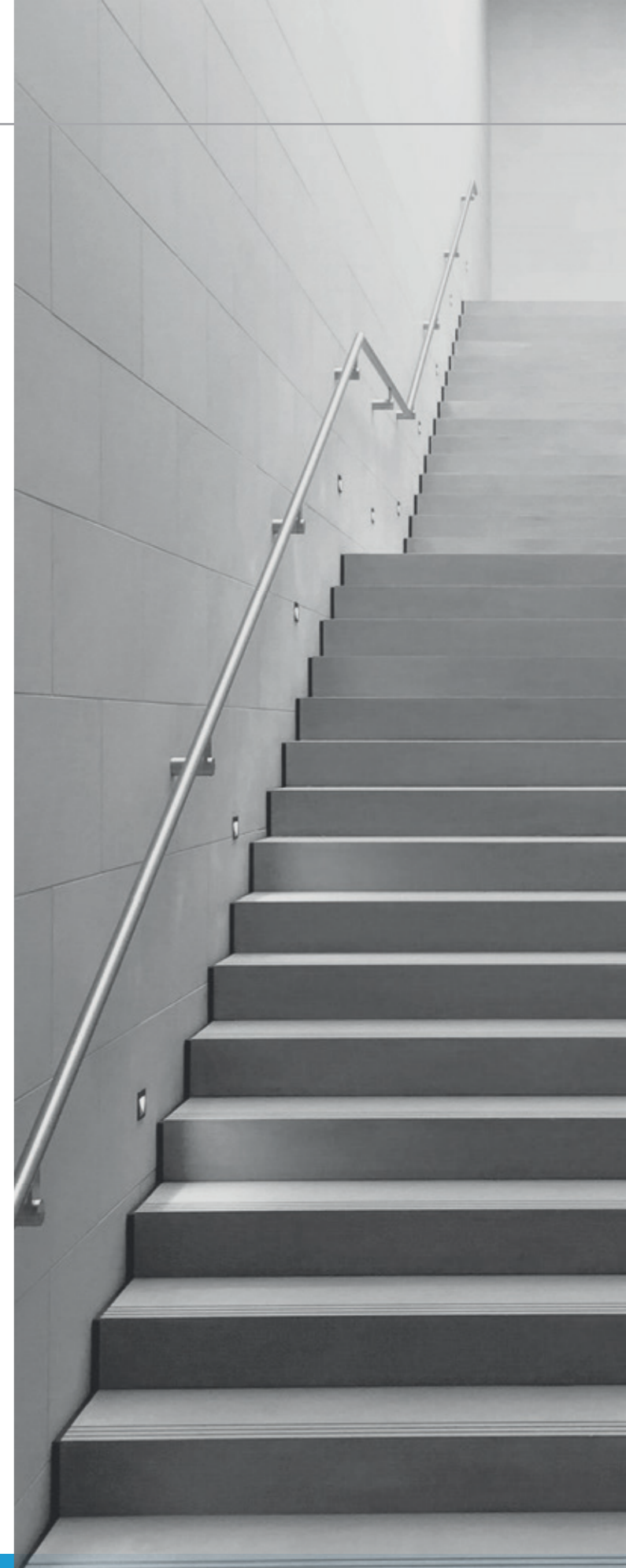
IMPLICATIONS

Regarding payments, there are positive implications such as more revenues coming from new products and services, opportunities to gain market share from other banks, and opportunities for players to provide technology or platforms to other players. But, there are also negative implications like decreased revenues due to competitive pricing, loss of market share and fewer customer interactions and opportunities for cross-selling.

In regard to banks, while PSD2 can lead to banks retaining customer trust, control of customer data and their role as financial anchors, solidifying their role as a trusted advisor and gaining market share, PSD2 can also be translated in banks losing customers and their position as financial anchors, and becoming pure balance sheet providers with their transactions limited to taking in salaries and performing payments to transaction accounts.

Some possible scenarios are:

- Third parties fail to gain market share and FinTechs serve as financial managers.
- FinTechs offer integrated payments and financial management services, leveraging customer data.
- Banks retain accounts and transactions, but third parties control financial management and initiate all transactions.
- A closed-loop of solutions emerges and third parties are able to provide liquidity for all transactions.



Deep dive on Iberia

Overview

36

Portuguese FinTechs
considered in this report.

206

Spanish FinTechs
considered in this report.



On average, both Portuguese and Spanish FinTechs were established by 2 Founders.



The year when most Portuguese FinTechs were founded was 2015, while most Spanish FinTechs were founded in 2017.

75%

Portuguese FinTechs
headquartered in Portugal.
59% Lisbon
19% in Porto

100%

Spanish FinTechs
headquartered in Spain.
47% Madrid
22% Barcelona

SECTORS

13

Blockchain & Crypto

27

Capital Markets & Wealth Management

32

Crowdfunding & Crowdlending

42

Financial Management Platforms

11

Insurtech

60

Lending & Credit

13 Credit SME

42 Consumer Credit

5 Consumer Credit & Credit SME

4

NeoBanks

43

Payments & Transactions

10

Regtech

Deep dive on Iberia

Overview

POCKETS	% SHARE OF POCKET IN IBERIA	% SHARE OF POCKET IN PORTUGAL	% SHARE OF POCKET IN SPAIN
Blockchain & Crypto	5.4%	11.1%	4.4%
Capital Markets & Wealth Management	11.2%	5.6%	12.1%
Consumer Credit	17.4%	16.7%	17.5%
Consumer Credit & Credit SME	2.1%	2.8%	1.9%
Credit SME	5.4%	2.8%	5.8%
Crowdfunding & Crowdlending	13.2%	11.1%	13.6%
Financial Management Platforms	17.4%	16.7%	17.5%
Insurtech	4.5%	11.1%	3.4%
Lending & Credit	24.8%	22.2%	25.2%
NeoBanks	1.7%	-	1.9%
Payments & Transactions	17.8%	13.9%	18.4%
Regtech	4.1%	8.3%	3.4%

Table 1 - Market Share Overview for Iberia, Portugal and Spain

POCKET	OPERATING REVENUE	% OPERATING REVENUE	NET INCOME	% NET INCOME
Blockchain & Crypto	€ 9,634,812	3.5%	€ -(64,971)	0.3%
Capital Markets & Wealth Management	€ 12,730,890	4.6%	€ -(2,083,316)	9.1%
Consumer Credit	€ 96,459,940	35%	€ -(437,821)	1.9%
Consumer Credit & Credit SME	€ 1,756,594	0.6%	€ -(78,614)	0.3%
Credit SME	€ 1,974,776	0.7%	€ -(43,486)	0.2%
Crowdfunding & Crowdlending	€ 14,016,820	5.1%	€ -(6,356,507)	27.9%
Financial Management Platforms	€ 35,465,319	12.9%	€ -(959,140)	4.2%
Insurtech	€ 683,208	0.2%	€ -(3,150,232)	13.8%
Lending & Credit	€ 100,191,310	36.4%	€ -(559,920)	2.5%
NeoBanks	-	-	€ -(695,935)	3.1%
Payments & Transactions	€ 79,057,089	28.7%	€ -(7,545,414)	33.1%
Regtech	€ 23,583,839	8.6%	€ -(1,395,007)	6.1%

Table 2 - Financial Overview for Iberia

POCKET	OPERATING REVENUE PORTUGAL	OPERATING REVENUE SPAIN	NET INCOME PORTUGAL	NET INCOME SPAIN
Blockchain & Crypto	€ 10,000	€ 9,624,812	€ -(19,312)	€ -(45,659)
Capital Markets & Wealth Management	€ 710,153	€ 12,020,737	€ -(317,972)	€ -(1,765,344)
Consumer Credit	€ 3,928,089	€ 88,846,498	€ -(686,527)	€ 248,705
Consumer Credit & Credit SME	€ 791,086	€ 965,507	€ 5,674	€ -(84,287)
Credit SME	€ 1,728	€ 5,658,401	€ -(43,486)	-
Crowdfunding & Crowdlending	€ 4,460,868	€ 9,555,952	€ -(5,112,634)	€ -(1,243,872)
Financial Management Platforms	€ 11,774,620	€ 16,809,336	€ 670,998	€ -(1,630,138)
Insurtech	€ 8,283	€ 674,925	€ -(428,991)	€ -(2,721,241)
Lending & Credit	€ 4,720,903	€ 95,470,407	€ -(724,339)	€ 164,418
NeoBanks	-	-	-	€ -(695,935)
Payments & Transactions	€ 14,282,073	€ 64,775,016	€ 1,060,938	€ -(8,606,353)
Regtech	€ 20,479,402	€ 3,104,437	€ -(1,705,817)	€ 310,810

Table 3 - Financial Overview for Portugal and Spain

Pockets

PAYMENTS & TRANSACTIONS

VERTICAL DESCRIPTION

This vertical comprises FinTechs that assist in payments and transactions processes. This includes mobile wallets that store card information to enable payments, invoice processing tools, pre-paid cards, POS solutions and money transfer platforms. FinTechs have entered this vertical in scale, offering more efficient user experiences and more affordable alternatives. Banks have struggled to keep up with the speed and offerings of FinTechs, threatening a once reliable source of revenues for banks originating from card fees, current account fees and transaction and interest charges. Shifting consumer demands, technological innovation and regulation stem the FinTech growth in this market.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report, 17.8% (43) are Payment & Transactions FinTechs. Moreover, from the 36 Portuguese FinTechs considered, 13.9% (5) are Payment & Transactions FinTechs and from the 206 Spanish FinTechs considered, 18.4% (38) are Payment & Transactions FinTechs.

PROFITABILITY

This pocket contributes 28.7% or a €79,057,088 equivalent to the total Operating Revenue figure of Iberia. In terms of profitability, this pocket has a total net income of € -(7,545,414), showing negative aggregate profitability. Spain alone contributes to this negative KPI with a net income figure of € -(8,606,352), whilst Portugal partially offsets it with a positive net income figure of €1,060,938.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Pagatelia	Spain	€53,666,156
#2	Sipay	Spain	€4,543,955
#3	Kineox	Spain	€1,949,127
#1	Pagaqui	Portugal	€8,218,719
#2	Eupago	Portugal	€2,043,096
#3	Easypay	Portugal	€2,030,139

WHAT DOES THE FUTURE HOLD?

The possible futures for banks is the transformation of the business model and/or the partnering, collaboration or acquisition of payments & transactions FinTechs.

NON-IBERIA EXAMPLES

- TransferWise

TOP PLAYERS OF PAYMENTS & TRANSACTIONS



#1 Pagatelia

Founded in 2010 by Daniel Díez, Ramon Cereijo and headquartered in Madrid, Pagatelia specialises in the automatic payment of tolls enabling their customers to drive through various countries without the need to stop or queue up for toll payments.

Operating Revenues	€ 53,666,156
Total Assets	€ 4,867,904
Profit After Tax	€ 371,729



#2 PAGAQUI

Founded in 2014 by João Barros and headquartered in Lisbon, Pagaqui prides itself in having developed their own technology for Point of Sales transactions amounting to over 20 million transactions up to date.

Operating Revenues	€ 8,218,719
Total Assets	€ 2,380,843
Profit After Tax	€ 232,042

#3 Sipay

Founded in 1994 by José Luis Nevado and headquartered in Madrid, Sipay serves businesses that rely on them to deliver the latest payment methods to consumers in a single platform.

Operating Revenues	€ 4,543,955
Total Assets	€ 3,973,094
Profit After Tax	€ 1,107,464

CREDIT SMES

VERTICAL DESCRIPTION

This sub-pocket falls under the category of Lending & Credit which in aggregate corresponds to the biggest FinTech pocket in Iberia. Because there are various segments of Lending & Credit, the report distinguishes FinTechs that focus on Credit SME's from those that focus on Consumer Credit. Credit SME FinTechs specialize in financing solutions for Small to Medium Enterprises. FinTechs under this category may offer working capital finance, provide advance payment for suppliers as well as balance sheet optimization.

MARKET SHARE AND NUMBER OF COMPANIES

Out of the 242 Iberian FinTechs considered in this report 24.5% (60) are Lending & Credit FinTechs. By further breaking down the above pocket of Lending & Credit, we observe that 5.4% (13) of FinTechs are Credit SME type of lenders. From the 36 Portuguese FinTechs considered, 2.8% (2) are Credit SME's and from the 206 Spanish FinTechs considered, 5.8% (12) are Credit SME FinTechs.

PROFITABILITY

This pocket contributes 0.7% or a € 1,974,776 equivalent, to the total Operating Revenue figure of Iberia. In terms of profitability, this pocket has a total net income of € -(43,486), showing negative aggregate profitability.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	TuFinanziacion	Spain	€ 422,575
#2	Finanzarel	Spain	€ 369,423
#1	NetInvoice	Portugal	€ 9,742
#2	Prazo.pt	Portugal	€ 1,569

NON-IBERIA EXAMPLES

- Kabbage
- Greensill

TOP PLAYERS OF CREDIT SMES



#1 TUFINANZIACION

Founded in 2015 by Francisco Estevan and headquartered in Valencia, TuFinanziacion aggregates various financing solutions available online for small businesses, in one single platform.

Operating Revenues	€ 422,575
Total Assets	€ 917,741
Profit After Tax	€ 35,959

#2 finanzarel

Founded in 2014 by Jorge Bustos and Paulino de Evan and headquartered in Barcelona, Finanzarel is a marketplace providing SME's with working capital solutions by connecting businesses with investors.

Operating Revenues	€ 370,094
Total Assets	€ 786,112
Profit After Tax	€ 14,179



#3 NetInvoice

Founded in 2017 by António Varela and headquartered in Lisbon, NetInvoice specializes in short term credit solutions for SME's, with a focus on the financing of accounts payables and invoices. Businesses can put their invoices due up for sale on the platform and expect financing within 72hours.

Operating Revenues	€ 9,742
Total Assets	€ 594,872
Profit After Tax	€ - (332,468)

CONSUMER CREDIT

VERTICAL DESCRIPTION

This sub-pocket falls under the category of Lending & Credit. Consumer Credit focuses on lending alternatives to individuals who need capital but may not be eligible to credit applications via traditional banking processes or simply prefer the pricing alternatives of the FinTechs. Companies in this pocket may vary between micro loan lenders, refinancing loan providers or even companies who enable the use crypto assets as collateral for personal loans.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 17.4% (42) are Consumer Credit FinTechs and 2.1% (5) are Consumer Credit & Credit SME FinTechs, offering both products. From the Portuguese FinTechs considered, 16.7% (6) operate in Consumer Credit and from the Spanish FinTechs considered, 17.5% (36) operate in Consumer Credit. From the Portuguese FinTechs considered, 2.8% (1) operate in Consumer Credit & Credit SME and from the Spanish FinTechs considered, 1.9% (4) operate in Consumer Credit & Credit SME.

PROFITABILITY

This pocket contributes 35% or a € 96,459,940 equivalent, to the total Operating Revenue figure of Iberia. In terms of profitability, this pocket has a total net income of € -(437,821) showing negative aggregate profitability. Portugal alone makes up for € -(686,527) of negative profitability whilst Spain offsets it with a positive net income figure of € 248,705.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Creditea	Spain	€ 19,010,102
#2	Dineo	Spain	€ 16,496,380
#3	Kyzoo	Spain	€ 9,448,593
#1	Doutor Financas	Portugal	€ 2,516,334
#2	Comparaja	Portugal	€ 787,192
#3	Parcelaja	Portugal	€ 264,552

NON-IBERIA EXAMPLES

- Avant
- Tala

TOP PLAYERS OF CONSUMER CREDIT



#1 creditea

Founded in 2014 and headquartered in Madrid, Creditea belongs to the group International Personal Finance Spain S.A.U. The FinTech offers personal credit and personal finance management solutions promising flexible, responsible and ethical personal credit products. Credit amounts go up to €5,000 with a payback period of up to 36 months.

Operating Revenues	€ 19,010,102
Total Assets	€ 33,394,946
Profit After Tax	€ -(12,685,072)

#2 dineocrédito

Founded in 2014 and headquartered in Madrid, Dineo is a personal micro loan provider of credits of up to €300 with a payback period of 30 days.

Operating Revenues	€ 16,496,380
Total Assets	€ 10,350,883
Profit After Tax	€ 4,042,982



#3 doutorfinancas

Founded in 2014 by Rui Bairrada and headquartered in Lisbon, Doutor Finanças mixes the provision of financial literacy to its customers with personal financial products such as credit solutions, credit consolidation options, insurance, mortgages and mortgage negotiation, as well as auto loans, with a focus on empowering individuals and families with their finances.

Operating Revenues	€ 2,516,334
Total Assets	€ 683,042
Profit After Tax	€ 359,240

REGTECH

VERTICAL DESCRIPTION

This pocket comprises FinTechs in the field of Regulatory Technology within the financial industry. These enterprises help deliver solutions in accordance to the regulatory and compliance guidelines of the financial industry. It includes companies that facilitate solutions for compliance, transaction monitoring, reporting, identity management and risk management. With the growth of mobile-first banking solutions and NeoBanks who have no physical branches, traditional in-branch risk mitigation efforts are now being transposed to the digital world. RegTechs help do that, with solutions that enable remote customer onboarding and transforming internal compliance processes into more agile and reliable controls. The main technologies enabling the growth of RegTech are Blockchain, Cloud Computing, Application Program Interface (API's), Machine Learning, Big Data, Data Mining & Analytics, Predictive Analysis and Smart Contracts.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 4.1% (10) are RegTech FinTechs. From the Portuguese FinTechs considered, 8.3% (3) operate in RegTech and from the Spanish FinTechs considered, 3.4% (7) operate in RegTech.

PROFITABILITY

This pocket contributes 8.6% or a € 23,583,836 equivalent, to the total Operating Revenue of Iberia. In terms of profitability, this pocket has a total net income of € -(1,395,007), showing a negative performance. Portugal alone contributes € -(1,705,817) to that negative KPI, whilst Spain partially offsets it with a total net income of € 310,809.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	ElectronicID	Spain	€ 1,143,215
#2	Abside Technologies	Spain	€ 1,052,110
#3	Signaturit	Spain	€ 646,666
#1	Feedzai	Portugal	€ 17,208,383
#2	Loqr	Portugal	€ 752,785
#3	Fyde	Portugal	€ 641,295

NON-IBERIA EXAMPLES

- Abide Financial
- Actimize

TOP PLAYERS OF REGTECH



Founded in 2013 by Ivan Nabalon it is currently headquartered in Madrid and has a business presence in 15 countries. This enterprise is a digital tool for the remote identity validation of individuals and remote contracting. The software enables banks to onboard clients with the use of video-conferences, electronic signatures and biometrics. It also enables compliance departments to run more efficiently, as the software enables solutions for Anti-Money Laundering (AML) compliance procedures and Know Your Costumer (KYC) procedures.

Operating Revenues	€ 1,143,215
Total Assets	€ 2,417,261
Profit After Tax	€ -(430,578)



Founded in 2018 this company is currently headquartered in Bilbao. It is the result of a strategic alliance between Dominion and Rural Servicios Informaticos. The company provides solutions in a multitude of fields like robotics, infrastructure technology solutions, digital sales, marketing and core banking.

Operating Revenues	€ 1,052,110
Total Assets	€ 2,108,353
Profit After Tax	€ -(13,637)



Founded in 2009 by Nuno Sebastião, Paulo Marques and Pedro Bizarro, it currently has 157 employees and is headquartered in the U.S.A. They are pioneers in the fight against fraud using artificial intelligence, making use of a strong risk management platform propelled by machine learning and big data.

Operating Revenues	€ 18,944,662
Total Assets	€ 59,570,358
Profit After Tax	€ -(1,548,243)

BLOCKCHAIN & CRYPTOCURRENCY

VERTICAL DESCRIPTION

This pocket comprises FinTechs that leverage on the technology of Blockchain to facilitate solutions and products in the financial industry, as well as FinTechs that enable the trading of cryptocurrencies. Blockchain technology allows a host of solutions applicable to financial markets as it enables transactions without involvement of a central authority due to distributed ledger technology (DLT). Because DLT is programmable, FinTechs in this field have found ways of implementing the technology for the benefit of financial markets, mostly in the form of smart contracts. The term is given as they are self-executing contracts with T&C's embedded into code. They are characterized for being transparent, trackable and for discarding the need of an auxiliary enforcement mechanism. Cryptocurrencies are a means of exchange of monetary units that make use of blockchain technology. Some of the most popular cryptocurrencies are Bitcoin, Ethereum and Litecoin.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 5.4% (13) are Blockchain & Cryptocurrency FinTechs. From the Portuguese FinTechs considered, 11.1% (4) operate in Blockchain & Crypto and from the Spanish FinTechs considered, 4.4% (9) operate in Blockchain & Crypto.

PROFITABILITY

This pocket contributes 3.5% or a € 9,634,812 equivalent, to the total Operating Revenue figure of Iberia. In terms of profitability, this pocket has a total net income of € -(64,970), showing negative aggregate profitability. Spain negatively contributes to this with a net income figure of € -(45,658) and the same for Portugal with a net income figure of € -(19,312).

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Bitnovo	Spain	€ 8,454,220
#2	Eurocoinpay	Spain	€ 922,794
#3	Bit2me	Spain	€ 305,894
#1	Bityond	Portugal	€ 10,000

NON-IBERIA EXAMPLES

- Circle
- Gemini

TOP PLAYERS OF BLOCKCHAIN & CRYPTOCURRENCY



#1 bitnovo

Founded in 2011 by Marcus Munoz this company is headquartered in Valencia. Bitnovo allows customers to buy Bitcoin vouchers at more than 30,000 points of sale. This enterprise has its own crypto wallet that allows users to store, send, manage, receive as well as convert, Bitcoin and Dash. Bitnovo also offers BITSA, a prepaid card that enables customers to purchase goods with cryptocurrencies, as well as execution of SEPA transfers.

Operating Revenues	€ 8,454,220
Total Assets	€ 3,721,984
Profit After Tax	€ -(16,230)

#2 Eurocoinpay

This startup was founded in 2017 by Herminio Fernández de Blas and it is currently headquartered in Leon. EurocoinPay is a mobile application that enables users to use cryptocurrencies to buy services and products. Customers can also exchange cryptocurrency for gift cards from a multitude of established brands.

Operating Revenues	€ 922,794
Total Assets	€ 1,831,309
Profit After Tax	€ 20,153



#3 bityond

This enterprise was founded in 2016 by Pedro Febrero and it is currently headquartered in Lisbon. Bityond is a recruitment, talent and project management platform where candidates are matched to jobs based on skills, experience, characteristics and availability. Any user that participates in the Bityond network received Bityond tokens as an economic incentive and they can be spent to sponsor new developments or purchase subscriptions.

Operating Revenues	€ 10,000
Total Assets	€ 41,524
Profit After Tax	€ -(19,312)

FINANCIAL MANAGEMENT PLATFORMS

VERTICAL DESCRIPTION

The Financial Management Platform pocket incorporates all FinTechs known as Personal Finance Management Tools (PFM's) as well as Financial Management tools for businesses. Enterprises in this field help customers do exactly that, manage and monitor their personal finances by aggregating and streamlining individual's and businesses' financial data in a single platform. With the implementation of PSD2 and consequent AISP (Account Information Service Provider), FinTechs in this field gained more room to aggregate individual's financial data and provide better personal finance management tools. Another aspect of PSD2 that benefits this pocket of FinTechs is Payment Initiation Service Providers (PISPs), which enables companies to make payments on behalf of customers.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in the report 17.4% (42) are Financial Management FinTechs. From the Portuguese FinTechs considered, 16.7% (6) operate in Financial Management and from the Spanish FinTechs considered, 17.5% (36) operate in Financial Management.

PROFITABILITY

This pocket contributes 10.4% or a € 28,583,956 equivalent, to the total Operating Revenue of Iberia. In terms of profitability, this pocket has a total net income of € -(3,780,833), showing negative aggregate profitability. Spain alone contributes with a net income figure of € -(4,451,831) whilst Portugal partially offsets it with a positive net income figure of € 670,998.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Tickelia	Spain	€ 4,082,530
#2	Captio	Spain	€ 3,432,346
#3	Talentomobile	Spain	€ 2,085,687
#1	Invoicexpress	Portugal	€ 971,328
#2	Gofact	Portugal	€ 33,914

NON-IBERIA EXAMPLES

- Fintify
- Money Mentor

TOP PLAYERS OF FINANCIAL MANAGEMENT PLATFORMS



#1 **Tickelia**

Founded in 1996 this enterprise is currently headquartered in Barcelona. Tickelia targets corporations and assists them in the management of corporate travel and related expenses. The app enables customers to take pictures of invoices to extract relevant data onto the app, replacing the need for original receipts, thanks to their compliance and agreements with Spain's Tax Services.

Operating Revenues	€ 4,082,530
Total Assets	€ 1,339,493
Profit After Tax	€ 142,664

#2 **Captio**

This startup was founded in 2012 by Dan Moser, Joaquim Segura, Joel Vicient, Lluís Claramonte and it is currently headquartered in L'hospitalet De Llobregat. Captio is an expense management tool that is approved by Spain's Tax Entity. They have 80 employees and over 900 clients.

Operating Revenues	€ 3,432,346
Total Assets	€ 7,697,697
Profit After Tax	€ -(1,167,940)



#3 **invoicexpress**

This enterprise was founded in 2010 by Rui Pedro Alves and it is currently headquartered in Lisbon. It has a business presence in Portugal, Angola, Belgium, Cape Verde, France, Spain, Mozambique, Malta, U.S.A and the United Kingdom. InvoiceXpress aims to simplify invoice processing for entrepreneurs and businesses. The company counts with 25.000 national and international users.

Operating Revenues	€ 971,328
Total Assets	€ 544,022
Profit After Tax	€ 47,660

INSURTECH

VERTICAL DESCRIPTION

This pocket is characterised by technologies employed in the field of Insurance that target the current inefficiencies of the market. It specifically targets areas in which traditional insurance companies have had no incentive to tackle, such as the customization of policies and the adapting of premiums in accordance to behaviour witnessed as opposed to averages. In this pocket FinTechs thrive through their personalization abilities. By leveraging on the latest innovations in wearables or telematics, InsurTechs are able to offer the right products according to customer's actual risk profile. Advanced data analysis and access to wide pools of data and the Internet of Thing (IoT), enable better risk management and increased efficiency in the field.

MARKET SHARE AND NUMBER OF COMPANIES

From of the 242 Iberian FinTechs considered in this report 4.5% (11) are InsurTech FinTechs. From the Portuguese FinTechs considered, 11.1% (4) operate in InsurTech and from the Spanish FinTechs considered, 3.4% (7) operate in InsurTech.

PROFITABILITY

This pocket contributes 0.2% or a € 683,207 equivalent to the total FinTech revenue of Iberia. InsurTech enterprises in Portugal are responsible for an € 8,283 slice of the total whilst Spanish InsurTech companies contribute the remaining € 674,924. In terms of profitability, this pocket has an aggregate negative figure of € -(3,150,232).

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Coverfy	Spain	€ 442,225
#2	Bdeo	Spain	€162,600
#3	Inari	Spain	€ 64,109
#1	Habit Analytics	Portugal	€ 7,537
#2	Drivit	Portugal	-

NON-IBERIA EXAMPLES

- Lemonade
- Hippo

TOP PLAYERS OF INSURTECH



#1 coverfy

Founded in 2016 by Vicente Arias this enterprise is currently headquartered in Barcelona. Coverfy aims to reinvent the world of personal insurance. It aggregates all customer insurance policies in a single platform, suggesting better policies and providing assistance to customers who need insurance policy clarifications.

Operating Revenues	€ 441,423
Total Assets	€ 2,692,156
Profit After Tax	€ -(1,756,726)

#2 Bdeo Visual Intelligence

This startup was founded in 2017 by Julio Pernía Aznar, Manuel Moreno and it is currently headquartered in Madrid. Bdeo uses visual technology to assist customers with their insurance products. It uses video calls to remotely obtain document evidence in insurance claims. It enables better controls, improved veracity of evidence and faster processing time of claims.

Operating Revenues	€ 162,305
Total Assets	€ 308,926
Profit After Tax	€ -(302,981)



#3 habit

This enterprise was founded in 2018 by Sasha Dewitt and Domingos Bruges and it is currently headquartered in New York. It has a business presence in Europe and U.S.A. Habit Analytics uses data from Internet of Things' devices in order to profile consumers and enable insights that inform the policy making and service creation process. This access to data enables the optimization of pricing as well as customization of products and services.

Operating Revenues	€ 7,523
Total Assets	€ 498,638
Profit After Tax	€ -(389,673)

CAPITAL MARKETS & WEALTH MANAGEMENT

VERTICAL DESCRIPTION

The capital markets & wealth management pocket look at FinTechs that offer platforms that facilitate trading and wealth management for investors. These can include robo-advisory, portfolio management, brokerage, automated asset and wealth allocation, alternative trading platforms, analytics tools, amongst many others. In light of the democratisation of investing, FinTechs in this field thrive by catering to more than just High Net Worth individuals, reaching a previously underserved pool of investors with access limitations. The biggest concern for wealth managers is the pressure the FinTechs may cause on margins. Stemming the growth of capital markets and wealth management FinTechs, is the failure from traditional institutions to keep up to date with shifting customer demands and a lack of focus on a mobile-first strategy.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 11.2% (27) are Capital Markets & Wealth Management FinTechs. From the Portuguese FinTechs considered, 5.6% (2) operate in Capital Markets & Wealth Management and from the Spanish FinTechs considered, 12.1% (25) operate in Capital Markets & Wealth Management.

PROFITABILITY

This pocket contributes 4.6% or a € 12,730,890 equivalent to the the total Iberian FinTechs Revenue figure. Portugal makes up for € 710,153 of it while Spain contributes the remaining € 12,020,737. In terms of profitability this pocket has a € -(317,972) net income figure, showing aggregate negative profitability. Portugal represents negatively this KPI with € -(317,972) and Spain as well with € -(1,765,344).

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Finamatrix	Spain	€ 3,358,665
#2	Finect	Spain	€ 1,402,795
#3	Qbitia	Spain	€ 340,497
#1	Pass	Portugal	€ 645,067
#2	Advicefront	Portugal	-

INNOVATION

FinTechs have brought the rise of social trading, enabling the sharing of knowledge and provision of trading opportunities for otherwise excluded investors. Algorithmic trading and Robo-advisory are also key innovations that FinTech helped boost.

NON-IBERIA EXAMPLES

- Moneybox
- Freetrade

TOP PLAYERS OF CAPITAL MARKETS & WEALTH MANAGEMENT



#1 Finamatrix

Founded in 2013 by Salvador Vicente Mas Casado and Francisco Micó this enterprise is currently headquartered in Valencia. This enterprise is an innovative provider of portfolio management solutions and analysis. It facilitates solutions in private banking, wealth and asset management and family offices.

Operating Revenues	€ 3,358,665
Total Assets	€ 1,816,589
Profit After Tax	€ 420,733

#2 FINECT

This startup was founded in 2007 and it is currently headquartered in Madrid. Created through the merger of Unience and Moneymatic. Finect combines the perks of a social network specialized in finance and the best technological tools to help individuals make the best investment choices.

Operating Revenues	€ 1,402,795
Total Assets	€ 4,876,860
Profit After Tax	€ -(973,157)



#3 PASS

This enterprise was founded in 2015 by Paulo Gomes and Ricardo Passos and it is currently headquartered in Lisbon. It has a business presence in Europe and Asia. It uses Machine and Deep Learning to convert data into insights that can be used by customers on their Investment activities.

Operating Revenues	€ 645,067
Total Assets	€ 2,076,102
Profit After Tax	€ -(288,829)

CROWDFUNDING & CROWDLENDING

VERTICAL DESCRIPTION

Crowdfunding is the name given to platforms that specialize in the offering of a lending marketplace, this pocket can also be described as Marketplaces or Alternative Funding Platforms, where borrowers and lenders meet to invest in projects or businesses or request funding. These FinTechs bring diversification and the broadening of capital raising, enriching the ecosystem with access to novel funding alternatives and boosting the lifecycle of new companies. They also enable the investment into a new financial paradigm, that of financial return paired with social/environmental impact. As well as this, they empower and enable access to individual investors and small businesses. This type of FinTech can adopt one of three business models. The Securitization Model; The P2P Model and The Origination-only Model. These platforms can be further segmented into the following pockets: Lending/Debt marketplaces; Equity marketplaces; Real-Estate Crowdfunding; Microfinance crowdfunding and other marketplaces.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 13.2% (32) are Crowdfunding & Crowdlending FinTechs. From the Portuguese FinTechs considered, 11.1% (4) operate in Crowdfunding & Crowdlending and from the Spanish FinTechs considered, 13.6% (28) operate in Crowdfunding & Crowdlending.

PROFITABILITY

The Crowdlending & Crowdfunding pocket contributes 5.1% or a € 14,016,820 equivalent, to the total Operating Revenue Figure of Iberia. In terms of profitability, this pocket has a total net income of € - (6,356,506), showing negative aggregate profitability. Spain contributes to this negative KPI with a net income figure of € - (1,243,872) whilst Portugal contributes the remaining € - (5,112,634).

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country	Operating Revenues
#1	Housers	Spain	€ 4,328,592
#2	Invermercado	Spain	€ 1,642,049
#3	MytripleA	Spain	€ 669,067
#1	Seedrs	Portugal	€ 3,676,015
#2	PPL Crowdfunding	Portugal	€ 154,690
#3	GoParity	Portugal	€ 142,076

NON-IBERIA EXAMPLES

- 🕒 Raisin
- 🕒 AngelList

TOP PLAYERS OF CROWDFUNDING & CROWDLENDING



#1 **HOUSERS**
SMART INVESTMENT

This company was founded in 2015 and it is currently headquartered in Madrid. Housers is a Real Estate crowdfunding company with more than 108.000 users of more than 155 nationalities and has raised almost 23 million euros for collective financing of 94 properties. In 2020, its main goal is to achieve 160.000 users and 90 Million euros for the financing of 300 properties.

Operating Revenues	€ 4,320,743
Total Assets	€ 1,524,950
Profit After Tax	€ - (526,430)

#3 **Invermercado**

This startup was founded in 2009, has 16 employees and it is currently headquartered in Madrid. Invermercado is an aggregator of crowdfunding projects that gathers investment opportunities in a single website, allowing investors to rapidly see the expected return, term and minimum investment of all the different investments.

Operating Revenues	€ 1,639,072
Total Assets	€ 225,407
Profit After Tax	€ 63,760



#2 **SEEDRS**

This enterprise was founded in 2009 by Jeff Lynn and Carlos Silva, has 77 employees and it is currently headquartered in Lisbon, London, Berlin and Amsterdam. Seedrs is a Crowdfunding company focused on startups and growth companies. It allows investors to put their money into businesses they believe in and companies to raise capital through an effective, online process.

Operating Revenues	€ 3,676,015
Total Assets	€ 12,548,894
Profit After Tax	€ - (4,607,568)

NEOBANKS

VERTICAL DESCRIPTION

This pocket comprises all FinTechs that represent a new type of banking known as NeoBanks. Enterprises in this pocket are characterised for replicating the role of a traditional bank but by having a purely digital presence without physical branches. The services and products that these financial technology companies offer are often the same core products of traditional banks, but having no branches exhibits a key difference in their business model. In comparison to traditional banks they bring about innovation in four key areas: Customer Experience, Money Management and Features, Low-cost and agile structures and Transparency.

MARKET SHARE AND NUMBER OF COMPANIES

From the 242 Iberian FinTechs considered in this report 1.7% (4) are NeoBanks. All of them are Spanish, as no Portuguese NeoBanks were identified.

IBERIAN TOP PLAYERS

Rank	Top Player Name	Country
#1	Bnext	Spain
#2	2getherbank	Spain
#3	BNC10	Spain

WHAT DOES THE FUTURE HOLD?

NeoBanks and their disruptive force will continue to shape how traditional banks evolve and adapt. Banks have responded by incorporating mobile-first strategies, optimization of customer experiences, and by having a more active betting on new technologies. The transformation of banks into technology companies, collaborations between banks and FinTechs and the diminishing of the amount of traditional banks that exist, through M&A activity, are all possible futures.

NON-IBERIA EXAMPLES

- Revolut
- Monzo

TOP PLAYERS OF NEOBANKS



#1 **BNXT**

This company was founded in 2017 by Guillermo Vicandi and Juan Antonio Rullán and it is currently headquartered in Madrid. Bnext is a purely digital bank with a mobile application where customers can manage their account. It offers a Visa card to clients, all of this free of charge.

Total Assets	€ 183,172
Profit After Tax	€ - (375,418)

#2 **2gether**

This startup was founded in 2016 by Luis Estrada, Salvador Casquero Algarra, has 30 employees and is currently headquartered in Madrid. 2getherBank calls itself a "collaborative banking platform". The company offers a digital banking platform with a particular focus on digital currencies and an aim of enabling cryptocurrency users to transact with their crypto assets just like they would with fiat currencies.

Total Assets	€ 934,683
Profit After Tax	€ - (324,717)

#3 **bncø10**

This enterprise was founded in 2018 by Jordi Domingueza and is currently headquartered in Barcelona. BNC10 is a digital bank that offers its customers free accounts and prepaid cards. Their prepaid Mastercards allow users to make payments abroad without any commissions. The app also enables BNC10 users to transfer money amongst them without the need for long IBAN numbers and with a simple notification.

Interviews

—

FinTechs' Perspective

"One of the aspects that are being most reflected in the market and that will probably be an important trend in the future, are the alliances between different FinTech companies, and also between FinTechs and banks."

MYTRIPLEA

"What is missing in Portugal? It is possible to identify a specific area in which FinTech could provide an excellent response to a large gap in the domestic banking market: the absence of a real-time credit scoring entity, for example, using artificial intelligence."

COMPARAJA

"As for the regulations, in some cases it limits the capacity to develop FinTech solutions. The lack of a Sandbox of tests (in Spain) is an issue still to be resolved, despite the fact that the State has promised to develop one for two years. In the financial aspects there are still unregulated areas, such as cryptocurrencies, that deserve special attention in order to avoid scams and losses of non-experienced investors."

INVERMERCADO

"FinTechs will have a vital and central role to play, growing side-by-side with banks, together to provide all of us with new, improved and out-of-the-box financial solutions that will serve clients by giving them solutions for their pain-points."

EASYPAY

"The difficulty is much greater for the FinTechs that go to the big consumer of financial products, since in order to get there they have to have/create a brand, because people care much more about money/financial matters than anything else, so trust is much more important than it is for any other product. And building that trust takes time, including the costs that occur during that time while trust is being built."

FINECT

"In Spain, what has also contributed to the late arrival of the FinTech sector is the fact that traditional banks have a lot of importance and weight within society, so it is difficult to promote initiatives (FinTech companies) that help the market be much more liberalized, where innovation is supported. It is also a bit cultural, intrinsic to the country."

BNC10



Crwdfunding & Crowdlending	Payments & Transactions	Capital Markets & WealthTech
MyTripleA Invermercado	Easypay	Finect
Consumer Credit	NeoBanks	RegTech
Comparajá	Bnext BNC10	Feedzai Electronic ID LOQR

"When banks recur to the services that FinTechs provide in the regtech front, a lot of costs are cut as onboarding of new clients turns remote and fully digital. This means more business for FinTechs and a promising future."

LOQR

"Banks (incumbents) FinTech (new players) Telcos (entering the system) and Bigtech (entering the system) bring a new panorama of competition in an important sector for the economy."

ELECTRONIC ID

"Feedzai is not interested in knowing who you are from a personal point of view: it is interested in your average behavior. What are the movements that you usually do (...) that pattern of behavior is what will allow us to make a score and say if the transaction is legitimate or not."

FEEDZAI

"Another very important thing is what is called "contextualization of finance": Until now if you wanted to buy a house, you had to talk to the person that would sell it to you or with the real estate company and then you would talk with your bank and asked for a loan or a mortgage. The same happened if you wanted to buy a car. The contextualization of finances implies that now the loans are offered directly by the real estate agency, the car dealership, etc. It is the ability to offer financial products, not from the bank, but from the context in which they are used. This is possible due to both, 1) a legal issue and 2) a technological issue."

BNEXT

EASYPAY Rank Portugal #3 for Payments & Transactions

HOW DID YOU GET TO WHERE YOU ARE TODAY?

Easypay started its operation in 2007 and it has since been helping companies to boost their sales by providing all the most used payment methods in one gateway, allowing companies to collect funds in a simple, flexible and connected way. Since then we have been growing over 40% every year. This year alone (2019), we'll grow 100% in Payments Volume. Our growth strategy is very simple: focus on the client and on what the client wants. By having this very particular focus, Easypay is always investing in innovation, through the digitalization of financial services.

Our plans for the future are to continue growing fast by always creating new products and services. The digital world never stops surprising us, so we want to create new products based on the newest and most innovative technologies to fix our clients' pain-points.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

The future is heading to specialization. Banks are currently stuck between BigTechs, that are pressing them with good technology and low fees and commissions, and FinTechs that are pressing banks with agility, speediness and flexibility. The way out of this entanglement is one of three options: total transformation, partnership with BigTechs or FinTechs, or purchasing a FinTech.

Our relationship with banks is of partnership. There are banks that already see where the future is heading and partner with smaller FinTechs that can provide the agility they need in specific services. Easypay works with BBVA, for example, providing their clients with our payment gateway.

The regulators are making their way, slowly but surely. These are very difficult times for regulators, because changes are happening very quickly and it is a huge challenge to keep up and constantly update laws and regulations. We're working closely with our regulator in Portugal, participating in specific task forces to create a set of recommendations for the future.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

Abraham Lincoln once said that the only way to predict the future is by creating it. We at Easypay believe that we're about to see the most marvellous explosion of technology, with the refinement and enhancement of certain technologies such as Artificial Intelligence or Machine Learning among others, that will boost the financial market into new atmospheres. FinTechs will have a vital and central role to play, growing side-by-side with banks, together to provide all of us with new, improved and out-of-the-box financial solutions that will serve clients by giving them solutions for their pain-points.

COMPARAJÁ

Rank Portugal #2 for Consumer Credit

HOW DID YOU GET TO WHERE YOU ARE TODAY?

Founded in early 2015, this project was incubated at Startup Lisboa, where it already attracted the attention of well-known international investors - such as Mark Pincus, founder of Zynga or Peter Thiel, founder of Paypal - due to its disruptive approach to the financial sector.

This project arose from the need to make life easier for any consumer in the search for the best Personal Finance solutions for their risk/ investing profile. Nowadays, with the easier access to information provided by the Internet, it is counterproductive to go directly to all banks' branches - which is a waste of time and money - in order to be able to access each bank's conditions to get a loan or card, and the same applies to telecommunication operators.

In this way, our mission focuses on helping Portuguese consumers to make informed and conscious decisions in the different areas of Personal Finance by facilitating access to impartial and accurate information about the different products and services on the market, as well as their comparison, without any cost.

WHO WE WANT TO BECOME AND WHERE WE WANT TO BE: POSITIONING

Our vision is to be the reference Personal Finance platform for consumers, business partners, and stakeholders, helping the Portuguese population to identify and acquire the product that best suits their needs in a simple and informed way, with significant time and money saving. Transparency and impartiality are the guiding principles of Comparajá.pt. In our Code of Conduct we have established that no financial institution directly related to our business - from banking to insurance companies or telecommunications operators - may be an investor or shareholder of the Company.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

Comparajá.pt is a credit intermediary authorized by the Central Bank of Portugal and is thus authorized to operate in credit intermediation in Portugal, namely in the mortgage and consumer credit sector.

As CEO of Comparajá.pt, but also as administrator of AFIP - FinTech and InsurTech Association Portugal, José Figueiredo has been meeting regularly with different regulators, namely Banco de Portugal and CMVM, in order to discuss certain challenges in the banking sector that will arise in the coming years as a result of the disruption that FinTech has brought to the Portuguese market by introducing innovative financial products and services.

It is important to highlight the eagerness of all regulators to work closely and actively in developing solutions that will enable FinTech in our country to fulfill its mission of bringing new approaches to the industry in order to satisfy digital consumers.

Meetings balance: The balance is very positive. Furthermore, it is public that the Governor of the Central Bank of Portugal already considers FinTech to be important players in the national banking market, something that has materialized in the institutional dialogue with AFIP.

We believe we are on the way to make Portugal a successful example in boosting synergies between major banking players and innovative FinTech projects, with regulators playing a key role. And in fact it could not be otherwise, since it is impossible to halt the transformation in the financial sector through technology startups. Thus, the strategy can only be one: all stakeholders work together to create a thriving and healthy market.

Creation of national sandbox would be positive. For Comparajá.pt, it is essential to ensure strict compliance with the best practices in the sector because our activity is based on the trust generated with the consumer, and therefore regulatory compliance is essential.

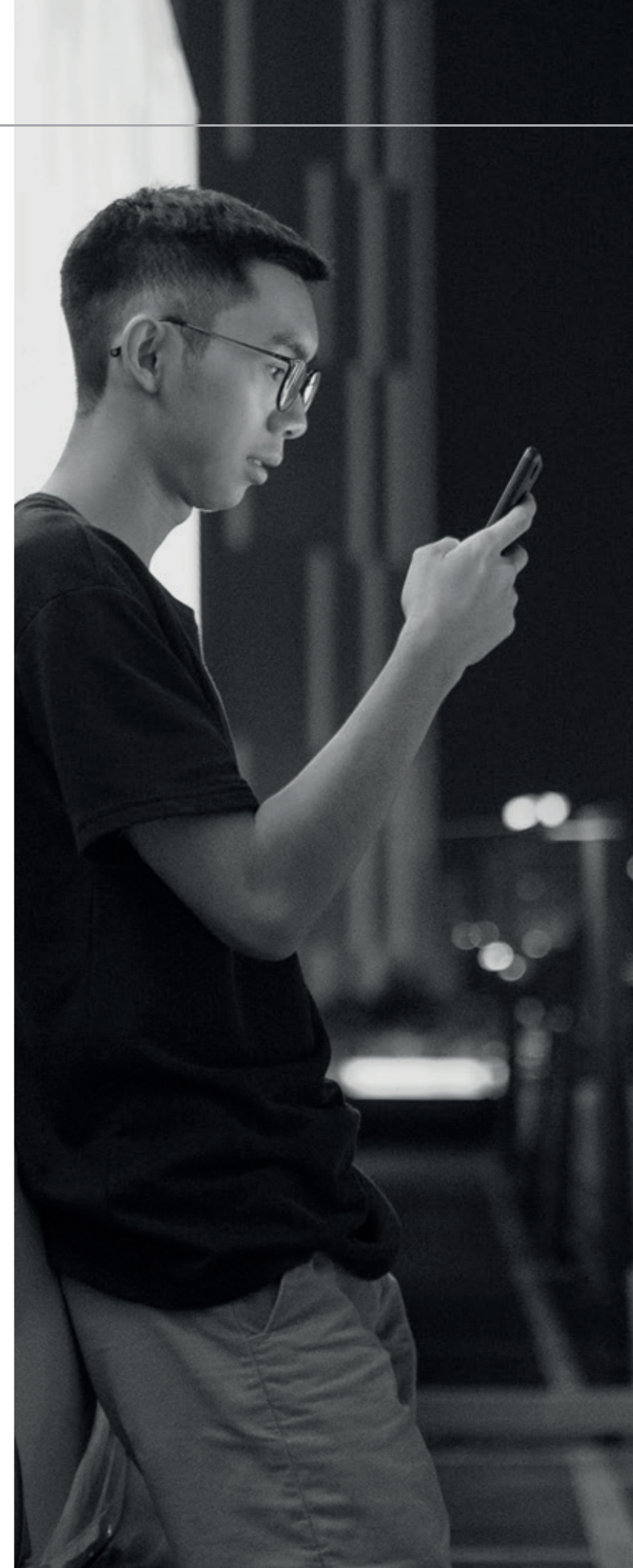
Just as we stress the creation of a specific framework for credit intermediaries or the benefits of transposing the European PSD2 directive into our market, at Comparajá.pt we look very positively at the possible creation of a sandbox in Portugal.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

What is missing in Portugal in the area of FinTech. It is possible to identify a specific area in which FinTech could provide an excellent response to a large gap in the domestic banking market: the absence of a real-time credit scoring entity, for example, using artificial intelligence.

This is an area that will certainly be developed with the transposition of the PSD2 directive, which will allow to access consumers banking history so that their risk level is easily ascertained by credit institutions. This mechanism, which is particularly advantageous for those banks where the consumer has never been a customer, will allow financing conditions to be tailored to the customer's profile and capabilities, creating increasingly customized solutions.

With this we will have faster, much less bureaucratic financing processes and more adjusted to the financial capacity of Portuguese families and companies, thus preventing bad credit numbers from growing in the future.



FEEDZAI

Rank Portugal #1 for RegTech

HOW DID YOU GET TO WHERE YOU ARE TODAY?

The original idea was a Big Data platform. Afterwards, the founders, putting together their talents, ideas and skills, ended up entering the venture capital sector and found investors who had a vision aligned with the values and ideas of this platform. Rui, who was one of the first investors, put 2 conditions to invest the "seed money", which were:

1) That one of its founders went to the US and set up a team there, for several reasons, because the market is more sophisticated, large enough and USA is a giant economy in which a company can grow and scale much more easily than in a market like the European one, for example, which is more fragmented, has language barriers, etc.;

2) that the founders chose a sector and focus on it. This is because the technology is so flexible and so moldable that if they did not focus on a "vertical", the original idea could end up being lost. It was at that moment that they chose the Banking vertical to start working. There was then a fast growth in the US due to that initial financing and therefore our first clients were American banks that shared our vision at that time, which many large companies nowadays have already followed. In this way, Feedzai was a pioneer in combining the commercial and the technical parts of artificial intelligence and in monitoring financial transactions.

Artificial intelligence manages to adjust itself to different scenarios in real time and fights different types of fraud. Our technology allows us to proceed and analyze patterns globally to see where there may be threats, risks or suspicious transactions.

A few years ago, this was very new because no one had managed to implement this type of technology, apart from the technical aspect of it. AI as a concept is not new, what is new is the technological infrastructure to which companies have access nowadays and the amount of data that is allowed to access in real time, that is, AI only works if it's possible to analyze data in real time. You can have a very large AI platform, but if you cannot access data in real time, the ability to extract information is very limited. Therefore, what Feedzai did and pioneered was to combine these two concepts, large-scale data and AI, and apply it to the financial sector, namely, large banks, large payment companies, electronic platforms, etc. or any commercial companies that use their platforms to sell their products and need that protection. Therefore Feedzai specialized in that sector and managed to grow a lot in the USA, although the technology was created in Portugal. We have 3 desktops in Portugal and 2/3 of the company operates mainly in Portugal. Although many of our clients are large banks in the US, Asia and Europe, our main hub is still Portugal. The company's data Science, product development, innovation and operations center is in Portugal. After the US and Portugal, there was a process of expansion into different markets. We have clients in Europe, Asia, Israel, Australia, Brazil, the Philippines, etc. Therefore, today our technology is on a global level.

Our growth in Portugal: We are a company that continues to hire workers and will not stop hiring in Portugal, but it is not a preferential market for our technology, because although we can adapt to any amount and to any institution, it is an expensive technology, which means that they are used by players of large or medium size that see the value in paying a high price in order to have a technology that makes this type of protection in real time.

IF PORTUGAL DOESN'T HAVE A STRATEGIC VALUE FOR THE COMPANY, WHY DID YOU DECIDE THAT 2/3 OF THE OPERATIONS WERE CARRIED OUT IN PORTUGAL?

There are 2 reasons for that:

1) The founders are Portuguese. In the national market, the language of the collaborators is Portuguese and the company was created in Portugal. In addition, regardless of the fact that the company does 99.9% of its businesses outside of Portugal, there is a great will for the company to remain Portuguese, which means paying taxes in Portugal, leaving the money obtained from the rounds of financing in Portugal, etc.;

2) In Portugal we have access to the best engineers that can be found for our technology, the universities are very good and we don't need to look for them in more mature markets or those that are considered more mature. From the point of view of teaching, Portuguese universities train students to be fully prepared for the work environment, so in order to find people who can develop a technology as sophisticated as ours, we do not need to go abroad.

WHAT IS YOUR FUTURE STRATEGY?

At the moment we have desks in the USA (Silicon Valley, NY and Atlanta), in London, three in Portugal, one in Congo and one in Sydney. These desks provide support for the most important operations, and allow us to operate in different time zones, which is essential in certain businesses. Our global expansion will be based on our footprint, but there are already markets in which we have important clients and in which we will have to open desks, for example in Latin America. These are markets that even though they are not as advanced, from the point of view of sophistication, as the US, London, Hong Kong, etc. they already have banks and financial institutions with a big enough dimension to use this technology. We already have workers and clients there, and it will undoubtedly be a region that we intend to approach even more in the coming years.

In addition to expanding, we also want to consolidate ourselves in the regions where we already are, continue to grow in Asia-Pacific, where there is a very large growth potential in markets such as Hong Kong and Singapore, that have connections with many other markets in the region. Having a customer in a certain market does not make compulsory to open a desk or to have a team there, desktops and teams can work from and for several countries. In fact, nowadays technological advances allow many of our operations to be done remotely. For example, most of our customers use our technology through the cloud (this is something that is increasingly seen these days), so it is no longer necessary to be "on-site" to carry out operations.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

The relationship with banks is a relationship of partnership. We try to be aware of market trends and the needs they have. There is a long hard process/job that is being carried out in banks and all kinds of financial institutions globally, which is the digital transformation. Banks have to go through the transformation; going from what used to be analog activities to a digital world and in order to do that they need partners like Feedzai. There was a very big revolution in the market in the last 5 years in which consumers began to dictate what they wanted from banks. Nowadays, these new players (NeoBanks), began to compete with them and revolutionize the world of banking, because now consumers do not need to wait two weeks to open an account, through a NeoBank they do so in 5 minutes. This has completely changed the banking paradigm. As a consequence, big players had to accelerate the digital transformation to follow market trends.

On the other hand they had to fight the dynamics of the new competition and adjust to the needs of consumers. However, when a person opens an account in a bank almost instantaneously, it is necessary to have the technology that ensures bank protection and that makes a background check of who wants to open the account, the actions of that person, etc. that is to say, to have information that allows the bank to make the decision of whether that person is suitable to open an account in that organization.

In order to do that, it is necessary to have a technology that allows it to be done in real time. For this reason we will continue to be a preferential partner for banks, because we have the technology that allows them to speed up the digital transformation.

In the case of regulators, it depends a lot from country to country since the laws are different and our technology is fully adapted to the regulations of each country. Our technology is not very regulated because we do not keep the customer data given to us by the banks. We extract valuable information from it, but we do not store it. What is fundamental for us to make certain decisions are the behavior patterns, therefore, when you try to make a purchase or open an account, Feedzai is not interested in knowing who you are from a personal point of view: it is interested in your standard behavior. What are the movements that you usually do, that is, a \$ 500 transaction is a lot if you usually do \$ 25 transactions, in which countries you usually transact, how often, what accounts do you usually use, what type of devices do you use when you shop online, etc. All this information will give a pattern of behavior and that is what will allow us to make a score and say if the transaction is legitimate or not. Consequently we do not have a large regulatory impact because we do not store the information. Our relationship with regulators is important in the sense that we have to keep up with regulatory trends and their continuous development, as with PSD2, for example.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

FinTechs have come a long way in recent years and the regulations that have been implemented always try to support the innovation that is taking place within the FinTech sector. Sometimes it can be thought that technological innovation can harm consumers, since everything is changing and evolving so quickly that consumer protection (through regulations and laws) fails to keep up with it. However, this is not true. Feedzai, for example, is born precisely to protect consumers and customers from the harm that can be caused by this rapid technological innovation.

There has been a very rapid change that has to do with the digitalization of the economy. As the economy becomes digital, this acceleration tends to require the entry of new technologies such as AI. For example, in a few years we will stop talking about AI so much, because it will no longer be such a disruptive concept, but something that is part of everyday life. In fact, AI, which is the maximum exponent of all the changes that have occurred in recent years, is already something "normal" that appears in all sectors of the global economy.

I do not know what will be the next technology that will appear on which the FinTech companies will focus. Either way, I believe that the road is going to be the same one that is being witnessed now. A few years ago there was a frontal confrontation "Banks vs. FinTech", while nowadays the ecosystem has already made banks and FinTechs work together as partners on many occasions. Furthermore, these different levels of concurrence accelerate even more these changes, because banks know that they have to introduce themselves in these new technologies if they want to be globally competitive and grow their business. Therefore, when we talk about "FinTech" in the sense of the word, we can think of a technological financial company created 2-3 years ago that is modifying the global financial paradigm. However, the oldest players are those that are becoming FinTechs in some way, like the big banks that buy FinTechs or technological companies that begin to enter and work in the financial sector.



ELECTRONIC ID Rank Spain #1 for RegTech

HOW DID YOU GET TO WHERE YOU ARE TODAY?

We started this startup in a totally different area with a project in 2013 to strengthen advanced democracies, with a social network whose main goal was to make all citizen participation legally binding. With this objective, we created the social network called Civitana.org but above all we innovated in security and compliance mechanisms, in order to identify citizens quickly, safely and complying with the legislation. This project failed because people did not understand us. As we came from the field of Management Consulting, we showed the technology to the banks and they liked it. Thus, we started and went to production when regulators in the matter of prevention of money laundering (SEPBLAC in Spain and BdP in Portugal, among others) made authorizations that allowed banks to register customers remotely. There began our story as a startup. We have managed to grow to 15 countries and have 95 clients. Thanks to the fact that the regulation was a pioneer in Europe, we have become the world leader in the customer video identification system for the financial sector.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

Banks are our customers. The regulators of Anti-Money Laundering & Counter-Terrorism Financing are the entities that regulate and authorize banks to use technologies such as ours. There are also the regulators of trust services, under the eIDAS, that allow and create the standards and Regulation for the contracting and electronic signature.

We are affected by the new Money Laundering Prevention Directive (AML5) and eIDAS. Tangentially for technical issues the new GDPR privacy law.

We do not see much change in our relationship with any of them. What we do is talk to many regulators so that they understand what is happening before in some other countries so they can take advantage of it in their respective countries.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

FinTechs have a very promising future, since they are transforming the way of offering financial services to the new generations. They are changing the way they offer, hire and enjoy financial services, providing a better user experience and adapting themselves to the new digital lifestyle.

Banks (incumbents) FinTech (new players) Telcos (entering the system) and Bigtech (entering the system) bring a new panorama of competition in an important sector for the economy.

LOQR Rank Portugal #2 for RegTech

WHAT ARE YOUR PLANS FOR THE FUTURE?

As the Portuguese market is finite part of our future plans is the reach of more international customers. In the meantime Loqr aims to perfect and make the most of its current and prospect Portuguese clients as to enrich its skill set and track record with robust examples of capacity, in order to show the international community what it really has to offer once we start targeting more international customers. The business also aims to expand to other verticals aside from Banking so it can diversify its portfolio of offerings.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

A good portion of Loqr's senior team comes from a banking or finance background enabling the relationship between our FinTech and banks to be of a long-standing and mutual benefiting nature. A similar relationship holds with the regulator Bank of Portugal as Loqr is an enabler of its regulatory demands and thus helps advance the mission of the institution. Bank of Portugal has proven to keep a close relationship with FinTechs and startups like ourselves, so that it can absorb the necessary knowledge to inform any reforms or future regulatory decisions. Loqr predicts an ever-growing involvement between the regulator and FinTechs, in the future.

HOW DO YOU SEE THE REGTECH INDUSTRY CHANGING IN THE FUTURE?

Regtech FinTechs encounter themselves at a complex point in time at the moment, as there are new regulations being drafted and others being implemented causing doubts for the industry in general. Aside from this uncertainty one consensus can be established, and that is that the regtech sub-industry is growing by the day and that all parties involved in it are aware that the future is digital.

It is also important to note the health of banks at the moment which determines how prosperous regtechs can be. Since banks are increasingly struggling to be profitable, cutting costs is inevitable, creating an opportunity for regtech startups to come in with a viable solution.

When banks recur to the services that FinTechs provide in the regtech front, a lot of costs are cut as onboarding of new clients turns remote and fully digital. This means more business for FinTechs and a promising future.

FINECT

Rank Spain #2 for Capital Markets & WealthTech

HOW DID YOU GET TO WHERE YOU ARE TODAY AND WHAT ARE YOUR PLANS FOR THE FUTURE?

There is a big ongoing transformation in the financial sector. The way of interacting with the client has changed, the client no longer goes to the office, they have evolved (and continue to do so) and turn into the digital world to make decisions. Entities are losing contact with customers to offer products.

Furthermore, the digital world offers transparency, efficiency, the possibility of being able to compare much better between products, etc. And we think that we can be a key piece in trying to connect those two worlds, help investors / savers / consumers in making their financial decisions and also help entities to have better access to the client, in order to offer products that best fit their needs, and at the same time contribute to the financial system by providing transparency and more information to make decisions.

How do we do this or how do we help both investors and entities? As for the investor (consumer of financial products), we help them by providing tools, contacts, comparisons of financial products and services, consultancy, etc. that can help them get to know financial products better and also to see if those financial products suit them.

For example, we have tools that, based on someone's risk profile, tell you if that product is interesting or not for you. We offer these tools to people through the website, but that only represents a small part. The main way we offer these tools to clients is through agreements with key newspapers and media of the country (we have agreements with El Confidencial, Expansión, etc.).

On the other hand, we offer entities different ways to reach users without having to spend money on marketing and internal processes to distribute those financial products.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

We are not regulated because we do not offer products directly to consumers. We have a Marketplace for roboadvisory and another for advisory services, through which we put in contact a person who requests roboadvisory with the person who provides it. As we do not touch the money, we are neither an agent nor we receive any direct commission from the transactions that are carried out.

However, we do know that in the future we will have to be regulated. In fact we are already talking with regulators and with companies that are explaining to us that if we move strategically in certain directions we will have to be bound to certain regulations.

HOW DO YOU SEE THE REGTECH INDUSTRY CHANGING IN THE FUTURE?

Regtech FinTechs encounter themselves at a complex point in time at the moment, as there are new regulations being drafted and others being implemented causing doubts for the industry in general. Aside from this uncertainty one consensus can be established, and that is that the regtech sub-industry is growing by the day and that all parties involved in it are aware that the future is digital.

It is also important to note the health of banks at the moment which determines how prosperous regtechs can be. Since banks are increasingly struggling to be profitable, cutting costs is inevitable, creating an opportunity for regtech startups to come in with a viable solution. When banks recur to the services that FinTechs provide in the regtech front, a lot of costs are cut as onboarding of new clients turns remote and fully digital. This means more business for FinTechs and a promising future.

The problem of FinTechs is how to reach new customers. They have very good solutions that cover specific needs but they have to make a very large investment in marketing, network, etc. to capture a considerable volume of customers.

As that in itself is complicated we ask what type of FinTechs are working better? In our opinion, those that target very specific market niches, since they can be profitable in an easier way. The difficulty is much greater for FinTechs that go to the big consumer of financial products, since in order to get there they have to have/create a brand as well as trust, and the process in itself incurs losses throughout its journey. However, having said that, I am very optimistic about the FinTechs that we are seeing and that are appearing today as they have gained particular interest from the millennial public.

Nowadays, the biggest consumers of FinTech products are millennials, but they are not the ones with money. We predict that the generation between 30 and 40 years (who nowadays consume FinTech products) are those who in 10 years will be between 40 and 50 and will have more money, and I think that is when the effects of the habits that are being implemented today are going to be seen. If you ask me, is it going to happen a revolution in 3 years from now that will make FinTech companies grow exponentially? NO. However, if you ask me, is that revolution going to happen in 10 years? I would say YES, I am 90% sure.

INVERMERCADO

Rank Spain #2 for Crowdfunding & Crowdlending

HOW DID YOU GET TO WHERE YOU ARE TODAY AND WHAT ARE YOUR PLANS FOR THE FUTURE?

Invermercado was born in 2017 with the main objective of adding in a single website the diverse offer of financial crowdfunding investments (both in the format of the loans and in the participation) in Spain. At this moment we are still in an initial phase, in which we are attracting direct clients on our website and through social networks. Our company manages several FinTech projects, but so far the budget to Invermercado has been limited.

The goal for 2020 is to invest in advertising and marketing in order to obtain a broad customer base. We are also finalizing the development of an application so that platforms can directly add their projects to our system, instead of doing it manually by us. The goal is to finally monetize the project, developing affiliate programs for customer traffic, with the platforms. On the other hand, we also want to serve as a channel through which our clients can advertise specific projects.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

Invermercado is an information aggregator, so we are not regulated under the CNMV regulations or any other financial directives. However, our objective is to add information only from participatory financing platforms (PFP) that are registered in the CNMV.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

The FinTech sector is still a growing sector. There are some areas already quite developed and consolidated with many competitors that make it difficult to enter them, but there are still many niches not covered (alternative investments, cryptocurrencies, private C2C investments, etc.).

The banks (initial competitors) have ended up 'adapting' and supporting some FinTech ideas, and subsequently acquiring the best ones as their own. However, there are also NeoBanks (bnext) that begin to appear as a complete alternative to the services of a traditional bank.

As for the regulations, in some cases it limits the capacity to develop FinTech solutions. The lack of a Sandbox of tests (in Spain) is an issue still to be resolved, despite the fact that the State has promised to develop one for two years. In the financial aspects there are still unregulated areas, such as cryptocurrencies, that deserve special attention in order to avoid scams and losses of non-experienced investors.

MYTRIPLEA

Rank Spain #3 for Crowdfunding & Crowdlending

HOW DID YOU GET TO WHERE YOU ARE TODAY AND WHAT ARE YOUR PLANS FOR THE FUTURE?

MytripleA was founded in 2013, but started working in April 2015, when we got the License to become a Payment Entity granted by the Bank of Spain and subsequently obtained the Financing Platform License granted by CNMV. In less than 3 years, more than 350 business projects were financed with a volume of more than 18.5 million euros and almost 3,000 registered investors. Currently, until November 2019, MytripleA has intermediated in more than 83 million euros with a total of 1739 projects.

We are currently working on a big data project and artificial intelligence algorithms. As we grow we have more data and all this will help us choose even better candidates to receive loans and to raise the number of companies we finance. We have the clear objective of "democratizing" the Spanish financial system so that investors can monetize their savings and SMEs can finance themselves without having to go to a bank. When we "avoid" the bank stage, we can distribute all the banking margin between the SME and the investor so that both parties win.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

From MytripleA we have a collaborative position with traditional entities since this is the way to offer a better customer service and to get benefits for both parties in the agreement.

In Spain, more and more traditional entities are having agreements with FinTech. In the case of MytripleA, we already have agreements with a multitude of Reciprocal Guarantee Societies spread throughout the national territory, entities that have been offering bank guarantees for more than 30 years.

We believe in the role of co-creation or co-innovation together with banks. Most FinTechs use banking services for our operations and we therefore are already collaborating with them. In the future, as the sector grows, we are convinced that banks will collaborate more intensely in market niches where platforms provide greater added value.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

Until recently, banking had monopolized all banking services and now, thanks to technology, companies that provide an added value and a better user experience to customers have emerged (and will continue to emerge). The financial services offered by FinTech should not depend on the "future of banking" and seek, not a fight against banks, but the collaboration with them. One of the aspects that are being most reflected in the market and that will probably be an important trend in the future, are the alliances between different FinTech companies, and also between FinTechs and banks.

The growth that the FinTech sector is experiencing in Spain is very positive and this trend is expected to continue. This investment and financing model and, in general, this way of understanding the world of finance, has already shown an extraordinary outcome in countries such as the US or the UK, where the main platforms already intermediate billions per year. In Spain we are at a much earlier stage and therefore there is an extraordinary growth potential.

BNEXT Rank Spain #1 for NeoBanks

HOW DID YOU GET TO WHERE YOU ARE TODAY AND WHAT ARE YOUR PLANS FOR THE FUTURE?

We got to the point we are today step by step. The company was started by 3 people in 2017. At that time, there were many doubts in Spain (there were already other NeoBanks in Europe such as Monzo or Revolut) of whether a "tool" like this one would work, since nobody knew if individuals would trust it. The crucial aspect to achieve was how to get the user to trust it. We started by creating an online forum and going to many campuses and coworking events to talk to people, inviting them for coffee and then asking them questions and getting feedback. We were in essence inviting them to the Bnext community so much so that we got our first 50-70 users while developing the card. Then in September 2017 we made a beta version of the card and if you wanted to become a member of Bnext, you had to talk to the company personally in order to be invited (you could download the app but it simply put you on a waiting list, until you talked to the company in person and then they gave you the card). All this had the main objective of answering the question "why would somebody trust a brand that nobody knows?".

From September to December 2017, we got 800 clients (all in different events, South Summit (150) and other job talent events, spotahome, kpmg, pwc, deloitte, etc). We explained that we wanted to make a bank free of ties where people could choose the financial products they wanted and return the commissions that the banks charged.

That allowed us to see what the sales arguments were, what people wanted and what people needed in order to trust them. All this was what gave us those 800 beta testers (we talked to around 4,000 people and 1 in 4 people said Yes).

In January 2018 we started opening the waiting list and sending the card to homes for free to users, but in exchange they had to put 25 euros in the card so that at least we would know they would use it. In January we reached almost 2,000 clients, in February almost 4,000, in June 20,000, in September 40,000, in December 100,000 and now we have more than 300,000. The growth has been exponential, but step by step, "we are not going to get 100,000 customers, we are going to get 1 and always like that". Now we are getting 20,000 a month and we are seeing how to get 20,001, 20,002, 20,100, etc. "The goal is to always grow more than the previous week".

In terms of the future we have Mexico in mind since we are now entering that market but at the same time we aim to reach one million customers in Spain, which we expect to achieve within the next year.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

With banks, we have gone through several phases: from "oh a FinTech, I invite you to my accelerator", to "tell me how you are doing that, I want to learn", in which we gave them free consulting, to the phase of "hate-love", in which we are competitors for the banks but at the same time they believe that we can help them in their future.

The relationship with banks for us is indifferent, we do not seek to be bought and we certainly don't expect them to help us. For us, banks are purely competitors, we can cooperate with them promptly for a common good, but they are competitors. In the end, a client that uses banks more than us is a client that we have to acquire. I have been differentiating now between banks and us, but the truth is that I do not see any difference between traditional banking and NeoBanks. For us Santander and Revolut are both competitors, in the same way. There is a difference though between consolidated companies and companies that are not. We can do some things that they cannot (mainly in marketing) but at the operational level they have all the power.

Regarding regulators, we have a good fluid relationship. We have been talking with the CNMV and Banco de España for months to build the Marketplace, but I can't tell you more. I'll just say that the regulator has improved a lot, especially since they made the change so that now everything is concentrated in Bank of Spain, all the parts of licensing and treatment of FinTech, because before it was divided between CNMV, Bank of Spain and the Treasury and it was more complicated.

Now there is a unique interlocutor who helps NeoBanks/FinTechs in all the steps regarding Spanish legislation and who are willing to introduce new players in the market that can improve competition.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

I think the industry is banking, I wouldn't talk about FinTechs exclusively. A person can have relationships and products with several banks, however, having a mortgage with a bank does not mean that this is that person's bank, it simply means that he/she has "something" in that bank, but he/she may consider that his/her bank is another. The banking business will increasingly work less with interest rates (I earn with what I lend) and it will be more of added value products that are sold, because the margins are small, profitability is low and we do not expect interest rates to climb a lot in the next 10-15 years. Hence, the main goal will be to sell more financial products, insurance, loans of all kinds, mortgages, etc. than your peers. And that's where the fight is. For example, in Spain, in the past, retail banking had a great advantage over the rest of European banks: it had a large network of offices that made the customer very loyal to the banks and that is why banks in Spain were affected less by the financial crisis.

Nowadays, that network has disappeared, people no longer want to go to a branch, so the important thing is to be the first on the list that a person wants to go to. In fact, the most important thing here is the client, the relationship with the client, and to ensure that when he has a financial need, the first institution they come to is us.

I think there are going to be some banks that will remain in the financial system without evolving, banks that will continue to be profitable and making money, but it will be a different dynamic than that we had before. At the same time, there will be another series of brands (orange bank, Zara Bank, Google Bank) and they will be the ones that will give you the possibility of investing through their platforms in which you are going to associate with that brand and you will start to operate through them, despite the fact that the operation itself will be done by Santander, for example.

Another very important thing is what is called "contextualization of finance": Until now if you wanted to buy a house, you had to talk to the person that would sell it to you or with the real estate company and then you would talk with your bank and asked for a loan or a mortgage. The same happened if you wanted to buy a car. The contextualization of finances implies that now the loans are offered directly by the real estate agency, the car dealership, etc.

It is the ability to offer financial products, not from the bank, but from the context in which they are used. This is possible due to both, 1) a legal issue and 2) a technological issue.

In the past, in order to give a loan, you needed to know the client perfectly, but nowadays an ID and FB profile almost suffices to give out loans of up to 30,000 euros. This is what will make users not care about the bank they are using, because with a simple SMS confirmation, the company where you are hiring the service will be able to give you a loan instantly with just the Telephone number and ID.

This is going to change a lot the way in which banks offer their financial products, because it will no longer depend so much on a physical sales force, but on the technology they use (you will need your technology to be the best). At an evolutionary level, there are many banks that are ignoring the technological challenge that this is going to pose and that are ignoring everything about PSD2, etc. Banks that I think will have a big downfall.

It is not necessary that many banks/FinTechs do that, if only a bank or a FinTech does this well, they will "break" the market. This is going to be like the internet market, there is going to be one company that is going to give loans in Spain, 2-3 at most and they are going to reach all the shops in Spain, there will be a network effect. And the one with the best technology is the one that will get this. This is why I believe that banking will change a lot.

BNC10 Rank Spain #3 for NeoBanks

HOW DID YOU GET TO WHERE YOU ARE TODAY AND WHAT ARE YOUR PLANS FOR THE FUTURE?

The company was founded in July 2018 by 3 cofounders and a Chairman. The first year we focused mainly on product development, testing, etc. At the end of June 2019 we launched the product, but we did not do any marketing, communication, etc. until the end of September. It was only word-of-mouth by people from BNC10 and the investors. We had a waiting list through an app, with a database of users that helped us test the product during the summer months, so we could detect bugs and correct them. In September 2019 we started with a proper marketing campaign.

Since the end of September 2019 we have achieved 13,000 users and about 25,000 downloads. We expect to close this year on the 16,000 users. Our goal for 2020 is to end the year with 240,000 users.

WHAT IS YOUR RELATIONSHIP WITH BANKS AND REGULATORS LIKE?

We have subcontracted a bank license to a UK provider (Prepaid Financial Services) and our goal for 2020 is to have our own license, since the fact of not having one (both bank and payments licenses) strongly limits our options. Regarding the Central Bank of Spain and the European directives, our "relationship" with them is to comply with all the regulations that are imposed on us and that are linked to our sector. Because we don't have our own license, we are less regulated than other banks / NeoBanks. In our case, it is the license provider the one that has to comply with more regulation.

HOW DO YOU SEE THE INDUSTRY CHANGING IN THE FUTURE?

If you look at the FinTech map in Europe, there is a very high concentration in the Nordic countries and obviously, in the United Kingdom, which should almost be taken out of European statistics, since it is very far ahead of the rest of the European countries. Nonetheless, step by step the FinTech sector is also reaching these countries (Spain and Portugal). Two years ago, when you talked to people in Spain, they practically didn't know what a NeoBank was, you had to explain it, while now there are several international NeoBanks that are already well known here (Revolut, N26) since they have done a big marketing campaign.

The change is noticeable, especially in the Millennial and digital native Generations. Banks have also done a great job digitizing themselves, but nowadays the differences between banks and FinTech, regarding speed, easiness and practicality are still notable.

In Spain, what has also contributed to the late arrival of the FinTech sector is the fact that traditional banks have a lot of importance and weight within society, so it is difficult to promote initiatives (FinTech companies) that help the market be much more liberalized, where innovation is supported. It is also a bit cultural, intrinsic to the country.

Banks' Perspective

NOVO BANCO

WHAT IS NOVO BANCO'S GROWTH STRATEGY AND WHAT ARE ITS PLANS FOR THE FUTURE?

We have a big focus in Portugal and a growing focus on retail banking and businesses which sets us apart from other banks. By making this key distinction we can better explain our relationship with FinTechs.

We have an omnichannel strategy to attract clients with a great focus on the expansion of digital channels where we aim to trigger more digital sales and digital clients.

Our digital channels are supported by a physical network of distribution and call centres that attends to our clients that require more direct support from us. With this being said, our strategy distinguishes itself by the kind of relationship it crafts with customers. We also pride ourselves in the personalisation of the digital experience using artificial intelligence in order to deliver a more relevant point of contact.

WHAT IS THE BANK'S RELATIONSHIP WITH FINTECHS LIKE?

We have a tactical relationship with FinTechs where we distinguish between FinTechs that are potentially our competitors and FinTechs that are complementary to our business. With complementary FinTechs we have an approach of gaining proximity and trying to work with them. The only challenge that remains for us and other banks is the difficulty in working with very small enterprises that are not yet very agile, so this pathway of collaboration is still undergoing a lot of work and is still due a great deal of optimisation.

We are working with a few Portuguese FinTechs in elements of our businesses that are complementary, such as artificial intelligence in the real estate market, RegTech in terms of KYC's and onboarding of clients, and FinTechs that specialize in the aggregation of individual's information which in turn facilitates credit applications and other processes.

Regarding the competing FinTechs we do not have any particular stance towards them apart from keeping in touch with what the broad FinTech market is up to.

HOW DO YOU SEE THIS RELATIONSHIP WITH FINTECHS CHANGING IN THE FUTURE?

We don't predict much change in the short term in this relationship. What we do predict is a change in the way banks work, becoming much better at working in an ecosystem with more agile processes and more open information infrastructures and with greater ease of interaction with other institutions. This in the long run can result in changes to the relationships we have, possibly opening doors to working with competing FinTechs in capacities where our businesses complement each other. If this turns out to be the case, it may result in a shift of the bank business model towards a more technological institution.

With a 10-year horizon in mind, we predict a lot of convergence in terms of the FinTech and bank offerings as well as consolidation, as we clearly have too many banks in Europe.



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Appendix

LIST OF IBERIAN FINTECHS



2Getherbank	Bolsa Social	Colectual	Dunforce
Abside Smart Financial Technologies	Bolsa.com	ContaMoney	E.Kuantia
Accurate Quant	Borrox	Contante	EADAone
Adventureros	BrickFunding	Coowry	Ecrowd
Ahorroy	Bricks&People	Coverfy	El Hipotecador
Anfix	Burofarma	Creditea	Electronic IDentification
Aplazame	Busconómico	Creditomas	Elma
Bdeo	Capital Cell	Cryptoder	EthicHub
Besepa	Captio	Cuéntica	Eurocoinpay
Billin	Circulantis	Declarando	Excelend
Bit2me	Civislend	Deudae	Exportory
Bitnovo	ClickSurance	Dineo	Factura Directa
Bizum	Cobee	Dinube	Feelcapital
Blue Strategy Group	Coinffeine	Dispon	Fellow Funders
Bnext	Coinpods	Diswap	Finametrix
Boletus	Coinscrap	Domicilialo	Finanbest



Financlick	Gaspay	Inespay	Kyzoo
Finanzarel	Goin	Innofis CREALOGIX	Lendismart
Finect	Grey Systems	InstantCredit	Lendmarket
Finizens	Growly	Invermercado	Lendrock
Finteca	HETIKUS	Invertidos	Licuos
Fintep	Hipoo	Inveslar	Lignum Capital
Fintonic	Holded	Invesreal	Livetopic
Fintup	Houcell	Investmood	Loanbook
Finutive	Housers	Junntar	Logic value
Finweg	IAsesoria	Kapptus	Metagest
Flanks	Ibercheck	KeyANDCloud	Micappital
Flipsimply	Icired	Kineox	Microwd
FPnA tools	Inari	Kolecta	Mil Creditos Rápidos
Frakmenta	InbestMe	Kontably	Millolab
FT Inversión	Inbonis	Kredito24	Mitto
Fundsfy	Indexa Capital	Kubebank	Momo Pocket

LIST OF IBERIAN FINTECHS

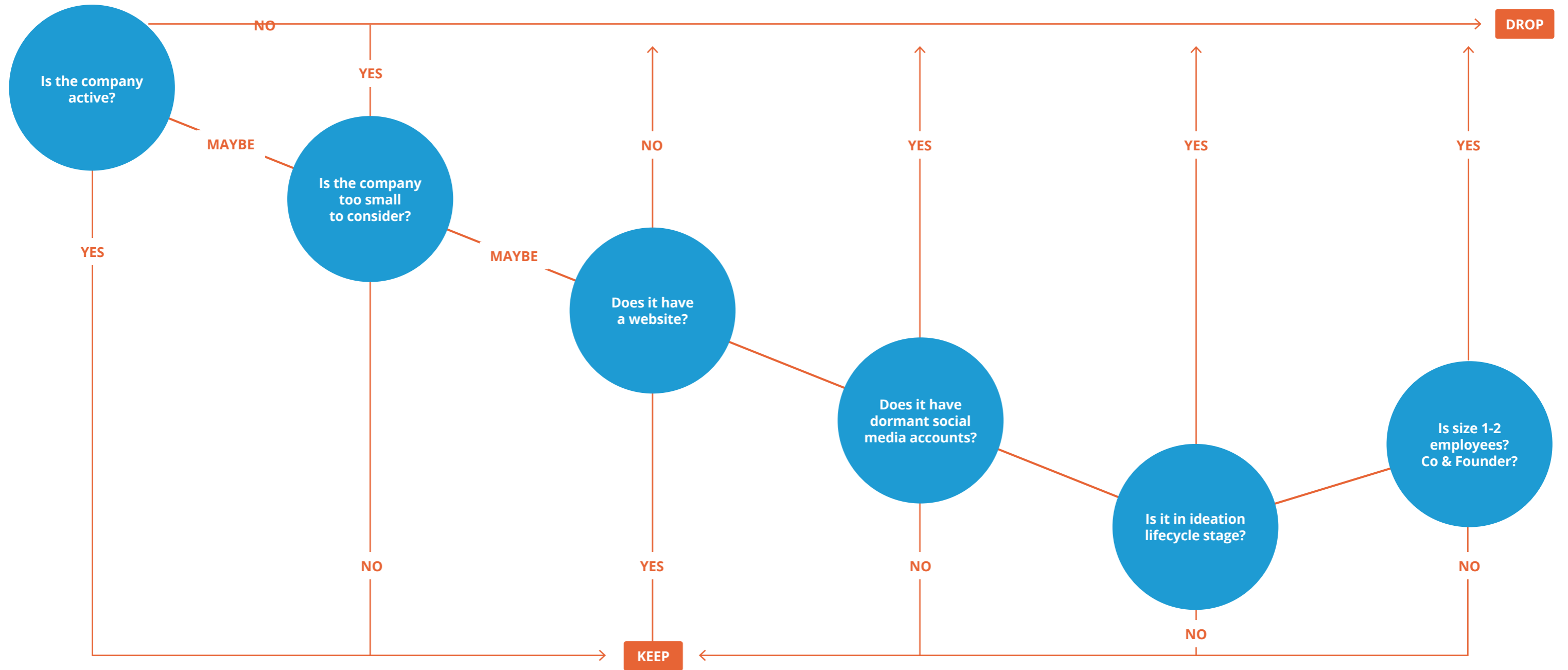


Monedo	Pich Technologies	Sersansistemas	TransferZero
Mymoid	Polaroo	Signaturit	Trioteca
MytripleA	Préstalo	Sipay	Trocobuy
Myvalue.com	Prestamos10	Smart Protection	TuFinanziacion
Nemuru	PrestamosPrima	Socilen	Twibex35
NoviCap	Privalore	SociosInversores	Twinero
Nowon	Pulpo Credit	SoftQbits	Txerpa
Octopocket	Qbitia	Splitfy	Unnax
Okmoney	Quaderno	Startupxplore	Up GourmetPay
Onyze	Quebueno.es	StockCrowd	Urbanitae
Pagantis	Quipu	SwaPay	Verkami
PagaresYa	Rapicash	T-Advisor	Verse
Pagatelia	Risk Management Solutions	Talentomobile	Viaconto
Paycomet	Sabbatic	Taxdown	Wanna
Paymatico	Savso	TefPay	WayApp
PayNoPain	SeeDCash	Tesoralia	Winvestify
PayThunder	Segguroo	The Crowd Angel	Wiquot
Pecunpay	Senseitrade	Tickelia	Wohcash
Pensumo	Sequra	Ticketphant	Zank



AdviceFront	EuPago	Ifthenpay	Pass
Bityond	Feedzai	Invoicexpress	PPL Crowdfunding
Coinvision	FinTech Server	ITSCREDIT	Prazo.PT
Comparajá	Fyde	Keep Warranty	Raize
Coverflex	GoFact	Loqr	SalaryFits
Doutor Finanças	GoParity	Magnifinance	Seedrs
Drivit	Habit Analytics	NetInvoice	StudentFinance
Easypay	hAPI	Pagaqui	Switch
EbankIT	Hold	Parcelajá	Utrust

FRAMEWORK FOR FINAL LIST OF FINTECHS



TOP 50 GLOBAL FINTECHS

#01 Ant Financial (CN)	#14 Robinhood (US)	#27 Monzo (UK)	#40 Singlife (SG)
#02 Grab (SG)	#15 SoFi (US)	#28 Banco Inter (BR)	#41 Creditas (BR)
#03 JD Digits (CN)	#16 Nubank (BR)	#29 Toss (KR)	#42 Bankera (LT)
#04 Gojek (ID)	#17 Transferwise (UK)	#30 WealthSimple (CA)	#43 Kabbage (US)
#05 Paytm (IN)	#18 OneConnect (CN)	#31 Affirm (US)	#44 Raisin (DE)
#06 Du Xiaoman Financial (CN)	#19 Clover Health (US)	#32 Airwallex (AU)	#45 Metromile (US)
#07 Compass (US)	#20 Oscar Health (US)	#33 Judo Capital (AU)	#46 OurCrowd (IL)
#08 Ola (IN)	#21 PolicyBazaar (IN)	#34 Coinbase (US)	#47 TAfterPay Touch (AU)
#09 Opendoor (US)	#22 Atom Bank (UK)	#35 WeLab (CN)	#48 Collective Health (US)
#10 OakNorth (UK)	#23 Lendingkart (IN)	#36 MoMo (VN)	#49 Folio (JP)
#11 Lufax (CN)	#24 Stripe (US)	#37 Kreditech (DE)	#50 ZhongAn (CN)
#12 Klarna (SW)	#25 Lemonade (US)	#38 Liquid (JP)	
#13 N26 (DE)	#26 Revolut (UK)	#39 Neyber (UK)	

TOP 50 EUROPEAN FINTECHS

#01 Adyen (NL)	#14 Sumup (UK)	#27 Zopa (UK)	#40 Nutmeg (UK)
#02 Nexi (IT)	#15 Avaloq (CH)	#28 Deposit Solutions (DE)	#41 Solaris Bank (DE)
#03 Klarna (SE)	#16 Radius Payment (UK)	#29 Pleo (DK)	#42 Monese (UK)
#04 Greensill (UK)	#17 Ivalua (FR)	#30 Smava (DE)	#43 Ledger (FR)
#05 Transferwise (UK)	#18 Numbrs (CH)	#31 Kreditech (DE)	#44 Banking Circle (DK)
#06 N26 (DE)	#19 Rapyd (UK)	#32 Pagantis (ES)	#45 BIMA (SE)
#07 Oaknorth (UK)	#20 Worldremit (UK)	#33 Gocardless (UK)	#46 PayFit (FR)
#08 Monzo (UK)	#21 Wefox (UK)	#34 Wynd (FR)	#47 Tink (SE)
#09 Funding Circle (UK)	#22 Starling Bank (UK)	#35 Moneyfarm (IT)	#48 Alan (FR)
#10 Izettle (SE)	#23 Atom Bank (UK)	#36 Ratesetter (UK)	#49 Younited Credit (FR)
#11 Checkout (UK)	#24 Feedzai (PT)	#37 Tinubu Square (FR)	#50 Curve (UK)
#12 Darktrace (UK)	#25 Raisin (DE)	#38 Ebury (UK)	
#13 Revolut (UK)	#26 Tradeplus24 (CH)	#39 Bitstamp (UK)	



FinTech in sub-Saharan Africa Report

AUTHOR

Catia Batista - Nova SBE NOVAFRICA Knowledge Center

Recent Trends and Opportunities

Over 60% of the sub-Saharan African adult population is unbanked.¹ The formal financial sector in Africa is severely underdeveloped, especially in low-income rural areas where most African people still live.² Innovative financial technology, or FinTech, brings enormous opportunity to the African continent with its ability to promote financial inclusion and reach a much wider range of beneficiaries than conventional finance.

FinTech in Africa includes all digital financial innovation services that are not provided by traditional financial institutions. Most often FinTech firms are start-ups offering a specifically targeted financial service through innovative technology, usually a tailored form of micro lending or niche payments. In this context, FinTechs typically adopt models with low-friction, low-cost solutions, such as peer to peer payments. But there are also big techs, like telecoms, that started offering technologically enabled innovative financial services like mobile money – a service that hinges on the widespread availability of cell phones in the African continent, even when no roads or electricity supply are available.

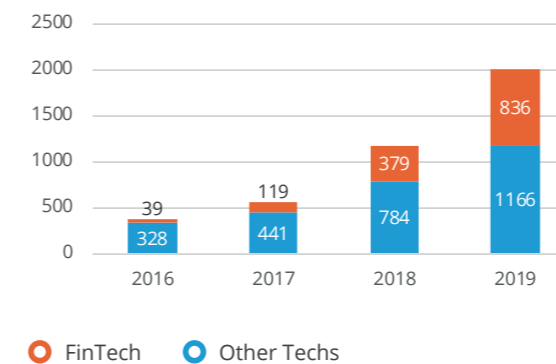
The opportunity for FinTech in Africa is immense. African demographics are exploding and the rate of mobile phone penetration is extremely high. Private sector is growing in response to burgeoning local demand – and also to job creation pressure from international governments and donors scared by the threat of massive emigration from Africa. In this context, the need for financial inclusion, in addition to financial deepening, is very substantial, while the necessary prerequisites for FinTech growth seem to exist.

FinTech is an opportunity for leapfrogging and closing gaps in several areas. The provision of financial services using mobile phone technology has been truly revolutionary in a continent where large fractions of the people do not have access to basic infrastructure, such as electricity, roads, piped water or sanitation. Indeed, mobile money services, which started by mostly enabling peer-to-peer transfers, keep developing into platforms through which a number of innovative financial services are offered. FinTechs in Africa these days provide a diversity of financial services such as micro lending M-Shwari in Kenya, or micro insurance BIMA in Tanzania, Ghana and Senegal, or cryptocurrency-based micropayments Wala operating in Uganda, Zimbabwe and South Africa. FinTech services contribute to innovation and development of areas as diverse as agriculture, e-commerce, health, or education.

The potential benefits of FinTech are larger in developing countries with underdeveloped financial services. Indeed, traditional finance has limited geographic reach and weak penetration, especially among low and middle-income population. FinTech contributes not only to improved financial services, but also to job opportunities to the most educated young Africans who are able to deliver innovation that is context relevant. FinTech can also indirectly contribute to job creation by strengthening private sector development through enabling better payment systems and improved credit possibilities to new and existing small African enterprises.

The FinTech opportunity has been identified by international investors. According to the Partech Africa (2020) report, African venture capital investments in FinTech in 2019 totaled \$836 million, which more than doubles the value for 2018 – and a growth path for the fourth year in a row, as shown in Figure 1. The share of overall tech investment that goes to the FinTech sector has also been increasing starkly since 2016. Nigeria attracted a substantial fraction of the FinTech investment in the continent in 2019: Nigeria alone secured more than \$400 million in large deals with \$170 million going into Opay and \$40 million into PalmPay, predominantly from Chinese investors, and a 20% acquisition deal worth \$200 million for Interswitch from Visa. Kenya especially, but also South Africa, additionally attracted sizable large deals (valued at least \$5 million) in 2018 and 2019, as shown in Table 1.

Figure 1: Venture Capital Investment in Africa (Millions of USD)



Source: Partech Africa (2020).



¹Demirgüç-Kunt et al. (2018).

²According to the World Bank's World Development Indicators, 59% of sub-Saharan Africans lived in rural areas in 2018.

Recent Trends and Opportunities

YEAR	PRIMARY MARKET	COMPANY NAME	FUNDING (US\$ MILLION)	MAIN INVESTORS
2019	Nigeria	Interswitch	200.00	Visa
2019	Nigeria	Opay	120.00	Meituan, Source Code Capital, SoftBank Ventures Korea
2019	Kenya	Tala	110.00	RPS Ventures, GGV Capital, IVP, Revolution, Thomvest Ventures, Lowercase Capital, Data Collective, PayPal, Blue Pool Capital, Jerry Yang
2019	Kenya	Branch	69.60	Foundation Capital, Visa, Andreessen Horowitz, Trinity Ventures, CreditEase, Formation 8, IFC, Foxhaven Asset Management, Greenspring Associates, Victory Park Capital, B Capital Group
2018	South Africa	Jumo	52.00	Goldman Sachs Investment Partners, Finnfund, Vostok Emerging Finance, Gemcorp, LeapFrog Investments, Proparco
2019	Nigeria	Opay	50.00	GSR Ventures, Meituan, Source Code Capital, Sequoia Capital, IDG Capital
2018	Kenya	Tala	50.00	Revolution, IVP, Data Colective, Lowercase Capital, Ribbit Capital, Female Founders Fund
2018	Kenya	Cellulant	47.50	The Rise Fund, Impact Fund, Endeavor, Satya Capital, Velocity Capital Private Equity, Progression Capital Africa
2019	South Africa	Retail Capital	41.70	CrossFin
2019	Nigeria	Palmpay	40.00	Transsion
2019	Egypt	Fawry	22.00	IFC, Helios, Ideavelopers
2019	Nigeria	Migo	20.00	Valor Capital Group
2018	Kenya	Branch	20.00	Trinity Ventures, Andreessen Horowitz, CreditEase, IFC
2018	South Africa	Yoco	16.00	Partech, Orange, FMO, Velocity Capital, Quona Capital
2019	South Africa	Tyme Bank	13.00	African Rainbow Capital (ARC), Ethos Private Equity
2019	Zimbabwe	Payitup	13.00	Thawer Fund Management
2018	Nigeria	Mines	13.00	The Rise Fund, X/Seed Capital Partners, Western Technology Investment, Velocity Capital, Trans Sahara Investment, Singularity

Table 1: Publicly disclosed venture capital FinTech investment in Africa with a value equal or above \$5 million.

Source: Partech Africa (2020).

YEAR	PRIMARY MARKET	COMPANY NAME	FUNDING (US\$ MILLION)	MAIN INVESTORS
2018	South Africa	Jumo	12.50	Odey Asset Management
2019	Nigeria	Fairmoney	10.00	Flourish, DST Global, Newfund, Le Studio, Speedinvest
2018	Nigeria	Flutterware	10.00	Mastercard, CRE Venture Capital, FinTech Collective, 4dxventures.com, rabacap.com, Greycroft Partners, Green Visor
2018	Nigeria	Paga	10.00	Global Innovation Fund, Unreasonable Capital, Adlevo Capital, Goodwell, Omidyar Network
2018	Ethiopia	M-Birr	9.87	EIB, DEG
2018	Nigeria	Paystack	8.00	Stripe, Visa, Tencent, Y Combinator, Tom Stafford, Dale Mathias, Gbenga Oyeboode
2019	Kenya	Apollo Agriculture	7.71	Rabobank, FMO, Newid Capital, Musha Ventures, Accion, FactorE Ventures
2018	Egypt	Masary	7.30	Ebtikar Information Technology
2018	Nigeria	Lidya	6.90	Omidyar Network, Alitheia Capital, Bamboo Capital Partners, Tekton Ventures, Accion, Newid Capital
2019	South Africa	Lulalend	6.50	IFC, Quona Capital, Accion, Newid Capital
2019	Kenya	AZA Group	6.26	Undisclosed
2019	Ghana	Chipper cash	6.00	Deciens Capital, Raptor Group
2019	Nigeria	TeamApt	5.50	Quantum Capital Partners
2019	Kenya	Branch	5.00	Barium
2018	Kenya	BitPesa	5.00	Sompo Holdings
2018	Kenya	Tala	Undisclosed	Paypal
2019	Morocco	CashPlus	Undisclosed	Group Richbond
2019	Zambia	IATF	Undisclosed	ECP
2018	South Africa	Jumo	12.50	Odey Asset Management

South Africa, Kenya, and Nigeria lead sub-Saharan Africa as FinTech hubs, according to the Findexable (2020) FinTech Global Index.

These countries are followed by Ghana, and Uganda in this index that combines indicators of quantity, quality and ecosystem strength of FinTech activity. Angola and Mozambique trail behind these countries with a much less developed and under-invested FinTech ecosystem – although there are signs of change and opportunity in both these countries. Additional details are provided in the country profiles in Appendix.

Mobile money is the prevalent FinTech in sub-Saharan Africa – the world leader in its usage.

Its dominance is largely due to its simplicity: mobile money accounts require only a basic cell phone and allow performing a number of financial transactions, including making person-to-person (P2P) or person-to-business (P2B) payments, receiving payments from businesses (such as wages), receiving government-to-person (G2P) payments, and saving in the mobile account. Opening a mobile account is straightforward, unlike regular bank accounts: it usually suffices to hold a government-issued ID and it takes just a few minutes. To be able to use a mobile account, users need to deposit (or cash in) money to the mobile account at a physical mobile money agent. But this transaction is simple and immediate, with the user automatically getting a notification that the deposit has been made to their account. With this e-cash in their phone, users can perform several financial transactions and only need to return to the mobile money agent if they wish to cash-out their e-value into physical money. Transaction fees are charged on most truncations, but this cost tends to be smaller than charges of traditional financial institutions. Overall mobile money is a simple FinTech system that allows for immediate, inexpensive and secure financial transactions.

Mobile money is not mobile banking, and definitely not a bank account.

Even though mobile money accounts seem very similar to bank accounts, there are substantial differences between the two. Value stored in mobile money accounts has a 100% reserve requirement imposed by regulators, and this value must be held in regular commercial banks. In addition, loans are not provided directly by mobile money systems, nor interest paid on any balances held in mobile money accounts. Recent FinTech developments use mobile money systems as a platform to offer more sophisticated payment services, micro loans and micro insurance – but these services are not standard in mobile money accounts.

Mobile money has brought wide economic and social benefits to sub-Saharan Africa.

Suri (2017) surveys existing evidence of the widespread adoption of mobile money in sub-Saharan Africa and of the gains to its users. Evidence has so far been collected on mobile money's role as provider of insurance against shocks and as reducing poverty. In addition, it has been identified by Batista and Vicente (2013, 2018, 2020b) and by Batista et al (2020) as a tool to promote female owned businesses and agricultural modernization, in addition to allowing spatial occupation reallocation – all of which combine to promote increased sustainable economic development.



Kenya: An Experimental Innovation Lab

Kenya witnessed the birth of the first and most successful mobile money service in the world. M-PESA was launched as a DFID-sponsored pilot in October 2005 and commercially in March 2007 by Vodafone's Safaricom, one of the main telecommunication companies in the country. In the following two years, more than 60% of the adult population was using the service and 10% of GDP was flowing through the system, driven mostly by urban-rural P2P transfers. M-PESA has by now reached almost universal coverage in Kenya.

Kenya was much more successful than other countries in adopting mobile money. Other sub-Saharan countries, such as Uganda or Tanzania, have been catching up, but no country in the world could yet replicate Kenya's success, and there are many unsuccessful deployments of mobile money, as is the case in Nigeria. Suri (2017) describes some of the correlates of successful mobile money business models. Pilot experimentation and product design adaptation to customer needs seems particularly important for the success of M-PESA in Kenya, followed by a rapid deployment of a large network of agents, low customer entry barriers, and regulating the system only after the innovation.

Large networks of mobile money agents are a key for successful adoption in various ways.

A larger geographic density of agents decreases access costs for customers and substantially increases the potential benefits of the service for them. In addition, competition between mobile money agents promotes efficient e-money and cash inventory management, and increases the cost effectiveness of steady monitoring and liquidity management by the mobile money supplier. Consumers tend to favor agents with better service and trading volumes.

Regulating FinTech in emerging markets brings particular challenges. Prudential regulators tend to understand the potential of nonbank financial platforms to promote formalization of the economy and better control over monetary aggregates and the tax base. However, regulating financial innovation also requires prudential innovation - a balance that is often difficult to achieve without limiting the growth potential of FinTech initiatives.

Different countries created their own mobile money regulation, but there are several common elements. First, there is usually some limitation of individual transaction sizes and amounts that can be held in mobile money accounts. There usually is also direct regulation on the trust or bank accounts that hold the float and rules on how interest earned on this float can be used. An important regulatory topic not settled across countries is that of mandatory interoperability, i.e. the ability to transact with mobile money across service providers. This issue becomes particularly relevant as mobile money grow into payment systems, more than just tools for P2P transfers.

The introduction of mobile money had important welfare benefits for Kenyan users of the service. Suri et al. (2012) document the viral M-PESA adoption pattern. Suri et al (2013) and Suri and Jack (2014, 2016) describe the evidence of how this innovation allowed better responses to unexpected adverse shocks by using remittances received via mobile money - which could be used to finance additional costs without having to forego necessary expenditures on education, food, and other consumption needs. They also find, consistent with the remittance mechanism, that the consumption of mobile money users is unaffected.

An innovative FinTech micro lending product was launched in Kenya in 2012. The new product, called, M-Shwari, is a fully digital bank account operating on the M-PESA mobile money platform. It was launched as a partnership between the Commercial Bank of Africa (CBA) and Safaricom. Adoption of M-Shwari has been growing strongly: within two years of the launch of the product there were more than 4.5 million active users, which represents nearly 20% of the adult population.

M-Shwari offers small, 30-day, 7.5% monthly interest rate, loans to approved customers even if they had no previous banking or credit history. Bharadwaj et al. (2019) show that access to M-Shwari effectively increases credit availability for eligible households, with no evidence of substitution from other forms of credit, such as informal loans, loans from regular bank accounts, or from peers.

M-Shwari increases the resilience of user households in presence of negative shocks. Bharadwaj et al. (2019) examine how households who are eligible for a M-Shwari loan, are significantly less likely to forego expenditures when they are hit by a negative shock. Indeed, these households are 6.3 percentage points less likely to forego any expenses in response to a negative shock, whereas approximately 68% of the control group reports having to forego some expenses.

Overall, Kenya has been the experimental lab for the introduction of FinTech in sub-Saharan Africa. The country piloted and designed the most successful mobile money service ever, and more recently has developed a range of FinTech products such as micro lending and insurance that have substantially improved financial inclusion, financial deepening and the welfare of mobile money users.

Portuguese-speaking African countries: Emerging and leapfrogging

PORTUGUESE-SPEAKING AFRICAN COUNTRIES HAVE LAGGED BEHIND MOST OTHER SUB-SAHARAN AFRICAN COUNTRIES IN TERMS OF ECONOMIC AND FINANCIAL DEVELOPMENT.

Mozambique

Among the Portuguese-speaking African countries, Mozambique has been at the forefront of mobile and online financial innovation. It is however a country with extremely limited financial inclusion even by sub-Saharan standards. According to Demirgüç-Kunt et al. (2018), in 2017 only 10 percent of adults living in rural areas of the country held savings in a formal bank account. And only 15 percent of migrant remittances were received via formal channels in these rural locations.

Batista and Vicente (2013, 2018, 2020a) describe the results of a randomized field experiment to examine the impact of introducing mobile money in rural areas of Mozambique. They found rather large levels of adoption, with around 87 percent of the individuals directly offered mobile money services making at least one transaction over the three-year period following the introduction of the service. These adopters of mobile money (and early adopters in particular) were likely to be more educated than non-adopters, and they were also more likely to already hold a bank account. This positive-self-selection into mobile money usage raises the question of whether mobile money is an effective tool for financial inclusion. Indeed, if those who adopt mobile money first and keep using this technology over time are disproportionately those who already had bank accounts, this is an effective tool for financial deepening, but not necessarily financial inclusion – and new approaches to promote financial inclusion must be devised together with strategies for organic technology adoption following its initial dissemination.

Batista and Vicente (2018) describe how availability of mobile money translated into stronger resilience to negative shocks in terms of consumption and lower vulnerability, particularly to hunger episodes. Similarly, to the Kenyan case, resiliency seems to increase as the result of an increase in the migrant remittances received by rural households with access to mobile money services. Surprisingly, relative to the existing literature on the consequences of migrant remittances, we find evidence of reduced investment on agriculture. This result is consistent with households preferring to invest in migration – a poverty-lifting technology that is much improved by the reduction in long-distance transfer transaction costs generated by the availability of mobile money.

Overall, introducing mobile money in poor rural areas may serve an important positive role in decreasing rural households' vulnerability to shocks, which may arise together with increased migration of household members to urban areas – at the cost of a disinvestment in risky activities such as agriculture. Households seem to prefer to invest in their own increased productivity by moving to urban areas. In this sense, it can be argued that the introduction of mobile money created a specific form of occupational change: a shift from agricultural activities in rural areas to occupations performed by migrants outside of the rural areas of origin.

Portuguese-speaking African countries: Emerging and leapfrogging

Complementary experimental studies show that facilitating access to remunerated mobile money savings accounts can work to promote investment – both in businesses and in agriculture. Batista et al. (2020) work with micro business owners in urban areas of Mozambique, and find that paying interest on mobile account balance is particularly effective as a tool to promote microenterprise development of female business owners. In the same line, Batista and Vicente (2020b) test the impact of offering remunerated savings accounts through mobile money to individual farmers and their networks and obtained that this is an effective tool to promote fertilizer usage.

More recently, the Central Bank of Mozambique, the FinTech regulator, with the support of FSD Mozambique launched a FinTech regulatory sandbox. This sandbox brings together the domestic regulators, banks, insurance companies and FinTech startups with the aim of promoting information flows and coordination, without overly constraining FinTech activity. The objective of this sandbox is to pilot and experiment different FinTech approaches before they are formally regulated. Currently, there are five Mozambican FinTechs (including Portuguese and South African investment) who take part in the sandbox: Mukuru and Zoon, which facilitate transfers from migrants in South Africa to their unbanked Mozambican families; Paytek, which aggregates local payment channels; and Ekutiva and Robobo, which are developing domestic electronic payment systems similar to PayPal.

FinTech initiatives in Mozambique are constrained by limited funding opportunities, but there is substantial growth potential. These limitations restrict the capacity of FinTech startups to hire and retain qualified staff and overcome the relative geographic isolation of the country, which has large unpopulated geographic areas. Nevertheless, the country has a large potential for growth as 10 million adults are currently estimated to be fully unbanked, whereas there are 4 million adults with mobile money accounts that can be harnessed by FinTech innovation.

Other countries

Angola still does not have any mobile money service at work, but there is a growing consensus about the desirability of supporting the introduction of mobile-enabled FinTech services. The Central Bank of Angola is working with the Angolan Ministry of Science and Technology to directly supporting the LISPA FinTech incubator. A training program with 10 FinTech startups has started in January 2020. In the area of digital payments, Kamba is a digital wallet that started operating in September 2017. It provides users with an online payments platform that takes deposits from an existing bank account. There are currently several mobile banking services provided by commercial banks, and there is currently discussion about future mobile banking services that make use of biometric security tools.

Cape Verde is the Portuguese-speaking African country with the most developed financial system. This can be broadly explained because the country did not go through prolonged periods of conflict and benefited from the effects of massive emigration and incoming migrant remittance flows over many decades, which impacted positively its overall financial development. Paradoxically, there is however no mobile money service available in the country, and movements towards FinTech payment initiatives are still not formalized. Cape Verde passed a law to regulate the activity of non-banking financial institutions in July 2019. This regulation was enacted before any mobile money or other FinTech initiative took place in the country.



Looking ahead: challenges and opportunities



Despite the promise brought to sub-Saharan Africa by mobile money, there is **still a very large financial inclusion gap to be closed** – an opportunity for FinTech development in the region.



To fulfill the promise of FinTech innovation, it is crucial that there is **substantial investment in infrastructure such as more extensive mobile phone coverage, as well as reliable and high-speed internet access.**



Prudential regulators need to invest in innovative strategies that allow them to reap the benefits of financial inclusion and deepening, as well as formalization of the economy, brought about by FinTech, without imposing excessive limitations.



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Country Profiles

SOUTH AFRICA

FinTech Country Profile (Findexable 2020, Partech 2020)

Findexable FinTech 2019 ranking in the world	37 (+14 relative to 2018)
FinTech strengths.....	Digital Banks, Cryptocurrency, Insurtech, SME financing
Unicorns.....	Promasidor, Cell C
Local FinTechs making the headlines in 2019.....	Budgie, Jumo, GetVanced, Oyi, Spoon Money, Yoco
Associations.....	Africa FinTech Network, Africa Women in FinTech & Payment
Industry events.....	Seamless Africa, Finnovation South Africa
Accelerators & incubators:	FinTech Open Innovation Cluster, Cape Innovation and Technology Initiative, AlphaCode, Rand Merchant Investment Holdings
FinTech Friendly Rules:.....	Financial Technology Program established by the South Africa Reserve Bank to evaluate emerging FinTech and regulatory implications. Inter-Governmental FinTech working group with various regulatory bodies including the Financial Intelligence Centre and the Financial Sector Conduct Authority.

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	67.44
Holds an account either FinTech and/or traditional financial institution (% population aged 15+)	69.22
Holds mobile money account (% population aged 15+).....	19.02
Made or received digital payments in the past year (% population aged 15+).....	60.11
Savings at traditional financial institution (% population aged 15+).....	22.09
Savings outside of traditional financial institution (% population aged 15+).....	37.24

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	57.78
Population growth (annual %).....	1.4
Surface area (sq. km) (thousands).....	1,219.10
GNI, Atlas method (current US\$) (billions).....	332.32
GNI per capita, Atlas method (current US\$).....	5,750
GNI per capita, PPP (current international \$).....	13,250
Primary completion rate, total (% of relevant age group).....	87
Urban population growth (annual %).....	2.1
GDP growth (annual %).....	0.8
Inflation, GDP deflator (annual %).....	3.9
Time required to start a business (days).....	40
Tax revenue (% of GDP).....	27
Domestic credit provided by financial sector (% of GDP).....	79.1
Mobile cellular subscriptions (per 100 people).....	159.9
Individuals using the Internet (% of population).....	56.2
Net migration (thousands).....	727
Personal remittances, received (current US\$) (millions).....	929
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	5,471
Net official development assistance received (current US\$) (millions).....	914.8



KENYA

FinTech Country Profile (Findexable 2020, Partech 2020)

Findexable FinTech 2019 ranking in the world.....	42 (+10 relative to 2018)
FinTech strengths.....	Payments, Enabling processes & technology, Banking & lending
Local FinTechs making the headlines in 2019.....	M-Pesa, Branch, Cellulant, Jumo, Bit Pesa, Tala
Associations.....	Kenya's Capital Markets Authority, Digital Lenders Association of Kenya
Industry events.....	Future of Payments, Banking and FinTech, East Africa FinTech Summit 2020
Accelerators & incubators:..	Africa eXcellerator Lab, SC Ventures, Catalyst Fund, Mastercard Financial Inclusion Lab
FinTech Friendly Rules:.....	Capital Markets Authority Sandbox

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	55.72
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	81.57
Holds mobile money account (% population aged 15+).....	72.93
Made or received digital payments in the past year (% population aged 15+).....	78.96
Savings at traditional financial institution (% population aged 15+).....	26.78
Savings outside of traditional financial institution (% population aged 15+).....	43.54

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	51.39
Population growth (annual %).....	2.3
Surface area (sq. km) (thousands).....	580.4
GNI, Atlas method (current US\$) (billions).....	83.06
GNI per capita, Atlas method (current US\$).....	1,620
GNI per capita, PPP (current international \$).....	3,440
Primary completion rate, total (% of relevant age group).....	100
Urban population growth (annual %).....	4.1
GDP growth (annual %).....	6.3
Inflation, GDP deflator (annual %).....	2.8
Time required to start a business (days).....	23
Tax revenue (% of GDP).....	15.7
Domestic credit provided by financial sector (% of GDP).....	39.1
Mobile cellular subscriptions (per 100 people).....	96.3
Individuals using the Internet (% of population).....	17.8
Net migration (thousands).....	-50
Personal remittances, received (current US\$) (millions).....	2,719
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	1,626
Net official development assistance received (current US\$) (millions).....	2,488.40

NIGERIA

FinTech Country Profile (Findexable 2020, Partech 2020)

Findexable FinTech 2019 ranking in the world.....	52 (+4 relative to 2018)
FinTech strengths.....	Payments, Enabling processes & technology, Banking & lending
Local FinTechs making the headlines in 2019:.....	Flutterware, Jumia, Migo, OPay, Paga, Palmpay, Paystack, Snap Credit
Associations.....	Africa FinTech Network, FinTech Association of Nigeria, Nigeria Economic Summit Group
Industry events.....	Nigeria FinTech Week, The FinTech & Blockchain Summit, Finnovex West Africa
Accelerators & incubators.....	440.ng, Co-creation Hub, Leadpath Nigeria, Startpreneurs

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	39.41
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	39.67
Holds mobile money account (% population aged 15+).....	5.61
Made or received digital payments in the past year (% population aged 15+).....	29.66
Savings at traditional financial institution (% population aged 15+).....	20.55
Savings outside of traditional financial institution (% population aged 15+).....	41.41

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	195.87
Population growth (annual %).....	2.6
Surface area (sq. km) (thousands).....	923.8
GNI, Atlas method (current US\$) (billions).....	384.8
GNI per capita, Atlas method (current US\$).....	1,960
GNI per capita, PPP (current international \$).....	5,710
Primary completion rate, total (% of relevant age group).....	74
Urban population growth (annual %).....	4.2
GDP growth (annual %).....	1.9
Inflation, GDP deflator (annual %).....	10.2
Time required to start a business (days).....	11
Tax revenue (% of GDP).....	na
Domestic credit provided by financial sector (% of GDP).....	21.2
Mobile cellular subscriptions (per 100 people).....	88.2
Individuals using the Internet (% of population).....	42
Net migration (thousands).....	-300
Personal remittances, received (current US\$) (millions).....	24,311
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	1,997
Net official development assistance received (current US\$) (millions).....	3,301.50

GHANA

FinTech Country Profile (Findexable 2020, Partech 2020)

Findexable FinTech 2019 ranking in the world.....	58 (+17 relative to 2018)
FinTech strengths.....	Payments and remittances, Personal finance & Lending, Equity funding
Local FinTechs making the headlines in 2019.....	Bitland, Chipper Cash, NVOICIA, Zeepay
Associations.....	FinTech and Payment Association, Information Technology Association of Ghana
Industry events.....	The Future of Payments, FinTechs & Ecommerce, Digital Banking Summit
Accelerators & incubators.....	Ghana Technology and Business Hubs Network, Impact Hub Accra, Seedstars Ghana, MEST

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	42.28
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	57.72
Holds mobile money account (% population aged 15+).....	38.95
Made or received digital payments in the past year (% population aged 15+).....	49.47
Savings at traditional financial institution (% population aged 15+).....	16.19
Savings outside of traditional financial institution (% population aged 15+).....	34.05

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	29.77
Population growth (annual %).....	2.2
Surface area (sq. km) (thousands).....	238.5
GNI, Atlas method (current US\$) (billions).....	63.36
GNI per capita, Atlas method (current US\$).....	2,130
GNI per capita, PPP (current international \$).....	4,650
Primary completion rate, total (% of relevant age group).....	94
Urban population growth (annual %).....	3.4
GDP growth (annual %).....	6.3
Inflation, GDP deflator (annual %).....	10.2
Time required to start a business (days).....	14
Tax revenue (% of GDP).....	18.3
Domestic credit provided by financial sector (% of GDP).....	26.1
Mobile cellular subscriptions (per 100 people).....	137.5
Individuals using the Internet (% of population).....	39
Net migration (thousands).....	-50
Personal remittances, received (current US\$) (millions).....	3,521
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	2,989
Net official development assistance received (current US\$) (millions).....	1,067.30

UGANDA

FinTech Country Profile (Findexable 2020, Partech 2020)

Findexable FinTech 2019 ranking in the world.....	64 (+10 relative to 2018)
FinTech strengths.....	Payments, Banking infrastructure, Investment and savings
Local FinTechs making the headlines in 2019.....	Yo! Payments, Xente, EZeeMoney
Associations.....	FinTech Association of Uganda, Financial Sector Deepening Uganda
Industry events.....	Africa FinTech Festival – Africa FinTech Network
Accelerators & incubators.....	Afrilab, Hive Colab, Innovation Village, NFT Mawazo, Venture Labs East Africa

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	32.84
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	59.20
Holds mobile money account (% population aged 15+).....	50.58
Made or received digital payments in the past year (% population aged 15+).....	54.69
Savings at traditional financial institution (% population aged 15+).....	12.70
Savings outside of traditional financial institution (% population aged 15+).....	55.85

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	42.72
Population growth (annual %).....	3.7
Surface area (sq. km) (thousands).....	241.6
GNI, Atlas method (current US\$) (billions).....	26.69
GNI per capita, Atlas method (current US\$).....	620
GNI per capita, PPP (current international \$).....	1,970
Primary completion rate, total (% of relevant age group).....	53
Urban population growth (annual %).....	6.2
GDP growth (annual %).....	6.2
Inflation, GDP deflator (annual %).....	3.2
Time required to start a business (days).....	24
Tax revenue (% of GDP).....	14
Domestic credit provided by financial sector (% of GDP).....	17.9
Mobile cellular subscriptions (per 100 people).....	57.3
Individuals using the Internet (% of population).....	23.7
Net migration (thousands).....	843
Personal remittances, received (current US\$) (millions).....	1,230
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	1,337
Net official development assistance received (current US\$) (millions).....	1,940.80

MOZAMBIQUE

FinTech Country Profile

Findexable FinTech 2019 ranking in the world.....	Not ranked
FinTech strengths	Payments, Remittances, Mobile Money
Local FinTechs making the headlines in 2019.....	M-Pesa, M-Kesh, E-Mola
Associations.....	FinTech.mz - Associação das FinTechs de Moçambique
Industry events.....	FSD Mozambique FinTech Week
Accelerators & incubators.....	FinTech Sandbox
FinTech Friendly Rules:.....	Central Bank of Mozambique's FinTech Sandbox (including new FinTechs Mukuru, Zoono, Paytek, Ekutiva, Robobo) since May 2018 with the support of FSD.

Financial Country Profile (Findex 2017)

Holds account at traditional financial institution (% population aged 15+).....	33.00
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	41.67
Holds mobile money account (% population aged 15+).....	21.87
Made or received digital payments in the past year (% population aged 15+).....	34.11
Savings at traditional financial institution (% population aged 15+).....	10.80
Savings outside of traditional financial institution (% population aged 15+).....	32.08

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	29.5
Population growth (annual %).....	2.9
Surface area (sq. km) (thousands).....	786.4
GNI, Atlas method (current US\$) (billions).....	13.59
GNI per capita, Atlas method (current US\$).....	460
GNI per capita, PPP (current international \$).....	1,430
Primary completion rate, total (% of relevant age group).....	52
Urban population growth (annual %).....	4.4
GDP growth (annual %).....	3.4
Inflation, GDP deflator (annual %).....	2.1
Time required to start a business (days).....	17
Tax revenue (% of GDP).....	14.8
Domestic credit provided by financial sector (% of GDP).....	30.7
Mobile cellular subscriptions (per 100 people).....	47.7
Individuals using the Internet (% of population).....	10
Net migration (thousands).....	-25
Personal remittances, received (current US\$) (millions).....	296
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	2,678
Net official development assistance received (current US\$) (millions).....	1,819.80

ANGOLA

FinTech Country Profile

Findexable FinTech 2019 ranking in the world.....	Not ranked
FinTech strengths	Payments
Local FinTechs making the headlines in 2019.....	Kamba Pagamentos Móveis
Associations.....	
Accelerators & incubators.....	LISPA Incubadora FinTech
FinTech Friendly Rules:.....	Central Bank of Angola is directly supporting the LISPA incubator.

Financial Country Profile (Findex 2014)

Holds account at traditional financial institution (% population aged 15+).....	29.32
Holds an account either FinTech and/or at traditional financial institution (% population aged 15+).....	29.32
Holds mobile money account (% population aged 15+).....	0.00
Made or received digital payments in the past year (% population aged 15+).....	24.74
Savings at traditional financial institution (% population aged 15+).....	14.86
Savings outside of traditional financial institution (% population aged 15+).....	38.20

Demographic and Economic Country Profile (WDI 2018)

Population, total (millions).....	30.81
Population growth (annual %).....	3.3
Surface area (sq. km) (thousands).....	1246.7
GNI, Atlas method (current US\$) (billions).....	103.84
GNI per capita, Atlas method (current US\$).....	3370
GNI per capita, PPP (current international \$).....	6,170
Primary completion rate, total (% of relevant age group).....	40
Urban population growth (annual %).....	4.3
GDP growth (annual %).....	-2.1
Inflation, GDP deflator (annual %).....	34.8
Time required to start a business (days).....	36
Tax revenue (% of GDP).....	9.2
Domestic credit provided by financial sector (% of GDP).....	23.6
Mobile cellular subscriptions (per 100 people).....	43.1
Individuals using the Internet (% of population).....	14.3
Net migration (thousands).....	32
Personal remittances, received (current US\$) (millions).....	2
Foreign direct investment, net inflows (BoP, current US\$) (millions).....	-5,732
Net official development assistance received (current US\$) (millions).....	159.40

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