# FINTECH

Latin America 2018

**Growth and Consolidation** 



### **Abstract**

# Report on Fintech in Latin America 2018: Growth and Consolidation

### JEL Code:

#### **Keywords:**

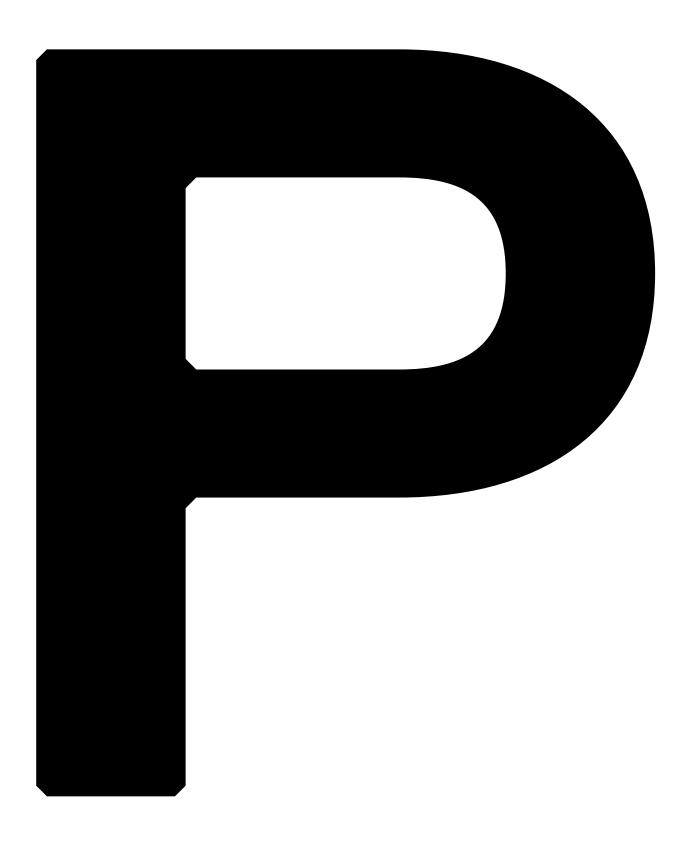
credit scoring, crowdfunding, digital banks, gender, financial inclusion, financial management, financial regulation, Fintech, Latin America, payments, start-ups

This report is the second edition of the study "Fintech: Innovations You May Not Know Were from Latin America and the Caribbean" (IDB, 2017), which offered a comprehensive view of the activity in and development of the Fintech industry in the region. The report describes the evolution and the progress achieved with respect to the measurement and analysis carried out in 2017, and examines new dimensions relevant to the ecosystem. The first chapter provides a snapshot of the sector in the region, highlighting the evolution of the different business segments and the geographical distribution of the start-ups, as well as the state of development and maturity of the ecosystem. It includes new dimensions, such as the situation in Central America, Panama, and the Dominican Republic, as well as an approach to issues such as cybersecurity and start-up failures. The second chapter tackles gender issues and Fintech in three dimensions: women as founders of Fintech companies, women as workers in the Fintech industry, and women as users of Fintech services. The third chapter addresses collaboration between the different actors, how they are organized, and their main programs and initiatives, with special emphasis on Fintech associations in different countries in the region. The fourth chapter discusses the Fintech sector's potential for improving financial inclusion and funding for the productive sector in Latin America. The fifth chapter examines the evolution of regulation and oversight and presents examples and developments in this area. The sixth chapter offers some conclusions about the continuous growth and progressive consolidation in the region's ecosystem.

# **Contents**

Prologue	IDB Finnovista	05 07
Introduction		09
Snapshot of the Fintech Industry: Main Trends for 2018 and Comparison with 2017	Business segments Sub-segmentation Geographic distribution Level of maturity Internationalization Business mortality Main challenges Technology Cybersecurity Employment Investments	12 14 19 28 40 42 46 48 49 51 52 53
Gender Issues in Fintech	Women as Fintech company founders Workforce participation by women in Fintech companies Women as users of Fintech services and prospects for greater financial inclusion The potential of Fintech solutions Interviews	64 66 69 74 77 79
Collaboration in Fintech Ecosystems	Industrial organization Open innovation programs and initiatives Open banking and application programming interfaces MIF's efforts to enhance the Fintech ecosystem to improve inclusion	85 87 104 106 109
Financial Inclusion	Services for SMEs to enhance financial inclusion and productive financing in the LAC region	112 116
Financial Regulation	Overview of regulation in the region Mexico's Fintech Law Policy and regulatory alternatives around the world The role of the Fintech associations What is the perception of Fintech regulation in Latin America and the Caribbean? Regulation scorecard	119 120 122 124 127 128
Conclusions	 Bibliography Acknowledgements	1 <mark>32</mark> 134 137

# **Prologue**



# Prologue by the Inter-American Development Bank

The Fintech industry in Latin America is growing at a rapid pace, and it is at a critical juncture. This fast growth manifests itself not only in numerical terms but also in the degree of interest that this segment has generated. A mere five years ago, the subject of Fintech was mainly absent from the major debates in the region in the public and the private sectors. Two years ago, there was still no accepted measure that could gauge all the emerging financial innovations in Latin America. For the Inter-American Development Bank (IDB), the innovation and new technology start-ups in the financial services industry are vitally important for the future. For this reason, the Bank supported an initiative to address this gap and measure in detail the evolution of the Fintech sector in our region. The result of this initiative was the report entitled "Fintech: Innovations You May Not Know were from Latin America and the Caribbean" (IDB, 2017). This study remains the only attempt to systematically measure the activity of the Fintech industry in the region. The receptivity and the interest generated by that first report have been extraordinary, confirming the growing importance of the Fintech industry at all levels, as well as the need to step up efforts to continue measuring, analyzing, and harnessing this young but dynamic industry.

The IDB Group proudly presents the second edition of "FINTECH: Innovations You May Not Know were from Latin America and the Caribbean" (IDB, 2017), which contains an updated detailed description of the activities of the industry and its evolution with respect to the first assessment. The results, which we invite you to examine in detail, are extremely promising. They describe the dynamic moment that the industry is enjoying, with more than 1,100 companies in the region offering various innovative solutions to Latin American consumers and firms. Beyond the rapid growth in terms of new start-ups, however, there are also noticeable signs of consolidation, which demonstrate the level of maturity of the ecosystem as a whole as well as the growing interest expressed by foreign and local investors, which translates into investment. Furthermore, important trends, such as the emphasis on providing services for small and medium enterprises (SMEs) and segments previously ignored by the traditional financial system, continue to emerge, confirming Fintech's potential to spur development in the region. This rapid evolution has also been observed in the region's public sector, reflected in new initiatives to strengthen public-private dialogue and new regulation. The IDB has also supported progress in the region's Fintech ecosystem by providing technical assistance in various countries to develop public policies and regulation, with a balanced and proportionate approach to the industry. The IDB is also providing technical support in Fintech-related areas in the context of the Pacific Alliance. Integration and harmonization at the regional level are highly significant for the industry's consolidation and growth, and represent an important agenda for the IDB. For this reason, we have launched a new regional public good initiative to help improve financial regulations and policies and build institutional capacity among the actors of the Fintech ecosystem, which include the region's Fintech associations.

Finally, in this edition, we also seek to examine important matters that were not addressed in the first edition, such as cybersecurity and gender at the industry level and in the context of women's financial inclusion. This edition also includes a section on Central America, Panama, and the Dominican Republic, where ecosystems with particular opportunities and challenges are beginning to emerge.

Nearly two years ago we dared to suggest that the Fintech Revolution was here to stay. Today, we not only confirm our prediction; we emphasize the many opportunities that it offers. In general, the prospects are positive and encouraging, although much work remains to be done to achieve equitable development in the industry and to ensure that Fintech's significant potential improves living standards for everyone.

### IDB

### **Prologue by Finnovista**

Following the inaugural report (IDB, 2017), jointly elaborated by the IDB and Finnovista, which described the volume, the development and the maturity of Fintech innovations in Latin America and the Caribbean, this edition examines the progress achieved in the region with regard to the Fintech ecosystem and innovations.

Although the first study was significant due to its scope and depth-until that time, such granular information on the state of Fintech innovations in Latin America had not been published—this edition is even more significant for us. 2018 marks the fifth anniversary of the founding of Finnovista, whose mission is to accelerate Fintech start-ups in Latin America. We work in collaboration with the various actors of the Fintech community to develop and coordinate a Fintech ecosystem in the region. This report is a tool to continue to raise awareness among the different stakeholders that are part of the region's Fintech ecosystem.

Over the past five years, Fintech in Latin America has undergone enormous growth in every sense. Not only has it increased the number of start-ups that operate in the Fintech space and financial institutions that build relationships to collaborate with them, but the diversity of the actors has also widened, with financial system regulators and supervisors, or local venture capital investors taking their places within the ecosystem. Five years ago, it was not apparent that these or other actors were interested in joining or even entering into a dialogue with the Fintech start-ups. But today, these new actors regularly attend conferences, meet-up groups, forums, round tables, and working groups, accompanying and in some cases leading the transformation of the industry in their respective countries, hand in hand with the Fintech start-ups.

Active participation by these new actors has brought about significant regulatory achievements in the past year, such as the approval of the Fintech Law in Mexico, the Draft Decree on Crowdfunding in Colombia, and the public consultation held by the Central Bank of Brazil, to name a few. Regardless of whether these actions impede or boost Fintech innovation in the respective countries, the fact that we have arrived at the point where new regulatory frameworks that recognize innovation in financial services are being debated is in itself an illustration of the enormous progress of Fintech in the region.

The increase in regulatory activity is also the result of the tremendous efforts of the trade associations that have come into being in the region. They have taken the lead in the dialogue and negotiations with regulatory bodies and central banks. Five years ago there were no Fintech associations in the region; today, each country has its own, and there is even a regional grouping that includes the Spanish association.

The greater presence, activity, and collaboration with traditional actors in the financial services industry—banks, payment agencies, insurance companies, and stock exchanges, among others—with Fintech start-ups is a further indicator of the development we are seeing in the region with respect to innovation in this sector. Five years ago, it was unthinkable for anyone to talk about open innovation programs that pursue tangible benefits for the digital transformation of the industry in the form of pilot, proof-of-concept testing, corporate venture capital, and immersion programs. Today, this is the new normal, with local, regional, and international actors establishing a significant presence with the intention of approaching and collaborating with Fintech companies.

Finally, we at Finnovista are only seeing the tip of the iceberg with respect to the activity, innovation and, above all, the impact that we can expect to see as a result of Fintech innovation in Latin America. These first five years of activity have served to establish a platform, raise awareness, and provide the stakeholders with appropriate tools; going forward, these same stakeholders must leverage these platforms and tools, bringing innovation, transformation, and disruption to the Latin American financial services industry. Given that all the parties involved have invested time, money, and other resources in establishing a unified ecosystem, we cannot pass up this great opportunity to have a real impact on the industry and on society. We hope that this report will be useful to the Fintech ecosystem and its continued consolidation in Latin America.

### **Finnovista**

# Introduction



The emergence of new financial companies based on the technological platforms known as Fintech, and its strategic importance for the region prompted the Inter-American Development Bank (IDB) and Finnovista to undertake, in 2016 and 2017, the most comprehensive data-gathering exercise ever conducted on the state of the Fintech industry in Latin America. The result of this research, which also included a survey of young Fintech businesses in 18 countries in the region, was the publication in 2017 of the report entitled "Fintech: Innovations You Didn't Know Were from Latin America and the Caribbean" (IDB, 2017).1 This report is the first and the most exhaustive effort to systematically describe the business activity relative to Fintech in the region. The researchers identified 703 Fintech start-ups in 15 countries that were providing a range of solutions in all the business segments and technologies also seen at the global level, illustrating the emergence of a more innovative and inclusive digital financial services industry in the region.

The 2017 report has become a useful tool for disseminating the innovations underway in the region and their trends. It generated considerable interest in the public and private sectors at the local, regional, and the global level. Given the relevance, usefulness, and importance of this information, as well as the need to continue measuring and analyzing the evolution and dynamic of this industry in Latin America, the IDB and Finnovista once again joined efforts in 2018 to update the 2017 report and to produce this publication, entitled "Report on Fintech in Latin America 2018: Growth and Consolidation".

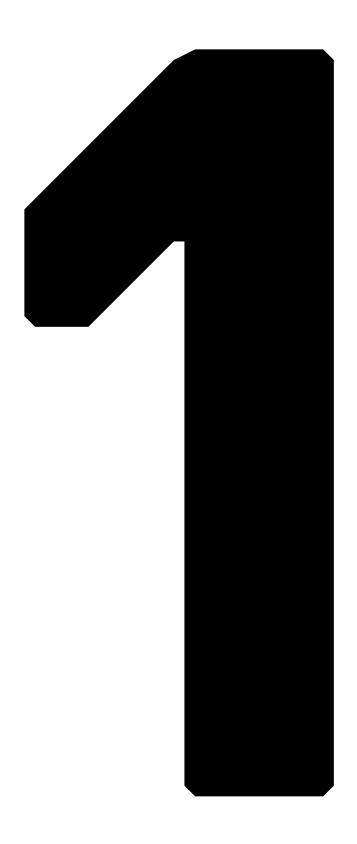
For this report, a survey was conducted among 18 Latin American countries, in which entities at the forefront of developing start-up ecosystems in each country collaborated. A total of 397 Fintech start-ups from 18 countries had answered the survey by the first quarter of 2018. As in the first report, the results of the survey are presented in this update, as well as the findings of exhaustive research by the IDB and Finnovista on different matters. The current report also examines new dimensions, such as gender issues, cybersecurity and ecosystem development in Central America, Panama, and the Dominican Republic. The first chapter provides a snapshot of the sector in the region, highlighting the evolution of the different business segments and the geographical distribution of the start-ups, as well as the ecosystem's development and maturity. This chapter includes new dimensions, such as the situation in Central America, Panama, and the Dominican Republic, as well as an approach to matters

<sup>1</sup> In this paper, the terms "young business" and "start-up" are used interchangeably.

<sup>2</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, and Venezuela.

such as cybersecurity and start-up failures. The second chapter tackles gender issues and Fintech in three dimensions: women as founders of Fintech companies, women as workers in the Fintech industries and, finally, women as users of Fintech services. The third chapter addresses collaboration between the different actors, how they are organized, and their main programs and initiatives, with special emphasis on the Fintech associations in different countries of the region. The fourth chapter discusses the Fintech sector's potential for improving financial inclusion and funding for the productive sector in Latin America. The fifth chapter examines evolution in terms of regulation and oversight and presents examples and progress in this area. Finally, the sixth chapter offers some conclusions about the way in which the region's ecosystem has seen progressive growth and consolidation.

Snapshot of the Fintech Industry: Main Trends for 2018 and Comparison with 2017



In recent years, Latin America has joined the worldwide Fintech revolution, creating innovation and start-up ecosystems that permit the development of new technology start-ups offering highly innovative products and financial services. Many studies have reflected the fervor currently felt in the Fintech sector in the Latin America and the Caribbean (LAC) region in recent years. The LAVCA Trend Watch (2017) showed that the Fintech sector represents 25 percent of the venture capital investment in information technologies in the region; the CB Insights Fintech Trends to Watch report (CB Insights, 2018) revealed that the region surpassed other markets, such as Africa and Australia, in the number of Fintech agreements made in 2017, with 38 investments closed in a single year.

The first edition of the current report, conducted in 2017 by the IDB and Finnovista, identified 703 Fintech start-ups in 15 Latin American countries. A year later, 1,166 Fintech start-ups had been identified in 18 countries of the region. This Figure represents an increase of 66 percent over the last year or, in other words, there are 463 more Fintech start-ups in Latin America and the Caribbean compared to the previous year (Figure 1).

Figure 1
Number of Start-ups
in Latin America



# **Business Segments**

# Where are we in 2018?

As seen in 2017, the Fintech start-ups in Latin America provide a range of solutions throughout different business segments. The 1,166 young Fintech businesses identified in this new edition are distributed among 11 Fintech business segments. Among them, the following three segments are the most representative of the Fintech sector in terms of number of start-ups; together they represent 58 percent of the total number of start-ups identified: payments and remittances, with 285 Fintech start-ups, which constitutes 24 percent of the total; lending, with 208 Fintech start-ups, accounting for 18 percent of the total number; and enterprise financial management, with 181 Fintech start-ups, 15 percent of the total (Figure 2).

Figure 2 Segment Analysis

285 (24.4%)

Payments and Remittances 208 (17.8%)

Lending

181 (15.5%)

Enterprise Financial Management

90 (7.7%)

Personal Financial Management 89 (7.6%)

Crowdfunding

71 (6.1%)

Enterprise Technologies for Financial Institutions



Trading a

Trading and Capital Markets

47 (4.0%)
Scoring,
Identity
and Fraud

ET TUTAL

26 (2.2%) Digital

Banks

Insurance

TUTAN

TUTAN

NEMO

DECUE

TAMEN

53 (4.5%)

Management

ET TUTAN

CUS ET

AMEN

MEN

MEN

MEN

GWLAD

**55 (4.7%)** Wealth

O ME IMP TUTAM ECUS TAMEN S ET I TUTAM ECUS TAMEN S ET I

Others

1166

There is a great need for businesses to obtain the tools to improve their resource management and shift to digital finance.

The size of these three segments is explained to a large extent by the massive penetration of mobile devices in the region, the large numbers of people underserved and/or excluded from the formal financial system, and limitations or inefficiencies in the services offered by traditional financial actors.

The prevalence of mobile payment solutions and remittances is largely due to high penetration by smart devices in the region that, by 2017, had already reached 67 percent (GSMA, 2018) of the population, and to high rates of exclusion. An estimated 45 percent of the region's adults are still excluded from formal financial services by being unable to open a bank account (World Bank, 2017). Furthermore, limited credit availability, which implies high access costs and interest rates when provided by the traditional financial services, has created an opportunity that has given rise to the emergence of new models aimed at providing more efficient and less costly funding solutions for Fintech firms. Finally, the range of enterprise financial management solutions on offer represents a great opportunity in the region given the importance of the small and medium enterprise (SME) sector, which represents approximately 90 percent of companies in Latin America and the Caribbean and which faces the challenge of progressive digitalization. Above all, there is a great need for businesses to obtain the tools to improve their resource management and shift to digital finance.

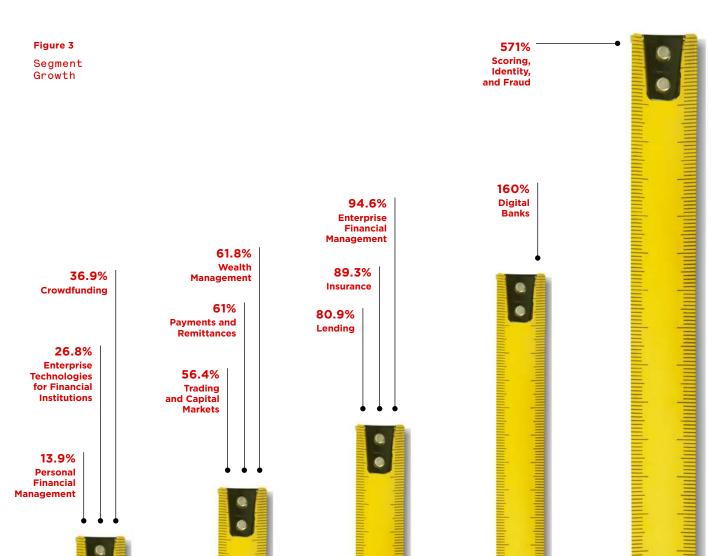
The remaining segments account for a share of less than 10 percent of the total number of start-ups identified, although they all posted growth at above 25 percent over last year, a sign of the traction and dynamism of the region's Fintech ecosystem. These segments include personal financial management (90 start-ups, 8 percent of the total), crowdfunding (89 start-ups, 8 percent of the total), enterprise technologies for financial institutions (71 start-ups, 6 percent of the total), trading and capital markets (61 start-ups, 5 percent of the total), wealth management (55 start-ups, 5 percent of the total), insurance (54 start-ups, 5 percent of the total), scoring, identity, and fraud (47 start-ups, 4 percent of the total), and digital banks (26 start-ups, 2 percent of the total).

**How have** 

When comparing the distribution among the different Fintech segments with regard to the 2017 results, it is noteworthy that the same hierarchical order applies in practically all Fintech segments with respect to the number of start-ups. The sole variation is found in the two final segments, since in 2017 the least significant segment was credit scoring, identity, and fraud, whereas this year the same segment recorded 47 start-ups and surpassed the digital banks segment, which was relegated to last position, with 26 start-ups.

Beyond the size of the sectors, when the percentage growth rate recorded in each one with regard to 2017 is examined, in many cases the strongest growth is not taking place in the segments that currently boast the highest number of start-ups.

First, the growth rates of above 100 percent experienced by the two smallest segments in terms of the number of start-ups: credit scoring, identity, and fraud, which grew 571 percent it increased from 7 to 47 start-ups, and digital banks, with a growth rate of 160 percent achieved by increasing from 10 to 26 start-ups (Figure 3).



Source: Survey IDB and Finnovista (2018

The expansion of the credit scoring, identity, and fraud segment reflects the growing importance of aspects such as cybersecurity in digital transformation, as the higher prevalence of devices connected to the internet and the increase in digital transactions create opportunities for cyber criminals to launch an attack. According to the Cisco 2018 Annual Cybersecurity Report, around 20 billion attacks are recorded every day worldwide, which underscores the need to find solutions to counter them. The increase in the digital banks segment reflects the need to provide banking products and services that attract and address the needs of new generations, as well as the importance of mobile devices for conducting bank transactions.

None of the 11 Fintech segments identified has experienced a contraction since the previous edition of this report; 6 of them have grown between 50 and 100 percent in the last year, a sign of the sector's dynamism. These high-growth segments are: enterprise financial management (95 percent), insurance (89 percent), lending (81 percent), wealth management (62 percent), trading and capital markets (56 percent).

The personal financial management segment has experienced the lowest growth among all the Fintech segments since 2017, with a growth rate of 14 percent. However, in the region's main Fintech ecosystems (Brazil, Chile, Colombia, and Mexico), this segment has always been positioned among the five with the highest number of Fintech start-ups; lower growth, therefore, might be a reflection of market saturation. Even so, the IDB and Finnovista believe that personal financial management will become a key segment in the future, since the desegregation of supply of services provided by Fintech companies will have to be aggregated in the near future in a kind of digital financial services supermarket, and the start-ups in this segment are best positioned to carry out this aggregation. Moreover, personal financial management solutions play a fundamental role in educating and developing financial capacities by offering tools that enable people to manage their spending and their saving more efficiently and intuitively.

### **Sub-segmentation**

# Payments and remittances

Two main factors that have driven the rise of technological solutions for payments and remittances coexist in Latin America: a high proportion of the population is excluded from the traditional financial system, and a high penetration of smartphones. Only 51 percent of the adult population in the region has access to an account with a financial institution. The rate of mobile phone penetration in the region is around 67 percent (GSMA, 2018). Both elements have driven the rise in solutions that enable transactions to be made via mobile devices. The payments and remittances segment has become the most important segment in the region, with 285 start-ups (24 percent of the total) and annualized growth of 61 percent.

A more detailed analysis reveals that payment gateways and aggregators are the most numerous sub-segment (37 percent of the total). It illustrates the underlying need to provide cheaper and more efficient payment solutions at a time when electronic commerce is booming. In the last six years, electronic commerce has tripled its sales in the region (IDC, 2017), closely followed by the mobile payments and wallets sub-segment (also 37 percent of the total), a reflection of the rise in the use of mobile devices for transactions such as personal money transfers, products and/or services purchased via smartphone, and debit or credit card transactions.

The rest of the segment is distributed among other types of solutions including platforms for international transfers and remittances, mobile points of sale (mPOS), and cryptocurrency solutions. Figure 4 illustrates the distribution of the 285 payments and remittances start-ups.

### Figure 4

Sub-segmentation: Payments and Remittances

**37.2%** 

Payment Gateways and Aggregators

36.8%

Mobile Payments and Wallets

9.1%

Mobile Points of Sale (mPOS)

7.0%

Crypto

5.3%

Others

4.6%

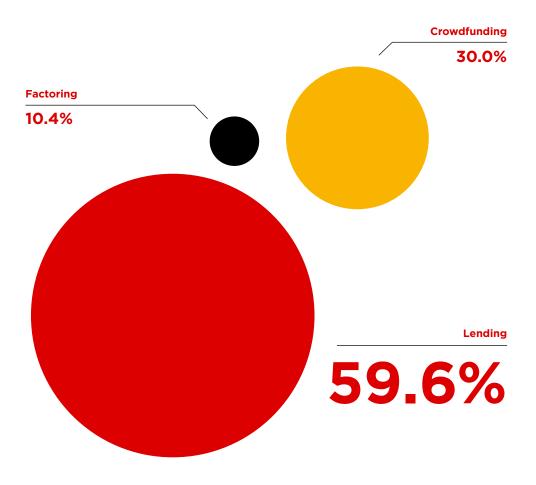
International Money Transfers and Remittances



# Alternative finance platforms

Presently, many people and businesses in the region are unable to access a loan from the traditional financial system. The reasons range from a lack of a credit history to guarantee the borrower, which creates higher transaction costs for financial intermediaries, to problems of information asymmetry, bureaucratic demands, and costs of scaling up, among others. Faced with this situation, solutions have emerged in Latin America using new business models that offer alternative sources of funding for consumers and companies, including (i) lending solutions (60 percent of the total), whether these are balance sheet or peer-to-peer; (ii) crowdfunding solutions (30 percent of the total), and (iii) factoring (10 percent) (Figure 5).

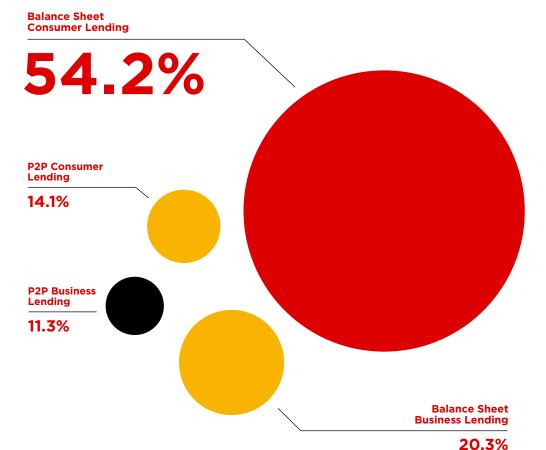
Figure 5
Sub-segmentation:
Alternative Finance
Platforms



Compared with the results obtained in 2017, the sub-segment that has experienced the highest growth is factoring, which has grown by 82 percent. It is followed by lending, with a growth rate of 81 percent, and by crowdfunding solutions, which rose by 46 percent over the previous year.

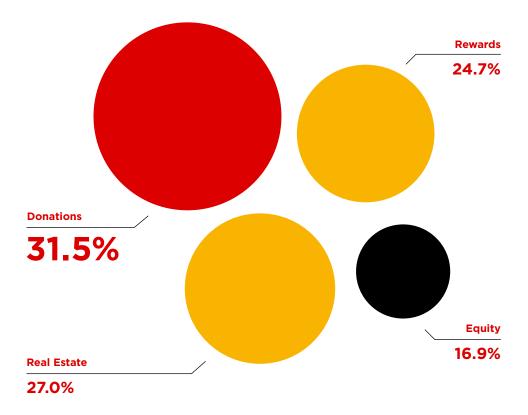
Furthermore, the solutions that finance balance sheet consumer lending remain in the majority (75 percent of the total) with regard to the platforms that operate using a peer-to-peer (P2P) model (25 percent of the total). Furthermore, consumers continue to be the principal target market for lending solutions, as 68 percent of them provide services to consumers, whereas 32 percent focus on businesses. Figure 6 illustrates the distribution of the 177 lending alternatives.

Figure 6
Sub-segmentation:
Lending



Crowdfunding emerges as an alternative finance option in which investors finance projects in exchange for a share of the business or rewards, or they simply make an investment as a donation. In Latin America a higher number of crowdfunding solutions use the latter donation model (32 percent of the total). This is indicative of the surge in the sharing economy, as well as in entrepreneurial culture, which generates more interest in supporting and participating in different kinds of projects. It is followed by the real estate crowdfunding subsegment (27 percent of the total), through which anyone can invest small amounts of money in real estate developments and obtain interest, an activity previously limited to investors with large sums of money. In Mexico, this sub-segment grew by 730 percent over last year. Mexico recently announced that a specific regulation for this sub-segment might be included in the general framework of the Fintech Law approved in March 2018<sup>3</sup> Figure 7 shows the distribution of the 89 crowdfunding solutions.

Figure 7
Sub-segmentation:
Crowdfunding



Source: Survey IDB and Finnovista (2018)

**<sup>3</sup>** Section 5 includes more information about the Fintech Law in Mexico.

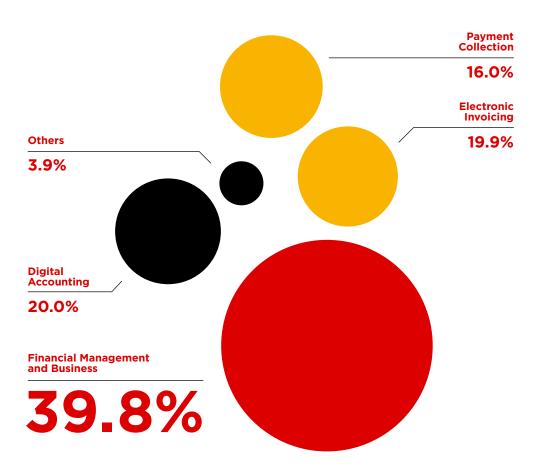
This section shows only the quantity and proportion of Fintech companies that operate in the different sub-segments within the alternative finance segment. A more complete analysis of this material, including the estimated amounts and flows of the transactions, in the publication, can be found in "The Americas Alternative Industry Report: Hitting Stride" (CCFA, 2017), published with the support of the IDB. Toward the end of 2018, a new edition of this report is due to be published with updated information, also with the support of the IDB. Furthermore, and bearing in mind that the information contained in these reports has demonstrated that the Fintech alternative finance companies in Latin America tend to focus on providing services to businesses, especially SMEs, in March 2018 the Cambridge Centre for Alternative Finance (CCFA), with support from the IDB, published the study "Business Access to Alternative Finance: a Deep Dive into Mexico and Chile", which examines the way in which busineses are demanding and accessing these new sources of funding and their reasons for doing so (CCAF, 2018). These studies complement the information contained in the report.

# Enterprise financial management

SMEs are a crucial segment of the economy in Latin America. They are increasingly more likely to digitize their businesses to achieve more efficient and optimal management. In this scenario, the enterprise management solutions that help reduce costs and the time devoted to administrative tasks thanks to technology have increased to a large degree. Within this segment, there are more financial management and business intelligence solutions (40 percent of the total), followed by digital accounting (20 percent), electronic invoicing (20 percent), and payment collection (16 percent) (Figure 8).

If the growth data for each sub-segment are compared to the previous year, the financial management and business intelligence sub-segment and the electronic invoicing segment grew by 125 percent. This increase reflects the need for businesses to digitize their accounting and administrative processes to gain greater control of the firms' financial situation, as well as to adapt to new regulations in countries that impose electronic invoicing, such as Argentina and Chile.

Figure 8
Sub-segmentation:
Enterprise Financial
Management



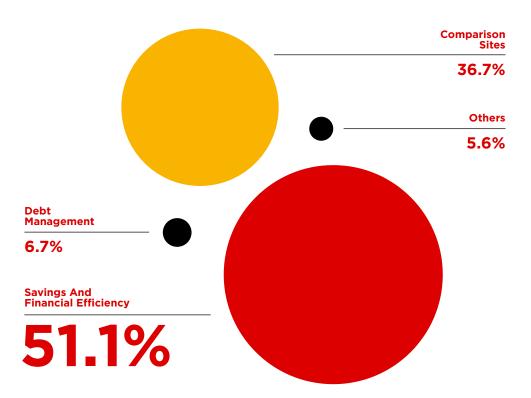
# Personal financial management

The personal financial management segment, the fourth most important segment, in the region with 90 start-ups (8 percent of the total), is particularly important given its potential to improve people's knowledge and financial capacities. It enables people to compare diverse financial services and helps them explore and manage their finances appropriately and intuitively.

The significant presence of savings and financial efficiency solutions is noteworthy. More than half the solutions in this segment offer products and/or services of this type. These solutions provide users with intuitive tools that enable them to monitor their spending and incomes and establish simple savings goals that can help them to build a better financial future. They are followed by comparison sites (37 percent of the total), solutions that allow the user to compare the characteristics of mortgage loans and online shopping processes. In this segment, there is negative growth in one of the sub-segments compared to 2017: the debt management segment, which experienced a contraction of 14 percent when falling from seven to six start-ups.

Figure 9 illustrates the distribution of the 90 start-ups of the personal financial management segment.

Figure 9
Sub-segmentation:
Personal Financial
Management

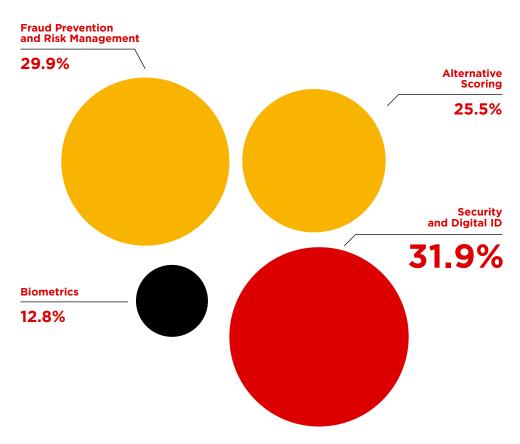


# Credit scoring, identity, and fraud

Despite its recent emergence in the region, the scoring, identity, and fraud segment experienced the highest growth over the last year, increasing by 571 percent due to the increase in the number of start-ups from 7 to 47. This growth reflects the need to adopt technological solutions to address the risks associated with greater digital ecosystem development, such as cyberattacks and internet fraud. For example, in 2017 alone, Latin America registered 677 million cyberattacks, an increase of 59 percent over the previous year (NovaRed, 2018).

In this scenario, security solutions and solutions aimed at preventing fraud and managing risk account for 60 percent of the total for this segment. Specifically, fraud prevention and risk management solutions constitute 30 percent of the total, whereas those relating to digital security and identity are a further 32 percent of the total. They are followed by scoring alternatives (26 percent), a reflection of the need for solutions that provide a credit history to the different funding platforms, and biometrics (13 percent). Figure 10 depicts the distribution of the 47 startups identified in the scoring, identity, and fraud segment:

Figure 10
Sub-segmentation:
Scoring, Identity,
and Fraud



## **Geographic Distribution**

# Where is Fintech activity concentrated?

Figure 11
Distribution
of Start-ups
by Country

The 1,166 Fintech start-ups identified in this report are distributed throughout 18 countries in Latin America, a sign of the broad geographic scope that the sector has acquired, although 86 percent of the Fintech activity in the region is concentrated in five countries: Brazil, with 380 Fintech operational start-ups, 33 percent of the total, Mexico, with 273 Fintech start-ups, accounting for 23 percent of the total, Colombia, with 148 start-ups, 13 percent of the total, Argentina, with 116 start-ups identified, which represents 10 percent of the total, Chile, with 84 Fintech start-ups in the country, 7 percent of the total.

The following four countries individually represent between 1 and 5 percent of the total: Perú, with 57 Fintech start-ups, represents 5 percent of the total, Ecuador, with 34 start-ups identified, 3 percent of the total, Uruguay, with 28 start-ups, which accounts for 2 percent of the total, Venezuela, with 11 Fintech start-ups, 1 percent of the total.

Figure 11 illustrates the distribution of these nine countries. The remaining 3 percent is distributed among the following countries: Bolivia, Costa Rica, Dominican Republic, El Salvador, Honduras, Guatemala, Nicaragua, Panama, and Paraguay.

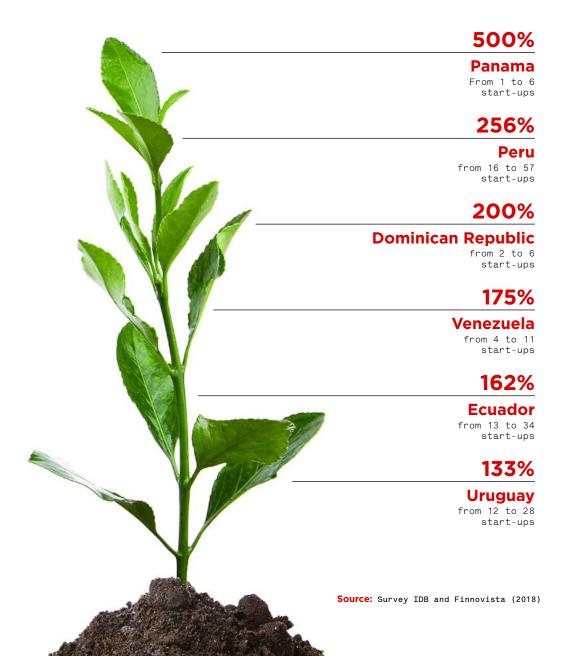


# How has each country evolved since 2017?

If the growth in the region's Fintech ecosystems is compared to the number of start-ups identified in 2017, the countries can be grouped according to their rate of growth into those with very high growth (above 100 percent), high growth (above 50 percent), medium growth (between 0 percent and 49 percent), and negative growth (below 0 percent).

Countries that experienced very high growth (above 100 percent) were found to have emerging ecosystems with a limited number of start-ups (Figure 12). Likewise, financial innovation is broadening its horizons and penetrating new, immature markets with a wide range of opportunities to explore.

Figure 12 Growth Above 100%



The following countries have recorded high growth (above 50 percent), and among them are the majority of the largest Fintech ecosystems in the region (Figure 13).



Chile and Guatemala both posted medium growth (below 50 percent) over the last year, growing by 29 percent and 33 percent, respectively. Only Paraguay had negative growth since the previous edition of this report. Over the last year the number of Fintech start-ups fell from 5 to 2, a contraction of 40 percent.

Are there differences and/or similarities among the three main ecosystems?

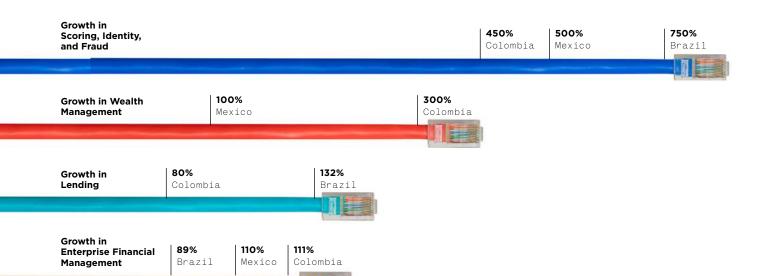
If the three major Fintech ecosystems in the region (Brazil, Colombia, and Mexico) are compared, significant differences are found, but there are also similarities between them. First, in all three countries, payments and remittances, lending, and enterprise financial management are the three Fintech segments with the highest number of start-ups. However, there are also slight variations. Whereas payments and remittances is the largest segment in Brazil and Colombia, in Mexico the lending segment occupies the first position. Furthermore, although the personal financial management segment is positioned among the five main segments in all the three countries, it did not grow more than 21 percent in any of them.

In terms of growth in the number of start-ups since 2017, there are also significant differences and similarities among the region's three main Fintech ecosystems. In all three countries the credit scoring, identity, and fraud segment posted the highest growth over the previous year, growing by 750 percent in Brazil, 450 percent in Colombia, and 500 percent in Mexico. These increases are a sign of the market's need to incorporate solutions that can reduce the risks associated with technological development. Furthermore, the enterprise financial management segment is the other one positioned among the four highestgrowing segments in the three countries, with an increase of 89 percent in Brazil, 111 percent in Colombia, and 110 percent in Mexico. Finally, two segments are observed among the four segments with highest growth in two of the three main ecosystems: lending, with growth of 132 percent in Brazil and 80 percent in Colombia, and wealth management, with growth of 100 percent in Mexico and 300 percent in Colombia (Figure 14).

Source: Survey IDB and Finnovista (2018)

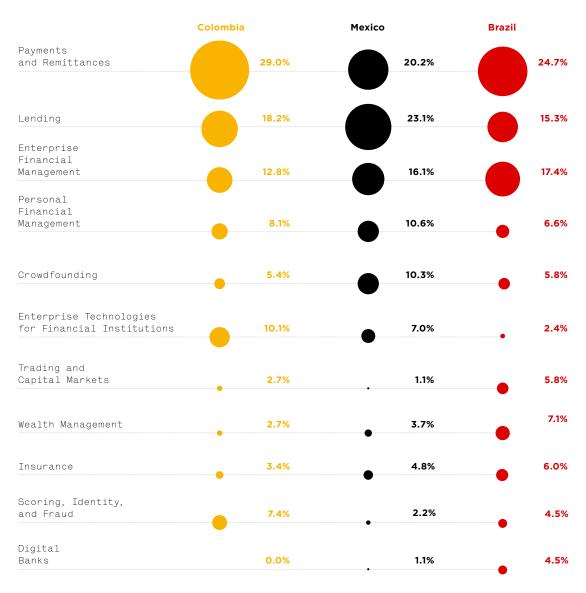
Figure 14

Growth by Segment of the Three Main Ecosystems



There are also some differences with regard to the segments that have grown most strongly over the last year in the three main ecosystems. In Brazil, the digital banks segment experienced 183 percent growth, with the number of Fintech start-ups increasing from 6 to 15 in a single year. However, this segment grew hardly at all in Mexico and Colombia. This may in part reflect difficulties in the Brazilian banking system in attracting and addressing the needs of new generations, as well as the growing importance of the smartphone among the population in making bank transactions. The opposite occurs with the enterprise technologies for financial institutions segment. While this segment grew in Mexico and Colombia grew by 280 percent and 15 percent, respectively, in Brazil it shrank by 31 percent over the previous year (Figure 15).

Figure 15
Distribution by
Segment of the Three
Main Ecosystems



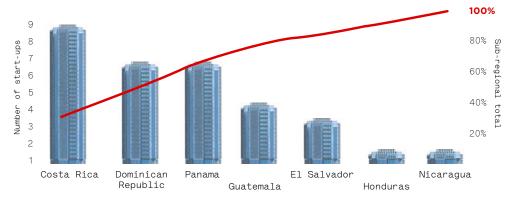
# What is happening in Central America, Panama, and the Dominican Republic?

#### Figure 16

Number of Start-ups and Total Subregional Percentage

#### The ecosystem in general

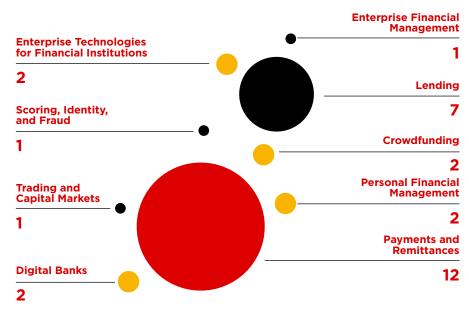
The countries of Central America, Panama, and the Dominican Republic have not stood idly by during the wave of Fintech innovation. Each has undertaken initiatives to promote the development of the ecosystem. To date, 30 Fintech companies in Central America, Panama, and the Dominican Republic have been identified. Costa Rica has the highest concentration of Fintech companies (9), followed by Panama and the Dominican Republic, with 6 each. These are followed by Guatemala (4), El Salvador (3), Honduras (1), and Nicaragua (1) (Figure 16).



Source: Survey IDB and Finnovista (2018)

The highest number of start-ups are in payments and remittances (12) and lending (7). The rest of the Fintech companies in Central America and Dominican Republic belong to the following segments: enterprise technologies for financial institutions (2), digital banks (2), personal financial management (2), and crowdfunding (2).

Figure 17 Number of Start-ups by Segment



Source: Survey IDB and Finnovista (2018)

The number of Fintech firms in a given country is positively correlated with its level of development. However, the most commonly used indicators to measure level of development, such as per capita GDP, are insufficient to explain the phenomenon. For example, Costa Rica leads the group with regard to the number of Fintech companies, but it does not have the highest per capita GDP (Panama does); furthermore, the gaps in GDP between countries are not always equal to the gaps in the number of Fintech companies. In addition, it is likely that better institutions encourage financial development in general, and Fintech in particular, although evaluations of a country's level of institutional development are not always consistent with Fintech development. For example, although Costa Rica leads the group in various indicators that comprise the World Bank Governance Index, in line with its position at the top of the table in number of Fintech start-ups, the Dominican Republic and Panama, which have the same number of Fintech companies, score differently on the Rule of Law and Government Effectiveness indicators. This suggests that although the level of economic and institutional development is associated with the level of financial and Fintech development in particular (and that, therefore, no wide divergence between one and the other should be expected), this does not imply that the countries cannot find opportunities to make progress in some Fintech areas, even when they have yet to achieve higher degrees of development.

To better understand the current state of the ecosystem in the Central American region and the results of the survey, two key actors were interviewed: (i) Ernesto Leal, President of the Central America and the Caribbean Fintech Association, which was founded to serve the needs and boost the potential of Fintech companies in the region, as well as reduce costs for the excluded or underserved population; and (ii) Felipe Echandi, Founder of PanaFintech, a non-profit entity that seeks to educate the ecosystem's stakeholders, energize the ecosystem by supporting the development of new projects, and participate as an honest broker in regulatory discussions.

#### State of development

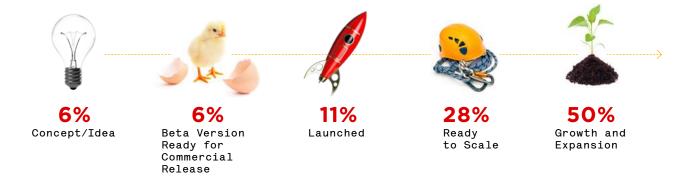
Analysis of the state of development of Fintech in Central America, Panama, and the Dominican Republic reveals an ecosystem still in the development phase, but with tremendous potential due to the need to improve digitization of the sector and financial inclusion for people and businesses. The main characteristic of Fintech in the region is iits inclusivity, and in many cases the mission of companies in the sector is to provide access to financial services to those who lack it. They are, in essence, disruptive innovation processes, in which the businesses "compete" against non-consumption, in segments of the market not served by the traditional financial system. If they are successful, these businesses will, in turn, facilitate the emergence of others that use these new financial services as intermediate inputs, which can also provide other (real) services to currently excluded segments of the population.

According to Ernesto Leal, an incipient market compensates for its sluggish offering of opportunities by the high profitability and sustainability of its start-ups. This is reflected to a large extent in the existence of Fintech companies that have been operating for several years. According to the survey, 44 percent of the Fintech companies in these countries have been trading for three years or more (that is, they were incorporated in 2015 or before).

In terms of the firms' level of development in the countries that responded to the survey, half are already in the mature stage, in growth and expansion, 28 percent are ready to scale up, and 11 percent are at the demo or prototype stage (Figure 18).

Figure 18

Development Stage of Fintech in Cental America, Panama and Dominican Republic



There are important differences among these countries; for example, while Costa Rica is more technologically developed and has the human talent necessary for these types of start-ups, these factors in other countries are more challenging. Nevertheless, the lack of human capacity in this area is prevalent throughout Latin America.

#### Relationship between key actors of the financial ecosystem

As in any incipient ecosystem, progress depends to a large degree on the reaction and openness of the actors in the traditional industry. Presently, the relationship between the start-ups and key actors of traditional financial services is still ambiguous. According to Felipe Echandi, in Panama some projects act as mechanisms of collaboration with the traditional industry by offering open platforms so that any bank can connect to improve the range of bank products on offer, such as online lending platforms, whereas other start-ups in other segments are seen as competitors. In general, although the majority of the financial institutions in these countries follow the development of the ecosystem with interest, they still lack a clear posture of openness and collaboration with Fintech companies, as they are still reluctant to embrace initiatives that present different and potentially disruptive business models. On the other hand, many institutions decide instead to develop innovative solutions internally. Sometimes, independent business units are established that enjoy more freedom (and fewer fixed costs) with the sole purpose of developing these technologies without being subject to the needs and restrictions imposed by the parent corporation. Furthermore, regardless of whether there are different types of banks with an appetite for innovative businesses and that would be willing to develop them or, at least, to accompany them, their participation in such a venture is conditioned by low risk tolerance (either their own or induced by market conditions and other regulatory, contractual, or commercial relationships, such as the limitations imposed by correspondent banks).

The survey also queries the views of Fintech companies on the state of collaboration with the traditional industry. The aggregate results for the countries studied confirm this appreciation. Sixty-one percent of the companies perceive scant willingness to collaborate between the Fintech ecosystem and the financial institutions, whereas 11 percent fail to perceive any willingness to collaborate.

In general, no clear strategy for open collaborative initiatives can yet be discerned among the majority of the traditional financial institutions in these countries. While some banks have created laboratories of innovation and shown interest, this interest has yet to materialize in concrete results.

#### Main challenges

According to the survey, for 55.6 percent of the Fintech companies in these countries, the main challenge for 2018 is scaling up, whereas for a third (33 percent) it is fundraising. Although the proportion of companies that identify scaling up as the chief current challenge is in line with the general trend in Latin America (see the section on major challenges), the proportion that identifies as the financing as the major challenge is three times greater in these countries than for the rest of the Fintech companies of Latin America, where only 12.6 percent thus identified it. In effect, the survey suggests that only half of the companies in Central America, Dominican Republic and Panama have received investment or funding, whereas 61 percent claim to be actively seeking it.

With regard to regulation, 40 percent of the companies in these countries indicate that there is no specific regulation and that one is required, whereas only 28 percent consider that the current regulation is adequate for its business segment. In terms of the perception of openness during dialogue with regulators, 44 percent finds strong openness, in contrast with the 39 percent that claim it is weak and the 17 percent that report no openness whatsoever.

According to Ernesto Leal and Felipe Echandi, despite progress, the main challenges facing the Fintech ecosystem with respect to sustainable development are in the following areas:



Regulatory clarity: Although there is generalized interest and openness among many of the regulators, there is presently a perceived lack of clear channels for bringing initiatives such as regulatory sandboxes to fruition, as well as for presenting initiatives that would enable an adequate regulatory and oversight framework to be established. The role of the trade associations and the working groups is vitally important for promoting dialogue with the regulator and collaborating in the production of best practice manuals, with a view to achieving transparency and clarity in ecosystem regulation.



Lack of access to capital markets, specifically to seed capital or a series of funding rounds. These countries' venture capital options and stock markets are not particularly strong, which means that start-ups must depend on angel investors or family offices that are managed without investment vehicles with clearly defined verticals. Furthermore, it is important to increase leverage in new technologies that enable new sources of funding to be opened more easily and clearly for start-ups.



**Procedures and requirements:** There are still many obstacles to starting operations, which causes delays in setting up a business. The main challenge faced by Fintech start-ups is opening bank accounts.



**Talent:** Companies find it difficult to build the initial team. They must continue to depend on foreign talent, which therefore means competing with other markets.

In Panama, the government approved the bill on Modernization of the International Financial System, which seeks to introduce new solutions and services to strengthen supply and boost Panama's competitiveness as a platform for financial services. This draft legislation contains various components that relate to Fintech, mainly through four aspects:

- 1 Creation of a Special Regulatory Framework for Supporting Innovation, or regulatory sandbox, under which Fintech start-ups can apply independently.
- 2 Definition of the role of specialized financial institutions (SFIs), with authority to open and manage payments accounts, make transfers and money remittances, and issue electronic money, among other new financial licenses
- **3** Regulations applicable to collective financing centers or crowdfunding platforms.
- 4 Information and clarity regarding initial coin offerings (ICO) and the requirements for their registration with the Superintendency of the Stock Market.

The Fintech ecosystem in Central America and the Dominican Republic is a dynamic environment where significant progress is being made in terms of information and consolidation of the structures that will potentially enable new Fintech projects to be developed. Specifically, Ernesto Leal expects the number of start-ups to double in a year. For this to happen, the business models must be validated and become more sustainable. Regulations must become clearer, and access to capital markets enhanced. Once companies have been validated at the local level, the next step would be to internationalize them, as the domestic markets in Central America, Panama and the Dominican Republic are too limited to scale up the projects.

Governments must support the Fintech ecosystem and its efforts to drive a digital agenda that develops the structure needed to foster the development of the business environment and better financial services for its citizens.

### **Level of Maturity**

The Latin American Fintech ecosystem is engaged in a process of consolidation. It is still a long way from the level of maturity observable in other ecosystems such as London or Singapore, where the wave of financial innovation arrived many years before. Even so, when evaluating the level of maturity of the region's Fintech start-ups, it is evident that the ecosystem has many start-ups in advanced stages of development, that is, in states of growth and expansion and ready to scale up. In the region overall, 64 percent of companies have already reached advanced stages of development; 37 percent are already in growth and expansion, whereas 27 percent of them are ready to scale up. Only 20 percent of the start-ups are still in the early stages of development (concept/idea, demo/prototype, or beta versions ready for commercial release) and 17 percent have already released their product into the market (Figure 19).

Figure 19
Level of Maturity
of Start-ups
in Latin America

their product into the market (Figure 19).

37.3%

Growth and Expansion

26.5%

Ready to Scale



16.6%

Launched

14.1%

Beta Version Ready for Commercial Release

4.5%

Demo/Prototype

1.0%

Concept/Idea

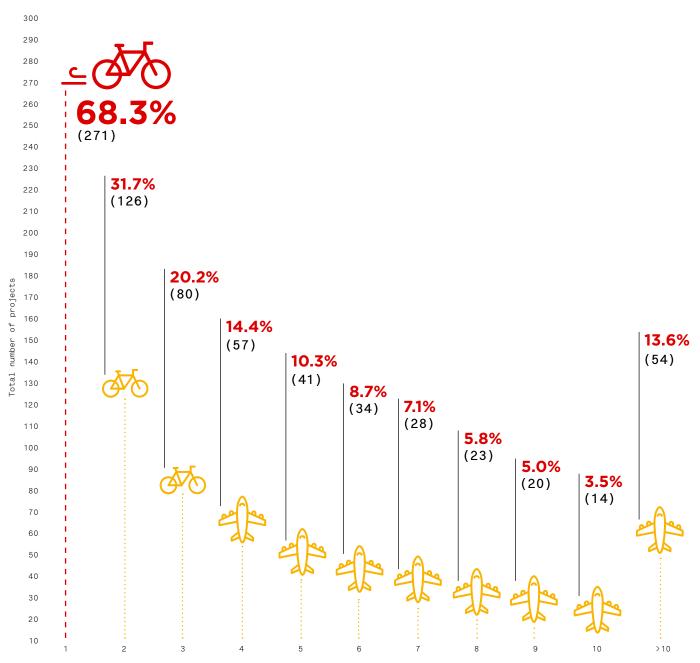
Source: Survey IDB and Finnovista (2018)

Furthermore, it is noteworthy that in the region's five most important ecosystems the percentage of start-ups in advanced stages of development (growth and expansion, and ready to scale up) surpasses 50 percent: Brazil (78 percent), Argentina (71 percent), Chile (64 percent), Mexico (60 percent), and Colombia (55 percent). Colombia and Chile host ecosystems whose level of start-up maturity is more evenly spread among the stages of growth and expansion, ready to scale up, and the beta version ready for commercial release.

The number of start-ups that have internationalized their operations is still low compared to their level of maturity. In particular, only 32 percent of the start-ups interviewed state they have expanded their operations beyond their national borders, compared to the 68 percent that have still not done so (Figure 20). Of the 126 start-ups that claim to have internationalized their operations, 32 percent state that they operate in two countries, 20 percent in three countries, and 14 percent in four countries. Fourteen percent of the start-ups surveyed report that they operate in more than 10 countries.



Figure 21
International
Expansion by
Number of
Countries



Number of countries to which operations have been expanded

Despite the fact that that number of companies that have internationalized is still relatively low, a high proportion have done so even beyond the Latin American region (Figure 22).



The majority of Fintech start-ups that opt to internationalize outside the region do so in the United States; 47 percent of them report that they operate in that country. The next-largest destinations are Europe, where 35 percent of the Latin American Fintech start-ups already operate, and Asia, into which 19 percent of the Fintech start-ups have expanded (Figure 23).

Figure 23
Main Destinations
Outside Latinoamerica

18.7%

ASIA 34.7%
EUROPE
UNITED
STATES
OF 46.7%
AMERICA

Various studies estimate that nine out of every ten start-ups fail to survive beyond three years due to lack of funding, strong competition, or the inability to adapt models already proven to be successful to a different target public. Therefore, when evaluating the evolution and maturity of the region's Fintech market, it is vitally important to study the start-up failure rates over the last year.

Of the 703 Fintech start-ups identified in the first edition of the current report, 85 have ceased trading in the last 12 months, which represents a business failure rate of 12 percent.

# Which segments have experienced the highest failure rates?

Of the 11 Fintech segments considered in the current report, the following 5 experienced the highest failure rates in 2017:



Personal financial management and crowdfunding, both with a failure rate of 17 percent.



Wealth management, with a failure rate of 15 percent.



Scoring, identity and fraud, and insurance, both with a failure rate of 14 percent.

Personal financial management experienced the lowest growth rate (13 percent) over last year. It also has the highest failure rate, which might indicate fierce competition and market saturation or the difficulty faced by entrepreneurs in finding a viable and sustainable business model that would enable them to scale up.

Meanwhile, the segments that suffered the lowest failure rates, both below 10 percent, are the enterprise financial management segment and the trading and capital markets segment. The low failure rate in the enterprise financial management segment reflects the strength of the SMEs sector and the market demands for access to solutions that provide more efficient management for these types of companies. The low failure rate in the trading and capital markets segment is a sure sign of the increasing sophistication and maturity of stock exchanges in Latin America.

Analysis of the failure rate among countries reveals that that the country that suffered the highest start-up failure rate in 2017 is Guatemala, with a failure rate of 33 percent, followed by Peru, with a failure rate of 19 percent. Behind them are two of the three biggest ecosystems in the region—Brazil and Colombia—both with failure rates of 14 percent. These figures are indicators of the level of competition in the financial sector when it comes to launching innovative and technological solutions into the market.

### **Main Challenges**

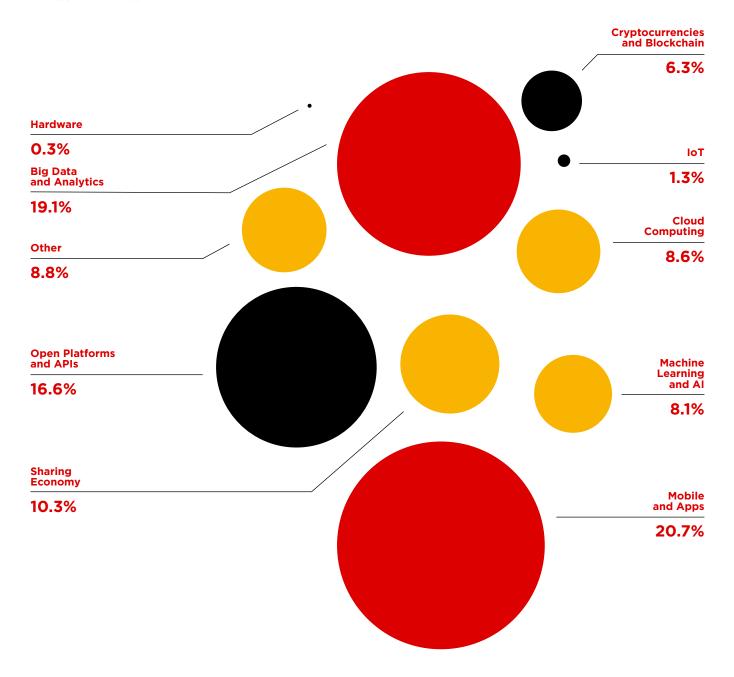
Young companies face various challenges, and Fintech start-ups are no exception. As part of the survey, the region's Fintech companies were asked what their main challenge was in 2018. Nearly 56 percent of them reported that scaling up was their greatest challenge for the coming year, followed by successfully launching the product (14.6 percent) and access to funding (13.6 percent). These trends can be explained to a large extent by the differences in the level of maturity of the firms that make up the ecosystem. For example, the large majority of companies stated that their challenge is to successfully launch a product coincide with those companies that are still in early stages of development, such as beta version (45 percent) and demos (17 percent). Similarly, of those that claim that scaling up is the biggest challenge, 46 percent have taken their product into growth and expansion, and 32 percent are ready to scale up. Finally, the survey suggests that, of those companies whose principal challenge is to scale up, 68 percent are actively seeking financing.

### **Technology**

Analysis of the main technologies on which the products and/or services are based reveals that three technologies stand out: mobiles and applications (21 percent), big data and analytics (19 percent), and application programming interfaces (APIs) and open platforms (17 percent) (Figure 24). These data reaffirm the trend in the use of mobile devices for financial transactions and operations, as well as the growing importance of the use of data to improve and adapt products and/or services to the specific needs of the consumer. Furthermore, the high incidence in the use of APIs and open platforms reflects the digital transformation underway in the financial sector toward an open banking system in which new consumer needs are emerging. Consumers are demanding simpler and more instantaneous services, as well as greater transparency in the treatment of personal data.

To satisfy these new market demands, there should be better collaboration between Fintech start-ups and corporate entities so that both are able to cut their learning curve, reduce costs, and avoid risk in launching their innovations into the market. The high incidence of open banking initiatives in the region is positive news for the Fintech ecosystem, as it reveals the willingness of traditional financial services to collaborate with the new actors entering the market. The highest levels of open banking are found in Argentina (33 percent of the start-ups say their products are based on this technology), followed by Chile (29 percent) and Brazil (26 percent).

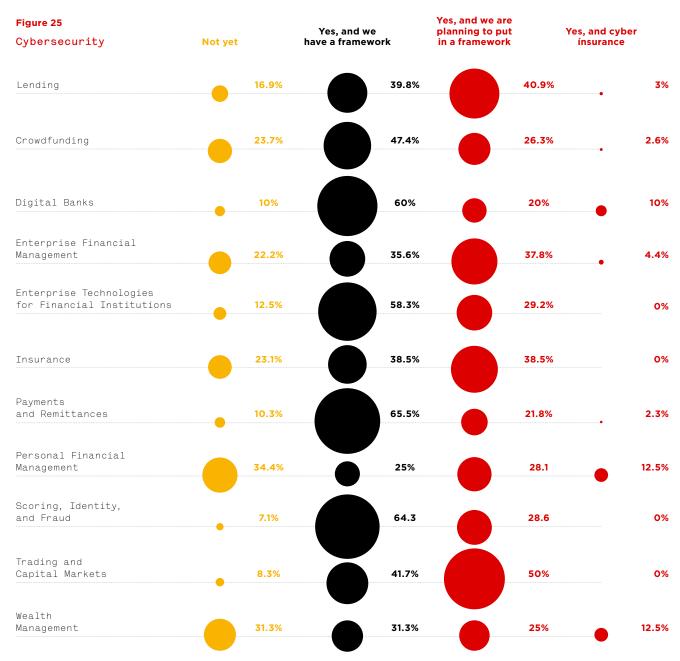
Figure 24
Main Technologies
in Latin America



### Cybersecurity

In Latin America, as in other regions, the expansion in recent years of the use of information and communication technologies (ICTs) carries with it greater vulnerability and exposure to cyberattacks. On average, approximately 80 percent of the Fintech companies in Latin America identify cybersecurity as a threat to their companies. With regard to preparedness, nearly half (47 percent) of the region's Fintech start-ups already have a contingency plan in place in the event of incidents. 32 percent are planning to draft a contingency plan or system, and 4 percent have already taken out cybersecurity insurance (Figure 25).

If the perception of the cybersecurity risk and the state of preparedness to deal with it are examined in detail, it becomes clear that two out of three companies in the payments, digital banks, and credit scoring, security, and fraud segments already have contingency plans for the event of incidents and/or cybersecurity insurance. The Figure below shows the specific numbers for each business segment.

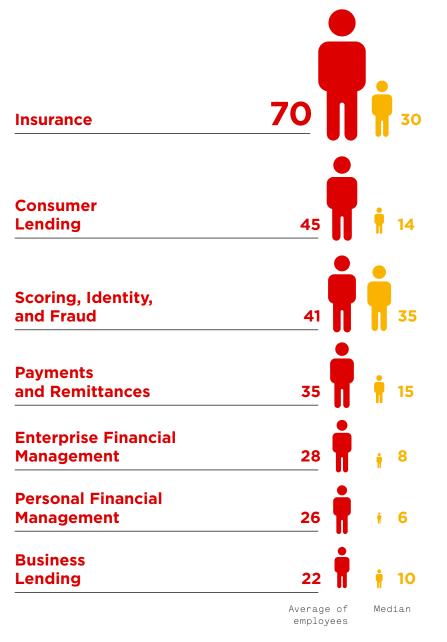


Source: Survey IDB and Finnovista (2018)

### **Employment**

If all the companies that answered the survey are considered, Fintech companies employ on average 32 people. There is, however, wide disparity in the size and maturity of the companies, reflected in the fact that the median is just 10 employees. Approximately half the Fintech firms in Latin America have 15 or fewer employees. Brazil stands out, where the average is 55 employees, followed by Colombia, with 50 employees (Figure 26). When examining the business segments in detail, the data suggests that the insurance, consumer lending, and credit scoring, identity, and fraud segments have, on average, more employees.

Figure 26
Employment



Source: Survey IDB and Finnovista (2018)

In recent years, the economic recovery in many Latin American countries has brought renewed investment. Since 2007, between five and ten new actors entered the Latin American investment market every year, according to a study carried out in 2016 (LAVCA, 2016) by the Aspen Network of Development Entrepreneurs (ANDE), in collaboration with the Latin American Private Equity and Venture Capital Association (LAVCA) and LGT Impact Ventures. Furthermore, in 2017, the volume of private capital and venture capital investment in start-ups in Latin America rose to US\$8.4 billion in 424 transactions, according to the latest LAVCA (2018) report, which represents a record figure in the number of transactions since 2013. Moreover, the presence of foreign investors has more than doubled since 2013, with 25 international investors making their debut in Latin America in 2017.

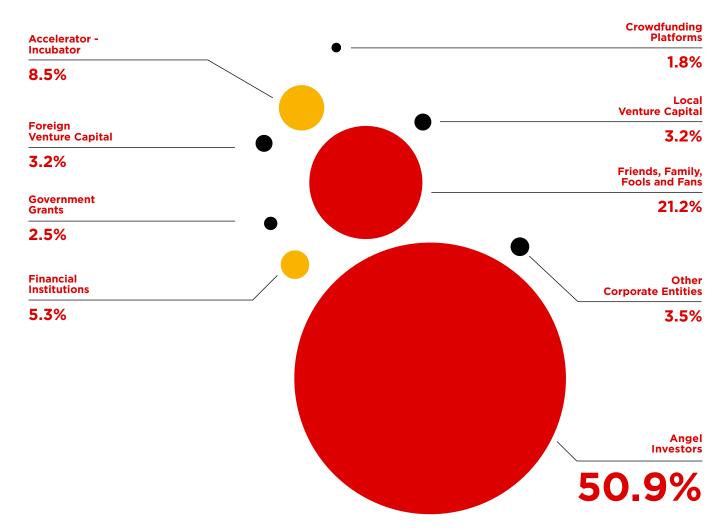
Venture capital investments have once again broken records in the region, with 249 transactions, amounting to a total investment of US\$1.1 billion, more than double that of the previous year. Eighty-nine percent of the capital invested was earmarked for the information technologies (IT) sector. Within it, the Fintech sub-sector attracted the highest numer of investments, closing at 59 investments. Although Fintech investments in Latin America fell by 39.4 percent in the fourth quarter of 2016 and the second quarter of 2017, in the third and fourth quarters of 2017 the amount of funding raised hit record levels. Latin American fintech firms raised US\$430 million.

The data obtained from the survey of 397 Fintech start-ups in Latin America shows that 63 percent claimed to have received external funding or investment compared to the 34 percent that stated they had not enjoyed access to external sources of funding, while the remaining 3 percent failed to indicate what their situation was in relation with getting investment. In terms of the funding received, of the 252 start-ups that confirmed they had received external investment, 53 percent claimed to have received less than US\$100,000 in the previous year and 26 percent between US\$100,000 and US\$500,000. That is, 79 percent of the start-ups received less than US\$500,000, a reflection of the incipient stage of investment in start-ups in Latin America. Meanwhile, 10 percent confirmed having received between US\$500,000 and US\$1 million, a further 10 percent between US\$1 million and US\$5 million, while only 1 percent claimed to have raised more than US\$5 million in third-party financing.

<sup>4</sup> In this paper, the terms "venture capital" and "risk capital" are used interchangeably.

Figure 27 Origin of Funds

When asked about about the origin of the funds, 51 percent of the start-ups responded that they had received funding from angel investors, 21 percent from the source known colloquially as the 3Fs (friends, family and fools), 9 percent from accelerators and/or incubators, 5 percent from financial institutions, and 2 percent from the government (Figure 27).



Source: Survey IDB and Finnovista (2018)

Of the Fintech start-ups interviewed, 71 percent stated they were actively seeking investment at the time they took the survey, compared to the 29 percent that claimed they were not seeking external funding. Of this 71 percent, 56 percent claimed to be seeking investment in exchange for the concession of a package of shares, whereas 15 percent confirmed they were attempting to raise funds by borrowing.

## Which countries managed to attract investors' attention?

According to the results of the survey, there are slight deviations between the investments obtained by the Fintech start-ups in the region's nine main ecosystems. The countries with the highest percentage of start-ups that confirmed they had received external financing were Chile, where 88 percent of companies affirmed having obtained financing from third parties; Brazil, where 78 percent of the Fintech start-ups received external financing; Venezuela, with 67 percent; Mexico, where 65 percent of the Fintech start-ups accessed external financing; Argentina, where 63 percent of them responded in the affirmative; Peru, with 61 percent; Colombia and Uruguay, both with 53 percent; and Ecuador, where 50 percent acknowledged receiving third-party financing. Meanwhile, in El Salvador, Honduras, and Paraguay, none of the Fintech start-ups identified confirmed they had received financing or investment from third parties.

With regard to venture capital investments, according to the LAVCA Industry Data and Analysis (LAVCA, 2018) report, in 2017, Brazil positioned itself as the major market for venture capital investments in Latin America, capturing US\$859 million through 113 agreed operations. One of the most outstanding venture capital investments in 2017 in Brazil was the Series C round, valued at US\$55 million in the Creditas credit platforms, led by Vostok Emerging Finance and with the participation of Kaszek Ventures, Quona Capital, QED Investors, Endeavor Catalyst, the Corporación Financiera Internacional, Naspers, and Santander InnoVentures.

Colombia is the second largest venture capital market after receiving US\$96 million through 18 investments, whereas Mexico raised US\$80 million through 59 transactions. In Mexico, the Series B investment is worth highlighting, led by the International Finance Corporation, with US\$10 million invested in the Konfio credit platform, with the participation of QED Investors, Kaszek Ventures, Jaguar Ventures, Quona Capital and Accion Venture Lab, as well as US\$7.5 million raised through another credit platform, kubo.financiero, led by Bamboo Finance and with the participation of Endeavor Catalyst, Monex, KuE Capital, Alta Ventures, Capital Invent, Vander Capital Partners and Wayra.

### What were the most outstanding investments of 2017?

Startup (country of origin)	Segment	Investment	Investors	Date
Nubank (Brazil)	Digital Banks	Reais \$250 million	Credit Line from FIDC (Fundo de Investimentos en Direitos Creditórios)	December 2017
ContaAzul (Brazil)	Enterprise Financial Management	US\$100 million (Series D)	Tiger Global, Endeavor Catalyst	April 2018
Creditas (Brazil)	Lending	US\$60 million (Series B)	IFC, Naspers	February 2017
Creditas (Brazil)	Lending	US\$55 million (Series C)	Vostok Emerging Finance, Amadeus Capital Partners, Santander InnoVentures, Kaszek Ventures, QED, Quona, IFC, Naspers	April 2018
GuiaBolso (Brazil)	Enterprise Financial Management	US\$39 million	Vostok Emerging Finance, Ribbit Capital, QED, IFC, Endeavor Catalyst, Omidyar Network	October 2017
EBANX (Brazil)	Payments	US\$30 million	FTV Capital, Endeavor Catalyst	January 2018
Recarga Pay (Brazil)	Payments	US\$22 million	The VentureCity, IFC, Ventech, FJ Labs, DN Capital	February 2018
Acceso (Brazil)	Payments	US\$21 million	InvestTech	August 2017
Nibo (Brazil)	Enterprise Financial Management	US\$20 million	Vostok Emerging Finance	May 2017
Zooop (Brazil)	Payments	US\$18.3 million	Movile	March 2018

Startup (country of origin)	Segment		Investment	Investors	Date
Magnetis (Brazil)	<b>©</b>	Wealth Management	US\$17 million (Series A)	Monashees+, Vostok Emerging Finance	April 2018
BizCapital (Brazil)	<b>\$</b>	Lending	US\$15 million	Chromo Invest, 42K Investments	January 2018
Koin (Brazil)		Payments	US\$15 million	IFC	January 2018
ComparaOnline (Chile)	<b>6</b>	Personal Financial Management	US\$14 million	Bamboo Capital, IFC	October 2017
F(x) (Brazil)	<b>§</b>	Lending	US\$10 million	e.Bricks Ventures	February 2018
Konfio (Mexico)	<b>§</b>	Lending	US\$10 million (Series B)	IFC	October 2017
Work Capital (Brazil)	<b>E</b>	Personal Financial Management	US\$8.5 million	Monashees, Mindset	March 2017
TiendaPago (Peru)	<b>\$</b>	Lending	US\$7.5 million (Series A)	KaszeK Ventures, QED, Oikocredit, Acction Venture Lab, Agrega Partners	April 2018
ComparaGuru (Mexico)		Personal Financial Management	US\$7 million (Series A)	QED	June 2017
Par Mais (Brazil)	<b>©</b>	Wealth Management	US\$6 million	Grupo Valorem	March 2018

Startup (country of origin)	Segment		Investment	Investors	Date
ePesos (Mexico)		Payments	US\$6 million	Santander InnoVentures	October 2017
Vindi (Brazil)		Enterprise Financial Management	US\$5.8 million	Criatec2	September 2017
Sempli (Colombia)	<b>§</b>	Lending	US\$3.6 million	Velum Ventures, FOMIN, XTP1, Grupo Generaciones, DGGF	September 2017
Moni (Argentina)⁵	<b>§</b>	Lending	US\$3 million	IFC	May 2017
Tpaga (Colombia)		Payments	US\$2.2 million	Green Visor Capital	October 2017
AirTM (Mexico)		Payments	US\$2 million	IGNIA	February 2018
Ripio (Argentina)		Payments	US\$1.9 million	Digital Finance Group, Digital Currency Group, Boost VC, Draper VC	January 2017
Dvdendo (USA)	<b>E</b>	Personal Financial Management	US\$1.5 million (Series A)	Ideas and Capital	July 2017
Mesfix (Colombia)	٦	Crowdfunding	US\$1.2 million	InQlab, IKON Banca de Inversion	October 2017

<sup>5</sup> In May of 2018, IDB Invest invested in Moni Online. This constituted the fist operation made with a fintech startup. https://www.iadb.org/en/news/idb-invest-invests-5-million-moni-online-its-first-operation-Fintech-company

Startup (country of origin)	Segment	Investment	Investors	Date
Destacame (Chile)	<b>↓</b> Scoring	US\$1 million	Mountain Nazca, Accion Venture Lab	January 2017
Visor (Mexico)	Lending	Undisclosed	IGNIA, ALLVP, American Express	March 2018
Finsocial (Colombia)	Lending	Undisclosed	Kandeo	January 2018
Poup (Brazil)	Payments	Purchase	Digio (from CBSS Bank)	January 2018
SmartMei (Brazil)	Enterprise Financial Management	Undisclosed	Accion Venture Lab, Canary	November 2017
PayPerTic (Argentina)	Payments	Undisclosed	NXTP Labs	April 2018

## Interviews with the founders of some of the Fintech companies with considerable investments in 2017

### 1

### Main challenges

- Demonstrate the latent value in Latin America and that a growth strategy in Latin America makes sense to satisfy all the region's needs.
- Convince investors that beyond sales, what matters are the economic units and the fundamentals underlying the business.

### 2

#### Sources of funding

Accion Venture Lab (US), Mountain Nazca (Chile) and angel investors from Chile and Spain

**3**Funding received
US\$2 million

## Destacame

4

### Jorge Camus

## Recommendations for entrepreneurs with respect to fundraising:

- You should focus first on understanding the value that each user generates in the long term, and that many things can be done to enhance that value.
- You have to always be very careful with cash flow, as the projects often take much longer than you initially planned.

## Has venture capital in Latin America evolved?

 Yes, in every way. The ecosystem now being created in Mexico is incredible! Chile is some way behind, but it has grown a lot recently especially because of the impact of StartUp Chile.

#### Are investors getting more interested?

 Absolutely! There are more and more institutional investors, and other, more traditional investors like the family office are getting more interested every day in investing in this class of assets, either directly or through funds.

## Has the presence of international investors increased?

 I can't see that it has increased much. In general, the ecosystem has grown with local investors who understand the context of each region very well.



## **1**Main challenges

- From the venture capital point of view, we have had to demonstrate that we have a sound business model, the ideal team, and professional and effective management able to generate growing revenues.
- From the loan capital point of view, we've found that we have to generate the confidence necessary so that people and companies trust us. Trust in the world of crowdfunding is achieved by transparency in the way assets are managed and correct behavior that delivers to clients exactly what we promised.

2

#### Sources of funding

Afluenta has carried out fundraising operations and tasks through private channels. The venture capital was raised through rounds of investment organized both institutionally and with private investors. The loan capital has been raised through an Internet crowdfunding lending platform, 100 percent online.

3

#### **Funding received**

Afluenta has raised two types of capital:

- Venture capital worth US\$13 million from private investors.
- Loan capital worth US\$45 million from more 11,000 individuals and companies in three countries (Argentina, Mexico, and Peru).



### **Alejandro Cosentino**

4

## Recommendations for entrepreneurs with respect to fundraising:

- Understand the regulatory environment.
- Build a solid business model that can be operational within the regulations.
- Build a business team with suitable skills in all the necessary functions.
- Show key performance indicators (KPI) and growing revenues.
- Have the patience to carry it out.

## Has venture capital in Latin America evolved? Are investors getting more interested? Has the presence of international investors increased?

• Initially, there is no specialization for financing Fintech start-ups or professionals who fully comprehend how these businesses function, which are similar to eCommerce businesses. In any case, international venture capital in our region is starting to finance these start-ups more actively. Presently, there is much more capital for seed, angel, and Series A rounds of investment, but funds are lacking to finance Series B and C.



## **1**Main challenges

- Finding a lead investor.
- Convincing international investors of the stability and the potential of the Mexican market.

## 2 Sources of funding Debt and capital



**5**Funding received
US\$36 million

### **Adalberto Flores**

4

## Recommendations for entrepreneurs with respect to fundraising:

- Consult with other entrepreneurs in the area about the goals to set before raising capital. Sometimes you have to have a certain level of income, certain growth, certain business fundamentals, etc. The trick is to understand very well exactly what the market, at that moment, is demanding.
- Once you've prepared your goals, ask for them to be presented through contacts that those investors respect. Normally, the managing directors of companies in which the investors have already invested are a good source for presenting them.
- At the end of the day, raising capital
  is a process combines salesmanship,
  like on a romantic date; but there's
  also a numbers component, channeling,
  and so on, but you also have to build
  up a relationship with your potential
  investors, based on trust, empathy, etc.

### Has venture capital in Latin America evolved?

 It has grown a lot, but there's a long way to go before this ecosystem reaches its full potential.

#### Are investors getting more interested?

 Before, there was no financing, there was no government support (or it was limited) for start-ups or funds. Today, it's been proven that companies like Kueski can grow fast and become very valuable. And that is creating more appetite for venture capital among investors that previously would not have invested in these models.

### Has the presence of international investors increased?

• Undoubtedly, there is more appetite among international investors, but they have to wake up and see the potential in the Latin American market. Unfortunately, correctly or incorrectly, they perceive Latin America to be a very unstable region, which further reduces the investment options for local entrepreneurs.



## **]**Main challenges

- Explaining the Brazilian regulatory context.
- Making the investors understand that "not all revenues are the same".
- Explaining a new category of product.

2

#### Sources of funding

In addition to capital from our investors, we raise financing for our loans through two additional channels:

- Credit Rights Investment Fund (Fondos de Inversión de Derechos de Créditos, or FIDC).
- Securitization using Certificates of Real Estate Receivables. Through this channel, we have raised an additional US\$80 million to date, including investors in the senior, mezzanine, and junior tranches.

We also work with traditional banks that buy our loans.

## Creditas

3

**Funding received** 

**US\$83 million** 

Sergio Furio

4

## Recommendations for entrepreneurs with respect to fundraising:

 Be clear about the unit tests and ensure the model's scalability, especially taking into account capital consumption.

#### How has venture capital in Latin America evolved? Are investors getting more interested? Has the presence of international investors increased in recent years?

• Since I arrived in Brazil in 2012, the ecosystem has changed enormously. At that time, Fintech was considered impossible by investors and there were few international investors who took an interest in the region. Today, we have investors ready to invest from seed capital to initial public offerings, and there are no more excuses for not doing good-quality business, at least in Brazil.



## Gender Issues in Fintech



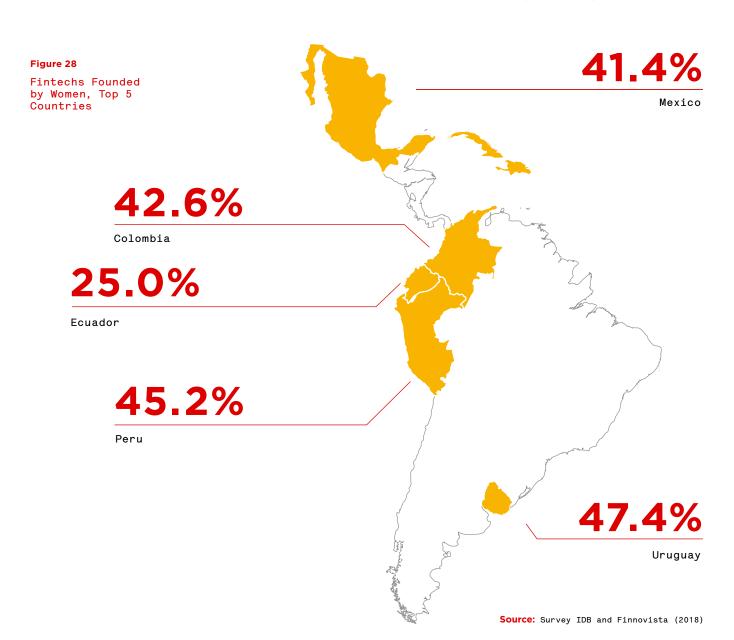
This chapter describes and analyzes the challenges and the opportunities for women in the Fintech industry in Latin America, as well as the potential of Fintech to better serve the region's women. The question will be analyzed on three levels: women as founders and entrepreneurs of Fintech companies, diversity and women's participation in Fintech firms, and women as consumers and clients of Fintech services. The aim is to illustrate how these solutions can help to improve financial inclusion for women, still a pending task in the region.



### **Women as Fintech Company Founders**

The survey carried out by the IDB and Finnovista included questions about the founders or the founding teams of Fintech companies in the region. The data suggest that around 35 percent of Fintech companies in Latin America have one woman founder or one woman on the founding team. This figure is well above the global average, estimated at 7 percent. According to the results of the surveys, most of the Fintech firms started by women are in Mexico, Colombia, and Brazil, with 31 percent, 14 percent and 12 percent of the total of Latin America, respectively.

At the national level, Colombia, Peru, and Uruguay head the list of countries with the highest proportion of Fintech companies with at least one woman on the founding team (Figure 28).



Although the Fintech companies with women founding team members operate in various segments, these Fintech firms seek to maximize financial inclusion. Around 38 percent of them aim to provide services to consumers and SMEs either underserved or excluded from the financial system. This is a difference of seven percentage points in relation to Fintech companies set up by men.

With regard to other characteristics specific to Fintech companies founded or co-founded by women, the survey data suggest that they receive around 15 percent less funding than those constituted exclusively by men. Specifically, 45 percent of these companies received no external funding, compared to around 31 percent of the Fintech companies founded by men. Nevertheless, there are no differences with regard to the main challenges that the companies identified for 2018, among which scaling up and expanding are mentioned in first place, and access to finance in second place.

In general, these data and trends augur well for women's participation in these start-ups and in the wave of innovation currently underway in the region. Moreover, it reflects the need to continue researching and analyzing their participation and progress.

## What do some of the region's investors and "ecosystem builders" say?

We must work so that the Fintech industry develops with significant participation by women in key roles; different visions, personalities and experiences can help build up competitive advantages. This would be another way of differentiating ourselves from traditional banking.

-Catalina Gutiérrez
Director of Operations, Nxtp Labs

Even in the most developed markets, the figures are alarming: 8 percent of the partners in VC funds are women; less than 5 percent of the deals were made by companies led by women. The gender gap is wide and will not narrow unless the industry takes concrete action.

-Eduardo Morelos

Program Manager, Startupbootcamp
Fintech Mexico City

The effect of Fintech disruption in democratizing financial services is limited by the lack of women in leadership positions: 4-5 percent of Fintech start-ups in Latin America are founded by women. We must become protagonists since, as consumers, we have a unique perspective on the business and the needs of the client.

-Johanna Posada

Director and Founder, Elevar Equity

Gender diversity is a challenge in Fintech in the same way that it is in Latin America in general. However, given the visibility and growth of Fintech, the industry has the potential to take the lead in terms of gender representation and inclusion. These efforts can have enormous benefits on different levels for all the actors, from investors and entrepreneurs and their teams to the final user.

-Matthieu Albrieux
Project Officer, Accion Venture Lab

Quona focuses on "Fintech for inclusion" because it sees financial and social value in integrating underserved markets into the main markets. We defend every kind of diversity, including that of gender. The bias that we see in terms of women founders and executives suggests an opportunity that is yet to be exploited.

-Mónica Brand Co-founder and Partner, Quona Capital

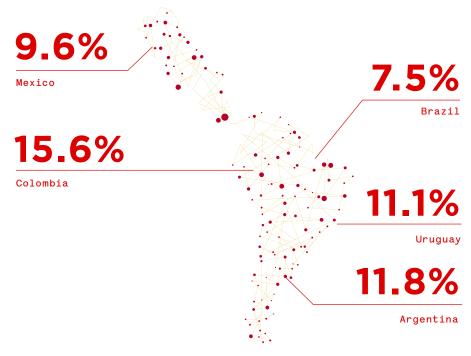
## Workforce Participation by Women in Fintech Companies

Many studies show that more diverse workplaces are correlated with better performance and greater desire to use assets to generate social change and greater gender equality (Morgan Stanley, 2016). The specialist literature suggests that women attract diversity into their teams. This is correlated with business performance, not only due to the diversity of opinions but, even more importantly, understanding the needs of the final users. Equally, the studies reveal that having diverse Working Groups is a strategic asset, and higher female representation on boards of directors has a positive impact on the financial performance of companies, especially in countries with a more developed culture of equality (Hoobler et al., 2016).

In Latin America, around 80 percent of Fintech firms have at least one woman on their work teams and, on average, 30 percent of the personnel working in Fintech companies in the region are women. Nevertheless, only around 11 percent of Fintech companies have 50 percent or more women working on their teams, that is, have teams that are diverse in terms of gender. Furthermore, the companies with women founders or co-founders tend to have more diverse teams. Around 16 percent of them have at least 50 percent women on their staff, which is twice the number as those in Fintech companies started by men. In terms of countries, the examples of Colombia and Argentina stand out in the survey results, where around 16 percent and 12 percent of the Fintech firms, respectively, have 50 percent or more women employees (Figure 29).

Figure 29

Percentage of Start-ups with 50% or More Women on their Teams, Top 5 Countries



Source: Survey IDB and Finnovista (2018)

### María Laura Cuya

Innova-funding and Founder, FactoringLab

#### · What is your current role?

I'm the CEO of innova-funding.com (Peru's first factoring marketplace) and founder of FactoringLab.com (focused on invoice collection). In both firms we have a 50 percent female quota (shareholders and employees).

My other Fintech-related role is as president of the Peruvian Fintech Association (Asociación Fintech del Perú). I was founder of the initiative back in 2016. In 2017, we formally established the chamber and today I coordinate management and promote the synergies that can advance the aims of partners in the Fintech world in my country and in the region. My role is active, both in my businesses and in the association, always focused on promoting financial inclusion for MSMEs.

#### • When did you get involved in the Fintech ecosystem in Latin America?

When we set up Innova-Funding, I noticed the growing need for technological solutions (capital, Fintech suppliers, regulation, etc.). In my country, the Fintech world was still new in 2016. When I contacted other countries such as Colombia, Mexico, Chile and Spain, I saw that that they were facing the same challenges and that, in many cases, they were further down the road. This led me to think that there must be ways of catalyzing experiences in Latin America and that establishing a chamber would help us to accelerate our growth, form a united front against the new challenges facing Peru, and work together to produce synergies.

#### · What most inspires you about Fintech?

I'm fascinated by the possibility of making a difference in the life of thousands of people, that our solutions can democratize opportunities for those who most need it, and that financial inclusion becomes real. I'm passionate about Innova-Funding helping to change the lives of micro-entrepreneurs. At lnnova-Funding we train MSMEs every month in factoring and negotiable bills of lading and we are committed to promoting capacity building for women micro-entrepreneurs.

At the trade association, we are committed to raising the profile of women entrepreneurs. We organize events in which women founders or managers are the guest speakers.

 What are the greatest challenges facing women in the Fintech industry in Latin America? What are the main challenges that you have had to overcome as an entrepreneur?

Finance and technology firms usually have fewer women in their files. For example, the Ibero-Americaa Fintech Alliance held a summit meeting in 2017 and another one in May 2018. Of the 20 countries represented by 13 chambers, there was only one woman representative, and her country was Peru. In Peru, 30 percent of the founders in Fintech and 40 percent of the directors or managers in important positions are women.



### What actions can help to overcome these challenges?

01.

**Visibility**, giving publicity to cases of women executives or women founders 03.

Promote higher female workforce participation to narrow the gap

02.

Promote regional public policies

04.

Strengthen women's qualifications in Fintech; at InnovaFunding we train MSMEs with emphasis on those led by women

 What message or advice would you like to transmit to women in the region who are thinking of launching their own Fintech start-up?

Fintech enables us to provide solutions of high scope and scalability. Women have very powerful interpersonal abilities, or soft skills, that are suited to Fintech start-ups (resilience, adaptability to change, empathic understanding of users' pains, emotional intelligence, crisis management, empathy with stakeholders, positive leadership in work teams, etc.). If we then add experience and hard skills, we can achieve high-impact Fintech solutions. It's a good time for Latin American women to convince themselves and dare to face the Fintech challenges, which go hand-in-hand with education, financial inclusion, and democratization.



A message for women considering either starting up or working in Fintech, from Gloria Ortega, General Manager, Bancard, Paraguay<sup>7</sup>

# "The digital world has no age limit. To enjoy success in the digital world, you only have to 're-train".

<sup>7</sup> Gloria Ortega has always dwelt between technology and value-added for the user. It fell to her to install the first automatic teller machine in Paraguay, pay the first salary by automatic teller machine, install the first broadband service in Paraguay and the first women to gain Sarbanes-Oxley certification (SOX). She was responsible for implementing technologies for automating processes and launching innovative products for transforming businesses. She was Paraguay's first female industrial engineer, a graduate of the UNA, with experience in the telecommunications, supply chain, credit cards, Internet, and information technologies industries. She was General or Regional Manager at six subsidiaries of Millicom International in Latin America and Africa. Presently, from her position at Bancard, Gloria is leading digital innovation for electronic payment platforms for their adoption in Paraguay as a means of formalization and the fight against poverty.

## Women as Users of Fintech Services and Prospects for Greater Financial Inclusion

Women need a wide range of suitable financial services: access to a bank account, credit, saving, cost-effective payment mechanisms, and insurance, to name but a few. There is substantial evidence that suggests that access to suitable savings products is a promising way of improving women's empowerment and economic productivity, offering them more privacy and control over the way they manage their resources. This enables women to invest in their families and businesses and better prepares them to deal with emergencies without having to sell their accumulated assets (Buvinic and Furst-Nichols, 2014; Dupas and Robinson, 2009 and 2013; Gamberoni, Heath, and Nix, 2013; Jakiela and Ozier, 2012; Knowles, 2013).

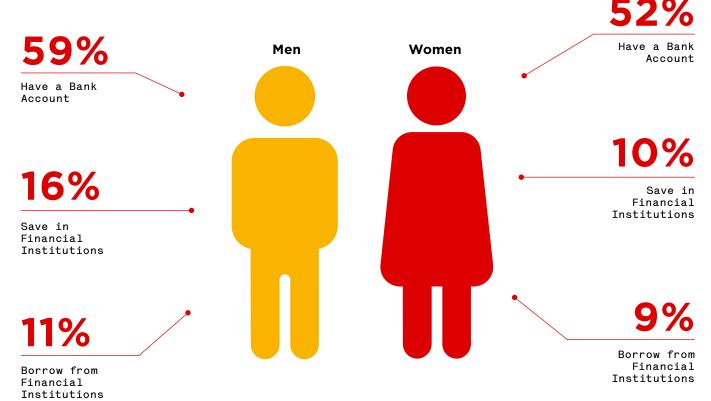
Likewise, access to financial services through digital channels, especially payments, is important for women, since they tend to face more limitations of time and mobility due to household obligations. If women can save time and money through lower transaction costs, they can devote more time to their businesses, careers and families. They will also use more formal financial services, instead of informal mechanisms that, although seemingly more convenient are less efficient, costlier, and more risky.

Despite efforts to increase financial inclusion in recent years, it is estimated that, in 2017, 35 percent of women in the world still do not have a bank account, and 70 percent of low-income women do not have them. In Latin America, women continue to be more excluded from the financial system that men. With regard to owning a bank account, the gap between men and women is around 7 percentage points, as around 59 percent of men report that they have an account with a financial institution, and only 52 percent of women state that they have one (World Bank, 2017).

But, women need much more that a bank account. Latin America also records low levels of access and use of other formal financial instruments, such as credit and savings. The existing evidence gleaned from demand surveys shows that only a very low proportion of adult women declare that they save (10 percent) or have a loan (9 percent) from a formal financial institution. There are also gaps in comparison with the men, specifically of 2.2 percentage points in loans and 6 percentage points in savings in financial institutions (World Bank, 2017) (Figure 30).

#### Figure 30

People Who Have an Account, Borrow from Financial Institutions, and Save in Financial Institutions



Source: World Bank (2017).

To improve women's financial inclusion, it is crucial to understand the barriers they face, on both the demand and the supply side, to be able to design and develop measures and products that meet their needs. Although the barriers operate differently depending on the context, there is a set of general restrictions that women face that have been highlighted in the specialized literature.

For example, on the demand side, the following are found:

- 1. Limitations on time and mobility, mainly due to household-related obligations.
- 2. Cultural and social norms that limit incentives for women to demand financial services.
- 3. limited access to adequate information and networks.

On the supply side are:

- 1. Legal and regulatory restrictions, especially in terms of property rights and land rights for women, as well as barriers to innovation in the distribution mechanisms or channels, products, and processes.
- 2. deficiencies in the financial infrastructure.
- 3. gender bias in the practices of financial institutions.
- 4. financial products, services, and mechanisms not adapted to the needs of the different segments that comprise the women's market.

One of the factors that explains the problem of access to credit, especially for women-led SMEs, is related to the availability and size of collateral. Women often have shorter credit histories and possess fewer guarantees, which can result in higher interest rates or in more guarantees required. The legal and  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ regulatory restrictions with regard to the women's property rights and land rights can also have a direct impact on women's capacity to obtain guarantees and thereby gain access to credit (Demirguc-Kunt et al., 2013; IFC-McKinsey, 2011). Nevertheless, an analysis carried out on the basis of information from the database Women, Business, and the Law and other sources suggests that, although the data show that the legal framework in Latin America has a relatively low number of explicit restrictions against women, social and cultural practices reflect disparities in terms of property and its use, as well as in the way that it is divided between men and women (Pailhe, 2014).

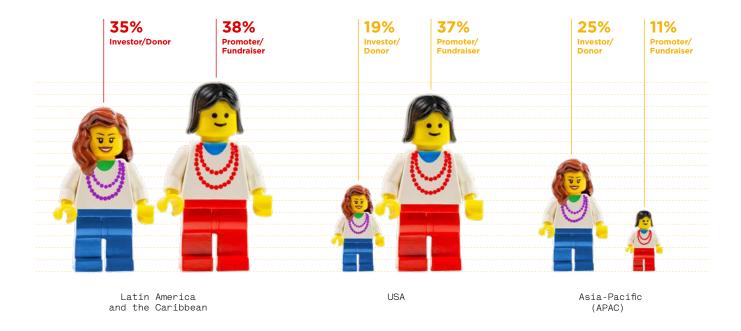
# The Potential of Fintech Solutions

The growing Fintech industry in the region is generating new and more accessible alternatives to overcome some of the barriers that women face on both the supply and the demand side. Services made to measure for each customer, streamlining through digital channels, and a greater understanding of the needs of the user by the Fintech companies mean that these alternatives can be effective in promoting greater financial inclusion for women.

Although there is still not enough data to measure the use of Fintech solutions by women in the region, the emerging data are encouraging. For example, data relating to the use of digital payments in Paraguay suggest that four out of every ten users are women who complete the majority of their transactions between ten in the morning and midday. This clearly illustrates how important it is for women to have access to digital channels that alleviate their mobility and time restrictions. Moreover, the data suggest that women in Paraguay make purchases, and therefore payments, of higher amounts when they pay digitally than when they pay with cash. The accessibility that digital payments bring can facilitate women's contribution to social and welfare interests. In Paraguay, for example, women made 70 percent of all digital donations.

In terms of the use of online alternative finance mechanisms, data from the Cambridge Centre For Alternative Finance (CCFA) suggests that the region's women participate more in this type of platforms than their peers in larger and more mature markets. The CCFA is a global leader in this area with which the IDB has collaborated to produce reports in 2016 (CCFA, 2016) and 2017 (CCFA, 2017) on the state of alternatives finances in the LAC region. While in the United States only 19 percent of investors and donors using these platforms were women and the proportion in the Asia and Pacific (APAC) region was 25 percent, the share of women investors and donors in LAC was estimated at 35 percent. Furthermore, while there is hardly any gender difference in the breakdown of promoters and fundraisers in LAC and the United States (with 38 percent and 37 percent, respectively), there is a gap when compared with APAC, where women represent only 11 percent (Figure 31).

Figure 31
Women's Participation
in Alternative Finance
Platforms



**Source:** Cambridge Centre for Alternative Finance (2017).

Data published by PwC in 2017 suggest that women are enjoying greater success in running campaigns and achieving their financing targets than men. On average in South America, 7 percent of women-led projects were successfully financed, compared to just to 2 percent of those led by men. In Central America, the difference was 13 percent for projects led by women compared to 6 percent for men. Globally, crowdfunding campaigns organized by women were 32 percent more successful than those managed by men in 2015 and 2016 and, on average, each individual investor or donor contributed US\$87 to women-led projects compared to US\$83 to projects managed by men (PwC, 2017). Finally, the survey revealed a related trend with regard to the entrepreneurs' business orientation: in the region, around 40 percent of the Fintech firms started by women mainly operated in the alternative finance segment, whereas 16 percent specialized in crowdfunding.

These trends show great potential considering that women face more limited access to traditional credit than men at both the regional and the world level. At the same time, women are actively participating as investors and fundraisers for alternative finance platforms and, moreover, are more successful in these functions.

Interviews 79

### Esteban Velasco

Sempli

- Why did Sempli decide to launch a program especially for women? Because we could see that, historically, the rate of loan approvals for companies led by women was lower than for companies led by men, but the indicators of control, organization, management, and payment of obligations, however, are better in women-led companies. Based on the above, we modeled our credit risk scoring for companies in our customer pipeline, and we saw that we could design a product devoted exclusively to supporting women entrepreneurs. The statistical analysis very clearly reveals the performance but, beyond the numbers, for us it is important to be consistent by promoting transparent processes that ensure greater fairness, and consequently using our products to enable inclusion to segments with limited business loan penetration (gender, industries, size, among others).
- $\cdot$  Can you tell us something about the status or the results of the initiative?

The initiative was launched in June 2018, and it is still too early to be conclusive. Nonetheless, we expect that women entrepreneurs will represent at least one-third of the total Sempli portfolio.

- What can you tell us about the market for women entrepreneurs, and how can Fintech address the challenges in this segment? Fintech start-ups are creating disruptive models with respect to the supply and delivery of financial services, as well as in users' patterns of consumption. In this case, we have witnessed how a product generates a new pattern of consumption in a particular segment. In Latin America, small companies are managed in more than 80 percent of cases by families, which modify their decision-making and leadership structure as new generations take over to achieve a more inclusive environment. Fintech firms and, in general, financial product and service providers, must understand these market signals and adapt ourselves to them.
- What are the opportunities for Fintech firms to serve the women's market better? What are the challenges? The Fintech world is very extensive and the opportunities and challenges even more so. We can think in terms of access and experience. How can we extend coverage? How can our products and their delivery generate greater value and, in some cases, a better price ratio? How can we deliver an exemplary experience that enables customers to repeat the experience and give good references? We prefer to think in terms of segmentation by contexts of use rather than demographic classification. If we can understand these contexts of use properly then gender will become irrelevant, and the best products in each Fintech segment will be based on fairness.



### Luiz Felipe Gheller

Vakinha

- · Luiz Felipe, the majority of your customers are women.

  At the same time, we have evidence that Brazilian women are more active in alternative finance platforms than their peers in other regions. Has this happened organically?

  I would say that it's been totally organic. We still haven't launched a single campaign differentiated by gender.
- What has been your experience in serving the female market?

  It's been phenomenal. We are proud to serve our customers in an easy and effective way. Both men and women have used Vakinha and they have given us very good feedback.
- Is there any difference regarding men that you would like to mention?
   Not really, no. The behavior of men and women is basically the same in our platform.
- What are the opportunities for other Fintech firms to serve the female market more efficiently? What are the challenges? I believe that our culture still associates finance (investments, payments, lending, etc.) with men, which is very far from the reality. The biggest challenge that we face is changing this notion and giving voice (and good services and education) to the large number of women who manage the family spending and assume financial responsibility for their families.



### Diversity of Gender in Fintech: The Views of Ghela Boskovich\*

\*Senior Manager of Fintech and Regtech Partnerships in Rainmaking Innovation and Founder of FemTechGlobal

The Fintech sector is all about how to change the way that banks operate, the customer's experience with financial services, and how money moves around. But what is not changing is the structure of the industry—a structure that maintains its status quo and that threatens to weaken the positive impact of Fintech.

According to the World Bank, 98 percent of bank managers are men. At the global level, men occupy 90 percent of the managerial positions in Fintech, and 90 percent of investments in venture capital are channeled to projects founded exclusively by men.

Nevertheless, women make 80 percent of domestic expenditure and financial decisions (World Economic Forum, 2015). In 2018, women's income worldwide increased to US\$16 billion, almost double the growth of the GDP of China and India together. This means that, by 2028, women will control around 75 percent of world's disposable income and, of course, they will be making the large majority of the financial decisions (Boston Consulting Group, 2009).

But the people who make decisions about how to spend and invest their money receive instructions from those who decide the way that money works. Sadly, this biased paradigm implies that neither of the two parties wins. The solutions are being designed in isolation from the people who will be affected, and effectiveness and efficiency are compromised due to a lack of diversity in the perspectives and a lack of empathy at the organizational level.

But the final customer is not the only one to lose: firms that lack female leadership also lose. The companies with high gender diversity in management positions see their financial returns increased by 15 percent above the industry median, but only when 22 percent of the management team are women (World Economic Forum, 2015). A study carried out by Credit Suisse (Credit Suisse Research Institute, 2016) reveals that when 10 percent of the management team is made up of women, the return on investment (ROI) increases by 27 percent and the dividends are 42 percent higher in companies where only 5 percent of the management team is made up of women.

In the Fintech sector, the companies with one woman founder obtain results that are 63 percent more positive than those founded exclusively by a male team. The improvements also take place in companies with greater diversity on their boards of directors: they obtain a ROI 53 percent higher and earnings before interest, taxes, depreciation, and amortization (EBITDA) 14 percent higher that those with lower gender diversity. Fintech firms are not exploiting the performance and the economic benefits that derive from diversity. Globally, only 7 percent of Fintech companies have one woman founder (or on the founding team).

At what stage is diversity in Latin America compared to the rest of the world? Can the region improve to take advantage of the benefits of a diverse management team? Finally, is the market in Latin America responding to the needs of the customers, who make most of the spending and financial decisions, while at the same time increasing its customer base by focusing on financial inclusion, specifically the unbanked population?

The survey carried out by Finnovista and the IDB shows Latin America in a different light compared to the Fintech figures at the world level. Approximately 35 percent of those interviewed have at least one woman on the founding team, compared to just 7 percent at the world level. This significant difference with respect to women founders could be correlated with the types of solutions that their companies offer to the market. Of the firms interviewed that claim to have women founders, approximately half (49 percent) are focused on financial inclusion solutions for the Latin American market.

In a market in which more than 50 percent of the population is underserved or underbanked, the implications for improving financial inclusion are significant, as is the economic growth potential for underserved SMEs. According to the results of the survey, it seems that the teams that include women founders put forward these kinds of solutions. We would have to monitor the data before confirming this correlation, but we are already starting to see indications that women are recognizing the importance of empowering those responsible for managing domestic finances through financial inclusion.

One thing is certain: gender diversity has a positive impact on performance and on financial returns. And closing the gender gap in financial inclusion by 25 percent could boost world GDP by US\$5.3 billion by 2025.

## Collaboration in Fintech Ecosystems



In the previous year's report, it was mentioned in the section Toward a Collaborative Ecosystem that cooperation among the actors within the ecosystem itself enhanced the maturity and development of Fintech in Latin America, and that this trend had been observed in other geographic areas that could help accelerate development in the LAC region. The section mentions some important movements, such as the creation of Fintech associations and crowdfunding in various countries of the region, and the launch of open innovation programs and initiatives in the industry, ranging from immersion, incubation, and acceleration programs, to corporate investment programs.

According to the trend described in the last report, the possibilities for collaboration in the region are increasing. It indicated that the Fintech industry's growing development would enhance the quantity and quality of the synergies among the actors in the ecosystem. Although this trend was already noticeable in Latin America some years ago, in 2017 the region saw intense and visible collaboration between different groups. Three trends stood out:



Industrial organization at the national and regional levels



Open innovation programs and initiatives in the industry



Launch of an open banking platform and APIs

Before examining each point in more detail, it is important to understand the perspective and take the temperature of the Fintech entrepreneur's perception regarding collaboration. In the 2018 study, in which Fintech firms were asked whether they were currently collaborating with financial institutions, 59 percent indicated that they were.

This contrasts with the 20 percent of those interviewed that considered that there was a strong sense of competition in their market. Eleven percent of the Fintech start-ups interviewed felt there were more competitors than collaborators with financial institutions. With regard to the perception of collaboration in their market, 58 percent of those interviewed indicated that there was a weak sense of collaboration in their market and the remaining 11 percent indicated that there was no sense of collaboration at all.

### **Industrial Organization**

The industrial organization of the Fintech sector, especially manifested by the creation of Fintech associations and crowdfunding, saw a significant increase in 2017 in the region, where various countries joined organizations that have existed for some time in and Brazil (ABFintech), Colombia (Colombia Fintech), and Mexico (Fintech Mexico).

In 2014, the main crowdfunding platforms in Mexico joined together to establish codes of practices that ensure the professionalism of crowdfunding and protect the interests of all parties concerned, giving rise to the Crowdfunding Platforms Association (Asociación de Plataformas de Fondeo Colectivo, or AFICO). That same year, the Brazilian Equity Crowdfunding Association was created with the aim of facilitating and multiplying seed capital investment in Brazil, mainly through equity crowdfunding, to strengthen the country's entrepreneurial ecosystem.

A year later, Mexico took a further step toward innovation with the creation of the Fintech Association of Mexico. It currently includes 62 companies serving more than half a million users. Its purpose is to provide an open space for collaboration. In 2016, Fintech start-ups in Brazil joined together to create the Brazilian Fintech Association (Asociação Brazileira de Fintechs, or ABFintech), with the aim of representing its members interests to the regulatory bodies.

Tras la iniciativa de los dos mayores ecosistemas Fintech de la región, Colombia, Argentina y Chile sumaron sus fuerzas para crear grupos de trabajo que colaboran a favor del desarrollo del ecosistema. Así, en 2017 nació la Asociación Fintech Chile, para trabajar en materia de políticas públicas y regulación, desarrollo y atracción de talento, captación de capitales e inversiones y fomentar el uso de servicios Fintech.

Following the initiative of the region's two largest Fintech ecosystems, Argentina, Colombia, and Chile joined forces to create working groups to foster ecosystem development. In 2017, the Chilean Fintech Association was formed to work in the areas of public policy and regulation, development and talent attraction, raising capital and investments, and encouraging the use of Fintech services.

In 2017, and throughout the course of 2018, various industrial organization initiatives have either been established or are starting to become known in countries whose ecosystems are in more incipient stages. Scarcely a year and a half ago, 13 Fintech Argentine start-ups joined the wave of innovation to create the Argentine Chamber of Fintech, with a view to boosting financial inclusion and financial education in the country. A short while later, Uruguay set up the Uruguayan Chamber of Fintech. In addition to positioning the country as fertile territory for financial innovation in the region, it seeks to encourage the authorities to participate by using projects and regulations to drive the sector forward.

The organization is significant not only because of the collaboration that it promotes among the associates themselves, most of them Fintech firms, but also because it enables a single platform to be created through which the Fintech start-ups can dialogue, negotiate (whenever necessary), and encourage collaboration.

The Central America and the Caribbean Fintech Association groups together Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua to give voice to the needs and the potential of Fintech in the region, as well as to the unbanked population. In Panama, the PanaFintech association was formed by six Fintech start-ups that seeks to defend regulatory openness in the system and promote Fintech knowledge in the ecosystem. Finally, the Dominican Republic was the most recent country to join these initiatives when it launched the Dominican Association of Fintech Companies (ADOFintech) in May 2018, with 19 members. It aims to foster and promote all types of financial innovation-related activities in the country.

In early 2017, the Ibero-American Fintech Association was formed, with the participation of Central America and the Caribbean, Colombia, Mexico, Peru, Spain, and Uruguay, to encourage the development of the Fintech ecosystem at the international level, especially in Ibero-America. Its objective is to establish a space for collaboration to boost start-ups, competitiveness, and financial inclusion.

The organization is significant not only because of the collaboration that it promotes among the associates themselves, most of them Fintech firms, but also because it enables a single platform to be created through which the Fintech start-ups can dialogue, negotiate (whenever necessary), and encourage collaboration, with a single voice and representation, with the other actors of the ecosystem. These include the regulatory and financial oversight bodies, and the incumbent banks, either directly or through their trade associations, for example the Association of Mexican Banks or Asobancaria. Collaboration between trade associations also offers an opportunity to share best practices, which enhances the efficiency of their awareness-raising, dissemination, and educational activity.

# A3FIN TECHS

### **ABFintechs**

Date founded: November 2016

Number of associates: 340



### **Objectives:**

ABFintechs' intentions are:

- •Help to develop a better business climate between the market and the Fintech firms (and among the firms themselves).
- Facilitate greater integration with regulators to improve regulation, as well as promoting self-regulation.



### Main achievements and lessons:

Among the major achievements, the most outstanding was the creation of the biggest and most important Fintech event in Brazil, Fintouch, (which attracted more than 1,500 people to its first edition).

Likewise, ABFintechs participated in drafting the two main applicable regulations for Fintech in Brazil, CVM 588 (which regulates capital crowdfunding) and BACEN 4656 (which regulates P2P lending). It also worked alongside the Administrative Council for Economic Defense (Conselho Administrativo de Defesa Econômica, or CADE), an anti-monopoly commission, to hold a conference on unfair competition in the financial market.



### **Future perspectives:**

Brazil is one of the first countries in the world to establish specific regulations for capital crowdfunding and P2P lending, both of which are among the most advanced in the world and adapted to the needs of the world market.



### Argentine Chamber of Fintech

Date founded: November 2017

Number of associates: 100



### **Objectives:**

To lead the process of transforming the financial services industry, turning the country into a hub of innovation and financial inclusion that becomes a point of reference at the regional and international level.

Its main objectives are:

- Promote financial inclusion and education.
- Create a positive exchange with stakeholders
- Encourage best practices among its members



### Main achievements and lessons:

Some achievements by the Argentine Chamber of Fintech since its creation:

- Volume of transactions in the last 12 months: ARS 126,000 (approx. USS\$4.5 million)
- Investment in Argentina in the last 12 months: ARS 410,000 (approx. US\$14.5 million)
- Number of direct employees: 5,860
- Number of indirect employees: 91,226
- Annual average rate of growth: 110 percent



### **Future perspectives:**

Currently, there are very attractive opportunities in the country for expanding this industry by creating solutions and financial services for various segments of the population. Therefore, the Chamber will continue to work to ensure that more and more citizens become aware of the services and benefits that the Fintech sector offers.



### Uruguayan Chamber of Fintech

Date founded: March 2017

Number of associates: 18



### **Objectives:**

Among the strategic objectives are the following:

- Contribute to sustainable development via financial inclusion, to guarantee the development of the citizens' economy.
- Facilitate and promote universal access to financial services.
- Strengthen and develop the national financial system by applying technological innovation in the sector.

Likewise, a further priority objective of the Uruguayan Chamber of Fintech is to participate in designing specific regulations that facilitate an attractive legal framework for investments and development of the Fintech ecosystem, while discouraging speculative activities, regulatory arbitrariness, the laundering of assets arising from crime such as terrorist funding, the illegal drug trade, or trafficking in persons.



### Main achievements and lessons:

The Uruguayan Chamber of Fintech's greatest achievement is to have become a valid and respected intermediary within the Uruguayan financial system. The technical solvency and the spirit of collaboration with which we announced ourselves has facilitated the opening of communication channels with regulators, the press, multilateral organizations, entrepreneurs, and the political system, which has positioned us as reference point in many cases.

We have presented our views on the Financial Inclusion Law to civil servants at the Ministry of Economy and Finance, as well as senators, members of Parliament, and other government entities. In June 2017, we participated in the first edition of the Montevideo Fintech Forum, the event at which the Ibero-American Fintech Alliance was established. The first executive management session was held, attended by regulators from Mexico, Spain, and Uruguay. We also participated in commissioning an analysis of the impact of the new technologies on the financial system, produced by the Central Bank of Uruguay with the participation of the most important actors in the Uruguayan financial system. We are members of the Consultative Council for Business and Financial Development, under the auspices of the Secretariat for Productive Transformation.



### **Future perspectives:**

The future challenges can be summed up in three lines of action: promote, raise awareness, and train with respect to the new technologies, how they transform financial business at the global level, and the implications for the local level.

The Financial Inclusion Act (2014) has played a fundamental role with regard to the interoperability of the agents in the financial system, a key factor for developing the Fintech ecosystem. Following its implementation, around 530,000 new bank accounts and almost 800,000 electronic money instruments have been opened. More than 800,000 people have been able to access a free bank account or instrument, which represents more than 30 percent of the population over 15 years of age.

The electronic money instruments opened in the last two years surpassed the bank accounts opened with financial intermediation institutions by more than 50 percent. With regard to companies, bank x penetration in MSMEs rose by 15 percentage points (compared to 2017, baseline 2012), until they reached 72 percent of these firms. In the case of SMEs, access to bank accounts is now practically universal, reaching 96 percent and 99 percent, respectively.

With this reality in mind, we identified major opportunities for helping to strengthen and enhance financial system transparency, ranging from Fintech sector development, through innovation applied to the financial system, attracting foreign investment, generating quality employment, and creating value in the wider sense. Among our associates are companies that operate in more than 60 countries, spread throughout the Americas, Europe, Asia, Africa and Oceania.

Among the major challenges facing new management are raising awareness about the importance of education and regulation, so that the benefits made possible by the new technologies are enjoyed by the highest proportion of the population; working with government, organizations, companies, and society to foster financial inclusion by developing the citizens' economy; enabling the Central Bank of Uruguay and the Ministry of Economy and Finance to provide knowledge and market expertise for the analysis and design of local regulation, so that it fosters development of the national financial system and positions Montevideo as the Ibero-American capital in terms of financial inclusion for sustainable development.



# **Colombia Fintech**

Date founded: December 2016

# Number of associates:

77 members 58 Fintech associates 19 affiliated entities 11 financial institutions 167 partners



### **Objectives:**

Our work agenda is composed of four cross-cutting objectives:

- Create a dynamic ecosystem of talent, capital, and technological adoption for the development of Fintech businesses in Colombia.
- •Promote Fintech education and knowledge among our members, communities, users and interest groups.
- Internally strengthen the association and position it as a strategic actor in the country's digital economy.
- Encourage public policymaking that is favorable for the growth of this industry and for modernizing Colombia's financial system.



### Main achievements and lessons:

Colombia Fintech is a sustainable organization with a corporate government of more than 70 associated and affiliated companies, which is backed by important financial sector entities and has institutional channels open with the national government. In only a year and a half, it has consolidated its position as the representative association for Colombia's financial technology and innovation industry. As the first organized movement in country's start-up and innovation ecosystem and one of the most active Fintech communities in the region, it has positioned Colombia as a leader in Fintech activity in Latin America.



### **Future perspectives:**

The local Fintech industry faces the following challenges:

- Development of alternative finance mechanisms such as crowdfunding, digital credit, venture capital and the massification of digital commercial financing operations through electronic invoicing to boost productive growth for people, MSMEs, and start-ups.
- •Digitization of 100 percent of the payments ecosystem in Colombia, for government, businesses, and people, as part of a frontal attack on so-called "gota a gota" cash transactions and informality, thereby substantially reducing the risk of asset laundering and terrorist financing.
- •Review of the technological infrastructure and connectivity of traditional financial entities to develop models and standards of interoperability and open banking (API economy), in which the online portability of financial data facilitates the development of new systems and applications for the financial consumer to achieve a deeper impact on financial inclusion in the country.
- Creation of a framework of legal flexibility and experimentation in the financial system (regulatory sandboxes) to introduce new business models that can boost the market with more actors, products, and services, to attract foreign investment to Colombia and stimulate the entrance of new players.

<sup>8</sup> A term used in Colombia to refer to informal loans that typically involve small repayment installments and extremely high interest rates.



# Central America and the Caribbean Fintech Association

Date founded: June 2016

Number of associates:

36 affiliates from Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua



### **Objectives:**

- Join forces as a region to strengthen and combine resources that enhance competitiveness and the global development of Fintech companies.
- Create a suitable environment for the accelerated and successful development of cutting-edge financial technologies in the region.
- Investigate new global trends in the Fintech sector that create market value.
- Manage resources for financial technology research and development, with the aim of implementing a platform for entrepreneurs in the sector.
- Work, in partnership with government entities, to regulate the services provided by Fintech entities through technological media, as well as their organization, operation, and functioning



### Main achievements and lessons:

The lessons learned by the Association are many, above all because there is currently a great need for information about the Fintech sector, especially at the governmental level, which calls for caution. However, we have built a significant understanding with regulators, with satisfactory results. We think we are on a very good path.



### **Future perspectives:**

As an Association, we have defined the challenges for 2018 in two very important areas, which we consider to be the basis for achieving openness in many other areas, such as the following:

- Achieving a legal framework in which the digital signature is accepted as legally valid.
- Ensuring that crowdfunding and crowdlending models in the region are defined by the regulators.
- $\bullet$  Regulation that enables dematerialization of securities (digitization).
- Inclusion and coordination of more Fintech companies in the region.



### **Fintechile**

Date founded: December 2017

Number of associates: 25



### **Objectives:**

Represent and boost the growth of Chile's Fintech industry.



### Main achievements and lessons:

Among its main achievements, Fintechile highlights the following:

- Having signed up 35 percent of the Fintech companies in Chile in the first six months of the Association's operation.
- Having created the first inventory of regulatory challenges facing the different Fintech vertical sections in Chile.
- Having been recognized as the main reference point in Fintech matters in this country.

Approval of the Fintech Law in Mexico showed us the following:

- Fintech can become important and strategic for a country, which calls for regulations to be drafted that encourage and enhance the growth of this industry.
- •Open dialogue between the government and the Fintech companies is the only way to design suitable and balanced regulations in this area.
- The Latin American countries that provide the best guarantees for Fintech companies to operate will, in the coming years, capture the greater part of the funds available for investment in these types of businesses.



### **Future perspectives:**

The greatest opportunity and challenge: the regulatory harmonization that the Pacific Alliance countries are seeking to achieve with respec to Fintech.



### Fintech México

Date founded: September 2015

Number of associates: 65



### **Objectives:**

Fintech Mexico is a non-profit association, established with the objective of gathering together all the country's Fintech companies and offering its members and the public a space for open and transparent collaboration that helps advance innovation, using collective knowledge and best practices of the industry, with the intention of improving the country's financial services.



### Main achievements and lessons:

The association has been very active in representing the interests of the sector and in drafting the Fintech Law and its secondary regulations, influencing its design and defending the industry before the legislative and administrative authorities.

During this process, the association has helped to raise user awareness of the Fintech companies, their products and the benefits they offer.

We have learned that it is very important to have constructive dialogue with financial authorities and other important actors in the sector to establish a legal and economic environment that is favorable for financial innovation and inclusion.



### Future perspectives:

The main opportunities derive from the growing awareness among the population of the benefits of the Fintech industry, and from the new legal framework that facilitates legal security for investment in the Mexican Fintech sector.

The most interesting challenges derive from the changes introduced by the Fintech Law. Among the most important are regulatory sandboxes and the new system of open banking, which challenges the authorities to design specific regulatory frameworks that promote financial innovation, inclusion, and competition.

For its part, the industry must address the need to expand the range of services on offer and rethink its position in an increasingly competitive and innovative market, while adapting to the new regulatory schemes.



### **PanaFintech**

Date founded: May 2017

Number of associates:

6



### **Objectives:**

PanaFintech was established with three main objectives in mind:

• To make Panama's ecosystem more dynamic

As a small country, we felt that the financial innovation ecosystem was in need of a boost. This implies coordinating communication among the different actors of the ecosystem, including regulators and other public policymakers, entrepreneurs, technical talent, universities, banks, and other traditional financial entities. The result of these efforts has been the emergence of new Fintech projects, both within existing financial entities and as independent projects, and the nearly permanent presence of the issue in the media and in public discussion.

• Education and promotion of financial innovation and Fintech

The second objective is to educate the rest of the innovation ecosystem and the population in general about the opportunities that Fintech represents for Panama as a financial center. An important part of our work has been to explode some myths about this subject, especially around fears about money laundering and Panama's inclusion on grey or black lists due to Fintech. Competition in financial services is not a controversial matter at the international level, and international organizations such as GAFI are partners in promoting these schemes, rather than adversaries.

•Credible and competent participation in putting forward and discussing new regulatory proposals or changes

We sought to become a credible and competent actor in putting forward and discussing regulatory changes. After the beginning of a discussion of a draft bill to modernize the Panamanian financial system put forward by the Ministry of Economy and Finances, which created a regulatory sandbox, new financial licenses for matters such as cryptoassets, electronic money issuers, and crowdfunding, we have positioned ourselves as a respected voice in support of openness to competition by new financial services whenever it is well founded, and by benchmarking with neighboring jurisdictions and competitors around the world.



### Main achievements and lessons:

Among the lessons learned, we could point to the strength and credibility gained by coordinating and including all the actors in the ecosystem, even the immature ones. The challenge facing us in the future is to professionalize the management of our foundation to guarantee the sustainability of our efforts over the long term.



### Future perspectives:

Traditionally, Panama is a very competitive country in the financial sector. However, due to the toughening of international regulatory standards and, in part, our own sluggishness in getting up to date as a jurisdiction, the country has lost competitively as a financial center of significance at both the global and the regional level. Undoubtedly, Fintech is the opportunity to relaunch the Panamanian financial sector, to serve not only our own population, but the region and potentially the world. This, however, requires rapid decision making from all the relevant actors and help to overcome the short-term vision that, on occasion, seeks to protect outmoded, non-digital business models. Our main challenge as a foundation is helping to fully exploit this opportunity.

# The Ibero-American Fintech Alliance



The Ibero-American Fintech Alliance was established in May 2017. Its mission is to encourage the development of the Fintech ecosystem at the international level, especially in Latin America, to boost start-ups, competitiveness, and financial inclusion through common regulation, as well as the exchange of experiences and best practices which help to create a global, barrier-free market.

#### **Specific objectives:**

- 1. Create a Fintech regulation committee
- 2. Propose a code of good governance and a code of ethics
- 3. Develop a financial inclusion observatory
- 4. Develop a Fintech single window and mailbox
- 5. Hold Fintech forums throughout Ibero-America

The Alliance currently comprises 13 Fintech associations from 21 countries in the Ibero-American region:

- 1. Argentina: Argentine Chamber of Fintech
- 2. Brazil: ABStartup
- **3.** Brazil: ABFintechs
- **4.** Central America and the Caribbean (Costa Rica, Guatemala, El Salvador, Honduras, Nicaragua, Dominican Republic, Belize, the Bahamas, Puerto Rico and Cayman Islands): Central America and Caribbean Fintech
- 5. Chile: Fintech Association of Chile
- 6. Colombia: Colombia Fintech
- 7. Mexico: Fintech Mexico
- 8. Panama: PanaFintech
- 9. Peru: Fintech Peru
- 10. Portugal: Fintech and Insurtech Portugal
- 11. Spain: Spanish Fintech and Insurtech Association (AEFI)
- 12. Dominican Republic: Dominican Fintech Associations
- 13. Uruguay: Uruguayan Chamber of Fintech

### ·What are the main achievements to date?

This Alliance has become the major Fintech initiative in terms of the number of countries and Fintech firms represented by non-profit associations at the global level. This has been achieved in record time, largely because historically, Ibero-America has been united by its culture, language, and people, which has driven the development of the countries that comprise it.

The achievements recorded in the first year are:

- Joining forces and providing support throughout the region: collaboration in disseminating the activities that are developed in their ecosystems, as well as sharing the best practices developed at the local level so that they can be implemented in the region depending on the regulations in each country.
- Implementation of a channel of communication and Fintech single mailbox: helplines tailored to the needs of each country to encourage start-ups and provide guidance and support at the Ibero-American level.
- Creation of a regulatory environment that supports innovation and internationalization by Fintech companies. For this purpose we developed a protocol to implement an Ibero-American sandbox inspired by the Spanish Fintech and Insurtech Association's proposal, whose essential aim is to provide countries interested in Ibero-America with a basic guide for the development of a sandbox.
- Encouragement of ethical and professional behavior in each Fintech areas, with a view to protecting the final customer and the reputation of the sector. We developed a Manual of Best Practices, inspired by the code implemented by the Spanish Fintech and Insurtech Association, which serves as a starting point for the region.
- Development and presentation of proposals for regulatory changes for different business segments in the Ibero-American Fintech market focused on consumer protection. To this end, the Alliance published its Ibero-American White Paper on Equity Crowdfunding (Libro Blanco Iberoamericano para Equity Crowdfunding) describing the best practices that all companies dedicated to this activity in the region should observe.

# ·How would you summarize the future prospects (both opportunities and challenges) for Fintech in Ibero-America?

Following the II Summit held in Madrid in May 2018, the Ibero-American Fintech Alliance cemented its position as one of the largest and most consistent initiatives in the Fintech sector at the global level.

The tasks to be accomplished in the second year of the Alliance are the following:

 Continue to publish white papers that foster the development of the Ibero-American ecosystem in the areas of digital identity, open banking, data protection, and initial coin offerings (ICOs).

- Maintain support among the member associations to share best practices and initiatives developed at the local level.
- Organize the III Summit of the Alliance in Mexico to present the achievements recorded in its third year to the region's regulators and supervisors.
- Continually update news of progress made in each country and foster regional integration of the local industries.

# ·What message do you have for people interested in starting a Fintech business? And what message for the regulators?

Working alongside regulators, our goal is to achieve harmonization in the region. This will enable Fintech firms to internationalize and size up much faster, allowing them the chance to compete at the global level. If the region's regulators are to follow a similar path, they need a benchmark, such as the case of Mexico following approval of its Fintech Law, or the case of Spain following the development of a draft bill to establish a sandbox. These examples can serve as best practices to be emulated in the rest of the region.

On June 30, 2018, the National Securities Market Commission (Comisión Nacional del Mercado de Valores, or CNMV) in Spain signed a collaboration agreement with seven supervisory bodies that included the Ibero-American Securities Markets Institute (Instituto Iberoamericano de Mercados de Valores, or IIMV). The purpose of the agreement was to create an Ibero-American space for developing Fintech projects to promote innovation.

The signatories to this agreement are:

- · National Securities Commission (Argentina)
- Financial Superintendency (Colombia)
- National Banking and Insurance Commission (Honduras)
- National Securities Commission (Paraguay)
- Securities Market Superintendency (Peru)
- · Securities Market Commission (Portugal)
- Superintendeny of Securitites (Dominican Republic)
- National Securities Market Commission (Spain)

Anyone interested in starting a business in the Ibero-American Fintech sector can contact the Alliance through its website at: <a href="http://Fintechiberoamerica.com/">http://Fintechiberoamerica.com/</a>. The Alliance's mission is to connect entrepreneurs with the country of interest and thereby direct them to the right stakeholders.



## Open Innovation Programs and Initiatives

In 2017 and 2018, there has been a significant rise in the number of open innovation programs and initiatives driven by traditional industry actors. In the last 18 months, various industry actors, ranging from banks and microfinance companies to insurance companies and payments entities, have begun to approach and to position themselves in the Fintech ecosystem in Latin America.

Visa's Everywhere Initiative, a global relationship-building and accompaniment program established by Visa for Fintech startups in their early stages, launched its 2017 edition for Latin America and the Caribbean, positioning itself as one of the most ambitious initiatives in terms of focus and scope in the entire region. Visa is also accompanying Fintech start-ups in Brazil and Mexico, giving its backing to business acceleration programs such as the well-respected programs operated by Kyvo/GSVLabs in Brazil and Startupbootcamp Fintech in Mexico.

In Brazil in February 2018, Bradesco, one of the largest Brazilian banks, inaugurated InovaBra Habitat, a mixture of a center for innovation and co-working space that hosts 180 start-ups and 50 technology companies. The center seeks to help the bank to reach out to innovations that are developing with technologies such as: blockchain, big data and algorithms, internet of things (IoT), artificial intelligence, and API and digital platforms. This launch complements other open innovation initiatives that Bradesco has been running for the last four years.

In 2017, Santander Mexico launched Spotlight, a space where innovations in digital banks are developed and from where Banco Santander can drive innovation in digital banking through a creative and collaborative space where developers of new solutions and projects are concentrated to benefit customers. This digital factory houses around 120 people dedicated to developing solutions, process improvements, and new technology-based banking schemes that seek to make the latest-generation services available to customers. Spotlight establishes a model for collaboration, an open flow of creative processes, and an environment for integration and cooperation between the bank's teams and third parties, where strategic partners in technological innovation in banking, as well as Fintech and university groups, also participate.

Also in Mexico, in 2017 BBVA Bancomer launched its open innovation program called Open Sandbox. Through allies embedded in the ecosystem, it seeks to connect with Fintech start-ups that wish to approach the financial institution for the opportunity to develop and execute a pilot or a proof of concept.

These diverse initiatives have a common aim of identifying Fintech start-ups and accompanying them in developing and validating their business models through pilots and proofs of concept.

Scotiabank, the Canadian financial entity with presence in Latin America and the Caribbean, also raised its visibility, connection, and collaboration with the Fintech ecosystem in 2017 and 2018, especially in the Pacific Alliance countries. In 2017, Scotiabank inaugurated its first digital factory at its corporate headquarters in Toronto. It then did the same in every Pacific Alliance country. In May 2018 it opened the first digital factory in Central America in El Salvador. Digital factories are centers of digital production designed to drive forward collaboration and creativity. By opening multiple factories, a network is being created that serves as an incubator for new products, services, and solutions. This strategy is complemented by relationshipbuilding and collaboration with Fintech start-ups, as well as support for the regional Fintech acceleration program Nxtp Labs in 2018, sponsorship of the FINNOSUMMIT Challenge in Bogota and Mexico City. It also collaborates by investing in the venture capital fund QED Investors, one of the major venture capital funds specialized in Fintech in the world, whose portfolio includes numerous Fintech companies in Latin America.

In February 2018, Bancolombia became the first Colombian bank to sign an agreement with Plug and Play, an innovation ecosystem based in Silicon Valley that connects start-ups and corporations from different industries. In this way, Bancolombia seeks to expand its network to one of the most mature innovation ecosystems in the world and thereby open its doors to entrepreneurs, accelerators and venture capital funds.

Finally, in 2017, Mexico announced a new program by the leading accelerator at the global level, Startupbootcamp FinTech, which launched a scaling-up program in Mexico City to accompany Fintech start-ups throughout Latin America over six months throughout their scaling up stage. This program, announced in December 2017, is backed by a consortium of industry actors, among which are Banregio, EY, Gentera, HSBC, Ignia, Visa, Latinia, and White and Case (legal partner) and is added to an existing acceleration program announced at the beginning of 2017.

Although is not an exhaustive list of open innovation programs and initiatives currently operated by financial entities in the region, this section highlights some of them and draws attention to the significant increase in collaboration that traditional industry actors seek with Fintech start-ups to help them navigate through part of their digital transformation. These diverse initiatives have a common aim of identifying Fintech start-ups and accompanying them in developing and validating their business models through pilots and proofs of concept.

## Open Banking and Application Programming Interfaces

The collaboration programs fostered by the traditional industry actors in Latin America are starting to be complemented by open banking standards and initiatives. Open banking can be defined as a collaborative model under which banking data are shared through APIs, between two or more unaffiliated parties, to deliver product-and/or service-related improvements to the market. Although the data are growing in many industries, acting as a catalyst for new products and business models, access to that data is the fundamental pillar that will determine the financial service industry's capacity for innovation and transformation

The potential benefits of open banking are:



1. Improvement in customer experience



2. New revenue models for incumbents



3. Sustainable business models for addressing underserved markets

To achieve all of these, collaboration among the different actors of the ecosystem, mainly banks and Fintech companies, is a key factor. Access to data will determine the industry's direction in a digital age.

The European Union has been proactive in standardizing open banking, establishing an operational framework with rules of access contained in its PSD2 directive. The United Kingdom has also been a pioneer, establishing specifications for API and data standards within a supervised environment that safeguards the principles of openness and collaboration upon which these initiatives have been built.

Mexico is the first Latin American country that has proposed adopting open banking standards. This is one of the points in the Fintech Law, approved in March 2018, which requires all financial service providers to open access to data from their customers to third parties. There is tremendous enthusiasm for this in Mexico, given the existing collaboration between Fintech firms and banks, some of which have already designed and launched their first open API. Nonetheless, the secondary law, which will determine the common technical standards under which the market could really benefit from an open banking framework, has yet to be approved.

As things stand today, there is no other market in Latin America that requires, publicly at least, financial service providers to permit access to their customers' data. Nonetheless, 17 percent of the Fintech firms throughout the region consider that the open and API platforms are the main technology that is making their service or product possible. Of these 17 percent, three out of every four is outside of Mexico, which is surprising bearing in mind that no other country, whether from the regulatory perspective or from the perspective of collaboration initiatives with Fintech firms, is encouraging collaboration through data sharing.

There are collaborative initiatives in the region based on the spread of open banking and API open platforms. Some examples are the Finconecta program currently promoted by the IDB Group's Multilateral Investment Fund (MIF), and Novopayment, a regional, Miami-based Fintech firm, which facilitates service delivery and financial transactions through an API platform, enabling banks and developers to connect with each other to jointly design new products and financial services.

### :····· Brazil's Financial Innovation Laboratory ······

The Fintech Working Group was launched in December 2017 as part of the Financial Innovation Laboratory, an initiative led by the Brazilian Development Association, the Securities Market Commission of Brazil, and the IDB. The Working Group comprises 78 members from 38 institutions, which represent different government agencies, regulators, Fintech associations, trade associations and representatives from the financial sector, as well as other key actors in the ecosystem. The Working Group has two main focuses: (i) study and evaluate new financial technologies and business models (impacts, opportunities, and challenges); and (ii) design proposals for joint action (rules of governance, services offered). Pending work on the viability of implementing a regulatory sandbox project is also underway (Financial Innovation Laboratory, 2018). By drawing on the participation of various institutions and stakeholders from the public and the private sectors, the Working Group is a key platform for advancement of the Fintech ecosystem in Brazil. It is the region's first such

initiative. The Working Group is divided into three sub- groups:

- Regulatory sub-group: Its objective is to analyze regulation, by examining international experiences, with a view to developing, among other things, a regulatory sandbox in Brazil. It also seeks to identify the needs, bottlenecks, and concerns of the Fintech market, which vary by segment (credit, insurtech, payments systems, and crowdfunding).
- Ecosystem building sub-group: Responsible for evaluating market impact, public and private measures to stimulate the sector, and its growth and consolidation, with emphasis on identifying and addressing the needs of young Fintech businesses.
- Public and private financial institutions sub-group: Responsible for studying the country's financial institutions, particularly the public and development banks, which can harness Fintech development objectives.

.....:



## MIF's Efforts to Enhance the Fintech Ecosystem to Improve Inclusion

The IDB Group, through its Multilateral Investment Fund (MIF), has been driving the development of the region's Fintech sector through three main lines of action: support for programs that boost ecosystem development, capital investments in venture capital funds and direct funding for start-ups. The MIF is the IDB's innovation laboratory that, in partnership with the private sector identifies, supports and scales up development solutions in Latin America and the Caribbean.

#### Support for Fintech ecosystem development programs .....

#### >Nxtp.Labs

The MIF is one of the main partners of the Fintech Acceleration Program of NXTP Labs—a regional investment fund with a technology-based start-up acceleration program—which seeks to maximize innovation in the banking and financial industry by using disruptive solutions.

In the 2017 edition, 34 start-ups participated from Argentina, Chile, Colombia, and Mexico, which develop innovative lending solutions for start-ups and scale-ups, peer to peer (P2P) lending, payment platforms, blockchain, big data, cybernetic security, software as a service (SaaS), financial management, currency exchange, and crowdfunding, among others.

For the 2018 edition, 41 start-ups from Argentina, Chile, Colombia, Mexico, and Peru were selected, and these will gain access, among others, to mentors in each country's banking and financial industry and to corporations, enabling them to incorporate innovation. Each edition concludes with an international conference that convenes the major players in the region's banking and financial industry, Fintech entrepreneurs, investors, and innovators in a day-long session involving main speakers, discussion panels, and a regional pitch competition.

"We are increasingly identifying start-ups of greater maturity, teams with more consolidated knowledge, and at the same time more predisposition in the financial industry to listen and to be proactive in integrating with start-ups." "We are already actively working with banks such as Scotiabank who have internal metrics for integrating with start-ups, and we want to promote this type of process in other companies of the sector, showing the value that the Fintech firms we work with can bring them."

Ciro Echesortu, Regional Program Manager at NXTP Labs. https://Fintech.nxtplabs.com/



MIF supported the creation of FINCONECTA in 2017, a program dedicated to building the interconnected ecosystem of solutions among financial institutions and Fintech firms, encouraging collaboration, interoperability, and execution of prototypes among ecosystem participants.

This mutual-benefit collaboration model enables financial institutions to evaluate multiple technological solutions proposed by Fintech firms and adapt them to their needs. Using the 4WRD platform, financial institutions, with a single connection,

are able to select various previously validated Fintech solutions for testing in a technological sandbox. For their part, Fintech companies gain first-hand access to financial institutions, with excellent opportunities to gain traction and scale.

The first edition of the program in LAC identified 145 Fintech start-ups (34 percent from LAC) and connected 32 Fintech firms with 10 financial institutions.

The results were announced within the Foromic 2017 framework.

https://www.finconecta.com/

#### ······ Investments by venture capital funds ······

Presently, nine of the region's venture capital funds in which MIF has invested hold investments in their portfolio in more than 50 Fintech start-ups, with operations in Argentina, Brazil, Chile, Colombia, Mexico ,and the United States. They offer

innovative lending solutions for start-ups and scale-ups, peer-to-peer lending (P2P), payments platforms, blockchain, big data, cybersecurity, software as a service (SaaS), financial management, currency exchange, and crowdfunding, among others.



















#### Examples of direct funding for Fintech start-ups





Sempli is an online funding platform for start-ups and scale-ups in Colombia that provides loans for working capital and business expansion with amortization plans that adjust to the companies' operational cycle.

Kubo Financial is the first platform specialized in crowdfunding and P2P lending, regulated by Mexico's National Banking and Securities Commission.

## Financial Inclusion



Only

**54%** 

of the region's adult population enjoyed access to a bank account in 2017.



Financial inclusion continues to be a critical challenge in the LAC region with respect to reducing poverty and achieving more inclusive economic growth. Presently, more than 50 percent of the region's population are excluded from the formal banking sector. Of the 2 billion people in the world without a bank account, 210 million live in the LAC region. According to the Findex Survey data (World Bank, 2017), in 2017 only 54 percent of the region's adult population enjoyed access to a bank account, up from 39 percent observed in 2011. In 2017, only 12 percent of the population reported that they had savings in a formal financial institution, 9 percent stated they had taken a loan from a financial institution, and an estimated 61 percent of the region's population pay their bills in cash.

Although there are various limitations on the supply side, there are also restrictions on the demand side of formal financial services that go beyond low levels of income or lack of financial education. They are associated with the lack of products and services that provide value to users. That is, those who currently make cash transactions and use informal financial services will not migrate to the formal sector unless these products are easy to understand, use, and access and contain a significant value proposition (De Olloqui, Andrade, and Herrera, 2015).

However, this context of high exclusion (and self-exclusion) from the formal financial system coexists alongside robust technological development in the region. Specifically, mobile phone penetration and the extension of broadband services, alongside improved customer-centered product designs, point toward an evolutionary path of more inclusive and innovative economic development that can improve financial inclusion for a large part of the population.

According to the Mobile Economy 2018 report, published recently by GSMA (2018), in 2017 mobile Internet penetration in LAC reached 50 percent. This is above the world average of 43 percent, and is expected to hit 66 percent in 2025. Furthermore, the number of users in the region who own a smartphone is expected to rise by 12 percent annually until 2019.

The combination of high rates of financial exclusion and high mobile penetration and technological innovation represents a great opportunity for the Fintech sector. Fintech uses technology to enable financial services to reach a part of the population that, until now, had been underserved by the traditional financial services.

The results obtained in the survey of Fintech start-ups carried out for the current report show some of the opportunities for the region's Fintech firms. When questioned about the main market for their product or service, 46 percent of start-ups reported that they target their solutions to the underserved or unbanked consumer and SME markets. Specifically, 19 percent

address underserved or unbanked SMEs, whereas the remaining 27 percent target underserved or unbanked consumers. There is a noticeable increase in the percentage of start-ups that tailor their products and/or services to this segment of the population. In 2017, 41.3 percent stated that their solutions were designed to target consumers and/or SMEs excluded or underserved by traditional financial services, which reflects the growing importance of the Fintech sector in improving financial inclusion in the LAC region.

Fintech companies offer myriad possibilities for improving financial services, including payments or transfers using mobile devices. According to GSMA, remittances sent through mobile devices have already become the fastest-growing product in terms of volume of transactions (+52 percent) for the second consecutive year in Latin America. Furthermore, according to a study carried out by Juniper Research, it is estimated that the value of mobile international remittances exceeded US\$25 billion in 2018, an increase of 67 percent since 2015. Mobile device transactions have also experienced high growth in the region. In Brazil, these transactions represented 34 percent of the total transactions carried out in 2016.



19%

Of start-ups adresss underserved or unbanked SMEs



27%

Of start-ups target underserved or unbanked consumers

# Which countries have the highest percentage of Fintech start-ups offering solutions to excluded or underserved segments of the population?

Figure 32

Countries with the Highest Percentage of Fintech Start-ups Offering Solutions for Excluded or Underserved Segment



#### Bolivia, El Salvador, Honduras, Nicaragua, Panama and Paraguay 100%

of the start-ups that answered the survey claimed that excluded or underserved consumers and/or excluded SMEs were their principal target in the market.



#### Dominican Republic 75%

of the start-ups focused on this segment.

The highest percentage of Fintech start-ups that target solutions to the excluded or underserved consumers and SME market are found in the following countries:



Source: Survey IDB and Finnovista (2018)

It is noteworthy that the countries with a higher percentage of Fintech start-ups that tailor their products and/or services to the underserved or excluded consumer and/or SME market overlap with those with higher financial exclusion rates, according to the World Bank. In particular, El Salvador, Mexico, and Nicaragua, where over 50 percent of the Fintech start-ups offer their services to this financially excluded segment, the percentage of adults with access to a bank account is below 40 percent. In the remaining countries, where the percentage of adults with access to bank accounts is between 40 percent and 50 percent, over 30 percent of Fintech start-ups offer their services to this segment of the population. This is a sign that Fintech solutions are working to reduce financial exclusion.

#### Services for SMEs to Enhance Financial Inclusion and Productive Financing in the LAC Region

Beyond payments and transfers through mobile devices, Fintech firms offer a wider range of products aimed at improving access to financial products, especially for SMEs. An example of this is access to new models for raising credit or capital, which creates a new business funding scenario.

Currently, it is almost impossible for many SMEs to obtain a loan, due either to their inability to pass a credit history check (or its high costs), or because they lack the necessary collateral. Fintech companies have developed alternative scoring systems by developing algorithms that can analyze credit risk innovatively and thereby make decisions about a customer's solvency. This broadens SMEs' access to bank loans when they have little or no credit history.

Furthermore, the region's banking systems reveal that the major banks in each country enjoy a high market share and set high annual interest rates. Fintech firms provide alternative finance options that offer lower interest rates and easier and more intuitive user experiences. According to Goldman Sachs' estimates, the US\$177 billion provided in loans to small companies by the traditional banking system are at risk of being affected by such bank disintermediation.

Some examples of such Fintech companies are Konfio, an online lending platform for small companies in Mexico that uses alternative credit ratings to provide faster loans and thereby enables companies to develop their business, and TiendaPago, which offers microcredit for short-term capital to small local businesses through agreements with large distributors to finance and insure the inventory of products that are key to their business. For more information and details about this trend in Fintech alternative finance for businesses and SMEs in Latin America, as well as the study that analyzes the cases of Mexico and Chile in more depth, see the publications by the Cambridge Centre for Alternative Finance (2017 and 2018), which were elaborated with IDB support.

There are already 179 Fintech start-ups in the region devoted to providing enterprise financial management services, including electronic invoicing, digital accounting, financial management, and business intelligence and payment collection services.

Through these types of products and services, SMEs can digitize their processes, and therefore improve their management efficiency, creating data points and digital footprints that enable them to release a quantity of information that brings them nearer to formal financial systems and credit through the new credit scoring models that involve intensive data use.

SME-centered Fintech services enable better cost management and, consequently, savings by facilitating fast and automated management. Some examples are financial management and business intelligence services, such as Alegra, a cloud-based invoicing and administration system for small companies; and Increase, a system allowing companies to know exactly when and how much they are going to earn from credit card sales. This enables the firm to manage tax payments, settlements, and retentions more effectively.



179

Fintech start-ups in the region are devoted to providing enterprise financial management services.

# Fintechrelated initiatives by national development banks

In recent years, interesting Fintech-related initiatives have begun to emerge from the region's national development banks (NDBs), public institutions whose mission is to facilitate and improve access to financing, especially for SMEs and the productive sector in general. Particularly outstanding are those begun by the National Development Bank of Brazil (Banco Nacional de Desenvolvimento Econômico e Social, or BNDES), which is responsible for a significant and pioneering digitization agenda and for recruiting Fintech companies to provide services to MSMEs. Specifically, BNDES (undated) has implemented the platform online platform MSME Developer Channel (Canal do Desenvolvedor MPME), which gives potential borrowers a single platform to facilitate access to information about financial products and automate some processes. Since the beginning of 2018, BNDES has implemented a plan to integrate solutions provided by Fintech firms into this channel. The first step was a public bidding process in which Fintech companies could put forward solutions aimed at improving access to funding for MSMEs, among them: (i) credit scoring, (ii) financial education, (iii) matching, and (iv) reverse auctions. The BNDES Fintech Challenge, launched in 2018, seeks to foster innovative solutions for creditor analysis, potential customer identification, digital platform integration, digitization of the loan approval process, blockchain and digital currencies, fraud prevention, and other tools for MSMEs.

Another NDB that is implementing an interesting Fintech challenge is Mexico's National Financial Institute (Nacional Financiera, or NAFIN). Through its "Aplicando Mexico" initiative, it seeks to encourage the talent of young Mexicans, as well as the development of the Fintech industry and its links with Mexican banks. The IDB participated as a strategic partner in the second edition of the challenge, which took place between 2017 and 2018.

In the future, NDBs can play a fundamental role in supporting the growth of the Fintech ecosystem and helping SMEs take full advantage of the innovation brought by the Fintech revolution. NDB strategies in this area can be envisaged on two separate fronts: (i) Fintech for SMEs, that is, initiatives to facilitate and coordinate services provided by Fintech companies that benefit SMEs; and (ii) Fintech as SMEs, that is, helping to foster Fintech companies by facilitating access to funding and other services.

## Financial Regulation<sup>9</sup>



<sup>9</sup> This section was prepared jointly with Diego Herrera, senior specialist in financial markets at the IDB.

## Overview of Regulation in the Region

Fintech platforms are challenging the traditional financial industry with innovative business models and new channels that provide a wide range of services to financial consumers.

Governments are aware of the potential of the Fintech sector to spur economic development, as it reduces operating costs, increases competitiveness, and leads to greater social benefits by improving financial inclusion and offering optimal financial services. The prospect that alternative financial platforms could resolve some of the persistent asymmetries that limit access to funding within the region and its rate of growth demands action from policymakers and regulators. Both groups are aware of the Fintech industry's evolution and are designing policies and regulations that permit the growth of the industry while ensuring appropriate regulation and oversight.

On the political side, it is vitally important to have an institutional and policy framework that permits the growth of technology, including the progress required to enable Fintech to prosper. Moreover, policies that fosters innovation in the financial sector are important to allow Fintech to grow in the region. Development and productive financing agendas increasingly include references to Fintech. Furthermore, since public saving and economic welfare are closely related to various Fintech activities, a regulatory framework is necessary. Such a regulatory framework must fulfill the essential aims of protecting financial consumers, guaranteeing efficient and transparent competition, and mitigating systemic risk.

With this in mind, Latin American governments-many with IDB support-have begun to introduce Fintech-related regulations, particularly in the areas of crowdfunding and regulatory sandboxes. 10 For example, the IDB provided support to the National Securities Commission in Argentina to draft a General Resolution on crowdfunding within the framework of the Production Law (National Securities Commission of Argentina, 2018). It also supported Mexico's National Banking and Securities Commission and the Treasury and Public Credit Secretariat in drafting the specific sections of the Fintech Law and continues to collaborate with these entities in reviewing the secondary regulation that implements the law (Federal Commission on Regulatory Reform, 2017). Regulations on investment crowdfunding have been in place in Brazil since 2017 (Securities Market Commission, 2017) and, more recently, for peer-to-peer loan and funding operations among electronic platforms (Central Bank of

<sup>10</sup> The IDB has taken the initiative to support governments in identifying and supporting policies and initiatives to regulate crowdfunding, Fintech, and regulatory sandboxes in Argentina, Brazil, Chile, Mexico, Paraguay, and Peru. The Bank also collaborated in establishing the principles for the regulation of Fintech in the Pacific Alliance countries: Chile, Colombia, Mexico, and Peru.

Brazil, 2018). In all cases where a policy or regulation has been successful, the dialogue between the Fintech platforms and the financial authorities has been a crucial component. Listening and understanding on both sides of the equation is needed if the correct decisions are to be made.

Regulation in LAC is no easy task, mainly due to the civil law tradition that many countries have inherited, which ensures that the mandate and powers of financial regulators and supervisors are binding and specific. In general, experience has demonstrated that a specific regulatory framework is needed for Fintech. It includes new mandates and powers for regulators, the creation of new activities that are registered and authorized within the regulatory perimeter, regulatory environments, dialogue, and extensive coordination among the regulatory agencies. For example, for the case of alternative finance, a set of basic principles that could be repliated in other Fintech segments is recommended, based on Herrera (2016).

Nonetheless, it would be particularly beneficial for the region to share a set of basic principles to which regulations from each jurisdiction could be added. The Pacific Alliance countries have already followed this path in agreeing on a series of guiding principles for Fintech regulation in the sub-region (Pacific Alliance, 2018). This effort represents the first by a group of countries focused on this issue. By reducing regulatory uncertainty, this effort strengthens the possibility of regulatory convergence, enabling Fintech firms to scale up in countries other than their country of origin.

#### Mexico's Fintech Law

Mexico's Fintech Law is pioneering example of how to tackle regulation of the Fintech sector from a holistic perspective and with proportionality. Proportionality refers to regulating the activities that the new platforms are already carrying out, and their attendant risks, with the understanding that their business model is different from that of the traditional financial sector. Work on the draft Fintech bill began in Mexico in July 2016 and, on March 1, 2018, the plenary session of the Chamber of Deputies voted by 264 votes in favor, 61 against, and 1 abstention to approve the law to regulate financial technology institutes (FTIs). This became the Fintech Law, the first of its kind in the region. The aim of this new law is to provide greater legal certainty through a legislative framework to regulate the platforms denominated FTIs and to establish a framework that ensures fair competition among Fintech start-ups, financial institutions, and traditional banks.

The draft bill focused on four areas:

- 1. FTIs, comprising financial crowdfunding firms and electronic payment institutions
- 2. Virtual assets (cryptocurrencies)
- 3. APIs
- 4. Temporary authorizations for innovation testing (sandboxes), for previously regulated entities and for Fintech firms, separately.

Furthermore, in the draft bill, FTIs are subject to an authorization regime with four main aspects:

- 1. Start-up and licensing requirements
- 2. Minimum operational requirements
- 3. Responsibility for consumer protection
- 4. Oversight designed by the National Banking and Securities Commission, the Bank of Mexico or the Financial Consumer Protection Commission.

Finally, the draft bill identifies three types of alternative finance: borrowing, equity, and royalties or co-ownership.

There is general agreement on the need to establish regulations that are appropriate and adapted to the Fintech sector. The authorities are working on a secondary regulation that is expected to be appropriate for the industry.

**Functional implementation of the Fintech Law** has encountered some challenges. For example, the new law specifies that independent third parties must monitor compliance by electronic payment platforms with "information security measures, use of electronic media and the operational continuity that such institutions must observe in accordance with the said arrangements." Depending on the type of technology, there may be dependence on foreign companies that comply with certain technical requirements that, at present, have yet to achieve sufficient penetration in Mexico. Consequently, dependence on these third parties could greatly hamper the start-ups' flow of operations until the third party audit has been completed.

#### Policy and Regulatory Alternatives around the World

There are a variety of approaches to regulation and policymaking for the Fintech sector. These include regulatory sandboxes, a facilitating tool that enables policymaking on and regulation of active ecosystems.

A regulatory sandbox is a testing ground that permits innovative firms (regulated and non-regulated) to operate temporarily, under certain rules that limit aspects such as the number of users or the period in which the product can be offered. In this way, companies can test original products, services, and solutions under the watchful eye of the supervisor (Herrera and Vadillo, 2018). There are often multiple facilitators in the same jurisdiction. Given the novelty of the approaches, experience with these facilitation tools has yet to yield reliable results for evaluation.





Brazil China India Japan Jordan Kenya Mexico Russia S. Korea Sweden Switzerland Taiwan Turkey Operational

Australia Bahrain Canada Hong Kong Malaysia Netherlands Singapore Thailand United Arab Emirates United Kingdom Established

Brunei Indonesia Mauritius Sierra Leone Nonetheless, regulatory sandboxes have proved to be especially popular because they bring advantages to the supervisor or regulator as well as the innovative firm, both regulated and non-regulated. For the former, among other advantages are: (i) the chance to create competition, (ii) first-hand knowledge of the advantages and risks of the products being tested, (iii) the capacity to adjust regulation to innovation more efficiently, and (iv) access to and learning from the entrepreneurs' technical capacities. Companies, in turn, benefit from: (i) having a place to test their products; (ii) better understanding of the regulations; and (iii) access to a cost-efficient way of introducing their product to market, among others.

The possibility of a regional sandbox, based on the creation of common principles for Fintech regulation, is a viable alternative for the region's countries. A sandbox of this scope enables the participating company to test its product in all markets at the same time and, if the process is satisfactory, obtain a license to operate in all the jurisdictions included in the protected environment. It would help achieve the scale necessary to move between markets, with the benefits that this represents for entrepreneurs.

In addition to regulatory sandboxes, some jurisdictions (e.g., Australia, France, Hong Kong, Japan, South Korea, and the United Kingdom) have created "innovation centers" which, through interaction with the firms through deliberative dialogue with the regulators, enable them to navigate around the existing regulations and evaluate their capacity to survive permanently under them. This effort implies a medium-term process in which there is constant accompaniment by both supervisor and firms. Some authorities, moreover, have created "accelerators," which are a specialized means of cooperation between regulator and supervisor (or a ministry such as the one responsible for new technologies) with the aim of encouraging innovation. Accelerators can include direct financial support to companies to develop their activity while temporarily avoiding regulation.

### Innovasfc Working Group in Colombia

With a view to facilitating Fintech innovation, on May 7, 2018, Colombia's Financial Superintendency announced the launch of Innovasfc, a Fintech space led by the Financial and Technological Innovation Group, which includes three models aimed at facilitating innovation processes in the financial services industry:

#### The Arenera (sandbox)

A space that seeks to facilitate the development of products, technologies, and business models in a controlled environment and in real time. The Fintech start-ups that wish to be part of the Arenera must first go through a process of evaluation that will determine whether they meet the requirements with regard to innovation and the need to operate in a supervised environment

#### The Hub

Which seeks to become
the point of contact
with the Financial
Superintendency for
anyone interested
in Fintech matters.
In this area, the
Superintendence's Fintech
Team will evaluate
whether a given project
meets the eligibility
requirements.

#### Regtech

Whose aim is to exploit technological developments to leverage innovation within the Financial Superintendency itself, in order to optimize its internal processes.

#### The Role of the Fintech Associations

Throughout the LAC region, entrepreneurs and key actors of the Fintech ecosystem have united to create associations. Their objective is to generate information and knowledge about the ecosystem by contrasting different points of view about the innovation underway. These associations promote Fintech culture among consumers and the most important ecosystem actors, ranging from investors to regulators and entrepreneurs. They also coordinate efforts to foster best practices and efficiency in the sector.

The role that these associations have played in regulatory matters has been vitally important in helping key actors in the ecosystem find common ground and foster dialogue to optimize the development of an innovation-friendly regulatory framework. There are already 12 initiatives in LAC involving Fintech associations or related to the sector, in which 14 of the region's countries participate.

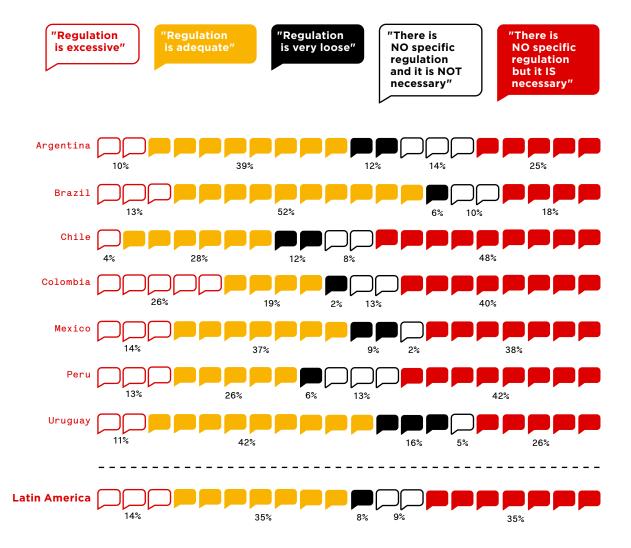
The dynamism of key actors in the region's ecosystem, encouraged by the business climate, is noticeable. The objective of the ecosystem is to combine interests and efforts to foster the development of financial innovation and broaden the knowledge of the benefits offered by the sector. The region still faces many questions to answer when deciding which regulatory path to follow. Collaboration among the main ecosystem actors is therefore essential; it enables them to share information and improve understanding of the operation and requirements of the innovations

## What Is the Perception of Fintech Regulation in Latin America and the Caribbean?

The survey conducted among 397 Fintech start-ups in Latin America and the Caribbean reveals the importance of regulation in ecosystem development. Thirty-five percent of those surveyed consider regulation necessary, despite the fact that it is presently lacking, compared to only 9 percent who consider that the sector currently needs no specific regulation. The perception of the current state of the regulatory system is not especially negative in the region, since 35 percent of the start-ups interviewed found it to be adequate (Figure 33). This result may possibly be influenced by progress in some jurisdictions in terms of regulating some activities. Examples are Mexico's recent passage of the Fintech Law in Mexico, the region's first specific law for the sector, and other initiatives to regulate crowdfunding or certain aspects of the payments market.

Figure 33

Perception of
Fintech Regulation
in Latin America
and the Caribbean



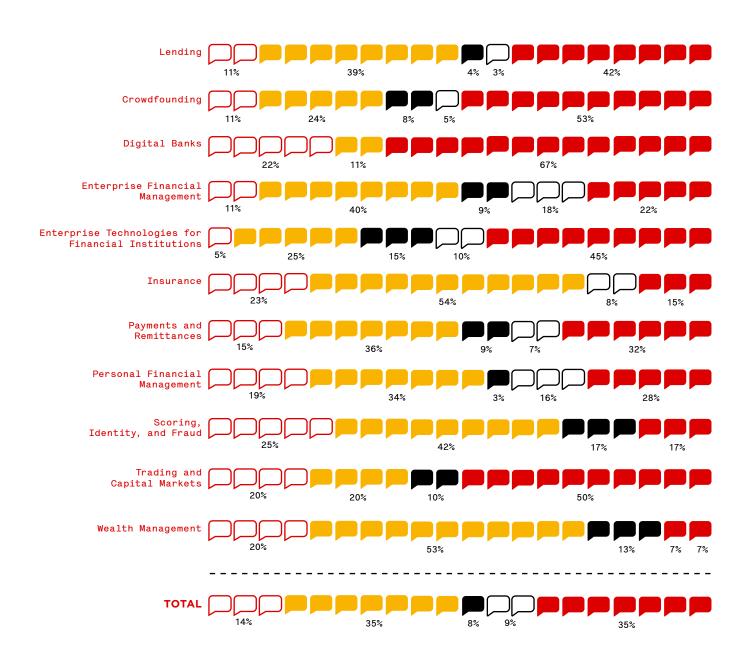
"Regulation is excessive"

"Regulation is adequate"

"Regulation is very loose"

"There is NO specific regulation and it is NOT necessary"

"There is NO specific regulation but it IS necessary"



With respect to the efforts to establish a dialogue and thereby open up avenues for collaboration between the Fintech industry and regulators, opinions are divided. Forty-six percent consider that there is strong openness to dialogue from regulators toward the FinTech industry, while 48 percent consider that the willingness to dialogue is still extremely weak (Figure 34). The proportion of companies that consider that there is no openness to dialogue is very low, as only 6 percent of the start-ups interviewed hold this opinion. The countries where a large majority of Fintech firms report that they perceive a strong openness to dialogue from regulators include the Dominican Republic, with 100 percent of Fintech firms, and Argentina, with 75 percent.

## Figure 34 Perception of the Dialogue between the Fintech Industry and the Regulators

"There's a weak openness to dialogue from regulators towards the Fintech industry"

48.6% (193)

"There's a strong openness to dialogue from regulators towards the Fintech industry" 45.6% (181)

"There's no openness to dialogue from regulators towards the Fintech industry" 5.8% (23)

#### **Regulation Scorecard**

It is clear that the regulatory system is making progress in the region. It is beginning to develop initiatives and maintain a dialogue that fosters the search for an innovation-friendly framework. Even so, it is critically important to compare it with the international level to detect areas for improvement.

When two of the most developed Fintech ecosystems in the world -Singapore and the United Kingdom- are analyzed, we observe that both have the main regulatory elements required to support ecosystem development: a specific Fintech law, sandboxes, a consolidated Fintech association, and a joint working group with the regulator.

The main countries of the LAC region have already set up their own Fintech associations, which are working to foster dialogue with the regulator. However, they are of recent creation, which means that, at present, initiatives such as developing specific Fintech sector laws or regulatory sandboxes have yet to be consolidated. Only Mexico has passed its own Fintech Law, whereas Argentina and Brazil have so far merely held public consultations or drafted legislation (Figure 35).

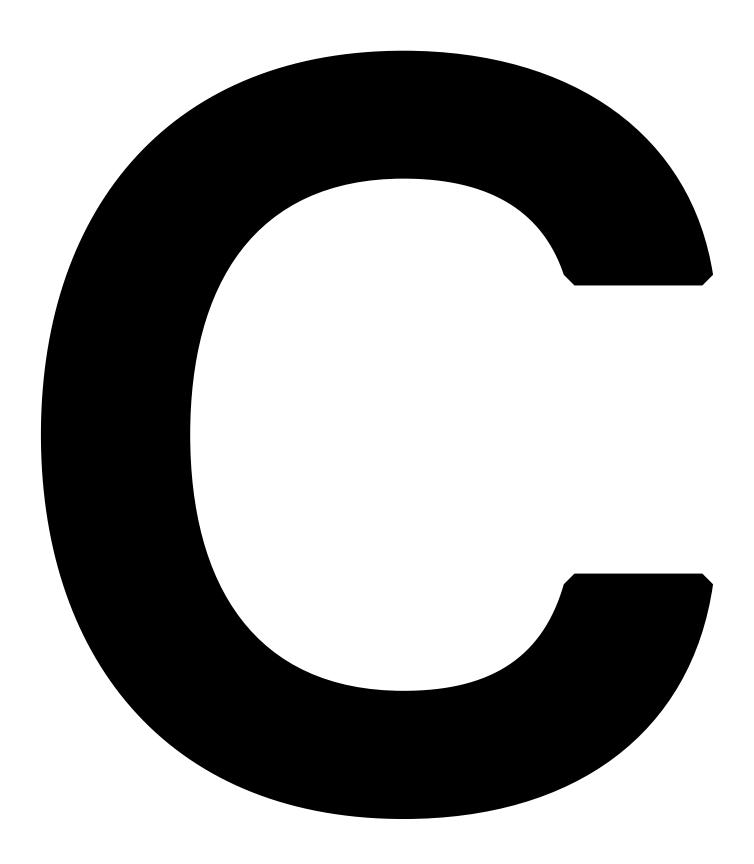
Figure 35
Regulation
Scorecard

_	Fintech Law	Specific Regulation of Any Fintech Segment		Joint Fintech Working Group with Regulatory Body	Fintech Association
Brazil		1		<b>1</b> 11	ABFintech
Mexico	4		4	4	Asociación Fintech México
Colombia		₹	(oversight	)	Colombia Fintech
Argentina		4		1	Cámara Fintech
Chile					Asociación Fintech Chile
United Kingdom		4	1	4	Innovate Finance
Singapore		1	₫.	₹	Singapore Fintech

Source: Authors' elaboration.

<sup>11</sup> In the context of the Financial Innovation Laboratory, CVM Fintech Hub, etc.

#### Conclusions



This report describes in detail the characteristics, trends, and evolving dynamic of the Fintech industry in Latin America. It is clear that the inevitable digitization of the financial sector opens the doors for entrepreneurs to accelerate innovation and change the ways in which people have interacted with their financial services, until recently. Fortunately, entrepreneurs throughout Latin America are responding to these opportunities, offering new services and innovative business models to all segments, and adopting a specific approach to address adequately the various customers segments to develop appropriate value propositions. The importance of this becomes clearer bearing in mind that these young businesses adapt better to current changes in user demographics or behavior, while at the same time satisfying expectations that the system's traditional actors have yet to address.

Nevertheless, this dynamic industry is still young and its consolidation requires various actions from both the public and private sides, as mentioned in the first edition of this report. The region's policymakers must take firm steps to harness this dynamism and potential, given the evident benefits that Fintech firms and their alignment with public policy objectives can bring. Likewise, countries must continue to adopt and foster mechanisms in support of start-up systems and the Fintech sector in particular. For example, they can use NDBs to incorporating funding initiatives into the industry, and through regulations that strike the necessary balance between innovation, protection, and stability. From the private sector side, specifically, the financial services industry, collaboration with Fintech firms must be further strengthened through structured open innovation programs or by establishing corporate venture capital funds and open banking, among other initiatives that enhance collaboration. It is crucial that private capital funds, NDBs, and multilateral organizations continue to provide investment and support Fintech start-ups at all phases, as well as their coordination with the rest of the financial system.

It is hoped that this report will continue the constructive dialogue among the different actors of the ecosystem with the aim of encouraging public policies and private initiatives to develop and consolidate the Fintech sector in Latin America.

#### **Bibliography**

Boston Consulting Group. 2009. Below the Topline Women's Growing Economic Power. Available at: <a href="https://www.nielsen.com/us/en/insights/news/2009/below-the-topline-womens-growing-economic-power.html">https://www.nielsen.com/us/en/insights/news/2009/below-the-topline-womens-growing-economic-power.html</a>

Buvinic, M. and R. Furst-Nichols. 2014. Promoting Women's Economic Empowerment: What Works? Policy Research Working Paper No. 7087. Washington, DC: World Bank. Available at: <a href="https://openknowledge.worldbank.org/handle/10986/20629">https://openknowledge.worldbank.org/handle/10986/20629</a>

CCAF (Cambridge Centre for Alternative Finance). 2016. The Breaking New Ground: The Americas Alternative Finance Benchmarking Report. Available at: <a href="https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance/downloads/2016-americas-alternative-finance-benchmarking-report.pdf">https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance-downloads/2016-americas-alternative-finance-benchmarking-report.pdf</a>

—. 2017. The Americas Alternative Industry Report: Hitting Stride. Available at: <a href="https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance/downloads/2017-05-americas-alternative-finance-industry-report.pdf">https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance/downloads/2017-05-americas-alternative-finance-industry-report.pdf</a>

—. 2018. Business Access to Alternative Finance a Deep-Dive into Mexico and Chile. Available at: <a href="https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance/downloads/2018-business-access-to-alternative-finance.pdf">https://www.jbs.cam.ac.uk/fileadmin/user\_upload/research/centres/alternative-finance/downloads/2018-business-access-to-alternative-finance.pdf</a>

BNDES (Banco Nacional de Desenvolvimento Econômico e Social). undated. Canal do Desenvolvedor MPME. Available at: <a href="https://www.bndes.gov.br/wps/portal/site/home/financiamento/canal-mpme">https://www.bndes.gov.br/wps/portal/site/home/financiamento/canal-mpme</a>

CB Insights. 2018. Fintech Trends to Watch in 2018. Available at: <a href="https://www.cbinsights.com/research/report/Fintech-trends-2018/">https://www.cbinsights.com/research/report/Fintech-trends-2018/</a>

Central Bank of Brazil. 2018. Resolución N 4656. Available at: <a href="https://www.bcb.gov.br/pre/normativos/busca/normativo.asp?numero=4656andtipo=Resolu%C3%A7%C3%A3oanddata=26/4/2018">https://www.bcb.gov.br/pre/normativos/busca/normativo.asp?numero=4656andtipo=Resolu%C3%A7%C3%A3oanddata=26/4/2018</a>

Cisco. 2018. Informe Anual de Ciberseguridad.

Available at: <a href="https://www.cisco.com/c/en/us/products/security/security-reports.html">https://www.cisco.com/c/en/us/products/security/security-reports.html</a>

Comisión de Valores Mobiliarios. 2017 Instrucao CVM 588. Available at: <a href="http://www.cvm.gov.br/noticias/arquivos/2017/20170713-2.html">http://www.cvm.gov.br/noticias/arquivos/2017/20170713-2.html</a>

Comisión Federal de Reforma Regulatoria. 2017. MIR de alto Impacto con Análisis de impacto en la competencia. Available at: <a href="http://www.cofemersimir.gob.mx//mirs/43560">http://www.cofemersimir.gob.mx//mirs/43560</a>

Comisión Nacional de Valores de Argentina. 2018. CNV reglamenta el Sistema de Financiamiento Colectivo. Available at: <a href="http://www.cnv.gob.ar/web/secciones/prensa/comunicados.aspx?id=213">http://www.cnv.gob.ar/web/secciones/prensa/comunicados.aspx?id=213</a>

Credit Suisse Research Institute. 2016. How Corporate Governance Matters. Available at: <a href="https://research-doc.credit-suisse.com/docView?language=ENGandformat=PDFandsource\_id=csplusresearch-cpanddocument\_id=1056885531andserialid=Yk19iXVShrqRUBlYFKFRsjR-5GahWcJh7vAUjqKZvJy4%3DandcspId">https://research-doc.credit-suisse.com/docView?language=ENGandformat=PDFandsource\_id=csplusresearch-cpanddocument\_id=1056885531andserialid=Yk19iXVShrqRUBlYFKFRsjR-5GahWcJh7vAUjqKZvJy4%3DandcspId</a>

De Olloqui, F., G. Andrade, and D. Herrera. 2015. Inclusión financiera en América Latina y el Caribe: Coyuntura actual y desafíos para los próximos años. Available at: <a href="https://publications.iadb.org/bitstream/handle/11319/6990/CMF\_DP\_Inclusion\_financiera\_en\_ALC.pdf?sequence=1andisAllowed=y">https://publications.iadb.org/bitstream/handle/11319/6990/CMF\_DP\_Inclusion\_financiera\_en\_ALC.pdf?sequence=1andisAllowed=y</a>

Demirgüç-Kunt, A., L. Klapper, P. Van Oudheusden, and L. Zingales. 2013. Trust in Banks. Working paper. Washington, DC: World Bank.

Dupas, P., and J. Robinson. 2009. Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. NBER Working Papers 14693. Cambridge, MA: National Bureau of Economic Research.

—. 2013. Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. *American Economic Journal: Applied Economics* 5 (1): 163-92.

GSMA. 2018. The Mobile Economy 2018. Available at: <a href="www.gsma.com/mobileeconomy">www.gsma.com/mobileeconomy</a>

Herrera, D. 2016. Alternative Finance (Crowdfunding) Regulation in Latin America and the Caribbean: A Balancing Act. Washington, DC: Inter-American Development Bank . Available at: <a href="https://publications.iadb.org/handle/11319/7837#sthash.krHqWzzx.dpuf">https://publications.iadb.org/handle/11319/7837#sthash.krHqWzzx.dpuf</a>.

Herrera, D., and S. Vadillo. 2018. Sandbox Regulatorio en América Latina y el Caribe para el ecosistema Fintech y el sistema financiero. Washington, DC: Inter-American Development Bank. Available at: <a href="https://publications.iadb.org/handle/11319/8795">https://publications.iadb.org/handle/11319/8795</a>.

Hoobler, J. M., C. R. Masterson, S. M. Nkomo, and E. J. Michel. 2016. The Business Case for Women Leaders: Meta-Analysis, Research Critique, and Path Forward. Available at: <a href="https://docs.lib.purdue.edu/cgi/viewcontent.cgi?referer=https://www.google.com/andhttpsredir=landarticle=1014andcontext=cgg">https://docs.lib.purdue.edu/cgi/viewcontent.cgi?referer=https://www.google.com/andhttpsredir=landarticle=1014andcontext=cgg</a>.

IDB (Inter-American Development Bank). 2017. Fintech: Innovations You May Not Know were from Latin America and the Caribbean. Washington, DC: IDB. Available at: <a href="https://publications.iadb.org/handle/11319/8265?locale-attribute=en">https://publications.iadb.org/handle/11319/8265?locale-attribute=en</a>.

IDC (International Data Corporation). 2017. IDC Releases. Available at: <a href="http://www.idclatin.com/releases/news.aspx?id=2273">http://www.idclatin.com/releases/news.aspx?id=2273</a>.

IFC-McKinsey. 2011. Assessing and Mapping the Global Finance Gap for Women-owned MSMEs. Available at: <a href="https://cdn.ymaws.com/www.andeglobal.org/resource/dynamic/blogs/20111212\_151426\_19862.pdf">https://cdn.ymaws.com/www.andeglobal.org/resource/dynamic/blogs/20111212\_151426\_19862.pdf</a>

Jakiela, P., and O. Ozier. 2012. Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies. Policy Research Working Paper 6085. Washington, DC: World Bank.

Knowles, J. 2013. Increasing the Productivity and Earnings of Rural Women: What Works?. A Roadmap for Promoting Women's Economic Empowerment. Available at: <a href="https://www.womeneconroadmap.org">www.womeneconroadmap.org</a>.

Accessed November 2013.

Laboratorio de Innovación Financiera. 2018. Available a: <a href="http://www.labinovacaofinanceira.com/grupos-de-trabalho-gt/Fintech/">http://www.labinovacaofinanceira.com/grupos-de-trabalho-gt/Fintech/</a>.

LAVCA. 2016. The Impact Investing Landscape in Latin America. Available at: <a href="https://lavca.org/impact-investing-rep/impact-investing-landscape-latin-america/">https://lavca.org/impact-investing-rep/impact-investing-landscape-latin-america/</a>.

—. 2017. Trend Watch . Available at: <a href="https://lavca.org/industry-data/2017-industry-data-analysis/">https://lavca.org/industry-data-analysis/</a>.

—. 2018. 2018 Industry Data and Analysis. Available at: <a href="https://lavca.org/industry-data/2018-industry-data-analysis/">https://lavca.org/industry-data/2018-industry-data-analysis/</a>.

Ministry of Finance, Government of Chile. 2018. Principios Orientadores para la regulación Fintech en la Alianza del Pacífico. Available at: <a href="http://www.hacienda.cl/mercado-de-capitales/documentos-y-presentaciones/principios-orientadores-para-la.html">http://www.hacienda.cl/mercado-de-capitales/documentos-y-presentaciones/principios-orientadores-para-la.html</a>.

Morgan Stanley. 2016. The Gender Advantage: Integrating Gender Diversity into Investment Decisions. Available at: <a href="http://www.morganstanley.com/pub/content/dam/msdotcom/ideas/gender-diversity-toolkit/Gender-Diversity-Investing-Primer.pdf">http://www.morganstanley.com/pub/content/dam/msdotcom/ideas/gender-diversity-toolkit/Gender-Diversity-Investing-Primer.pdf</a>.

NovaRed. 2018. Datos de ciberataques. Available at: <a href="http://www.novared.net/">http://www.novared.net/</a>.

Pailhé, C. 2014. Regulación financiera y género. Discussion document No. IDB-DP-347. Washington, DC: Inter-American Development Bank.

PwC. 2017. Women Unbound Unleashing Female Entrepreneurial Potential. Available at: <a href="https://www.pwc.com/gx/en/about/diversity/womenunbound.html">https://www.pwc.com/gx/en/about/diversity/womenunbound.html</a>.

World Bank. 2017. Global Financial Inclusion Database. Washington, DC: World Bank. Available at: <a href="https://globalfindex.worldbank.org/">https://globalfindex.worldbank.org/</a>

World Economic Forum. 2015. Global Gender Gap Report. Cologny, Switzerland: World Economic Forum. Available at: <a href="http://reports.weforum.org/global-gender-gap-report-2015/">http://reports.weforum.org/global-gender-gap-report-2015/</a>.

#### **Acknowledgements**

The Inter-American Development Bank and Finnovista wish to thank the Fintech associations and chambers in the LAC region and all the young companies that kindly agreed to answer the survey, which made the elaboration of this report possible.

2Transfair	ВРР	Creditas
Acesso Soluções	Briq.mx	Credito911.com.do
de Pagamento S.A.	Broota Colombia S.A.S.	Creditos.com.ar /
Acordo Certo	Buda.com	Creditos.com.mx
Adelanta Tu Nómina WEB	Bursia	Creze
Adelantos Capital Corp.	Byeo	Crowdium
Adianta	Cacao	CrowdSocios
Aflore	CambiaFacil	Cryptobuyer
Afluenta	Cambiame	Cryxto
Agente Cash	Cambiemosya	Cuanto
AgroCredit Crowdlending	Cambista Online	CULQI
Ahorra Seguros	CapitalPro	Cumplo
albo	Technology Inc.	Dapp
Antecipa	captarpagos	Datapedia
Aquistar	Carteras Colectivas	Datil
ArmaTuVaca.com	Celcoin	Destacame
ASAAS	Ceptinel	deVuelto
Aspiria	CFOremoto	Difondy
AU10TIX	CIGE México	Digital Credit
Auto Chilango	Círculo de Crédito	dinerofull
Avante	Clever	Distrito Pyme
Axend	CloudWalk	Dividendee
Ayllu Fintech	CLUPP	Dis Venture capital
b.trader	co2in	Doare
Banco Digital Maré	Code Money	DTA Latam (PAGO RURAL)
Bankingly	Coinfiance	Dvdendo
Beblue	Colppy	eAlcontado.com
Becredit Soluções de Crédito	RapiCredit	EASYCRÉDITO
Ltda	ComparaGuru.com	EBANX
Becual	ComparaMejor	Eduardo
<b>Bgood Smart Philanthropy</b>	ComparaOnline	Efectivate
BigData Corp	Compudemano	EfectivoClic
Billpocket	Comunidad Feliz Spa	ElegirSeguro.com
Billuyo	Concil	Emprestify
Biometrika	Contabilium	ePesos
Bitex	contarte.mx	ePlata
BitInka	ContratoMarco.com	E-prepag
bitmall	Conube Contabilidade Online	EqSeed
Bitso	Corporación Cryandto C.A.	Equals
Bkper Inc.	CrediFab	Ethos
Blowzy	CrediFace	EWALLY
Blumon Pay	Credify	Expansive
Bom Pra Crédito	Credility	EXPERT CLOUD ONE
Bondarea	Credimejora	Expension Confirming
Daraharana CCI	Credinejora	Exponencial Committing

Credipy

F(x) Acesso

**Bootcamp SCL** 

Fabrica Integral Independencia Mariana de Créditos FIC MelhorCâmbio.com FácilPay Innova Factoring Mensajea Latam FactoringLab.com Innova-Funding Mercado de capitales Facturama InnovaMars Mercadotecnia Ideas factúrame y Tecnología Instapago Facturedo Mercofact Intiza Facturex SAS Mesfix Inversionate Finaktiva **Meus Ynvestimentos** Invertaak Financia - Versatec MexPago Invierte con Expertos FinanciarMe MexPei Invista Pocket Finbitz Mi Auto Hoy InvoiNet Finerio Mibank Invoop Fintech.works MiCheque Ionix (MiFinanzas SRL) Finsoft ISF Crédito Orientado Mimoni **Fintual AGF Juntos com Voce** Minka FINV.mx miPim Finvox Kapital Zocial **MO Tecnologias** Flexibility + ideas Kapitalizalo Mobbex FLINK Kashio Moni K FOL Kausefunding Monihuhb SAS Fondify Kintos **MOON Money Online** Foxbit Koibanx Motormax **Friendly Transfer** Konfio moyoAi **GCS International** Konfront MR Presta GeoPagos Konkero **Mutuo Financiera** Geru Konsigue Nadit Gidify Kontigo Nagro **Giro Digital** Kuanto Nebula **GlobalPay Solutions Kubo Financiero NerdCoins** Goonder Kuelap, Incz **Net Worth Consulting** Gooseberry KUESKI NetM **Green Capital PFC** Kuiki Nexoos Grupokonstruir Kushki Nexu.mx La Casa es Primero NFC en la Gulungo Colombia Laguna Innovadora **Educación Superior** Hello ZUM **Latin Fintech** Nominapp Herrera Carvajal Lefort NoTeCuelgues.com y asociados cía Itda. LegalBot NovMeLab Safi erp LenddoEFL Hipgive NovoPayment, Inc. Lendera Olpays Licita Leasing **Hurra Credit** Omie LMDA IdentityMind Global Organizame **Location World IDwall Orion System Loyalty Refunds** Ignis Ventas Osayk Luka iKiwi México Pademobile **Lumit Blockchain** Pagatudeuda Impesa Technology Inbera Paggi Inbonis PagoFlash MÁ\$ Capital Incluirtec Pagos360.com

Magnetis

**Makers Solutions** 

**PagPop** 

Increase

**PaqueComBitcoin** Ripio Tudecide.com Rocket.la Pay per TIC SA Ruvix **Ualet** Pavit Safera Übank **PayPhone Salud Facil** Unafin PaySrc Samply UNIKO PaySur Seguro Canguro Uprop PavU SeguroSimple Urbe.me Payvalida Sempli Vaki РН3А Siembro Vakinha.com.br Pitupi Siempre Pago Venmetro.com Lendmarket SAS Sistema de VeriTran **PlacetoPay** transferencias Vest y pagos stp Plataforma por Vindi Metro Cuadrado PM2 Sistemas de VINIK Información PAKAL Platiti VIPPO **Smart Lending Play Business** Virtus Pay socius Portfy Visoor sofi.la Prestamyne **Visor ADL** Solven Prex VU Sube Prezzta **VU Security** Suppliercard Prisma Campaigns WAN Suvo Propeler Wayni MOvil TÁ PAGO Puntored (Conexred S.A.) Weeshing Qpavpro TasaTop wenance Qualia **Technisys** WePayU Technology en Interactive Wink System Real Time (TISR) Quanto Gastei Thera Bank WIRI Quartilho Wuabi Tienda Pago **Quiena Inversiones** Tika Www.redelcom.cl Quotanda Tkambio XChange RDM TOC Yacaré.com RecargaPav TôGarantido.com.br Yambuu Recaudia TowerTech yotepresto.com Rede Cidadania **Americas SAS** Plena Rede e Yovuu Economia Solidária Tpaga SAS YUBB **Regtech Legal Advice** Tributi Yucafin S.A.P.I. de C.V. Rentdis triunfei.com Zest Capital Representame.cl trusthub **Zigo Capital** 

We are also grateful to all those partners, collaborators, and leading entities in the development of enterprise ecosystems in the region that offered their support in the dissemination of the survey. We especially recognize ABFintechs, Peruvian Fintech Association, Argentine Chamber of Fintech, Uruguayan Chamber of Fintech, Colombia Fintech, the Central America and the Caribbean Fintech Association, FinteChile, Fintech Mexico, The Ibero-American Fintech Alliance, and PanaFintech.

ZonaBancos.com

(Financial Ventures S.A.)

Tu Factor

Tu Identidad

**Resonance Latam** 

Rextie



Copyright © 2018 Inter-American Development Bank. This work is licensed under a Creative Commons IGO 3.0 Attribution-NonCommercial-NoDerivatives (CC-IGO BY-NC-ND 3.0 IGO) license (http://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode) and may be reproduced with attribution to the IDB and for any non-commercial purpose. No derivative work is allowed.

Any dispute related to the use of the works of the IDB that cannot be settled amicably shall be submitted to arbitration pursuant to the UNCITRAL rules. The use of the IDB's name for any purpose other than for attribution, and the use of IDB's logo shall be subject to a separate written license agreement between the IDB and the user and is not authorized as part of this CC-IGO license.

Note that the link provided above includes additional terms and conditions of the license.

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Inter-American Development Bank, its Board of Directors, or the countries they represent..

Authors: IDB, IDB Invest and Finnovista

Coordination: Gabriela Andrade, Daniella Kathyuska Bolaños, Andrés Fontao, Macarena Banus, and Jessica

Pleguezelos

Graphic Design: Agencia Felicidad