WORKING PAPER

Policy priorities to promote financial development in the context of the Middle-Income Trap:

The cases of Argentina, Colombia, Mexico and Peru

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Abstract

This paper analyses the development of financial markets in Argentina, Colombia, Mexico and Peru in the context of the middle-income trap. This is particularly relevant for these economies, since well-developed and properly-functioning financial markets are fundamental to achieve high income status on a sustainable basis. This paper identifies key policy priorities relating to four financial pillars: access, depth, efficiency and institutional factors. The analysis is based on a benchmark analysis from 1985 to 2015 and taking into consideration experiences in the financial status of 14 economies at the time they became "high income" and also focusing on advanced economies that exhibited the most similar characteristics to each of the four countries studied (defined as a "synthetic country"). Results show that despite some improvements in recent years, all countries display gaps in different areas to promote further access, depth and efficiency in both the banking system and capital markets. Finally, this paper identifies policy priorities across these four countries, highlighting the heterogeneity with respect to the financial dimensions of these countries.

1: The opinions expressed and arguments employed are those of the authors and should not be reported as representing the official views of the OECD or of its member countries.

1. Introduction

The main purpose of this study is to analyse the development of financial markets in selected countries in Latin America (LAC), in the light of past experiences in those countries that have moved from middle income (MI) to high income (HI). In particular, we study three characteristics of financial markets, access, depth and efficiency, as regards both banking systems and capital markets. The countries under analysis are Argentina, Colombia, Mexico and Peru. These four countries are similar in that they are upper middle income (UMI) countries with poor performance in labour productivity and ongoing structural challenges to improve their financing for development. Taking past performances in HI economies into consideration, this paper quantifies the main structural gaps to develop sustainably well-functioning markets in these LAC countries.

Although similar challenges appear, this paper insists that policy priorities to promote financial development differ across economies, and there is no unique development path. Reinforcing the "no one size fits all" argument, we include a synthetic control method for Argentina, Colombia, Mexico and Peru to identify policy gaps, according to their financial characteristics and based on previous relevant experiences of other countries. This is particularly pertinent in a context where budget constraints demand a focus on selected policies that contribute to escaping the Middle-Income Trap (MIT) sustainably and where recent productivity gains in these countries have been low.

Well-developed and well-functioning financial markets are fundamental to promote sustainable and inclusive growth, in particular for those MI countries which are close to achieving HI status. Access to finance, through different modalities, such as banking system, fixed income and stock markets, is a key element to close several development gaps (Levine, 2005, 2018). King and Levine (1993), Jayaratne and Strahan (1996), and Rajan and Zingales (1998) show that strong financial systems contribute to the economic development and technological innovation of a country. Similarly, Hottenrott and Peters (2012) highlight that the combination of the level of internal financing sources and increasing requirement for resources constitutes a remarkable instrument for firms' innovative capability. Agénor and Canuto (2017) point out that the lack of access to finance has an adverse effect on innovation activity and contributes to keeping the countries in the MIT. This lack of access is mainly due to the existence of information asymmetries and transaction costs. These two reasons seem to be stronger for small and newer firms in innovation sectors, which have mainly intangible assets and lack collateral value, so they depend more on a smaller amount of external financing sources than larger and more established firms do. The promotion of financial activities on research and development and the increase of financial liberalisation are alternatives to mitigate these limitations to innovative activities and economic growth (Morales, 2003).

As a country advances in its level of GDP per capita, new challenges should be prioritised and their financing is fundamental. This is the case for most LAC economies where moving from MI to HI requires production to be geared towards more knowledge-intensive and technology-intensive sectors and where financial markets have been traditionally underdeveloped (De la Torre et al., 2011). This transition depends on a broad set of complementary and complex policies. A particular actor needed to allocate more and improved resources in order to move towards HI economies is the financial markets. The development of financial markets seems a policy priority for most countries in the region (Melguizo et al., 2017; Izquierdo et al., 2016). In particular, increased financial inclusion of small and medium-sized enterprises (SMEs) and households in the banking system and more diversified and well-functioning financial markets are key issues for increasing inclusive development in the region.

Thanks to the experiences in the OECD and other economies that moved from MI to HI, Melguizo et al. (2017) show that access to credit and higher liquidity in capital markets are fundamental for improving income status in the region. By taking into consideration other policy priorities, including education, skills, capabilities, fiscal policy and rule of law, policies enhancing financial development should promote LAC economies to make progress in their income status.

Based on these results, this paper highlights the importance of financial development to escape the MIT in Argentina, Colombia, Mexico and Peru. The document also provides information on the characteristics in the financial system and related sectors in a comparative approach with countries that have moved from MI to HI in the past.

The remainder of the document is organised as follows. Section 2 presents the performance of productivity in Argentina, Colombia, Peru and Mexico and the literature on the MIT. Section 3 shows key stylised facts in financial development, focusing on access, depth, efficiency and institutions in financial markets in these countries. Based on the MIT analysis, Section 4 presents the policy priorities for financial development. Section 5 provides country studies for the selected LAC countries and provides policy recommendations. Finally, Section 6 offers some conclusions.

2. Productivity performance and the MIT in Argentina, Colombia, Mexico and Peru

The period encompassing the 1990s and, especially, the first decade of the 21st century was one of the most favourable periods for economic growth in developing countries. Also, the last economic crisis has affected economies differently, with remarkable intensity in the group of developed countries. Therefore, the average real GDP per capita of developed economies was above 6.7 times the average value of emerging markets and developing economies in 1990 and this difference has been reduced to almost 4 times in 2017.[2]

The LAC region has not been significant in the process known as "shifting wealth" (OECD/CAF/ECLAC, 2015). Although some countries in Latin America have improved their macroeconomic framework, the region has shown a marginal contribution to global growth of below 10% since 1990. This contrasts to emerging and developing Asia, which has more than doubled its contribution to global growth since 1990 to reach almost 50% today. Similarly, while some emerging Asian and European economies have decreased the GDP per capita gap, in the period of 1990-2017, when compared to the United States (US), most LAC economies have remained with a similar gap. Within the region, and in terms of GDP per capita performance, there is also some heterogeneity. For instance, while countries like Chile, Uruguay, Argentina and Mexico shared similar levels of real GDP per capita in 1990 (near 30% of the US real GDP per capita), the figures in 2017 present a dichotomy between the first two countries (above 40%) and the two latter countries, keeping the percentage constant between the initial and the final period (Figure 2.1).

Figure 2.1 GDP per capita relative to the US in 1990 and 2017 (PPP constant 1990 international $)
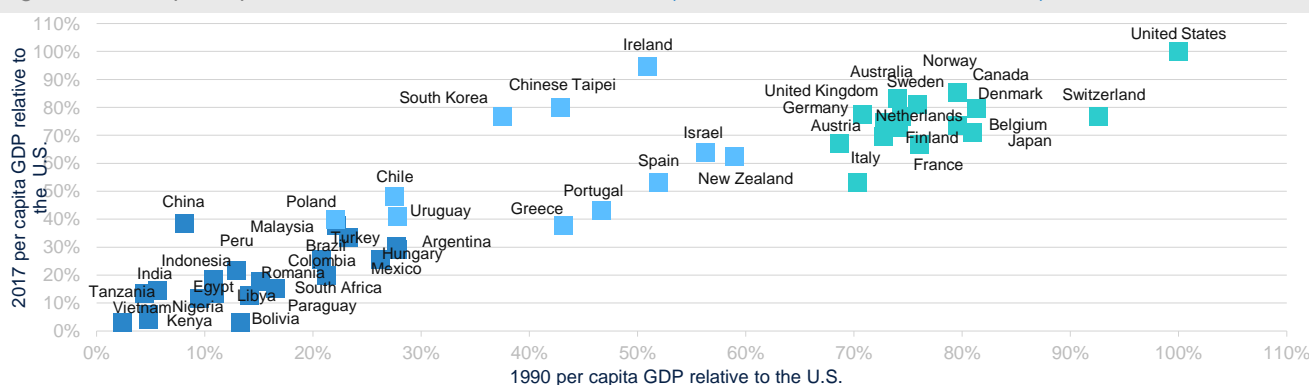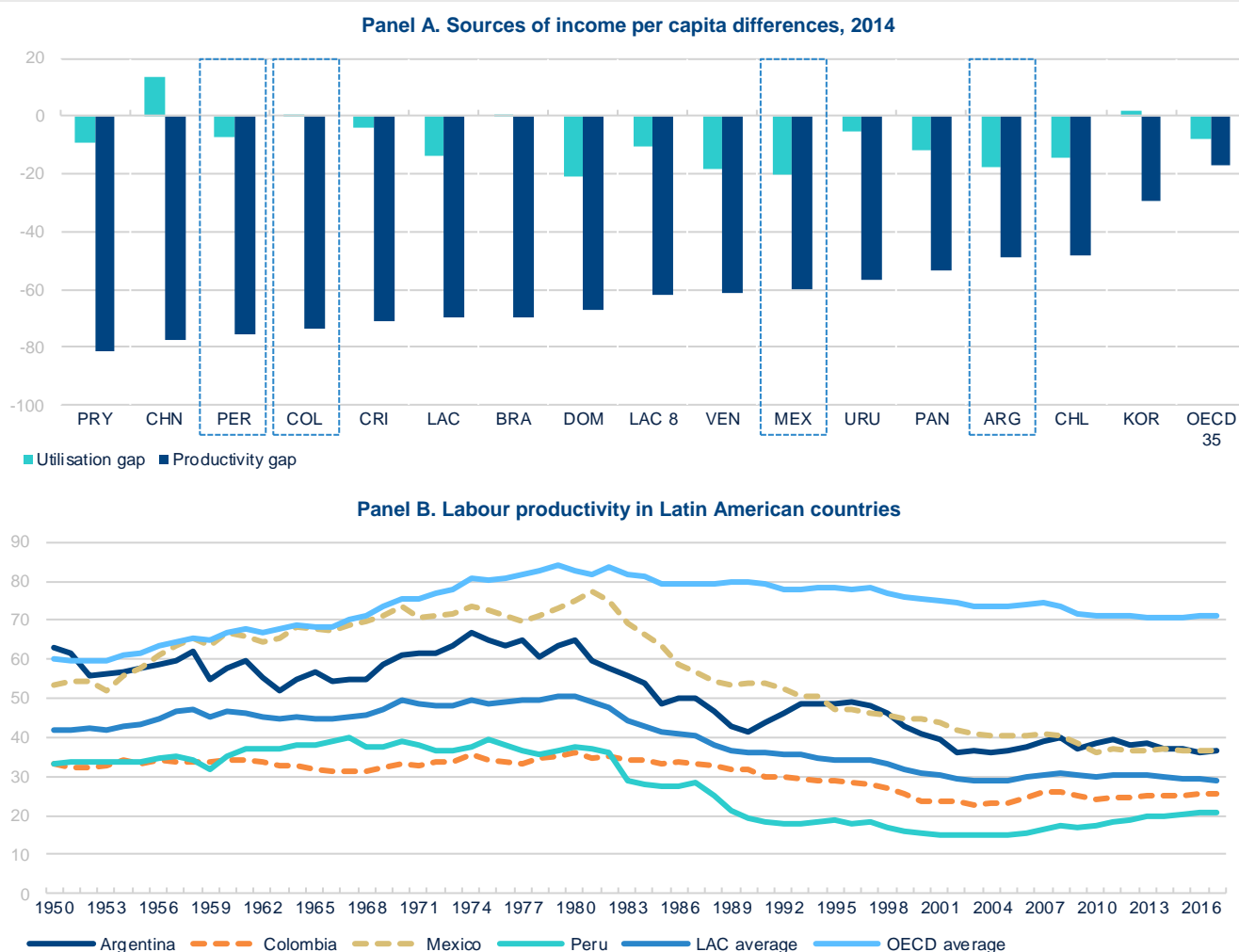

Notes: Countries in green are HI countries that escaped the MIT before 1980, countries in light blue are HI countries that escaped the MIT between 1980 and 2014. Countries in blue are economies that have not yet become HI.
Source: International Monetary Fund, World Economic Outlook Database (April 2017) www.imf.org/external/pubs/ft/weo/2017/01/weodata/index.aspx and Madison (2010) database www.ggdc.net/maddison/

2: Using per capita purchasing power parity-adjusted GDP from the International Monetary Fund World Economic Outlook Database, October 2017.

Similar to other countries in the region, slow labour productivity growth in Argentina, Colombia, Mexico and Peru is at the heart of the development gap between the region and the OECD and faster-growing Asian economies. Low labour productivity in Latin America, measured as GDP per hour worked, explains 70% of the GDP per capita gap between the LAC region and the upper half of OECD economies (OECD/CAF/ECLAC, 2018). There are significant differences across countries. For instance, the productivity gap explains over 70% of the income gap in Colombia and Peru and 60% in Mexico, while it explains less than 50% of the income gap in Argentina (Figure 2.2, Panel A). Similar to other LAC economies, labour productivity has been decreasing when compared to the US's labour productivity. In Argentina and Mexico, it accounts for almost 37% of the US's labour productivity while in Colombia and Peru it accounts for 25% and 21%, respectively, with all four economies presenting lower levels than in 1950 (Figure 2.2, Panel B).

Figure 2.2 Labour productivity in Latin America

Panel A. Sources of income per capita differences, 2014

■ Utilisation gap ■ Productivity gap

Panel B. Labour productivity in Latin American countries

—— Argentina - - - Colombia - - - Mexico —— Peru —— LAC average —— OECD average

Notes: Panel A: Compared with the simple average of the 17 OECD member countries with the highest GDP per capita in 2014 at 2011 purchasing power parities (PPPs) (in USD millions 2011). The sum of the percentage difference in labour resource use and labour productivity does not add up exactly to the GDP per capita difference since the decomposition is multiplicative. Labour productivity is measured as GDP per employee. Labour resource utilisation is measured as employment shown as a share of population. Panel B: Share of US productivity, five-year moving average, PPP.
Source: OECD/ECLAC/CAF based on Feenstra, R., R. Inklaar and M. Timmer (2015), "The next Generation of the Penn World Table", American Economic Review, 105(10), 3150-3182, available for download at www.ggdc.net/pwt and Conference Board (2016), The Conference Board Total Economy Database

Related to macroeconomic factors associated to TFP levels analysed by Eichengreen et al. (2013), Agénor (2017) mentions the relevance of diminishing returns to physical capital due to inefficiency of investment. From a microeconomic point of view, Teece (2012, 2014) explains that enterprises require dynamic capabilities to compete and generate superior profits by developing differentiated products and services. These "high-level competences" comprise mainly identification and assessment of a business opportunity and mobilisation of resources to create value from this opportunity, continuously adapting and transforming all the processes executed inside the enterprise.

The current economic situation in most LAC economies could be analysed in the light of the MIT. As economies reach MI levels, growth exhibits a long-lasting slowdown known as the MIT (Gill et al., 2007; Felipe et al., 2017). After the rapid growth registered at early stages of development, growth stalls as countries reach MI levels (Eichengreen et al., 2011; Felipe et al., 2012; Zhuang, Vandenberg and Huang, 2012; Aiyar et al., 2013; OECD, 2013b). Growth in low-income countries occurs largely when labour is reallocated from low- to high-productivity activities and industries. On the other hand, at MI levels countries usually require new engines of economic growth based on capital- and skill-intensive manufacturing and service industries (Kharas and Kohli, 2011). Eichengreen et al. (2013) associated this phenomenon with productivity factors, highlighting the importance of education level in the population and the share of high technology in the production process and exports.

The region has been caught in the MIT since at least 1950 and under the current growth trends (average growth for the last ten years) it would take around 41 years for the region to escape the MIT. Similarly, Argentina, Colombia, Mexico and Peru have not been able to become HI and escape the MIT since 1950 but Argentina, Colombia and Peru are expected to become HI economies in the next 12 years, whereas Mexico would take around 30 years. Overall, it would take LAC economies more than 100 years to escape the MIT, while the OECD economies only took 29 years.

Luiz (2016) points out that the large number of countries caught in the MIT implies the existence of "structural" factors, related not only to economic transformation and stages of development, but also to other topics, such as political issues, as Lee (2018) also suggests. Strong institutions and properly developed financial markets play a key role in escaping the MIT. To determine the main policy priorities in order to escape the MIT, Melguizo et al. (2017) undertake a linear discriminant analysis that contrasts the experiences of 76 emerging economies (14 LAC economies) and OECD member countries. They compare those that were able to evade the MIT and those that have remained there since the 1950s. Based on more than 200,000 estimations, their research identifies the top ten variables — two of which are related to the financial markets — that best separate UMI and HI countries evaluated at their "graduation" time from the MIT. These variables are rule of law, quality of education, tax revenues, age dependency, degree of democracy, total investment, capabilities (economic complexity index), value of stocks traded, domestic credit provided by financial sector and percentage of complete tertiary education.

3. Data and stylised facts in financial development in Argentina, Colombia, Mexico and Peru

This section compares LAC financial systems (in terms of both financial intermediaries and capital markets) with several benchmark economies. This comparison will be based on the classification proposed by the Global Financial Development Database, with the addition of financial inclusion and digitalisation based on the World Bank databases and BBVA Research, as well as institutional factors from the Doing Business database developed by the World Bank.

Data

The variables used to analyse the financial situation/constraints of Argentina, Colombia, Mexico and Peru are grouped into three main categories: access (including financial inclusion in this category), depth and efficiency. We also include variables related to institutional factors in the country cases. The selection of variables depends on

availability of historical data in terms of countries and time. A subgroup of variables with high-quality information (especially from the Global Financial Development Database) is included in several sections of the paper, but another subset of variables with limitations on its information (especially in terms of time period) is only used in the country studies. Table A.1 in Appendix shows detailed information on the variables used in this paper.

Access

To measure access for both financial intermediaries and capital markets, we use two proxy indicators from the Global Financial Development Database: Bank branches per 100,000 adults and number of listed companies per million people. Jayaratne and Strahan (1996) postulated the importance of the former variable, because a wide branch network improves (financial) diversification and lowers the costs of monitoring risky loans. Despite the impact of digitalisation on the access to finance (as presented below), the number of bank branches can still identify how inclusive the banking system is in a country. In the case of the second indicator, capital markets may be seen as an alternative for external finance, although funding through equity may be costly for younger and smaller firms (Agénor and Canuto, 2017). The number of issuers shows more about the inclusiveness of the capital markets compared to traditional variables, such as total value of private debt or market capitalisation.

The disruption characterising the transition in the financial sector is reflected in irreversible changes in both the supply of and demand for financial services, affecting financial inclusion. Information and Communication Technologies (ICT) usher in a new age of opportunities and empower a wider number of households and businesses to save, invest, and protect themselves against risk in a new way. The transformation process to a wide use of digital channels can be developed by taking into account familiar tools, like automated teller machines (ATMs), which can help in the migration process. Another familiar element of customers' lives is the mobile device, so creating a mobile user experience is crucial to delving deeper into the multiplicity of channels with the customer. However, the focus on increasing channels is not enough. To engage customers, financial institutions also need to ensure they are providing highly satisfying products and services.

To include new trends and technologies the document complements the analysis with two indices developed at country level by BBVA Research: the Multidimensional Financial Inclusion Index (MIFI) and the Digitization Index (DiGiX).

MIFI combines information on financial inclusion by using a statistically sound weighting methodology and takes into account both demand- and supply-side information. MIFI considers three main dimensions to characterise the degree of inclusiveness for a given financial system: usage, access and barriers. Usage takes into account the ownership of a financial product (account/cards), as well as formal savings and/or loans. Access includes characteristics about the number of face-to-face access points (taking into account not only bank branches, but banking agents and ATM). Barriers aggregate details of the formal financial system, cost of financial services, distance to access points and documentation requirements. The best economy in the index is the one which maximises usage and access and minimises the barriers. MIFI covers 137 countries for the year 2014 (for further details, see Cámara and Tuesta, 2014).

DiGiX is an index that measures the importance of private and public sector behaviour, and institutional and infrastructure factors "to fully leverage ICT for increased competitiveness and well-being". DiGiX is divided into six dimensions: infrastructure, households' adoption, companies' adoption, costs, regulation and contents. Infrastructure considers variables such as 3G coverage, secure Internet servers and bandwidth capacity and coverage. Household's adoption focuses on mobile and fixed-line broadband subscriptions, as well as the availability and use of Internet by these agents. Companies' adoption includes information about business-to-business and business-to-consumer Internet use, and technology absorption. Costs takes into account fixed broadband tariffs and Internet and telephony competition. Finally, regulation comprises a wide set of factors, such

as laws relating to ICT, software piracy rate, judicial independence, effectiveness of law-making bodies, and the efficiency of the legal system in settling disputes and in challenging regulations. DiGiX covers 100 countries for the year 2016 (for further details, see Cámara and Tuesta, 2017).

Depth

To measure depth in both financial intermediaries and capital markets we use the following variables: deposit money banks' assets to GDP, bank deposits to GDP, domestic credit to private sector, stock market capitalisation and stock market turnover ratio. These variables have been defined based on the results highlighted above and following the conclusions from Levine and Zervos (1998) and Maskus et al. (2012).

King and Levine (1993) used several components, which equal the overall size of the formal financial intermediary system. They found that credit allocated to private firms and the size of the formal financial intermediary sector relative to GDP are correlated to economic growth. Moreover, as Blackburn and Hung (1998) suggest, financial liberalisation and new financial institutions (considering capital markets in a broad sense) allow diversification among a large number of projects and reduce costs of monitoring, spurring innovation activity and economic growth. Regarding capital markets, well-developed capital markets are beyond the size of these markets (e.g., stock market capitalisation) and should also include the quality of these markets, such as the liquidity of the stock market (proxy variables comprise the turnover ratio and the bid-ask spreads).

Among the regulations distorting the use of financial services (fostering innovation) in Latin America, Rojas-Suárez and Pacheco (2017) propose preventing elements which affect depth, such as taxes on financial transactions on deposits, and interest rate ceilings and directed lending on credit.

Associated to the last economic crisis, Alfaro et al. (2018) show the importance of the direct and indirect effects of credit supply shocks on the real economy in Spain, combining bank-specific credit information to a firm with its labour market, investment and production decisions. Apart from the direct effect on the affected industries, the document shows the extent of the (downstream and upstream) propagation of the global financial shock during the period 2008-2009 and post-crisis recession (2010-2013) on other sectors, such as firms that buy and sell goods and services to industries whose firms were affected by the credit supply shocks.

Efficiency

In addition to the coverage and quantity of lending which are reflected in the access and depth variables, the quality of banks' loan portfolios, which ultimately translates into profitability, is an important tool for analysing the relationship between financial systems and economic growth (Jayaratne and Strahan, 1996). King and Levine (1993) also studied improvements in the efficiency with which a society allocates capital as a growth residual after controlling for capital accumulation. We follow this dimension through other indicators of the Global Financial Development Database, including variables such as bank net interest margin, bank overhead costs to total assets and bank return on assets.

Descriptive statistics

Table 3.1 summarises the values in terms of access, depth and efficiency in Argentina, Colombia, Mexico and Peru in both 2010 and 2015 compared to developed economies.

Table 3.1 Access, Depth and Efficiency in selected LAC countries vs. developed countries, 2010 and 2015

Dimension (Reference year)	Variables	Argentina	Colombia	Mexico	Peru	Developed World[2]
Access (2010)	Bank branches per 100,000 adults (%)	12.9	23.0	14.1	6.8	31.7
	No. listed companies per 1,000,000 people	2.5	1.8	1.1	6.8	27.0
Depth (2010)	Deposit money banks' assets to GDP (%)	19.4	38.2	33.6	25.7	119.8
	Bank deposits to GDP (%)	16.8	18.3	24.7	28.7	83.5
	Domestic credit to private sector (% GDP)	12.6	43.7	23.5	25.4	112.1
	Stock market capitalization (% GDP)	13.2	64.4	39.5	61.1	65.7
	Stock market turnover ratio (%)	4.5	12.3	26.8	4.4	68.9
Efficiency (2010)	Bank net interest margin (%)	4.9	6.4	5.6	7.1	2.2
	Bank overhead costs to total assets (%)	6.2	4.9	3.7	4.3	1.6
	Bank Return on Assets (ROA, %)	3.8	2.9	1.9	3.3	0.4

Dimension (Reference year)	Variables	Argentina[1]	Colombia	Mexico	Peru	Developed World[2]
Access (2015)	Bank branches per 100,000 adults (%)	13.2	23.5	14.0	8.1	26.4
	No. listed companies per 1,000,000 people	2.1	1.4	1.1	6.8	25.2
	Position in DIGIX (2016)	75	50	59	77	24.3
	Position in MIFI (2014)	70	36	97	68	19.7
Depth (2015)	Deposit money banks' assets to GDP (%)	16.4	51.7	40.0	36.6	112.2
	Bank deposits to GDP (%)	14.2	24.2	29.3	33.8	89.8
	Domestic credit to private sector (% GDP)	14.7	47.1	32.7	37.4	102.0
	Stock market capitalization (% GDP)	8.0	33.3	35.0	33.7	62.1
	Stock market turnover ratio (%)	8.3	11.9	25.9	2.3	59.7
Efficiency (2015)	Bank net interest margin (%)	6.8	4.9	5.4	7.1	1.9
	Bank overhead costs to total assets (%)	5.7	3.3	3.6	3.4	2.8
	Bank return on assets (%)	3.8	2.0	1.6	2.6	0.5

Notes: Green represents a competitive condition for the country economy and red represents significant room for improvement for the country economy. In the profitability indicators included in efficiency, namely bank net interest margin and bank return on assets, red indicates a gap with the developed world, with the latter being less profitable than the analysed countries.
1: Values in italics correspond to 2014.
2: Countries included in this simple average were chosen for the availability of recent data in all databases, and are the following: Australia, Austria, Belgium, Chile, France, Germany, Greece, Ireland, Israel, Japan, South Korea, Netherlands, Norway, Poland, Portugal, Spain, United Kingdom and Uruguay. The figures of this column represent the mean value of the group.
Source: World Bank (Global Financial Development Databases) and BBVA Research

Table 3.1 confirms the existence of differences among the set of four countries under study and the representation of the developed countries.[3] Access variables show that Colombia is in a comparatively better situation than Peru, Mexico and Argentina. Only Peru performs better than Colombia in the number of listed companies per million people. There is ample room for improvement in the indicators of financial inclusion at the aggregate level and in terms of bank branches, as well as in the contribution of digitalisation to the financial systems for Argentina, Mexico and Peru. Colombia performs more modestly on the aggregate indicator of financial inclusion and access to finance through stock market. From 2010 to 2015, Argentina, Colombia, Mexico and Peru narrowed of the gap in the access dimension with developed countries. Most of the gap reduction is explained by lower numbers in developed

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3: These figures are conditioned by the time limit and do not allow us to appreciate the new changes being made by the governments and authorities of these countries to improve factors of these dimensions over the last two years.

markets. For instance, in the case of number of bank branches, the reduction process has taken place largely related to both the economic crisis, which has required costs reduction for commercial banks, and also to the development of digitalisation. Something similar happened with the number of listed companies per million people. The reduction was more intense in developed countries than in the selected countries.

The depth dimension shows substantial differences between the four LAC countries studied and the average of the developed countries. The values of these countries represent less than 60% of the average percentages of developed countries. If we focus on the variables most associated with the banking system, Colombia presents better results in bank assets and credit, while Peru is in a better position with bank deposits. With respect to the variables that are more focused on the stock markets, Mexico shows the best values compared to Colombia and Peru (especially in the stock market turnover ratio), offering a more balanced image in this dimension. Between 2010 and 2015 the variables most strictly related to the banking system, such as deposit money banks' assets to GDP, have reduced the gap due to a greater reduction in developed countries (more than 7 percentage points). On the other hand, the level of heterogeneity increased within these four countries, as Argentina reduced the level of banks' assets to GDP by more than 3 percentage points, while in the rest of countries that ratio increased above 6 percentage points, reaching more than 13 percentage points in Colombia.

The share of domestic credit to private sector in GDP is also characterised by the narrowing of the gap. This variable grew slightly in Argentina and Colombia (between 2 and 3 percentage points), and more strongly in Mexico and Peru (9 and 12 percentage points, respectively). In contrast, the average for developed countries was down by more than 10 percentage points. There was an increasing gap in the weight of bank deposits in GDP between the developed countries as a whole (which increased by above 6 percentage points), and the four countries of interest. This gap widened mostly in Argentina, which is the only country whose ratio fell in the period, while it grew in Peru and Colombia (above 5 percentage points).

The variables most closely linked to stock markets also show mixed results. The stock market capitalisation to GDP fell more in the four LAC countries than in the developed economies (especially in Peru and Colombia, with decreases of more than 27 percentage points), increasing the gap with the developed markets. On the other hand, the stock market turnover ratio in Colombia, Mexico and Peru fell less (less than 3 percentage points) than in developed countries (more than 9 percentage points), and even in Argentina (almost 4 percentage points).

Regarding efficiency, the indicators in these four countries are more than double the percentages of the average for developed countries. Bank net interest margin and bank return on assets are higher in Argentina and Peru than in Colombia and Mexico. As for bank overhead costs to total assets, the percentage in Argentina is relatively higher than in Colombia, Mexico and Peru, which provide similar figures. Over time, bank overhead costs to total assets and bank return on assets show a process of bringing the percentages of the four selected countries closer to the average for developed countries. This process was more intense in Colombia and Peru than in Argentina. In the case of bank interest margin, the performance was uneven, as the difference with the developed economies increased in Argentina and Peru, while it decreased more significantly in Colombia.

Institutional Factors

In the case of the economic growth for MI developing countries, Trabelsi and Cherif (2017) recommend not only focusing on financial openness and capital account liberalisation, but also on the creation of policies that promote a suitable business climate to promote the development of the private investment. Luiz (2016) suggests a political economy perspective, focusing on political drivers of economic growth and proposes the creation of mechanisms that are able to "move up the value chains" of the economy. Moreover, Laeven et al. (2015) mention the strong

connection between financial and technology innovations, due to the existence of synergies to get profit maximisation. Both sectors require innovation to overcome new moral hazard problems derived from this economic relationship. Both types of innovation require institutions, laws, regulations and policies.

As a result, we include institutional measures from the Doing Business database. They consider measures in 11 areas of business regulation (Doing Business, 2017). A summary of the values of the indicators for the countries of interest and a comparison with a group of developed countries appears in Table 3.2. Given the unavailability of data, these indicators are only used in the country studies (Section 5).

Table 3.2 Country ranking position based on Doing Business Institutional Factors

Dimension (Reference year)	Variables	Argentina	Colombia	Mexico	Peru	Developed World[1]
Institutional Factors (2017)	Ease of doing business	117	59	49	58	33
	Registering property	117	60	99	44	66
	Getting credit	77	2	6	20	67
	Enforcing contracts	102	177	41	63	47
	Resolving insolvency	101	33	31	84	22

Notes: 1: Countries included in this group were chosen by the availability of recent data in all databases, and are the following: Australia, Austria, Belgium, Chile, France, Germany, Greece, Ireland, Israel, Japan, South Korea, Netherlands, Norway, Poland, Portugal, Spain, United Kingdom and Uruguay. The figures of this column represent the mean value of the group.
Source: World Bank (Doing Business)

The results confirm the difficulties shown by Argentina, Colombia, Mexico and Peru in the procedures required to conduct business. Nevertheless, the behaviour among the four LAC countries is mixed. The best position is Mexico, followed by Colombia and Peru. Argentina shows the largest room for improvement in the sample.

4. Policy priorities for financial development

Financial markets have been identified as a key policy priority in order to escape the MIT. Based on the experience of Asian and OECD countries, access to credit and higher liquidity in financial markets are fundamental for improving income status in the region. By taking other policy priorities into consideration, including education and skills, fiscal policy, and infrastructure, policies enhancing financial development should promote LAC economies to progress in their income status (Melguizo et al., 2016). In particular, moving from MI to HI requires production to be geared towards more knowledge-intensive and technology-intensive sectors, and the key actor needed to allocate more and improved resources is the financial markets. Further financial development in Latin America is necessary to increase investment in some productive sectors and to promote inclusive growth. Access to further financial inclusion to SMEs and households in the banking system and more efficiently regulated financial markets are decisive in order to increase inclusive development in the region.

This section compares the level of financial development in the selected LAC economies today (Argentina, Colombia, Peru and Mexico) with the level of HI economies 5 years before they escaped the MIT. Since 1990, 14 economies have managed to become HI economies and effectively escape the MIT. These economies are Chile (which escaped the MIT in 2005), Czech Republic (2006), Estonia (2000), Greece (2000), Ireland (1990), Israel (1986), Korea (1995), Latvia (2005), Lithuania (2007), Poland (2014), Portugal (1996), Singapore (1988), Spain (1990) and Uruguay (2011). Two benchmarking analyses have been achieved to determine the gap between financial development in selected LAC economies compared to the one in HI economies 5 years before they overcame the MIT. The first analysis compares key financial variables in selected LAC economies against the average level presented in HI economies 5 years before they escaped the trap. Second, in order to take different development paths into account, we compare key financial variables for Argentina, Colombia, Peru and Mexico against a synthetic country (SC) constructed on the economies that have escaped the MIT since 1990. The latest approach follows Abadie and Gardeazabal (2003), and Melguizo et al. (2016).

Data

The variables to identify the policy priorities for financial development are based on the World Bank Global Financial Development Database and are selected depending on data availability. The main constraint lies in the historical data of the analysis. Both comparisons (against the HI average and against the synthetic countries) require historical data as they are performed against the level presented 5 years before the HI economies overcame the MIT. For instance, the data for Spain is needed from 1985 to 1990, the year when it became HI. Table 4.1 presents the selected variables. Following Cihak et al. (2002), these variables are aggregated into three main categories: access, depth and efficiency. [4]

Table 4.1 Selected variables

Access
Bank branches per 100,000 adults
Number of listed companies per 1,000,000 people
Depth
Domestic credit to private sector (% GDP)
Deposit money banks' assets to GDP (%)
Bank deposits to GDP (%)
Stock market capitalization to GDP (%)
Stock market turnover ratio (%)
Efficiency
Bank net interest margin (%)
Bank overhead costs to total assets (%)
Bank return on assets (%, before tax)

Note: For a description of the variables see Table 2.1
Source: World Bank Global Financial Development Database

Methodology

In the first benchmark analysis, we compare the level of financial development in Argentina, Colombia, Mexico and Peru in 2015 with the one of HI countries five years before they overcame the MIT. Since the financial development variables are in different units, we have standardised to allow comparison between variables and effectively identify policy priorities:

$$z_t = \frac{x_{it} - u_{it-5}}{\sigma_i}$$

Where x_{it} is a selected variable at the latest year available t for an LAC economy i (Argentina, Colombia Mexico and Peru). u_{it-5} is the simple average of all economies i that have become HI since 1990 of the level presented five years before ($t-5$) they overcame the MIT. z_t is the gap measured in standard deviations that Argentina, Colombia, Mexico or Peru have with the average HI (5 years before they became HI). σ_i refers to the standard deviation of each of the selected variables.

4: Stability is not included due to lack of data.

In the case of the second benchmark comparison, the Synthetic Control Method (SCM) analysis follows the methodology introduced by Abadie and Gardeazabal (2003) and used in Melguizo et al. (2016). The synthetic control method reproduces a counterfactual (i.e., it estimates the missing counterfactual) such that on average the SC is the most similar to the treated country in terms of covariates and past outcomes.

The SCM works as follows. We have 1 treatment unit and a pool M of control units. For each unit we have a vector of observed covariates and pre-intervention outcomes. Let $Z1$ be the vector $k \times 1$ of pre-intervention characteristics of the treated unit and $Z0$ is $k \times M$ matrix, which contains the same variables for the control units. Let W be a $M \times 1$ vector of positive weights that add up to one. The algorithm chooses W^* that minimises $\sqrt{(Z1 - Z0W)'V(Z1 - Z0W)}$ where V is a $k \times k$ matrix. An optimal choice of V assigns weights to linear combinations of the variables in $Z0$ and $Z1$ to minimise the mean squared error of the synthetic control estimator. For instance, V is chosen such that it assigns larger weights to pre-treatment variables that have greater predictive power regarding the outcome.

In this paper, we use the SCM for a different purpose. Rather than creating a missing counterfactual, we rely on this method to find the weighted average for each UMI country of those HI countries that best replicate its characteristics 5 years before they passed from UMI to HI. Indirectly, we assume that the HI countries that graduated at time 0 received an intervention or started to adopt and implement some policies from 5 years before becoming HI. This also allows us to take into account the fact that the graduation of countries can be accumulative.

In particular, we take as covariates (predictors) an average of the selected variables -5 to 1 year for the UMI countries. On the other hand, we do not consider pre-treatment outcome values in our analysis. With these predictors we construct $Z0$ and $Z1$ for HI and UMI, respectively. In addition, for the matrix V we assign weights such that three categories access, depth and efficiency have the same importance. Finally, we find for each UMI the optimal vector W^*: the weighted average of the HI countries that best replicates the characteristics of each UMI country. As in the first methodology equation 1, variables are standardised and u is the result for the SC weighted average at $t - 5$ before they overcame the MIT.

Table 4.2 presents the main results of this methodology. Selected countries and the countries' weights make up the SC for each LAC economy under the analysis.

Table 4.2 Synthetic country weighted average for selected LAC countries (Weights in %)

Argentina		Colombia		Mexico		Peru	
Estonia	**31%**	Chile	**32%**	Chile	**25%**	Chile	**38%**
Latvia	**9%**	Czech Republic	**3%**	Czech Republic	**13%**	Estonia	**24%**
Uruguay	**60%**	Latvia	**36%**	Estonia	**1%**	Uruguay	**38%**
		Uruguay	**28%**	Korea, Rep.	**5%**		
				Lithuania	**8%**		
				Uruguay	**49%**		

Main results

Benchmark analysis

Results from the first benchmarking exercise (i.e., a comparison with the level of HI economies 5 years before they overcame the MIT)[5] are presented below. In a nutshell, they suggest that selected LAC countries still have gaps to be closed in terms of the three main criteria used in this paper: access, depth and efficiency. In particular, apart from access to bank branches in Colombia, all variables linked to the banking system present gaps compared to benchmark countries 5 years before they overcame the MIT. Regarding access to capital markets, while stock market capitalisation to GDP is relatively high compared to the benchmark countries (apart from Argentina), an inclusive access (number of listed companies) and further depth in terms of liquidity in these markets (stock market turnover) is needed in selected LAC countries.

In terms of access, both variables - bank branches and number of listed companies – show the need to continue expanding coverage of both the banking system and capital markets in order to escape the MIT. In particular, the gap for bank branches per 100,000 adults is especially marked in Peru, with more than 1.5 standard deviations from the level that the HI countries had before escaping the MIT. In the case for Argentina and Mexico, it is around 1 standard deviation while in the case of Colombia the gap is negative. For all four economies, the number of listed companies per 1,000,000 people is relatively low, with the gap relatively more accentuated in Argentina, Colombia and Mexico than in Peru (Figure 4.1).

Similarly, to escape the MIT, Argentina, Colombia, Mexico and Peru need to further deepen their financial markets. In the case of Argentina, this gap is particularly acute as the distance with the HI level before escaping the MIT is relatively large. The distance is more than 1.5 standard deviations in the case of credit given to the private sector, bank deposits and total assets held by banks. In the case of Colombia, the gap is especially high on bank deposits to GDP (%) (1.4 standard deviations), while other variables are less than one. For Mexico, the gap is especially acute in domestic credit to the private sector and bank deposits (1.1 standard deviations). Finally, for Peru the gap is concentrated in stock market turnover ratio (1.1) and banks' assets to GDP (1.2). In the case of Mexico, Colombia and Peru, stock market capitalisation to GDP is higher today than what it was for developed economies years before they made the leap (Figure 4.1).

In the case of efficiency, the gap is more acute although we observe heterogeneity across selected LAC economies. Argentina constitutes a special case, as bank returns on assets (2.2 standard deviations), bank overhead cost (1.5) and bank net interest margin (1.1) are relatively high. In the case of Mexico, the gap is mainly concentrated in the interest margin. For Colombia and Peru, the gap is concentrated essentially in the net interest margin (1.3 and 1.5, respectively) and the bank return on assets (1.0 and 1.3, respectively) (Figure 4.1).

A note on profitability (measured by bank return on assets and bank net interest margin) must be made when analysing the policy priorities of the four selected LAC economies. The results show a positive gap for these two variables in almost every case. However, this aspect entails a relatively different interpretation from the others. While the level of profitability must decrease in order to converge to the level of the SC, reducing profitability should not be considered a policy priority. Evidence from HI countries shows that as their banking sectors became more competitive, their profit margins tend to lower. Therefore, the reduction of profitability is a consequence of development rather than an action point.

5: The HI income economies included in the analysis are (year of graduation to HI): Chile (2005), Czech Republic (2006), Estonia (2000), Greece (2000), Ireland (1990), Korea (1995), Latvia (2005), Lithuania (2007), Poland (2014), Portugal (1996), Singapore (1988), Spain (1990) and Uruguay (2011).

Figure 4.1 Policy gaps with HI economies (Standard deviation, comparison 5 years before passing from MI to HI)
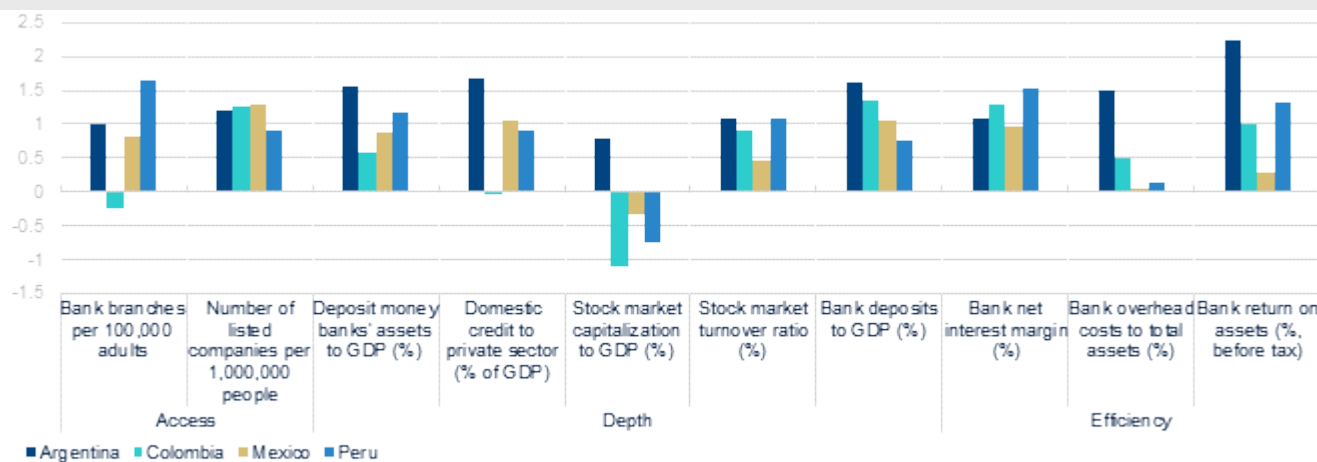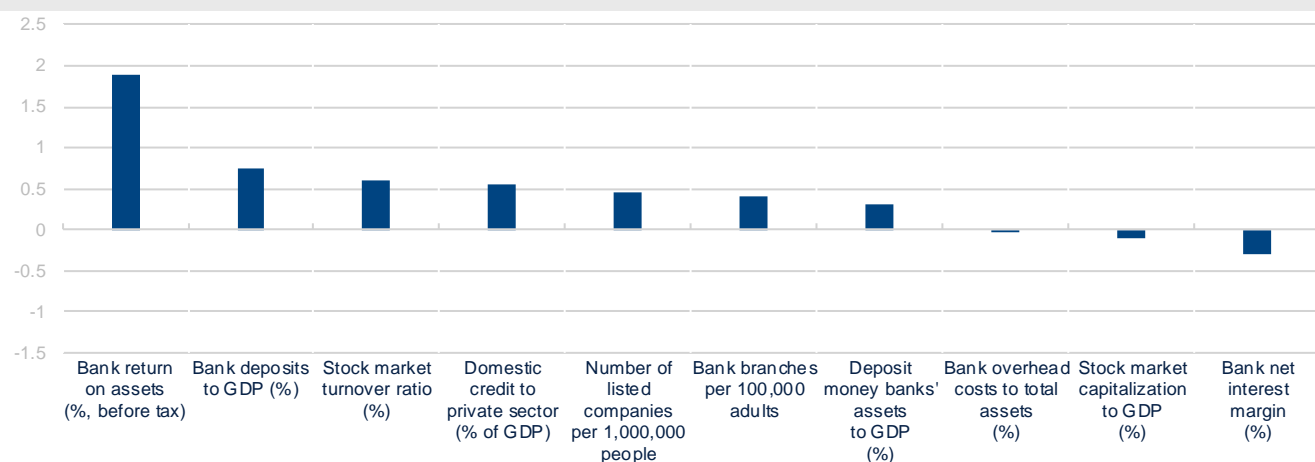

Note: Gaps are standardised. It means that if a gap is positive, it supposes that LAC economies must undertake improvements compared to HI 5 years before they escaped the MIT.

Synthetic analysis

Results from the SC exercise (Table 4.2) are presented below for Argentina, Colombia, Peru and Mexico. In a nutshell, they identify the priorities per country according to their specific financial characteristics. As in the previous exercise, results indicate that there is still a need to close the gap in terms of access, depth and efficiency although priorities vary among countries.

In the case of Argentina, policy priorities for escaping the MIT when compared to the SC are in the three items of financial development. First, both variables of access (bank branches and number of listed companies) are signalled as representing considerable gaps. Regarding the depth of financial markets, bank deposits to GDP and stock market turnover represent the most significant gaps. Finally, in the case of efficiency, bank return on assets represents the highest gap in the whole analysis (Figure 4.2). This is the result of high inflation in the country which translates into high credit spreads as detailed in the Argentina case study below.

Figure 4.2 Policy gaps for Argentina after comparing with synthetic economies (Standard deviation, comparison 5 years before passing from MI to HI)

Note: Gaps are standardised. It means that if a gap is positive, it supposes that LAC economies must undertake improvements compared to the SC 5 years before it escaped the MIT.

In the case of Colombia, policy priorities to escape the MIT when compared to the SC are given here. In terms of access, while the number of bank branches appears to exceed that of the SC, the gap is still present in the number of listed companies in the stock market. In terms of depth, bank deposits appear to have a gap close to 1 standard deviation compared to the SC. Finally, in terms of efficiency, all three variables of efficiency are among the top 5 policy priorities (net interest margin, overhead costs and bank return on assets) (Figure 4.3). As explained above, it is only considered a policy priority to act in terms of overhead costs.

Figure 4.3 Policy gaps for Colombia after comparing with synthetic economies
(Standard deviation, comparison 5 years before passing from MI to HI)
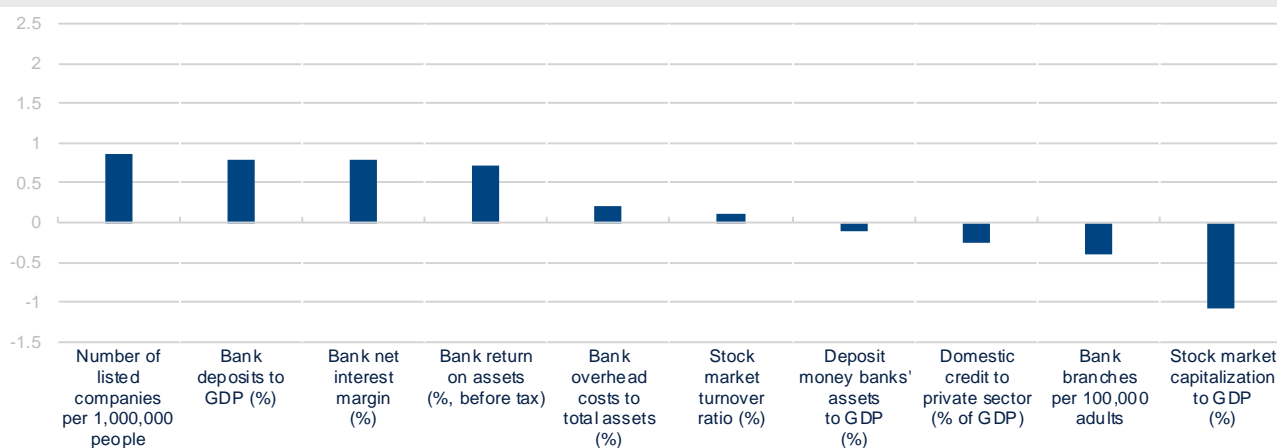
Note: gaps are standardised. It means that if a gap is positive, it supposes that LAC economies must undertake improvements compared to the SC 5 years before it escaped the MIT.

In the case of Mexico, the difference between the SC 5 years before it escaped the MIT and its current level of financial development signal the need to focus on 5 policy areas. In terms of access, the number of listed companies in the stock market is close to 0.5 standard deviations below SC. In terms of depth, bank deposits and credit to the private sector show the two highest gaps. Finally, in the case of efficiency two out of the three efficiency variables are signalled as a policy priority in the top 5: net interest margin and bank return on assets (Figure 4.4).

Figure 4.4 Policy gaps for Mexico after comparing with synthetic economies
(Standard deviation, comparison 5 years before passing from MI to HI)
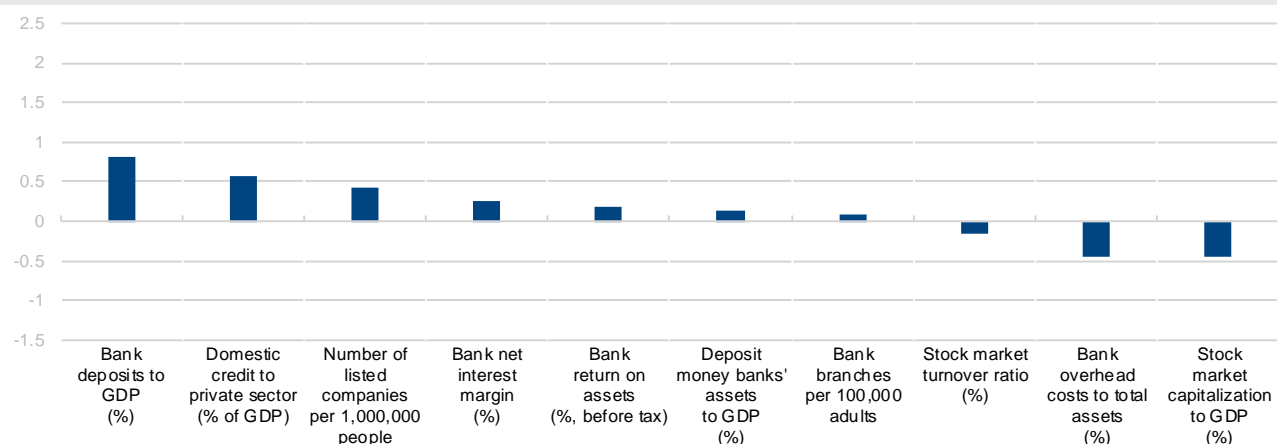
Note: gaps are standardised. It means that if a gap is positive, it supposes that LAC economies must undertake improvements compared to the SC 5 years before it escaped the MIT.

In the case of Peru, the gap between the SC and its current level of financial development signal five policy priorities. First, in terms of access the coverage of bank branches remains low compared to the SC. Second, in terms of depth more domestic credit and a higher stock market turnover are needed to achieve a similar level that the synthetic economy had before escaping the MIT. Finally, in terms of efficiency, bank returns on assets, and to a lesser extent, net interest margin is similarly identified as policy areas that need to be addressed with higher levels of competition.

Figure 4.5 Policy gaps for Peru after comparing with synthetic economies
(Standard deviation, comparison 5 years before passing from MI to HI)
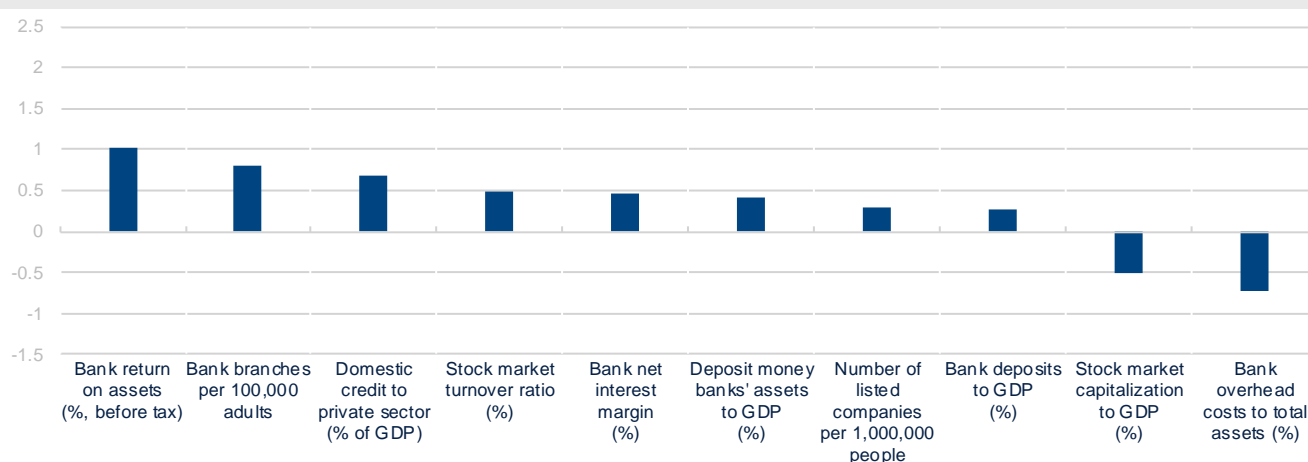
Note: gaps are standardised. It means that if a gap is positive, it supposes that LAC economies must undertake improvements compared to the SC 5 years before it escaped the MIT.

5. Case study by country

This section provides case studies by country for Argentina, Colombia, Mexico and Peru in order to focus on policy options and to obtain an in-depth understanding of the existing realities in these countries. These country studies identify recent policies implemented to promote development of the financial sector.

5.1 Argentina

5.1.1 Banking Sector overview

Since 2010, Argentina has experienced an economic slowdown and a volatile evolution of GDP, experiencing multiple economic contractions. On average, in the same period it has grown below the regional average. Between 2011 and 2017, the economy has grown on average 1.2% annually, while the LAC average is 1.7%.

So far, only Chile and Uruguay have become HI economies in LAC. Argentina has been a MI country since 1950 and it would need at least six more years to become HI. If Argentina continues to exhibit similar GDP growth rate to that of the period 2006-2017, it should become an HI economy in 2023.

After several years of macroeconomic instability (high inflation, financial isolation and inability to access the international financial markets, among others) Argentina displays the lowest level of financial depth in the region with the credit to GDP and deposits to GDP standing at 16.7% and 25.8%, respectively as of June 2018. Since the end of 2015, the current government has implemented several reforms to promote financial intermediation. However, limited access to finance remains a concern for inclusive growth in the country (OECD, 2017a).

What is noteworthy is the size of the public banks sector, which accounts for close to 42% of the market (in terms of assets) while private banks account for 56%.[6] It is not a very concentrated banking sector with the top five banks accounting for around 50% of the market share, both in terms of assets and loans. Foreign banks account for around one third of the market in terms of lending.

Overall the banking sector is quite sound with robust solvency (Tier 1 ratio of 13.5% as of July 2018), with higher levels than most of its peers (for instance Colombia's Tier 1 ratio stood at 10.7% in July 2018). It also displays abundant liquidity (underpinned by low credit growth in the years up to 2015), while banks remain predominantly deposit-funded. The system shows higher levels of profitability than its peers in the region (ROA of 3.5% as of July 2018) and no problems in terms of asset quality (NPL ratio of 2.3% as of April 2018). Credit accelerated sharply with growth rates at around 50% YoY at the end of 2017.

Argentina, as a G-20 country, has adopted international regulatory standards and is compliant with Basel III. It has taken some steps in terms of recovery and resolution although it is still not compliant with the key attributes for effective resolution laid down by the Financial Stability Board.

In the following sections we will compare Argentina to its SC in order to assess the strengths and vulnerabilities of its financial system. This benchmark country is built according to the methodology explained in Section 3 and has the following composition: Uruguay (60%), Estonia (31%) and Latvia (9%).

5.1.2 Financial Access

Argentina, as well as its peers in the region, shows low levels of access to finance when compared to HI economies. Compared to its SC, the results show that Argentina needs to increase its levels of access in order to escape the MIT (Figure 4.2).

According to MIFI, which considers use, access and barriers to finance, Argentina is in 70th position (out of 137 countries), so it still has room for improvement when it comes to allowing people and firms to enter its financial system. For instance, the number of commercial bank branches remains at levels from the decade prior to 2010, accounting for roughly 14 offices per 100,000 adults in 2015. Although the country lacks a regulatory framework for correspondents, which has proven to be very effective in Colombia and Peru, thanks to digitalisation Argentina can increase access to finance.[7]

Turning to the HI countries, there is evidence that a lower number of commercial bank branches is becoming the rule across the board. Figure 5.1.1 displays the relationship between GDP per capita and number of branches per 100,000 adults. At the same level as Argentina there are developed countries such as Germany and South Korea, as well as other HI countries with a high level of access to the banking system that have made considerable investment in digitalisation, like Norway and the Netherlands.
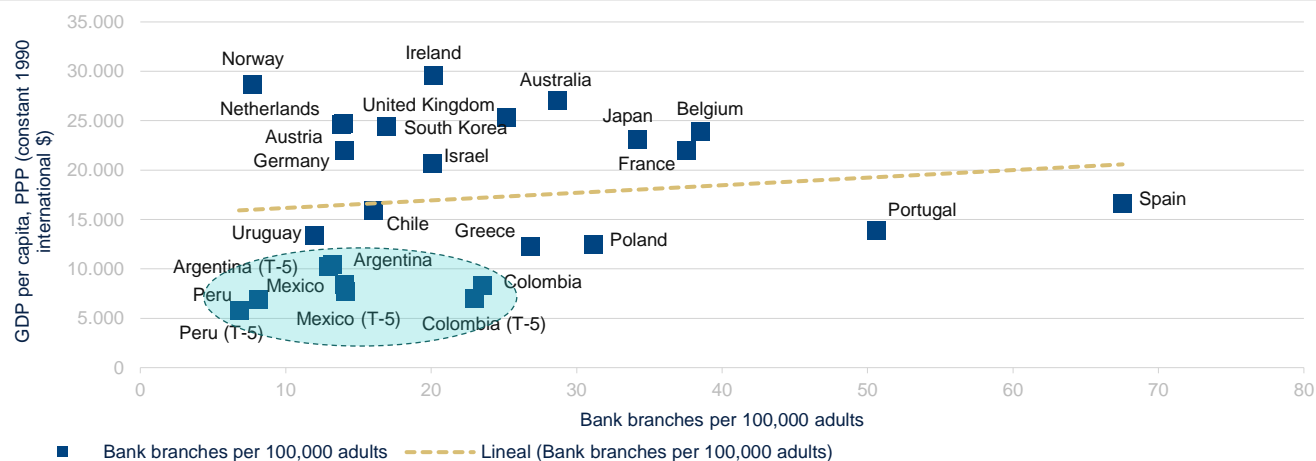

6: The remaining 2% is constituted by non-bank financial institutions.
7: Although there is no correspondent infrastructure in place, it is possible to make cash-related transactions in local businesses such as supermarkets and pharmacies.

Figure 5.1.1 Bank branches per 100,000 adults

Note: Data of this variable for United Kingdom corresponds to 2013.
Source: World Bank (Global Financial Development Databases)

In this sense, Argentina still has a long way to go according to DiGiX. It stands at 77th position (out of 100), a low position compared to Mexico (59th) and Colombia (53rd), and far behind recent HI countries such as Latvia (35th) and Chile (34th). The higher positions correspond to those countries that have been labelled as HI for a longer period of time.

Following this result, in the long run a policy target should be to reach a higher degree of digitalisation. With the right policies, digitalisation can cover not only the already-banked population (which according to the World Bank stood at 50.2% in 2014) but also those that do not have access to formal finance yet.

Another way to improve access in the region would be by tackling informality. High informal rates (above 46% in 2014) are strictly associated with access to finance.[8] Policies aimed at reducing the costs for firms to switch from informality to fully establishing themselves in the formal sector will likely have a positive impact on financial inclusion. Firms that fall outside the country's regulation face several challenges in accessing credit and are less likely to have a bank account (Farazi, 2014). These firms also identify lack of access to finance as the biggest obstacle they face.

To measure firms' access to finance, we use the number of publicly listed companies per 1,000,000 people (although this type of financing can be very costly for small and new firms as pointed out in Section 3). This indicator in Argentina is very low, as it is in the other three LAC countries, and has remained at the same level for nearly 15 years. However, looking at HI countries, there is high heterogeneity across OECD countries and this is independent from the level of development (Figure 5.1.2).[9]

8: Source: International Labour Organization. Last data available corresponds to that year. It is measured as the percentage of informal employment over non-agricultural employment.
9: The difference can be due to cultural reasons and firms' size and structure, like more family-based firms or preference for credit.

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Figure 5.1.2 Number of publicly listed companies per 1,000,000 people in Argentina, Germany and Australia over time


Argentina — Germany — Australia
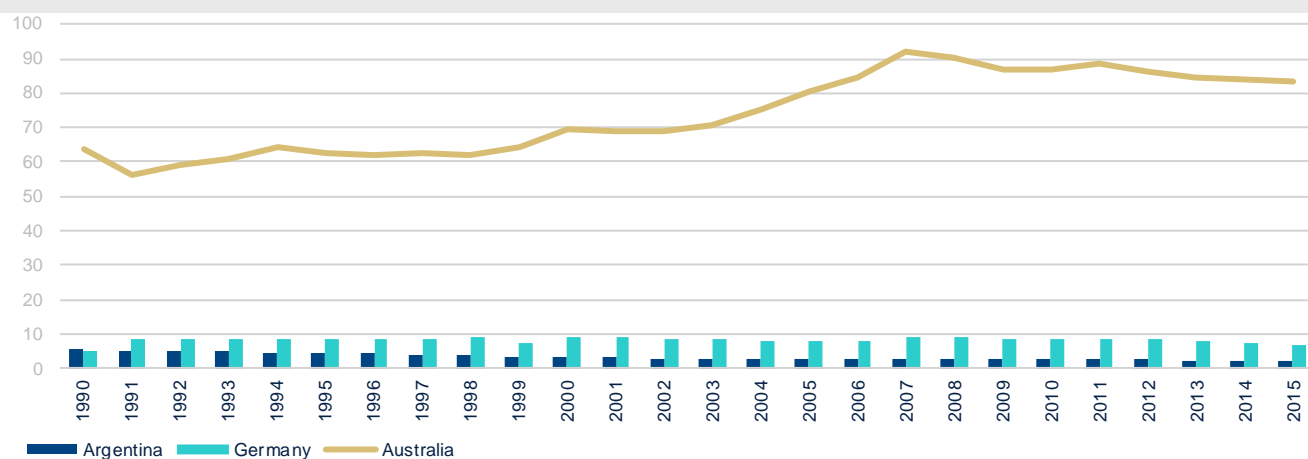
Source: BBVA Research based on data from World Bank

Despite this difference, Argentina needs to encourage and facilitate national firms to have a presence in the financial markets as an alternative source of finance. With the current government, several measures to promote access to financial markets have been implemented. This could contribute to large firms financing themselves through the capital markets while SMEs can finance themselves through the banking system.

5.1.3 Financial Depth

Argentina has had a small banking sector measured in terms of assets over GDP in the last decades. An expanding banking sector is an essential condition to development, as shown in Figure 5.1.3. This figure shows the evolution of Estonia, Latvia and Uruguay for this variable five years before graduating to HI (n-5) up to the graduation year (n). In the case of Argentina, it shows data from 2010 to 2014, due to data availability. The countries that comprise Argentina's SC experienced an increase in their banking sector in the years prior to graduation, or at least a stabilisation at higher levels. In this regard, since 2015 Argentina has started to follow the same pattern. According to the Central Bank of Argentina, bank assets have increased more than 70% in the period 2016-2017, setting a positive path for the country.

Figure 5.1.3 Assets over GDP

Estonia — Latvia — Uruguay — Argentina
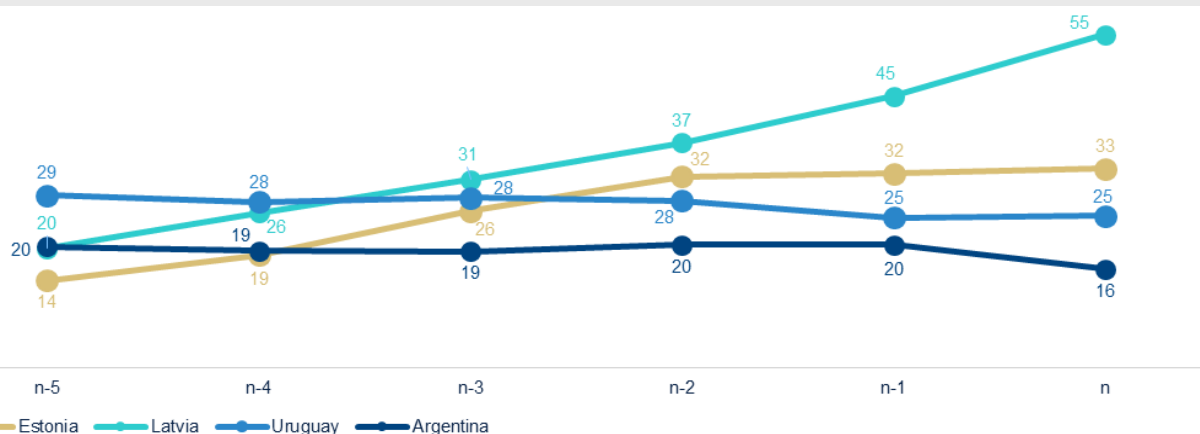
Source: BBVA Research based on data from the World Bank. For Argentina, n accounts for 2014, while for the rest it corresponds to the year they became HI

Looking at two other indicators of financial depth (credit over GDP and deposits over GDP), Argentina displays low financial depth, as shown in Figures 5.1.4 and 5.1.5. This situation improved in recent years with a series of measures aimed at promoting loans. For instance, mortgage credit, which was extremely low even for an emerging market, increased by more than 100% in 2017. As of August 2018, these loans accounted for 10.3% of total credit and 1.6% of GDP. Although it is still relatively low, it is increasing, mainly due to the introduction of loans indexed to inflation (known as "financiamiento en Unidad de Valor Adquisitivo"). This type of financing is becoming increasingly popular and is also used with car loans. In January 2018, Argentina's Securities and Exchange Commission (Comisión Nacional de Valores, CNV), the country's securities market regulator, published a resolution that gives Argentine banks the ability to securitise their inflation-adjusted loan portfolios mainly composed of mortgages indexed to inflation. This will contribute to fund this new type of indexed loans and avoid banks having unhedged positions on their balance sheets. The new Capital Markets Law also includes the option for securitising mortgage portfolios.

Figure 5.1.4 Credit to the private sector to GDP in Latin America
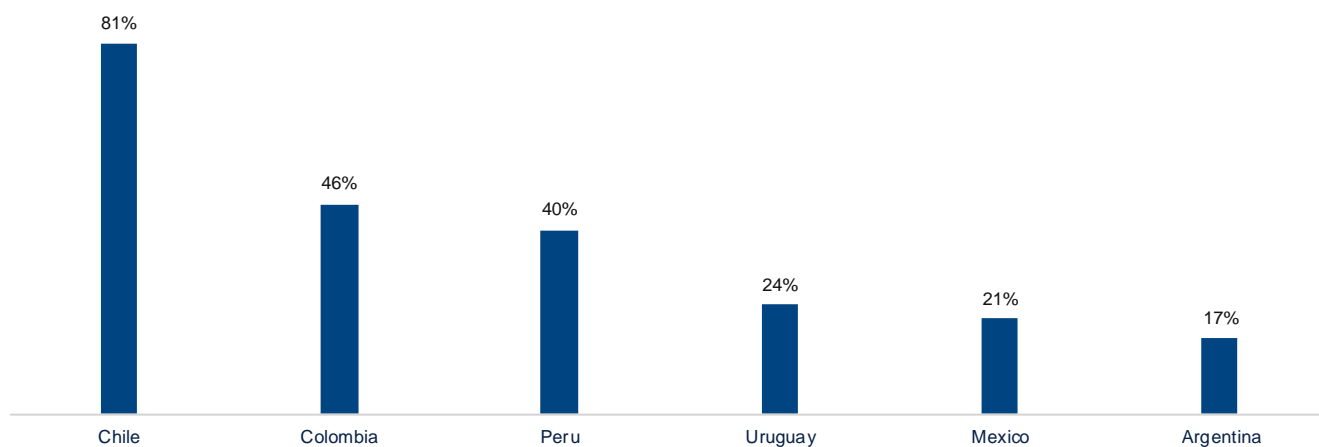
Source: BBVA Research, based on data from each of the countries' Central Banks, June 2018

Figure 5.1.5 Deposits to GDP in Latin America
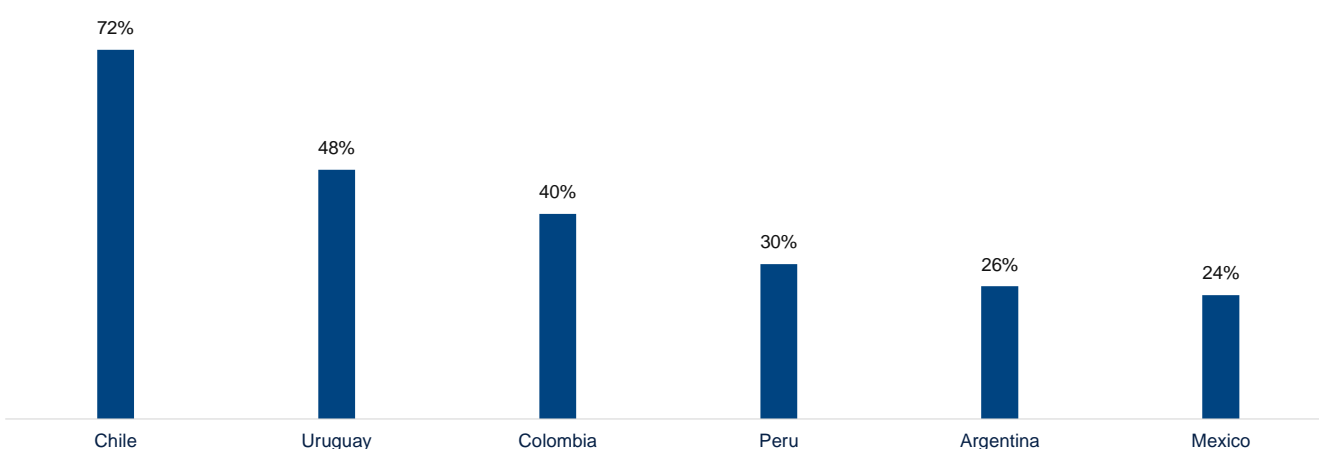
Source: BBVA Research based on data from each of the countries' Central Banks, June 2018

Authorities in Argentina consider financial depth and inclusion a key policy objective, and the government is working to reduce distortions in the credit market. As noted in Rojas-Suárez and Pacheco (2017), distortionary policies like ceilings on credit interest rates and floors on deposit interest rates have been removed. The financial transaction tax, a major preventer of depth, will be phased out by 2022. Moreover, the direct lending programmes, by which the government used to influence the investment decisions of private and public banks, have been completely phased out.

Similarly to the banking sector, the stock market in Argentina is still underdeveloped. In order to encourage SMEs to finance themselves in equity markets, the government has introduced a new financial instrument ("Obligación Negociable Simple Garantizada") that according to the CNV makes the process easier and can be performed electronically. Concurrently, a new capital markets law that seeks to reduce bureaucracy and liberalise the market was approved in May 2018. Finally, regarding debt markets, inflows of foreign investment on debt securities issued in Argentina remain at low levels.

5.1.4 Efficiency and Stability of the Financial System

The banking sector in Argentina stands out for its high profitability, with ROA of 3.5% as of July 2018. It has one of the highest levels of ROA and bank net interest margin out of the countries in the region (Figure 5.1.6).

Figure 5.1.6 Bank net interest margin
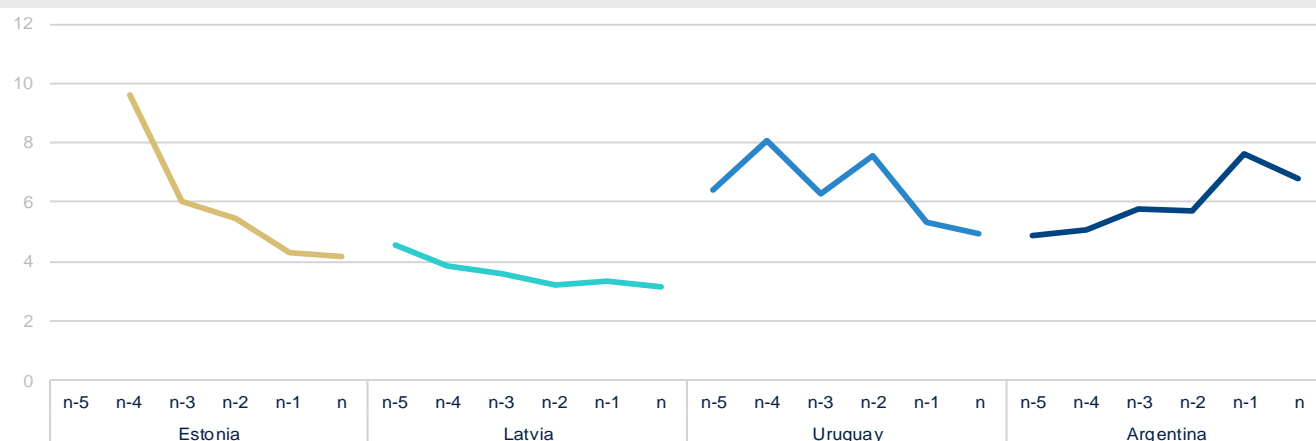
Source: BBVA Research based on data from World Bank. For Argentina, n accounts for 2015, while for the rest it corresponds to the year they became HI

In typical efficiency indicators of the banking sector (overhead costs to total assets), Argentina compares unfavourably with the region and with graduated countries as a result of a very small banking sector. According to the Central Bank of Argentina, loans and services could be increased by around 10%, without incurring additional expenses. Therefore, it is important for Argentine banks to focus on increasing their activity without a concurrent increase in operating costs.

5.1.5 Institutional Factors

Using the Doing Business variables that were explained in Section 3 as an approach for institutional factors, Argentina's indicators are below average. Its position in the ranking (117th out of 190)[10] is partly explained by the low recovery rate of insolvency and high costs in terms of bureaucracy in enforcing contracts and registering property. Table 5.1.1 shows a comparison among Argentina and the countries that constitute its SC. It is important to note that we are not considering those other variables that do not directly affect the banking system, such as obtaining electricity or paying taxes that could affect the score negatively.

10: Uruguay is in 94th position, Latvia in 19th position and Estonia in 12th position.

Table 5.1.1 Position in the Doing Business rankings (Out of 190 countries)

Country	Ease of doing business	Registering property	Getting credit	Enforcing a contract	Resolving insolvency
Argentina	117	117	77	102	101
Uruguay	94	112	68	112	66
Estonia	12	6	42	11	44
Latvia	19	22	12	20	53

Source: BBVA Research and OECD based on World Bank data

Nonetheless, Argentina shows the highest level in terms of credit information index (included in the "getting credit" section). This translates into good access to quality credit information available through either public or private credit registries. The coverage includes repayment history, unpaid debts and level of outstanding credit, among others.

Efforts should be made to reduce costs and the time involved in registering property and enforcing a contract. Along with a low recovery rate of insolvency, these obstacles are likely to deter banks and firms into entering contracts, as the risks are higher. Following this idea, the Argentina's Ministry of Modernisation is carrying out a series of measures to reduce bureaucratic costs that would entail an increase in savings for the private sector. Among other proposals, they plan to make all transactions and operations among the citizens, companies and the state completely digital.

5.1.6 Conclusions

Argentina has had a period of economic isolation, high inflation and financial uncertainty (due to confiscations of deposits) that has had a negative impact on its financial system. Levels of access to financial services in Argentina at individual and company levels are quite low. Reducing distortionary taxes that prevent informal firms from establishing themselves in the formal sector and improving digitalisation could improve financial inclusion and could bring better services to clients and people that are not banked yet.

Financial depth measured as credit and deposits over GDP is still low. In recent years, credit perspectives have improved. The measures applied aimed at promoting loans and at eliminating interest rate floors and ceilings, among others, have been welcome. Additionally, Argentinian firms would benefit from increasing their exposure to capital markets. The first step forward was the approval of the Capital Markets Law in May 2018.

Efficiency indicators could improve if the banking system continues growing in the coming periods, as it could increase its activity (i.e. increase total assets) without increasing its costs too much. Also, profitability remains high even for the region's average, but would eventually fall when the financial sector develops further.

Finally, Argentina would benefit from the implementation of measures that increase the recovery rate of insolvency, as well as continuing the process of reducing the bureaucracy involved in enforcing contracts and registering property.

5.2 Colombia

5.2.1 Banking Sector overview

Since 2010, Colombia has experienced an economic slowdown but has consistently grown above the regional average. Between 2011 and 2017, the economy has grown on average 3.8% annually, well above the LAC average (1.7%) (OECD, 2017b).

So far, only Chile and Uruguay have become HI economies in LAC. Colombia has been an MI country since 1950 and would need another decade to become HI. If Colombia continues to exhibit similar GDP growth rates to that of the period 2006-2017, it should become a HI economy in 2028.

Colombia has a relatively concentrated banking sector with the largest five banks accounting for roughly 78% of market share.[11] In contrast to other LAC countries, the presence of foreign banks is less significant, accounting for 26.2% of market share (July 2018), while public banks have a marginal presence.[12] The Colombian banking sector has expanded its operations to Central America, with these foreign operations accounting for an increasing portion of its assets.

From 2005 to 2015, the country experienced a strong increase in financial depth with the ratio of credit to GDP rising from 22% in 2005 to 45% in 2015. However, the recent economic slowdown, translating into lower credit growth in the last couple of years has led to stagnation in terms of financial depth (Credit to GDP at 46.1% as of June 2018).

The recent slowdown in economic activity has translated into an increase in the household and corporate financial burden, affecting the quality of the loan portfolio. Additionally, deposits, the traditional way of financing Colombian banks, remain at similar levels as in 2015 (deposits over GDP accounted for 39.7% as of June 2018).

Overall, the banking sector is sound. Profitability has fallen (recently due to higher provisions), but ROA is at 1.5% as of July 2018, above the levels presented by Chile (ROA of 1.4%) but below its peers in the region (for instance Peru and Argentina are above the 2% threshold). Efficiency also remains adequate (cost-to-income of approximately 60% as of December 2017). Capital ratios have improved, although they are slightly lower than in other peer banking sectors (Tier 1 ratio of 10.7% as of July 2018). The slower loan growth recently has translated into higher liquidity. The loan-to-deposit ratio stood at 116.1% in June 2018. Banks remain fundamentally deposit-funded, with a significant contribution from corporate deposits. Asset quality has deteriorated in recent past years due to the economic slowdown and some corporate defaults, but came from very good levels. The NPL ratio stood at 5.0% as of July 2018, while Peru stood at 2.7% and Argentina around 2.3%.

Colombia has continued a process of gradually converging with the adoption of international regulatory standards. Following the OECD accession process, Colombia approved a law on financial conglomerates in 2017 which should enhance the supervision of financial groups, and also increased the institutional independence of the national supervision authority. In addition, it has introduced tools and mechanisms that facilitate the resolution of financial entities. In 2018 Colombia has laid down a roadmap to converge with the adoption of Basel III standards, as currently it is partially compliant with Basel II.

In the following sections we will compare Colombia to its SC in order to assess the strengths and vulnerabilities of its financial system. This benchmark country has been built according to the methodology explained in Section 3 and has the following composition: Chile (32%), Latvia (36%), Uruguay (28%) and Czech Republic (3%). The

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11: According to World Bank data from 2015.
12: Finagro is the only exception. It is a Government Fund promoting the development of micro-, small- and medium-sized agricultural firms.
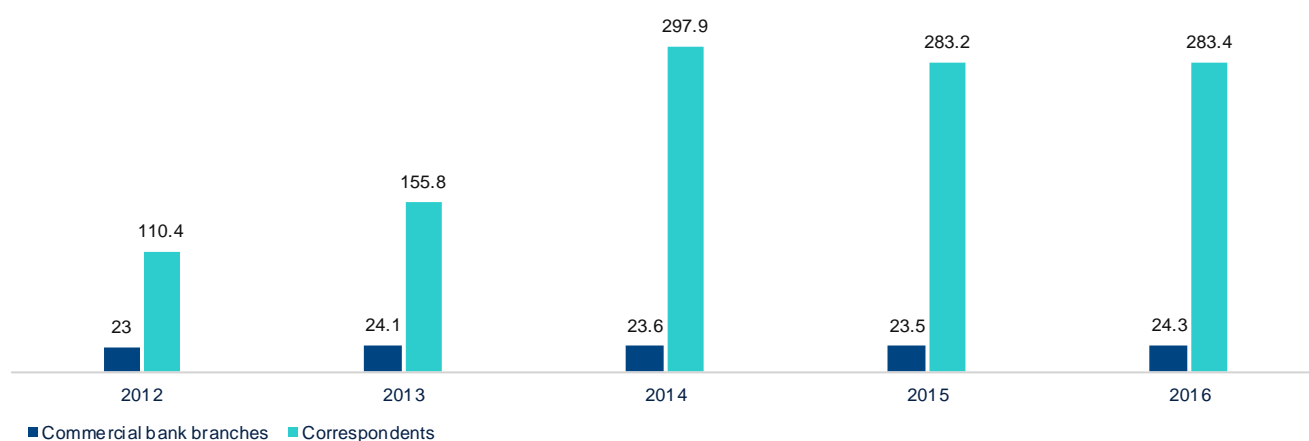
benchmark exercise will be undertaken under four main comparison pillars: i) Financial access, ii) Financial depth, iii) Efficiency and stability of the financial system and iv) Institutional factors. The benchmark exercise is followed by a conclusion in the final section.

5.2.2 Financial Access

Colombia displays a higher level of access to the banking system than Peru, Mexico and Argentina, according to the SC study. The focus was put into measuring three key elements of a well-functioning banking system: traditional coverage by banks, coverage by banks using new technologies, and financial inclusion.

When accounting for regular commercial bank branches, Colombia shows the same levels as many HI countries (24.3 per 100,000 adults in 2016).[13] The country has successfully implemented a system of banking correspondents that has improved access for people in rural and remote areas that were not bank clients yet. The system has grown exponentially in the last few years, while commercial branches stayed at the same level, as shown in Figure 5.2.1. This follows the trend of a decrease in the number of traditional branches observed in HI countries.

Figure 5.2.1 Branches and correspondents (Per 100,000 adults)

Source: BBVA Research and OECD based on data from Superintendencia Financieria de Colombia

Colombia is in 53rd position in the DiGiX, which can be used as an indicator for its level of digitalisation. The country holds a higher position than its peers in the region and stands close to recently developed economies (Uruguay is in 37th position and Latvia in 34th). Another indicator would be the existence of a thriving fintech environment. According to a report by the Inter-American Development Bank and Finnovista, a financial platform, Colombia covers 11.9% of the fintech market in LAC, after Brazil (32.7%) and Mexico (11.9%). Colombian authorities could further adapt the regulatory framework to the digital transformation of financial services, as some countries like Mexico have already done (Fintech Law approved and in force in 2018).[14] In fact, there have already been some measures carried out to provide a framework for crowdfunding for small and medium firms. More steps towards facilitating the development of the fintech ecosystem would be beneficial in many ways. It would decrease the risk associated with digitalisation, thus allowing fintech firms to access finance at a lower price, and on the other hand, would allow banks to carry out their own digitalisation process.

13: According to the Financial Inclusion Report 2016 of the Superintendencia Financiera de Colombia.
14: Talks about a fintech regulation have been going on between Colombia's Ministerio de Hacienda and the Superintendencia Financiera.

Colombia is in 36th position in MIFI, above some HI countries like Uruguay (56th position). Colombian regulation does not intervene nor regulate fees and commissions charged, which is positive compared to other LAC countries. In terms of government efforts there is the program "Mas Familias en Acción" (MFA). Through this programme all supervised financial institutions may obtain licences for taking deposits and make payments through electronic deposits. One aspect in which Colombia has room for improvement is the establishment of simplified accounts for small companies. These accounts were identified in Rojas-Suárez and Pacheco (2017) as promoters of financial inclusion.

As for capital markets, the observed value of Colombian listed companies as at 2015 stood at a very low level, which is quite common in the four LAC countries covered in this study. When compared to its SC, there is a disparity in the trends. On the one hand, economies such as Chile and Latvia registered higher levels in the years before graduation, while on the other hand Uruguay and the Czech Republic showed very low and even decreasing levels. Colombian firms could potentially benefit from a larger exposure to capital markets as an alternative source of financing. In the case of Colombia, the Latin American Integrated Market (MILA), which includes Chile, Colombia, Mexico and Peru, could represent an opportunity to increase the access of capital markets.

5.2.3 Financial Depth

Compared to its peers in the region, Colombia shows relatively good levels of financial depth. According to the SC study, its level of assets over GDP as of 2015 showed that Colombia was on the right path to achieving higher levels of depth, and even surpassed some countries before graduation, as shown in Figure 5.2.2.
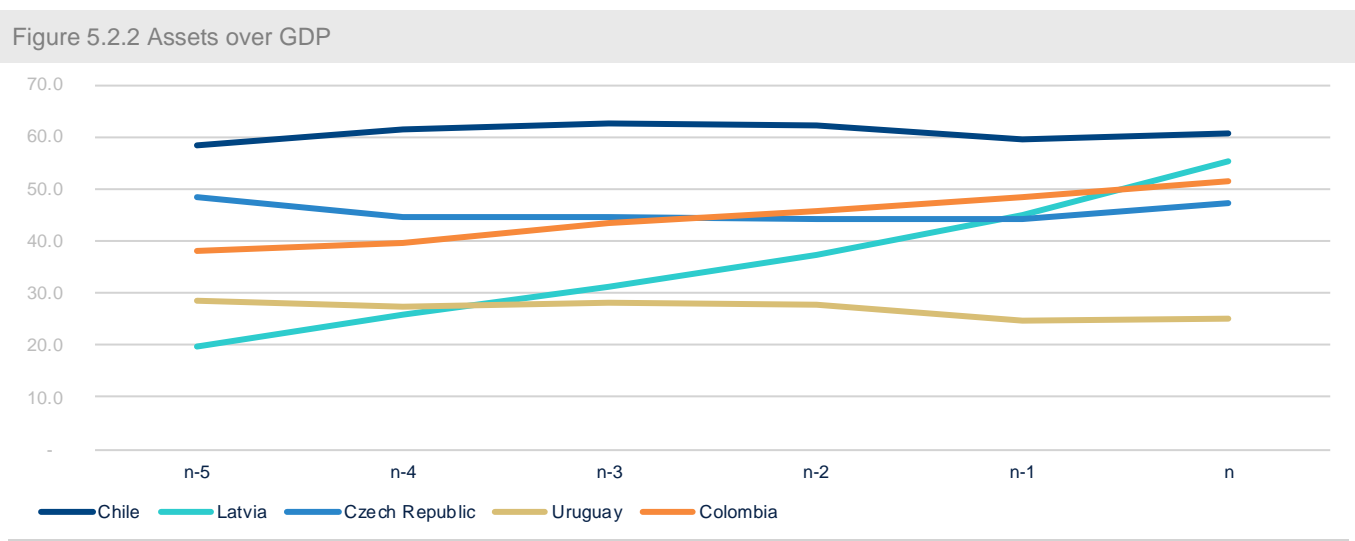
Figure 5.2.2 Assets over GDP

Source: BBVA Research and OECD based on World Bank data. For Colombia, n accounts for 2015, while for the rest it corresponds to the year they became HI

Figure 5.2.3 Evolution of credit growth rates in Colombia
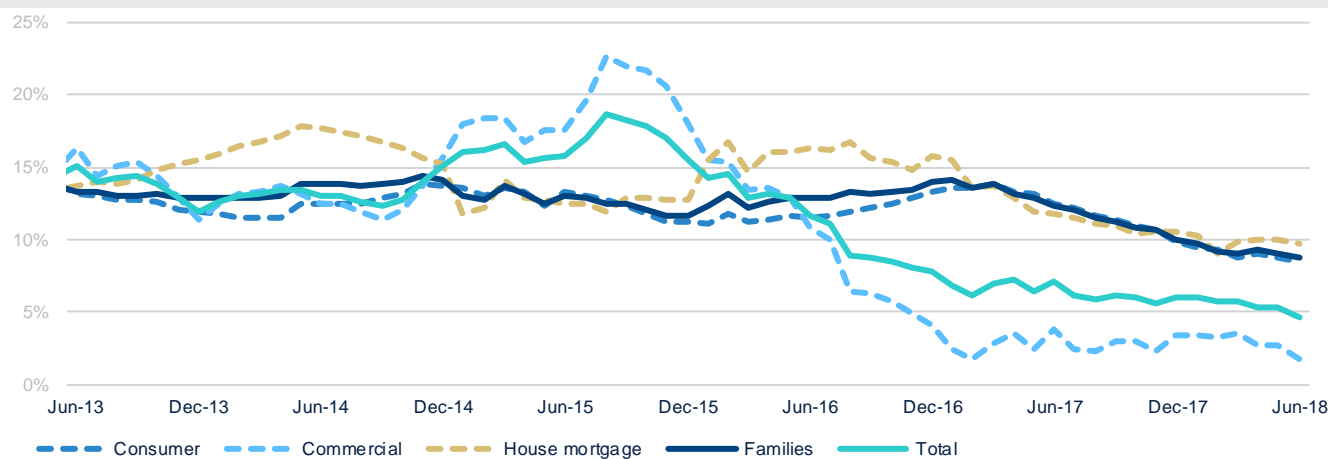
Source: BBVA Research based on Superintendencia Financiera

In 2015, Colombia's domestic credit to GDP was at 47.1% while countries like Uruguay and the Czech Republic had graduated at 23.1% and 34.1% respectively. On the contrary, deposits to GDP exhibit a gap, meaning they still have to grow in order to reach the level of the SC.

Since 2015, assets have continued growing at Colombia's five largest banks,[15] but at a much lower rate. This decrease in asset growth is mainly due to the economic slowdown the country has suffered in recent years. The deceleration of economic activity has also had a heavy impact on the level of credit to households, firms and mortgages (Figure 5.2.3).

Similarly, deposits have also been affected and have grown at a much reduced rate. This is especially notable in Colombia's banking system, which is highly dependent on deposits as a source of funding (Figure 5.2.4). This has led to an increase in the funding gap.

Figure 5.2.4 Credit to GDP and deposits to GDP in Colombia
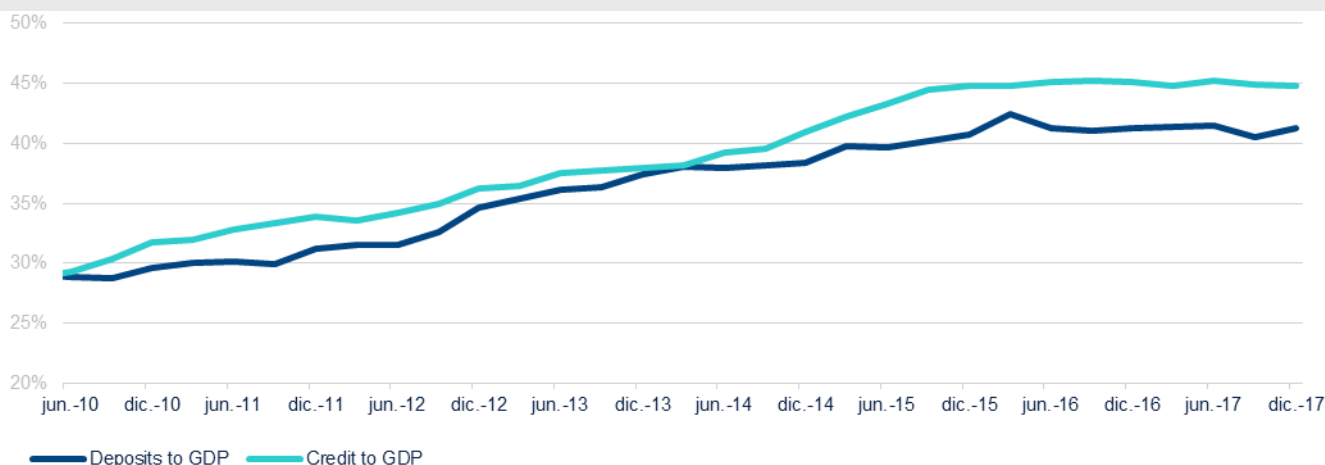
Source: BBVA Research

15: As stated in the introduction of the case study, Colombia's banking sector is highly concentrated. Therefore, accounting for its five largest banks (in terms of assets) constitutes a good approximation for the country's banking system.

Colombia's economic growth is expected to recover in 2018. However, there is still room for policies that could boost the credit market. According to Rojas-Suárez and Pacheco (2017), in Colombia there are some issues that are preventing the progress of financial depth in the region and are creating distortions in the credit market. One example would be debit taxes on savings accounts.[16] Also, the existence of interest rate caps[17] is reportedly assessed as creating distortions in the provision of credit to small enterprises and low-income customers. Another distortion is the existence of direct lending, with respect to the functioning of Finagro, an agricultural bank.[18] Agricultural loans are provided at interest rates set by the authorities. The evidence indicates that the fixed interest rates do not cover the costs and risks associated with funding small producers. Measures aimed at eliminating or alleviating these distortions would have a positive impact on financial depth.

Apart from banking intermediation, Colombia could benefit from the development of capital markets and debt markets as an alternative source of financing. According to the variables used in this study, while stock market capitalisation does not seem to be an area in which Colombia lags behind its peers, a more dynamic market (measured by the turnover of the stock market) would shorten the distance between Colombia and its SC.

Regarding debt markets, inflows of foreign investment for debt securities issued in Colombia are in line with other LAC countries, but relatively low compared to HI countries. According to 2016 data obtained from the Bank for International Settlements, the public sector was more exposed to international markets (10.3% of GDP) than non-financial firms (5.8%) and financial firms (3.8%). Nevertheless, total issuance to GDP stood at 19.9%, the highest level since there have been records, proving that Colombian debt markets are progressively increasing their issuance in international markets, but are still concentrated in the public sector.

5.2.4 Efficiency and Stability of the Financial System

According to the SC study in which the gaps between Colombia and its SC are identified, the Colombian banking system stands out for having higher profitability than its SC (Figure 4.4).

As explained in Section 3, a positive gap means Colombia should put more effort into achieving the SC's level and a negative gap means the country is already there. However, in this particular case, it does not mean that policy action should be to actively reduce profitability. Rather, it means that profitability would tend to decrease as the country accomplishes graduation. For example, according to Mujeri and Younus (2009), the net interest margin of banks is expected to decrease when the banking sector reaches a higher level of development. Although a higher net interest margin means the system is more profitable, this indicator is lower in HI countries. For instance, in 2015, Colombia was at a level of 4.9%, while the Czech Republic was at 2.6%. As we move towards higher income countries, Belgium was at 1.7% and France hit a low of 0.9%.

Lessons from graduated countries show that as they develop, the net interest spread tends to be lower. The income obtained from lending comes closer to the interest paid to depositors as a result of a more competitive banking system.

A similar phenomenon happens with return on assets, a typical measure of profitability. Banks in HI countries are less profitable than those in emerging countries underpinned mostly from high net interest margins in emerging markets. Particularly, banks in LAC have a history for being profitable which makes them attractive for further investment. Nevertheless, it is important to be aware that high credit spreads limit access to credit for the general public. In Colombia, the ROA indicator has fallen to 1.5% as of July 2018; the same level Uruguay displayed the year it graduated.

16: According to the same paper, the tax was kept in place during the 2016 Tax Reform due to its importance as a source of fiscal revenues.
17: Set at 1.5 times the moving average of interest rates charged by banks on 3 portfolios: consumption credit, microcredit and smaller consumption loans.
18: The regulation mandates private financial institutions to invest a percentage of their resources in Finagro's securities ("Títulos de Desarrollo Agropecuario", TDAs), with very low profitability. Finagro, in turn, acts as a second-tier bank and channels these funds towards the agricultural sector through rediscount lines granted to first-tier banks.

Colombia shows that its return on assets is falling and converging to HI levels. The lower return on assets could be a result of the credit slowdown the country is suffering, as explained in the previous section. It would be desirable for any reduction in these indicators to arise from a more competitive system rather than from a slowdown in economic activity.

As a concluding remark, the third indicator of efficiency, credit overhead costs to total assets has been decreasing in Colombia, similar to the evolution of the SC components in the years before entering the HI category (Figure 5.2.5). This is the result of a slower pace of increase in operating expenses (the numerator) when compared to total assets (the denominator). However, there is still room for further improvement and the country needs to maintain and/or accelerate this current trend in order to improve efficiency.

Figure 5.2.5 Banks overhead cost to total assets in the years prior to graduation
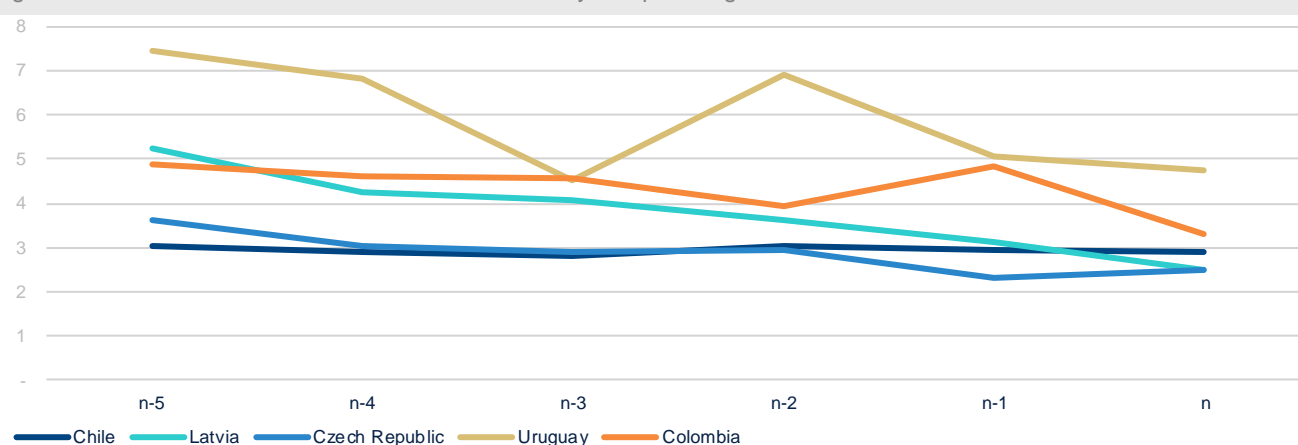
Source: BBVA Research and OECD based on World Bank data. For Colombia, n accounts for 2015, while for the rest it corresponds to the year they became HI

5.2.5 Institutional Factors

Table 5.2.1 displays the position in various rankings in the latest Doing Business Report for Colombia and the countries that make up its SC.

Table 5.2.1 Position in the Doing Business rankings (Out of 190 countries)

Country	Ease of doing business	Registering Property	Getting Credit	Enforcing a contract	Resolving Insolvency
Latvia	19	22	12	20	53
Czech Republic	30	32	42	91	25
Chile	55	61	90	56	52
Colombia	59	60	2	177	33
Uruguay	94	112	68	112	66

Source: BBVA Research and OECD based on World Bank data

Colombia obtains a high score in "getting credit". Also, it has a good regulatory framework for credit registries and bureaus that allow for large coverage of borrowers, especially small and micro enterprises. Resolving insolvency in Colombia does not seem to be problematic either, as a person would recover an average of 69.4% of the total amount lent, in case of insolvency.

Nevertheless, some other aspects need to be improved, such as registering property or enforcing contracts. The World Bank issued a subnational report on Colombia, assessing some of the variables at a regional level, and it identified areas where policies could be implemented. For instance, creating a multipurpose cadastre should reduce the informality of land registries and protect property rights.

Regarding the enforcement of contracts, the problem lies in the number of days it takes to carry out the procedure, as well as the monetary cost. In 2017, it took 1,288 days to complete the procedure compared to the 1,510 days it took on average in 2004. The number of days in other countries in the region is much lower (660 days for Argentina and 426 days for Peru, for instance). Reducing its bureaucracy is imperative in order to reduce the risk involved for banks and firms in engaging in a contract.

5.2.6 Conclusions

In comparison with its SC, Colombia is well positioned in terms of traditional banking coverage (as measured in terms of number of branches and correspondents). Nevertheless, as stated earlier, Colombian firms could potentially benefit from greater exposure to capital markets as an alternative source of financing. Therefore, it is vital to increase the number of listed companies and the liquidity of the stock market.

Regarding financial depth, Colombia performs better than other economies in LAC, but could potentially benefit from the elimination of certain distortions that have been found to have a negative impact on credit and deposits, such as debit taxes and interest rate caps (OECD, 2013).

Profitability should decrease as a result of lower net interest margins that usually come with a more competitive banking sector. Despite recent improvements in efficiency indicators, Colombia should continue converging to SC countries.

Finally, regarding the institutional factors that affect the provision of credit, the main focus should be placed on reducing the bureaucracy related to registering property and enforcing contracts. In this way, banks as well as companies and individuals would reduce their cost and the risk associated with engaging in these activities (OECD 2017b; OECD, 2013).

5.3 Mexico

5.3.1 Banking Sector overview

In recent decades, Mexico has been growing at a relatively low level. Between 2011 and 2017, the economy has grown on average 2.6% annually, slightly above the LAC average (1.7%).

So far, only Chile and Uruguay have become HI economies in LAC. Mexico has been an MI country since 1950 and would need three decades to become HI. If Mexico continues to exhibit similar GDP growth rate to that of the period 2006-2017 it should become an HI economy only in 2049.

The banking sector in Mexico appears to be stable, accessible and efficient although there is room for improvement in depth. Financial risks and stability seem to be relatively well contained, aided by hedging strategies and a number of regulatory reforms to align it with Basel III have contributed to its stability. Although access to financial markets has increased in recent years, there are still large segments of the population that do not use formal banking services with the economy experiencing strong disparities in access by income, territorial or gender differences (OECD, 2017b; OECD, 2015b).

Mexico's banking sector shows adequate levels of profitability (ROA of 1.7% as of August 2018). Profitability levels measured by returns on assets are similar to those of Colombia and are above those presented by Chile (ROA of 1.4% as of August 2018). The system is also quite sound and solvent with a Tier 1 level of 14.0% as of July 2018, above many LAC countries (for instance Peru displays a 11.4% level). It also exhibits a relative low level of non-performing loans since the NPL ratio stands around 1.9%, similar to that of Chile.

In the following sections, Mexico's financial markets will be compared with it regional peers and the synthetic economy comprising six countries (25% of Chile, 15% of Czech Republic, 1% of Estonia, 5% of Korea, 8% of Lithuania and 49% of Uruguay) analysed in the previous section (Table 4.2). The benchmark exercise will be undertaken under four main comparison pillars: i) Financial access, ii) Financial depth, iii) Efficiency and stability of the financial system and iv) Institutional factors. The benchmark exercise is followed by a conclusion.

5.3.2 Financial Access

In Mexico, there is still space to improve access to the banking system and the capital markets. In 2015 there were only 14.5 bank branches per 100,000 adults in Mexico, which is similar to Argentina (13.2), but relatively low if compared to Colombia (23.5) or to the average level that advanced economies had 5 years before becoming HI (15.4). The number of bank branches per 100,000 adults can be used to proxy the access that people and firms have to the financial system. While the current trend in HI countries is to reduce the number of branches in favour of a more digitalised economy, it is still important in emerging economies to have some physical offices. This is especially true in areas where financial and digital literacy is low. As an alternative to traditional branches, the regulatory framework allows for correspondents (called "comisionistas" in Mexico) to offer services such as transfers, deposits and withdrawals among other basic services, although not credit. At the end of 2017, there were 49 correspondents per 100,000 adults.[19] While the number of correspondents is much higher than the number of bank branches, it is very low compared to the number of correspondents in Colombia (283.4 per 100,000 adults in 2016).

Figure 5.3.1 Number of listed companies per 1,000,000 people
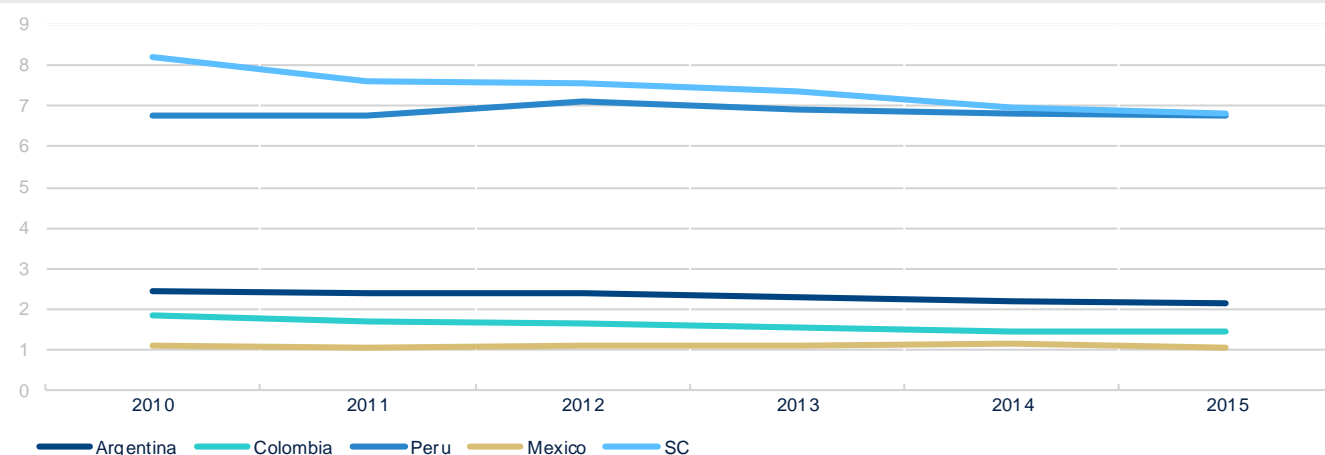
Note: Date for SC the date refers to the year it escaped the MIT and became HI and 4 years before that.
Source: BBVA Research and OECD based on World Bank data

19: According to Mexico's Consejo Nacional de Inclusión Financiera database.

Other measures such as DiGiX and MIFI evidence Mexico's need to improve access to the financial system. In the case of MIFI, Mexico ranks relatively low, 97th out of 137 countries. Similarly, Mexico ranks in 59th position (out of 100 countries) in DiGiX. In recent years, ICT has become one of the key and most commonly-used entry points to the financial market. This trend is likely to increase in the coming years. Therefore, the level of digitalisation is a key aspect in measuring the access to the financial market. Overall, these results confirm the need for Mexico to improve access to the financial system by minimising entry barriers, improving infrastructure factures and better use of ICT (by both individuals and firms). One important step forward has been the approval of the Fintech Law in 2018, which includes regulation on electronic money,[20] sandboxes and virtual assets, among others.

Rojas-Suárez and Pacheco (2017) identify promoters of financial inclusion, which they define as features of a regulatory framework that help to reduce the cost of financial services, as well as information asymmetries. For instance, in Mexico there are simplified accounts for both natural and legal persons that have been backed by government efforts to promote their usage (such as cash transfer programmes). Also, the existence of simplified KYC (Know Your Client) procedures has been found to promote inclusion. Microcredit, another instrument to increase financial inclusion, could be improved by reaching a consensus on a specific definition to avoid differing implementation by institutions. The study also diagnoses financial literacy as a key element for inclusion, since efforts to improve access can be offset by the lack of financial knowledge. In this sense, Mexico has made progress with the implementation of a National Financial Education Strategy.

In the case of access, there is also an opportunity to increase participation in the capital markets. Measuring access to the capital markets by the number of listed companies per 1,000,000 people shows that there is still room in Mexico for improvement. In 2015, only one firm per 1,000,000 people was listed in the stock market versus 7 in Peru, 2 in Argentina and 1 in Colombia. This level has remained relatively stable in Mexico over the last 10 years. Similarly, the gap with the SC 5 years before becoming HI is still substantial as, on average, the synthetic economy had about 8 listed companies in the stock market per million people. This gap is even wider if compared to the level advanced economies had 5 years before becoming HI, which was 20 firms per 1,000,000 people (Figure 5.3.1).
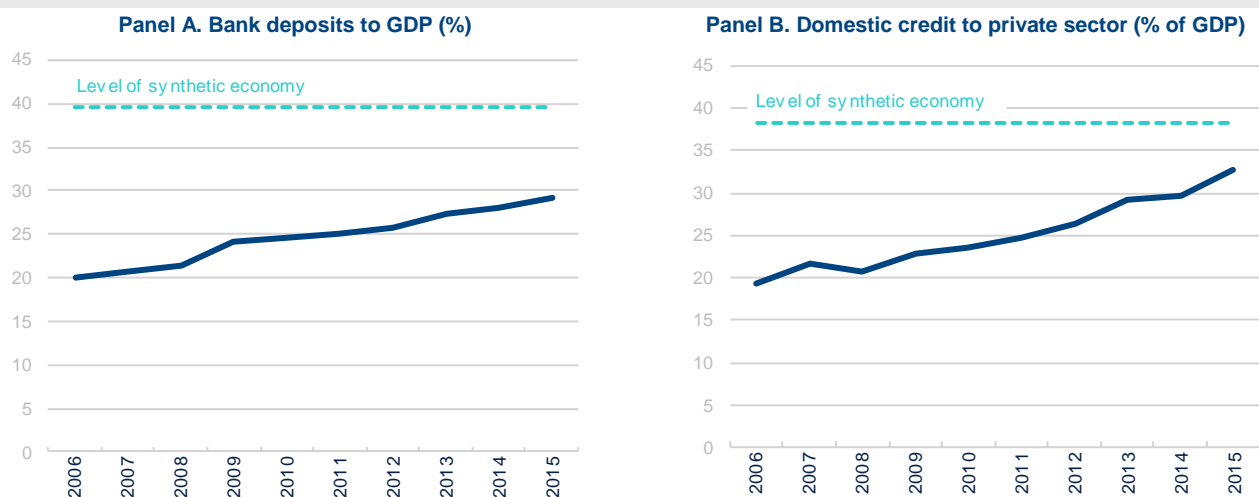
5.3.3 Financial Depth

In Mexico, one of the main challenges lies in the low levels of financial depth. The benchmark exercise with the SC and the HI economies (see Section 4) highlighted that the largest gaps are focused on the low levels of bank deposits and low domestic credit to the private sector. In the case of bank deposits measured as a percentage of GDP, in Mexico they only accounted for less than 30% of GDP in 2015. On a positive note, bank deposits as a percentage of GDP have increased by 9 percentage points since 2006, reaching 29% in 2015. Despite this increase, it remains low if compared to the level that the synthetic economy had 5 years before becoming HI (39.7% of GDP) and the level that advanced economies had 5 years before becoming HI (43.9% of GDP) (Figure 5.3.2, Panel A).

Similarly, domestic credit to the private sector as a percentage of GDP has increased by almost 13 percentage points since 2006 up to 32.7% of GDP in 2015. Nevertheless, its level in 2015 is below Colombia (47.1%) and Peru (37.4%), but above Argentina (14.7%). This level is also lower when compared to the average ratio that the synthetic economy presented four years before becoming an HI economy (38%) (Figure 5.3.2, Panel B). At the end of 2017, the level of credit to the private sector had increased to 35.6% of GDP.

20: Mexico was the only country out of the four that did not have specific regulation regarding electronic money until the approval of this law.

Figure 5.3.2 Financial depth in Mexico vs. SC

Panel A. Bank deposits to GDP (%) **Panel B. Domestic credit to private sector (% of GDP)**

Note: Dotted line refers to the average level that the SC had 4 years before becoming HI.
Source: BBVA Research and OECD based on World Bank data

Therefore, financial depth could be boosted substantially by increasing the levels of deposits and credit in the system. Rojas-Suárez and Pacheco (2017) identify three aspects that can hinder a country's financial inclusion: taxes on financial transactions, interest rate caps and direct lending. In the case of Mexico, one of the possible barriers is considered to be the existence of debit taxes. There is a direct lending programme ("Oportunidades"), however there is no proof of significant distortions in the country and on a positive note there are no interest rate caps.

The depth of capital markets appears to be adequate, providing a possible alternative source for finance for Mexican firms. Stock market capitalisation as percentage of GDP in Mexico is above that of the SC before becoming HI. In 2015 market capitalisation in Mexico accounted for 35% of GDP compared to 27% in the SC, an average for 4 years before it became HI. Similarly, in 2015 the stock market turnover ratio stood at 26%, slightly above the 21% of the synthetic economy, 4 years before becoming HI. A second stock exchange (Bolsa Institucional de Valores, BIVA) opened in Mexico in July 2018. The existence of a new stock exchange will increase the size of the market and most likely lead to an improvement of the mentioned ratios in the future.

Finally, with respect to debt markets, the inflows of foreign investment for debt securities in Mexico stood at 22% of GDP in 2016.[21] This is the highest level recorded in the country, and it is equal to the average for LAC countries, but lower than HI economies. The non-financial corporate sector is the most exposed (13.3% of GDP), followed by the public sector (6.2%) and the financial sector (2.4%).

5.3.4 Efficiency and Stability of the Financial System

In terms of efficiency, the Mexican financial market appears to be in good shape, with levels above its regional peers and very close to that of the synthetic economies. In the case of the level of bank returns on assets (ROA), a typical measure of profitability, it is slightly higher than the SC, but relatively lower than the selected LAC economies. In 2015, Mexico's ratio of 1.6% is below those of Peru (2.6%) and Argentina (3.8%). The ratio has been


21: Last data point available.

decreasing since 2006, when it reached almost 3.8%. As a result, in 2015, the gap with the synthetic economies has nearly closed but there remains a small difference of 0.2% with the synthetic economy (average level 4 years before becoming HI).

According to recent data,[22] bank returns on assets in Mexico are around 1.7%. The reduction of profitability should not be considered a policy priority but instead a consequence of development. For Mexico, this means the system is still quite profitable and it is likely to decrease in the coming years as the country approaches graduation.

In the case of the net interest margin, Mexico has a similar level to that of selected LAC economies and its synthetic economy. In 2015, the net interest margin in Mexico stood at 5.4%, slightly above Colombia but below Argentina (6.8%) and Peru (7.1%). Furthermore, the level that the SC presented on average 4 years before becoming HI is only slightly lower, at 5.2%. On a positive note, since 2006 the bank net interest margin has decreased by 2.7 percentage points (Figure 5.3.3).

Figure 5.3.3 Bank net interest margin (%)
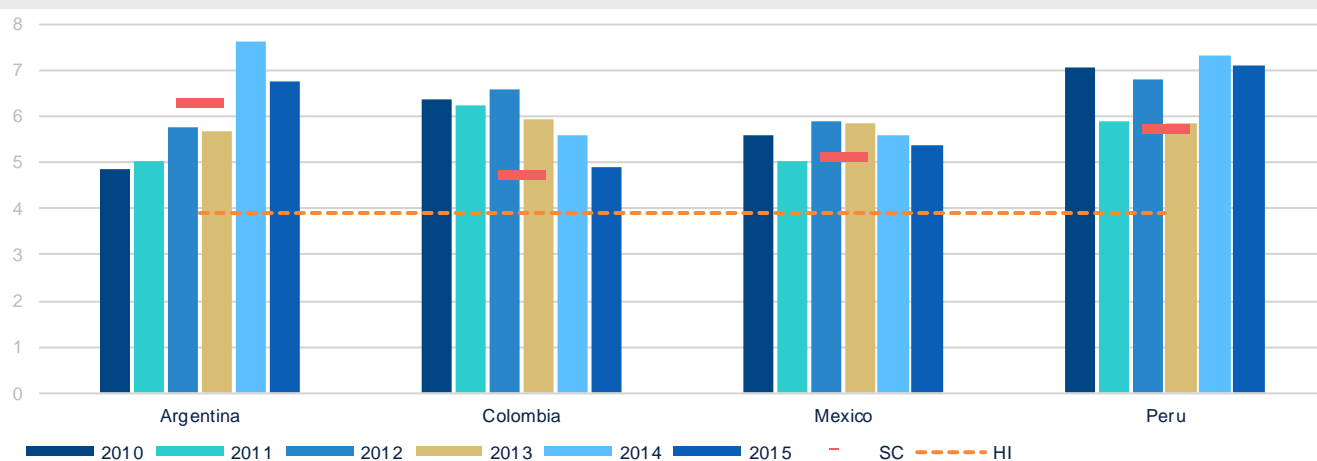
Note: SC refers to the 5 year average before becoming HI of the synthetic economy for Argentina, Colombia, Peru and Mexico. HI is an average for the advanced economies under study 5 years before becoming high income.
Source: BBVA Research and OECD based on World Bank data

5.3.5 Institutional Factors

To take into account possible institutional factors that might be influencing financial markets in Mexico, this exercise is complemented by the World Bank Report on Doing Business (World Bank, 2018) with a special focus on five categories presented in Table 5.3.1. Mexico is compared to where it stands in 2018 with the economies that make up the SC in 2018.

22: As of March 2018, obtained from Banco Central de la República's dataset.

Table 5.3.1 Position in the Doing Business Rankings (Out of 190 countries)

Country	Ease of doing business	Registering property	Getting credit	Enforcing a contract	Resolving insolvency
Mexico	49	99	6	41	31
Chile	55	61	90	56	52
Czech Republic	30	32	41	91	25
Estonia	12	6	42	11	44
Korea, Rep.	4	39	55	1	5
Lithuania	16	3	42	4	70
Uruguay	94	112	68	112	66

Source: BBVA Research and OECD based on World Bank data

As regards ease of doing business, Mexico ranks 49th out of 190 economies. It is ranked higher than Uruguay and Chile, but there is still considerable room for improvement when compared to South Korea and Lithuania. Mexico scores especially high in the "getting credit" aspect, 6th out of the 190 countries ranked and the highest in Table 5.3.1.

One of the reasons behind this good score is the existence of well-functioning credit bureaus that cover a wide range of borrowers. One of their main features in Mexico is that they also collect positive information about borrowers, that can be used as "reputational collateral", and thus promote the provision of credit. It also obtains the highest score in the information index,[23] meaning credit information is widely available and of very good quality, and that regulation guarantees borrowers the right to access their data. Mexico also has strong legal rights regarding the protection of borrowers and lenders.

The challenge for Mexico remains in registering property, enforcing a contract and resolving insolvency. Mexico ranks relatively low in these last indicators. In the case of registering a property, it takes about 7.7 procedures, 68.8 days to register it, with a 6% cost of the total value and with low quality of land administration. Similarly, the time it takes to enforce a contract (341 days) and the time that it takes to resolve insolvency (1.9 years) are long and expensive, 33% of the claim in the case of enforcing a contract and 18% of the estate in the case of resolving insolvency.

5.3.6 Conclusions

Despite improvements in the financial markets, Mexico still presents gaps with the level needed to escape the MIT (using as a reference the SC that was built in Section 4). By comparing Mexico with the SC, 4 years before it became HI, the benchmarking exercise identifies depth of financial markets as a main constraint. To measure depth, credit levels allocated to the private sector is a key variable. Although, Mexico has made great progress towards increasing the level of credit in the country, the gap with the SC and advanced countries before they became HI is still substantial. Similarly, in the SC, firms and individuals seem to be financed largely by bank deposits as in Mexico. In both cases, the gaps with the SC have narrowed.

In the case of access and efficiency, the gap between Mexico and the SC, 4 years before it became HI, seems relatively low. However, there is still a lag behind the level of digitalisation and the level of inclusion captured by DiGiX and MIFI, respectively.

The main challenge in Mexico would be increasing the level of deposits and credit in the system. Although they have many determinants, a first step could be reducing barriers that have been shown to hinder financial depth. For instance, debit taxes on cash deposits are distortionary since they incentivise the use of cash. This is associated

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23: One of the variables that the World Bank uses to measure the "Getting Credit" aspect.

with informality and at the same time reduces the funding of banks to the detriment of future provision of credit, as less money is kept in banks. Also, Mexico can follow the example of other LAC countries in allowing correspondents to intervene in the process of requesting credit. This could be done by giving them permission to help in the first stages of the procedure by collecting and delivering documentation.

Finally, further progress in achieving a higher level of digital and financial literacy would be welcome, since these aspects are decisive in laying the foundations of successful financial inclusion.

5.4 Peru

5.4.1 Banking Sector overview

In the last decades, Peru has been one of the most dynamic LAC economies. Between 2010 and 2017 the economy has grown on average 4.8% annually, more than twice the LAC average (2.2% yearly).

Although not so many countries in LAC have become HI economies, Peru could join them in a decade. Peru has been an MI country since at least 1950. If Peru continues to exhibit a similar GDP growth rate to that of the period 2006-17, the country should become an HI economy in 2028.

Despite a certain economic slowdown that the country has suffered after a period of outstanding performance, Peru's financial system remains in a solid position. The banking system accounts for almost 90% of the total assets of the financial system and their solvency and liquidity indicators remain strong. Nevertheless, despite increases in domestic credit to the private sector (a key factor in investment), the provision of credit remains low at close to 40% of GDP (OECD, 2015a, World Bank, 2018).

Peru's banking sector is highly concentrated. Profitability indicators, as measured by ROA (2.2% as of August 2018)[24] are relatively high, only below Argentina, which stands at 3.5%. The degree of concentration of credit and deposits from financial entities remains high, responding partly to previous financial crises. In particular, close to 80% of the market share is retained by only four banks in Peru. The Herfindahl-Hirschman Index (HHI) in lending (corporate, large enterprises, medium enterprises) and on mortgages shows a relatively high level of concentration between 0.15 and 0.25 (Financial Stability Report, 2014). Estimates of cost efficiency and market contestability show that efficiency in Peru's banking system is relatively low (OECD, 2015a). Although asset quality has deteriorated slightly in the last year, the NPL ratio is still low (2.7% as of August 2018) albeit above the levels displayed by Chile or Mexico (around 2%). Also, solvency is quite robust (Tier 1 of 11.4% as of July 2018), and at the average of other LAC countries.

Peru's banking system is required to hold reserve requirements (known as "encajes"), that are necessary to maintain stability in a financially dollarised economy, but can also distort efficient banks' asset allocation. High reserve requirements generate efficiency costs that affect the degree of financial development and can keep real interest rates relatively high (OECD, 2015a).

In the following sections, Peru's financial market will be compared with regional peers and the synthetic economy (38% of Chile, 38% of Uruguay, 24% of Estonia) set up in the previous section (Table 4.2). The benchmark exercise will be undertaken under four main comparison pillars: i) Financial access, ii) Financial depth, iii) Efficiency and stability and iv) Institutional factors. The benchmark exercise is followed by a conclusion.


24: Profitability, asset quality and capital indicators have been obtained from the Central Bank of Peru.

5.4.2 Financial Access

There is still room to improve access to the banking system in Peru. A proxy of the access that people and firms have to the financial system is the number of branches per 1,000,000 adults. Compared to selected LAC economies and the synthetic analysis, Peru's number of commercial bank branches has been relatively low. In 2015, there were only 8 bank branches per 100,000 adults in Peru, compared to almost 13 in the SC 4 years before becoming HI and less than in Argentina (13), Colombia (23) and Mexico (14) (Figure 5.4.1).

Figure 5.4.1 Evolution of branches and correspondents (Per 100,000 adults)
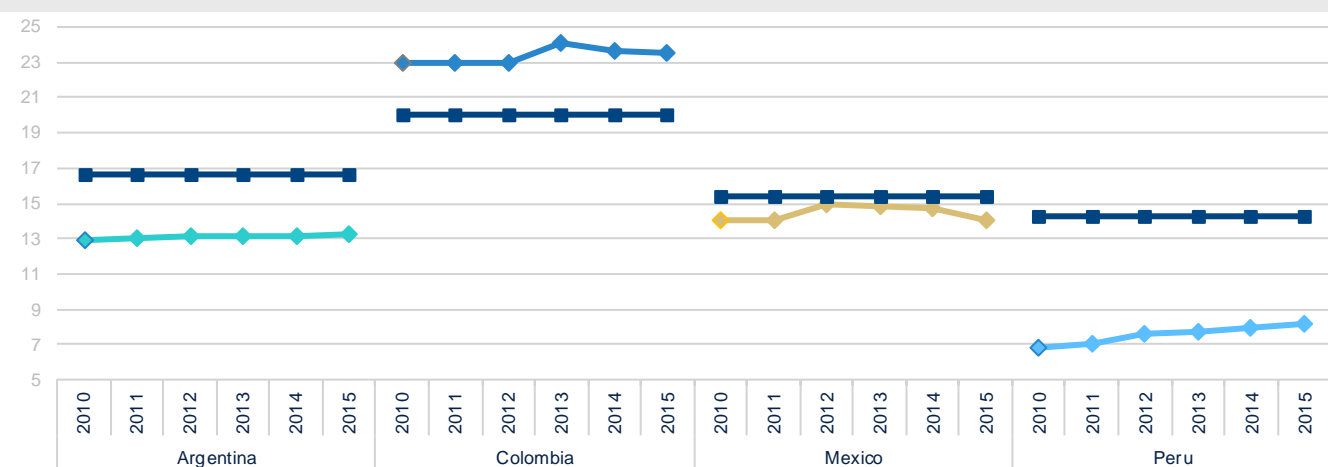
Note: The black line refers to the corresponding synthetic country.
Source: BBVA Research and OECD based on data from Superintendencia Financieria de Colombia and World Bank (2018)

Other measures such as DiGiX and MIFI evidence Peru's need to improve access to the financial system. In both indices Peru ranks relatively low, 68th out of 137 in MIFI and 81st out of 100 in DiGiX. These results confirm the need for Peru to improve access to the financial system by minimising entry barriers, improving infrastructure and promoting better use of ICT (by both individuals and firms).

Despite this, Peru has taken significant steps towards financial access. It has effectively increased access to the financial system for the population located in rural and more isolated areas by introducing a system of banking correspondents. Located in pharmacies and local stores, they offer basic financial services to people who otherwise could remain outside the banking system. To illustrate this, MIFI provides two versions of the access dimension: with and without accounting for correspondents. If the correspondent system is not taken into account, Peru ranks in 50th position (out of 139). However, introducing correspondents, Peru holds 5th position. Also, the existence of simplified accounts in Peru is perceived as a promoter of financial inclusion (Rojas-Suárez and Pacheco, 2017). An important step towards improving their effectiveness would be to extend them to small businesses as currently only individuals can use them.

In the case of access to capital markets, measured by the number of listed companies per 1,000,000 people, Peru performs relatively well when compared to selected LAC countries but there is still room for improvement. In 2015, around 7 firms per 1,000,000 people were listed in the stock market versus 2 in Argentina and 1 in Colombia and Mexico. Nevertheless, if Peru is compared to the level that the SC had 4 years before becoming HI, there is still a substantial gap, as on average the synthetic economy had about 11 listed companies in the stock market per 1,000,000 inhabitants.

5.4.3 Financial Depth

Peru presents relatively low levels of financial depth with ample room for progress. Despite recent improvements, the size of the banking sector, measured by deposit money banks' assets to GDP, remains relatively low. Since the 2009 international financial crisis, Peru's assets over GDP have increased by more than 9 percentage points, reaching 37% of GDP in 2015. This is below the level that the synthetic economies presented on average 4 years before becoming HI (39% of GDP) and the majority of the selected LAC peers. For instance, Mexico presented around 39.9% and Colombia 51.7% in 2015 (Figure 5.4.2, Panel A).

Similarly, domestic credit to the private sector as a percentage of GDP has increased by almost 12 percentage points since 2009 from 25% up to 37.4% of GDP in 2015. This is above local peers such as Argentina (14%). Nevertheless, this level is relatively low compared to Colombia (48%), and slightly lower than the average ratio that the synthetic economy presented four years before undertaking the move from MI to HI (43%) (Figure 5.4.2, Panel B). As of June 2018, credit levels were at 40.5% of GDP, a similar level to that of 2015. Of it, 62% of the credit was focused on businesses, 22% on consumption and the remaining 15% on mortgages.

The increase of credit to the private sector has been more important than that observed in bank deposits. Between 2009 and 2017, bank deposits in Peru grew by only around 4 percentage points, reaching 33.0% of GDP which points to a diversification of funding sources. However, the difference with the level of Peru and the level of the SC (36% of GDP) is relatively low.

Figure 5.4.2 Final depth measured by domestic credit to the private sector and deposits

Panel A. Domestic credit to private sector (% of GDP)
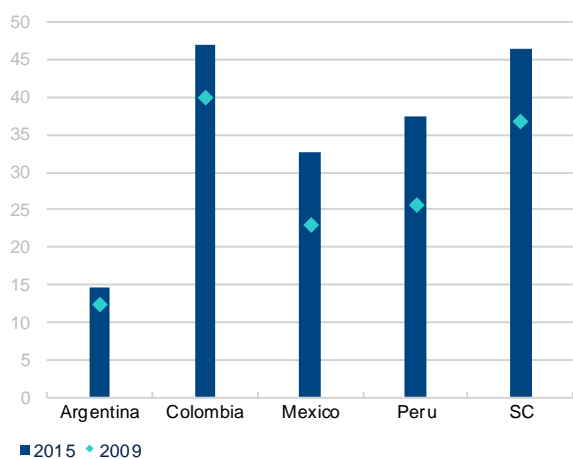
Panel B. Deposit money banks' assets to GDP (%)
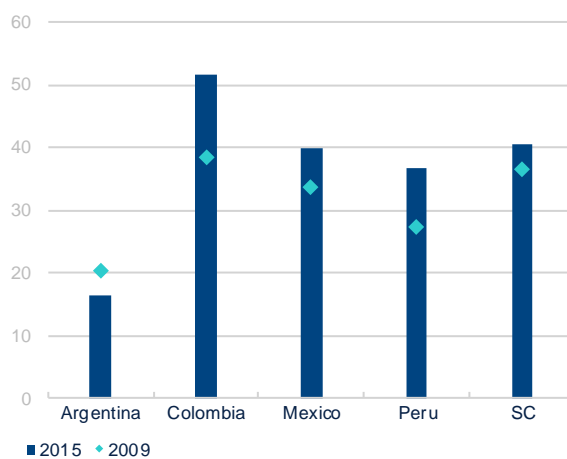
Note: Date for SC the date refers to the year it escaped the MIT and becomes HI and 4 years before.
Source: BBVA Research and OECD based on World Bank data

The existence of a debit tax is a preventer of financial depth (Rojas-Suárez and Pacheco, 2017).[25] There is also a direct lending programme implemented, however it is not perceived as distortionary as it is only applicable in four development banks. Furthermore, in contrast to other LAC countries, there are no floor and ceiling interest rates in Peru which could contribute to an increase in financial inclusion.[26]

25: However, it also identifies that the tax is very low and is also tax deductible.
26: The Central Bank is authorised to establish a maximum interest rate under some circumstances. This has never been put into practice.

As an alternative source of funding, Peru could benefit from more dynamic capital markets. Stock market capitalisation as a percentage of GDP in Peru is almost similar to that of the SC. In 2015 market capitalisation in Peru accounted for 34% of GDP a similar level to the average of 36% in the SC, an average from 4 years before becoming HI. Nevertheless, the level of capitalisation has been strongly decreasing over the last few years. Since 2010 the level of stock market capitalisation over GDP has dropped by more than 27 percentage points. Furthermore, the stock market turnover ratio, a measure of the liquidity of capital markets, is relatively low in Peru both when compared with selected LAC economies and the synthetic economy before becoming HI. In 2015 the stock market turnover ratio stood at 2%, considerably low even compared to other LAC countries such as Colombia (12%) or Mexico (26%). Peru exhibits a lower turnover ratio compared to the SC (22%) four years before becoming HI. Recently, the government has implemented a series of measures directed at improving the infrastructure of the capital markets through a law named "Ley que Promueve el Desarrollo del Mercado de Capitales". It is aimed at reducing the costs involved in raising capital and improving access of small and medium enterprises to the market.

With respect to debt markets, we use the Bank for International Settlements database to evaluate the inflows of foreign investment in debt securities. In 2016 total emissions to GDP in Peru stood at 25%, a higher level than in the other three LAC economies. These emissions were led by the public sector (11.7% of GDP), and followed by financial (7.4% of GDP) and non-financial corporates (5.9%).

5.4.4 Efficiency and Stability of the Financial System

Among the main financial gaps identified in the synthetic exercise in Section 4, two variables of efficiency rank among the top 5. The level of bank returns on assets (ROA), a typical measure of profitability, at 2.6% in 2015 is relatively high compared to the SC or the selected LAC economies, with the exception of Argentina. Peru's ratio is above those presented in Colombia (1.9%) and Mexico (1.6%), but below Argentina (3.8%).

A highly profitable system is bound to see its ROA indicator decrease over time, not as a result of specific policies aimed at reducing its levels, but as a consequence of higher levels of competition and economic development. We can see this evolution occurring already, as in August 2018 the bank return on assets before taxes was 2.2%, a level that has been decreasing since 2007 when it stood at 3.8%. Due to this evolution, the gap identified with its SC has been narrowing in recent years, as on average the SC was 2% (average 4 years before becoming HI) (Figure 5.4.3).

Figure 5.4.3 Bank return on assets (%, before tax)
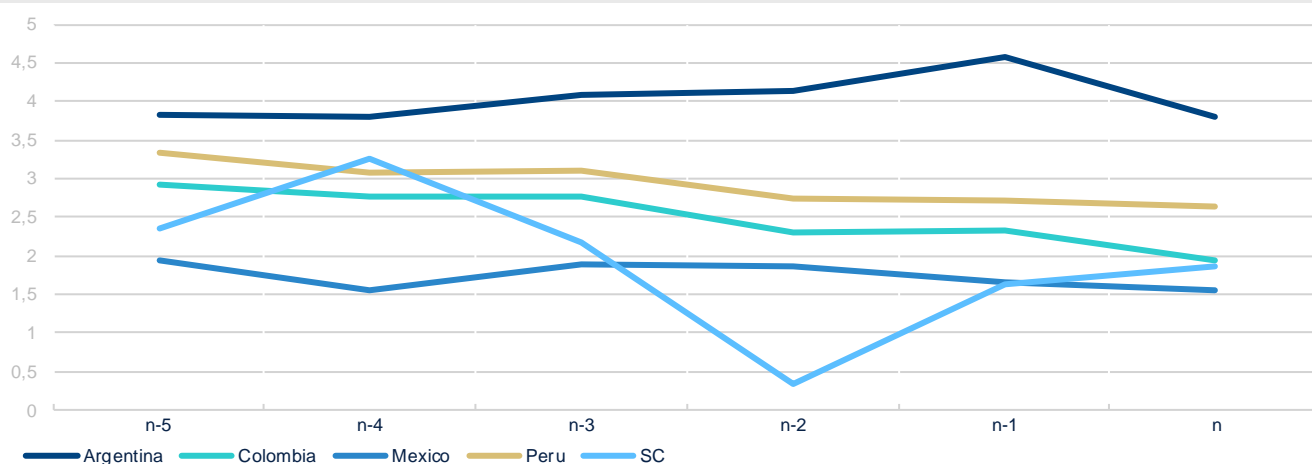
Note: For Argentina, Colombia, Mexico and Peru, n refers to 2015. For the SC n refers to the year it escaped the MIT and became HI.
Source: BBVA Research and OECD based on World Bank data

The net interest margin is especially high in Peru compared to selected LAC economies and the level of the synthetic economy. In 2015, the net interest margin in Peru stood at 7.0% a level above Argentina (6.7%), Mexico (5.4%) and Colombia (4.9%). Similarly, the level that the SC presented on average 4 years before becoming HI is lower, with a net interest margin of 6%. In contrast, Peru's bank overhead costs to total assets performs relatively well and is below the SC before becoming HI. In 2015, the ratio of bank overhead costs to total assets was 3.4% while the level for the SC in the four years before becoming HI was around 5%.

5.4.5 Institutional Factors

To take into account possible institutional factors that might be influencing financial markets in Peru, this exercise is complemented by the World Bank Report on Doing Business (World Bank, 2018) with a special focus on 5 categories presented in Table 5.4.1. Peru is compared to where it stands in 2018 with the economies that form the SC in 2018.

Table 5.4.1 Position in the Doing Business Rankings (Out of 190 countries)

Country	Ease of doing business	Registering property	Getting credit	Enforcing a contract	Resolving insolvency
Peru	58	44	20	63	84
Chile	55	61	90	56	52
Estonia	12	6	42	11	44
Uruguay	94	112	68	112	66

Source: BBVA Research and OECD based on World Bank data

With respect to ease of doing business, Peru ranks 58th out of 190 economies. It is better ranked than Uruguay but there is still considerable room for improvement compared to Estonia. Peru performs relatively well in "getting credit", ranking 20th out of the 190 countries and the highest in Table 5.4.1. This aspect is positively influenced by the wide access that banks and other financial institutions have to creditor information contained in public and private registries.

On the contrary, the challenge remains in enforcing a contract and resolving insolvency. Peru ranks relatively low in both indicators. In both cases, the time that it takes to enforce a contract (426 days) and the time to resolve insolvency (1,132 days) are too long and expensive, for instance the average cost to enforce a contract is 36% of the contract. This is mainly explained by poor enforcement and ineffective judicial systems in the country (OECD, 2015a).

5.4.6 Conclusions

Overall, Peru has made progress to improve the access, depth and the efficiency of financial markets. For instance, in the case of access, the number of bank branches since 2004 has almost doubled and the introduction of a correspondent system has made a noticeable contribution to financial inclusion. Similarly, the depth of domestic credit to the private sector has also nearly doubled since 2004, although deposits have not increased in the same measure, which can be a sign of funding diversification. Recent steps towards the development of the capital markets throughout a new law will further improve financial depth. Finally, related to the efficiency of the banking system and associated with a higher level of financial market development, ROA has decreased by 1.7 percentage points since 2007.

Despite improvements in financial markets, Peru still presents challenges compared to benchmark countries included in the SC that moved from MI to HI (see Section 4 for the definition of the SC). By comparing Peru with the SC before it became HI (average level 4 years before becoming HI), 3 main variables stand out. In the case of the first two variables, number of commercial bank branches and profitability, progress has been made in the recent years, thus narrowing the gap. On the other hand, more effort is need in increasing the level of credit.

Generally, special focus should be put into increasing the level of depth in the region. The level of deposits is still very low. Improving this indicator is essential, given that people keeping their savings in a bank account contributes to reducing informality and boosting inclusion. Besides, it is essential in order to increase the level of credit. Policies aimed at reducing barriers to firms' funding should be a top priority. Improving the provision of credit as well as encouraging firms to access debt and capital markets, where the MILA could play a role, are necessary steps towards the development of Peru and its consequent escape from the MIT. Furthermore, contributions to the digitalisation of the economy and its banking system along with policies that promote a higher level of competition and strengthened institutions will be welcome.

6. Concluding remarks

The middle-income trap (MIT) has affected the majority of the region's economies, with only Chile, Trinidad and Tobago and Uruguay managing to escape from it. As LAC countries reached middle-income levels, growth experienced a long-lasting slowdown. This was due to the need for new engines of economic growth based on capital- and skill-intensive manufacturing and service industries (Kharas and Kohli, 2011; Felipe, Kumar and Galope, 2017) (OECD/CAF/ECLAC2018). Melguizo et al (2018) identify the main policy priorities to escape the MIT. Amongst these priorities the financial markets are identified as a key element for middle-income economies to become high-income.

Following Melguizo et al (2018), the paper digs deep into the financial characteristics in order to identify key policy priorities in four financial pillars: access, depth, efficiency and institutional factors. The analysis is undertaken for four countries in Latin America in the so-called middle-income trap: Argentina, Colombia, Mexico and Peru.

The paper undertakes two historical benchmark analyses to identify the key financial policy priorities and complements the exercise with country notes. The time span of the analysis is from 1985 to 2015 and uses the past experience of 14 countries that have become HI since then. The first benchmark analysis consists in comparing all of the 14 economies at the time they became high income with the characteristics of Argentina, Colombia, Mexico and Peru in 2015. The second exercise compares the results of the selected LAC economies in 2015 with a synthetic economy 4 years before it became high income. The synthetic economies are constructed based on a selected group of advanced economies that exhibited the most similar characteristics for each of the four countries studied. In order to measure the four financial pillars, we have considered a wide array of variables. In the case of the access pillar we consider not only access to both financial intermediaries and capital markets, but also financial inclusion and digitalisation. The depth dimension considers information such as banks' assets to GDP, bank deposits to GDP, domestic credit to private sector, stock market capitalisation and stock market turnover ratio. The approximation to efficiency is established through indicators such as bank net interest margin, bank overhead costs to total assets and bank return on assets. The institutional factors considered focus on promoting a suitable business climate and developing private investment. As there is strong heterogeneity across the economies under study, the analysis complements the two benchmarking exercises with country notes to better highlight specific characteristics or trends.

The results of the paper enforce the policy argument of "no one size fits all" as there is strong heterogeneity with respect to financial dimensions in Argentina, Colombia, Mexico and Peru. In the case of the access dimension, results suggest that Colombia is in a comparatively better situation than Peru, Mexico and Argentina. In the case of depth, Mexico shows a more balanced image in this dimension compared the other three countries. The behaviour of Colombia and Mexico in terms of efficiency is better (lower gaps) than for Peru and Argentina, which indicates for the latter that profitability indicators are likely to fall more sharply as these countries move to HI. Considering the institutional factors, Mexico has the best position, followed by Colombia and Peru, and Argentina has the most room for improvement in the sample.

Appendix

Table A.1. Information on the dataset

Variable	Description	Source	Period Coverage
Access			
Bank branches per 100,000 adults	Number of commercial bank branches per 100,000 adults.	Financial Access Survey (FAS), International Monetary Fund (IMF)	2001-2015
Number of listed companies per 1,000,000 people	Number of domestically incorporated companies listed on the country's stock exchanges at the end of the year per 1,000,000 people (does not include investment companies, mutual funds or other collective investment vehicles).	World Federation of Exchanges; Global Stock Markets Factbook and supplemental S&P data, Standard & Poor's	1988-2015
MIFI	Multidimensional Financial Inclusion Index	BBVA Research	2014
DiGiX	Digitization Index	BBVA Research	2016
Depth			
Deposit money banks' assets to GDP (%)	Total assets held by deposit money banks as a share of GDP. Assets include claims on domestic real non-financial sector which includes central, state and local governments, non-financial public enterprises and private sector. Deposit money banks comprise commercial banks and other financial institutions that accept transferable deposits, such as demand deposits.	International Financial Statistics (IFS), International Monetary Fund (IMF)	1961-2015
Domestic credit to private sector (% GDP)	Domestic credit to private sector refers to financial resources provided to the private sector.	World Development Indicators (WDI), World Bank	1960-2015
Bank deposits to GDP (%)	The total value of demand, time and saving deposits at domestic deposit money banks as a share of GDP. Deposit money banks comprise commercial banks and other financial institutions that accept transferable deposits, such as demand deposits.	International Financial Statistics (IFS), International Monetary Fund (IMF)	1961-2015
Stock market capitalisation to GDP (%)	Total value of all listed shares in a stock market as a percentage of GDP.	World Federation of Exchanges; Global Stock Markets Factbook and supplemental S&P data, Standard & Poor's	1989-2015
Stock market turnover ratio (%)	Total value of shares traded during the period divided by the average market capitalisation for the period.	World Federation of Exchanges; Global Stock Markets Factbook and supplemental S&P data, Standard & Poor's	1989-2015
Efficiency			
Bank net interest margin (%)	Accounting value of bank's net interest revenue as a share of its average interest-bearing (total earning) assets.	Bankscope and Orbis Bank Focus, Bureau van Dijk (BvD)	1998-2015
Bank overhead costs to total assets (%)	Operating expenses of a bank as a share of the value of all assets held. Total assets include total earning assets, cash and due from banks, foreclosed real estate, fixed assets, goodwill, other intangibles, current tax assets, deferred tax assets, discontinued operations and other assets.	Bankscope and Orbis Bank Focus, Bureau van Dijk (BvD)	1998-2015
Bank return on assets (%, before tax)	Commercial banks' pre-tax income to yearly averaged total assets.	Bankscope and Orbis Bank Focus, Bureau van Dijk (BvD)	1999-2015

Table A.1. Information on the dataset (cont')

Variable	Description	Source	Period Coverage
Institutional Factors			
Ease of doing business	The index measures business regulation, the protection of property rights, and their effect on businesses.	Doing Business, World Bank	2017
Registering property	The index records the full sequence of procedures necessary for a business to purchase a property from another business and to transfer the property title to the buyer's name so that the buyer can use the property for expanding its business, use the property as collateral in taking new loans or, if necessary, sell the property to another business.	Doing Business, World Bank	2017
Getting credit	The index is made up of two sets of indicators. It measures the legal rights of borrowers and lenders with respect to secured transactions through one set and the reporting of credit information through another set.	Doing Business, World Bank	2017
Enforcing contracts	The index measures the time and cost for resolving a commercial dispute through a local first-instance court and the quality of judicial processes index, evaluating whether each economy has adopted a series of good practices that promote quality and efficiency in the court system.	Doing Business, World Bank	2017
Resolving insolvency	The index studies the time, cost and outcome of insolvency proceedings involving domestic entities and the strength of the legal framework applicable to judicial liquidation and reorganisation proceedings.	Doing Business, World Bank	2017

Source: Based on the World Bank, IMF, Bankscope, Orbis, BvD, S&P and BBVA Research.

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