MICROECONOMICS OF COMPETITIVENESS

FINANCIAL SERVICES CLUSTER IN LIMA

FINAL REPORT

Mauricio Concha Zegarra

Thomas Leonard

Renato Sabato

Felipe Santos

Jade Smith

Professor: Laura Alfaro

Friday, May 6th, 2016

Harvard Business School

Note: Our team includes a Peruvian national who was helpful in accessing information and members who have some prior exposure to the microfinance sector through class or work. Thus, some of our information is not directly cited as it comes from previous and common knowledge, not a direct source.

Country Analysis

Since gaining independence from the Spanish Empire in 1824, Peru has had a long history of dictatorships and military coups. Only in the 1980s did the country achieve a peacefully elected democracy. Since that time, in spite of pressure from fringe, armed political groups like the "Shining Path", the country has managed thirty-six years (and counting) of stable democracy. The country today exists as a constitutional republic with a unicameral legislature, and there are roughly eight active political parties at the national stage[1] (parties coalesce and diverge as coalitions form and break apart from vote to vote).[2]

Like many South American countries, Peru's population is predominantly of native or *mestizo* heritage (at 45% and 37% of the population, respectively), but the remaining 18% is Caucasian (15%), African, or East Asian (3%). In the last ten years, the country has seen net emigration of about two million people, mostly to the US, Spain, and Argentina.[3] Peru's population diversity and connections to other continents complement the country's geographic strengths.

Situated on the Pacific coast of South America, centered on the north-south axis of the continent, Peru offers over 1,900 miles of ocean coastline and acts as a central hub for air travel to, from, and around the continent. With a land area roughly twice the size of Texas (see **Exhibit 1** for visual perspective of Peru's size), Peru is host to a range of climates and geographies—from arid deserts to frigid mountains to lush rainforests—which together hold almost 70% of the world's biodiversity.[4] The landscape holds swaths of gold, silver,

copper, iron ore, coal, oil and gas,[5] as well as world-renowned cultural sites and natural beauty that attract tourists in great numbers (see **Exhibit 2**).

With such resources and the improved political stability of recent decades, economic growth and development have followed. Real GDP growth has been positive for each of the last 16 years (see **Exhibit 3a**), and GDP per capita has outpaced that of comparable countries[a] for the past five years[6] (see **Exhibit 3b**). While growth has been consistently positive and strong, the labor picture has been more neutral; as unemployment has generally trended downward since 2000, total factor productivity growth has been underwhelming (see **Exhibit 3c**).[7]

When looking at Peru's GDP, the story has a few sides. On the one hand, a look at GDP composition by sector shows a good amount of diversification, meaning that the country is not over-exposed in any one sector[8] (see **Exhibit 4**). However, looking at a breakdown of Peru's exports by type tells a different story. In 2014, mining, quarrying, and other industrial activities related to mining accounted for 24% of exports. The next largest category was transportation and storage at 13%.[9] Clearly, the Peruvian economy is still heavily dependent on the country's great endowment of minerals.

Macro Competitiveness

Even though the economy has been dependent on its endowment of minerals for a long time, in recent decades the Peruvian government has implemented sound fiscal and monetary policies, which, added to the increased prices of metals, have allowed for an orderly growth of the economy[10] (see **Exhibit 5**). In the 2000s, the price increases of minerals resulted in more dollars entering the Peruvian economy. As a result, the local

[a] Comparable countries are Chile, Bolivia, Colombia, and Mexico.

currency appreciated and the Peruvian government accumulated a significant amount of those additional revenues as foreign-exchange reserves. This decision has proved particularly important for Peru in recent years, as it has attained lower currency depreciation compared to other Latin American countries that have suffered from a decrease in commodity prices. The Central Reserve Bank of Peru (BCRP) periodically intervenes in the foreign exchange market to prevent sudden changes that could affect exporters.

Furthermore, this commodity boom allowed the government to lower the total debt to GDP ratio, improve the budget balance, and reduce unemployment. The rise of commodity prices and the inflow of foreign currency did not translate into high inflation. Peru accomplished this through inflation targeting policies implemented in the early 2000s, after lessons learned from the hyperinflation periods the country faced in the early nineties.

On the other hand, when we look at Peru's social infrastructure and political indicators, the story is less optimistic. Peru ranks 80th out of 188 countries in the Human Development Index[11], which puts it in the middle of its peer countries: Chile (42), Mexico (74), Colombia (97) and Bolivia (119). In particular, public spending in health and education are among the lowest in the region[12]. Peru's performance in rule of law is similar. The country has poor criminal and civil justice systems, high levels of corruption, and lack of security. All of these factors make Peru less attractive for doing business and for foreign investment[13]. Finally, Peru's political institutions perform poorly[14]. In particular, public trust in the government is extremely low, lower than in any of comparable countries. This lack of trust has been a result of past corruption scandals, which heavily affected the population. Although improving the people's perception of politicians is critical in order to

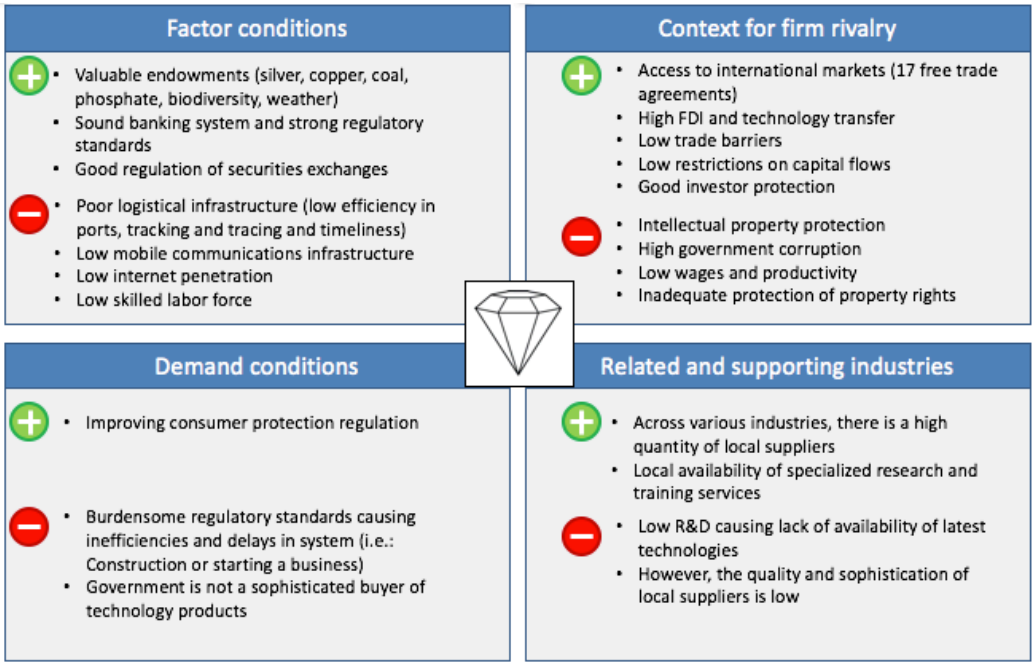
improve investment and entrepreneurship, it is challenging for the government to attain it in the short term.

Diagnosis

One important factor condition that is lagging in Peru is its logistical infrastructure. When we analyze the ease of doing business indicators for Peru and its comparable countries[15], we see that Peru has a comparative advantage in many of its components, such as getting credit, paying taxes, and enforcing contracts. However, when we analyze how easy it is to trade across borders in Peru, we see that there is no comparative advantage in this regard. To better understand this, we turn to Peru's Logistics Performance Index,[16] which shows that Peru has lagging logistic infrastructure, poor logistics quality and competence, and poor performance of its customs. All of these make it harder for businesses to thrive in the domestic market as well as in international markets, undermining competitiveness. It is imperative that the government invest in improving the logistical infrastructure in order to lower the barriers and costs of doing business in Peru.

A second area of concern for Peru is a factor condition: Peru has low mobile communications infrastructure and low Internet penetration.[17] For instance, within its group of comparable countries, Peru performs only better than Bolivia, with only 40% of Peruvians having access to the Internet, compared to 44% in Mexico, 52% in Colombia, and 72% in Chile. These are big opportunities for investment in Peru, because improving the communications infrastructure would allow, for example, for increased financial inclusion in rural areas of the country.

Figure 1 Peru Diamond Analysis



Cluster Analysis

Although the financial system in Peru is not yet as developed as comparable countries in Latin America, it has experienced tremendous growth of 18% CAGR in the last 10 years.[18] The financial system is composed of 60 official financial institutions (FIs) and a USD 229 billion credit portfolio spread across 7.9 million loans.[19] The industry is concentrated across a few banks with the top three representing over 70% of the credit portfolio.[20] There is still room for growth within the financial sector as private credit represents 34% of GDP, below Bolivia, Chile, Colombia, and Brazil. In the region, Chile boosts the highest ratio of private credit to GDP just above 80%.[21]

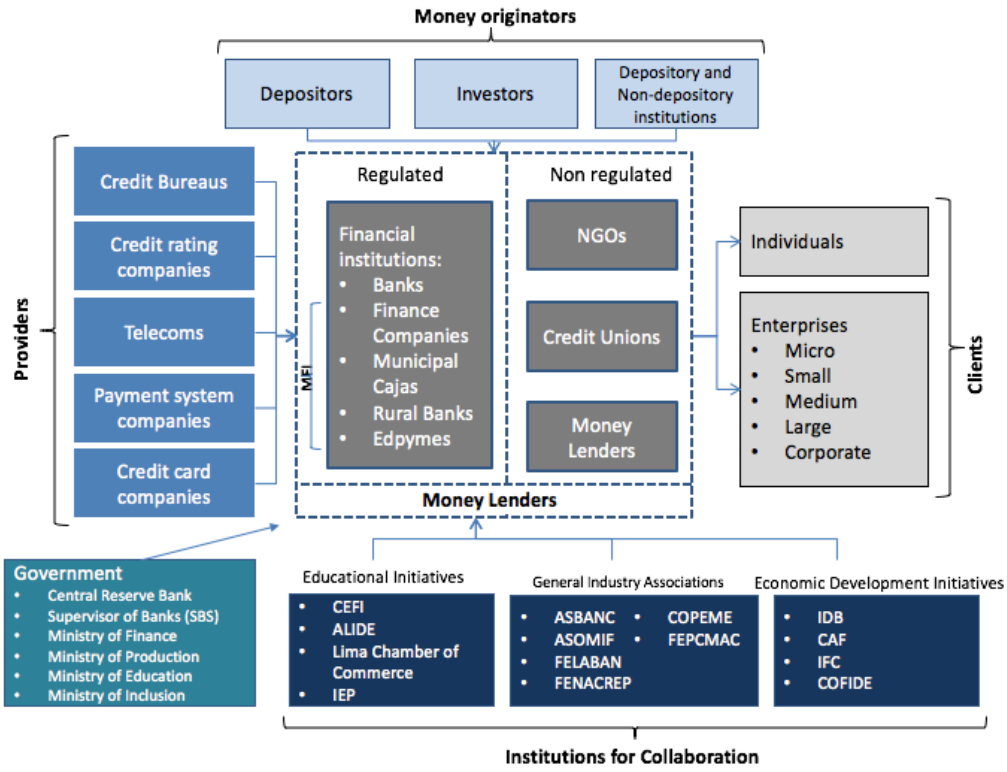
One of the most important areas within the financial services cluster and the focal point of this paper is the microfinance segment, for which Peru has the best environment in the World, according to the Economist Intelligence Unit.[22] The Peruvian microfinance segment has gained global recognition as a model for financial inclusion. Microfinance can be defined as financial services catered to low-income clients and microenterprises,

differing from conventional services in its smaller monetary amount and non-traditional methodologies to determine credit worthiness. Products and services include loans, savings, insurance and remittances[23] (loans to microenterprises are less than USD 6,000). There are 221 regulated and un-regulated microfinance institutions (MFIs) in Peru and of those, the regulated MFIs represent a gross loan portfolio of $10B and 5.1 million active borrowers.[24] The sector has been rapidly growing, at 19% CAGR from 1989-2009, and has been consolidating through market transactions, mainly acquisitions. Throughout the sector's development it had been a very diversified industry with the top three MFIs representing 38% of lending in 2009[25,], however, this competitive landscape has changed with acquisitions. The clear market leader, "MiBanco", now combined with the MFI Edyficar after the 2014 acquisition, represents 34% of the Peruvian gross microcredit portfolio[26] but the remaining market is fragmented leaving room for competition.

Financial Services Cluster Map

In order to understand the financial services cluster as a whole, the cluster map presented in Figure 2 summarizes the key players, clients, institutions for collaboration (IFCs), the governmental role and key inputs.

Figure 2 Financial Services Cluster Map



The key players, or money lenders, as identified in the cluster map are the center of the ecosystem as they play a role in originating loans for its individual and enterprise clients. Money lenders are divided into two categories, regulated and non-regulated. Regulated institutions are subject to the supervision of the federal regulator, the Superintendencia de Banca, Seguros y AFP (SBS), while non-regulated institutions are self-regulated through trade associations, such as the Consortium for Private Organizations Promoting the Development of Small and Micro Enterprises (COPEME) [27]. In order to encourage the conversion of non-regulated institutions into regulated institutions, the Peruvian government requires a value-added tax on interest earned to non-regulated MFIs[28] and have interest rate caps on the loans they generate.[29] Regulated institutions fall into six different legal structures: (1) Banks: full-service regulated institutions that cater to individuals and small and micro businesses, (2) Finance Companies: offer most banking services to

corporate clients and some have begun to focus on microenterprises (3) Municipal "Cajas": municipally owned institutions that can receive deposits and lend, (4) Rural Banks: originally focused on the agricultural sector, can lend and accept deposits but do not offer checking accounts, (5) EDPYME (Entities of Development for Small and Micro Enterprises): non-bank regulated institutions that are not permitted to receive deposits and (6) Credit Unions: cooperatives that can accept deposits and lend, however these companies are held to ambiguous regulatory standards.[30]

The money originators identified in the cluster map are the source of funding for the money lenders and can be classified into three basic types: depositors, investors, and depository and non-depository institutions. Depositors are clients of financial institutions with savings and/or checking accounts. Investors can be either public or private sector organizations that expect a return on the money that they invest within the financial institutions that they support. Money can be invested through equity or debt instruments. Lastly, other financial institutions such as other banks, pension funds and insurance companies also provide liquidity in the banking system.

There are other important non-monetary providers that are integral to maintaining the financial services infrastructure. The critical providers are: credit bureaus, credit rating agencies, telecommunication companies, payment system companies and credit card companies. Credit bureaus and credit rating agencies are essential to providing transparency and data, especially in the microfinance sector where traditional information through conventional methodologies is not always available or current. In Peru, there are five non-regulated credit bureaus, including international player Equifax, that provide credit ratings for individuals and a public credit registry under the supervisory entity, SBS. Furthermore, MFIs use their own methodologies to evaluate risk and credit worthiness of

their debtors. The main credit rating agencies are conventional players such as Fitch, Standard & Poor's and Moody's, and agencies that specialize in microfinance such as MicroRate, M-CRIL and Planet Rating.[31] While the mainstream rating agencies predominate the corporate banking market, they have only rated a few large MFIs, MiBanco amongst them. On the other hand, specialty agencies such as M-CRIL has rated over 267 MFIs across Latin America and Africa[32]. As for the physical and electronic banking infrastructure, cooperation between telecommunication companies, payment system companies and credit card companies is necessary.

The government is an important supporting entity of the financial services cluster especially as it creates the regulatory framework. The SBS has been an asset to the microfinance sector in Peru as it has created a balance between stringent regulation and free market mechanisms. The BCRP is an autonomous entity responsible for regulating the money supply, administering international reserves, issuing new currency and reporting Peru's finances.[33] The ministries of finance, production, education and inclusion are all instrumental in the nation's strategy for advancing financial inclusion and literacy (see **Exhibit 6** for further detail).

There are three groups of IFCs in Peru: educational organizations, industry associations and economic development organizations. The various educational organizations as outlined in the cluster map are useful in providing training to small and micro enterprises but there are limitations in terms of awareness of these organizations and limited access to individual borrowers in need of financial literacy. The industry associations promote the use of financial services and specifically, to the microfinance sector. **Exhibit 6** provides further details on individual IFCs.

Evolution of the Financial Services Cluster in Peru

The history of the financial sector in Peru dates back to the 1860s when the first bank, Banco de la Providencia, was founded.[34] The 1860s then saw a financial boom driven by the fertilizer industry.[35] In 1922, the central bank of Peru was created to control the Peruvian monetary policy, and in 1931, after the great depression and with the need to defend the national currency, it also became the reserve bank of Peru [36].

After the creation of the first credit union in 1942, during the 1950s and 1960s the number of credit unions saw strong growth, based on the need of workers who were not financially well-off. Priest Daniel McLellan played a crucial role in the development of such credit unions through training, speeches, advising and creating institutions that governed MFIs. Among his goals was the inclusion of the native Peruvian population[37].

During the 1950s, the government practiced a policy of import substitution, prioritizing industry over agriculture. As a consequence, Lima, which was the industrial center of Peru, developed much more quickly than the rest of the country, which was mainly agrarian. The financial system in Peru became also highly concentrated in Lima [38].

In the 1960s, the United States started providing funds to Peru through the Inter-American Development Bank (IDB) with the rationale that development would serve against revolution and communism. In the same decade, Savings and Loans associations (S&Ls) were created and started to boom, as they were mainly focused on housing loans towards clients with higher incomes.[39]

However, during the 1970s, the government financing of the S&Ls increased dramatically and spun out of control. Towards the end of the 1970s, inflation started rising, which would soon become hyperinflation.[40] As a consequence, in the beginning of the 1980s,

the S&Ls started to disappear due to their tainted reputation of corruption, high government subsidization, and weak financial position. The Cajas and other regional financial institutions managed by local governments started to appear at this time, with the need for more decentralized management [41].

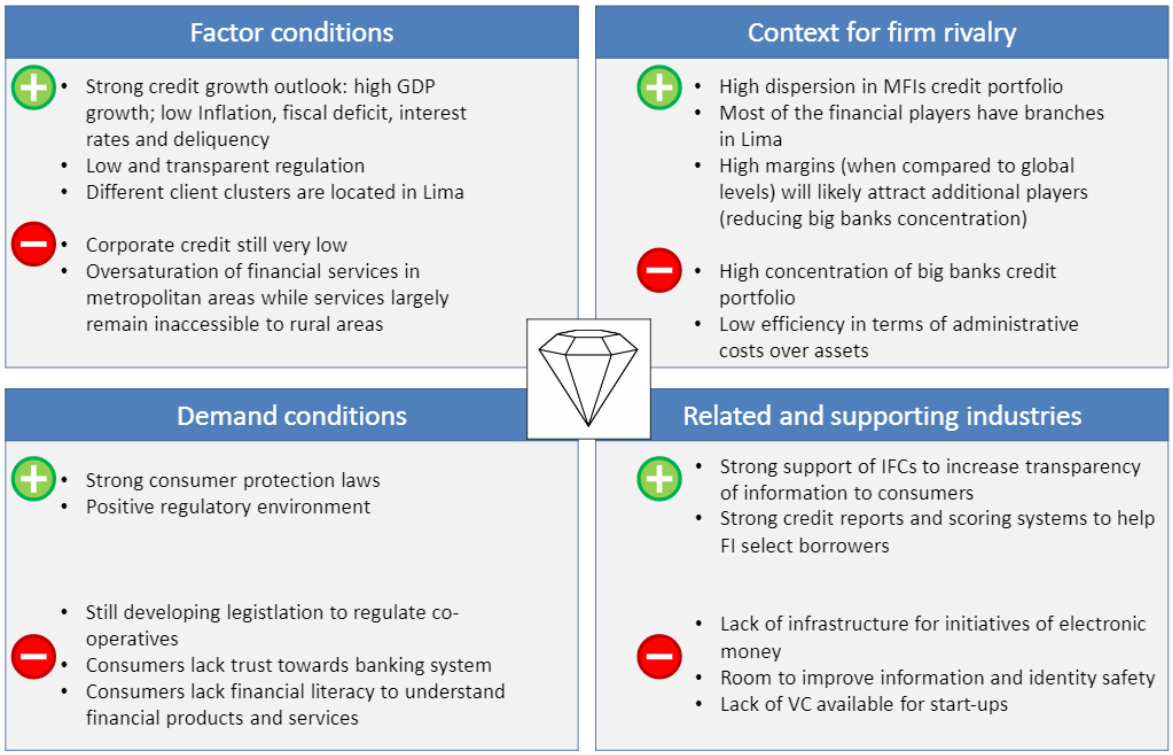
The deregulation of the financial sector in the 1990s shaped the financial sector in Peru into what it is today. Simultaneously, the macroeconomic conditions—both political and economic—turned favorable in the 1990s, leading to a boom of Cajas and other MFIs. Towards the end of the 1990s, contagion of the Asian Financial Crisis and Brazilian instability, brought crisis to the large banks in Peru [42]. However, the microfinance institutions continued to thrive even under those conditions.[43]

From 2000 to present day, the financial sector in Peru has seen impressive growth, which has caused competition to increase in two important ways. First, in 2002 the SBS began permitting Cajas to operate outside their original regions, which caused an abrupt increase of MFIs in Lima. Second, following the success of this budding new sector, big banks started to expand to microfinance services as well. As a result of the competition, the financial institutions as a whole improved efficiency, increased innovation, and dropped interest rates. At the same time, prudential regulation and adequate credit policies allowed delinquency rates to decrease during the 2000s [44] (see **Exhibit 7** for timeline of financial services cluster).

Financial Cluster Diamond Analysis

An overview of Lima's financial services strengths and weaknesses along four dimensions is presented in Figure 4.

Figure 3: Lima's financial services cluster diamond analysis



The Peruvian financial services cluster and microfinance sector have many strengths but there are many debilitating conditions that will form the basis of this paper's recommendations:

1. Saturation of urban markets signaling over-indebtedness
2. A lack of penetration of rural markets due to poor infrastructure
3. Lack of consumer trust in the financial system and low levels of financial literacy

First focusing on the strengths, in the past 10 years, Peru has boosted high GDP growth, low inflation, fiscal surpluses, low interest rates and low delinquency rates which have supported strong credit growth. Given that current forecasts project these same indicators to remain stable[45], it is reasonable to also expect stable credit growth as seen in

the past. Moreover, Peru's private sector credit is 34% of GDP compared to the 54% average of the region—perhaps indicating again that Peru's credit has growth potential.[46]

However, that space for growth may be hampered by consolidation. Compared to other Latin American countries, Peru shows a high concentration of the credit portfolio within big banks. Specifically, 70% of private credit in Peru is held by four of the largest banks.[47] This weakens competition within the financial sector in Peru, because as these banks gain scale they are able to service loans at a lower cost while they pay depositors lower interest rates. Competitors with less scale have to pay higher interest rates on deposits while providing loans at similar rates to their larger competitors. This effectively reduces the profitability potential of small financial institutions, preventing them from being able to lower interest rates on loans to their customers. The lack of competition explains the higher margins when compared to other Latin American countries.

Signs of over-indebtedness due to oversaturation in urban markets in Peru have been a concern cited by credit rating agencies and critics of the microfinance sector. Multiple borrowing from several MFIs is a cause of over-indebtedness in Peru. Prior to the sale of MiBanco (the largest bank providing loans to microbusinesses) to competitor Edyficar, there were signs of distress. MiBanco's loan portfolio deteriorated from 2012 to 2014 as delinquency rates increased. Some attribute this to the fact that 61% of its clients had loans with other MFIs.[48] This begs the question of how sustainable growth is in the microfinance sector. However, issues of over-indebtedness can be controlled through tighter regulation and better reporting.

Another downside is the lack of physical and electronic infrastructure, which makes the process of transferring money in rural areas expensive. Rural areas lack internet access and penetration of mobile phones. Therefore, instead of using electronic money, people use

cash in daily transactions. This situation is more critical in areas with tough geographical conditions, such as certain isolated, low-density areas in the highlands of Lima. The process of bringing cash to more remote areas is costly, therefore there is space to reach a large portion of the rural population that is currently underserved through mobile banking[49].

There are other limitations such as weak, vague and unclear regulation of credit unions and other institutions that provide financial resources (i.e. NGOs). Particularly, credit unions are under the scope of the local regulator, however the regulatory framework is different and less strict than the one that applies to banks and nationally regulated MFIs. Additionally, the regulator is unable to sanction cooperatives that do not comply with the regulation due to legal constraints. This severely limits the ability of the regulator to hold cooperatives to higher standards that would protect consumers.

Another constraint is the lack of trust in the financial system. This problem is associated with low levels of financial education[50]; high and unclear service charges; and a history of a large Ponzi scheme[b] and bankruptcies that affected the relationship between individuals and financial system. Moreover, clients face poor customer service support and receive phony messages among other concerns[51]. The lack of trust is also partly due to clients being unaware of their rights and duties when they interact in the financial system, causing them to make uninformed decisions.

Regarding access to capital for start ups, the government designed initiatives (Start-Up Peru[52]) to help entrepreneurs but the amount of funds provided is low ($15,000 per award). Therefore, start-ups run out of money after a few months. The lack of venture capital does not provide the economic incentives to pursue projects that involve long term investments.

[b] CLAE, a Ponzi scheme that offered high interests rates. At the time the amount of funds it raised represented nearly 5% of the deposits of the financial system.

Comparing Peru to Other Microfinance Sectors

Peru's microfinance sector rivals other nations in Latin America in scale and other countries globally in sophistication. In terms of gross loan portfolio volume, Peru had a total of over USD 10 billion across 48 MFIs in 2014, nearly USD 4 billion more than in Colombia.[53] According to the Global Microscope Annual Report on financial inclusion, a study conducted by the Economist Intelligence Unit, Peru is deemed the best environment for financial inclusion and microfinance based on a myriad of enabling conditions. Peru is followed closely by Colombia and then the Philippines (see **Exhibits 8, 9, & 10** for country comparisons and rankings). The report ranks countries across twelve indicators[54]:

1. Government support for financial inclusion
2. Regulatory and supervisory capacity for financial inclusion
3. Prudential regulation
4. Regulation and supervision of credit portfolios
5. Regulation and supervision of deposit-taking activities
6. Regulation of insurance targeting low-income populations
7. Regulation and supervision of branches and agents
8. Requirements for non-regulated lenders
9. Infrastructure and Services for Electronic payments
10. Credit-reporting systems
11. Market-conduct rules
12. Grievance redress and operation of dispute-resolution mechanisms

Much of Peru's success in the microfinance industry is attributed to its robust regulatory framework balanced by limited government intervention. Peru's regulations do not impose interest rate caps on regulated MFIs and allows for foreign investment but also maintains strict credit reporting requirements. Meanwhile, other nations such as South Africa, Cameroon, and Venezuela ranking below the top 30 of 55 countries in the Microscope report, impose interest rate cap restrictions which has seemingly limited the competitiveness and sustainability of their microfinance sectors. The fundamental premise of interest rate caps is that they would protect the poor from becoming over-indebted, however, over the long-run, caps have the opposite effect as it prevents MFIs from being

able to cover their costs, resulting in more bank failures. As the Peruvian government has not engaged in such intervention, the result is a sound and growing microfinance sector with declining interest rates to borrowers as free market forces are at play.

A social investment firm, ResponsAbility, with its largest exposure in Peru asserts that Peru's microfinance sector success is based on certain regulatory pillars that other nations have not been able to achieve. Aside from non-intervention as already discussed, the firm also cites that the various regulatory types of financial institutions and the ability of firms to graduate from one category to another is a key feature as it allows MFIs to eventually take deposits.[55] MFIs that are able to accept deposits offer two benefits: (1) greater capital adequacy and potentially profitability to the MFIs and (2) improved financial inclusion as partly measured by a population's ability to save, this helps to mitigate indebtedness and encourages good consumer financial practices.

Given this context, Peru has been an exemplary model for microfinance. Its value proposition compared to nation's microfinance sectors has been the strength of its regulatory environment while still having enabling conditions for fair and free market competition. These conditions allow for strong growth in the sector yet it remains an attractive market as there is a large market opportunity of unmet demand in rural areas. As evidence, Banco Compartamos, the largest and publically traded MFI in Mexico, entered the Peruvian market through acquiring a majority stake in Financiera Credito Arequipa (Financiera CREAR) in 2011. The Executive President of Compartamos noted the following:

> "In Peru, we are witnessing a mature financial sector, as well as a potential market for group loans, which is currently underserved. Financiera CREAR is one of the strongest financial institutions in Lima and Arequipa. It also includes a solid and experienced management team, led by Mr. Javier Valencia, Chief Executive Officer and Mr. Ralph Guerra, Business Director, with 12 and 19 years, respectively, of experience at Financiera CREAR."[56]

While Peru has been the darling of microfinance, it has not been without its challenges and there are areas of weakness as assessed in the diamond analysis, mainly the threat of over-indebtedness due to oversaturation of urban markets, and the under-penetration of rural areas. An HBS 2016 classmate and former portfolio analyst and credit officer of Triple Jump, a Dutch social investment firm that finances MFIs, with experience both in Peru and Mexico noted that Peru's regulatory framework by far surpasses that of any other nation but that there is one lesson that Peru could learn from Mexico. That is, the solidarity lending model of group loans which help to instill trust in the banking system and helps in accessing rural markets, which are the true base of the pyramid. According to her, these models do exist in Peru but they are not the predominant form, individual lending is. This seems to also lie at the crux of Compartamos' investment decision to acquire Financiera CREAR.

Recommendations for Microfinance Sector in Peru

Set One: Solving for Saturation of Urban Markets and Over-Indebtedness

There are two concrete ways to solve for over-indebtedness in Peru, which will help to limit the saturation of urban markets and encourage expansion to rural markets. The tools would be to (1) tighten regulation and (2) strengthen reporting standards, both of which would have to be implemented through government regulation through the SBS.

Placing controls on the proportion of debt to income that households can reach. The upside of this recommendation is protection of consumers from over-indebtedness but at the expense of competition and free market forces. The challenge here is reporting timely and accurate data, and enforcement. The requirement would have to be placed on MFIs to

thoroughly collect data on the level of indebtedness of their potential borrowers and they would have to abide to strict standards to not exceed a certain limit.

The second part of this is strengthening reporting standards for MFIs and the public credit registry that the SBS compiles. According to a thorough report by Microrate, a microfinance credit rating agency, there are areas where Peru can expand its credit rating analysis to include data on balance in default, frequency of payments, loan terms, lending method (individual or group), total group balance for group loans and utility payment information.[57] An alternative to tight government regulation could be tighter self-regulation amongst the MFI players, which could be further facilitated through COPEME or ASOMIF (Association of MFIs of Peru) , where MFIs place a limit on multiple borrowing and over indebtedness given that it would be at their benefit of higher quality loan portfolios and lower delinquency rates.

Set Two: Improving Trust in Financial Services and Financial Literacy

The use of group loans can be a beneficial tool in improving trust in financial services because it does not require borrowers to place their faith in a bank, but rather in their community. The method requires a group or a specific community to serve as social collateral to each other and guarantee each other's loan repayment. Peer pressure is at the core of this strategy as each individual is incentivized not to increase their cost of borrowing. While this has been used in Mexico and India, it is still underutilized in Peru. There are limitations to this method as not all borrowers would be willing to take on such risk, especially for larger loan sizes. However, in other countries this is often used as an introductory financial services product to get consumers accustomed to borrowing and to

build credit history, in an unconventional manner. This could be a viable option for educating and building good practices with new consumers in rural areas.

In terms of financial education, several IFCs (see **Exhibit 6**) have been working to improve transparency, however information and reports do not get to the end user. IFCs need to take a more active role by promoting electronic services (through social media and printed material) and MFIs need to educate consumers by using innovative solutions, such as bank agents, so they could teach clients how to use the new technology or the rights and duties of financial products (i.e. credit cards, saving accounts, etc.)

The regulator should also take a leading role with financial education and awareness campaigns. The communication strategy should allow individuals to learn about the benefits and opportunities of financial services and target rural areas where the private sector has less incentives to go.

Set Three: Increasing access to rural areas through improved infrastructure

The challenge of reaching rural areas with microfinance services and products is partly caused by a lack of trust and education that rural dwellers have but also due to the high cost of customer acquisition due to weak physical and digital infrastructure. To combat the issue of weak physical and digital infrastructure we propose the following:

1. The Peruvian government, federal or municipal, should continue soliciting public-private partnerships to finance the construction and improvement of roads, increasing the cellular network and internet connections in rural areas. Increasing mobile phone penetration in rural areas will be critical to the second part of our recommendation. This strategy has proven to be successful in the past but there is still room for growth.

2. MFIs should partner with mobile providers to create electronic money platforms. This will help to reduce the acquisition cost by reducing the need for physical bank branches. There has been support for electronic money platforms but it has been followed by little progress. By combining the expertise of financial institutions and telecommunications companies, this could be a quicker but also profitable endeavor. A law passed in January 2013, established a preliminary regulatory framework to govern e-money as a tool for financial inclusion but limits it to Electronic Money Issuer Companies (EEDEs).[58] However, these EEDEs are not allowed to issue loans via e-money. We urge the Peruvian government to continuously advance this regulation in parallel to the level of consumer financial literacy. Until the law is advanced, e-money can still be a useful tool for MFIs to receive loan repayments thereby reducing its loan collection costs and delinquency rates.

Set Four: Reducing concentration to increase efficiency and financial inclusion

The credit portfolio is highly concentrated among the largest three banks in Peru. As a consequence of the lack of competition, we observe low efficiency, with high administrative costs in the industry. It is important that the Peruvian Government facilitate the process for international banks to start operations in Peru. The Government should lower the barriers of entry and encourage investment from international banks in Peru by improving enforcement of contracts and providing long-term agreements to foreign investors. By increasing Peru's financial integration with Latin American and other foreign banks, it is expected that all market participants will find efficiencies in their operations, therefore lowering the total costs and lowering interest rates, which would improve financial inclusion in Peru.

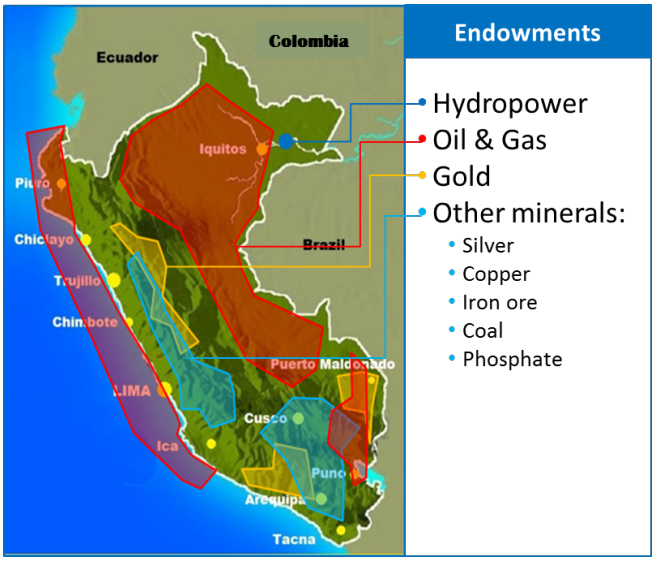
Conclusion

In summary, there is much to be optimistic about in the microfinance segment in Peru. With implementation of the aforementioned recommendations, there is a high probability of realization of further growth potential in the sector. We urge MFIs and the Peruvian government to focus on ways to improve access and financial inclusion of rural areas. Microfinance has proven to be the most important tool for financial inclusion in Peru as it enables small and micro enterprises to have working capital and make necessary investments, and individuals to provide for their families. With further advancement and innovation in the sector, increased financial inclusion will help to improve the overall development and productivity of the beautiful and great nation of Peru.

Exhibit 1 Graphic Display of Peru's Size

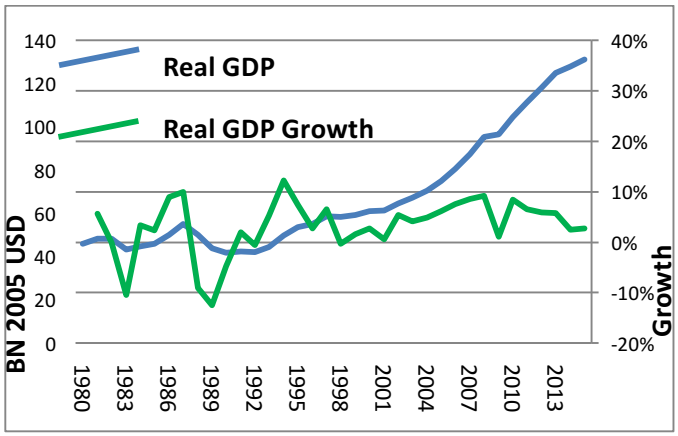
Source: map downloaded from CIA World Factbook, accessed online at https://www.cia.gov/library/publications/the-world-factbook/geos/pe.html.

Exhibit 2 Map of Various Physical Endowments



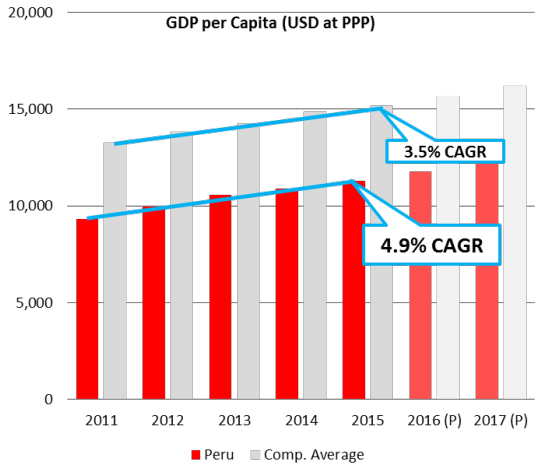
Sources: Map accessed online and downloaded from theonlyperuguide.com; locations of various endowments drawn by authors based on information from the International Council on Mining and Metals, *Peru Country Case Study*, accessed online at https://www.icmm.com/document/300 and theoilandgasyear.com, as well as the CIA World Factbook.

Exhibit 3a Real GDP and Real GDP Growth Rate



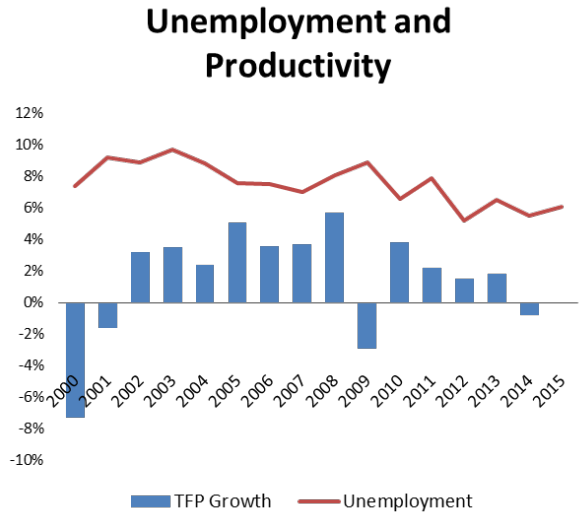
Source: chart developed by authors, using data downloaded from the *Economist Intelligence Unit*.

Exhibit 3b GDP Per Capita 2011-2017(P)



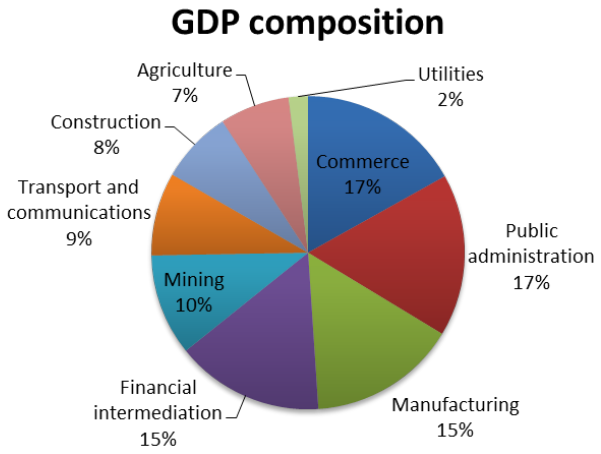
Source: chart developed by authors, using data downloaded from the *Economist Intelligence Unit*.

Exhibit 3c Unemployment and TFP Growth



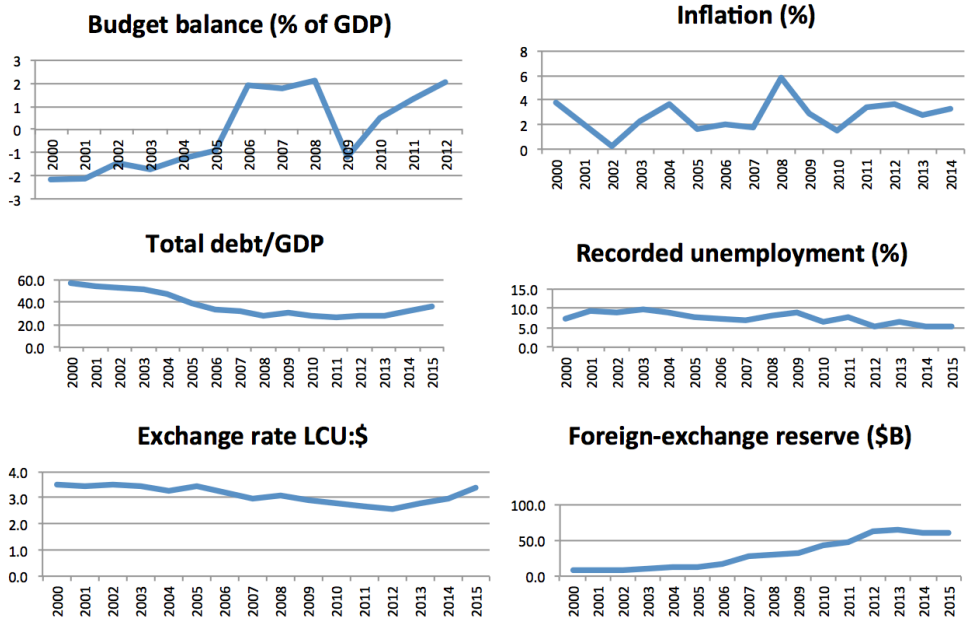
Source: chart developed by authors, using data downloaded from the *Economist Intelligence Unit*.

Exhibit 4 GDP Composition by Sector



Source: chart developed by authors, using data downloaded from CEPALSTAT.

Exhibit 5 Peru macroeconomic indicators



Source: charts developed by authors, using data downloaded from the *Economist Intelligence Unit*.

Exhibit 6 Description of Government Agencies and IFCs

Government Agencies

Central Reserve Bank
- Regulates money and credit

Supervisor of Banks (SBS)
- Regulates financial institutions
- (+) Promotes Financial Inclusion, proposals include: electronic money, protection to consumer who use digital financial services.

Ministry of Finance
- (+) Launched Peru's First National Strategy of Financial Inclusion

Ministry of Production
- Provides advisory to SMB
- Promote formality of SMB

Ministry of Development and Inclusion
- Promotes the use of electronic money instead of cash

Ministry of Education
- (+) Institutionalizes politics of financial education at different levels: high school / college

Educational Initiatives

CEFI (Center of Financial Studies)
- Institution organized by ASBANC to provide financial education
- (−) Still under development, no detailed information to the public about the courses available

ALIDE (Latin American Association of Financial Institutions)
- International organization that promotes economic development in Latin America.
- (−) Financial institutions are not aware of the services provided by this organization

Lima Chamber of Commerce
- Provides training in business areas
- (−) SMB are not aware of the services provided

IEP (Institute of Peruvian Studies)
- Provides research and strategies to overcome inequality
- Results have limited exposure on consumers or financial institutions

General Industry Associations

ASBANC (Association of Banks of Peru)
- Promotes the strengthening of the financial system
- (+) Strong campaigns targeting promoting the use of electronic money
- (+) Strong media campaigns

ASOMIF (Association of CRACs and EDPYMES)
- Proposes initiatives to financial institutions → mobile banking

FELABAN
- Non-profit association created by Bank Associations
- (+) Promotes and facilitates relationships between the financial entities in Latin America

COPEME
- NGOs that provide technical advisory to financial intuitions
- (+) Seminars in different regions / topics

FEPCMAC / FENACREP (Peruvian Federation of CMCs / Cooperatives)
- (+) Facilitate coordination and information (transparency) of Financial Institutions

Source: CEFI, ALIDE, Lima Chamber of Commerce, IEP, ASOMIF, ASBANC, FELEBAN, COPEME, FEPMAC, FENACREP, Ministry of Finance, Production, Development and Inclusion, and Education.

Exhibit 7 Timeline of Financial Services Cluster and Microfinance Sector in Peru

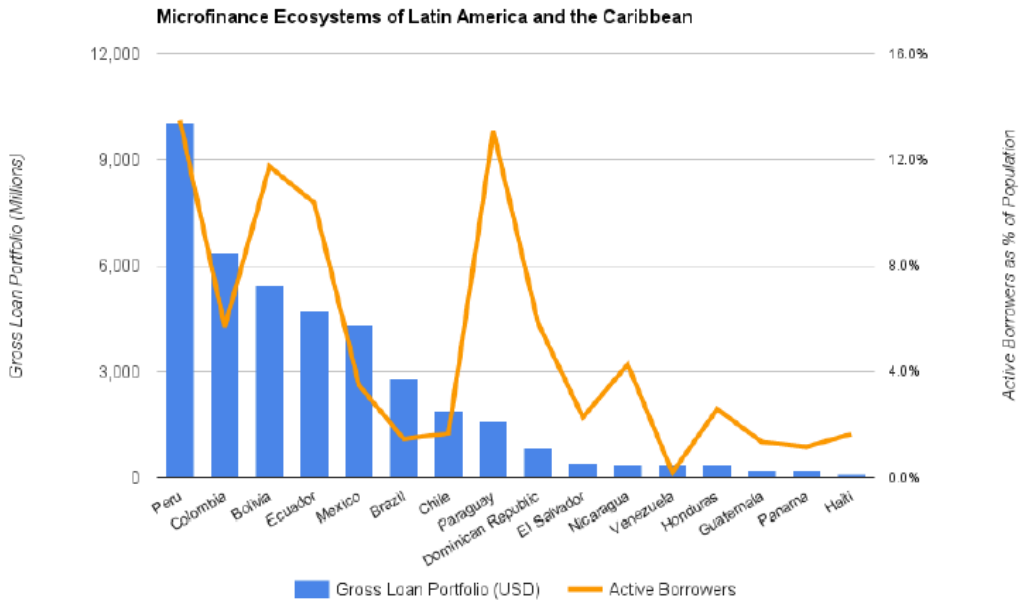
Source: The Mustard Tree, Global Newswire

Exhibit 8 Microscope Financial Inclusion Rankings

Rank / 55			Score / 100	Δ
		Average	48	+2
1	↔	Peru	90	+3
2	↔	Colombia	86	+1
3	↔	Philippines	81	+2
4	▲1	India	71	+10
5	▲2	Pakistan	64	+6
–6	▼2	Chile	62	-4
–6	▲3	Tanzania	62	+6
–8	▼1	Bolivia	60	+2
–8	▼3	Mexico	60	-1
10	▲8	Ghana	58	+7

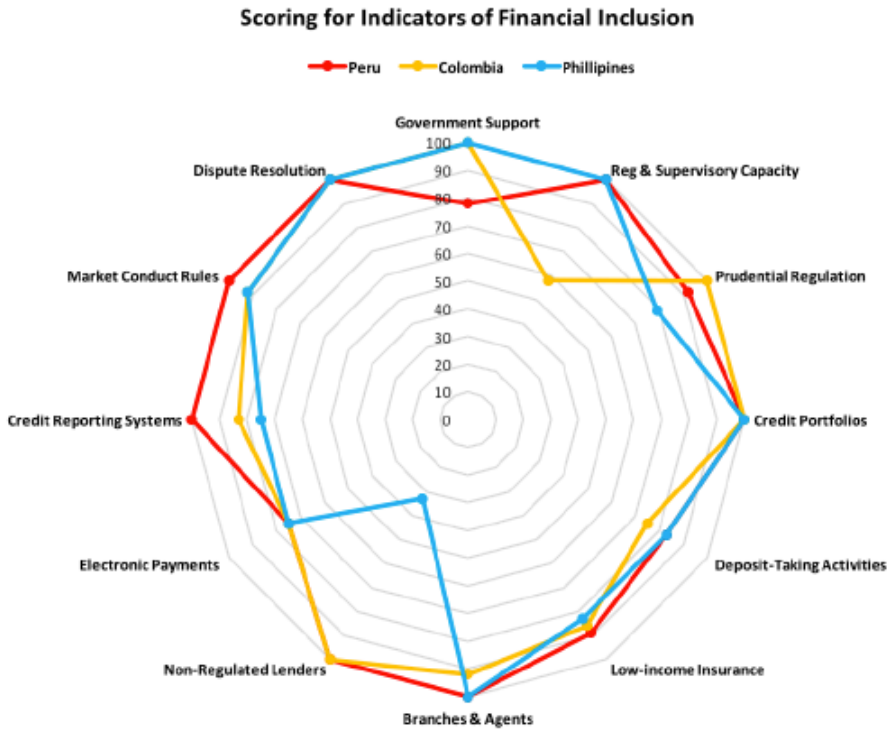
Source: EIU Microscope Report on Financial Inclusion 201

Exhibit 9 Microfinance Portfolios in Latin America and the Caribbean



Source: Mix Market Latin America and the Caribbean Market Profile, Data as of 2014

Exhibit 10 Comparison of Top 3 Rankings Across Microscope Indicators



Source: Chart created based on analysis of Microscope Report data

End Notes

[1] CIA World Factbook, [Online] [Accessed 4 April 2016], https://www.cia.gov/library/publications/the-world-factbook/geos/pe.html.
[2] Ibid.; conversation with Peruvian national
[3] CIA World Factbook, [Online] [Accessed 4 April 2016], https://www.cia.gov/library/publications/the-world-factbook/geos/pe.html.
[4] Ibid.
[5] International Council on Mining and Metals, Peru Country Case Study, accessed online at https://www.icmm.com/document/300 and theoilandgasyear.com
[6] Economist Intelligence Unit, [Online] [Accessed 4 April 2016], http://country.eiu.com/peru
[7] Economist Intelligence Unit, [Online] [Accessed 4 April 2016], http://country.eiu.com/peru
[8] CEPALSTAT, [Online] [Accessed 4 April 2016], http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=PER&idioma=spanish
[9] UN Data, [Online] [Accessed 30 April 2016], http://data.un.org/CountryProfile.aspx?crName=PERU
[10] Economist Intelligence Unit, [Online] [Accessed 4 April 2016], http://country.eiu.com/peru
[11] Human Development Reports, [Online] [Accessed 4 April 2016], http://hdr.undp.org/en/countries/profiles/PER
[12] CEPALSTAT, [Online] [Accessed 4 April 2016], http://estadisticas.cepal.org/cepalstat/WEB_CEPALSTAT/estadisticasIndicadores.asp?idioma=e
[13] World Justice Project, [Online] [Accessed 4 April 2016], http://data.worldjusticeproject.org/#/groups/PER
[14] World Economic Forum, Competitiveness Index Ranks 2015, [Online] [Accessed 4 April 2016], http://reports.weforum.org/global-competitiveness-report-2014-2015/rankings/
[15] Doing Business Indicators, [Online] [Accessed 4 April 2016], http://www.doingbusiness.org/data/exploreeconomies/peru/
[16] Logistics Performance Index, [Online] [Accessed 4 April 2016], http://lpi.worldbank.org/international/global
[17] International Telecommunications Union, [Online] [Accessed 4 April 2016], http://data.un.org/Data.aspx?q=peru&d=ITU&f=ind1Code%3aI911%3bcountryCode%3aPER
[18] Asociación de Bancarios del Uruguay. El sistema financiero en 2013-2014, 2014.
[19] Superintendencia de Banca y Seguros y AFP del Perú, [Online] [Accessed 20 March 2016], http://www.sbs.gob.pe/.
[20] Moneda Análisis. Competencia Bancaria en el Peru. 2014.
[21] Peru: Indicadores de Inclusión Financiera de Los Sistemas Financiero, De Seguros y De Pensiones, Superintendencia de Banca, Seguros y AFP, Republica de Peru, September 2015.
[22] The Economist Intelligence Unit. Global Microscope 2015 The enabling environment for financial inclusion, 2015.
[23] Mix Market, "What is Microfinance?", [Online] [Accessed 2 May 2016], http://www.themix.org/about/microfinance
[24] Mix Market, Latin America and the Caribbean Market Profile, Data as of 2014.
[25] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[26] Mix Market, Latin America and the Caribbean Market Profile, Data as of 2014.
[28] Microcapital, "Microfinance 101 Regulations and Supervision: What Works", [Online] [Accessed 4 April 2016], http://www.mixmarket.org/sites/default/files/medialibrary/10001.1554/Regulation_and_Supervision__What_works__Pero.pdf
[29] Central Reserve Bank of Peru, "Circular Nº 021-2007-BCRP: Tasas de Interes," 2007.
[30] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[31] Microcapital, "Microfinance 101 Regulations and Supervision: What Works", [Online] [Accessed 4 April 2016], http://www.mixmarket.org/sites/default/files/medialibrary/10001.1554/Regulation_and_Supervision__What_works__Pero.pdf

[32] Microcapital, "Microfinance 101 Regulations and Supervision: What Works", [Online] [Accessed 4 April 2016], http://www.mixmarket.org/sites/default/files/medialibrary/10001.1554/Regulation_and_Supervision__What_works__Pero.pdf
[33] Central Reserve Bank of Peru, "Organic Law", [Online] [Accessed 2 May 2016], http://www.bcrp.gob.pe/about-the-bcrp/legal-framework/organic-law.html
[34] Morón, Eduardo. La Experiencia de Banca Libre en el Perú: 1860-1879. 1993.
[35] Quiroz, Alfonso W. FUENTES, TEMAS Y REVISIONES EN LA HISTORIA FINANCIERA PERUANA. 1995.
[36] BANCO CENTRAL DE RESERVA DEL PERÚ. Folleto institucional.
[37] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[38] Quiroz, Alfonso W. FUENTES, TEMAS Y REVISIONES EN LA HISTORIA FINANCIERA PERUANA. 1995.
[39] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[40] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[41] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[42] Rozenberg, Arnoldo. EFECTOS DE LA CRISIS ECONÓMICA Y FINANCIERA INTERNACIONAL, DE 1997 A 1999, EN LA BALANZA DE PAGOS DEL PERÚ. 2000.
[43] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[44] Lucy Conger, Patricia Inga, Richard Webb, The Mustard Tree - A History of Microfinance in Peru, 2009.
[45] Trading Economics. [Online] [Accessed on 21 April 2016] http://www.tradingeconomics.com/peru/forecast.
[46] SBS, Associación de Bancarios del Uruguay: El sistema financiero en 2013-2014
[47] Orozco, Ines, An Analysis of the Banking System Structure in Chile, Colombia and Peru in Light of the Creation of the Integrated Latin American Market, 2014.
[48] Microfinance Transparency, Confession of a Microfinance Heretic: "Trouble Brewing in Peru? MiBanco in Dire Straits," 6 Feb 2014, [Online] [Accessed 1 May 2016], http://blog.microfinancetransparency.com/trouble-brewing-in-peru-mibanco-in-dire-trouble/
[49] World Bank, "The Opportunities of Digitizing Payments. Better than Cash Alliance and the Bill & Melinda Gates Foundation", 2014, [http://www.gp .org/sites/default/ les/documents/ FINAL_The%20Opportunities%20of%20Digitizing%20Payments.pdf], accessed April, 2016.
[50] GPFI, "*Peru: Fine tuning regulation based on access indicators: The use of nancial inclusion data in South Africa, the Philippines and Peru.*", 2014, [http://www.a -global.org/sites/ default/ les/publications/gp _country_case_studies_volumn_1_-_the_use_of_ nancial_inclusion_data.pdf], accessed April 2016.
[51] Arenaza, Sonia, "*Potential risks to clients when using digital nancial services. An analysis report to inform the evolution of the client protection standards.*", The Smart Campaign 2014, [http://www.smartcampaign.org/storage/documents/Tools_and_Resources/EoS _Risk_identi cation_and_analysis_vSA_AR_LT.pdf], accessed April 2016.
[52] Start-Up Peru. [http://www.start-up.pe], accessed April 2016.
[53] Mix Market, Latin America and the Caribbean Market Profile, Data as of 2014.
[54] Global Microscope 2015, The Economist Intelligence Unit, [Online] [Accessed 1 May 2016], http://www.eiu.com/public/topical_report.aspx?campaignid=MicroscopeDec2015http://www.eiu.com/public/topical_report.aspx?campaignid=MicroscopeDec2015
[55] ResponsAbility, "Research Insight: Peru – Model Market for Microfinance", March 2012
[56] Business Wire, "Compartamos S.A.B. de C.V. Acquires Majority Stake in Financiera CREAR," March 28, 11, [Online] [Accessed 3 May 2016], http://www.businesswire.com/news/home/20110328006773/en/Compartamos-S.A.B.-de-C.V.-Acquires-Majority-Stake
[57] MicroRate, "Public credit registries, credit bureaus and the microfinance sector in Latin America," November 2012.
[58] BBVA Research, Working Paper 13/25, "The Potential of Mobile Banking in Peru as a mechanism for Financial Inclusion," August 2013, http://www.rrojasdatabank.info/mobilebanking5.pdf. Accessed 3 May 2016.