Banking Outlook

Mexico

- **The pace of growth in bank lending to the private sector has slowed, as has the pace of growth in bank deposits.** This is due to the slower growth in the economy and employment in the formal sector

- **The differences in credit penetration between Mexico and Brazil are due to a number of factors.** If the proportion of companies in Mexico not needing credit were similar to the rate in Brazil, the volume of lending compared to GDP could increase by 2.7 pp

- **Mutual funds are some of the biggest investors in the financial system.** Their growth is due to regulatory changes that enabled access for more savers and lower fees, among other factors

- **ENIF data show that the most significant barrier to accessing financial services in Mexico is lack of income**

- **The Financial Reform Initiative includes positive measures** to boost the expansion of credit

BBVA Bancomer

Content

Closing date: November 15, 2013

1. Summary

Total bank lending to the private sector: the rate of growth has been slowing throughout 2013. The average real annual growth rate from January to September 2012 was 10.4%, compared to just 7% for the same period in 2013. The component of credit that has slowed the most is consumer lending, with growth falling from 18.4% to 11.5% for the first nine months of 2012 and 2013, respectively. This slowdown is the result of slower growth in economic activity and employment in the formal sector.

Traditional bank deposits have also grown more slowly so far this year; however, figures for the third quarter show some signs of improvement. The average real growth rate for this form of bank deposits in the first nine months of 2012 was 5.7%. This fell to 3.7% in the same period of 2013. The slowest rate of growth in traditional bank deposits was reported in the second quarter, when it fell to just 2.1%. Figures for the third quarter of 2013 point to an improved performance in traditional bank deposits, with growth in this period increasing to 5.1%

Differences in credit penetration between Mexico and Brazil: to what extent can the financial reform contribute to closing the current gap?

There is a marked difference in lending by financial institutions to the private sector between Mexico and Brazil: in 2012, the ratio of credit to GDP in Mexico was 23.5%, whilst in Brazil the ratio was 51.1%. In this issue of **Mexico Banking Outlook**, we analyze some of the macroeconomic, institutional and corporate factors behind the differences in credit penetration in both countries. The macroeconomic factors include the better performance of Brazil's economy, with a larger increase in formal employment in the country. We also describe differences in the number, size, survival and demand for credit of companies in Brazil and Mexico, and discuss some institutional differences, such as Brazil having a larger share of publically-owned banks granting credit to the private sector. These and other factors indicate that demand for credit is higher in Brazil, and the costs of granting it are lower, than in Mexico, given its lower credit risk.

In this section we also carry out a number of exercises to estimate the additional credit that might be granted to companies in Mexico, if they behaved in a similar way to companies in Brazil, in terms of demand for credit and their size distribution. **If the proportion of companies in Mexico reporting not needing credit were similar to the rate in Brazil, the volume of credit compared to GDP could increase by 2.7 percentage points (pp)**. In a further exercise, we demonstrate that if, through the Financial Reform, all the companies that currently report credit needs were to obtain it, and if small and medium sized companies increased their size, the impact on credit would be higher, while also impacting positively employment.

Mutual Funds in Mexico: a closer look to the industry

Mutual Funds (MFs) have become one of the main players in Mexico's financial system over the last decade, with their share of savings as a proportion of GDP increasing from 2.3% in 2000 to 8.1% in September 2013. What is behind this growth? How did they develop over this period? In this issue of **Mexico Banking Outlook**, we explain how new participants entering the market and regulatory changes in 2001 played a determining role in the growth of MFs in Mexico. We also assess how these and other factors have reduced barriers to entry, increased competition and reduced MF fees.

Demand factors affecting Financial Inclusion in Mexico: Analysis of barriers based on the National Financial Inclusion Survey (ENIF)

Financial inclusion has become an important issue in Mexico, but until recently there was no information enabling us to analyze its determinants from the demand-side. The National Financial Inclusion Survey (ENIF, after the Spanish acronym) issued by the CNBV, the Instituto Nacional de Estadística y Geografía (INEGI) and the Alliance for Financial Inclusion (AFI) in 2012 represents an initial effort to provide useful information for analysis of financial inclusion from the demand side, and to design public policies related to the use of and access to financial services.

In this issue of **Mexico Banking Outlook**, we analyze ENIF information to identify the main barriers to inclusion and individuals' characteristics that increase their propensity to overcome these barriers. The results of our analysis show that employment conditions, education, position in the household and geographic region are related to the probability of overcoming barriers to inclusion. We also find that gender, age and the capacity to handle adverse shocks are the most relevant characteristics in explaining the barriers of lack of interest or need for financial services. Income and employment conditions are relevant factors in terms of self-imposed barriers: i.e. mistrust and fear of rejection. Finally, the factors that might increase the propensity to overcome supply barriers are saving habits, receipt of remittances and the geographic region in which the person lives.

The new Financial Reform: the main modifications approved by the Legislature

On September the 10th, the House of Representatives approved the Financial Reform Initiative (hereinafter, the Initiative) submitted by President Enrique Peña Nieto on May 8th as part of the Pact for Mexico. This Initiative involves 13 decrees and 34 changes to laws and regulations. It was approved by the members of the three parties that are signatories to the Pact for Mexico (the PRI, PAN and PRD), with some amendments.

In the previous issue of **Mexico Banking Outlook** we analyzed the main points in this Initiative. In this issue we describe the main modifications proposed to the Initiative by the House of Representatives. We should mention that as this magazine goes to press, the Initiative is still being discussed by the Senate. As some senators have expressed reservations about certain articles, there may be further amendments to those already approved by the House of Representatives.[1]

---

[1] The Senate approved the Financial Reform on November 26th, soon after we sent this issue to press. The final resolution did not change with respect to the House of Representatives' proposal and it was send to the President for its enactment in the following days.

2. Current Situation

2.a Total Lending by Commercial Banks to Private Sector

2.a.1 Recent evolution of bank lending

The rate of growth in bank lending to the private sector has been slowing throughout 2013. For example, real average annual growth in such lending from January to September 2012 was 10.4%, whilst in the same nine months of 2013 it fell to 7% (Chart 1). The average real growth rate in total bank lending in the first quarter of 2013 was 8.1%; this fell to 5.9% in the second quarter, but rose to 6.9% in the third. In September, the annual rate was 6.5%.

Chart 1
Total lending from commercial banking to the private sector (Real annual growth rate, %)
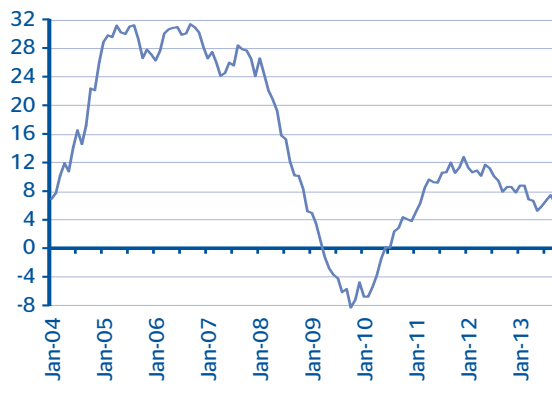
Source: BBVA Research with Bank of Mexico data.

Chart 2
**Bank credit to consumer, home and corporate (Real annual growth rates, %)**
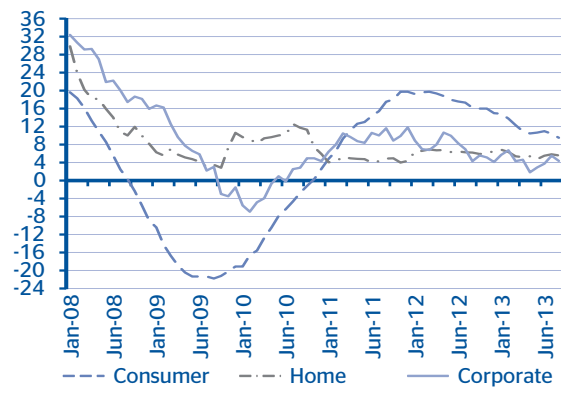
Source: BBVA Research with Bank of Mexico data.

The rate of growth in the three main components of lending has also fallen throughout 2013 (Chart 2). In the first nine months of 2012, the average real annual growth rates of credit to consumers, corporate and housing was 18.4%, 7.9% and 6.5%, respectively. In the same period in 2013, these average growth rates fell to 11.5%, 4.7% and 5.7%, respectively. These figures show that consumer lending has slowed more than the other categories.

This lower rate of growth in bank lending to the private sector -both in total and by components- is due to slower growth in economic activity (Chart 3) and employment in the formal sector. As economic growth rates slow, so does demand for credit. For example, when growth slows, companies might choose to postpone investment decisions; this often means postponing demand for the credit they would use to finance their expansion. On the household side, economic slowdown makes families reconsider taking on new credit -whether for consumption or housing- as slower GDP growth increases the possibility that they might suffer an adverse impact on their main source of income in the near future. This makes them reduce their demand for credit as a prudent response to a riskier and more complicated macroeconomic background.
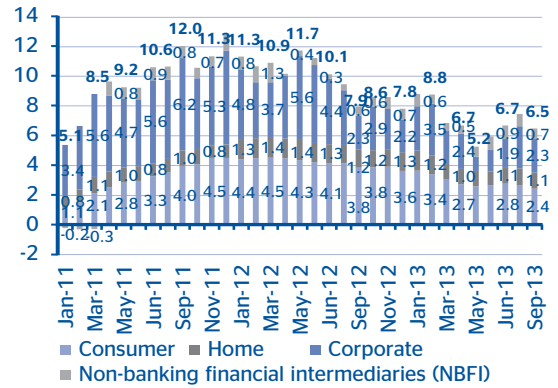
Chart 3
**Total lending to the private sector and IGAE
(Real average annual growth rate, quarterly %)**
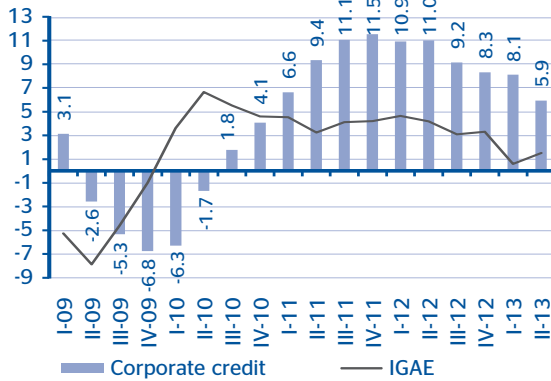
Source: BBVA Research with Bank of Mexico and INEGI data

Chart 4
**Total credit to private sector: contribution to
real growth of total credit by component (%)**

Source: BBVA Research with Bank of Mexico data.

2.a.2 Contribution of credit components to growth of lending to private sector

Analysis of the main components of bank lending indicates that these are not all growing at the same rate, and they are making differing contributions to the growth rate of total lending. The credit category that makes the largest contribution to total credit growth is one that combines a high growth rate in its lending portfolio with this portfolio accounting for a large share of total credit.

Consumer and corporate lending are the two main categories of bank credit in terms of their contribution to growth in total bank lending to the private sector (Chart 4). In the first nine months of 2013, the average rate of growth in total bank lending was 7%, of which consumer credit accounted for 2.9 pp and corporate lending contributed 2.3 pp. The remainder consists of housing lending (1.1 pp) and credit granted to non-banking financial intermediaries (0.7 pp). These figures show that we cannot expect high growth in the total lending portfolio of commercial banks if the individual components are growing slowly.
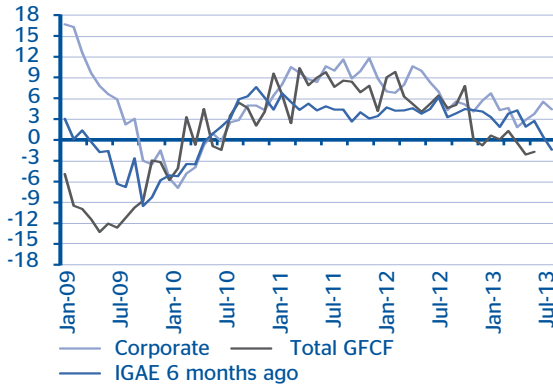
2.a.3 Corporate lending

Commercial bank lending to companies is recovering from the adverse effects of the recession that began in 2009 and lasted until the fourth quarter of 2010. However, the real average growth rate in such lending over the three years from October 2010 to September 2013 was 7% (Chart 5). In other words, this growth rate is not particularly high, considering that lending to companies depends largely on the growth rate of the economy and investment, and these both grew slowly over this period.

We can illustrate these points, for example, through the average annual growth rate of the economic activity index (IGAE), which is a monthly measurement of the performance of quarterly GDP, which was 3.3% over this period, whilst the average growth rate in the gross fixed investment indicator was 5%. To the extent that economic activity and investment continue growing slowly, the expansion in lending to companies will likewise remain modest. Furthermore, in 2013 growth in both the IGAE and the investment indicator has slowed even further (Chart 6).

In the first eight months of 2013, the average annual growth rate in the IGAE was 1.1%, whilst average growth in the investment indicator over the first seven months was, according to the information available, even lower, at -0.43%. In other words, the performance of these two macroeconomic variables has not been very favorable, and this is reflected in the growth rate in bank lending to companies in 2013, with an average annual growth rate for January to September of 4.4%. Moreover, in September 2013 the real annual growth rate was also 4.4%.

Chart 5

Corporate lending, IGAE and gross fixed capital formation (Real annual growth rate, %)

Source: BBVA Research with Bank of Mexico and INEGI data

Chart 6

Corporate lending, IGAE and gross fixed capital formation (Real annual growth rate, quarterly average, %)
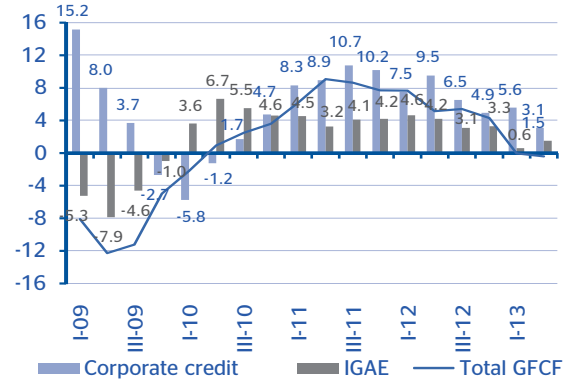
Source: BBVA Research with Bank of Mexico and INEGI data

2.a.4 Consumer credit

Growth in bank credit for consumption returned to positive real annual growth in late 2010, with average real annual growth from November 2010 to September 2013 of 13.8%. The average of this rate was higher in the first half of 2012, when it stood at 19.1%. The pace of growth in bank lending to consumers started to slow in the second half of 2012, falling from real annual growth of 17.6% in July 2012 to 9.5% in September 2013.

Chart 7

Consumer credit and total number of workers registered with Mexican Social Security System (Real annual growth rate; %)

Source: BBVA Research with Bank of Mexico and IMSS data

Chart 8

Consumer bank credit: growth by component (Real annual growth rate, %)
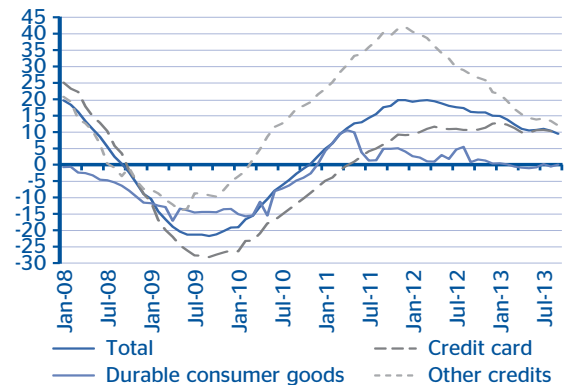
Source: BBVA Research with Bank of Mexico data

The significant slowdown in economic activity -as shown by the reduction in the growth rates of the IGAE and GDP throughout 2013- is behind this slower pace of growth in consumer credit: 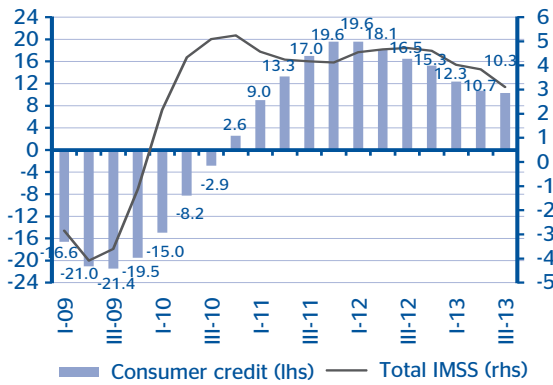in the first eight months of 2013, the average annual growth rate in the IGAE was 1.1%, compared to 4.2% in the same period in 2012. In addition, the slower pace and number of jobs created in the formal sector of the economy, measured by the number of affiliates to Mexico's social security body, the Instituto Mexicano del Seguro Social (IMSS), has also impacted on consumer credit (Chart 7). For example, between September 2011 and September 2012, the total number of IMSS affiliates increased by almost 718 thousand.

But, from September 2012 to September 2013, the increase in the number of formal workers was significantly lower, at almost 476 thousand. The monthly increase in IMSS affiliates in May, June and July this year was very low, averaging less than five thousand.

Meanwhile, of the three categories of consumer lending, the highest growth rate was in Other Consumer Finance (OCC after the Spanish acronym) (Chart 8). For example, in 2012 this form of consumer lending increased at an average real average growth rate of 31.9%, whilst the growth rates in credit through credit cards (TDC after the Spanish acronym) and for consumer durables (ABCD) were 10.9% and 2.1%, respectively. However, in the first nine months of 2013, the average real annual growth rates for these were 15.7% for OCC; 10.8 for TDC; and -0.3% for ABCD. In other words, the real annual growth rate in total consumer credit in 2012 was 17.7%, falling to 11.5% on average over the first few months of 2013, standing at 9.5% in September.

As demand for consumer credit is closely related to the expansion in formal employment, particularly with regard to paycheck loans and all cases in which lenders require the borrower to have been in work for some time, we can expect this category of credit to perform better as the economy improves. In this regard, higher expected economic growth, and the larger number of jobs this will create in the formal economy, will enable consumer credit to grow more strongly in the near future.

2.a.5 Mortgage lending

Bank lending for housing has grown at a steady real annual rate since 2011. The real average growth rate in this category of lending from January 2011 to September 2013 was 5.5%, not significantly different from the 4.6% average rate in 2011 or the 6.4% in 2012; this rate stood at 5.5% in the first nine months of 2013 (Chart 9).

Chart 9
Mortgage lending and total number of workers permanently registered with the IMSS (Real annual growth rate, %)

Source: BBVA Research with Bank of Mexico and IMSS data

Chart 10
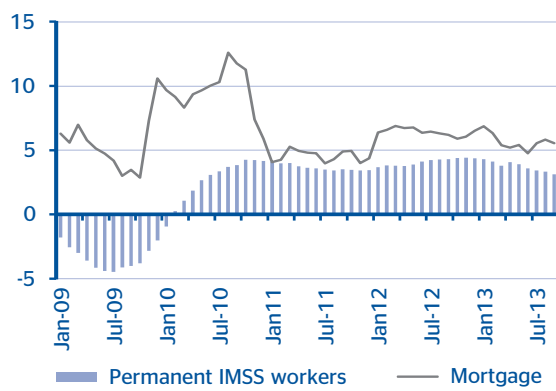**Mortgage lending and real salary index, (Real annual growth rate, % and 12-month moving average of index, base January 2009)**
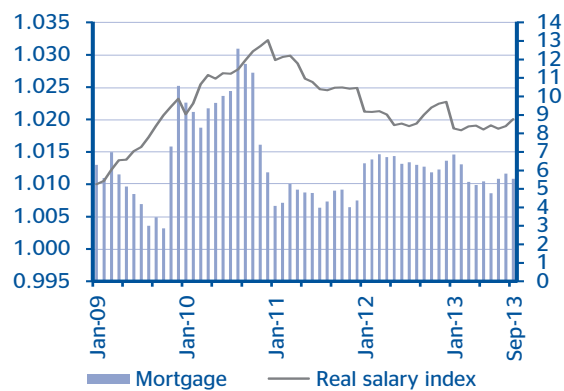
Source: BBVA Research with Bank of Mexico and INEGI data.

The expansion of mortgage lending is largely associated with growth in the number of workers permanently affiliated to the IMSS; in other words, the performance of this form of credit is associated with the development of formal workers with a source of income that can be corroborated and is considered stable. Workers with these characteristics present a lower risk to mortgage lenders. In the twelve months from September 2011 to September 2012, the increase in the number of workers permanently affiliated to the IMSS was almost 555 thousand, whilst in the twelve months from September 2012 to September 2013 the increase was lower, at 431 thousand. This in turn is reflected in the lower growth rate in the number of workers permanently affiliated with the IMSS, particularly from June (Chart 10).

It could be considered that the main driver of demand for mortgage credit stems from formal employment, as if we consider the figures we find that the average salaries of workers affiliated to the IMSS stopped increasing in real terms at the end of 2010, and have been falling slightly since the start of 2011. Average IMSS affiliation salaries have remained below the levels of 2010, and are still lower than in January 2011.

It is possible that over coming quarters, the slower pace of generation of permanent formal employment in 2013 might to a certain degree affect the growth rate for mortgage lending at some time in 2014. To the extent that this is temporary, and that growth in formal employment will pick up in parallel to higher future GDP growth, this will also be reflected in better performance by this category of credit.

Evaluation

Over the first nine months of 2013, growth in total bank lending to the private sector has slowed in all of the main categories. The real average annual growth rate in bank lending in the first nine months of 2012 was 10.4%, whilst in the first nine months of 2013 it was just 7%. This results from economic growth weakening. For example, based on figures for the second quarter of 2013, GDP grew by 1% in the first half of 2013, compared to growth of 4.4% in the first half of 2012. This situation does not change if we take the average annual IGAE growth rate for the first eight months of 2012, which stood at 4.2%, and compare this to the 1.1% growth over the same period in 2013; this could affect future credit demand.

The slowdown in economic activity to date has mainly affected credit to consumers and companies. It remains possible that over coming quarters, we will see the performance of economic activity also reflected in slower mortgage lending growth. This might occur as a result of slower growth in the number of workers permanently affiliated to the IMSS in 2013.

For these reasons, and to the extent that demand for credit from economic agents takes into account the macroeconomic climate, lending could increase as the macroeconomic outlook improves in terms of higher GDP and employment growth. In other words, it is to be hoped that macroeconomic variables improve in 2014. This implies that the better expected macroeconomic picture for 2014 will also be reflected in increased demand for credit and more dynamic lending by banks to the benefit of economic agents.

2.b Commercial Banking Savings: Recent Patterns

2.b.1 Traditional bank savings

Traditional banks savings consists of demand and term deposits from the public. The increase in this type of savings started to slow from the first half of 2011, reducing gradually until the second quarter of 2013 (Chart 11).

This slowdown in the growth rate of traditional savings can be better understood if we consider that in the first nine months of 2012 the average real annual growth rate was 5.7%. This stood at 3.7% in the same period in 2013. The slowest rate of growth in traditional bank deposits was in the second quarter of 2013, when it fell to just 2.1%. Figures for the third quarter of 2013 point to an improved performance in traditional bank deposits, with growth in this period increasing to 5.1% (Chart 12). This might indicate better performance by such savings in the near future.

Chart 11
**Commercial bank traditional savings
(Real annual growth rate, %)**

Source: BBVA Research with Bank of Mexico data.

Chart 12
**Traditional bank savings and IGAE
(Quarterly real average annual growth rates, %)**
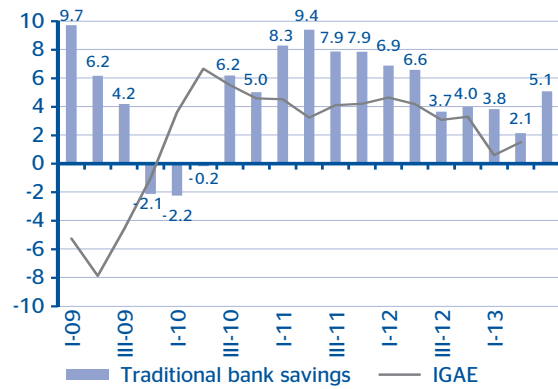
Source: BBVA Research with Bank of Mexico and INEGI data

It is also worth mentioning that the slower growth in traditional deposits has been largely related to slower growth in income and the IGAE in the country in 2013. For example, in the first eight months of 2012, the average growth rate in the IGAE was 4%, whilst in the same period in 2013 this fell to 1.1%. This means that the slower expansion in income and the IGAE is in turn being passed on to the availability of funds for economic agents to channel into bank savings. When the economy returns to higher growth rates than those of the IGAE in 2013, traditional bank savings will receive a bigger and more permanent boost, enabling them grow more rapidly.

2.b.2 Commercial banking traditional savings: pattern by components

The slowdown in the growth rate of traditional deposits in the first nine months of 2013 compared to 2012 is a reflection of the lower growth rates in both components (Chart 13). In terms of demand deposits, the real average annual growth rate from January to September 2012 was 9.8%, falling to 4.5% for the same period in 2013. As mentioned in the previous section, the slower pace of growth in demand deposits in 2013 is directly related to the slowdown in economic growth, as average growth in the IGAE in the first eight months of 2013 (1.1%) was lower than in the same period in 2012 (4%).

Unlike demand deposits, term deposits (the other component of traditional bank deposits) performed better in the first nine months of 2013 than in 2012. The average annual growth rate in term deposits in the first three quarters of 2013 was 0.5%, rising to 2.5% for the same period in 2013. As discussed in the following section, there is a significant substitute for term deposits in the form of debt mutual funds (DMFs); savings not channeled into demand savings products can be channeled into either term bank deposits or DMFs.

Chart 13

Bank demand and term deposits (Real annual growth rates, %)
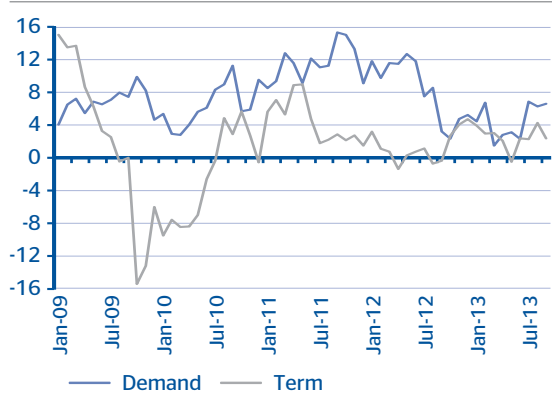
Source: BBVA Research with Bank of Mexico data.

Chart 14

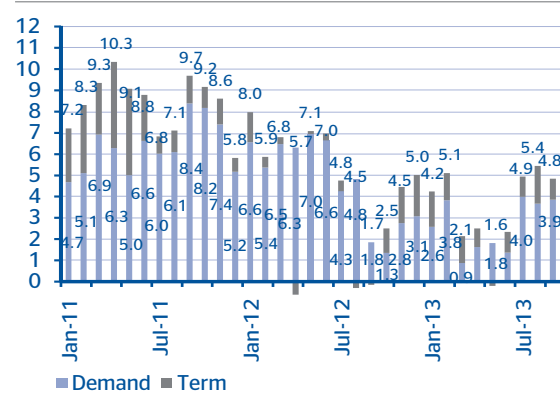**Traditional saving: contribution of demand and term deposits to growth (Percentage points)**

Source: BBVA Research with Bank of Mexico data.

Demand and term deposits have both contributed to the growth in traditional deposits; however, the former contributed more than the latter (Chart 14). For example, the average real annual growth rate in traditional savings for 2012 as a whole was 5.3%, of which demand deposits contributed 4.7 percentage points (pp); i.e. demand deposits contributed 89% of the 5.3 pp increase in traditional deposits. In the first nine months of 2013, the average growth rate in traditional savings was 3.7%, of which demand deposits contributed 2.6 pp (71%).

The higher contribution of demand deposits to traditional deposits results from the higher growth rate in demand savings, and the increasing relative importance of this in traditional savings. In December 2000, demand deposits accounted for 38.5% of traditional savings, with term deposits accounting for the remaining 61.5%. By September 2013, the relative importance of demand deposits had increased to 59.4%, with term deposits having fallen to 40.6%. The situation has changed over time in favor of demand deposits as a result, among other things, of the fall in inflation. The fall in inflation has considerably reduced the opportunity cost of holding funds in liquid financial instruments, such as those used to attract demand deposits; this would not have been possible if inflation had remained high. Average inflation in 1999 was 16.7%; this had fallen to 9.5% in 2000 and to an average of 4.5% between January 2001 and September 2013.

2.b.3 Term deposits and debt mutual funds

DMFs provide a non-bank savings instrument that has increased in relative importance as a share of total savings, i.e. traditional bank savings plus savings through DMFs. DMFs have also become very popular among the country's savers. This is demonstrated by DMFs accounting for 64.1% of the amount of bank term deposits in December 2005. In June 2012, the balance for DMFs was slightly higher than for term deposits, and in September 2013 the balance for DMFs was 5.8% higher than that for term deposits.

Chart 15
Bank term deposits and debt mutual funds (Real annual growth rates, %)
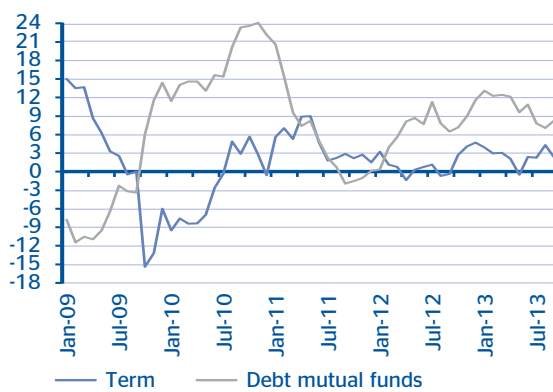
Source: BBVA Research with Bank of Mexico data.

Chart 16
Total savings: demand + term + debt mutual funds (Real annual growth rate, %)

Source: BBVA Research with Bank of Mexico data.

As stated above, term deposits and DMFs are substitutes as savings instruments. This is demonstrated by the way that one has increased as the other decreased or, in the best cases, its growth has slowed considerably (Chart 15). In the first four months of 2013, the real average annual growth rate for DMFs was 12.5%. In the following five months this slowed to 8.7%. This is slightly higher than the 8.2% real annual growth rate in September 2013. It is possible that this slowdown in growth of DMFs since the second quarter of 2013 is explained by slower economic growth, as reflected in the IGAE. A macroeconomic scenario of higher GDP growth would benefit this form of non-bank saving. In section 3.b, on the general outlook for Mutual Funds in Mexico, which include DMFs and Equity Mutual Funds (EMFs), we describe the composition of this sector and the structure of its market.

2.b.4 Total Savings: sum of traditional savings (demand + term) with DMF

Total deposits are the sum of traditional deposits plus savings through DMFs (Chart 16). This gives us a clear idea of the total value of funds that companies and families save through financial instruments, eliminating the effects of substitution among savings instruments that we see in the case of term deposits and DMFs. This also explains why total deposits indicate the savings possibilities of the country's economic agents, as, on one hand, DMFs have been gaining greater absolute and relative importance, and, on the other, they are a form of non-bank saving that increases the range of savings instruments available to the public.

Chart 17
**Total savings and IGAE
(Real annual growth rate, %)**

- Total savings current month
- IGAE 6-months moving average
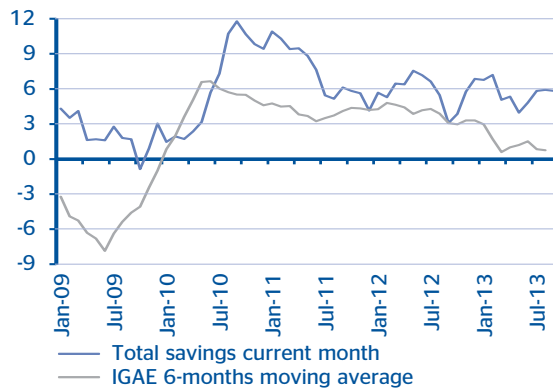
Source: BBVA Research with Bank of Mexico and INEGI data

Chart 18
**Total savings and IGAE (Real annual growth
rate quarterly average, %)**

- Total savings
- IGAE
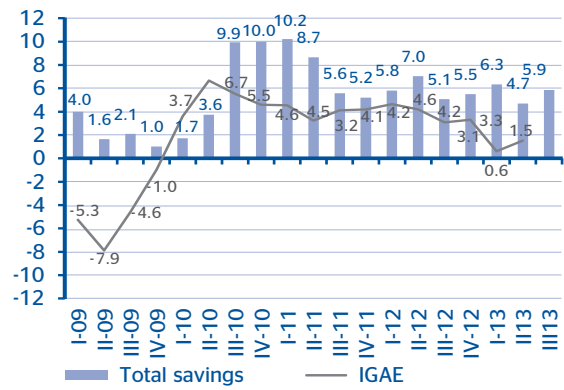
Source: BBVA Research with Bank of Mexico and INEGI data

As with the individual components, total deposits are directly related to growth in economic activity (Chart 17). If economic activity increases rapidly, so does income and, therefore, the share of this savings, irrespective of the instruments into which those funds are channeled. Therefore, we will see better performance from total deposits in the near future to the extent that GDP grows more rapidly (Chart 18).

Whilst the relationship between changes in income and deposits may occur in the same period, an increase in income has to occur before there will be an increase in deposits a few months later (Chart 19). In other words, there is a lag of a number of months between increases in income and the positive effect on economic agents that allows them to increase their savings.

2.b.5 Total savings: contribution to growth by component

The three components of total savings (demand and term deposits and DMFs) have all contributed to differing extents to the increase in total savings. Term deposits have made the smallest contribution, due to the low growth in this component and displacement towards DMFs.

Chart 19
**Total savings and IGAE
(Real annual growth rate, %)**

- Savings 3-month moving avg. 5 months later
- IGAE 6-month moving average
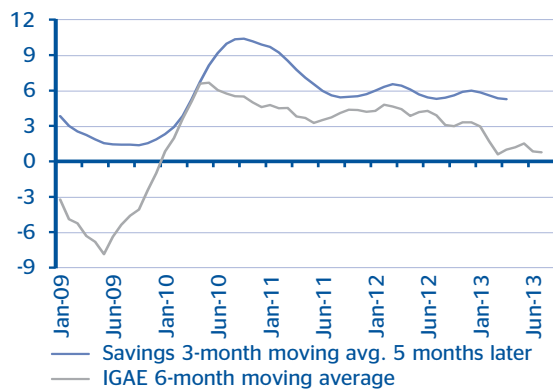
Source: BBVA Research with Bank of Mexico and INEGI data

Chart 20
**Total savings: contribution of components to
growth (Percentage points)**

- Demand
- Term
- Mutual funds
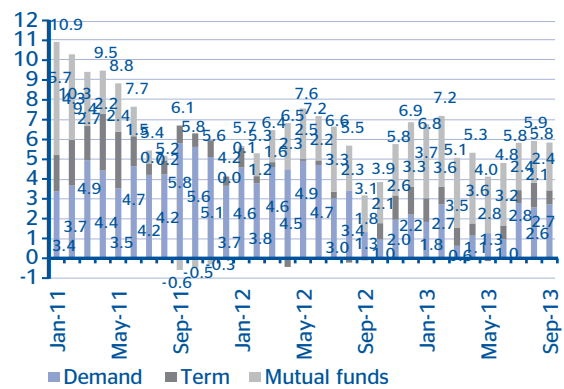
Source: BBVA Research with Bank of Mexico data

This can be appreciated if, for example, we consider that the actual average annual increase in total savings from January 2011 to September 2013 was 6.4%; of which, demand deposits contributed 3.3 pp, DMFs contributed 2.2 pp and term deposits contributed 0.9 pp. Moreover, the contribution of term savings has changed over time, and this has depended in part on the performance of its components (Chart 20). In the first nine months of 2013, total savings increased at an actual average annual rate of 5.6%, with DMFs making the largest contribution to this (3.0 pp), followed by demand deposits (1.9 pp) and finally term deposits (0.8 pp). These figures indicate that the vast majority of the growth in total savings has been due to the strong performance of both demand deposits and DMFs.

Evaluation

Throughout 2013, growth in traditional savings -i.e. savings using banking products- has slowed considerably, with the actual average annual increase in the first nine months of 2013 being 3.7%, compared to 5.7% in the same period in 2012. The slowdown in growth of total savings has been less pronounced, helped by the stronger performance of DMFs. Total savings grew at a rate of 5.6% in the first nine months of 2013, compared to 6% in the same period in 2012.

As mentioned, this slowdown in the growth rate -for both traditional bank deposits and total savings- is due to the slowdown in growth in both GDP and the IGAE. Therefore, consistently with the Bank of Mexico's GDP forecasts in its July-September 2013 inflation report, the limited GPD growth expected by the central bank for 2013 -between 0.9% and 1.4%- means that there will not be significant growth in savings over the rest of the year. Nevertheless, from 2014 this situation could change, if the Bank of Mexico's growth forecasts are correct and the economy grows by 3% to 4%. In other words, faster economic growth in 2014 will enable savings to increase more rapidly in that year.

3. Special Topics

3.a Penetration of Credit in Mexico and Brazil: a comparison and brief description of some factors contributing to the difference

Introduction

There is a significant difference in the penetration of credit to the private sector from financial institutions as a percentage of GDP between Mexico and Brazil. According to figures from Brazil's Central Bank (BCB), at the end of 2012 this ratio stood at 51.1%, consisting of 26.7% to companies and 24.4% to individuals (households). According to BCB figures, this measure of credit increased by 20.8 pp between March 2007 and December 2012, increasing from 30.3% of GDP to 51.1% (Chart 21).

Figures for the penetration of credit granted to the private sector by banks and other financial institutions in Mexico point to both a lower penetration of credit and a lower dynamism over the same period. In March 2007, credit to the private sector from commercial and development banks, plus credit from other financial entities (SOFOLs, Infonavit and Fovissste) stood at 18.8% of GDP, and 11.6% if only credit from banks is considered. By the end of 2012, the ratio had increased by 4.8 pp and 4.2 pp, respectively. This means that in 2012 credit from banks and other financial institutions in Mexico stood at 23.5% of GDP, whilst credit from banks was just 15.8% of GDP (Chart 22). Figures for the second quarter of 2013 show some further increase, with those shares of GDP rising to 24% and 16.2%, respectively.

Chart 21
Brazil: proportion of credit to private sector as a % of GDP

Source: Central Bank of Brazil

Chart 22
Mexico: proportion of credit to private sector as a % of GDP
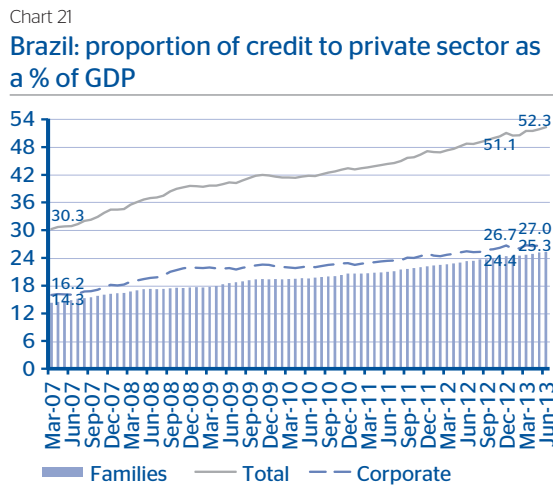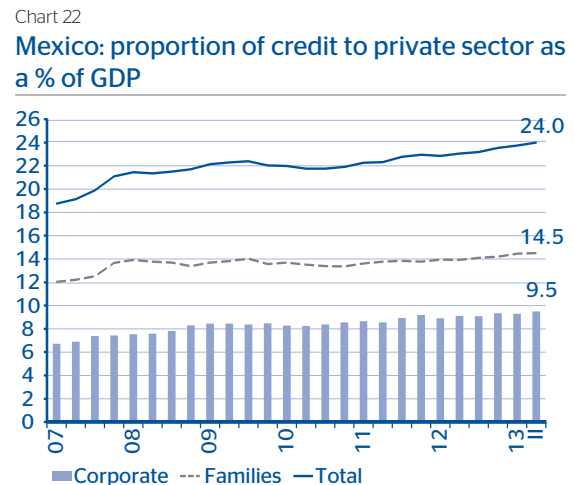
Source: INEGI

Given the scale of these differences, in this section of *Mexico Banking Outlook* we analyze some of the most significant factors explaining this situation. These include macroeconomic factors, the greater number of larger companies in Brazil and a number of institutional factors that have encouraged credit flows more in Brazil than Mexico.

3.a.1. Economic growth

Brazil's economy has grown more strongly than Mexico's. Brazil's average annual growth rate between 2000 and 2012 was 3.4%, whilst in Mexico it was just 2.4% (Chart 23). A one percentage point difference in the average growth rate may appear small, but it means that Brazil's economy would double in size in 20 years, compared to Mexico needing 30 years to double in size. Moreover, Brazil did not suffer any major contractions in GDP during this period, unlike Mexico, where the economy shrank by 4.7% in 2009. In Brazil, meanwhile, GDP only shrank by 0.3% in the same year.

Chart 23
Brazil and Mexico: Annual GDP growth rate, %

GDP: average growth rate
2000-2012: Brazil, 3.4%; Mexico, 2.4%
2005-2012: Brazil: 3.6%; Mexico, 2.6%

■ Mexico — Brazil

Source: Central Bank of Brazil and INEGI

Chart 24
Brazil and Mexico: Real GDP Index, 2000 = 100

Difference Brazil & Mexico in GDP increase 2000 - 2012: 19.1 percentage points

■ Mexico — Brazil

Source: Central Bank of Brazil and INEGI

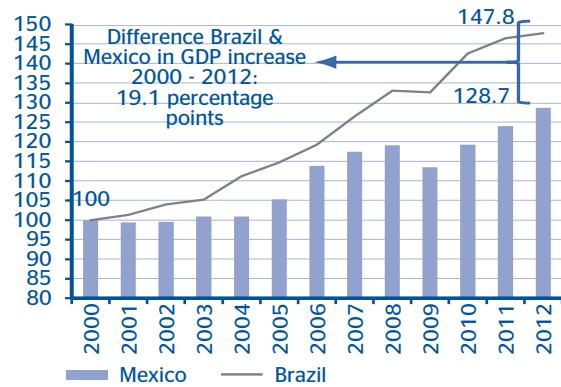Another significant difference between the two countries is the level of real GDP in 2000 and this is made clear if this year is taken as the base year to calculate an index. This index enables us to compare economic growth between Brazil and Mexico in real terms. Using this index, from 2000 to 2012 Mexico's GDP increased by 28.7% whilst Brazil's increased by 47.8%. In other words, Brazil's GDP increased by 19.1 pp more than Mexico's (Chart 24).

Whilst greater credit availability may contribute to higher economic growth, it is also true that an economy that enjoys a higher growth rate will likewise encourage credit to flow more freely. This is due to an expansion of the economic activity, which at the same time increases the demand for credit (for instance, investment opportunities could increase for companies, and they might need credit to finance those investments; also, families could demand more credit to acquire housing and consumer durables, faced with the prospect of a growing economy). Moreover, a growing economy reduces the risk of granting credit, as the income generated by economic growth also provides the funds and flows for repayment of credit.

3.a.2. Expansion of Formal Employment

According to the formal employment indexes for Brazil and Mexico (which only considers the total number of workers affiliated to the IMSS), formal employment increased more in the former than the latter. The difference between the two indexes, as in the case of the GDP index for the two countries, is significantly in Brazil's favor.

The credit to people working in the formal sector has a much lower risk, as someone working in the formal sector has a stable source of income from which to meet their financial obligations. Figures from Brazil's Formal Employment Index indicate that formal employment increased by 20.3% from December 2007 to December 2011. Furthermore, information from the Instituto Brasileño de Geografía y Esta-

dística (IBGE - Brazil's Institute of Geography and Statistics) show that the number of salaried workers in Brazil increased by 28.8% over this period, from 25.4 million in 2007 to 32.7 million in 2011; this means that the number of people earning a stable salary increased by 7.3 million over these four years (Table 1).

Chart 25
Brazil and Mexico: Formal Employment Index, Dec'00 =100

— Brazil: Formal employment index
--- Mexico: IMSS employment index
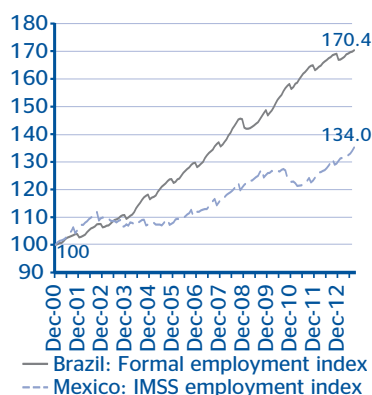
Source: Central Bank of Brazil and INEGI

Table 1
Brazil: salaried workers Millions

Size of company by workers employed	2007	2008	2009	2010	2011
0 a 4 workers	1.4	1.4	1.5	1.7	1.7
5 to 9	2.4	2.5	2.6	2.8	3.0
10 to 19	2.8	3.0	3.1	3.4	3.6
20 to 29	1.5	1.6	1.7	1.9	2.0
30 to 49	1.8	1.9	2.0	2.2	2.3
50 to 99	2.2	2.3	2.4	2.6	2.8
100 to 249	2.5	2.6	2.7	3.0	3.2
250 to 499	1.9	2.0	2.1	2.3	2.4
500 and more	8.9	9.5	9.9	10.9	11.7
Total companies	25.4	27.0	28.2	30.8	32.7
Increase in salaried workers					
Annual		1.6	1.3	2.6	1.9
Accum. 2007-2011					**7.3**

Source: IBGE, Demografia das empresas

Table 2
Mexico: Total workers affiliated to the IMSS

Year	Total million	Annual increase
2000	12.4	
2004	12.6	0.2
2005	13.1	0.4
2006	13.7	0.6
2007	14.2	0.5
2008	14.2	-0.0
2009	14.0	-0.2
2010	14.7	0.7
2011	15.4	0.6
2012	16.1	0.7
Increase IMSS workers		
Accum. 2007-11		1.1
Accum. 2007-12		1.9

Source: INEGI

In Mexico, the formal employment index, which only considers workers affiliated to the IMSS, increased by almost 7% between the end of 2007 and the end of 2011, significantly lower than in Brazil. Moreover, in the four years from 2007 to 2011, the total number of workers affiliated to the IMSS only increased by 1.1 million (Table 2). And if we consider figures for Mexico from the Encuesta Nacional de Ocupación y Empleo (ENOE - National Occupation and Employment Survey), from the end of 2007 to the end of 2011 total employment in the country (formal and informal) increased by 4.7 million. This is lower than the 7.3 million increases in salaried workers reported by the IBGE for this period. In other words, the increase in the number of paid workers in Brazil is another factor helping to explain the significant growth in credit to households from 2007.

3.a.3. The importance of company size in demand for credit

In the July 2013 issue of **Mexico Banking Outlook** we set out an initial analysis of how credit to companies in Mexico could be increased if an "ideal" financial reform eliminated restrictions on supply for companies seeking credit. In our analysis, we referred to the importance of both the distribution of companies by size and the average value of credit by company size, with one significant factor affecting the expansion of credit in the country, i.e. the large number of micro-enterprises or companies employing less than ten workers.[1]

According to figures from the 2009 Economic Census, 95.6% of companies in Mexico are of that size, and these companies on average only obtain a limited amount of bank credit. According to figures from the Comisión Nacional Bancaria y de Valores (CNBV - Mexican National Banking and Securities Commission), the average value of credit to micro-enterprises in 2012 was 672 thousand pesos. Based on these figures, together with the number of companies in the survey that said they might request bank credit or that might cease to use non-bank credit if bank credit conditions improved, we estimate that credit penetration in the country could increase by 6.6 pp of GDP. If we also consider the larger companies that might seek credit, the proportion of such lending could increase by 7.4 pp of GDP.

[1] Refer to **Mexico Banking Outlook** July 2013, in the "Bank lending to companies: How much can it grow with an ideal financial reform?" box.

Table 3

Brazil and Mexico: Comparison of Number of Companies by Number of Employees

| Number employees | Brazil: number of companies | | | | | | Mexico: number of companies | | | Brazil / Mexico ratio | | | | |
| | Number of companies according to IBGE | | | | | | Mexico, Economic Census | | | | | | | |
	2007	2008	2009	2010	2011	Share % 2008	Number employees	2008 Total emp.	Share % 2008	07/08	08/08	09/08	10/08	11/08
0-9	3,475,586	3,618,314	3,785,532	4,011,312	3,984,344	88.7	0-10	3,287,048	95.6	1.06	1.10	1.15	1.22	1.21
10-49	372,517	395,845	416,797	446,475	477,400	9.7	11-50	124,165	3.6	3.00	3.19	3.36	3.60	3.84
50-249	49,402	52,358	54,935	60,082	63,281	1.3	51-250	21,447	0.6	2.30	2.44	2.56	2.80	2.95
250 & more	10,586	11,145	11,666	12,714	13,322	0.3	251 & more	4,985	0.1	2.12	2.24	2.34	2.55	2.67
Total	3,908,091	4,077,662	4,268,930	4,530,583	4,538,347	100.0	Total	3,437,645	100.0	1.14	1.19	1.24	1.32	1.32

Source: IBGE, Demografia das Empresas and INEGI, Economic Census 2009

As can be seen from table 3, figures from the IBGE indicate that Brazil has more companies than Mexico, and that the proportion of micro-enterprises is lower in Brazil (88.7%) than in Mexico (95.6%). This indicates that the number and proportion of larger companies is higher in Brazil than in Mexico. Also, as an additional benchmark, according to OECD statistics on company structure in various countries, the share of micro-enterprises compared to total companies is between 80% and 85% in Germany, between 75% and 85% in the USA and less than 50% in Japan.[2]

As larger companies can contract bank credit more easily, given their nature (e.g. turnover and the type and quality of assets that can be used as collateral), this also helps to explain why credit penetration is higher in Brazil than in Mexico. In other words, larger companies can contract larger volumes of credit, and the higher number of large companies enables Brazilian companies to contract much more credit than Mexican companies.

3.a.4. Average age of companies

In the November 2011 edition of **Mexico Banking Outlook** we analyzed companies that were granted credit, finding that the age of the company was relevant to obtain such credit.[3] According to figures for the 2009 Economic Census, among the companies that obtained bank credit that year, the proportion that began operations before 2004 -i.e. with five or more years of being created- was higher than among companies that only obtained non-banking credit or that did not obtain credit that year.

The data available suggest that the average age of companies is another aspect in which Brazil and Mexico differ. According to IBGE information on the average age of companies in Brazil by size (Table 4), in 2008 the average age of companies with 0 to 4 employees was 8.9 years, and this age was even higher for company segments with more employees. In Mexico, information on the date when firms began operations is collected in the Economic Census, but it is not publicly available.

The IBGE has also been collecting and publishing information on the opening, age and death of companies in Brazil for several years, and this is also relevant in analyzing the conditions for companies' financing. For example, according to its 2010 Company Demographics, in 2010 Brazil had 4,530,583 companies, of which 3,531,460 (78%) had existed at least since the previous year, whilst 999,123 (22%) were new entrants -either because they had just been created (733,585 companies) or because of re-entry (265,538 companies). In the same year, 736,428 companies (16%) left the market. These statistics are also published for three company-size segments and for 20 economic activities:

---

[2] Source: OECD Science and Technology Scoreboard 2011.
[3] See **Mexico Banking Outlook** November 2011, box entitled "What does the 2009 Economic Census tell us about Mexican companies obtaining credit?".

- The survival rate for companies with more than 10 employees is 96%; whilst for companies with between 1 and 9 employees is 88%; and for companies with no employees other than the owner, the rate is 67%.

- The economic activities with the highest survival rates are health services and transformation industries, at 82%, whilst the lowest survival rates are among construction (69%) and electricity and gas (71%) companies.[4]

Table 4
Brazil: average company age (years)

Company size by employees	2007	2008	2009	2010	2011
0 to 4 employees	9.9	8.9	8.9	8.8	8.9
5 to 9	12.0	11.0	11.1	11.2	11.2
10 to 19	13.2	12.3	12.4	12.5	12.6
20 to 29	14.1	13.2	13.4	13.4	13.6
30 to 49	14.7	13.9	14.1	14.1	14.2
50 to 99	16.1	15.2	15.4	15.4	15.6
100 to 249	18.5	17.6	17.8	17.8	18.1
250 to 499	21.9	21.2	21.4	21.3	21.7
500 and over	25.0	24.1	24.4	24.6	25.0

Source: IBGE, Demografia das Empresas

In Mexico, INEGI has recently started to release similar statistics. For example, in its "Análisis de la demografía de los establecimientos 2012" (Analysis of Company Demographics 2012) published a few months ago, INEGI reported figures for the opening and closure of companies for the period April 2009 (start of the most recent Economic Census period) and May 2012 for four sizes of companies by number of employees (0 to 10, 11 to 30, 31 to 50 and 51 to 100 employees) and three segments of economic activity (manufacturing, trade and services) nationally and by state. It would be useful if these statistics were complemented in the future with information on survival rates, and that the information was released every two years, so that it can be comparable with data from other countries.[5]

International evidence suggests that survival rates among young companies are higher than for older companies in many economies (Chart 26).[6] Whilst in industrialized countries, between 50% and 60% of companies are still in business after 7 years, in Mexico 25% of new entrant companies are no longer in the market after 2 years; this rises to 50% after 4 years and 70% after 7 years. Survival rates for Mexican companies are even lower than in Argentina or Colombia. Survival rates for Brazil are lower after 2 years than in Mexico, but higher after 4 years (Chart 27).

---

[4] For more details, refer to Company Demographics, IBGE, 2010 (available at: http://www.ibge.gov.br/home/estatistica/economia/demografiaempre-sa/2010/default.shtm)
[5] Prior to this, INEGI had published an "Análisis de altas y Bajas 2009" (Analysis of additions and closures 2009) as an Appendix to its National Statistical Directory for Companies, providing figures on the formation and closure of companies between June and December 2009 by company size and the economic activity tranches mentioned above, nationally and for the 5 states with the highest rates of company formation and closure.
[6] For Mexico, the survival rates in Pagés et al (2009) are calculated using IMSS information and refer to the end of the 1990s. These survival rates have not been calculated since. Brazil produces information on the age of companies by economic sectors more regularly than Mexico.

Chart 26
Company survival rates by age in various countries, 1990s
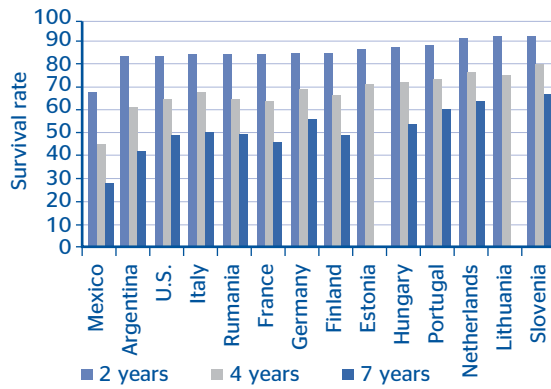
Source: Taken from Job Creation in Latin America and the Caribbean Recent Trends and Policy Challenges, Pagés, C., Pierre, G. and S. Scarpetta, Palgrave Macmillan and World Bank, 2009

Chart 27
Company survival rates by age in Brazil, 2008-2009

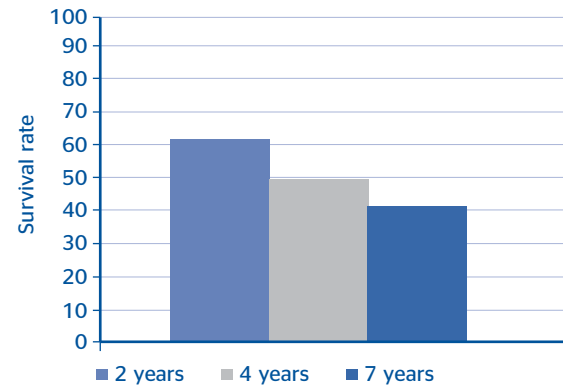Source: Doze anos de monitoramento de sobrevivência e mortalidade de empresas, SEBRAE, August 2010

As a higher survival rate for companies corresponds to lower risk of default, the risk premium on loans in Mexico should tend to be higher than in Brazil. This can be interpreted as this group of companies in Brazil representing a lower credit risk, and therefore finding it easier to access bank credit.

3.a.5. Public sector banking

As discussed in the November 2012 issue of **Mexico Banking Outlook**, between 2007 and 2011 the largest increase in lending activity in Brazil came from commercial banks owned or under the control of the public sector.[7] Over this period, lending from these banks "increased by 199%, whilst for BNDES alone (Brazil's main development bank) the rate was 178%. This growth was higher than the rates in total credit granted by all domestic and foreign private banks, which were 109% and 69%, respectively.

Chart 28 shows that the share of credit granted to the private sector in Brazil from banks controlled by the public sector began to increase in late 2008. As a result, in September 2008, public sector banks accounted for 33.3% of total lending to the private sector; this increased to 45% by December 2012.

The Banco do Brasil, BNDES and the Caixa Económica Federal (Caixa) are three state-controlled financial institutions that are very active lenders in the country. For example, in 2011 the Tesoro Nacional de Brasil (the Brazilian Treasury) holding in Banco do Brasil was almost 52%, of which 30.4% was free float with the remainder being in the hands of entities such as the Fondo de Garantías de Exportaciones (Export Guarantee Fund), the bank's employee pension fund and others. Banco do Brasil is also important if we consider the share of GDP represented by its portfolio. In 2005 its credit portfolio represented 3.7% of Brazil's GDP, and it grew to 10.9% by the end of 2012. In other words, in seven years this bank almost tripled its financial penetration (Table 5).

---

[7] See **Mexico Banking Outlook** November 2012, the box "The recent expansion of public sector banks in Brazil: some issues for reflection in Mexico".

Chart 28

Brazil: credit to the private sector granted by public-sector and private-sector banks, %

Public sector banks
Private sector banks
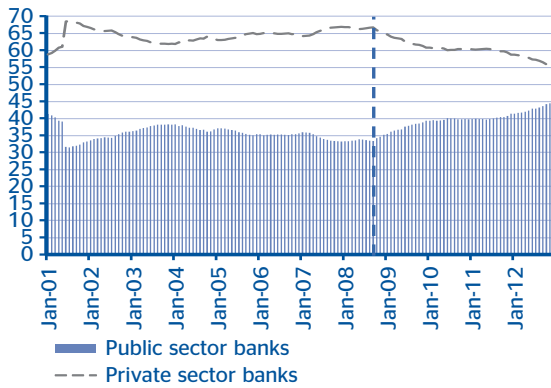
Source: Central Bank of Brazil

Table 5

Lending portfolio as a share of GDP in Brazil, %

Banco do Brasil					
	2005	2006	2007	2011	2012
Total lending in Brazil	3.7	5.1	5.6	9.4	10.9
Individuals	0.7	1.0	1.2	3.2	3.4
Companies	1.6	2.2	2.5	4.1	5.0
Micro & small firms	0.6	0.8	0.9	1.6	2.0
Medium and large	0.9	1.4	1.5	2.5	3.0
Agro-firms	1.4	1.9	1.9	2.1	2.4

Source: Banco do Brasil, Annual Report, various years

BNDES: Banco Nacional de Desarrollo Económico y Social (National Economic and Social Development Bank)					
	2005	2006	2007	2011	2012
Total credit	6.5	6.4	6.3	9.7	10.4
Direct transactions	nd	nd	3.4	5.0	5.4
Infrastructure	nd	nd	nd	2.2	2.4
Manufacturing	nd	nd	nd	1.8	1.9
Commerce & services	nd	nd	nd	1.0	1.0
Indirect transactions					
Bank. intermediation	nd	nd	2.9	4.7	5.0

Source: BNDES, Annual Report and Consolidated Financial Statements, various years

However, the expansion of lending activity by Banco do Brasil has been accompanied by foreign indebtedness. According to its 2012 Annual Report, in 2011 Banco do Brasil had issued debt abroad amounting to 34.6 billion dollars (bnd), representing 1.4% of Brazil's GDP. This debt increased to 45 bnd by 2012, equivalent to 2% of GDP. This data show that part of the credit penetration in Brazil has been made possible on the one hand by increased lending activity by public-sector banks and, on the other, by Banco do Brasil contracting larger amounts of foreign debt.

Table 6

Public-sector banks in Brazil, credit granted directly to the private sector as a % of GDP

|	2007	2011	2012
Caixa Economcia Federal *	2.4	5.6	7.6
BNDES**	3.4	5.0	5.4
Banco do Brasil	5.6	9.4	10.9
Total	11.4	20.0	23.9

* The value of lending by Caixa to the private sector in 2007 is not included: the figure shown relates to 2008
** For BNDES, only direct lending is considered, not including banking intermediation
Source: Central Bank of Brazil

Chart 29

Public-sector banks in Brazil: credit granted directly to the private sector as a % of GDP

2007   2011   2012
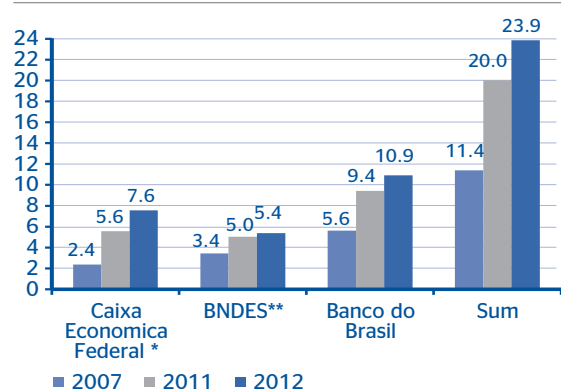
Source: Central Bank of Brazil

Furthermore, lending by Banco do Brasil has increased rapidly at the same time as GDP growth has slowed. For example, in 2010, 2011 and 2012 Brazil's GDP grew by 7.5%, 2.7% and 0.9% whilst credit granted by Banco do Brasil grew by 20.5%, 19% and 16.2%, respectively. This imbalance between growth in income and credit in 2011 and 2012 exposes the existence of significant risks in the near future to the quality of its lending book, particularly if Brazil's GDP does not return to high growth rates in the upcoming years.

According to the legal framework in which it operates, BNDES is a company belonging to Brazil's federal government, reporting to its Ministry of Development, Industry and Foreign Trade. This makes of BNDES an important tool for implementing the government's investment policy.[8] Its importance to the country's economy can be appreciated if we consider that its lending represented 6.5% of GDP in 2005, and it had grown to 10.4% in 2012.

The Caixa is another important public-sector financial institution.[9] It grants credit to individuals and companies and its lending has grown considerably over recent years.

The combined credit granted directly to the private sector by these three institutions increased from an estimated 11.4% of GDP in 2007 to 23.9% of GDP in 2012 (Table 6). In other words, over recent years there has been rapid expansion in lending to the private sector in Brazil, which increased its ratio of GDP by 12.5 pp in this period (Chart 29). The increase in credit penetration in Brazil flowing from public sector banks accounted for almost 60% of the growth in total credit penetration over the period, which amounted to 20.8 pp, as mentioned at the start of this article.

3.a.6. Differences in collateral requirements

Another significant aspect contributing to the low credit penetration in Mexico is the difficulty of registering and enforcing guarantees. According to World Bank surveys, the percentage of companies with bank credit is lower in Mexico than in Brazil. It is more common for companies in Mexico to be asked for collateral exceeding the value of the credit requested, suggesting high credit risk (Table 7).

However, it is also more common for Mexican companies to say they do not need loans and to finance their investments with their own funds or through trade credit. In other words, the country's companies demand less bank credit than in Brazil.

Table 7
Some indicators of bank credit penetration

Economy	Mexico	Brazil
Percentage of companies with credit facility/bank loan	32.0	65.3
Proportion of loans needing collateral (%)	67.0	31.6
Value of collateral needed for a loan (% of amount borrowed)	208.9	71.0
Percentage of companies not needing a loan	53.7	30.2
Percentage of companies using banks to finance investment	16.2	48.4
Proportion of investment financed with own funds (%)	64.1	44.5

Note: Information for 2010 for Mexico and 2009 for Brazil.
Source: BBVA Research with Enterprise Surveys data (World Bank)

[8] This was set out explicitly in the BNDES Annual Report 2011. Page 17 of this report states, "*BNDES is a federally-owned company, governed by private law and with its own resources, reporting to the Ministry of Development, Industry and Foreign Trade*".
[9] The organizational structure section of the Caixa Económica Federal website states that it is a financial institution created as a public company reporting to Brazil's Finance Ministry, and that it operates throughout the country.

There are factors on both the demand and supply side behind the intention to make less use of bank credit and rely more on own funds, and the need to provide high value collateral to obtain credit. On the one hand, the factors identified in the differences between Mexico and Brazil may be reflected in the difficulty of accessing bank credit for companies, and on the other, the high credit risk in the country may translate into the aforementioned indicators, which are in turn associated with lending activity.

We will now discuss some indicators that suggest, independently of the situation in the country, why these limitations are much lower in Brazil than they are in Mexico, and how can they help explain the differences in credit penetration between the two countries.

One good reason for requesting collateral is the lack of credit references. In this regard, the indicators from the World Bank's Doing Business Report (DBR) show that even though Mexico's credit bureau have had more complete information than their Brazilian counterparts for several years (Chart 30), the information relates to a smaller proportion of companies (Chart 31). For example, in 2009, the last year for which there are comparable figures on the total number of companies in both economies, Brazil had 4.8 million companies[10] whilst Mexico had 5.1 million.[11]

Chart 30
Index of credit information depth (0-6)

Brazil ■ Mexico
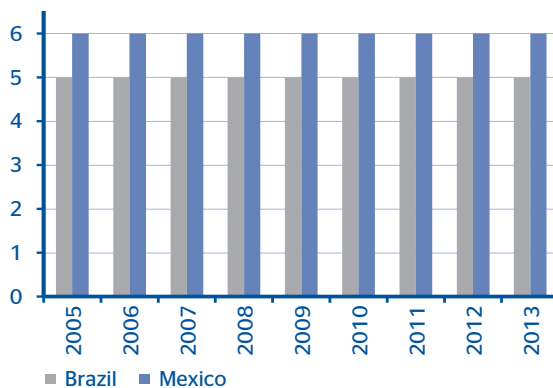
Source: Doing Business Report, World Bank

Chart 31
Number of individuals and companies included in private credit bureau in 2013 (million)
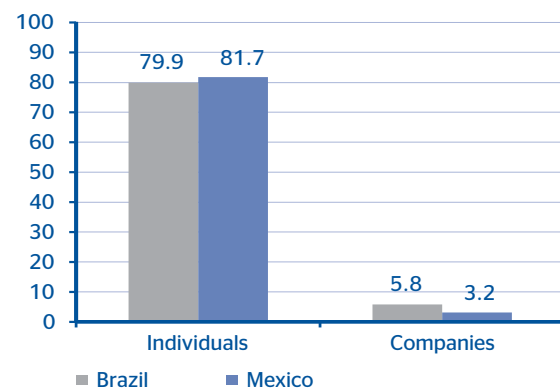
Brazil ■ Mexico

Source: Doing Business Report, World Bank

Annual monitoring statistics for the number of active companies are more limited in Mexico than in Brazil. There are two sources: the IMSS employers' register and the Secretary of State for the Economy's Mexican Business Information System (Sistema de Información Empresarial Mexicano - SIEM-SE for the Spanish acronym). Both of these sources recognize a much lower number of companies than the 2003 and 2008 Economic Censuses: 27% and 23% of private and state-owned sector economic units, respectively. These figures are only collected every 5 years (Chart 32).

These figures are also a reflection of the large scale of the informal economy, understood as the lack of registration or payment by companies of mandatory tax or social security contributions.[12] Other indicators also suggest that the problem of the informal economy is much worse among Mexican companies than in Brazil. The World Bank publishes Enterprise Surveys on various countries, including Mexico and

[10] Source: Central Company Census 2010 (IBGE)
[11] Source: 2009 Economic Census (INEGI)
[12] Whilst the IBGE carries out annual surveys of all sectors of economic activity in Brazil and consolidates these in its Central Census, in Mexico, INEGI annual surveys have not been carried out systematically. For example, its annual surveys of transport and trading companies was last carried out in 2006; that for the construction sector is available to 2008; and that for manufacturing only for 2009 and 2010. Therefore, we have to turn to the Economic Census. According to various measures, informal companies are more common in Mexico than Brazil.

Brazil. These Surveys contain three relevant indicators. Whilst the percentage of companies reporting that they compete against unregistered companies is 55% in Brazil, in Mexico it is 70%. The percentage of companies registered formally when they begin operations in Brazil is 96%, whilst in Mexico it is 85%. Companies operate without formal registration for half a year in Brazil, whist in Mexico this is one and a half years (Chart 33). It should be noted that these indicators are not based on official definitions; they are based on the responses of companies in these surveys to the conditions in which they operate.

Chart 32
Number of companies registered in Mexico vs. Economic Census*

■ SIEM-SE ■ IMSS ■ Economic Census
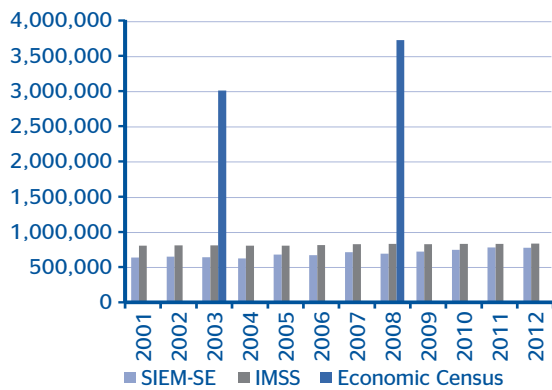
* Number of private sector and state-owned companies
Source: IMSS, SE and INEGI

Chart 33
Informality among companies
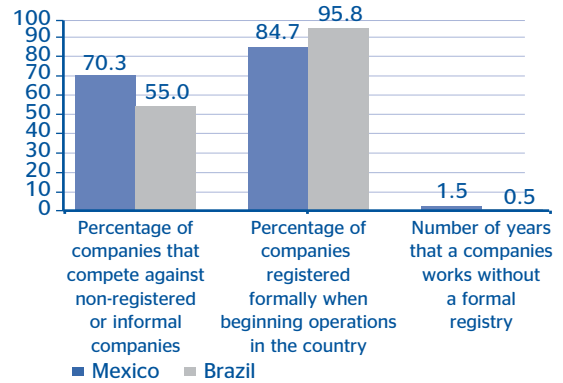
■ Mexico ■ Brazil

Note: Information for 2010 for Mexico and 2009 for Brazil.
Source: Enterprise Survey data (World Bank)

Another institutional factor that could be behind the requirement for more collateral in Mexico than in Brazil is that it takes more time to register ownership in Mexico than in Brazil, and this costs almost twice as much (Charts 34 and 35).

Chart 34
Time to register ownership (days)

■ Brazil ■ Mexico
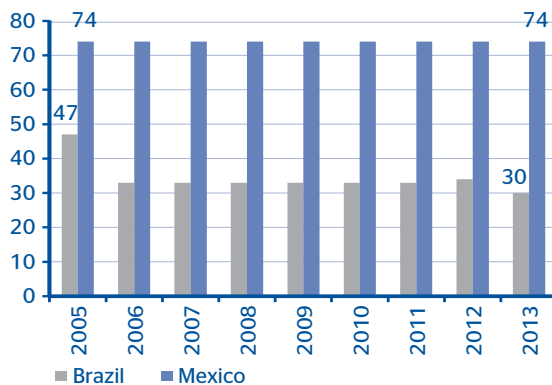
Source: Doing Business Report, World Bank

Chart 35
Cost of registering ownership (% of property value)

■ Brazil ■ Mexico
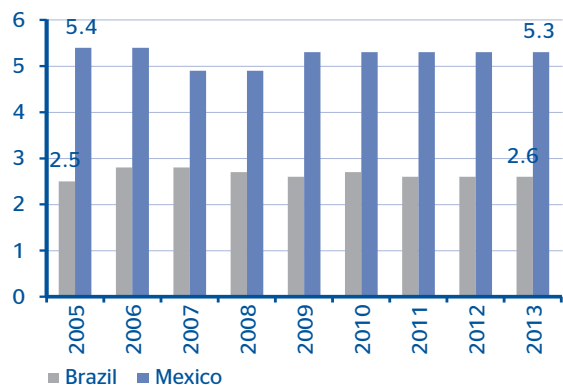
Source: Doing Business Report, World Bank

Meanwhile, and as the Financial Reform Initiative currently being discussed includes a number of changes to improve registration and enforcement of guarantees, it is appropriate to ask whether reducing the time and cost involved in registering guarantees in Mexico would increase credit penetration to Brazilian levels. The answer to this question is not conclusive, as empirical evidence on the scale of the potential impact on credit expansion of such improvements to the institutional framework is still very limited. In 2004-2011, 75 out of 132 countries shortened the time needed for registering property ownership, with registration costs falling in 87 countries. However, the increase in the ratio of bank credit to GDP in these countries was similar to the increase in countries where these variables were not changed (Tables 8 and 9). Moreover, in both cases, the correlation between both variables and credit growth is very low (Charts 36 and 37).

Table 8
Change in bank credit / GDP and time to register property ownership, 2004-2011

Group	Countries	Change in bank credit / GDP (average)	Change time (average)
Countries with decreases	75	11.8	-75.5
Countries with no change	49	10	0
Countries with increases	8	19.7	12.9
Total	132	11.6	-42.1

Source: BBVA Research with World Bank data

Table 9
Change in bank credit / GDP and cost of registering property ownership, 2004-2011

| Group	Countries	Change in bank credit / GDP (average)	Change cost (average)
Countries with decreases	87	12.9	-2.4
Countries with no change	19	13.6	0
Countries with increases	26	6.2	1.2
Total	132	11.6	-1.4

Source: BBVA Research with World Bank data

Chart 36
Bank credit / GDP vs. time to register property ownership, change 2004-2011
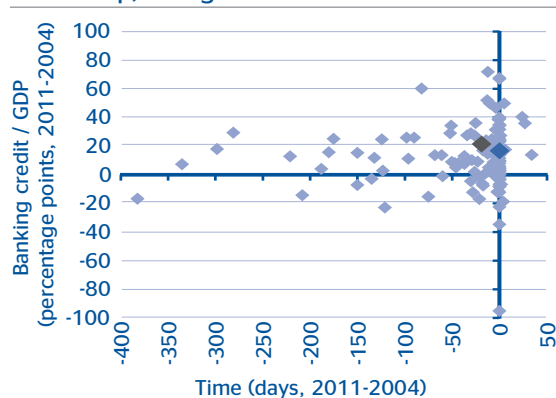
Source: World Bank figures

Chart 37
Bank credit / GDP vs. cost of registering property ownership, change 2004-2011
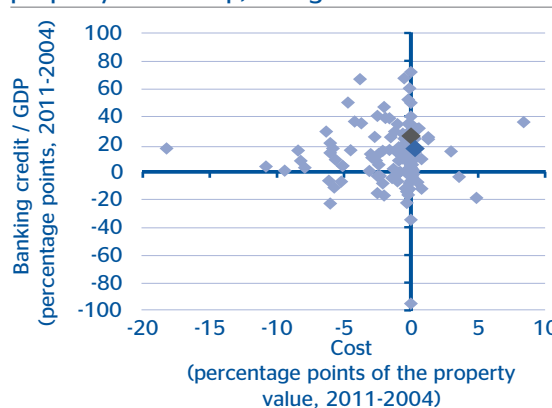
Source: World Bank figures

3.a.7. Other significant differences

Demand for credit may be lower in countries with a higher concentration of foreign companies and a more open economy. A large presence of foreign companies can mean less recourse to domestic funding. According to the 2009 Census, some of the reasons why large companies do not have bank loans include: i) having foreign capital; ii) having loans from a foreign parent; iii) being *maquiladoras* or having funding from the United States.

More limited competition is also associated with higher domestic funding among companies with market power. The World Economic Forum efficiency indicators for the goods market indicate that whilst the size of the domestic markets are similar in Mexico and Brazil, competition is lower in Mexico and market dominance is higher; anti-monopoly policies are weaker and the percentage of foreign ownership is higher, as well as its exposure to international markets (Chart 38).

Taken together, these factors may decrease demand for credit by companies in Mexico, as the presence of dominant foreign companies may discourage the entry of new companies and new investment by companies already in the market.

Chart 38
Some efficiency indicators for the market for goods
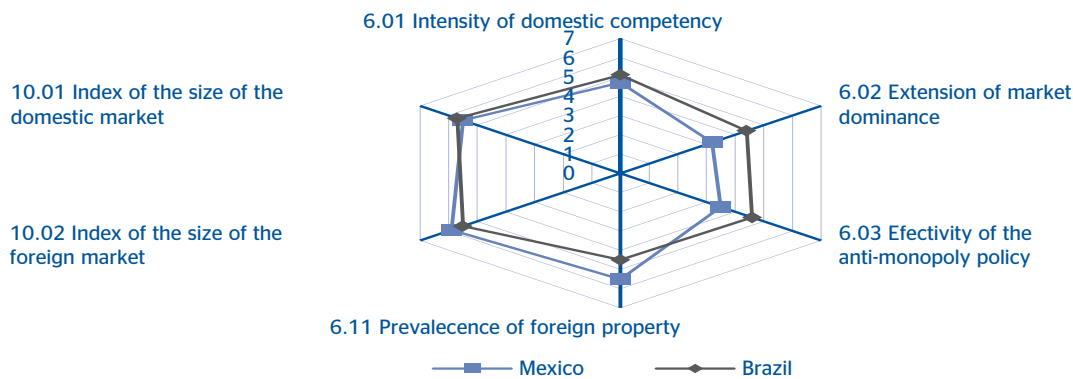
Note: Higher values indicate better performance.
Indicators 6.01, 6.02, 6.03 and 6.11 are related to perceptions, based on WEF business opinion surveys
Source: Global Competitiveness Report 2013, WEF

There is one final aspect of Brazil's economy that also appears to contribute to higher demand for bank borrowing; this is the definition of some companies that in Mexico are owned by the government and are, therefore, considered to be state-owned.

For example, in Brazil, Petrobras is set up as a private oil company in which the state is a major shareholder. The credit this company receives is therefore considered to be private sector credit, unlike the situation for Pemex in Mexico. Lending to the Mexican state-owned company is classified as credit to the public sector. The situation is similar for Brazilian electricity producers, which obtain credit from commercial banks and are classified as private sector credit. Mexico, on the other hand has a Comisión Federal de Electricidad (Federal Electricity Commission, CFE) and, as with Pemex, its borrowing is considered to be public sector borrowing

3.a.8. The potential for increased lending to Mexican companies, if their structure was more similar to Brazilian companies

In the previous issue of *Mexico Banking Outlook*, we calculated the potential increase in bank lending to companies in Mexico that would result from approval of an ideal financial reform package in which all companies seeking credit were able to obtain it. These calculations were based on information from the 2009 Economic Census on the number and size of companies in Mexico, and on CNBV figures on the average amount received by companies according to their size. This calculation suggested that -in an optimistic financial reform scenario- bank lending to companies might double, with the volume of bank credit rising by 1,156,225 million pesos (7.4% of GDP in 2012).

A

Another interesting question in the light of the information in Table 10 on the larger appetite for bank credit among companies in Brazil than in Mexico is by how much lending to companies would increase if the percentage of companies seeking credit was the same in Mexico as in Brazil. To try to answer this question, we carried out an exercise to determine by how much bank lending would increase in Mexico if the proportion of companies reporting not needing credit in Mexico were similar to that in Brazil, based on World Bank survey information (Table 11).

In the second scenario, around 482 thousand additional Mexican companies that stated in the 2009 Economic Census that they had no interest in seeking credit would now be interested. As a result, the amount of credit to companies would increase by an additional 2.7 pp of GDP (Table 11).

Table 10
Distribution of companies by size

Subgroup		Size						
Subgroup level		All		Small		Medium		Large
Economy	Mexico	Brazil	Mexico	Brazil	Mexico	Brazil	Mexico	Brazil
Percentage of companies not needing a loan	54	30	56	36	47	31	52	31

Note: Information for 2010 for Mexico and 2009 for Brazil.
Source: BBVA Research with Enterprise Surveys data, World Bank

Table 11
Mexico: new or additional credit that might be granted to companies if they behaved like companies in Brazil, based on the percentage of companies saying they had no interest in seeking credit

Economic units (companies), by size	Total economic units (Census)	%	Not obtained credit or finance and state no interest in this	% of total units	Brazil: % of companies stating no interest in seeking credit in category	Number of companies in Mexico that would not seek credit, based on Brazilian figures	Difference in Mexico: Observed data - estimate from Brazilian data	Average credit according to CNBV figures (million pesos)	New or additional credit: hypothetical amount (million pesos)	Proportion of GDP in 2012, %
Total Domestic or Total	3,437,645	100.0	1,715,051	49.9		1,232,832	482,219		412,334	2.7
Micro (1-10 wks *)	3,287,048	95.6	1,638,006	47.6	36.1	1,186,624	451,382	0.672	303,328	2.0
Small (11-50 wks)	124,165	3.6	65,083	1.9	31	38,491	26,592	1.572	41,802	0.3
Medium (51-250 wks)	21,447	0.6	9,613	0.3	31	6,649	2,964	5.805	17,209	0.1
Large (251 and more wks)	5,085	0.1	2,349	0.1	21	1,068	1,281	39.023	49,994	0.3

* wks = workers employed by company
Source: BBVA Research with 2009 Economic Census data (INEGI) and CNBV

Another interesting question in the light of comparisons between Brazil and Mexico is by how much credit might increase if the number of micro-companies in Mexico was smaller and the country had more small, medium and large enterprises.

As we have mentioned, the proportion of micro-companies is higher in Mexico than in countries such as Brazil, Germany, the USA and Japan. In this regard, some recent World Bank studies of support programs for micro, small and medium enterprises in Latin America and the Caribbean have found that some programs have a positive impact on value of sales, aggregate value, fixed assets and employment in participating companies. In the case of Mexico, the evidence suggests that this is associated with increased access to credit.

Therefore, in the following exercise, we assume that a fixed percentage of companies in each segment -micro, small and medium sized- of potential seekers of credit take part in a business support program, and that, as a result, each participating company grows to the next size. This scenario shows a further increase in bank lending, with respect to the initial increase of 7.4 percentage points of GDP, considering the effect on all companies (Table 12):

Table 12

Simulation exercise on what would happen to credit if a fixed percentage of companies in the micro, small and medium segments increased in size to the next segment

	New credit (percentage points of GDP)	Increase
Simulation of initial impact	7.4	
Increase in size: 1%	0.3	7.7
Increase in size: 3%	0.8	8.2
Increase in size: 5%	1.4	8.8
Increase in size: 10%	2.8	10.2

Source: BBVA Research with 2009 Economic Census data (INEGI) and CNBV

To measure the impact on employment of the growth of companies under these business promotion and growth schemes, we assume that the companies that grow will employ the average number of people for each segment reported in the Census information (Tables 13 and 14). Therefore, employment in small, medium and large companies would be as follows:

Table 13

Average number of people employed by company

Micro (1-10 wks*)	2.4
Small (11-50 wks)	20.7
Medium (51-250 wks)	102.8
Large (251 and more wks)	753.5

Source: BBVA Research with 2009 Economic Census data

Table 14

Employment in small, medium and large companies

Size increase: 1%	887,904
Size increase: 3%	2,663,711
Size increase: 5%	4,439,518
Size increase: 10%	8,879,036

Source: BBVA Research with 2009 Economic Census data

This exercise suggests that if Mexico had larger companies, employment would be higher. Higher employment by these companies would result in paying higher salaries than micro-enterprises, resulting in greater potential to increase lending to households. Finally, table 15 shows details of the exercise and contributions of each segment to the growth in credit and employment.

Table 15

Simulation exercise on what would happen to lending and employment if the number of small, medium and large companies increased in size by a certain percentage
Number of companies that might seek new credit: those that obtained non-bank credit + those that did not request it due to lack of interest + increase in company size

	Original situation	Size increase: 1%		Size increase: 3%		Size increase: 5%		Size increase: 10%	
		Num Emp	Abs Var with Original	Num Emp	Abs Var with Original	Num Emp	Abs Var with Original	Num Emp	Abs Var with Original
Micro (1-10 wks *)	1,512,914	1,480,044	-32,870	1,414,303	-98,611	1,348,562	-164,352	1,184,209	-328,705
Small (11-50 wks)	35,918	67,547	31,629	134,529	98,611	200,270	164,352	364,623	328,705
Medium (51-250 wks)	5,247	6,274	1,027	8,972	3,725	11,455	6,208	17,664	12,417
Large (251 & more wks)	1,257	1,471	214	1,900	643	2,329	1,072	3,402	2,145
Total	1,555,336	1,555,336	0	1,555,336	0	1,555,336	0	1,555,336	0
New bank lending: balance with different company size structure									
Micro (1-10 wks *)	1,016,749	994,659	-22,091	950,478	-66,272	906,297	-110,453	795,844	-220,905
Small (11-50 wks)	54,854	103,157	48,303	205,453	150,599	305,852	250,998	556,851	501,997
Medium (51-250 wks)	30,460	36,423	5,963	52,085	21,624	66,501	36,041	102,542	72,081
Large (251 & more wks)	49,052	57,421	8,369	74,160	25,108	90,898	41,846	132,745	83,693
Total	1,151,115	1,191,661	40,545	1,282,175	131,060	1,369,548	218,433	1,587,981	436,866
New bank lending: proportion of GDP, %									
Micro (1-10 wks *)	6.6	6.4	-0.1	6.1	-0.4	5.8	-0.7	5.1	-1.4
Small (11-50 wks)	0.4	0.7	0.3	1.3	1.0	2.0	1.6	3.6	3.2
Medium (51-250 wks)	0.2	0.2	0.0	0.3	0.1	0.4	0.2	0.7	0.5
Large (251 & more wks)	0.3	0.4	0.1	0.5	0.2	0.6	0.3	0.9	0.5
Total	7.4	7.7	0.3	8.3	0.8	8.8	1.4	10.2	2.8

Employment: increase in people employed by increasing the number of companies to the next size segment compared to original situation

Micro (1-10 wks *)	-80,371	-241,114	-401,857	-803,715
Small (11-50 wks)	679,064	2,037,193	3,395,322	6,790,644
Medium (51-250 wks)	127,598	382,795	637,991	1,275,982
Large (251 & more wks)	161,612	484,837	808,062	1,616,124
Total	887,904	2,663,711	4,439,518	8,879,036

* wks = workers employed
Source: BBVA Research with 2009 Economic Census data, INEGI

Evaluation

In this section we have examined a set of factors that might help to explain differences in credit penetration between Mexico and Brazil, a country that has typically been used as a benchmark in this regard. Can Mexico achieve credit penetration levels similar to those of Brazil just by improving its system for registering guarantees and complying with loan contracts? The simple answer is "no". This is why the Financial Reform Initiative also includes reforms to give development banking a more active role.

However, it is desirable that expansion of development banking in Mexico should occur in a context in which the country has more transparent information on the operations and effectiveness of development banking activity. A recent International Monetary Fund study (González and Grigoli, 2013) found that the existence of banks belonging to the government could contribute to relaxing financial restrictions on public-sector entities and, as a result, could undermine fiscal discipline. In particular, the authors reported that an increase in the role of government-owned banks in the banking system is associated with increased lending to the public sector, a larger fiscal deficit, a higher debt-to-GDP ratio and crowding out of private-sector investment. These findings suggest that the practices of government-owned banks should be carefully assessed in any strategy aiming to maintain fiscal discipline.

Turning to Brazil, where there has been a significant increase in credit from government-owned banks over recent years, a recent OECD study on Brazil's economy found that inequality in competition conditions in the long-term credit market resulting from the substantial financial support offered by development banks creates a barrier to private-sector participation and limits the long-term development of the credit market. The IMF's 2012 assessment of Brazil's banking system also pointed to the lack of a long-term funding market as a factor that needed to be rethought in order to expand credit penetration in the country.

However, the Pact for Mexico proposes other measures that could increase demand for credit and, as we have discussed, are factors that could have put Mexico at a disadvantage against Brazil. Therefore, successful implementation of measures to achieve a more competitive and productive economy will result in higher potential growth for the economy, and therefore greater demand for credit among companies.

Moreover, there is increasing evidence that the model for credit penetration in Brazil is not sustainable, since in some periods, credit has increased even when income has not.

References

Bank of Mexico, Credit Market Evaluation Survey.

World Bank, Enterprise Surveys.

World Bank, Doing Business Report.

Comisión Nacional Bancaria y de Valores, Statistics on new lending to companies.

Gonzalez-Garcia, J. and Grigoli, F. (2013), State-Owned Banks and Fiscal Discipline, IMF Working Paper 13/206, October 2013.

Organization for Economic Cooperation and Development, Science, Technology and Industry Scoreboard, 2011.

Organization for Economic Cooperation and Development, OECD Economic Survey Brazil 2013, 2013.

Pagés, C., Pierre, G. and Scarpetta, S. (2009), Job Creation in Latin America and the Caribbean Recent Trends and Policy Challenges, Palgrave Macmillan and World Bank, 2009.

3.b. The outlook for Mutual Funds in Mexico

Introduction

Mutual Funds (MFs) buy and sell investment assets with funds from the placement of instruments representing their own equity with the investing public. MFs provide a savings alternative for small and medium-sized investors who do not have sufficient funds to meet the requirements of brokerage houses, or that cannot individually acquire securities at amounts offered in the gross market. Through an MF, small and medium savers can diversify their investments by acquiring an asset portfolio with a mix that matches their liquidity needs as closely as possible to their expectations of returns and risk aversion, irrespective of the amount invested.

MFs have become a very popular investment instrument internationally. Evidence of this is provided by their explosive growth worldwide during the 1990s. According to Fernando, Klapper, Sulla and Vittas (2003), in the USA the financial assets of MFs grew at an annual average rate of 22.4 % between 1992 and 1998, whilst in the European Union the average growth was 17.7% over the same period. More recent studies have found that between 1976 and 2009 the assets of mutual funds increased from $48 billion USD to almost $11 trillion USD at international level (Khorana and Servaez, 2012).

In Mexico, MFs started to play a significant role as an investment option in 2001, when the Mutual Fund Act was passed. Since then, MFs have grown exponentially, becoming one of the main investors in Mexico's financial system. It is therefore appropriate to understand the current outlook for these institutions and how they have performed over the last decade, in terms of their size, their market structure, prices and returns. We analyze some of those aspects in this section of **Mexico Banking Outlook**.

3.b.1 Background and classification of MFs

The first MFs were created in Mexico in 1950, when the Act Establishing the Mutual Fund Regime was passed. This Act was followed by three others, in 1954, 1955 and 1985, and subsequent amendments to these, in 1986, 1989, 1992, 1993 and 1995.

Despite MFs existed in legal terms, in practice the market showed little development until the 1990s, due mainly to weak corporate governance practices, and a lack of interest in opening this market to the general public; furthermore, the few MFs in existence also offered unattractive returns (Martínez and Werner, 2002). However, this changed in June 2001, when the current Mutual Funds Act was passed. As we will see later, this Act contributed, together with the new Securities Market Act, to the growth in MFs that we have subsequently seen.

The current Act recognizes four types of MFs, each with a particular investment regime, as shown in Table 16. For example, debt mutual funds (DMFs) can only invest in debt instruments, whilst equity mutual funds (EMFs) can invest in both debt and equity. MFs may also specialize in certain types of assets or follow an investment strategy based on limiting risk exposure or seeking a target return, rather than concentrating on a particular asset type. Such MFs are known as "discretionary". DMFs are also classified by their investment horizon -short, medium or long-term; whilst EMFs can be classified by their percentage holding of stocks.

Table 16
Characteristics of MFs

MF type	Features		Classification
Debt	• Can only invest in debt instruments • An investment instrument with lower risk that an equity MF • An increase in interest rates implies a decrease in the MF's price	• Can specialize in different asset classes (government, private sector, regional), provided that they hold at least 80% of these assets • They can be classified as discretionary if their strategy is not based on a particular asset composition, but rather on a risk exposure limit or a target return	According to duration of the assets: • Short term: less than one year • Medium term: more than one year and less than or equal to three years • Long term: more than three years Depending on percentage invested: • Specializing in stocks: minimum of 80% in stocks • Mostly stocks: between 50% and 80% in stocks • Mostly in debt instruments: between 50% and 80% in debt • Specializing in debt instruments: minimum of 80% in debt
Equity	Can invest in debt and equity instruments		
Capital (SINCAS)	Invest their funds in companies promoted by the MF requiring medium and long-term funds		
Limited Purpose	Operate exclusively with the assets defined in their bylaws and prospectus. Although provided by law, currently there are no such MFs in operation.		

Source: MF Act, CNBV

3.b.2 Development of MFs over time

3.b.2.a. MFs as a source of financial savings
The Financial Savings database published by the Comisión Nacional Bancaria y de Valores (CNBV - Mexico's National Banking and Securities Commission) provides quarterly information on the relative share of each investor, both in terms of volumes and GDP and in relation to total savings. Although the CNBV's definition of financial savings only includes holdings of fixed income instruments, this information enables us to understand the performance of MFs as participants in the Mexican financial system. It should also be noted that the CNBV's definition of financial savings differs somewhat from that used by the Bank of Mexico, whose data serve as an input to analyze the financial savings situation in each issue of Mexico Banking Outlook. A very detailed comparison of these two measurements was set out in our March 2011 issue.[1]

As a percentage of GDP, MFs have tripled in size over the last decade, with the holding of debt instruments by MFs increasing from 2.3% to 8.1% between December 2000 and June 2013 (Chart 39). MFs have also doubled their share of financial savings, as over the same period their share of such savings increased from 4.4% to 9.5% (Chart 40).

The growth of MFs has made them one of the most dynamic participants in the financial system. Between December 2001 and June 2013, the average annual increase in financial savings held by MFs was 14.0%, only slightly below that of SIEFORES, which grew by 14.4% over the same period (Table 17). In the rest of this article we describe this behavior, the development of their market structure and their returns over recent months in greater detail.

---
[1] For more details of the CNBV's definition of financial savings and how it differs from the Banxico definition, refer to CNBV documents (2010, 2013)

Chart 39
Financial savings as a % of GDP
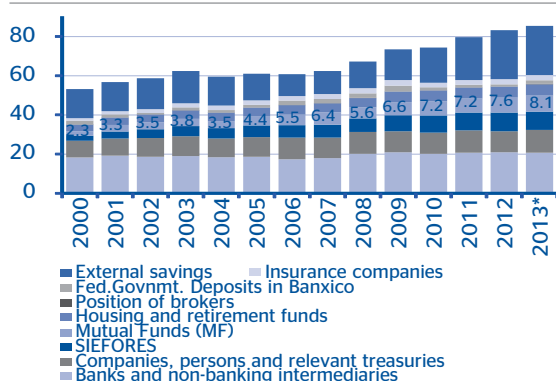
* Figures to June
Source: CNBV and INEGI

Chart 40
Distribution of financial savings

* Figures to June
Source: CNBV and INEGI

Table 17
Average growth in financial savings by type of investor. 2001-2013

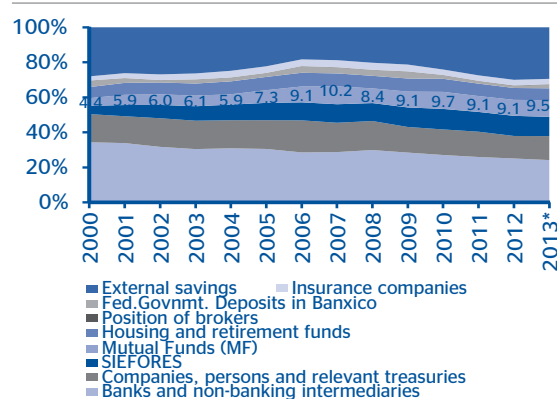|			
SIEFORES	14.4%	External saving	8.2%
Mutual funds	14.0%	Private investors	5.0%
Institutional investors	12.4%	Banks and non-bank intermediaries	4.0%
Insurers	9.6%	Total Saving	6.8%
Housing funds	8.3%	External saving	8.2%

Source: National Banking and Securities Commission

3.b.2.b. Evolution of MF assets and number of investors

In addition to figures on financial savings, the CNBV also publishes detailed information on MFs, which allow us to analyze their performance from different points of view. One of these is in terms of their assets. By the end of September 2013, the value of MF assets was 1.6 trillion pesos, of which 80% was concentrated in DMFs and the remainder in EMFs. The latter have been the more dynamic of the two, with EMFs increasing their share from 12% to 20% between 2003 and 2013 (Chart 41). This was due to the higher growth rate of EMFs than DMFs (19.4% vs 11.6%).

As shown in Chart 42, the 2008-2009 financial crisis resulted in a significant decrease in MF assets, particularly for EMFs, which fell by 9.5% in this period. Sidaoui (2010) argues that the fall in demand for private securities resulting from an increase in counterparty risk and a lack of liquidity in the secondary bond market had a negative impact on the value of MF assets, whilst increased their liquidity requirements due to the exit of investors. There was a slight recovery in late 2009, although there was a further fall in 2011, probably due to the European crisis. However, since 2012 the value of MF assets has been on an upward trend, with growth rates for DMFs and EMFs during September 2013 of 4.2% and 19.6%, respectively, and with total growth of 6.9%.

The dynamism of MFs can also be seen from the appearance of new funds. At the end of 2013 there were 566 MFs, of which 306 (54%) were DMFs and 260 (46%) EMFs. This is an increase of 53% compared to April 2003 (the earliest available figures), when there were 369 mutual funds. This growth was largely due to EMFs, which have tripled since 2003, and were not as affected by the crisis as DMFs (Chart 43).

Chart 41
Net MF assets
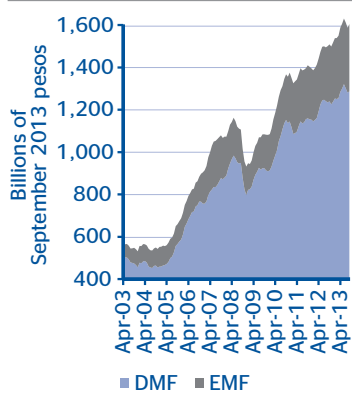
Chart 42
Real annual growth of MF assets by type

Chart 43
Number of MFs, by type
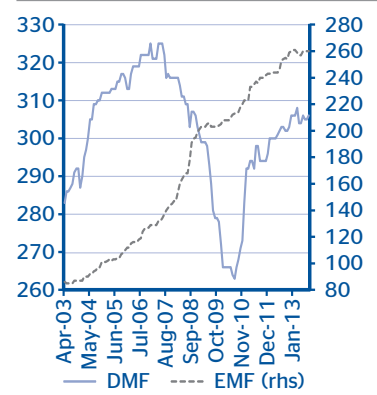
Source: National Banking and Securities Commission

In terms of investment regimes, short and medium-term DMFs represented 46% of the total number of available DMFs in September 2013 (140 out of 306) (Chart 44). Among EMFs, currently the most numerous are discretionary (86 out of 259), followed by those specializing in stocks (Chart 45).

Chart 44
Number of DMFs and distribution by investment structure
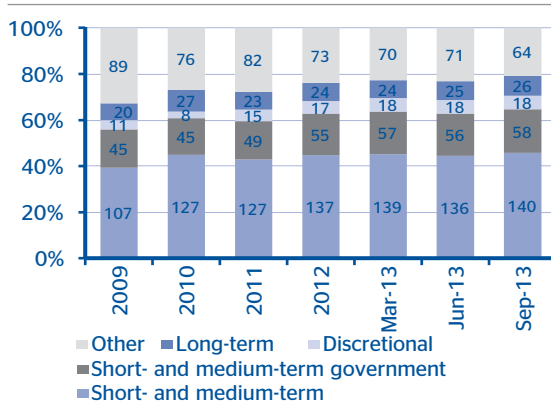
Source: National Banking and Securities Commission

Chart 45
Number of EMFs and distribution by investment structure
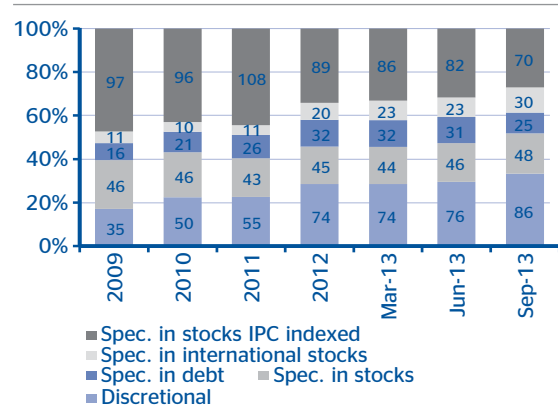
Source: National Banking and Securities Commission

The increase in the number of MFs is due to their increasing popularity, which can be seen by the on-going entry of new investors during the decade, although this was temporarily interrupted by the finan-cial crisis of 2008-2009. In April 2003, there were slightly more than 630 thousand contracts (investors) in MFs; and by September 2013 they had grown up to 2.1 million, which represented an increase of 2.5 times over the period.

The inflow of investors has mainly been into DMFs, which account for around 2 million investors, around 92% of contracts (Chart 46). As shown in Chart 47, in 2005 and 2006, DMF contracts increased and EMFs decreased, whilst the opposite happened in 2007 and 2008. There is no information that allows us to know if in 2005 the investors who left from EMFs where the same who enter to DMFs, or if in 2008 the investors who left DMFs enter to EMFs, however, it is possible that a substitution effect existed in those periods. Such effect seemed to have decreased subsequently, although we have seen a larger inflow of investors into EMFs and an exit from DMFs since the middle of 2012.
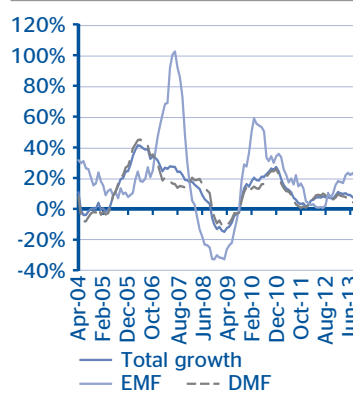
Chart 46
Number of investors

Source: National Banking and Securities Commission

Chart 47
Annual percentage change in number of investors, %
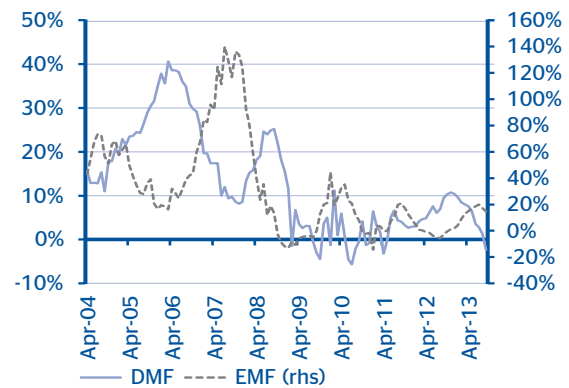
Source: National Banking and Securities Commission

3.b.2.c. Financial instruments

We can analyze the MF investment portfolio in detail using CNBV information. The data show that the main investment instruments for MFs are government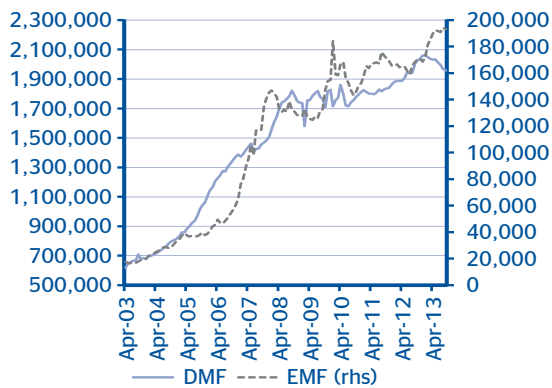 securities. In September 2013, government se-curities accounted for 70% of MF portfolios. That percentage has increased every year, and currently exceeds its 10 year average (65%). Furthermore, such increase has been accompanied by a decrease in the concentration of private securities, which have fallen from 8% to 5% of the total portfolio (Chart 48).

That behavior is particularly notable in DMFs, as in December 2003, 77% of their portfolio consisted of government securities and 9% of private securities, whilst in September 2013 those percentages stood at 81% and 6%, respectively (Chart 49). EMFs have increased their holdings of both bank and govern-ment debt, from 3% to 13% and 9% to 13% of their total portfolios, respectively (Chart 50).

Chart 48
Distribution of securities portfolio, all MFs

- Equity
- Banking
- Government
- Private
- Other

Chart 49
Distribution of securities portfolio, DMFs

- Government
- Banking
- Private
- Other
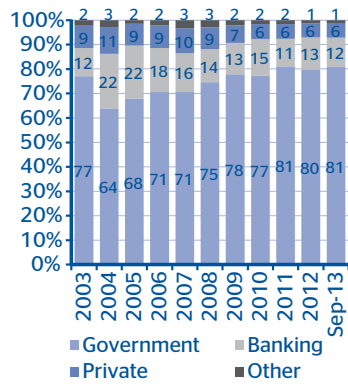
Chart 50
Distribution of securities portfolio, EMFs

- Equity
- Banking
- Government
- Private
- Other
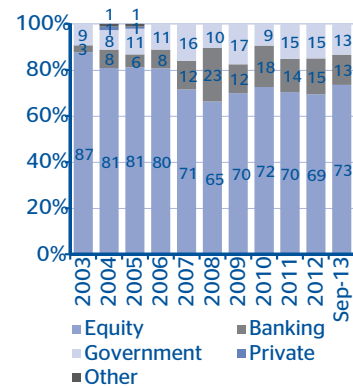
Source: National Banking and Securities Commission

Over recent years, DMF investment in government securities has mainly been through repos.[2] As we can see from Chart 51, between December 2003 and Sep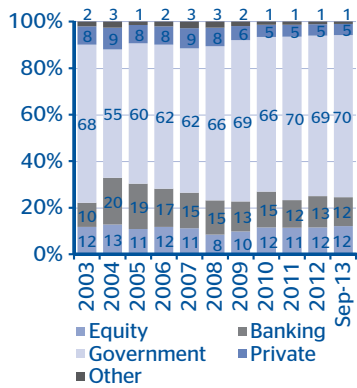tember 2013 holdings of repos on Government securities increased from 20% to 29% of the total DMF portfolio. The Chart also shows a reduction in direct holdings of M Bonds and CETES (from 13% to 4% and from 13% to 7%, respectively), which were perhaps substituted by holdings of repos, as these securities are those generally used as collateral in such trades.

Chart 51
Holding of government securities as a % of total DMF portfolio

- Other government
- Bondes
- IPAB bonds
- M bonds
- CETES
- Repos on government titles
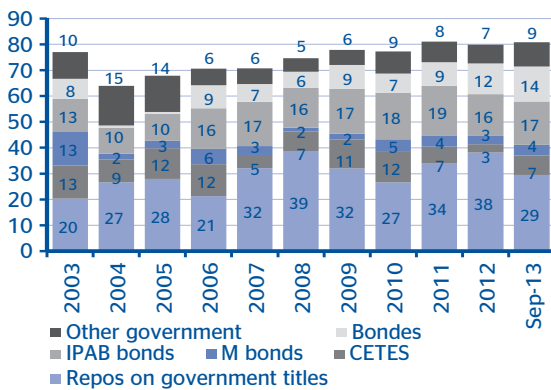
Source: National Banking and Securities Commission

Chart 52
Holding of securities as a % of total EMF portfolio by economic sector

- Other
- Materials
- Industrial
- Telecommunications service
- Frequently used products
- Financial services
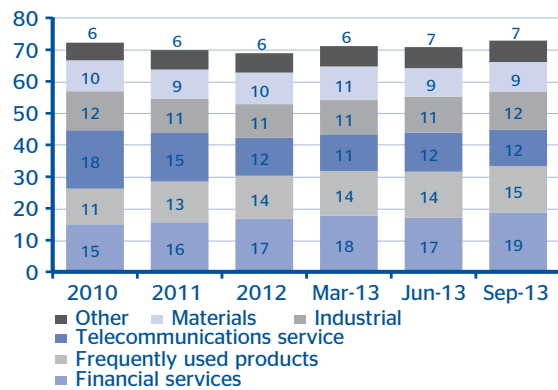
Source: National Banking and Securities Commission

[2] Annex 33 of the CNBV's "Circular Única de Bancos" (Mexican Banking Regulation) defines a repo as a trade through which one entity –the cash provider– temporarily acquires ownership of the credit instruments of another –the cash receiver– which receives cash in exchange. In other words, a repo can be understood on one side as a cash funding transaction with collateral. "In this regard, the borrower pays interest for the cash received as funding, whilst the lender receives a return on its investment, payment of which is guaranteed through the collateral". However, it could also be a mechanism for "temporarily accessing certain specific securities owned by the borrower, providing cash as collateral, which serves to offset the risk exposure of the borrower with regard to the lender". According to Bank of Mexico rules on repo trades, banks and brokerage houses can act as cash receivers (receiving cash and delivering securities) with any person, but can only act as cash providers (receiving securities and delivering cash) with the Bank of Mexico, other banks and brokerage houses and with financial institutions abroad. Other financial entities, such as MFs, Siefores and Insurers, together with non-financial firms and individuals, can only act as cash providers.

It is probable that the increase in securities through repos is a consequence of a strategy adopted by MFs to reduce the volatility of their assets, while obtaining high returns at the same time. As repos are very short-term trades (typically 1 day), MFs can acquire these instruments, which have higher returns, without exposing themselves to the market risk implicit in holding the instrument directly.

For EMFs, the analysis of their holdings by economic sector reveals changes in their investments diversification. Between 2010 and 2013 there was a decrease in the concentration in the telecommunications sector and an increase in investments in the financial and consumer sectors (Chart 52). Within these sectors, key areas of investments include holdings of stock of financial groups (10.2% in September 2013) and of food and drink retail firms (14%, not shown in the Chart).

3.b.3 Structure of the MF market

In this section we look at the structure of the MF market, and analyze some of the factors that might have influenced it. According to CNBV Information, as of September 2013 there were 28 MF management companies (MFMCs) in operation. From those, 11 belonged to financial groups, seven to independent institutions, six to brokerage houses and four to banks. Those belonging to financial groups had the largest number of MFs, and the highest concentration of assets and clients, followed by those belonging to brokerage houses (Table 18).

Table 18
MF characteristics by type of management

Type of management	Number of management companies	Number of MFs	% assets	% clients
Financial groups	11	316	61.7	74.2
Brokerage houses	6	114	31.1	20.5
Independent	7	95	4.0	3.3
Banks	4	41	3.2	2.0
Total	28	566	$1.60*	2.15**

*Trillion pesos
**Million clients
Source: CNBV

The number of MFMCs has fallen since 2003, when there were 49 of them. As can be seen from Chart 53, this is the result of mergers and acquisitions during the decade, mainly in 2004 and between 2006 and 2008.[3] There has been an increase in market concentration as a result of this consolidation.[4] Chart 54 shows the development of the concentration ratio (CR) for the 4 and 8 main MFMCs, and the Herfindahl-Hirschman Index (HHI), which are indicators frequently used to measure market concentration. The CR4 shows that in 2003, the four main MFMCs held 59% of assets. Meanwhile, the CR8 shows that the eight main MFMCs held 78% of assets. As of September 2013, these ratios had increased, with the four and eight main MFMCs holding 66% and 87% of assets, respectively. As with the CR, the HHI shows increased concentration, particularly from 2009 onwards.

---

[3] In the analysis period there were only two exits (revocation of licenses): firstly, Fondos Bursamex in 2006; and, secondly, Invercap in 2012. The remainder relate to mergers and acquisitions.

[4] It is worth mentioning that an increase in concentration does not necessarily mean a lack of competition, particularly in activities involving substantial economies of scale, such as the financial sector. Both the regulators and academics look to other indicators to judge the level of competition, such as the existence of entry barriers, diversity in product and service offerings and prices charged. See, for example, "Report on competition conditions in the credit card issuing market" Bank of Mexico, April 2013.

Chart 53
Number of MFMCs registered
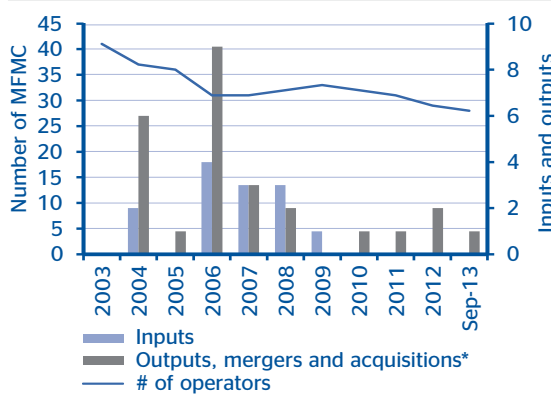
- Inputs
- Outputs, mergers and acquisitions*
- # of operators

*In the analysis period there were only two exits (revocation of licenses): firstly, Fondos Bursamex in 2006; and, secondly, Invercap in 2012. The remainder relate to mergers and acquisitions.
Source: CNBV and CONDUSEF

Chart 54
CR and HHI indicators by asset value

- CR (4)
- CR (8)
- HHI (rhs)
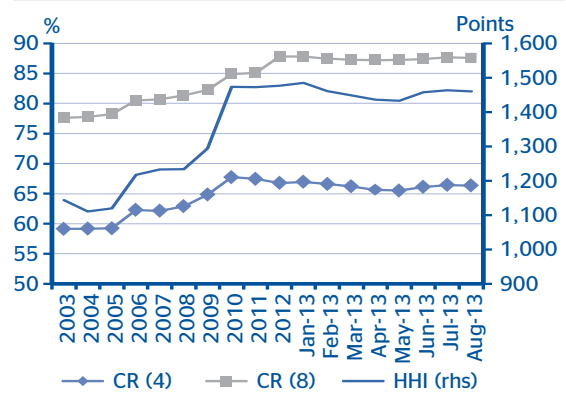
Source: in-house calculations based on CNBV data

On the regulatory side, efforts have been made to encourage development of MFs by establishing better corporate governance rules and resolving conflicts of interest, giving greater certainty to investors and making the transactions carried out by MFs more flexible, and encouraging new participants to enter the market.[5] The first step in this process was the new MF Act in 2001, which represented a major overhaul from its predecessor (Table 19).

Table 19
Main changes under the 2001 Mutual Fund Act

|	
1. To promote development of the MF sector	• Opening up access to securities markets, both for debt and for stocks, to the general public.
	• Making the investment regime more flexible by permitting investment in instruments denominated in foreign currency, derivative instruments and immovable assets, and in other MFs, through the creation of the "fund of funds" structure.
2. Avoiding conflicts of interest by creating a corporate governance structure guaranteeing compliance with the objectives of the MF	• Establishing a Board of Directors with defined structure and responsibilities, limited to a maximum of 15 members of whom a third must be independent of the financial group, bank or brokerage house managing the MF.
	• Establishing that the contracting decisions of people providing services to the MF and carrying out transactions with related parties must obtain the approval of the majority of the Board.
	• Enabling MFs to change their management company.
	• Stopping brokerage houses and banks from acting directly as management companies by obligating them to create independently managed subsidiaries.
	• Establishing a valuation committee to determine the value of companies not listed on stock markets and those for which there is no price information from price suppliers.
3. Increasing distribution channels	• Creating the Sociedad Distribuidora de Acciones de SI (MFSDC - Mutual Fund Share Distribution Companies) structure: this can be an individual or company authorized by the CNBV for this purpose, including banks, brokerage houses, insurers and auxiliary credit entities.
	• This structure gives investors the possibility to purchase shares in various MFs and MFMCs through a single contract, and to receive consolidated account statements, showing investments by the operator managing them.

Source: Martínez and Werner (2002) and CNBV

[5] According to the rationale set out in the decree issuing the MF Act published on 4 June 2001, there was previously a clear conflict of interest in the cases of brokerage houses and banks that acted as MFMCs, as the previous Act did not set any limits on the identities of members of the board of directors. Therefore, the persons overseeing the MF's investment decisions also had responsibility for handling the funds of the clients of the brokerage house or bank and the own funds of these institutions, and were also responsible for placing securities issued by them and by others. Given this, there was a latent risk that the managers of the MF would use its funds for purposes other than obtaining the best return for the MF itself.

In addition to the changes introduced by the Act, in 2001 the Bank of Mexico also made significant amendments to its rules on repo transactions, removing the limits established for MFs.[6] As mentioned in the previous section, MFs have increased their investments in repos, which suggests that this increased flexibility may have contributed to improve risk handling and returns for MFs. The CNBV has made subsequent modifications to secondary regulations affecting MFs so as to adapt their investment regimes to the new market context. The most important change occurred in 2009, adding new financial instruments to the list of those in which MFs could invest; such as, structured instruments, asset-backed instruments and fiduciary capital securities.

The growth in the sector since 2001 suggests that these regulatory changes may have had a positive effect on the penetration of MFs in the financial system. Moreover, the reduction of barriers to entry and the increased flexibility of the MF investment structure, despite favoring increased concentration in the sector, also seemed to have contributed to reducing the fees charged to clients, through greater efficiency and competition.

For example, Table 20 sets out the average, standard deviation and median or the ratio of total costs to total MF assets from 2003 to 2013.[7] This ratio is an approximate measure of the fees charged by each MF, as the most significant component of these costs is the fees paid to fund managers and/or advisors. As can be seen, at the end of 2005 average fees stood at 4.2%, whilst the typical (median) fees were 1.9%. We can see a reduction in fees from 2006 to 2010, falling to below 1%. Although there were renewed increases in 2011 and 2012, fees started falling again in 2013.

As a further example, the following three columns of the table show the number of MFs stock series with increased, decreased and unchanged fees. This example is important, as studies in other countries have shown that reducing and eliminating fees is a common practice for attracting and retaining investors in the mutual fund sector (Christoffersen, 2001; Coates and Hubbard, 2007). In Mexico's case, whilst the number of increases exceeded the number of reductions between 2006 and 2011, the increases were not particularly large, as shown by the downward trend in the mean and median for this period. From 2011, the number of MFs stock series reducing their fees increased, probably as an incentive to attract more investors into the market as a result of lower flows during the crisis.

The existence of multiple distribution channels gives the sector more points of contact with its clients, which may lead to greater competition and drive down fees (Coates and Hubbard, 2007). In Mexico, MF shares are distributed by MFMCs and MFSDCs, which were created in 2001 (Table 19). Despite the introduction of these entities, the MF distribution network continues to be partially closed, since an MF is normally distributed by an operator or distributor that is part of the same group as the MF. According to CNBV figures, at the end of September 2013 only 2.7% of total MF assets were distributed through MFSDCs not belonging to the same group as the MF. However, it may well be that the reduction in fees in the sector has caused a narrowing of margins such that at current levels it is not possible for other MFSDCs to enter the market and make a profit.

---

[6] These limits were set in 1992, establishing that repo transactions should not exceed 20% of the MF's total assets; when carried out with the same intermediary, this percentage should not exceed 5%.
[7] According to the Circular Única de SI (Single Mutual Fund Circular - SMFC), MFs may agree fees in general or for each share tranche.

Table 20

Ratio of total costs/total assets for total MF stock series and number of series with changed fees

Year	Average (%)	Standard deviation	Median (%)	Reductions	Increases	Unchanged
2003	1.91	5.38	0.00	0	0	0
2005	4.17	13.06	1.92	0	0	0
2006	1.68	9.66	0.07	296	305	55
2007	1.08	4.98	0.01	1,067	430	1,147
2008	0.84	1.42	0.02	594	1,141	909
2009	0.93	1.29	0.26	818	1,085	741
2010	0.79	1.42	0.02	506	1,337	166
2011	1.90	7.56	1.45	703	2,145	722
2012	1.88	11.62	1.42	2,431	628	511
2013	0.93	3.95	0.46	2,088	351	28

Source: BBVA Research calculations based on CNBV data.

These figures provide initial evidence that the regulatory changes at the start of the decade resulted in unprecedented growth in the MF sector, and a competitive environment. The Financial Reform Initiative currently under discussion proposes additional measures to improve the procedures and requirements for establishing mutual funds and to incorporate best corporate governance practices. The main measures proposed include: the possibility of constituting MFs before the CNBV in the National Registry of Securities rather than through deeds before a notary; the creation of flexible procedure for spin off of MFs when there is market volatility or limited liquidity ("Side Pockets"); the inclusion of duties of loyalty and diligence for directors of MFMCs; and a requirement for MFMCs to have an independent external auditor from which the CNBV may request information.

3.b.4 MF returns

We will now examine the performance of MFs returns in Mexico, over a period limited to 16 months. A more detailed analysis of MF performance, using the models typically studied in the literature, would involve using information for a longer period of time.[8]

For this initial exercise, we use the performance and fees of MFs stock series in circulation during the period June 2012- September 2013, obtained from the Asociación Mexicana de Intermediarios Bursátiles (AMIB - the Mexican Association of Stock Market Intermediaries). Table 21 shows the returns of MFs stock series grouped by rating, investment structure and geographic region from where they were issued. The first three columns show the average, median and standard deviation for annualized nominal returns, as reported by the AMIB. The following three columns show the same indicators for performance net of fees, which is obtained by netting off fees from nominal returns. By way of comparison, the final part of the table shows interest rates for 28-day CETES and M Bonds with three and ten year maturity.

The upper part of Table 21 shows that AA-rated MFs performed better and had lower volatility than AAA and A-rated MFs. As expected, long-term MFs offer higher returns, but more volatility, than other MFs. By geographic region, MFs invested in Mexican securities had better returns and lower volatility than those invested in instruments of other countries, probably as a result of the uncertainty about the United

---

[8] For example, the classic Capital Asset Pricing Model (CAPM), which gives risk-adjusted indicators of the performance of a portfolio, and more recent models such as the three and four factor models of Fama and French (1993) and Carhart (1997), respectively, who add further variables to the CAPM model (such as size and valuation multiples). These authors argue that returns on the instruments of small companies may be more strongly correlated with those of other small companies, rather than those of the large companies used as benchmarks for the market. For more detailed analysis of these models, refer to Fama and French (2004).

State's Federal Reserve's exit strategy for its monetary stimulus. Such strategy has resulted, on the one hand, in higher interest rates on US bonds over the middle (2 year) and long (10 year) part of the yield curve, and, on the other, in capital outflows from emerging markets.[9]

In total, the average return observed on MFs over the period was slightly over 2%, although the most representative fund -measured by the median- had a higher return, at around 3%. Having discounted fees, average and median returns were 1.3% and 2.5%, respectively; implying that average and median fees were around 80 and 60 basis points, respectively. Comparing these returns with the benchmark interest rates shown in the table, we can clearly see that both the average and medians for the latter are higher, and volatility is lower. However, this does not necessarily imply that MFs are a less attractive option than investing in a single government instrument, as the higher volatility of MFs also indicates that it is possible to obtain higher returns.

Table 21
Returns on DMFs, June 2012 to September 2013, %

	Nominal returns			Nominal returns net of fees		
	Average	Median	Standard dev.	Average	Median	Standard dev.
By rating						
AA	2.81	3.40	8.81	1.84	2.62	8.92
AAA	2.03	3.03	12.11	1.27	2.46	12.15
A	-0.16	3.06	25.83	-1.10	2.18	25.84
By investment structure						
Long term	2.95	3.89	16.07	2.07	3.25	16.18
Medium Term	2.80	3.53	8.30	2.07	2.89	8.34
Discretionary	1.64	3.62	16.31	0.87	2.93	16.34
Short term	1.61	2.83	11.85	0.80	2.15	11.88
By geographical region						
Mexico	2.78	3.12	7.49	1.96	2.54	7.61
Pesos	2.73	3.11	7.24	1.92	2.53	7.36
UDIs	4.33	6.55	13.52	3.62	5.57	13.62
Europe	0.14	1.75	34.99	-0.41	1.48	34.93
Other markets	0.08	4.89	25.19	-0.48	4.76	25.17
Emerging mkts	-4.42	-4.30	31.17	-4.97	-4.80	31.14
USA	-6.05	-10.30	30.19	-6.68	-10.97	30.12
Total	**2.11**	**3.09**	**12.10**	**1.31**	**2.49**	**12.15**
CETES 28	4.02	4.09	0.22			
M bond-3	4.64	4.72	0.29			
M bond-10	5.48	5.46	0.49			

Source: AMIB and Bank of Mexico

[9] For more detailed analysis of capital outflows from emerging markets, refer to: Economic Watch EAGLEs, Behind the Emerging Markets Sell Off: Some Stylized Facts (August 2013), available at www.bbvaresearch.com.

BBVA | **RESEARCH**

Table 22 shows similar indicators to Table 21 for EMFs, although in this case data is disaggregated only by investment structure and geographic region. We have also included the IPC stock market index performance in pesos and USD, to provide an appropriate comparison with the other USD-denominated indexes –Dow Jones, Standard & Poor's 500 and Morgan Stanley Capital International (MSCI) for emerging markets– also shown in the table. By investment structure, we can see that MFs specializing in stocks had the best performance, followed by discretionary funds. By geographic region, MFs that invested in Europe and the USA had the best returns, whilst the lowest returns came from emerging markets. However, it must be stated that the returns shown in Tables 21 and 22 are not risk adjusted, as this adjustment is not available in the available information. This implies that the returns are not necessarily comparable, particularly between geographic regions. Making such an adjustment would require the use of econometric tools and a much longer time period than that presented in this note.

In total, the average and median returns were 7% and 6% respectively; discounting fees -at around 1 percentage point- returns were 6% and 4.5%. Finally, it is noteworthy that the returns of EMFs were higher than the benchmark indexes used. This behavior might be evidence of an active investment strategy followed by some funds, which means that fund managers are not necessarily limiting themselves to tracking indexes.

Table 22

Returns of EMFs, June 2012 to September 2013, %

	Gross nominal returns			Nominal returns net of fees		
	Average	Median	Standard dev.	Average	Median	Standard dev.
By investment structure						
Stocks	8.14	12.53	35.46	6.92	11.22	35.56
Discretionary	6.39	6.14	19.37	5.30	4.94	19.43
Debt	4.74	3.33	10.77	3.96	2.85	10.93
Europe	19.19	26.91	39.12	18.31	25.78	39.14
USA	11.94	3.48	31.19	11.11	3.48	31.14
Other markets	7.15	7.94	34.28	6.05	6.59	34.23
Mexico	6.76	5.44	26.77	5.66	4.25	26.88
Emerging mkts	-4.95	-6.46	41.63	-7.38	-8.23	41.65
Total	**7.03**	**5.71**	**28.41**	**5.93**	**4.50**	**28.50**
Peso IPC	0.46	-0.37	3.15			
USD IPC	0.80	1.07	4.79			
S&P 500	1.46	2.17	2.08			
Dow Jones	1.16	1.99	2.05			
MSCI	0.30	0.69	3.52			

Source: AMIB and Bloomberg

Evaluation

The overview of mutual funds in Mexico presented in this section is an initial exercise in understanding the sector which, as we have seen, has become one of the main participants in Mexico's financial system, and an attractive investment option for small investors. This is particularly true if we consider that we have recently seen substitution between savings through MFs and term deposits with banks, as we have highlighted in previous analyses.

The analysis presented in this article also highlights the need for further research of the MFs sector, as it has not been studied in-depth in Mexico. Therefore, we do not discount the possibility of publishing more detailed studies in future issues of *Mexico Banking Outlook*.

References

Carhart, Mark M. On persistence in mutual fund performance. The Journal of Finance, 1997, vol. 52, no 1, p. 57-82.

Christoffersen, Susan EK. Why do money fund managers voluntarily waive their fees? The Journal of Finance, 2001, vol. 56, no 3, p. 1117-1140.

Coates IV, John C. and Hubbard, R. Glenn. Competition in the mutual fund industry: Evidence and implications for policy. The Journal of Corporation Law, 2007, vol. 33, p. 151.

Comisión Nacional Bancaria y de Valores, El Ahorro Financiero y su Intermediación en México (2000-2010), CNBV Technical Note (NT/01/2010).

Comisión Nacional Bancaria y de Valores, Updating of Financial Savings and Financing Database Methodology in Mexico, 2013.

Fama, Eugene F. and French, Kenneth R. The capital asset pricing model: theory and evidence. The Journal of Economic Perspectives, 2004, vol. 18, no 3, p. 25-46.

Fama, Eugene F. and French, Kenneth R. Common risk factors in the returns on stocks and bonds. Journal of Financial Economics, 1993, vol. 33, no 1, p. 3-56.

Fernando, Deepthi; Klapper, Leonora; Sulla, Victor and Vittas, Dimitri. The global growth of mutual funds. World Bank Policy Research Working Paper, No. 3055, 2003.

Khorana, Ajay and Servaes, Henri. What drives market share in the mutual fund industry? Review of Finance, 2012, vol. 16, no 1, p. 81-113.

Martinez, Lorenza and Werner, Alejandro. Capital markets in Mexico: recent developments and future challenges in Seminario de Banco de México: Estabilidad Macroeconómica, Mercado Financieros, y Desarrollo Económico, November, 2002. p. 12-13.

Sidaoui, José; Ramos-Francia, Manuel and Cuadra, Gabriel. The global financial crisis and policy response in Mexico in The Global Crisis and Financial Intermediation in Emerging Market Economies, BIS Papers No. 54, 2010, p. 279-298.

Box 1: Is there market discipline in Mexico's Bank Debt market?

Introduction

The Basel Capital Accord is based on three complementary elements or pillars. Pillar 3 recognizes the potential for market discipline to strengthen the prudential regulation process (Pillar 1) and the banking supervision process (Pillar 2), by generating incentives for banks, "rewarding" those that are prudent and efficient, and punishing those that are not. The objective of these complementary actions between the market, the regulation and the supervision is, ultimately, to ensure the overall stability of the banking and financial systems.

In many countries, particularly in developed ones -where more information is available and there are a larger number of banks operating- the role of market discipline has been studied as a tool for monitoring and influencing the behavior of banks. This can be exercised by various participants: shareholders, depositors and bond holders.[1] However, in Mexico, to date there has been little research about whether the markets exercise discipline over the banks operating in the country and whether participants exercise this discipline effectively. To contribute to fill this gap, Valles and Vázquez (2013) explore whether the markets in Mexico exercise discipline over "badly behaved" banks, understood as an increase in the risk they take to such an extent that it might affect their profitability or solvency. Based on a sample of debt instruments issued by the banks between 2007 and 2012, the authors search for a relationship between the cost of bank funding –measured as the premium of debt instruments referenced to TIIE 28– and some of their risk and solvency fundamentals. They also ask whether bond holders exercise different discipline on debt issued by domestic and foreign banks. This Box briefly describes the methodology used by the authors to address these questions and some of their results.

Methodology and hypothesis

The empirical literature on market discipline has used a number of different statistical techniques to identify the relationship between the price of bank securities (shares, debt instruments or deposits) and their fundamentals.[2] One of the methodologies most widely used is a linear regression analysis known as Ordinary Least Squares. Consistently with this approach, the model proposed by Valles and Vázquez is:

$$SC_i = \alpha + \sum_{j=1}^{j} \beta_j X_{i,j} + \sum_{k=1}^{k} \gamma_k Z_{i,k} + \theta_i + \varepsilon_i$$

Where SC_i is the premium on each bank debt security i, at the issuance date; i.e. the additional percentage points paid to investors over the 28 day TIIE reference rate. $X_{i,j}$ are j variables reflecting the fundamentals or characteristics of the banks for the month prior to the issuance and β_j are their corresponding estimated coefficients. $Z_{i,k}$ are the k characteristics of the debt placed, used as control variables, and γ_k are the estimated regression coefficients for these variables. Finally, θ_i are the coefficients for banks fixed effects and ε_i is the estimated error. The authors use the following variables as banks' characteristics: assets (as an indicator of size), capitalization ratio (ICAP), percentage of the credit portfolio dedicated to consumer and commercial credit (non-financial firms and individuals involved in business activities), non-performing loan index, and return on assets (ROA). The characteristics of the debt issues are maturity, amount issued, type of instrument, debt rating and a dummy variable indicating whether the security was issued by a domestic or foreign bank.

Valles and Vázquez's central hypothesis is that fundamentals are important: the banks with the weakest fundamentals are "punished" by the market asking for a higher premium on their issues, whilst banks with stronger fundamentals are "rewarded" by the market with a lower premium. In other words, there is an inverse relationship between variables indicating risk (Xij) and the premium (SCi). The authors also discuss the expected effect of each of the variables included in their model.

---

[1] Flannery (1998), Flannery and Nikolova (2004) and Furlong (2006) provide extensive reviews of the empirical literature on market discipline in the United States.
[2] For example, Krainer and López (2004) and Curry (2008) use an ordered logit to analyze the relationship between the credit ratings and share prices of US banks. Demirgüç-Kunt and Detriage (2002) and Demirgüç-Kunt and Huizinga (2004) use panel data techniques in country and bank-level samples to determine whether fundamental risk variables have an effect on the volume or price of deposits. Studies that have used linear regression analysis to study the relationship between the prices of debt instruments and the characteristics of banks in the primary market include Morgan and Stiroh (1999, 2001), Resti and Sironi (2007) and Ashcraft (2008).

Table 23

Relationship between issue characteristics, bank fundamentals and premiums

Explanatory variable	Dependent variable: premium (bp)					
	1		2		3	
p_91	-48.42	**	-44.99	**	-42.52	*
p_182	-45.07	*	-37.38		-34.11	
p_365	-39.78	*	-35.74		-32.78	
lmonto	2.31	*	2.41	*	2.29	*
Bonobanc	14.59		8.92		2.76	
cd	13.63		6.87		6.06	
Sub-pri	96.05	***	90.40	***	94.61	***
no-rat	-2.21		-6.27		-2.97	
BBB	75.38	*	66.44		76.53	*
A	40.13		39.11		37.71	
AA	-2.46		-5.78		-5.35	
D2007	-8.47		-18.58	*	-22.76	**
D2008	-25.20	***	-28.12	***	-24.96	***
D2009	17.44		10.54		12.18	
D2010	0.25		-2.76		-5.6	
D2011	-0.3		0.94		-0.9	
foreign	-92.22	***	-152.55	***	-474.68	
$ICAP_{t-1}$			-174.89	*	-265.56	***
Consumer Portfolio$_{t-1}$			224.33	***	-90.22	
Commercial Portfolio$_{t-1}$			171.55	**	-136.54	
Past-due Portfolio$_{t-1}$			176.34		267.56	
ROA_{t-1}			606.42		582.95	
Extr*ICAP$_{t-1}$					557.68	***
Extr*Consu$_{t-1}$					339.34	
Extr*Commer$_{t-1}$					337.12	
Extr*PastD$_{t-1}$					-1059.83	*
Ext*ROA$_{t-1}$					-1415.67	
Constant	88.23	**	-38.8		226.27	
Observations	973		972		972	
R^2 adjusted	0.71		0.73		0.74	
Hausman test with respect to M1						
chi2			5985.13		11298.39	
Prob > chi2			0.0000		0.0000	

* p<0.10; ** p<0.05; *** p<0.01. The regressions include fixed effects by bank and a weighting factor for the number of issues by each bank in the month. The standard errors are corrected through intraclass correlation using clusters of banks
Source: Valles and Vázquez (2013)

Results

Table 23 presents some of the results of the regression analysis. Column 1 only includes the characteristics of the instruments issued, such as maturity, amount, type of instrument, rating and period in which they were issued, together with an indicator for foreign banks. Without considering the characteristics of the issuing banks, such as their fundamentals and the attributes not reflected in the fundamentals (column 1 in Table 23), the authors found that the premium is higher for larger volumes of debt; when the instrument issued is subordinated; and when the debt was issued in 2009, during the financial crisis. Regarding the securities rating, at the time of issue, Valles and Vázquez found certain differences in the premium. This would indicate that ratings reflect part of the risk of the issuer and that the market takes this indicator into consideration, resulting in a higher premium for instruments rated as A or below; however, this is not significant for those without a rating. A significant, negative relationship was found with regard to the foreign bank dummy variable.

When incorporating the banks' fundamentals into the model (column 2) there are slightly increases on its explanatory power, whilst the relationship between ratings and premiums is maintained. In addition to the fundamentals, the model presented in column 3 also includes interaction with the foreign bank variable, so as to assess whether there are any significant differences in fundamentals for such banks. With this new formulation the explanatory power of ratings almost disappears, while only certain fundamentals remain significant. By incorporating interactions with the foreign bank variable, only ICAP and the non-performing loan ratio are significant, although the premium on bank debt issues remains higher for subordinated debt and debt rated BBB or below, and results lower for instruments issued prior to the beginning of the financial crisis. This suggests that investors differentiate between domestic and foreign banks.

Valles and Vázquez' study also explores some possible reasons for these differences. These include that as foreign banks are larger, it is possible that their distribution network is so big that the markets perceive them as "too big to fail", or that there are other unobservable variables, such as the banks' reputations and customer loyalty. It is also possible that the market perceives these banks to be more cautious in their risk policies, as their business decisions depend on market conditions both locally and in the other markets in which they operate.

Evaluation

Valles and Vázquez' study offers evidence that there is market discipline in Mexico's banking system, as fundamentals do matter. However, whilst the characteristics of issues are relevant variables in explaining the price of debt issues by banks, variables related to their solvency and risk are also relevant. Two relevant conclusions can be drawn from this study, both in terms of policy and market analysis. On the one hand, the information provided by the market through the debt issues premium that investors are willing to pay could be a useful monitoring tool for the risks taken by banks, and the market perceptions of that risk. On the other hand, the premium could also be useful for identifying other market failures when it fails to be informative.

References

ASHCRAFT, Adam B. Does the market discipline banks? New evidence from regulatory capital mix. Journal of Financial Intermediation, 2008, vol. 17, no 4, p. 543-561.

CURRY, Timothy J.; FISSEL, Gary S.; HANWECK, Gerald A. Equity market information, bank holding company risk, and market discipline. Journal of Banking & Finance, 2008, vol. 32, no 5, p. 807-819.

DEMIRGÜÇ-KUNT, Asli; DETRAGIACHE, Enrica. Does deposit insurance increase banking system stability? An empirical investigation. Journal of Monetary Economics, 2002, vol. 49, no 7, p. 1373-1406.

DEMIRGÜÇ-KUNT, Asli; HUIZINGA, Harry. Market discipline and deposit insurance. Journal of Monetary Economics, 2004, vol. 51, no 2, p. 375-399.

FLANNERY, Mark J. Using market information in prudential bank supervision: A review of the US empirical evidence. Journal of Money, Credit and Banking, 1998, p. 273-305.

FLANNERY, Mark; NIKOLOVA, Stanislava. Market discipline of US financial firms: Recent evidence and research issues, in Borio, Claudio; Hunter, William C.; Kaufman, George and Tsatsaronis, Kostas (Eds.) Market discipline across countries and industries, 2004, p. 87-100, MIT Press.

FURLONG, Frederick T. and WILLIAMS, Robard. Financial market signals and banking supervision: Are current practices consistent with research findings. Federal Reserve Bank of San Francisco Economic Review, 2006, p. 17-29.

KRAINER, John; LOPEZ, Jose A. Incorporating equity market information into supervisory monitoring models. Journal of Money, Credit and Banking, 2004, p. 1043-1067.

MORGAN, Donald Patrick; STIROH, Kevin J. Bond market discipline of banks: Is the market tough enough? Federal Reserve Bank of New York, 1999.

MORGAN, Donald P. and STIROH, Kevin J. Market discipline of banks: The asset test. Journal of Financial Services Research, 2001, vol. 20, no 2-3, p. 195-208.

RESTI, Andrea and SIRONI, Andrea. The risk-weights in the New Basel Capital Accord: Lessons from bond spreads based on a simple structural model. Journal of Financial Intermediation, 2007, vol. 16, no 1, p. 64-90.

VALLES, Yearim and VÁZQUEZ, Sirenia, Disciplina de Mercado en la Emisión De Deuda Bancaria en México: ¿El Mercado Responde a los Fundamentales?, BBVA Research Working Paper (not yet published).

3.c Demand factors that influence financial inclusion in Mexico: analysis of barriers based on the ENIF survey

Introduction

The World Bank estimates that over 2.5 billion adults are currently excluded from the financial system. This exclusion is focused on the poorest parts of the population, living in rural areas and developing countries. In recent years, both public policy and private initiatives have become increasingly concerned with estimating the number of those excluded, and with defining and studying financial inclusion. This is reflected both in regulatory changes to promote financial inclusion and the arrival of new products and players in the market.

A variety of concepts are used to understand financial inclusion; this study adopts the definition of the Mexican National Banking and Securities Commission (CNBV), according to which financial inclusion "... *includes access to and use of financial services under appropriate regulation, guaranteeing systems of protection for the consumer and promoting financial literacy in order to improve the financial capacity of all segments of the population*".

To a large extent, the lack of financial inclusion or access to the financial system[1] is due to market failures, such as the existence of information asymmetry, significant economies of scale and other barriers to entry for new competitors and products. Nevertheless, financial exclusion should not just be understood from the supply side, as there are also substantial handicaps for financial inclusion on the demand side. According to Beck and De la Torre (2006), price and income are the most notable economic determinants of demand for payment and saving services. Economic development and the associated increase in per capita income increases the need for more sophisticated services. However, incentives for demand do not only come from economic factors, but socio-cultural ones. Moreover, it is very important to consider those who are voluntarily excluded; i.e. those who do not use, and show no interest in using, the financial system.[2] Demirgüç-Kunt and Kappler (2012) used Global Findex data to produce the most in-depth analysis of why people do not have an account with a financial institution in 148 countries, including Mexico. They found the most important barrier to be lack of money (66% of respondents). In line with these results, for Mexico Djankov, S. et al. (2008), using data from the Bank for National Savings and Financial Services (BANSEFI), found that 89% of people without access to the financial system argue they "do not have sufficient money".

Given the importance of this issue and the shortage of evidence on demand for financial services by those excluded from the banking system, in this article we explore the factors influencing the decision of not using financial services in Mexico. To this end, we analyze data from the Encuesta Nacional de Inclusión Financiera (ENIF - the National Financial Inclusion Survey), produced by the CNBV, INEGI and the Alliance for Financial Inclusion (AFI) in 2012. This chapter consists of four sections in addition to this introduction: a brief description of financial inclusion policies in Mexico; a brief description of the ENIF; a description of the analysis methodology used and results obtained; and conclusions and recommendations.

---

[1] By access to the financial system, we mean access both to banking infrastructure and the existence of appropriate products that make effective use of the system easier.
[2] According to the BBVA Bancomer and GAUSSC survey (2012), in Mexico, 18% of the population does not use and is not interested in using financial services. For further details, refer to *Mexico Banking Outlook* November 2012.

3.c.1. Public financial inclusion policies in Mexico

Regulatory changes to the Mexican financial sector since 2008 have encouraged the appearance of new participants in the financial system and the generation of new business formulas in accordance with the needs of the regions and social sectors that are still not being attended. According to the CNBV (2012a), some of the main regulatory changes to encourage financial inclusion have been the following:

i.   Review and adaptation of the regulatory framework of the people's financial sector (2008).[3]

ii.   Incorporation of non-banking agents for the provision of financial services (2008).

iii. Financial services through mobile banking (2009).[4]

iv.   Simplification of the requirements for opening a bank accounts: Simplified accounts (2010).[5]

v.   Promotion of competition among banks through the creation of niche banking[6] (2008 and 2009).

According to the CNBV (2012a), regulation on financial inclusion aims to generate more flexible market conditions, whilst guaranteeing the security and integrity of transactions, as well as the prudential conditions of the financial system as a whole, so as to encourage an innovative supply of financial services that are more in tune with the needs and scope of people.

With the progress made in regulatory matters, 71% of the country's municipalities now have at least one channel of access to financial services (branch, ATM or agent) of commercial banking, development banking, cooperatives and microfinance institutions, allowing the access to financial services of 96% of the adult population. With respect to other indicators of access to financial services in Mexico, the Fourth Report on Financial Inclusion (CNBV 2012b)[7], using information for July 2012, estimates 1.83 branches per 10,000 adults, of which 81.4% belong to commercial banks, 3.8% to development banks, 7.9% to cooperatives and the remaining 6.9% to microfinance institutions. The report also finds that for every 10,000 adults there are 65.4 point of sale (POS) terminals, 9.1 points of access for withdrawals and deposits, 2.6 agents, 4.6 ATMs, 13.6 cell-phone banking contracts (the system is still in its initial phase), and 2,103 users of online banking.

3.c.2. The National Financial Inclusion Survey (ENIF)

In order to obtain information on the use of financial products and services from the user's point of view, and to understand the barriers to greater use of these services, the CNBV, in coordination with the INEGI and AFI, developed the ENIF survey, first carried out in 2012.

The ENIF collects information on the characteristics and needs of users and non-users of formal and informal financial services, as well as the barriers that limit access to and use of the formal financial system. This information is very valuable for analyzing financial inclusion on the demand side and for designing public policies on the use of, and access to, financial services. The ENIF is a pioneering survey in Latin America and a fundamental tool for research into financial inclusion.

The survey is representative at national level, household level and for individuals, as well as by gender, and for towns with a population of more than 15,000 and with a population of less than 15,000. The people surveyed were adults aged from 18 to 70, selected at random from 7,016 homes in the sample. The sample is designed to obtain inferences at household level and for 70.4 million adults, of whom 54% are women and 46% are men. The sample design is probabilistic, three-stage, stratified and by groups (Table 24).

---

[3] Although the Savings and Popular Credit Act (LACP) was published in 2001, it was amended in 2008 to regulate "sociedades financieras populares" (financial cooperative associations). In 2009 and 2012 the Law Regulating the Activities of Cooperative Saving and Loan Companies (LRASCAP) was reformed and the LACP and the General Law on Cooperative Saving and Loan Companies (LGSCAP) were amended.

[4] See BBVA Research (2011). *Mexico Banking Outlook*, November 2011.

[5] There are four levels of accounts according to the potential levels of risk of money laundering and fraud: "traditional or full procedure" accounts are classified as level 4 accounts, with no limits on the deposits that can be received and allowing the use of checks for making payments; level 1 to 3 accounts are considered "simplified procedure", low-risk accounts, since limits are placed on the monthly deposits that can be received, based on the volume of customer information to be collected by the bank.

[6] Credit institutions subject to the same regulations and supervision as traditional banking, but with minimum capital requirements that depend on the operations expressly included in their corporate bylaws, the infrastructure necessary for their development and the markets in which they seek to operate.

[7] This report was prepared by the CNBV using 2011 information from regulated financial entities

Table 24

Methodological comparison between Global Findex and ENIF

	ENIF 2012	World Bank Global Findex, 2011
Sample size	7,016 interviews	1,000 interviews
Representativeness	National, by towns with a population of 15,000 or over and under 15,000, as well as by gender	National
Population under study	Population 18 to 70 years of age	Population 15 years of age and over
Method	Face-to-face in homes	Face-to-face in homes
Population with bank account	35.5% Question: "Do you have a savings, payroll, investment or other account at a bank?"	27% Question: "Do you have a personal or joint account at any bank or any other financial institution, such as a cooperative?"
Population with a credit card	25% Question: "Do you have a bank credit card?"	13% Question: "Do you have a credit card?"

Source: BBVA Research with Global Findex and ENIF data

3.c.3. Financial inclusion in Mexico: methodology and results

3.c.3.1 Methodology

We studied the factors that determine barriers to accessing financial services on the demand side by estimating *probit* models. This type of econometric analysis is frequently used to determine the probability that an individual or entity with certain characteristics belongs or not to the group that is being studied. *Probit* models are binary classification models where the dependent variable is dichotomous and takes the value 0 or 1. In this study, the unit of observation is the individual, and the *probit models take as dependent variable*, y_i, the perception of barriers to use of the financial system (1 if a barrier is perceived, 0 otherwise). Let us assume that the perception of barriers to access and use depends on a latent variable y^* determined by a set of exogenous variables, included in vector x', so that:

$$y_i^* = x_i' \beta + u_i$$

$$y_i = 1 \text{ si } y_i^* > 0 \; ; \; y_i = 0 \text{ si } y_i^* \le 0$$

where the subscript i represents individuals. The vector represents the parameters of the model and u is a normal distributed error term with mean 0 and variance 1.

A critical threshold y_i is assumed, based on which, if y_i^* exceeds y_i then the individual is in the financial system. The threshold y_i^*, as with y_i, is not observable; however, if it is assumed that it is distributed normally with the same mean and variance it is possible to estimate the regression parameters and thus obtain information on y_i.

$$P_i = P(y_i = 1|x') = P(y_i \le y_i^*) = P(Z_i \le \beta x_i') = F(\beta x_i')$$

where Z is a standard normal variable, $Z \sim N(0, \sigma^2)$ and $F = (1/\sqrt{2\pi}) \int_{-\infty}^{\beta x_i'} e^{-Z^{2/2}} dz$, is the cumulative normal distribution function.

The model is estimated using the maximum likelihood method as a series of *probit* models. The marginal effects on the latent variable are calculated from the coefficients estimated in the models. The interpretation of these marginal effects is similar to that obtained in linear regression models, where the coefficients represent the change in the probability of having a particular barrier to effective access to the financial system when a variable *xj* belonging to the vector of exogenous variables x' changes, maintaining the other factors fixed, given that $E(y^* | x') = x'\beta$.

3.c.3.1.1 Variables included in the model

The model includes both endogenous and exogenous variables (Table 25). The analysis of barriers using endogenous variables is based on ENIF questions on the reasons for not having an account or credit at a financial institution. These questions[8] were classified into 4 categories according to the answer options: 1) not interested or does not need the financial product; 2) insufficient or variable income; 3) reasons associated with supply (distance, costs, requirements); and 4) personal reasons (does not trust banks, prefers informal savings, does not like to be in debt or believes that he or she will be refused).

The exogenous variables include those that the literature and available ENIF data suggest may influence financial inclusion:

- **Variables related to the individual**: The variables used to characterize people, these are: gender (*dummy* for female), age, age squared[9], educational level (*dummy* for primary or below, secondary or higher), civil status (*dummy* for married or in a couple) and labor income.

- **Characteristics of the household**: Household size and position of the individual within household (*dummy* for head of household).

- **Occupation**: This category includes the type of activity individuals are involved in. It is modeled using three *dummy* variables: employed workers, inactive workers or the population of an age to work who are not looking for a job, and domestic workers or homemakers.[10]

- **Savings and remittances**: Savings is understood in its broad sense, in other words if the household "has money spare after covering expenses". This surplus may be used for anything, so it is not related to banking penetration.[11] Remittances are a *dummy* based on receiving remittances in the household.

- **Capacity to respond to an exogenous shock**: A proxy was constructed using a *dummy* variable based on the question: "*If you had a financial emergency today amounting to what you earn or receive in a month, could you pay it?*".

- **Size of town**: Geographical analysis is essential in large and diverse countries, such as Mexico. As the ENIF does not provide figures on location by urban/rural zones, the small towns (under 15,000 people) and large towns (over 15,000 people) *dummy* is an essential variable.

3.c.3.2 Results: Barriers to financial inclusion

According to the ENIF, 62% of adults in Mexico aged between 15 and 70 are not included in the financial system, in other words they do not have a current or savings account, or credit at a formal financial institution. The main access barrier to the financial system is income: 77% of the people "excluded" say they do not have sufficient income or their income is variable and does not allow them to have an account or credit at a formal institution. The second reason given by 47% of those not using banking services is that they are not interested or do not need a financial product, which could be considered as a position of self-exclusion. Personal reasons are given by 29.5% of those not included in the financial system, with supply being the reason given least, with 21%.

Barrier of insufficient or variable income: According to the probit model, this barrier is most common for people who can respond to exogenous shocks and those who save. In the case of the former, the probability falls by 17% compared with individuals incapable of dealing with shocks and 14.7% compared with those who do not save. These results are within expectations, as the capacity to save and to deal with unforeseen factors corresponds to people who have the possibility of accumulating funds and thus are less likely to be limited by their income. Women have a 3% lower probability than men of claiming low income as a barrier. Although this information may be surprising at first glance, it is not strange, as

---

[8] Questions 5.4 and 6.5 of the ENIF: "Why don't you have a bank account?" and "Why don't you have a loan, credit or credit card?"
[9] Included to verify Modigliani's lifecycle theory.
[10] The category of unemployed is not included because the percentage of people in this category was only 1% in the ENIF; however, the variable of domestic worker was included, as 20% of the population is in this activity group.
[11] This correlation was assessed using the endogenous variables used in the model and was not found

financial inclusion programs, policies and initiatives are directly or indirectly focused on women.[12] The variables that increase the probability of perceiving low income as a barrier are, as is to be expected, related to income: individuals with no labor income are 7.4% more likely to claim this barrier than people with this type of income. Employment also influences the perception of an income barrier. Homemakers and those not belonging to the labor force have 8.4% and 7.8% more probability, respectively, than other categories of the active population. In the same way, lower educational levels increase the probability of feeling a barrier; in the case of primary studies by 10% and 4% in the case of secondary education, compared to people who have higher education levels. Being head of the household also increases the probability of perceiving the barrier by 3.5%, which may be because of the family members are financially dependent upon them. Finally, the geographical factor is also relevant: those who live in towns with a population under 15,000 have 6% higher probability than those living in larger communities: this may be due to the nature of small towns.

Barriers of lack of interest or no need for saving and/or credit services (self-exclusion): This barrier is more probable if the person is capable of handling exogenous shocks, being 7% more likely than for someone who could not handle such a shock, and 4% more probable than for people with no savings. This could be capturing a preference for the informal market, as, according to the ENIF, 43.7% of the Mexican population saves through informal mechanisms, and 33.6% use informal credit mechanisms. The other statistically significant variables have a negative coefficient. Being female decreases the probability of self-exclusion by 5.6% compared to men. Whilst this might seem strange, authors such as Dupas and Robinson (2009) have found that women excluded from the financial system show more interest in using financial services when they are made available to them. People with lower income also have 8% less likelihood of not being interested in financial services, compared with those who receive more than 8,000 pesos per month as labor income. Finally, as age increases the likelihood of not being interested in financial services falls, but this trend has a turning point (54 years), which is reflected in the positive sign for age squared; in other words, at a particular point in life the probability of perceiving financial products as not necessary, increases.

Barrier of mistrust, fear of being rejected, resistance to being in debt or preference for informal saving (personal reasons): This barrier is 10% less likely for individuals without income than for those with some kind of labor income. This result is opposite to the one observed in the low-income barrier, and is consistent with the fact that without income there are fewer possibilities for deciding about savings or credit of any kind. Savings, response to shocks and being homemaker variables increase the probability of claiming this barrier by 12%, 5.4% and 10%, respectively. The first two coefficients are in line with the results of the self-exclusion model, and reinforce the hypothesis of preferences for informal financial mechanisms; it may also indicate that people with some funds -rather than those who have none- have the ability of choosing the option of not turning to the formal financial market. The coefficient for homemakers and domestic workers supports the idea of barriers resulting from lack of interaction outside the home (Demirgüç-Kunt et. al 2013).

Supply barriers: Although this barrier is very important globally[13], it is being overcome in Mexico, according to the ENIF. This barrier is 5.8% more likely in towns with a population under 15,000 than in towns with a larger population. This result is clearly related to the concentration of financial services in areas of higher population: as the CNBV (2012) found, no access channel provides total coverage in any Mexican town with fewer than 50 thousand inhabitants. In addition, the variable of people in households who save increases the likelihood of perceiving this barrier by 5.2%: this may once more be capturing a preference for the informal market, as this is simpler and more approachable than formal financial institutions. Finally, people who receive remittances have 4% lower probability of blaming supply reasons than those who do not receive them. This coefficient is in line with the findings of Anzoategui, Demirgüç-Kunt and Martínez Pería (2011), who estimate that receiving remittances increases the likelihood of using financial

---

[12] 96% of the beneficiaries of the most important social program in Mexico -"Opportunities"- are women. "Opportunities" and the BANSEFI financial inclusion program have together managed to make 6.5 million low-income people bank users, of which most are extremely vulnerable women (BANSEFI, Report on accounts 2006-2012). According to Samaniego and Tejerina (2010) and De los Ríos and Trivelli (20119, conditional transfer programs -such as Opportunities- are associated with financial inclusion.

[13] According to Global Findex, 25% of people without an account in a formal financial institution feel the cost of services is a barrier, 20% blame the distance to the branch and 18% the documentation required.

channels; this may therefore be interpreted as a mechanism for introduction to the financial system and reducing the perception of supply barriers.

Table 25
Probit model on barriers to financial inclusion

	Not interested			Low income			Supply reasons			Personal reasons		
	Coeff.	Error	Sign.	Coeff.	Error	Sign.	Coeff.	Error	Sign.	Coeff.	Error	Sign.
Women	-0.056	0.025	**	-0.036	0.020	*	0.016	0.020		0.022	0.023	
Age	-0.010	0.004	**	0.001	0.004		0.005	0.004		0.001	0.004	
Age squared	0.000	0.000	*	0.000	0.000		0.000	0.000		0.000	0.000	
Size of household	-0.005	0.005		0.001	0.005		-0.004	0.004		0.002	0.005	
Head of household	-0.033	0.024		0.035	0.020	*	-0.004	0.020		0.008	0.022	
Married or in couple	-0.037	0.023		0.023	0.019		0.003	0.019		-0.012	0.020	
Primary education	-0.010	0.032		0.104	0.024	***	-0.026	0.026		-0.006	0.030	
Secondary education	-0.010	0.030		0.042	0.023	*	0.000	0.024		-0.009	0.027	
Domestic worker	-0.024	0.052		0.084	0.037	**	0.027	0.051		0.102	0.051	**
Inactive	-0.032	0.054		0.078	0.035	**	-0.009	0.049		0.030	0.052	
Receives remittances	-0.025	0.033		0.000	0.028		-0.040	0.023	*	-0.002	0.029	
Household saves	0.043	0.023	*	-0.147	0.020	***	0.052	0.018	***	0.120	0.021	***
Capacity to respond to shocks	0.077	0.023	***	-0.175	0.021	***	0.004	0.018		0.054	0.021	**
Town with a population of under 15,000	-0.011	0.020		0.062	0.017	***	0.058	0.017	***	0.021	0.019	
Income under 3,000 pesos	-0.082	0.044	*	0.153	0.030	***	-0.002	0.038		-0.011	0.040	
Income of 3,000 to 4,999 pesos	-0.081	0.046	*	0.069	0.031	**	-0.001	0.040		0.019	0.044	
Income of 5,000 to 7,999 pesos	-0.015	0.056		-0.004	0.043		0.065	0.051		-0.008	0.051	
No income	-0.021	0.044		0.074	0.031	**	-0.034	0.037		-0.106	0.037	***
Observations	3826			3826			3826			3826		
Wald chi2(18)	74.200			394.34			41.93			73.55		
Prob>chi2	0.000			0.000			0.000			0.000		
Pseudo R2	0.021			0.1411			0.0132			0.0229		

*** Significance to 99%, ** Significance to 95%, *Significance to 90%
Source: BBVA Research calculations based on ENIF 2012

Conclusions

We used information from the ENIF 2012 survey to analyze the demand-side factors determining access to financial services, using a *probit* econometric model to estimate the probability that an individual with certain socio-demographic characteristics be affected by the barriers of insufficient income, self-exclusion, personal reasons or supply barriers.

Our analysis shows that in Mexico the most significant barrier to financial services access is insufficiency or lack of income, with its determinants being fundamentally factors of vulnerability, such as employment situation and associated income. The second most important variable for Mexicans is self-exclusion. However, the model estimated reflects that women and people with lower incomes, who are traditionally excluded from the financial system, tend to report less financial self-exclusion and thus the reasons for not participating in the financial system might be modified through public policies, new products and alternative access mechanism suitable for their needs.

The barrier of personal reasons indicates that homemakers require special attention through initiatives that bring them closer to the financial sector, as the lack of trust in financial institutions is an aspect that can be offset by more information and products more appropriate for such people.

The results for the four barriers point to a preference among Mexican population for informal saving and credit mechanisms, as households with capacity to respond to shocks[14] are more likely to perceive barriers to the use of banking services compared to households with no capacity to deal with such shocks. We also identified a need to include smaller towns in the financial system. This highlights the need for continuing regulatory progress on promoting universal access and innovation in financial products and channels. In addition, although educational level is only significant for the barrier of insufficient income, extensive use of the informal market may be related to lack of financial literacy and lack of knowledge of formal saving and credit products. This emphasizes the need of more awareness on the advantages of the financial system and financial literacy, to promote informed decisions on participation in formal financial markets. Various studies by international bodies, including the World Bank's Survey of Financial Capabilities 2012, have demonstrated that financial capabilities allow individuals to develop skills, knowledge and understanding of how financial services operate, helping them to manage their personal finances adequately, given the complexity of the tools and products available on the market.

References

Anzoategui, Demirgüç-Kunt and Martínez Pería (2011), Remittances and financial inclusion: evidence from El Salvador. Policy Research Working Paper 5839. World Bank.

BANSEFI, Report on accounts 2006-2012.

Beck, T. and De la Torre, A. (2006). The Basic Analytics Of Access To Financial Services. Working Paper. The World Bank.

BBVA Research (2011). Banking Watch Mexico. November 2011

BBVA Research (2012). Banking Watch Mexico. November 2012

Campero, A. and Kaiser, K. (2013). Access to Credit: Awareness and Use of Formal and Informal Credit Institutions. Working paper. Bank of Mexico.

CNBV (2012a). White Book of Financial Inclusion.

CNBV (2012b). Fourth Financial Inclusion Report, July 2012

CNBV (2013). Multiple Banking Statistical Report, July 2013

CNBV, INEGI, SHCP (2012). Encuesta Nacional de Inclusión Financiera. El desarrollo de una encuesta de demanda. La experiencia en México. June 2012.

---

[14] Campero and Kaiser (2013) point out that in Mexico there is evidence of complementarity between the formal and informal credit markets, with the informal market being more highly valued when households have to deal with negative shocks.

Demirgüç-Kunt, A. and Klapper, L. (2012). Measuring Financial Inclusion, The Global Findex Database. Policy Research Working Paper 6025. World Bank.

Demirgüç-Kunt, A, Klapper, L. and Singer, D. (2013). Financial Inclusion and Legal Discrimination Against Women. Policy Research Working Paper 6416. World Bank

Djankov, S, Miranda, P, Seria, E. and Sharma, S. (2008). Who Are the Unbanked? Policy Research Working Paper 4647. The World Bank.

De los Rios, J. and Trivelli, C. (2011). Savings Mobilization in Conditional Cash Transfer Programs: Seeking Mid-term impacts. Institute of Development Studies, UK

Dupas, P. and Robinson, J. (2013). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya, American Economic Journal: Applied Economics, American Economic Association, vol. 5(1).

Samaniego, P. and Tejerina, L. (2010) Financial Inclusion Through the Bono de Desarrollo Humano in Ecuador: Exploring Options and Beneficiary Readiness. Inter-American Development Bank.

World Bank (2013). Financial Capabilities in Mexico. Results from the 2012 National Survey on Financial Behaviors, Attitudes and Knowledge.

Websites

Comisión Nacional Bancaria y de Valores www.cnbv.gob.mx

Encuesta Nacional de Inclusión Financiera http://www.inegi.org.mx/est/contenidos/Proyectos/encuestas/hogares/especiales/enif/enif2012/default.aspx

Box 2: The new Financial Reform

Introduction

On September the 10th, the House of Representatives approved (with some amendments) the Financial Reform Initiative (hereinafter, the "Initiative") submitted by President Enrique Peña Nieto on May 8th as part of the Pact for Mexico. This Initiative involves 13 decrees and 34 changes to laws and regulations. It was approved with a large majority by the members of the three parties that signed the Pact for Mexico (PRI, PAN and PRD), and was sent to the Senate for their consideration and approval.

This Reform may not be the definitive, since the draft sent to the Senate was still pending for discussion as this issue of **Mexico Banking Outlook** went to press. As we explained in detail in the July 2013 issue of **Mexico Banking Outlook**[1], our initial assessment of this reform is that it could have a positive impact on banking and financial system penetration. The main aspects of the reform are:

1. A new mandate for development banking, to encourage growth in the financial sector;

2. Promote competition in the banking and financial system to reduce charges and expenses;

3. Create additional incentives for banks to lend more; and

4. Strengthen the Mexican financial and banking system, encouraging the sector to grow sustainably.

In this note we describe the main amendments to the Financial Reform Initiative approved by the House of Representatives. The rest of this section is organized into nine parts corresponding to some of the decrees in the amended Initiative. We briefly describe the main adjustments and give our assessment on each issue. In the final section, we give an overall assessment of this upcoming financial reform.

1. Strengthening CONDUSEF

The Initiative includes a range of measures to strengthen the role of the Comisión Nacional para la Defensa de los Usuarios de los Servicios Financieros (National Commission for the Defense of Users of Financial Services - CONDUSEF) so as to improve protection for users of financial services. These include: a) create an Information Bureau of Financial Institutions that consolidates relevant information for assessing the performance of Financial Institutions (FIs) in providing services; b) give executive powers to CONDUSEF's technical rulings; c) make publicly available the recommendations that CONDUSEF makes to FIs; d) ban misleading information on financial services and products and; e) order –rather than propose– modifications to standard contracts that do not comply with CONDUSEF regulations.

The draft approved by the House of Representatives proposes that the general regulations, orders and recommendations made by CONDUSEF to FIs should be reported to users of the financial system through the Information Bureau of Financial Institutions. This measure aims to use the Bureau as a tool to inform financial services users about CONDUSEF's regulations and orders and to safeguard the rights of such users. The Bureau could serve as a communication channel for users. It will also include the recommendations, penalties and orders made to FIs by other financial authorities.

On the other hand, in order to balance the situation for FIs with regard to CONDUSEF, the Initiative proposes that the regulations issued by CONDUSEF should be consistent with the ones issued by other financial authorities (e.g. index of complaints against banks). It also opens the possibility for FIs to present self-correction plans to CONDUSEF, in accordance with CONDUSEF guidelines.

The House of Representatives also proposed a number of reforms to the Transparency and Ordering of Financial Services Act to boost regulation of service fees (CI, after the Spanish acronyms) in payment systems. In particular, it establishes that the CNBV and Banxico should regulate CIs between institutions, as well as other fees they charge, both directly and indirectly. Both authorities should issue general guidelines for regulating the terms and conditions of such payment services. These amendments are aimed to promote competition and entry of new participants, by expanding infrastructure and reducing charges and fees. Moreover, the Initiative establishes that CIs should be based on actual, demonstrable costs, and emphasizes that the fees established should not be discriminatory. These CIs and fees should be reviewed jointly by CNBV and Banxico on a yearly basis.

It is worth mentioning that the transitional articles of the Initiative establish that the CNBV and Banxico shall jointly issue general regulations related to CIs and fees within 60 calendar days of the Decree coming into effect. At the end of this period, the CNBV's President and Banxico's Governor

[1] Available at: http://www.bbvaresearch.com/KETD/fbin/mult/1307_SituacionBancaMexico_Jul13_tcm346-394768.pdf

will appear before the House of Representatives to report on the exercise of those new powers conferred; they will also appear 6 and 12 months after such period to report on the development of the payment network market and on the implementation of the aforementioned provisions.

Evaluation: CONDUSEF's behavior has been characterized by announcing various studies and assessments of financial products, but providing little -and changing- guidances for FIs to comply with. Whilst it is probable that this situation will continue as this institution strengthens, the possibility of implementing self-correction plans and the requirement for CONDUSEF to issue provisions consistent with those of other financial authorities could contribute to offset the negative publicity generated for banks in the past. Nevertheless, the approved Initiative still lacks of an appellate procedure for banks, which could put the sector in a disadvantage position, as CONDUSEF rulings have enforceable title.

With regard to the new regulations proposed for CIs and payment system fees, Banxico already has powers to regulate them. The Initiative proposes that henceforth, Banxico should perform this role jointly with the CNBV, although it does not clearly establish how this will work. Furthermore, the CNBV will have to acquire experience in regulation and supervision of payment systems, as this has, to date, been the exclusive responsibility of Banxico.

2. Development Banks

As we explained in the last issue of *Mexico Banking Outlook*, the objective of this decree is to increase the clarity of the mandate for Development Banks (DB), in order to better serve those sectors of the population with limited access to credit. The Initiative focuses on three areas to achieve this objective:

1. Redefinition of the mandate

2. Increasing the flexibility of DB operations

3. Attracting and retaining human resources.

The most relevant amendments proposed by the House of Representatives are related to the first of the three objectives. DB programs should promote the "development of alternatives to maximize access to financial services, both directly and through intermediaries, in benefit of those with limited access to such services due to their characteristics and capacities". It also gives a particular emphasis to serve micro, small and medium enterprises (MSME), by proposing that the DB's financial inclusion programs should include MSMEs and small farmers. In particular, it establishes that Nacional Financiera (NAFIN) should approve, on yearly basis, a program for the MSME sector equivalent to at least 50% of its total direct and guaranteed credit portfolio.

Another significant amendment from the House of Representatives involves Financiera Rural (the Rural Finance Trust), which proposes changing its name to "Financiera Nacional de Desarrollo Agropecuario, Rural, Forestal y Pesquero" (National Agricultural, Rural, Forestry and Fisheries Financial Trust) and introducing changes to make its operations more flexible. These changes include removing current restrictions on granting credit to farmers and allowing Financiera Rural to receive financing from foreign institutions. Furthermore, a decree's transitional article establishes that the Secretaría de Hacienda y Crédito Público (SHCP - Mexico's Ministry of Treasure) should, within 90 calendar days, prepare an assessment of the subsidies, support programs, funds and trusts managed and granted by federal government entities, to evaluate the possibility of consolidate these funds and programs into a new single system of agricultural and rural financing and development.

Regarding the operations of the DB, the only significant amendment relates to the periodicity of the Board of Directors sessions, which should be carried out at least every three months.

Evaluation: The amendments made to the original Initiative do not affect the essence of the project, but do contribute to give the DB an even more important role as a complementary provider of the financial services offered by other private intermediaries, with a clear focus on the population not covered by such private providers. We consider that this refinement was necessary, and matches our comments in the July 2013 issue of *Mexico Banking Outlook*.

With regard to the minimum percentage that NAFIN should dedicate to the MSME sector, the 2010 independent assessment of NAFIN indicated that this sector represented 80% of its total credit portfolio in that year. Even though that proportion has remained constant over time -according to figures from the same study- the Initiative amendment will guarantee that NAFIN's resources are effectively channeled to that sector.

However, no additional measures have been included to increase DB's transparency and accountability, which would contribute to a proper monitoring, assessment and improvement of DB's financial performance. It is noteworthy that the members of the left-wing parties showed more interest than others in strengthening the appointment of independent board members and in including tighter controls against corruption in the DB. Unfortunately, those proposals were rejected.

3. Granting and execution of guarantees

Despite the reservations that some left-wing parliamentarians had about certain provisions of this decree, because they considered it criminalizes borrowers, the draft approved does not contain any significant modifications to the Initiative. The proposed reforms on this regard aim to promote five main aspects:

1. Adjustments to improve the legal security and speed of commercial trials.

2. The reorganization of mechanisms for guaranteeing assets so as to reinforce them.

3. Improvement of enforceable commercial judgments

4. Application of the value of pledges without the need of enforcement proceedings or a judicial ruling

5. Creation of a specialist federal commercial jurisdiction.

Evaluation: the measures to improve enforcement and recovery of past-due loans may result in better conditions for granting loans. However, the persistence of informal sources of financing could offset the expansion of formal credit that might result from reducing its costs. The reason is that the final decision on the source of financing is taken by people and companies, not by financial intermediaries. Moreover, there is a possibility that risk aversion increases among potential borrowers, due to the establishment of more severe measures that might be enforced against them by the bank, if they fail to comply with the conditions of the credit granted to them.

4. Guaranteed credit

The draft approved by the House of Representatives did not make any significant changes to the decree on guaranteed credit in the Initiative. This decree aims to reduce costs, improve legal certainty for creditors and promote competition among them, by enhancing the subrogation of creditors, as a way of facilitating the portability of the Guaranteed Credit to other Creditor Entities that might offer the borrower more favorable conditions. It also establishes lower and less costly requirements for subrogated creditors to pursue their rights against third parties.

Evaluation: The measures proposed in this decree could promote greater mobility among customers with mortgage loans and result in lower interest rates and fees on mortgages.

5. Bank liquidation

The Initiative aims to give the financial authorities greater powers to resolve problems of low liquidity and insolvency in banking institutions. Some of the measures proposed include: creating a special regime for insolvency liquidation of banking institutions; defining the parameters for action for the lender of last resort; obliging banks to have contingency, liquidation and self-correction plans; enhancing the prudential measures applicable to banks with parent companies abroad facing insolvency problems; and clarifying the conditions for foreign governments to participate in banking institutions.

The amendments approved by the House of Representatives mainly include prudential and stronger penalty measures. The most significant amendments are: the inclusion in the text of the Act of the different tranches of net, basic and core capital established in the Basel III framework; the empowerment of the CNBV to suspend or limit transactions with non-financial firms that belong to the same corporate group as the bank if such transactions are not agreed under market conditions; the inclusion of additional penalties for banks if they fail to comply with minimum liquidity levels or if they carry out transactions with related parties in excess of established limits. Another change involves the limit on transactions with related parties, which currently stands at 50% with respect to core net capital, and which it is proposed to reduce to 35%. The original Initiative proposed reducing it to 25%.

Regarding the banks' performance evaluations, the Initiative proposes that SHCP guidelines should take into account the solvency and payment capabilities of potential borrowers. It also grants banking institutions the right to a hearing prior to the publication of the assessment, and the right to present a plan to correct any deficiencies identified. The measures limiting bond purchases will only apply if the plan is not approved by the SHCP or if the plan is not executed.

Evaluation: In general, we consider the prudential measures on bank liquidity and last resort credit to be positive. Many of those provisions introduce measures emanating from international working groups on banking regulation into Mexican legislation. For example, incorporating the various tranches of capital into the Act will provide greater clarity and improve the implementation of Basel III.

However, some other measures, specifically those on the performance evaluation of banks, are not based on international recommendations. Although the amendments proposed in the House of Representatives mitigate this provision by putting as a priority the quality of the portfolio when establishing the evaluation criteria, and giving banks the right to prepare self-correction plans, the measure remains questionable. A mistaken diagnosis of the sectors that can contribute the most to economic growth and the reasons why the credit of private lending institutions is not channeled to

those sectors might result in significant distortions that could lead to unsustainable credit paths.

The reduced restrictions on transactions with related parties are likewise not consistent with international regulation standards. Reducing the regulation of such transactions could have adverse effects on the quality of the credit portfolio and capital of some banks, particularly those that are already highly exposed to related companies. Furthermore, this could create distortions in the credit market, as some companies could have access to credit on more advantageous terms than others. This proposal could be improved if a difference with respect to significant related parties were established, for which a higher limit should be set.

Finally, the "ring-fencing" proposal has been maintained in the Initiative. Implementation of measures related to higher capital requirements and partial or total suspension of transactions with the parent company of the bank (including payment of dividends) when such company is in financial distress could lead to negative incentives for investment in Mexico.

6. Mutual funds

The objective of this decree is to streamline the procedure and requirements for setting up such companies and to introduce best corporate governance practices into a sector that has grown rapidly over recent years (see section 3b of this issue of **Mexico Banking Outlook**). The main measures include:

1. Changing the name from Mutual "Companies" to "Funds".

2. Proposing that they be constituted before the CNBV in the National Registry of Securities rather than through deeds before a notary.

3. Considering a flexible procedure for the spin-off of mutual funds when there is market volatility or liquidity constraint ("Side Pockets").

4. The possibility for mutual fund management companies (MFMCs) to be constituted by a single founding partner, with duties of loyalty and due diligence for MFMC directors, together with a requirement for an independent external auditor from whom the CNBV can request information.

5. Powers for the CNBV to regulate documents containing key information for shareholders.

6. Establishment of a duty of secrecy in the transactions of mutual funds and their shareholders.

The amendments to the decree proposed by the House of Representatives aim to clarify provisions related to the open architecture in the distribution of mutual funds, removing self-regulating entities, permitting MFMCs to engage in fiduciary activities, and providing a regime that allows subcontracting by the operator (taken from the Credit Institutions Act).

Evaluation: This decree contains measures that could promote significant growth in the activity of mutual funds, which have grown rapidly over recent years. The changes would not be immediate as the transitional articles establish that mutual funds authorized under current legal provisions will have a period of 18 months from the time that the decree comes into effect to request authorization from the CNBV to change their by-laws regarding to their administrative functions, the conducting of their business, mutual funds monitoring and shareholder rights. Furthermore, the CNBV will have a period of 18 months to issue a decision on the transformation of mutual companies into mutual funds under the decree, from the time that the respective publicly-traded companies submit their requests.

7. Warehouses and SOFOMs

This decree aims to enhance the regime for operation of general deposit warehouses and to promote credit for the agricultural sector, by setting out more clearly the activity of such warehouses and creating the "Information System of Storage of Agricultural and Farming Products" and the "Single Registry of Certificates, Warehouses and Goods". With regard to Sociedades Financieras de Objeto Múltiple (SOFOMs - Multiple Purpose Financial Companies), the Initiative seeks to improve the regulatory framework and strengthen CNBV, CONDUSEF and Banxico supervision.

The House of Representatives did not make any significant amendments to the Initiative on deposit warehouses. However, with respect to SOFOMs, the most significant amendments proposed by the House of Representatives include the addition of SOFOMs linked to credit unions as regulated SOFOMs (in addition to SOFOMs already considered regulated under the original Initiative, which are those linked to the people's savings and credit sector and those which issue debt in the securities markets) and the incorporation of the regime for voluntarily regulated SOFOMs. This new regime establishes that SOFOMs that voluntarily seek to be considered as regulated entities must satisfy certain requirements. For example, they must have a minimum capital of 2.58 million UDIs ($100 million USD); they must have been operating as a SOFOM for at least three years; and they must have obtained at least 70% of their revenues from the activity that constitutes their corporate purpose.

Evaluation: We consider this initiative to be positive. The legislation on general warehouses may boost bank lending for agricultural activities. The enhanced requirements for SOFOMs could improve the organization of the sector, narrowing the enormous gap against banks that that exists today, reducing risks in the granting of bank lending (for example, with payroll loans) and reducing regulatory arbitrage opportunities by those institutions.

8. Sanctions and Foreign Investment

The main objective of this decree is to enhance the supervision and sanctioning powers of financial authorities (Banxico, CNBV, CNSF, CONSAR). With regard to foreign investment, it aims to make the limits for financial entities more flexible in terms of participation of foreign governments and investors.

Regarding the foreign investment decree, the draft approved by the House of Representatives contains no significant amendments. With regard to sanctions, the most significant changes focused on enhancing the powers of the authorities in relation to money laundering. An obligation has been introduced for all financial institutions to suspend transactions with customers or users on a list that will be issued by the SHCP. The CNBV is also granted powers to work with the SHCP and the Public Prosecutor's Office (Ministerio Público Federal) to investigate and identify transactions involving illicit funds by entities under supervision. The CNBV must submit a report to these authorities with the results of its investigations.

Furthermore, the proposal by the House of Representatives includes empowering the Boards of Governors of the CNBV, the Comisión Nacional del Sistema de Ahorro para el Retiro (CONSAR - National Commission for the Pension System) and the Comisión Nacional de Seguros y Fianzas (CNSF - National Insurance and Finance Commission) to determine policies relating to the salaries and conditions of its public officers, based on the current conditions of Mexico's financial system labor market.

Evaluation: These measures are positive, as they grant increased powers to the authorities, and this may have a deterrent effect on undesirable behavior by financial institutions. The increased flexibility of the authorities to set their own salary and condition policies is a positive measure, as it aims to balance public officers' earnings with the employment conditions of the financial system, enabling the authorities to attract and retain the talent they need to achieve their objectives.

9. Financial Groups

This decree aims to introduce a new Act to regulate financial groups, modernizing their corporate structure and the investments made by the controlling companies, so as to improve administrative and corporate governance procedures. This decree also includes the Consejo de Estabilidad del Sistema Financiero (CESF - Financial System Stability Council) into law.

The most significant amendment made by the House of Representatives was to raise at the law level the Consejo Nacional de Inclusión Financiera (CNIF - National Council on Financial Inclusion) and the Comité de Educación Financiera (CEF - Financial Education Committee) both of them created by decree during the previous administration.

Evaluation: Both the Initiative and the amendments made by the House are positive, as the measures they set out are needed to modernize the legal framework for regulation and supervision of financial groups. Furthermore, raising the CNIF, CEF and CESF at the law level guarantees their continuity and will increase coordination among financial authorities in designing policies that promote financial education and financial inclusion, and to identify and contain potential risks to Mexico's financial system.

Final evaluation

In general, the Financial Reform Initiative is positive as it increases the penetration of the financial and banking system, by taking a comprehensive approach while promoting competition and enhancing supervision and regulation, both for banks and financial intermediaries. Whilst the amendments proposed by the House of Representatives enrich the Federal Government's Initiative, there are still some outstanding issues which would be desirable to include, clarify or modify in order to improve the functioning of Mexico's financial system and avoid market distortions. These issues include:

- Restrictions on paying dividends in the event of a foreign parent company suffering liquidity or solvency problems (ring-fencing).

- The relaxed restrictions on transactions with related parties.

- Clarifying the shared responsibility of Banxico and the CNBV for regulating the payments system.

- The inclusion of "covered bonds" in the instruments that can be issued on the stock market.

- Further transparency measures for development banks, improving their accountability policies so as, for example, to avoid the risk of their funds being used for electoral purposes.

4. Statistical Appendix

Table 26

Financial savings: Balances in billions of September 2013 pesos

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	III 13	Struc % III 13
M4a	5,135	5,614	5,980	6,646	7,221	7,739	8,483	8,689	9,321	10,384	11,481	11,912	
- Bills and coins held by the public	358	391	424	458	510	543	586	615	657	703	748	682	
= Financial savings *	4,778	5,223	5,556	6,188	6,710	7,196	7,897	8,074	8,664	9,681	10,733	11,229	100.0
I. Depository institutions	2,114	2,238	2,358	2,528	2,533	2,760	3,090	3,107	3,253	3,447	3,635	3,626	32.3
Resident commercial banks (demand + term)	1,678	1,804	1,918	2,008	2,072	2,293	2,592	2,580	2,707	2,865	3,009	3,008	26.8
Demand	854	932	967	1,087	1,184	1,298	1,342	1,405	1,538	1,678	1,766	1,787	15.9
Term	824	872	951	921	889	994	1,250	1,175	1,169	1,186	1,242	1,220	10.9
Foreign agencies of commercial banks	68	48	55	57	68	91	100	85	93	109	113	99	0.9
Savings & Loan Associations (S&L)	11	14	16	19	22	25	25	54	59	62	65	69	0.6
Development banks	358	372	370	443	370	351	373	389	393	411	448	450	4.0
II. Securities issued by the public sector	2,017	2,230	2,371	2,773	3,197	3,397	3,491	3,654	4,052	4,789	5,636	6,055	53.9
III. Securities issued by private companies	203	260	288	291	325	376	365	351	364	405	399	443	3.9
IV. SAR outside of Siefores	444	495	539	596	655	664	952	962	996	1,041	1,063	1,105	9.8
Financial savings = I + II + III + IV	4,778	5,223	5,556	6,188	6,710	7,196	7,897	8,074	8,664	9,681	10,733	11,229	100.0
Instruments included in financial savings													
TOTAL SAR = Siefores + SAR outside of Siefores	944	1,090	1,213	1,396	1,598	1,710	2,060	2,251	2,492	2,672	2,966	3,069	
Siefores	500	595	674	800	943	1,046	1,108	1,289	1,496	1,631	1,903	1,964	
SAR outside of Siefores	444	495	539	596	655	664	952	962	996	1,041	1,063	1,105	
Financial savings without SAR total	3,834	4,133	4,343	4,792	5,113	5,487	5,837	5,823	6,173	7,009	7,767	8,161	
Debt mutual funds	443	455	459	587	764	880	794	908	1,109	1,111	1,240	1,291	
Real annual percentage change,%													
M4a	4.4	9.3	6.5	11.1	8.6	7.2	9.6	2.4	7.3	11.4	10.6	6.0	
- Bills and coins held by the public	10.4	9.2	8.6	8.0	11.4	6.4	7.9	4.9	6.9	7.0	6.4	1.8	
= Financial savings *	4.0	9.3	6.4	11.4	8.4	7.2	9.7	2.2	7.3	11.7	10.9	6.2	
I. Depository institutions	-4.2	5.9	5.4	7.2	0.2	9.0	12.0	0.5	4.7	6.0	5.5	4.7	
Resident commercial banks (demand + term)	-5.5	7.5	6.3	4.7	3.2	10.6	13.1	-0.5	4.9	5.8	5.0	4.8	
Demand	5.0	9.1	3.8	12.4	8.9	9.7	3.4	4.7	9.5	9.1	5.2	6.6	
Term	-14.4	5.9	9.0	-3.1	-3.5	11.9	25.7	-6.0	-0.5	1.5	4.7	2.4	
Foreign agencies of commercial banks	-15.2	-28.4	13.4	4.4	18.3	34.7	9.0	-15.1	10.5	17.0	3.5	-4.6	
Savings & Loan Associations (S&L)	12.4	21.5	19.4	19.0	16.6	9.3	2.4	115.8	9.3	4.3	5.4	7.6	
Development banks	4.5	4.1	-0.7	19.8	-16.4	-5.1	6.4	4.1	1.1	4.6	9.0	5.8	
II. Securities issued by the public sector	11.6	10.6	6.3	16.9	15.3	6.3	2.7	4.7	10.9	18.2	17.7	7.9	
III. Securities issued by private companies	35.6	27.9	10.7	1.2	11.7	15.4	-2.9	-3.7	3.6	11.2	-1.3	3.7	
IV. SAR outside of Siefores	3.3	11.5	8.8	10.6	9.9	1.3	43.4	1.1	3.5	4.5	2.1	3.2	
Financial savings = I + II + III + IV	4.0	9.3	6.4	11.4	8.4	7.2	9.7	2.2	7.3	11.7	10.9	6.2	
Instruments included in financial savings													
SAR TOTAL = Siefores + SAR outside of Siefores	13.2	15.5	11.3	15.1	14.5	7.0	20.5	9.3	10.7	7.2	11.0	4.4	
Siefores	23.6	19.1	13.4	18.6	17.9	11.0	6.0	16.3	16.0	9.0	16.7	5.1	
SAR outside of Siefores	3.3	11.5	8.8	10.6	9.9	1.3	43.4	1.1	3.5	4.5	2.1	3.2	
Financial savings without SAR Total	2.0	7.8	5.1	10.3	6.7	7.3	6.4	-0.2	6.0	13.6	10.8	6.9	
Debt mutual funds	6.2	2.8	0.9	27.8	30.1	15.2	-9.7	14.4	22.2	0.1	11.6	8.8	
Percentage of GDP													
Financial savings = I + II + III + IV	42.8	45.2	45.1	47.9	48.6	47.7	55.2	58.3	59.8	63.6	67.9	69.1	
I. Depository institutions	18.9	19.4	19.1	19.5	18.3	18.3	21.6	22.4	22.4	22.6	22.9	22.6	
Resident commercial banks	15.0	15.6	15.6	15.5	15.0	15.2	18.1	18.6	18.7	18.8	19.0	18.8	
Development banks	3.2	3.2	3.0	3.4	2.7	2.3	2.6	2.8	2.7	2.7	2.8	2.8	
I Rest (Agencies abroad + S&L)	0.7	0.5	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.0	
II. Securities issued by the public sector	18.1	19.3	19.3	21.5	23.2	22.5	24.4	26.4	27.9	31.4	35.7	36.8	
III. Securities issued by companies	1.8	2.3	2.3	2.3	2.4	2.5	2.6	2.5	2.5	2.7	2.5	2.8	
IV. SAR outside of Siefores	4.0	4.3	4.4	4.6	4.7	4.4	6.7	6.9	6.9	6.8	6.7	6.9	
Percentage of GDP, other concepts included in financial savings, %													
Total SAR	8.5	9.4	9.8	10.8	11.6	11.3	14.1	16.2	17.1	17.5	18.7	18.9	
Siefores	4.5	5.2	5.5	6.2	6.8	6.9	7.8	9.3	10.3	10.7	12.6	12.0	

Source: Banco de Mexico (broad monetary aggregates) and INEGI

Table 18

Credit and Financing to the Private Sector: Balances in billions of September 2013 pesos

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	Str. % II 13
Total: All categories	3,482	3,623	3,870	4,093	4,201	4,942	5,572	5,288	5,412	6,304	6,484	6,675	100.0
Bank	1,094	1,054	1,093	1,239	1,554	1,906	2,042	1,953	2,042	2,305	2,493	2,559	38.3
Non-bank	2,388	2,569	2,777	2,853	2,647	3,036	3,530	3,334	3,370	3,999	3,991	4,116	61.7
Total consumer	225	265	363	504	638	728	689	603	606	689	769	799	12.0
Bank	135	182	257	375	513	621	580	469	468	557	643	666	10.0
Non-bank	89	83	107	129	125	107	108	135	138	131	126	133	2.0
Total housing	830	873	938	993	1,091	1,302	1,317	1,336	1,396	1,471	1,541	1,566	23.5
Bank	246	206	198	248	319	366	387	407	433	452	477	484	7.3
Non-bank	584	667	740	745	772	936	930	929	963	1,019	1,064	1,082	16.2
Total companies	2,428	2,484	2,568	2,596	2,472	2,912	3,566	3,349	3,410	4,144	4,174	4,310	64.6
Bank	712	665	638	617	722	919	1,075	1,078	1,141	1,296	1,373	1,409	21.1
Non-bank	1,715	1,819	1,930	1,979	1,750	1,993	2,491	2,271	2,269	2,849	2,801	2,901	43.5

Real annual percentage change, %

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	
Total: All categories	4.2	4.0	6.8	5.8	2.6	17.6	12.7	-5.1	2.4	16.5	2.9	3.9	
Bank	-3.4	-3.7	3.7	13.4	25.4	22.6	7.1	-4.3	4.5	12.9	8.2	6.2	
Non-bank	8.1	7.5	8.1	2.7	-7.2	14.7	16.3	-5.5	1.1	18.7	-0.2	2.5	
Total consumer	33.1	17.9	37.2	38.7	26.6	14.1	-5.5	-12.4	0.4	13.7	11.7	10.6	
Bank	28.0	34.4	41.0	46.1	36.9	21.1	-6.6	-19.2	-0.2	19.2	15.4	11.2	
Non-bank	41.8	-7.2	28.9	21.0	-3.2	-14.3	1.4	24.1	2.8	-5.0	-4.0	7.6	
Total housing	5.8	5.2	7.4	5.8	9.9	19.3	1.2	1.4	4.5	5.4	4.8	1.8	
Bank	-11.9	-16.2	-4.0	25.1	28.9	14.6	5.7	5.2	6.5	4.2	5.6	3.0	
Non-bank	15.6	14.2	11.0	0.6	3.6	21.3	-0.6	-0.2	3.7	5.9	4.4	1.3	
Total companies	1.7	2.3	3.4	1.1	-4.8	17.8	22.5	-6.1	1.8	21.5	0.7	3.6	
Bank	-4.6	-6.6	-4.2	-3.3	17.0	27.3	17.0	0.2	5.9	13.6	6.0	5.2	
Non-bank	4.5	6.0	6.1	2.5	-11.6	13.9	25.0	-8.8	-0.1	25.5	-1.7	2.8	

Percentage of GDP, %

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	
Total: All categories	31.2	31.4	31.4	31.7	30.4	32.8	39.0	38.2	37.3	41.4	41.0	42.2	
Bank	9.8	9.1	8.9	9.6	11.3	12.6	14.3	14.1	14.1	15.1	15.8	16.2	
Non-bank	21.4	22.2	22.5	22.1	19.2	20.1	24.7	24.1	23.2	26.3	25.2	26.0	
Total consumer	2.0	2.3	3.0	3.9	4.6	4.8	4.8	4.4	4.2	4.5	4.9	5.0	
Bank	1.2	1.6	2.1	2.9	3.7	4.1	4.1	3.4	3.2	3.7	4.1	4.2	
Non-bank	0.8	0.7	0.9	1.0	0.9	0.7	0.8	1.0	1.0	0.9	0.8	0.8	
Total housing	7.4	7.6	7.6	7.7	7.9	8.6	9.2	9.7	9.6	9.7	9.8	9.9	
Bank	2.2	1.8	1.6	1.9	2.3	2.4	2.7	2.9	3.0	3.0	3.0	3.1	
Non-bank	5.2	5.8	6.0	5.8	5.6	6.2	6.5	6.7	6.6	6.7	6.7	6.8	
Total companies	21.7	21.5	20.8	20.1	17.9	19.3	24.9	24.2	23.5	27.2	26.4	27.2	
Bank	6.4	5.8	5.2	4.8	5.2	6.1	7.5	7.8	7.9	8.5	8.7	8.9	
Non-bank	15.4	15.8	15.7	15.3	12.7	13.2	17.4	16.4	15.6	18.7	17.7	18.3	

Infrastructure and Number of Bank Cards - Units

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	
ATMs	17,011	17,758	20,416	22,900	25,687	29,333	31,932	33,905	35,936	36,448	40,540	39,404	
POS terminals	129,971	146,029	160,289	201,852	305,144	418,128	446,025	446,792	482,299	547,708	621,628	642,516	
Branches*	7,849	7,768	7,788	7,972	8,404	9,230	10,726	10,736	11,294	11,785	12,407	12,520	

Number of current cards at the end of the quarter (figures in millions)

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	
Credit	7.8	9.4	11.6	14.7	21.4	24.8	25.2	22.1	22.4	24.7	25.4	26.5	
Debit	32.4	32.2	31.8	36.1	51.7	51.9	56.9	60.8	75.2	85.6	93.3	98.5	

Credit and Financing to the Public Sector: Balances in billions of September 2013 pesos

	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	II 13	Str. % II 13
Commercial bank credit	379	372	294	295	219	215	187	309	343	360	397	388	5.0
Federal government	308	272	120	75	40	37	26	37	47	38	13	12	0.2
States and Municipalities	23	38	75	83	71	81	103	159	208	224	278	284	3.7
Decentralized gov't agen.	48	62	100	138	108	97	57	112	88	98	105	92	1.2
Development bank credit	215	175	174	179	168	162	167	130	136	132	152	150	1.9
Federal government	118	89	90	103	86	103	106	53	58	27	33	32	0.4
States and Municipalities	15	15	35	33	35	35	31	46	52	82	102	103	1.3
Decentralized gov't agen.	83	70	49	43	47	24	30	31	26	23	18	15	0.2
Debt issued in the country	2,141	2,452	2,618	3,004	3,498	3,762	3,939	4,284	4,500	5,186	5,702	6,027	77.9
Federal government	1,223	1,418	1,464	1,599	2,057	2,267	2,396	2,723	2,799	3,044	3,320	3,539	45.7
States and Municipalities	8	21	29	29	48	56	61	63	65	70	72	74	1.0
Decentralized gov't agen.	-	22	67	139	174	164	152	165	202	252	260	281	3.6
IPAB	355	457	539	673	777	871	859	873	855	883	870	880	11.4
Banco de Mexico	401	344	328	354	225	229	296	284	403	761	1,003	1,075	13.9
FARAC	154	190	191	210	218	174	175	176	176	176	177	177	2.3
External financing	1,030	1,167	1,115	981	701	672	798	1,063	1,140	1,271	1,202	1,170	15.1
Credit and financing TOTAL	3,766	4,166	4,202	4,462	4,596	4,837	5,113	5,786	6,119	6,948	7,452	7,740	100.0
Real annual percentage change in the balance, %													
Commercial bank credit	9.6	-1.7	-21.0	0.4	-25.8	-2.0	-13.0	65.3	11.2	4.8	10.4	5.2	
Federal government	3.8	-11.7	-56.0	-37.4	-46.0	-8.9	-28.8	41.5	27.0	-20.2	-64.9	-63.1	
States and Municipalities	34.6	64.6	96.1	10.6	-14.4	14.4	27.7	54.0	31.0	7.4	24.4	20.1	
Decentralized gov't agen.	50.4	30.9	60.4	38.1	-21.8	-10.2	-40.9	96.5	-22.1	12.0	7.4	-7.2	
Development bank credit	13.6	-18.7	-0.6	3.4	-6.3	-3.5	3.0	-22.1	4.5	-3.3	15.4	13.5	
Federal government	-5.5	-24.0	0.7	14.3	-16.2	19.2	3.5	-50.1	9.7	-54.3	22.9	18.1	
States and Municipalities	17.6	4.1	128.4	-4.4	4.9	1.2	-13.2	50.3	12.8	59.2	23.3	16.9	
Decentralized gov't agen.	57.8	-15.3	-30.1	-11.4	8.7	-48.4	24.5	3.4	-16.4	-13.7	-22.2	-11.1	
Debt issued in the country	19.4	14.5	6.8	14.8	16.4	7.5	4.7	8.8	5.1	15.2	9.9	11.6	
Federal government	9.9	15.9	3.3	9.3	28.6	10.2	5.7	13.7	2.8	8.7	9.1	13.0	
States and Municipalities	5610.1	147.6	37.7	0.8	65.7	18.1	8.5	3.6	2.9	8.0	2.8	9.0	
Decentralized gov't agen.	0.0	0.0	200.6	107.1	24.8	-5.4	-7.3	8.1	22.5	25.1	3.0	16.1	
IPAB	44.0	28.7	17.8	25.0	15.5	12.0	-1.4	1.6	-2.1	3.3	-1.4	2.9	
Banco de Mexico	20.9	-14.1	-4.7	7.9	-36.4	1.6	29.5	-4.2	42.0	88.9	31.8	15.2	
FARAC	51.3	23.3	0.7	9.6	3.8	-19.9	0.3	1.0	-0.1	-0.2	0.4	3.1	
External financing	7.9	13.2	-4.4	-12.0	-28.5	-4.1	18.7	33.2	7.3	11.5	-5.4	-5.0	
Credit and financing TOTAL	14.7	10.6	0.9	6.2	3.0	5.2	5.7	13.2	5.8	13.5	7.3	8.4	
Credit and Financing: Percentage of GDP, %													
Commercial bank credit	3.4	3.2	2.4	2.3	1.6	1.4	1.3	2.2	2.4	2.4	2.5	2.5	
Federal government	2.8	2.4	1.0	0.6	0.3	0.2	0.2	0.3	0.3	0.2	0.1	0.1	
States and Municipalities	0.2	0.3	0.6	0.6	0.5	0.5	0.7	1.1	1.4	1.5	1.8	1.8	
Decentralized gov't agen.	0.4	0.5	0.8	1.1	0.8	0.6	0.4	0.8	0.6	0.6	0.7	0.6	
Development bank credit	1.9	1.5	1.4	1.4	1.2	1.1	1.2	0.9	0.9	0.9	1.0	0.9	
Federal government	1.1	0.8	0.7	0.8	0.6	0.7	0.7	0.4	0.4	0.2	0.2	0.2	
States and Municipalities	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.5	0.6	0.6	
Decentralized gov't agen.	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	
Debt issued in the country	19.2	21.2	21.3	23.2	25.4	25.0	27.6	31.0	31.0	34.1	36.1	38.1	
Federal government	11.0	12.3	11.9	12.4	14.9	15.0	16.8	19.7	19.3	20.0	21.0	22.4	
States and Municipalities	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.4	0.5	0.5	0.5	
Decentralized gov't agen.	0.0	0.2	0.5	1.1	1.3	1.1	1.1	1.2	1.4	1.7	1.6	1.8	
IPAB	3.2	4.0	4.4	5.2	5.6	5.8	6.0	6.3	5.9	5.8	5.5	5.6	
Banco de Mexico	3.6	3.0	2.7	2.7	1.6	1.5	2.1	2.0	2.8	5.0	6.3	6.8	
FARAC	1.4	1.6	1.6	1.6	1.6	1.2	1.2	1.3	1.2	1.2	1.1	1.1	
External financing	9.2	10.1	9.1	7.6	5.1	4.5	5.6	7.7	7.9	8.3	7.6	7.4	
Credit and financing TOTAL	33.7	36.1	34.1	34.5	33.3	32.1	35.8	41.8	42.2	45.6	47.1	48.9	

Source: Banco de México and National Banking and Securities Commission

5. Reforms to the Secondary Regulatory and Legal Framework Applicable to Multiple Banking

Table 19

Reforms to the Secondary Regulatory and Legal Framework Applicable to Multiple Banking: June - November 2013

Subject	Scope of the Reform	Date of publication in the Official Gazette of the Federation
1. SINGLE CIRCULAR. RESOLUTION MODIFYING THE "GENERAL PROVISIONS APPLICABLE TO CREDIT INSTITUTIONS", IN ON-LINE BANKING AND MOBILE TELEPHONY TRANSACTIONS.	• It modifies various aspects of On-line Banking regulations. • It regulates the Mobile Payment transaction and establishes a maximum daily and monthly available amount.	JUNE 3, 2013
2. IV MISCELLANEOUS TAX RESOLUTION FOR 2013.	• It clarifies the procedure for returning balances in favor of taxpayers through Electronic Fund Transfers which are paid to bank accounts of taxpayers. • It requires credits institutions to update or correct the passwords of the Federal Taxpayer Identification Number in their databases, according to the verifications done in the Tax Administration Service (SAT).	JUNE 12, 2013
3. SINGLE CIRCULAR. RESOLUTION MODIFYING THE "GENERAL PROVISIONS APPLICABLE TO CREDIT INSTITUTIONS", REGARDING ESTIMATES OF CREDIT RESERVES OF COMMERCIAL PORTFOLIO AND REGULATORY REPORTS. (BASEL III)	• It modifies the current model of incurred loss to establish a methodology according to which the commercial loan portfolio will be rated and provisioned in accordance with an expected loss model. • It establishes that the new expected loss model should take several technical aspects into account. • A number of references are also updated to ensure consistency between the regulatory capitalization framework and the holding rating framework. • It eliminates the general reserves as part of the additional capital, impacting the calculation of capital.	JUNE 24, 2013
4. RESOLUTION THROUGH WHICH THE OFFICIAL FORM IS ISSUED FOR REPORTING INTERNATIONAL MONEY TRANSFERS, IN TERMS OF THE GENERAL PROVISIONS REFERRED TO IN ARTICLE 115 OF THE CREDIT INSTITUTIONS ACT.	It establishes the Official Form for Reporting International Money Transfers, according to the general provisions referred to in article 115 of the Credit Institutions Act (as well as the instructions for completion) regarding prevention, detection and reporting of operations possibly related to crimes of transactions with illicitly obtained resources or financing of terrorism.	JULY 4, 2013
5. SINGLE CIRCULAR. RESOLUTION MODIFYING THE "GENERAL PROVISIONS APPLICABLE TO CREDIT INSTITUTIONS", FOR REGULATION OF THE PROCESS FOR VALUATION OF MORTGAGE SECURITY IN CREDIT GRANTING.	• It establishes that, with consumer credits –including credit cards- and commercial loans for amounts not exceeding two million Investment Units (UDIs), credits institutions may use parametric methods to approve them. • Dealing with consumer finance, it allows loan guarantees to be valued using parametric methods. In mortgage loans, the parametric valuation can only be complementary. • It regulates the valuation of mortgage securities in loans issued by the credit institutions, even when such institutions render the appraisals service, in order to standardize the valuation process of real estate subject to mortgage lending.	JULY 12, 2013

Table 19 (cont.)

Reforms to the Secondary Regulatory and Legal Framework Applicable to Multiple Banking: June - November 2013

Subject	Scope of the Reform	Date of publication in the Official Gazette of the Federation
6. FEDERAL LAW REGULATION FOR THE PREVENTION AND IDENTIFICATION OF TRANSACTIONS WITH ILLICITLY OBTAINED FUNDS.	It establishes the terms and provisions for due compliance with the Federal Law for the Prevention and Identification of Transactions with Illicitly Obtained Funds, published on October 17, 2012 in the Official Gazette.	AUGUST 16, 2013
7. RESOLUTION 02/2013 OF THE SECRETARY OF THE TREASURY AND STATE CREDIT BY WHICH THE GENERAL RULES REFERRED TO IN THE FEDERAL LAW FOR THE PREVENTION AND IDENTIFICATION OF TRANSACTIONS WITH ILLICITLY OBTAINED FUNDS ARE ISSUED.	• It establishes minimum measures and procedures that shall be observed by those who perform the vulnerable activities referred to in the Federal Law for the Prevention and Identification of Transactions with Illicitly Obtained Funds in order to prevent and detect acts or operations involving transactions with illicitly obtained funds and, • It determines the terms and types in accordance to which such individuals must provide the Financial Intelligence Unit, through SAT, with the notifications referred to in the aforementioned Federal Law for the Prevention and Identification of Transactions with Illicitly Obtained Funds and its Regulations.	AUGUST 23, 2013
8. OFFICIAL FORMS FOR THE REGISTRATION OF THOSE PERFORMING VULNERABLE ACTIVITIES	It determines the official forms for the registration that those performing vulnerable activities must submit, in accordance with the provisions in the Federal Law for the Prevention and Identification of Transactions with Illicitly Obtained Funds, its Regulations and General Rules issued by the Ministry of Finance and Public Credit (SHCP) on the subject.	AUGUST 30, 2013
9. RESOLUTION MODIFYING THE GENERAL PROVISIONS APPLICABLE TO BROKERAGE HOUSES AND CREDIT INSTITUTIONS RELATING TO INVESTMENT SERVICES, PUBLISHED ON APRIL 24, 2013.	• Institutional Investors are excluded from its application, as they have a low level of vulnerability due to their professionalization. • Financial institutions that are institutional investors will have the option to request that the relative regulation be applied as with any other customer, unless there are doubts regarding their skill in the administration of derivatives. • It allows the issuers of securities registered in the National Registry of Securities to ask the brokerage firms and credit institutions from which they hire investment services that they be treated as institutional investors so they are exempt from these provisions. • Those securities whose issuer has the same rating as debt securities are included in the range of securities that can be marketed or promoted, provided that, at the same time, the requirement relating to the maturity date and obligation to settle the principal invested is met	SEPTEMBER 23, 2013
10. RULES OF THE PUBLIC REGISTER OF USERS	• It establishes the operation of the Register of Users of Financial Services (REUS) who do not wish their information to be used for marketing or advertising purposes. • The registration in REUS will be valid for 2 years. • The dates for the registrations in REUS to take effect are: • When registered from the 1st to the 15th day of the month, it shall take effect on the last day of the immediately following month. • If the registration is done between the 16th and the last day of the month, it shall take effect starting on the fifteenth day of the second following month. • The registration in REUS does not prevent registered users from receiving, by any means, communications relating to collection, service quality surveys, charity institutions or other activities not related to the offering of financial products and services.	NOVEMBER 1, 2013

6. Special Topics Included in Previous Issues

July 2013

Corporate Lending: Relationship between Amount, Company Size and Non-Performing Loan Ratio

Statistics of the National Banking and Securities Commission (CNBV) on Lending to SMEs by Federal State and Indicators in Judicial Proceedings Efficiency

Recent Patterns in Efficiency and Competition of the Mexican Banking System

Amendments to the Securities Market Act

Bank Lending to Companies: How Much Can It Grow With an Ideal Financial Reform?

What Does ENAMIN Tell Us About Bank Credit Needs among Microenterprises in Mexico?

November 2012

Statistical Data on Business Credit by Company Size

The Recent Expansion of Public Sector Banks in Brazil: Some Issues to Consider for Mexico

June 2012

The Good Weekend

A Comparison of the Different Sources of Information on Access to and Use of Bank Credit among Mexican Companies

Combined Use of Financial Services

Regulation for Systemically Important Financial Institutions (SIFIs)

November 2011

Current Situation of Bank Credit Cards

The Registration of Property Guarantees

Basic Deposit Accounts, Some International Experiences in the Field and Their Importance as a Means of Bancarization

An Estimate of the Gains in Efficiency Due to the Bancarization of Subsidy Programs in Mexico

March 2011

Financing to the Public and Private Sector: Comparison of CNBV and Banxico Measurements

Evaluation of the Mexican Financial System through Perception Surveys and the Importance of Incorporating Observed Data

Financial Savings: Two Ways of Measuring Them, Based on CNBV and Banxico Statistics

Credit Bureaus: toward the Incorporation of More and Better Information

July 2010

Does Judicial Efficiency Reduce the Cost of Credit?

Credits to Related Parties

Effects of Restrictions on External Financing: Investment and Growth for Countries in the Demographic Window

"Mobile Money" in Kenya

Available in www.bbvaresearch.com in Spanish and English

Other publications:

Global Outlook

Economic Outlook
Mexico

Migration Outlook
Mexico

Real Estate Outlook
Mexico

Regional Sectorial Outlook
Mexico

Toward the Strengthening of the Pension Systems in Mexico: Vision and Reform Proposals