BBVA | RESEARCH

Banking Outlook

Mexico

June 2012

Economic Analysis

- Total bank credit to the private sector accumulates 25 months of growth, thus consolidating its expansion process
- Data from the Economic Census show that companies that use banking services have better indicators of operation, payment capacity and formality
- Credit to families has grown in a dynamic way and specialized surveys would make possible a more accurate analysis of their financial situation
- More than three years after the global crisis, the banking sector in Mexico maintains its financial and operating strength which has made possible the healthy expansion of credit. The model of affiliates with which foreign banks operate in the country has contributed to this

BBVA Bancomer

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Closing date: May 31, 2012

*We are grateful for the valuable collaboration of INEGI personnel, especially that of José Luis Mercado Hernández and Susana Patricia Pérez Cadena, in the processing of the Census data as well as their valuable clarifications and suggestions.

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Summary

Total credit of the banking system: consolidation of its growth process at an average nominal rate of around 15%. Throughout 2011, total credit granted by the commercial banks continued its growth process, and as of the second half of that year and through April of 2012, the average nominal growth rate reported is high and at 15%. This rate indicates that the expansion of credit is consolidating and that credit has been flowing for the benefit of its users.

All the components of total bank credit to the private sector grew in 2011 and high growth rates have continued in 2012. At the end of 2011, annual nominal growth rates of consumer credit (24.3%), credit to businesses (16%) and housing loans (8.4%) reflected a dynamic performance of credit activity. This has continued up to April 2012, with consumer credit continuing to post a high rate (23.4%), as well as credit to businesses (11.7%) and housing loans (10.4%).

"The Good Weekend" campaign resulted in favorable purchasing conditions for families, given its promotions and discounts. Moreover, many familites took advantage in November of 2011 of the favorable sales conditions that "The Good Weekend" provided, by making purchases with their bank credit cards. However, the following month the balance of consumer credit granted through credit cards diminished. This indicates that consumers made use of purchasing opportunities and avoided excessive spending and indebtedness, which is a good sign.

Credit growth forecasts: at BBVA Research we expect, in accordance with our estimates in the base scenario, that in 2012 total bank credit to the private sector will exhibit an annual average growth rate of 14.8% (10.5% in real terms). This expected growth rate is greater than that of 2011 (13.1% in nominal terms, and 9.5% in real terms) and the strength of credit activity is due to the consolidation of its expansion process supported by a favorable macroeconomic environment. This scenario is supported by expectations for this year of real GDP growth of 3.7%..

The expanded growth of bank deposits (traditional or core deposits plus debt mutual funds) will also continue growing at a good rate. We expect that in 2012, the nominal annual average growth rate of these deposits will continue to be high, at 10.3% (6.2% in real terms). In 2011, the annual average growth rate of core deposits was slightly higher, as a consequence of the high growth rate of the component of demand deposits. For 2012 it is expected that the growth of this type of deposits will be more moderate, since this expansion rate is linked to a greater degree to economic growth.

The Economic Census figures for companies that in 2008 managed a bank account (checking, savings or investment account) indicate that these were more than triple that of companies that obtained bank credit in that year. It should be mentioned that the companies that have a bank account or bank credit present a pattern of similar characteristics that distinguish them; among these, it is significant that they show high labor productivity, that they tend to be more formal that their profit margins are high and that they have a high payment capacity. The companies that do not have a bank product, either in deposits or credit, show lower efficiency and productivity levels. This implies that, in general terms, the less efficient companies and those with a greater features of informality are those that are more distant from bank support.

Indebtedness and debt service of families: it is necessary to have information and surveys that allow knowing the financial health of families. The behavior of total credit to families from 2000 to 2011 is estimated and analyzed. This includes consumer credit and housing loans of both bank and non-bank origin. With information on interest rates and assumptions of amortization rates, an exercise is conducted, which estimates the amount of debt service of families during the analyzed period. Results indicate that the debt service of families has increased in line with their balance, and to know in detail and with accuracy if this service represents a low or high financial burden for families, it is necessary to have additional information on the financial health of families as is drawn from the information of specialized surveys on the subject, which do not yet exist in Mexico.

The banking sector in Mexico, three and a half years after the start of the international financial crisis, is operating normally and without indications of having suffered an adverse impact. Consequently, the banking system is ready to adopt the most of the provisions of Basel III with regard to capital and liquidity. The article explains the different types of presence that foreign banks may have in a country, which range from the presence of a representation office to an affiliate or subsidiary of a foreign financial institution, as is the case in Mexico. In a more detailed manner, the modalities that operate in Mexico are also described, considering the role that the National Banking and Securities Commission (the CNBV for Comisión Nacional Bancaria y de Valores) as an authority, may grant authorization for any financial institution to operate in the country based on current regulatory standards and laws. In this way, to the extent that there is appropriate supervision by the national financial authorities, a proper legal framework which has been modified when considered opportune (the case of reducing the limits of exposure to related persons, which was done in March of 2011, and the migration of a model of losses incurred to a model of expected losses for the formation of loan reserves) are factors that have contributed to a great extent to the stability of the banking system in the country. Other important aspects are the current capitalization level of the banking system and the possibility that the provisions of Basel III are adopted without too many problems. These factors, together with the model of affiliate banks followed in the country--which subjects the institutions to the provisions with regard to minimum capital, the formation of boards of directors and of operations, as provided for in Mexican legislation-have been important elements in the strength of the country´s banking system.

2. Juncture

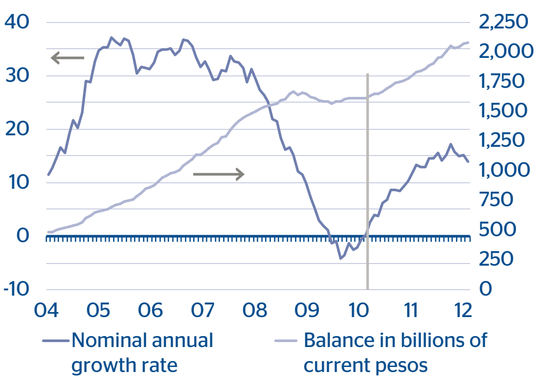
2.a Bank Loans to the Private Sector; Recent Evolution and Outlook

2.a.1 All the components of bank loans register high growth rates

Since April 2010, total loans granted by the commercial banks to the private sector stopped being affected by the 2009 recession. Since that month, they have registered positive nominal annual growth rates and, in April 2012, they reached more than two years of uninterrupted growth. It should be mentioned that the dynamics of bank loans has been growing. For example, in April 2010, their annual nominal growth was 0.3%; through December of that year, they rose to 8.3%; in 2011 they continued to accelerate, so that in December of that year, their rate stood at 17.1%, as can be seen in Graph 1.

Graph 1

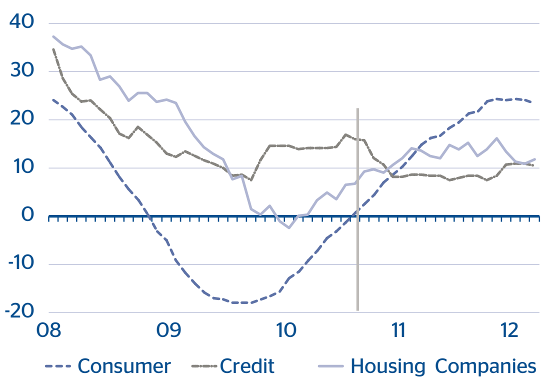
Total Loans of Commercial Banks to the Private Sector (Balances in Current Billions of Pesos and Annual Nominal Growth Rate, %)



Source: BBVA Research with Banco de Mexico data.

Graph 2

Bank Loans for Consumption, Housing and Companies (Annual Nominal Growth Rates, %)



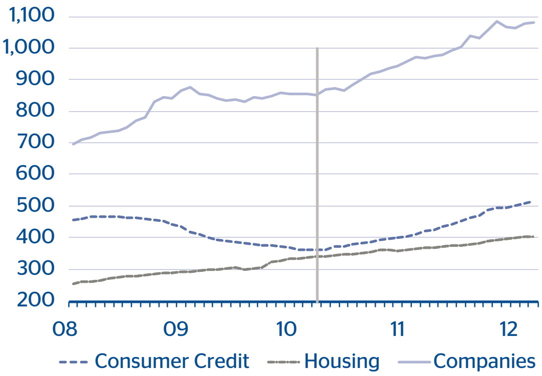
Source: BBVA Research with Banco de Mexico data.

The dynamic process of the expansion of bank credit allowed their balances to increase quickly. Graph 1 also indicates that the adverse effect of the 2009 recession lasted nine months, through October of that year and, as of the following month, it began to rise in a sustained manner. This caused that, from August 2009, the date on which the nominal balance of total bank credit to the private sector reported its minimum level through December 2011, and through April 2012, it increased 30.6% and 32.8%, respectively, in nominal terms.

On the other hand, it should be mentioned that not all the components of bank credit were affected severely by the 2009 recession. This was the case of housing loans, which at no time registered negative growth rates, as shown in Graph 2. In turn, bank loans to companies showed a quick recovery, since they only displayed negative growth rates consecutively during a brief time lapse of eight months. Once this period passed, the balance of this type of loans grew once again in a sustained manner, as shown in Graph 3. It should be mentioned that consumer credit was the component of bank credit to the private sector that turned out to be the most affected by the 2009 recession. However, the expansion process that began in the last months of 2010 has been dynamic, particularly throughout 2011. Moreover, the favorable performance of consumer credit has made it one of the main driving sources of total bank credit.

Graph 3

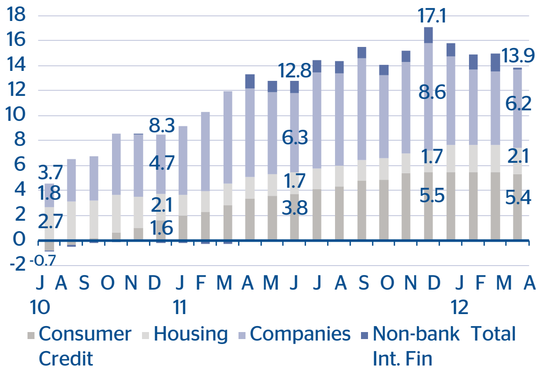
Bank Loans for Consumption for Housing and Companies
(Figures in Current billion pesos)



Source: BBVA Research with Banco de Mexico data.

Graph 4

Credit to the Private Sector: Contribution to Nominal Growth of Total Credit by Component (%)



Source: BBVA Research with Banco de Mexico data.

The recovery of bank credit to the private sector after the 2009 recession has taken place within a macroeconomic context favorable to credit activity. Graph 4 indicates that the contribution to growth by credit for housing and companies as of July 2010 was of such magnitude that total bank credit once again registered positive nominal growth rates. In that month, the total credit annual nominal growth was 3.7%. Two months later, to that impulse was added that of consumer credit. Graph 4 indicates that even though all the components of bank credit are contributing positively to its growth, the categories of credit to companies and consumer credit are those that to a greater extent have boosted the expansion of bank credit.

Available statistics indicate that the favorable trend in bank credit will continue in 2012. The above is based on the fact that in the first four months of this year, the growth rate in bank credit has continued to be high and, in the first four months of 2012, its average nominal annual growth rate was 14.9%. This average growth rate is higher than that of 11.1% that bank credit registered in the first four months of 2011.

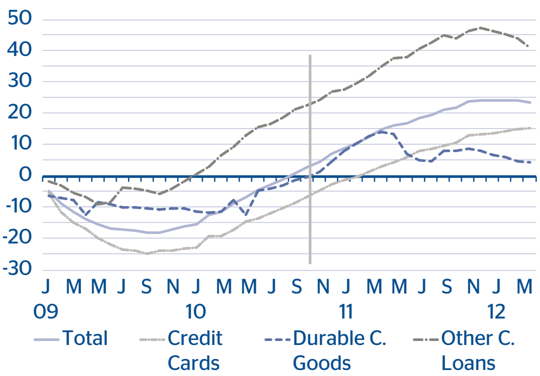
2.a.2 Consumer credit: registered the highest growth rate and of note is the payroll credit component

Consumer credit reactivated its expansion process in September 2010 when it once again registered positive nominal growth rates. In that month, the rate was 0.9%. As of that date, the expansion process has been dynamic, because, for the 20 months that passed since it resumed growth, the growth rate has been increasing and, in December 2011, the annual nominal growth rate was a high 24.3%, as shown in Graph 5.

Consumer credit has three components that are: 1) Credit Cards (CC); 2) Durable Consumer Goods (DCG), such as a loan for acquiring a car; and 3) Other Consumer Credit (OCC), such as payroll and personal loans. As seen in Graphs 5 and 6, the OCC category is the one that has registered the strongest growth and is therefore the one that has contributed the most to growth in bank consumer credit. Also, this type of consumer credit was the first to resume growth as of January 2010. In that month, its annual nominal growth rate was 0.7%.

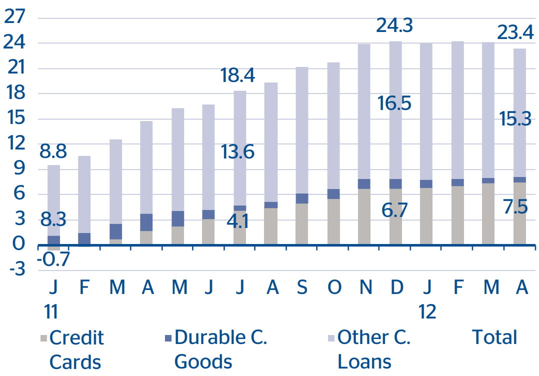
The expansion process of OCC (other consumer credit) has accelerated, and at the end of 2010, its annual nominal growth rate was 26.8%- This continued to increase to stand at 40.8% by July 2011. From that month to the end of 2011, its expansion rate still increased and, in December of that year, the growth rate was 47.5%. In the first four months of 2012, its average growth rate has continued to be particularly high at 44.1%. The great dynamism of the OCC is due to the great acceptance that payroll loans (PL) have had. The acceptance of this product is seen when considering available data at the National Banking and Securities Commission (CNBV) since the second half of 2011 the number of payroll loans that have been granted. This type of consumer credit increased 11% in just four months or by almost 400,000 loans. The rise in the PL led these to pass from 3.3 million in August of that year to almost 3.7 million at the end of 2011, according to the latest datum available.

Graph 5
Growth of Bank Consumer Credit : by Component (Annual Nominal Growth Rates %)



Source: BBVA Research with Banco de Mexico data.

Graph 6
Consumer Credit : Contribution to its Nominal Growth by Component (%)



Source: BBVA Research with Banco de Mexico data.

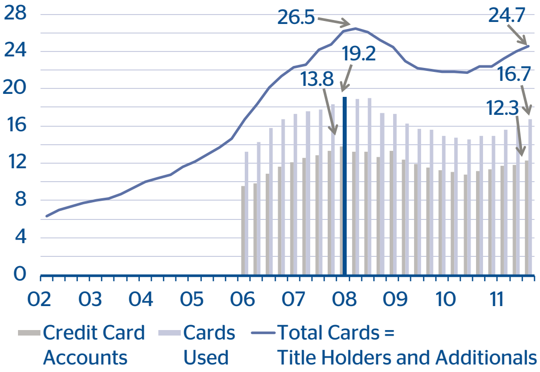
Another important source driving consumer credit has been that which is granted by credit cards (CC). The reactivation of this type of credit is related to the rise in the number of cards that the banks have issued. It should be mentioned that the 2009 recession affected the number of credit cards issued through the third quarter of 2010. From that date to the end of 2011, the last datum available, the total number of new cards rose by a little more than 2.8 million when their total stood at almost 24.7 million, as indicated in Graph 7.

Growth in the number of PL and of CC has been the result of a favorable macroeconomic environment. among other aspects, due to an important rise in the number workers affiliated to the Mexican Social Security Institute (IMSS by its Spanish acronym). From May 2009 through December 2011 and through April 2012, the number of workers affiliated to that Institute increased by almost 1.5 million persons and slightly more than 1.8 million persons, respectively. The growth in formal employment increases the number of persons who can receive a PL or request a CC, because these persons have a provable and stable income. In this sense, to the extent that formal employment continues to grow in a similar way as it has been doing in recent years, the expansion in consumer credit will continue. The outlook for the current year will continue to be high, because, in the first four months of 2012, the average annual nominal growth rate was 24%, which is a high growth rate that contrasts with that of 11.7% for the same period of 2011.

2.a.3 Loans to companies: their performance is linked to the performance of investment and of GDP

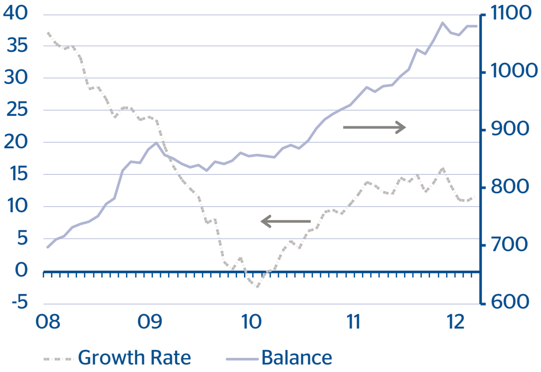
Following the 2009 recession, credit to companies experienced an important process of reactivation and expansion. As can be seen in Graph 4, growth of this type of credit and its relative importance has led it to be the credit category that has contributed the most to total credit. From the second half of 2010, the expansion of credit to companies stands out when it is considered that its nominal balance from August 2009, the date on which it exhibited minimum level due to the recession of that year, through December 2011 and through April 2012, it grew close to 31% and 30%, respectively, in nominal terms.

Graph 7
Bank Credit Cards
(Figures in Millions of Cards)



Source: BBVA Research with Banco de Mexico data.

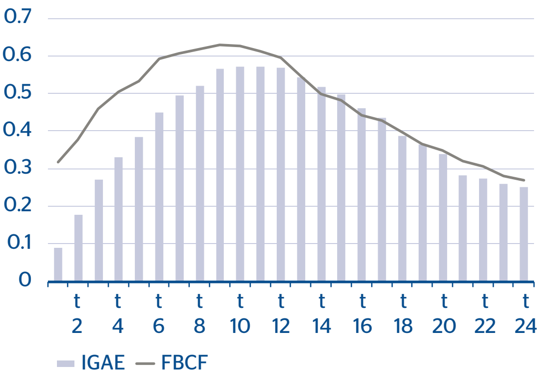
Graph 8
Bank Credit to Companies
(Balance in Current Billions of Pesos and Annual Nominal Growth Rate, %)



Source: BBVA Research with CNBV data.

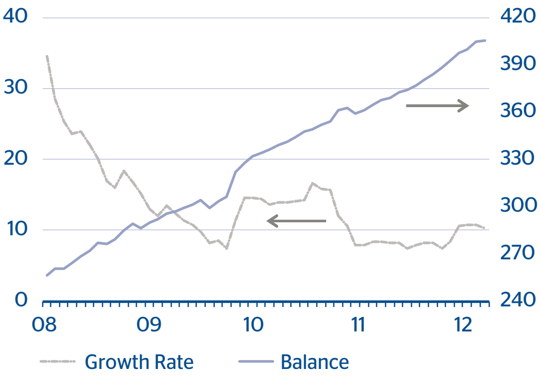
On the other hand, credit to companies shows an important relationship with the performance of economic activity (GEAI or Global Economic Activity Index) and gross fixed investment (GFI). This links are present among the real growth rates of loans with the GEAI growth rates and that of investment, with several months lag, as can be seen in Graph 9. The relationship between credit growth to companies and the two macroeconomic variables referred indicates that the expansion in productive activity generates new opportunities of business and investment for companies, which can take advantage of bank credit. Given the growth of GDP and that of investment, the productive entities will increase their demand for credit in order to meet new needs for working capital and, in its case, increase their productive activity. In this sense, while GDP and investment continue to grow at a rate similar to what they did in 2011, bank credit to companies will also continue to flow. It should be mentioned that in 2011, GDP grew 3.9% and investment 8.8%. In the first four months of 2012, the annual nominal growth rate in bank credit to companies came to 11.7%. This rate reflects a favorable performance of this credit category.

Graph 9
Real Annual Growth Rate of Credit to Companies, of the GEAI and of Investment
(Correlation Coefficient of Monthly Lag (t - i))



Note: Gross Fixed Capital Formation, FBCF by its Spanish acronym
Source: BBVA Research with Banco de Mexico and INEGI data.

Graph 10
Bank Loans for Housing
(Balance in Current Billion Pesos and Annual Nominal Growth Rate, %)



Source: BBVA Research with Banco de México and INEGI data.

2.a.4 Housing Loans: its moderate growth depends on a lower housing lag, on amortizations, on prepayments and on the terms of the loans

Housing bank loans were not affected by the 2009 recession. Moreover, despite the unfavorable macroeconomic environment of that year, this credit category to families did not halt its growth process. Among other factors, behind the behavior of housing loans are the creation of new homes, progress in the reduction of the housing lag in the country which has been attended by different credit products, and the disposition of banking institutions for continuing to grant these loans. These factors have allowed bank housing loans to continue to flow and grow.

It should be mentioned that each monthly payment made by a customer who has received this type of loan implies the amortization of a percentage of the balance. To the extent that these loans acquire greater seniority, a greater proportion of the monthly payment is destined toward amortizing the loan. This factor has an influence on that the balance growth rate of the housing loan gets lower than if it were a revolving credit or a loan for which the monthly payments did not imply amortization. Also, housing loans have the characteristic that they slowly constitute the patrimony of the loan holder. In this way, the higher the amount or proportion of the payments channeled to amortization of the housing loan will make the growth rate of the balance of this loan to apparently not be dynamic, even though the origination of new housing loans is dynamic.

According to CNBV figures, in 2011 the total amount of new housing loans that the banks granted was 80.8 billion of Mexican pesos (MPX). This figure represents a 22.3% increase in the nominal balance of the standing loan portfolio that the banks reported at the end of 2010. However, the annual nominal growth rate of standing housing loans observed in December of 2011 was lower and at 8.4%. That is, if housing loan amortizations and prepayments were not registered among other headings, the annual nominal growth rate would have been significantly higher than the 8.4% that was registered at the end of 2011.

The subject of housing loan amortizations and prepayments is therefore relevant, since, independently of the growth rate that the balance reports, it must not be forgotten that the amounts of resources channeled by the banks are of great magnitude. For example, based on information from the CNBV, in 2011 the banks channeled housing loans for an amount close to 0.6% of GDP, and, with these resources more than 111,000 loans were granted for acquiring a home. Also, it must be kept in mind that the amounts of the new housing loans cannot be reflected in an important increase in the housing loan balance if this loan portfolio is already presenting signs of maturity. This means that the older a housing loan is, a greater proportion of the payment made by the customer is destined to the payment of amortization than to interest. Thus, the higher amortization quickly reduces the unpaid loan balance.

The above notwithstanding, the outlook of housing bank loans for the current year is also positive, since in the first four months, the average annual nominal growth rate of the balance of this loan category was 10.7%, while in the same period of 2011 the average growth rate was lower, at 8.2%. To the extent that a favorable macroeconomic environment persists, which is particularly reflected in dynamic growth in formal employment, it will be considered as a result that housing loans will continue to grow at high rates.

2.a.5 Outlook for bank loans in 2012: a better performance of loans is expected this year compared to last year

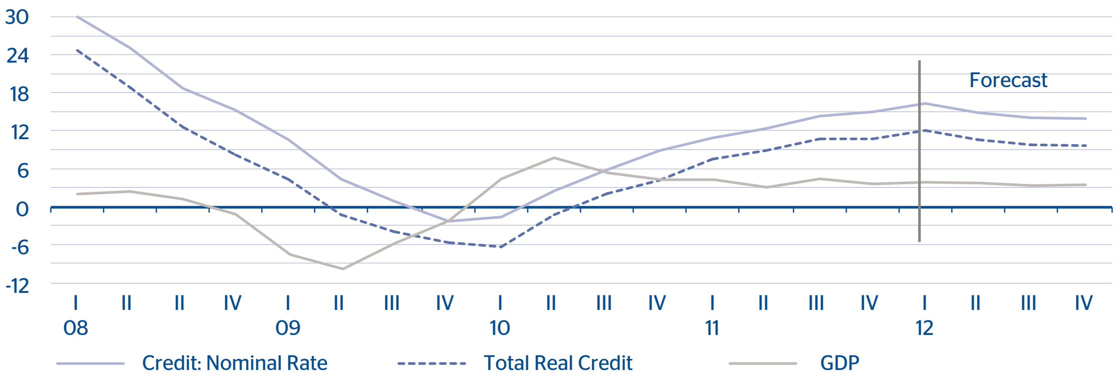
For 2012, at BBVA Research in our base scenario, we expect that the GDP growth rate will be 3.7%. This dynamism in economic activity will allow the average annual nominal growth rate of total bank loans granted to the private sector to be of 14.8%, which is higher than the 13.1% rate that was registered in 2011. It should be mentioned that if in 2012 GDP grows at a higher rate, which could be 4%, this would imply an additional boost to the expansion of bank credit and it could grow at an average nominal rate of 15%.

On the other hand, for 2012, it is expected that the main source for growth in bank credit could be consumer credit. As was commented, in 2011, the average annual nominal growth rate of this credit category was 11.4% and in 2012 this will probably be 19.2%. It should be mentioned that the most dynamic part of consumer credit in 2011 was registered in the second half of that year, since, in the first half the average nominal growth rate was 13.3% and this grew to 21.5% in the second half. It is considered that consumer credit will maintain a high growth rate in the first half of 2012, which will slow down gradually in the rest of the year.

As regards credit to companies and housing loans, it is estimated that in 2012 these will grow at a slightly higher rate than in 2011. In particular, the average nominal growth rate of bank housing loans and credit to companies was 8.1% and 13.3%, respectively. For 2012, it is expected that the average annual growth rate will be 9.6% for housing loans and 14.8% credit to companies.

To the extent that the economy continues to show a sustained growth rate and signs of strength, the demand and supply of credit to the private sector will continue to flow. This means that in a favorable macroeconomic environment for growth and price stability implies delimited risks in addition to the fact that these factors generate conditions that favor that credit demand and supply will continue to grow.

Graph 11
Total Commercial Bank Credit and GDP (Real and Nominal Annual Growth Rate, %)



Source: BBVA Research estimates and Banco de Mexico and INEGI data.

Chart 1
Total Bank Loans and GDP (Real and Nominal Annual Growth Rates, %)

Observed until IV-11; estimated since I-2012				Annual average growth rates %			
	Nominal Credit Rate	Real Credit Rate	GDP		Nominal Credit Rate	Real Credit Rate	GDP
I-09	10.6	4.3	-7.5				
II	4.4	-1.2	-9.7				
III	0.9	-3.8	-5.6				
IV	-2.2	-5.6	-2.2	2009	3.4	-1.6	-6.2
I-10	-1.6	-6.2	4.5				
II	2.4	-1.2	7.8				
III	5.8	2.1	5.4				
IV	8.8	4.3	4.4	2010	3.9	-0.3	5.5
I-11	10.9	7.6	4.4				
II	12.4	8.8	3.2				
III	14.3	10.8	4.5				
IV	14.9	10.7	3.7	2011	13.1	9.5	3.9
I-12	16.4	12.0	3.9				
II	14.8	10.6	3.8				
III	14.1	9.8	3.4				
IV	14.0	9.7	3.6	2012	14.8	10.5	3.7

Source: BBVA Research estimates and Banco de Mexico and INEGI data.

2.b Bank Deposits: Recent evolution and Outlook

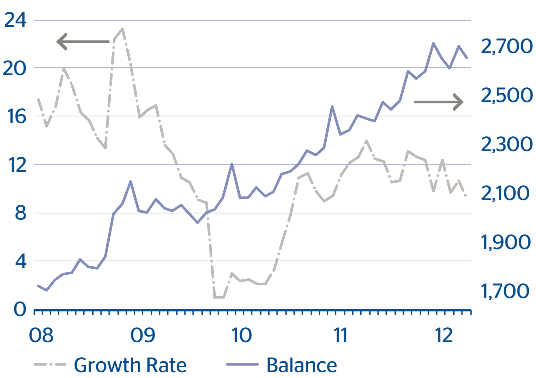
2.b.1 Core deposits: positive performance

The growth rate of traditional or core deposits in the commercial banks, which is the sum of those made in traditional savings, demand deposits and term deposits, from the fourth quarter of 2009 to the second quarter of 2010 was modest, at a 2.7% annual average nominal rate. This growth rate was the delayed effect of the 2009 recession, the year in which GDP was reduced 6.1%. As of the second half of 2010, the annual average growth rate of traditional deposits increased significantly and in that period, was 9.8%. This better performance of bank savings was the result of GDP growth in that year (5.5%). Also, the favorable performance of traditional or core deposits continued in 2011 and the average growth rate registered that year was 12%. In the first four months of 2012 the average growth rate continues to be high and was 10.6% (Graph 12).

The high growth rate of traditional bank deposits in the 16 months from January 2011 to April 2012 reflects a positive performance, both of the economy as well as of the banking system, and in the latter with regard to savings deposits. To the extent that a positive macroeconomic environment continues to prevail, bank deposits will continue to post outstanding performance.

Graph 12

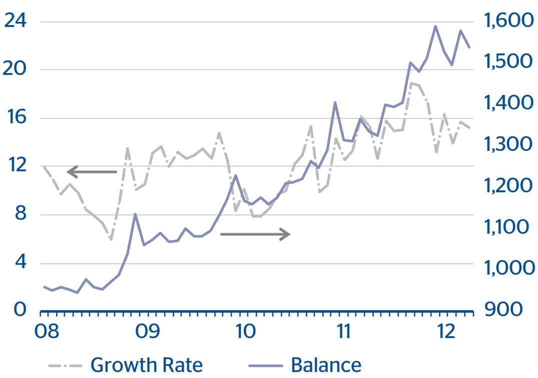
Total Deposits in the Commercial Banking System. (Balances in Current Billions of Pesos and Nominal Annual Growth Rate, %)



Source: BBVA Research with Banco de México data.

Graph 13

Demand Deposits in the Commercial Banks (Balances in Current Billions of Pesos, and Nominal Annual Growth Rate, %)



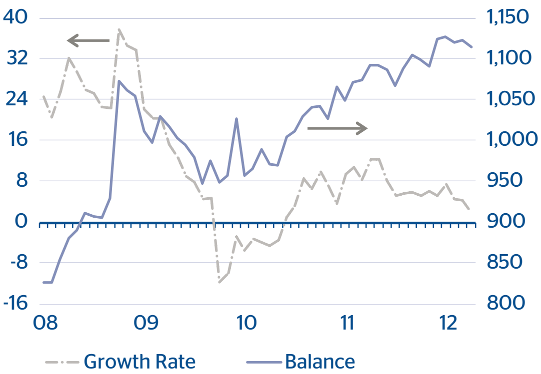
Source: BBVA Research with Banco de México data.

2.b.2 Demand deposits: the most dynamic bank savings instrument

Throughout 2010 bank demand deposits grew and their average annual growth rate for the first six months was lower (9%) than that of the second half of that year (12.6%). In 2011, the growth of demand deposits was even greater and its annual average nominal growth rate rose to 15.3%. Among the factors that in 2011 spurred the growth of demand deposits are GDP growth (3.9%) and a lower inflation rate. In 2010 inflation registered an annual average of 4.2% and for 2011 it dropped to 3.4% (Graph 13). It should be mentioned that GDP growth spurs demand deposits because personal income is higher as well as transactions among economic agents. Moreover, the lower inflation rate also favors demand deposits because it reduces the opportunity cost of maintaining resources liquid as occurs with this type of bank deposits.

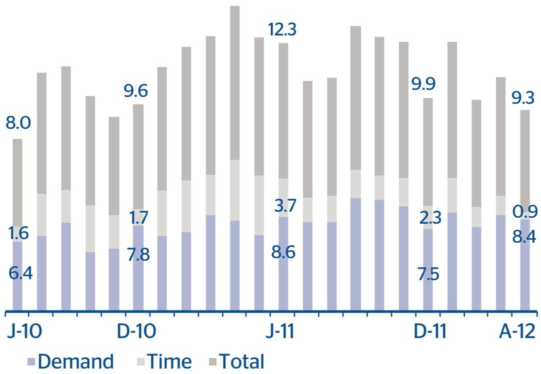
The annual average nominal growth rate of demand deposits has continued to be high and in the first four months of 2012 was 15.3% (Graph 13). This rate was higher than the 14.4% average growth rate for demand deposits during the same period of 2011. These figures indicate that the performance of demand deposits continues to be very favorable.

Graph 14
Time Deposits in the Commercial Banking System. (Balances in Billions of Current Pesos and Annual Nominal Growth Rate, %)



Source: BBVA Research with Banco de México data..

Graph 15
Traditional or Core Deposits Contribution to Nominal Growth of Deposits by Component (%)



Source: BBVA Research with Banco de México data.

2.b.3 Time Deposits: with moderate growth and a lower contribution to the growth of traditional or core deposits

From 2009 to date, the performance of time deposits has been more modest than that of demand deposits. This is the result of the important effect that the 2009 recession had on this type of savings instrument, since the reduction in income that this implies reduced the amount of resources that could be channeled toward this bank svings instrument. The effect of the reduction of GDP in 2009 and the greater preference of savers for demand deposits were factors that influenced the modest 1.7% nominal average growth of bank time deposits in 2010. In 2011 this average growth rose to 8% and for the first four months of 2012, it was 4.7% (Graph 14).

From the beginning of 2010 to date, the growth rate of time deposits has been lower than that of demand deposits. This has been relfected in a lower contribution of time deposits to the growth of core deposits, as shown in Graph 15. In turn, the contribution of demand deposits to the growth of core deposits has had a greater absolute and relative importance.

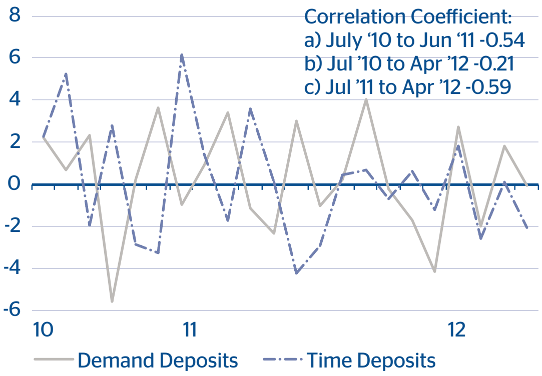
2.b.4 Time Deposits: lower growth due to being replaced by other savings instruments

The lower growth of time deposits in the last two years is due to a large extent to two factors. In the first place, it is possible that demand deposits have replaced time deposits to a great extent, particularly from the second half of 2010 to the first half of 2011[1] That is, during this period, the increase in the predominance of demand deposits, in terms of monthly increases in their annual growth rate, was accompanied by important losses the relative terms in time deposits, since the growth rate of the latter showed frequent declines in the same period. The final result was an important expansion of demand deposits at the same time that time deposits were sluggish. The validity of this explanation applies from the third quarter of 2010 to the second quarter of 2011, as shown in Graph 16.

[1] One way of viewing the inverse relationship or degree of substitution among these two variables is through its correlation coefficient (CC), which is negative if one variable replaces the other The CC between the monthly difference of the annual growth rates of demand deposits and of time deposits was 0.54 from July 2010 to June 2011.

Graph 16

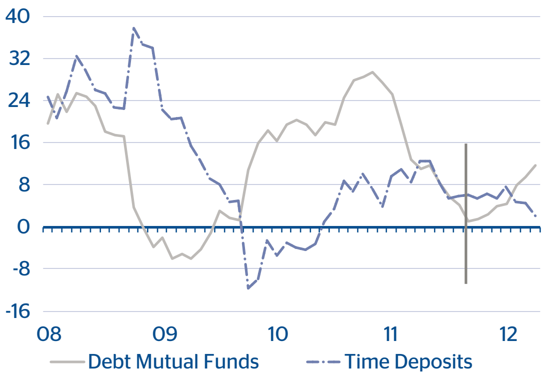
Demand Deposits and Time Deposits :Monthly Difference of the Real Annual Growth Rate



Source: BBVA Research with Banco de México data.

Graph 17

Time Deposits and Debt Mutual Funds (Annual Nominal Growth Rates, %)



Source: BBVA Research with CNVB (National Securities and Banking Commission) data.

Another factor that has also affected time deposits has been the expansion of debt mutual funds. These are savings instruments that in practice are replacing bank time deposits. Generally, when one grows strongly, the other does so only moderately or contracts. It shoud be mentioned that this inverse relationship has failed to operate temporarily due to the existence of other factors. Once these stop having an impact, the inverse relationship between time deposits and debt mutual funds is restored. As shown in Graph 17, during the second and third quarter of 2011, this inverse relationship was not present, and since October of that year that it was again present.[2] This is due to the fact that the annual nominal growth rate of time deposits was reduced from 5.4% in October of 2011 to 2% in April of 2012, while the growth rate of debt mutual funds rose from 1.6% to 11.8% in the same period.

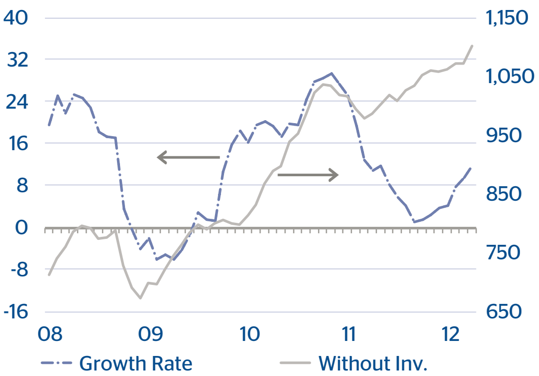
2.b.5 Debt Mutual Funds: begin to show signs of important improvement

At the end of 2008, debt mutual funds showed a severe contraction in their balance due to the fact that in October of that year their balance showed important declines. The 2009 recession did not affect the debt mutual funds, and as the effect of those declines was eliminated, throughout that year debt mutual funds began to recover and resumed their growth. In 2010, the growth rate of debt mutual funds was high, 22.6% on average. This growth rate was not maintained in 2011 when in the first half of the year, its average nominal growth rate first fell to 14.8% and in the second half it was reduced to 3.2%. It is possible that the modest growth rate of debt mutual funds in 2011 is due to a certain degree to the fact that resources that could have been channeled to debt mutual funds were redirected to demand deposits in a similar manner as what occurred with time deposits. As mentioned previously, the expansion process of debt mutual funds restarted at the end of 2011 and its growth rate has been rising, until in April of 2012 it was two digits, at 11.8% (Graph 18).

2 The inverse relationship between bank time deposits and the savings channeled toward debt mutual funds can also be seen in a negative CC. From January 2005 to June 2010 the CC between the growth rates of these two variables was 0.44, It shoud be noted that from July 2010 to June 2011, the CC between the growth rates of these two variables was a positive 0.20, which indicates that in that period time deposits and debt mutual funds moved in the same direction, not competing against each other. Possibly this was the result of the temporary impact on both variables of some other, as could have been demand deposits. The inverse relationship was re-established as of July 2011 and since that month up to April 2012, the CC between time deposits and debt mutual funds was negative, and of 0.79.

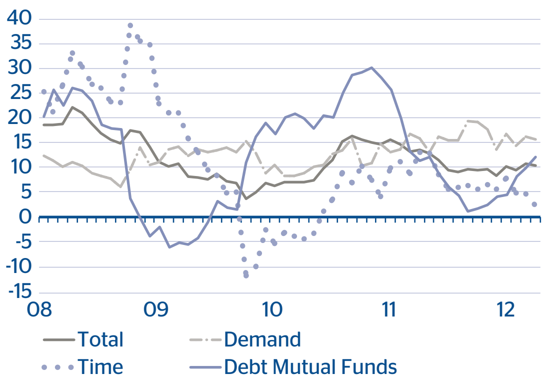
It should be mentioned that generally demand deposits and debt mutual funds behave in a similar manner. If one grows, the other also grows.[3] However, from July 2010 to September 2011 a temporary inverse relationship was seen between these two variables. This indicates that these two savings instruments went through a period in which the high growth of demand deposits also implied the replacement of debt mutual funds. It should be noted that from December 2011 to April 2012 the relationship between these two variables has again been positive. This would indicate that debt mutual funds no longer show the adverse effect of the high growth of demand deposits and now begin to grow in line with GDP growth. The favorable behavior posted by debt mutual funds as of the final months of 2011 and the early months of 2012 leads us to think that this will continue throughout the year, supported by GDP growth (Graph 18).

Graph 18
Debt Mutual Funds (Balances in Billions of Current Pesos and Annual Nominal Growth Rate, %)



Source: BBVA Research with Banco de México data.

Graph 19
Commercial Bank Deposits, Expanded, Demand, Time and Mutual Funds (Annual Nominal Growth Rates, %)



Source: BBVA Research with CNBV (National Banking and Securities Commission) data.

2.b.6 Total deposits (traditional or core deposits plus Debt Mutual Funds): More stable and show the short-term trend of the main savings instruments

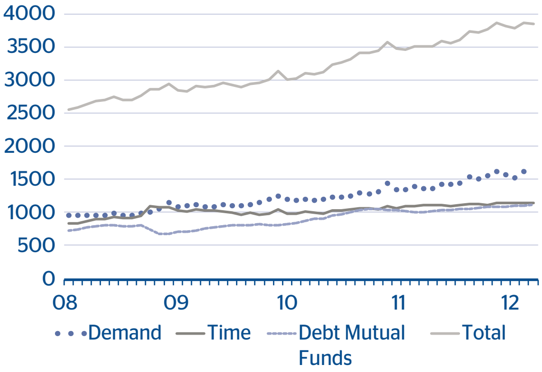
Total deposits or expanded deposits are the sum of traditional or core bank deposits (demand plus time deposits) and of debt mutual funds. The 2009 recession caused this to show a relatively low annual average nominal growth rate of 7.6%. GDP growth since 2010 allowed this average growth rate to increase to 9.7% in 2010 and to 12% in 2011. In the first quarter o 2012, it was 9.9% (Graph 19).

It should be mentioned that to the extent that total deposits are the sum of three components (demand deposits, time deposits and debt mutual funds), this is one reason why its behavior is the weighted average of its parts. For this reason, total deposits show a more stable evolution than that of each of its components, which makes it a better measure for analyzing the evolution of total savings in the short term. This is also important when considering the cases in which a savings instrument replaces another, but the aggregate behavior of all of them shows a specific trend. On the other hand, Graph 21 indicates that from January 2011 to April 2012 the expanded deposits component that on average has most contributed to their growth has been been demand deposits, followed by debt mutual funds and time deposits.

[3] The positive relationship between the growth rates of these two variables is seen in a positive CC. From January 2001 to June 2011 this was +0.47. However, from July 2010 to September 2011, the CC between these two variables was negative,and of 0.71. That is, this period of growth of demand deposits affected the expansion of debt mutual funds.

Graph 20

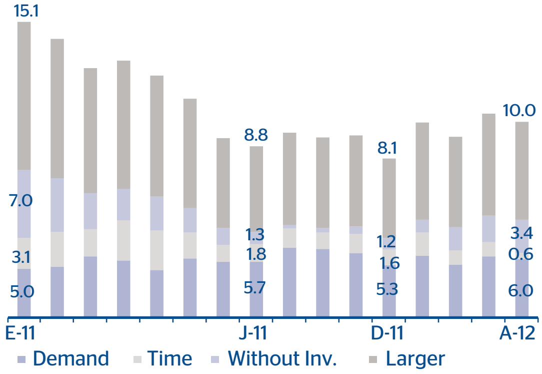
Commercial Bank Deposits. Total, Demand, Time Deposits, and Debt Mutual Funds (Balances in Billions of Current Pesos)



Source: BBVA Research with Banco de México and INEGI data.

Graph 21

Expanded Deposits, Demand, and Time Deposits and Debt Mutual Funds. Contribution to Growth of Expanded Deposits, %



Source: BBVA Research with Banco de México and INEGI data.

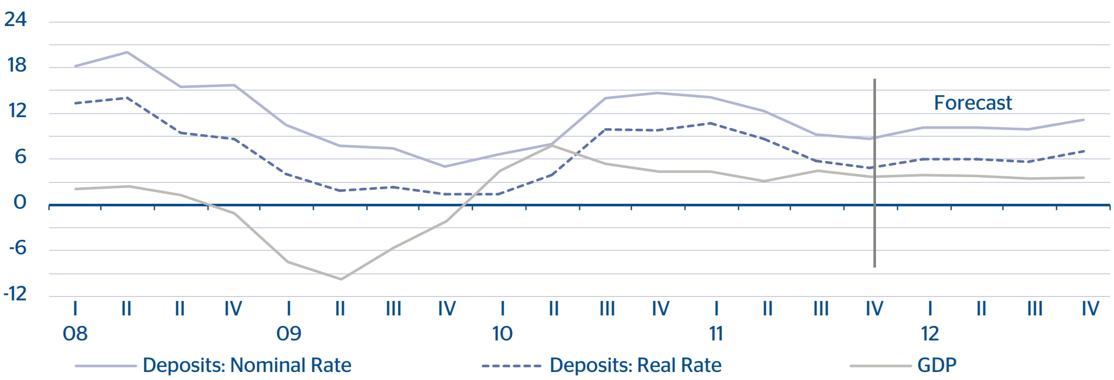
2.b.7 Outlook for Deposits in 2012: the positive performance of savings will continue

The outlook for total deposits in 2012 is favorable, to a great extent supported by the expected growth of GDP in the year, of 3.7% according to our base scenario at BBVA Research. Given the current favorable outlook for the economy, it is possible that GDP growth could be higher, at 4% in 2012.

Expected 3.7% growth of economic activity will allow total deposits to register an annual nominal growth rate of 10.3%. This is due to strong growth in demand deposits, for which an average nominal growth rate of 14.4% is expected, and expected average growth rates of 9% and 6.2%, respectively for debt mutual funds and time deposits (Graph 22).

Graph 22

Total Deposits* of the Commercial Banks and GDP (Real Annual Nominal Growth Rate, %)



* Total Deposits = traditional or core bank deposits (demand + time) + debt mutual funds.
Source: BBVA Research own estimates and Banco de México and INEGI data.

Chart 2

Total Deposits* and GDP (Real and Annual Nominal Growth Rates, %)

Observed until IV-11; estimated as of I-2012				Annual average growth rates, %			
	Deposits Nominal Rate	Deposits Real Rate	GDP		Deposits Nominal Rate	Deposits Real Rate	GDP
I-09	10.4	4.1	-7.5				
II	7.7	1.9	-9.7				
III	7.3	2.3	-5.6				
IV	5.1	1.4	-2.2	**2009**	**7.6**	**2.4**	**-6.2**
I-10	6.5	1.5	4.5				
II	7.9	4.0	7.8				
III	14.0	9.9	5.4				
IV	14.6	9.8	4.4	**2010**	**10.8**	**6.3**	**5.5**
I-11	14.0	10.7	4.4				
II	12.2	8.7	3.2				
III	9.1	5.8	4.5				
IV	8.5	4.9	3.7	**2011**	**11.0**	**7.5**	**3.9**
I-12	10.1	6.0	3.9				
II	10.1	6.1	3.8				
III	9.8	5.7	3.4				
IV	11.1	7.0	3.6	**2012**	**10.3**	**6.2**	**3.7**

* Total Deposits = traditional or core bank deposits (demand + time deposits) + debt mutual funds.
Source: BBVA Research own estimates and Banco de México and INEGI data.

To the extent that a favorable macroeconomic environment prevails in 2012, which we expect at BBVA Research, the savings channeled to bank instruments and debt mutual funds will continue to grow. Moreover, we must bear in mind that to the extent that the main macroeconomic variables enter a period of stable growth, this will also be reflected in the growth rate of total deposits. The latter will grow in a sustained manner and the annual average growth rate will not register great variations. In this sense, the expected 10.3% average nominal growth rate for total deposits in 2012 will not represent a great difference compared with the 12% rate of the previous year, nor with the average growth rate of 9.6% from 2000 to 2011, which can be considered an average long-term rate.

Inset 1: The Good Weekend

Purpose of the Good Weekend initiative

On November 9, 2011, President Felipe Calderon announced "The Good Weekend: the cheapest weekend of the year" initiative. This was an idea that emerged from the private sector in order to boost growth in economic activity and employment through increased demand for goods and services. This was accomplished, by providing consumers with attractive prices and discounts.

Main features of the Good Weekend initiative

More specifically, the Good Weekend initiative consisted of the application of discounts in commercial establishments during the four days from Friday, November 18 to Monday, November 21. This was a long weekend, because Monday, November 21 was not a working day due to the commemoration of the anniversary of the Mexican Revolution.[1]

The main measures that were agreed upon to boost demand for goods and services and that were implemented during the Good Weekend initiative included:

1) The participation of more than 30,000 commercial establishments, among which were 27.500 stores that are affiliated to National Association of Supermarkets and Department Stores (ANTAD by its Spanish acronym), as well as companies that provide non-financial services throughout the country. These establishments offered discounts of at least 10% below their normal retail price.

2) The banks offered consumers purchasing plans with payments deferred for several months that were interest free or with reduced interest rates.

3) The federal government advanced a part of the year-end bonus to employees of government institutions so that they could make use of the resources and take advantage of the discounts. Instructions were also issued to federal government departments and agencies for their employees to be affiliated with the National Fund for Consumption of Workers (INFONACOT by its Spanish acronym).[2]

Good Weekend results

The first results of the Good Weekend initiative were favorable. For example, the Federal Consumer Protection Agency (Procuraduría Federal del Consumidor) reported that according to a survey conducted among 1,809 people who visited 15 supermarkets and shopping malls, their purchases exhibited the following characteristics:

1) About 46% of the consumers purchased merchandise or services during the Good Weekend initiative motivated by the advertising campaign.

2) About 60% of the consumers who purchased goods benefited from discounts or special sales promotions. Within this category, 72% obtained a discount on the regular price, 60% found sales conditions to be equal to or better than on other days, and 70% thought that the Good Weekend initiative met their expectations.

3) The goods most commonly acquired during the Good Weekend campaign and that represented 70% of sales were clothing and footwear (43%), electronic appliances and housewares (14%), and food and beverages (13%).

4) The means of payment used during the Good Weekend initiative were cash (55%), bank credit cards (20%), bank debit cards (13%), and credit cards from chain stores (10%). In addition, 2% of consumers surveyed filled out an application for a credit card when buying goods during that weekend.[3]

Meanwhile, the National Confederation of Chambers of Commerce (CONCANACO by its Spanish acronym) reported that during the Good Weekend, sales increased by 106 billion pesos and discounts ranging from 10% to 80% were offered to consumers, both in products as well as tourist services. This, according to CONCANACO, represented[4] a 37.2% increase in sales and with this, jobs were protected and the Mexican domestic market strengthened.

[1] This initiative is similar to that of Black Friday, the day after Thanksgiving in the United States, which owes its name to the fact that many retailers report their highest sales on that day. In that country, at least since the 19th century, Thanksgiving marks the start of the end-of-year holiday shopping season and is characterized by various celebrations and promotional offers. Department stores, in particular, sponsor parades to launch their first Christmas season sales campaigns. Probably the best known parade of this type is sponsored by the Macy's chain and has been held in New York City since 1924 (for details, see http://www.theblackfriday.com/what-is-black-friday. shtml, http://www.time.com/time/business/article/0, 8599,1942935,00. html # ixzz1pKK5aRr4, or http://topics.nytimes.com/top/reference/timestopics/subjects/r/retail_stores_and_trade/black_friday/index.html).

[2] For more details on The Good Weekend campaign, see www.elbuenfin.org

[3] Source: (Federal Consumer Protection Agency), Procuraduría Federal del Consumidor,"PROFECO da a Conocer Resultados sobre la Encuesta Aplicada Durante El Buen Fin," Press Release, November 24, 2011.

[4] Source: Confederación Nacional de Cámaras de Comercio (National Confederation of Chambers of Comerse), ""Por votación unánime del CCE, Concanaco Servytur coordinará El Buen Fin 2012", Press Release, January 20, 2012.

Walmart, the largest retail chain in Mexico, reported a 26% increase in quarterly profits at the close of 2011, posting net earnings of 226.5 million pesos in the fourth quarter. The company attributed part of these results to consumers' positive reaction to the discounts and promotions offers promoted by the Good Weekend initiative.[5] Among the financial institutions, significant increases in billing via bank cards were also reported. At BBVA Bancomer, for example, during that weekend, a 65% increase in billing was reported for credit card purchases over the same period a year before.[6]

Effects of the Good Weekend initiative on economic activity and credit

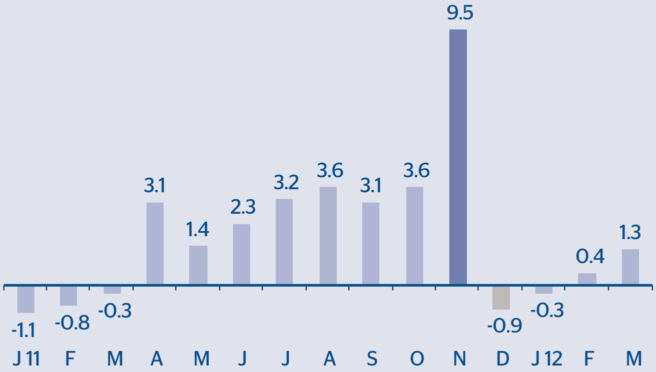
To determine whether these good results are significant at the level of the economy and the financial system it is necessary to examine more aggregate data. In relation to credit, it should be noted that the amount of financing extended via bank credit cards in November 2011 increased 4.3% in nominal terms over the previous month. This compares favorably with the highest monthly growth rate posted by financing via bank credit cards, which was 4.8% in November 2006. Indeed, only in April and August 2007 did this type of credit post growth rates above 3% per month and the corresponding figures were 3.5% and 3.6% respectively. The strength of consumer financing granted via bank credit cards in November 2011 may well be due to the positive effect of the Good Weekend initiative if we consider that 20% of purchases made during that weekend were made with this credit instrument.

Nevertheless, it should also be mentioned that the amount of financing granted via bank credit cards in December 2011 was 0.4% less than in November of that same year (0.9 million pesos) in nominal terms. This reduction in the this credit category is shown in Figure 23 and suggests that part of the sales made on credit in November as a result of the Good Weekend initiative corresponded to purchases that consumers made in anticipation of their holiday shopping in December. Had this not occurred, then it could have been expected that the amount of financing extended via bank credit cards also would have increased in December 2011 and would not have fallen by 0.4% as mentioned above.

In terms of its impact on sales, the retail sales index (IVM for Índice de Ventas a Menudeo) published by the National Statistics Institute (INEGI) also suggests that to some extent the Good Weekend initiative anticipated December sales. The monthly growth rate of the IVM in November 2011 was 5.4%, which was much higher than in previous years. In turn, the monthly growth rate of the IVM in December 2011 was 22.2%; however, this increase has actually been the lowest on record in the month of December since 2002 (the month tends to be characterized by having the largest positive change in the IVM for the year), as indicated by Graph 24. Thus, the dynamics of retail sales reinforce the idea that the Good Weekend campaign had, to some extent, anticipated in November part of the sales normally made in December.

Graph 23

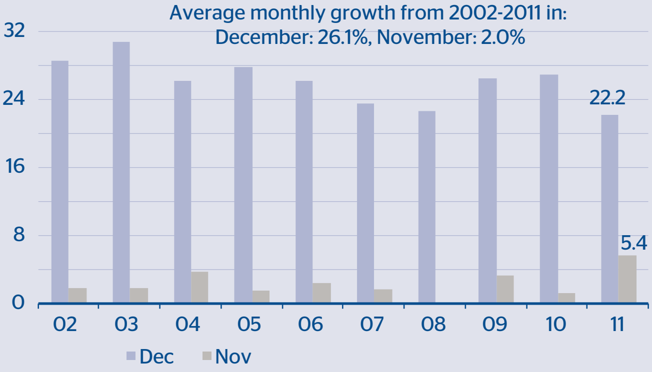
Consumer Credit: Monthly Increase in the Amount of Financing Extended via Credit Cards (Figures in Billions of Current 2012 Pesos)



Source: BBVA Research with Banco de México data.

Graph 24

Retail Sales Index: (Monthly Growth Rate of the Index in December and November, %)



Source: BBVA Research with Banco de México data.

[5] Source: Morales, M., "Reporta Wal-Mart de México incremento del 26% en utilidades trimestrales," (Wal-Mart México reports a 26% increase in quarterly earnings) International Business Times, February 21, 2012.
[6] Source: Roman, R. ""El Buen Fin disparó uso de crédito: Bancomer,"("The Good Weekend triggers the use of credit: Bancomer") El Universal, Friday, December 2, 2011.

Finally, to measure the possible impact on employment it is necessary to review the figures from the Mexican Social Security Institute on the number of formal jobs created. However, for the period under analysis, between November and December 2011, there is no clear way to discern the impact of the Good Weekend initiative because December traditionally reports a seasonal drop in this indicator. Furthermore, the two previous years also do not provide additional information due to the important fluctuations registered in those years (of a decline in 2009 and a recovery in 2010).

Appraisal of the Good Weekend campaign

In conclusion we can say that the Good Weekend initiative had a good start. Consumers could purchase goods and services at lower prices and with better payment terms than those they usually face at that time of year. The figures on the evolution of financing extended via bank credit cards show that consumers correctly interpreted the initiative as a temporary measure that encouraged them to advance the purchases that they usually make in December. Economic activity figures on retail sales and employment also showed a slight strengthening of these indicators over other years.

Given the positive results that the Good Weekend initiative showed in 2011, the 2012 version of the campaign may also be favorable for the economy of households and companies to the extent that more commercial establishments are incorporated in the program and it becomes consolidated as a promising date for shopping or travel. Given that this is an initiative that lasts a long weekend, it is hard to think that it could have a permanent effect on the evolution of economic variables, but it could mark a change in their seasonal trend.

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3. Special Topics

3.a What does the 2009 Economic Census Tell us about the Management of Bank Accounts among Mexican Companies

3.a.1 Introduction

In the previous edition of ***Mexico Banking Outlook*** (November 2011) we analyzed the characteristics of tihe companies that have access to credit or financing based on information from the 2009 Economic Census. Analysis of the census information on obtaining and using credit complements the information obtained from other official sources regarding bank credit to companies (See Inset 2: A Comprarison of the Different Sources of Infromation Regarding on Access and Use of Bank Credit among Mexican Companies). Nevertheless, regarding the use of bank accounts among Mexican companies, to the best of our knowledge, there are no other official sources in Mexico. Therefore, the data of the Census offer a first look with regard to this matter.

The census information illustrates characteristics of the economic units that use deposit instruments, which potentially grant access to most of the other services that a bank offers (credit, insurance, etc.), generating an initial link between a company and the banking system. In addition, such accounts can be used as a vehicle to provide other users with bank services. For example, companies can make electronic payroll payments as well as payments to their suppliers, as well as receive payments from their clients to the extent that they manage a bank account based on which they can receive and pay out resources. In this section of ***Mexico Banking Outlook***, we analyze the main characteristics of these companies.

Of the 3,437,645 economic units of the private sector and government-owned companies reported in the Census[1], 668,574 (19.4%) managed a bank checking, savings or investment account (Chart 3). Thus, the number of companies that managed a bank account in 2008 is more than triple the number of companies that obtained a bank credit in that year. The use of this instrument varies considerably according to the size of the company measured in terms of its employed personnel.

As shown in Chart 3 , among the 3,284,048 smallest economic units (with 0 to 10 employees) only 16.7% (550,296 economic units) had a bank account. As the size of the company increases, the percentage of units with a bank account also increases, with this being greater than 90% among medium and large companies (with more than 50 employees). It should be noted, however, that among the total the predominance in the total number of companies with 10 or more persons employed represents 82% of the total number of companies that manage a bank account.

Among the 668,574 economic units that managed a bank account, 14% had a bank credit, 25% had non-bank financing and the rest (61%) did not have any financing (Graph 25). In support of the idea that if a company has a bank account, it is more likely that it has other financial products, 39% of the firms with a bank account had some form of financing, this is more than 25% of firms that obtain any financing in spite of lacking a bank account.

[1] These figures include economic units not engaged in activites regarding the generation, transmission and districution of electrical energy, the provision of water and gas through pipelines to the final consumer, financial services, those of the public sector, religious organizations and housing with economic activity in a place of shared activity. To answer the questions of the Questionnaire on Credit and Bank Accounts, INEGI only includes information of headquarter offices and single establishments. For operating purposes, INEGI divides the universe of economic units into "Pymes" (small and medium-size companies) for small establishments and "SEG" for large establishments and corporations. In "SEG", there are single establishments (they do not share the corporate name with another establishment)- and companies (more than one establishment with the same corporate name). Source: INEGI

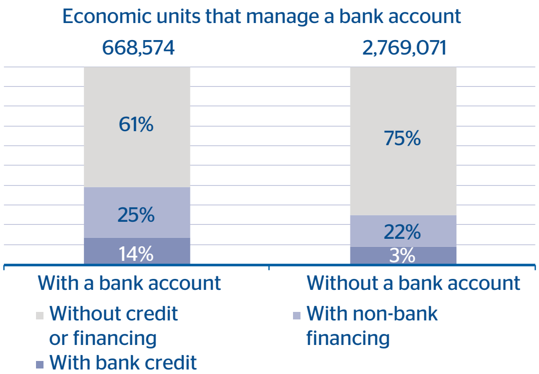
Chart 3
Economic Units that Operated in 2008, by Condition of Management of a Bank Account (Number of Units and Percentage)

Strata of employed personnel	Number of economic units in the private sector and government-managed companies*			Proportion by stratum of employed personnel (%)		Proportion of the total that managed a bank account
	Total	Managed a bank account	Did not manage a bank account	Managed a bank account	Did not manage a bank account	
TOTAL	**3,437,645**	**668,574**	**2,769,071**	**19.4%**	**80.6%**	**100.0%**
0 to 10 persons	3,287,048	550,296	2,736,752	16.7%	83.3%	82.3%
11 to 50 persons	124,165	94,037	30,128	75.7%	24.3%	14.1%
51 to 250 persons	21,447	19,488	1,959	90.9%	9.1%	2.9%
251 and more persons	4,985	4,753	232	95.3%	4.7%	0.7%

* Corresponds to information provided by headquarter offices and sole establishments; does not include branches
Source: BBVA Research with 2009 Economic Census data

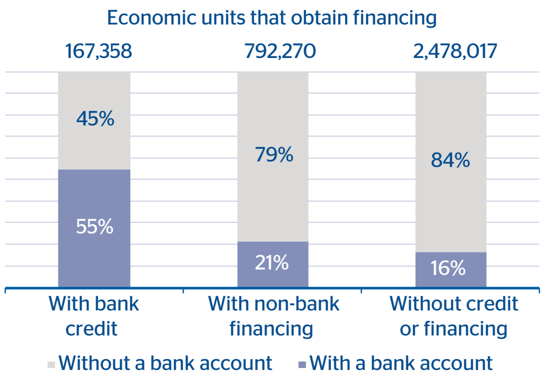
On the other hand, of the economic units that obtained bank credit (a total of 167,358 in 2008), 55% manage a bank account, a much higher proportion than the use of this instrument among units that have non-bank financing or lack financing, which again is indicative of the positive relationship that exists between managing a bank account and obtaining bank credit (Graph 26).

Graph 25
Proportion of the Obtaining of Financing (% of Total by Condition of Managing a Bank Account)



Source: BBVA Research with 2009 Economic Census data.

Graph 26
Proportion of Management of a Bank Account (% of Total by Condition of Obtaining Credit or Financing)



Source: BBVA Research with 2009 Economic Census data.

As regards the reasons why a bank account is not managed, of the 2,769,071 economic units without a bank account, 60.3% declared that this is due to the fact that they did not need one. This response is the one most frequently given, independently of the size of the company (Chart 4). The second most mentioned reason for not managing a bank account is that the commissions or fees are high, followed by not knowing the procedure for obtaining an account and other reasons.

On the other hand, Chart 4 shows that the level of commissions and fees and not knowing the procedure for opening an account are mentioned with greater frequency among micro companies (those with 0 to 10 employees) than among the other companies.

Chart 4

Reasons for Not Managing a Bank Account (Number of Units and Percentage)

Strata of Employed Personnel	They did not need it		High Commissions or Fees		Did not know the procedure for Opening an Account		Other reasons	
	Number of Economic Units	% of total without a bank account	Number of Economic Units	% of total without a bank account	Number of Economic Units	% of total without a bank account	Number of Economic Units	% of total without a bank account
TOTAL	1,669,459	60.3%	935,360	33.8%	330,333	11.9%	71,532	2.6%
0 to 10 persons	1,647,279	60.2%	927,503	33.9%	327,952	12.0%	69,831	2.6%
11 to 50 persons	20,735	68.8%	7,399	24.6%	2,221	7.4%	1,491	4.9%
51 to 250 persons	1,290	65.8%	422	21.5%	145	7.4%	175	8.9%
251 and more persons	155	66.8%	36	15.5%	15	6.5%	35	15.1%

Source: BBVA Research with 2009 Economic Census data. In the case of reasons for not having a bank account, the sum of percentages by stratum of employed personnel could total more than 100%, since the economic unit might have mentioned one or several reasons considered.

The reasons reported for not managing a bank account are useful for classifying the economic units based on whether the reason for not using a product or service is derived from the user's preference (which the offerer has fewer possibilities of modifying), or from characteristics inherent to the service (which the offerer could modify to make it more attractive or promote its use). For a subsequent analysis, companies are classified according to the following:

1. Group A: Economic units with a bank account
2. Group B: Economic units without a bank account due to a lack of interest (they declared that they did not need an account and this is therefore considered a voluntary rationing of deposit services).
3. Group C: Economic units without a bank account due to other reasons (involuntary rationing of deposit services). Corresponds to the units that cited high commissions or fees as a reason for not having an account, or that they don't know tha procedure to solicit an account and other reasons not specified in the Census.

If the lack of the need for an account that is associated with "voluntary rationing" is recognized on the side of demand among the other reasons associated with "involuntary rationing" or due to characteristics of the products or of the offerers (Stiglitz and Weiss, 1981) it is notable that in the use of a bank account, "involuntary rationing" turns out to be a much less important phenomenon than "voluntary rationing" while 32.0% of the economic units stated that they lacked a bank account for reasons other than a lack of interest,[2] 48.6% of the total reported that they did not have an account because they did not need one. (Chart 5).

Chart 5

Obtainaing Credit or Financing and Management of a Bank Account by Availability and Reasons (% of the Total by Stratum of Employed Personnel)

Stratum of employed personnel	Obtaining credit or financing				Management of a Bank Account		
	With bank credit	With non-bank financing	Without credit or financing due to lack of interest	WIthout credit or financing due to other reasons	With a bank account	Without an account due to lack of interest	Without an account due to other reasons
TOTAL NATIONAL	4.9%	23.0%	49.9%	22.2%	19.4%	48.6%	32.0%
0 to 10 persons	4.1%	23.0%	49.8%	23.0%	16.7%	50.1%	33.1%
11 to 50 persons	18.7%	23.1%	52.4%	5.8%	75.7%	16.7%	7.6%
51 to 250 persons	30.7%	22.5%	44.8%	2.0%	90.9%	6.0%	3.1%
251 and more persons	29.1%	24.7%	46.2%	0.0%	95.3%	3.1%	1.5%
			Voluntary rationalization	Involuntary rationalization		Voluntary rationalization	Involuntary rationalization

Source: BBVA Research with 2009 Economic Census data.

[2] For non-management of a bank account, the reasons include: high commissions or fees; not knowing the procedure for requesting an account and others

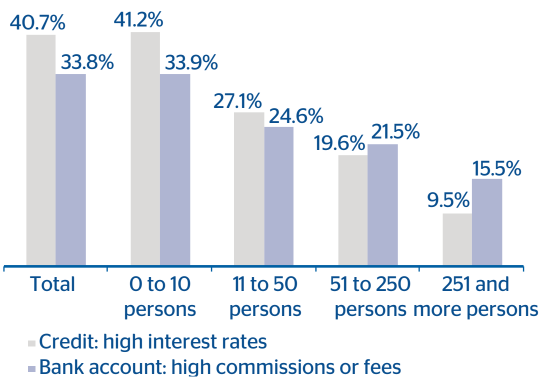
Moreover, comparing this with the results associated with obtaining credit or financing reported in the previous edition of ***Mexico Banking Outlook*** the following aspects are significant (Chart 5) :

- The involuntary rationing of bank accounts is more frequent than the involuntary rationing of credit or financing. In both products, involuntary rationing affects the small companies more.
- Voluntary rationing of credit is mentioned with a more uniform frequency among companies of a different size (it varies within a range between 44.8% and 52.4%). In the case of voluntary rationing of bank accounts, the frequency is much higher among the smallest companies (50.1% compared with 16.7%, 6.0% and 3.1% in the rest of the strata of employed personnel).

In the census questionnaire two reasons shared for not having credit or deposit services can be identified. The first is associated with the cost of each of the services; in the case of credit, interest rates and in the case of bank accounts, fees or commissions. Thus, in the aggregate, 40.7% of the economic units that don't have credit or financing reported that this is due to high interest rates, while 33.8% mentioned that they don't have a bank account because the commissions or fees are high (Graph 27). The importance of both types of costs vary as the size of the economic unit is greater: for the smaller units, high interest rates are more frequently cited as the reason for not having bank credit, while for the larger companies, high commissions and fees are mentioned more frequently as the reason for not managing a bank account

Graph 28

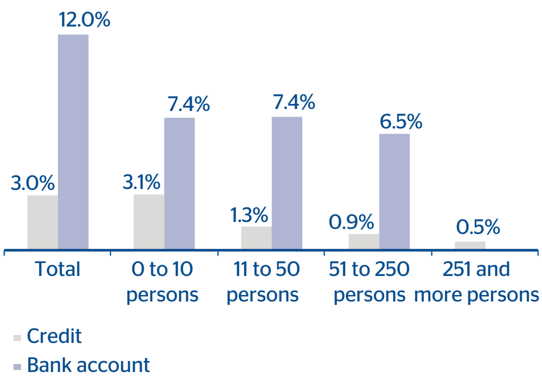
Economic Units without Bank Products due to Reasons Associated with the Cost of the Service (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

Graph 29

Economic Units with Bank Products due to Lack of Knowledge of the Application Procedure (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

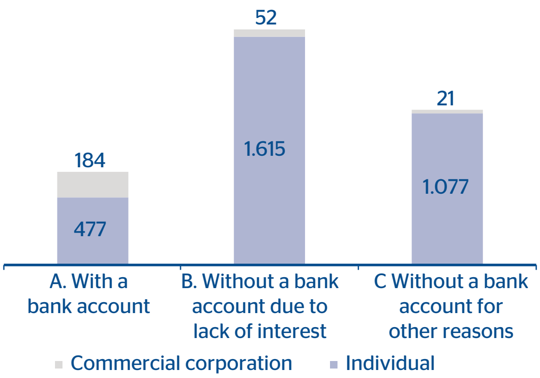
The other reason commonly cited for not having credit or managing a bank account is not knowing the procedure for applying for it. In this case, not knowing how to request these services is mentioned more frequently as the reason for not having a bank account (12% among the total without an account) than for not having credit (3% of the total without credit or financing, Graph 28). Moreover, for this reason, the difference between financial products is more accentuated among the different sizes of companies than the difference seen when comparing cost reasons.

3.a.2 The economic units with a bank account are more frequently established as commercial corporations and have had a longer operating life

The Census provides information with regard to the type of corporate status that the economic units adopt. Among these are individuals with corporate activity, commercial corporations, government-owned or international corporations. Because the private sector is of the greatest interest for this analysis, the following only considers the distribution among individuals and commercial or business corporations.

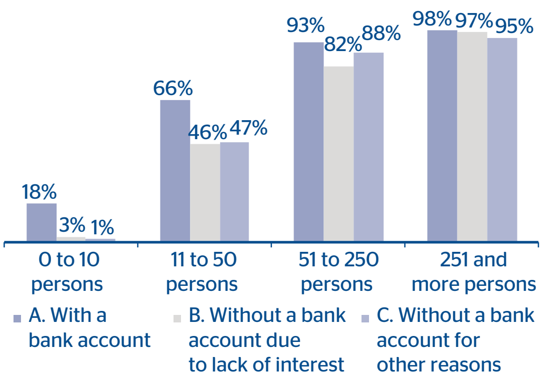
The greater part of the economic units are registered as individuals with commercial activity (Graph 29); however, a greater percentage of companies that manage bank accounts are established as commercial or business corporations (Graph 30), regardless of the size of the company. The most marked differences as far as the type of status are observed in the smaller units: in 2008, 18% of companies with a bank account and with up to 10 employees declared to be registered as commercial corporations, compared with only 3% for those that did not have an account due to lack of interest and 1% for those that did not have an account for other reasons..

Graph 29
Economic Units by Type of Status by Condition of Management of a Bank Account (Thousands of Economic Units)



Source: BBVA Research with 2009 Economic Census data.

Graph 30
Proportion of Commercial Corporations by Condition of Management of a Bank Account (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

As for the length of time of operation, a greater percentage is observed among the economic units with a bank account registering operations before 2004, for any stratum of employed personnel (Graph 31). This difference is more perceptible among the units with fewer than 11 employees (54% vs. 45%), but is lower as the size of the economic unit increases.

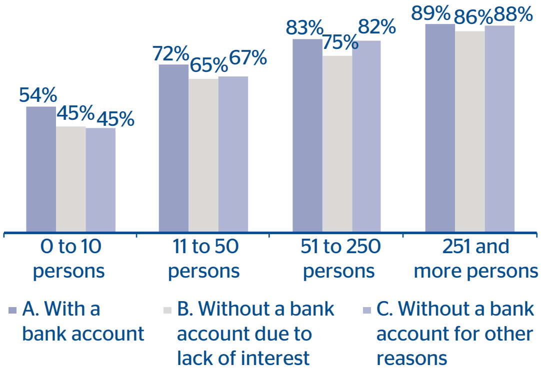
Among the younger companies (those that initiated operations in 2008) it is less frequent to have a bank account. However, in sharp contrast with the pattern described above, the use of this instrument is more common among the smaller economic units than among the bigger companies: while 15% of the young economic units with fewer than 11 employees manages a bank account, only 6%, 3%, and 1% of the greater size units also manage this product (Graph 32). This pattern could be due to the fact that the smaller companies are established as individuals and could be using the owner's bank account and not managing a separate account for the company's operations.

3.a.3 The cash flows tend to be greater among the companies that manage a bank account

To the extent that the flow of revenues and the expenses generated by the operation of a company increase, the availability of a bank account becomes more attractive due to its advantages as a means of payment, as the convenience, opportunity and safety of the transactions become more attractive and their cost is reduced. In addition, the generation of a history of income, expenses and consequently of the profit margins, could make it easier to obtain credit.

Graph 31

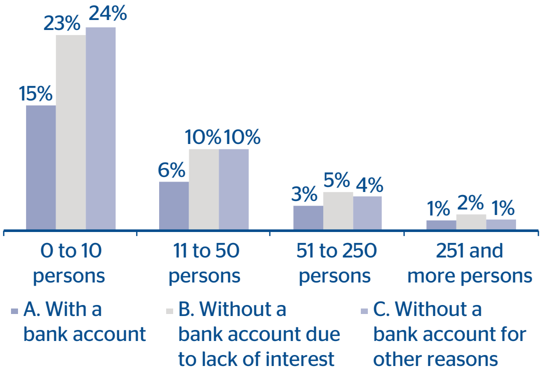
Economic Units that Initiated Operations before 2004 (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

Graph 32

Economic Units that Initiated Operations in 2008 (% by Stratum of Employed Personnel)

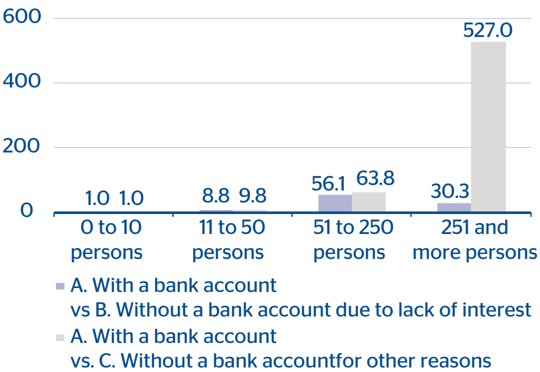


Source: BBVA Research with 2009 Economic Census data.

According to the information compiled by the Census, the economic units that manage a bank account obtain greater revenues than those that do not have this financial instrument, regardless of the size of the company (Graph 33). As a proportion of the revenues obtained, the units with a bank account obtain considerably greater revenues than those that face involuntary rationing of this bank service (Group C, those that do not have a bank account for reasons other than a lack of interest, Graph 34).

Graph 33

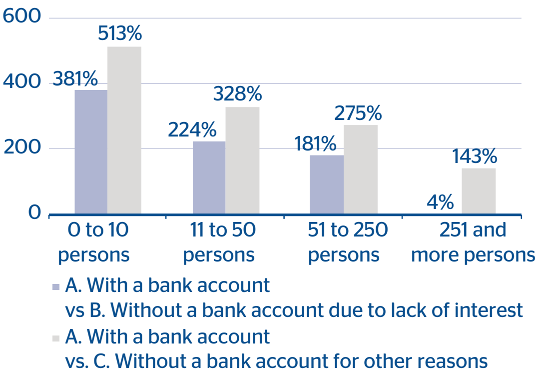
Difference in Average Revenues by Economic Unit (Millions of Pesos Annually)



Source: BBVA Research with 2009 Economic Census data. Refers to revenue obtained for the provision of goods and services. The percentage difference was calculated as (Revenue per economic unit with a bank account –Revenue per economic unit without a bank account)/ revenue per economic unit without a bank account

Graph 34

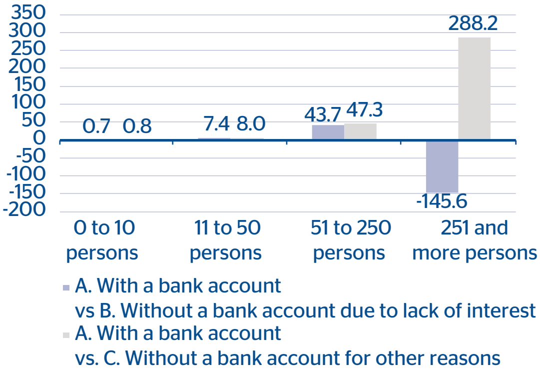
Difference in Average Revenues by Economic Unit (%)



Source: BBVA Research with 2009 Economic Census data.
Refers to revenue obtained for the provision of goods and services. The percentage difference was calculated as: (Revenue per economic unit with a bank account –Revenue per economic unit without a bank account)/Revenue per economic unit without a bank account.

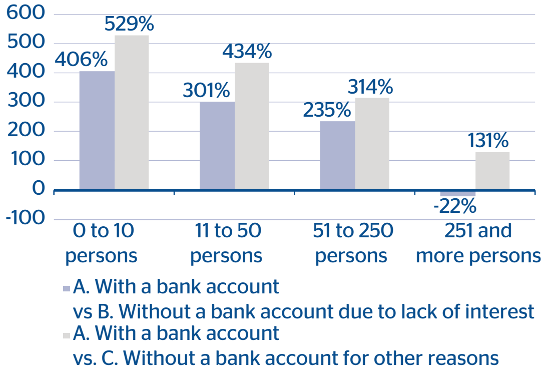
On the other hand, the economic units with a bank account registered higher expenses for the consumption of goods and services (Graphs 35 and 36). This pattern in expenses could be due to tax obligations, since according to the Income Tax Law, in order to deduct payments greater than $2,000 pesos, these must be done by means of a nominative check, or a credit, debit or service card, or by authorized electronic money transfer means, which presupposes the management of a bank account by the taxpayer. Indirectly, this result could be an indicator of formality, since in order to meet some tax and social security obligations, it is necessary to have a bank account either to make the corresponding payments or to exercise the rights provided for in tax regulations.

Graph 35
Difference in Average Expenses per Economic Unit (Millions of Pesos Annually)



Source: BBVA Research with 2009 Economic Census data. Refers to expenses in the consumption of goods and services. The percentage difference was calculated as: (Expenses per economic unit with a bank account-expenses per economic unit without a bank account) / Expenses per economic unit without a bank account.

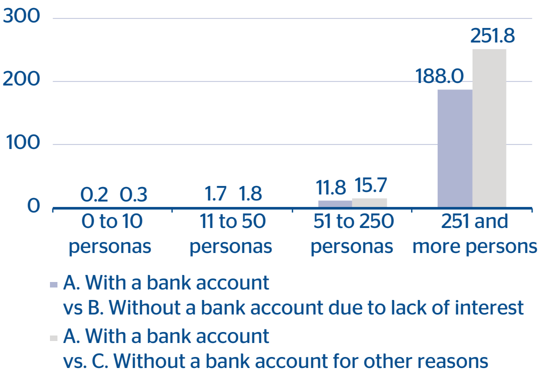
Graph 36
Difference in Average Expenses per Economic Unit (%).



Source: BBVA Research with 2009 Economic Census data. 2009. Refers to expenses in the consumption of goods and services. The percentage difference is calculated as: (Expenses per economic unit with a bank account–Expenses per economic unit without a bank account)/Expenses per economic unit without a bank account

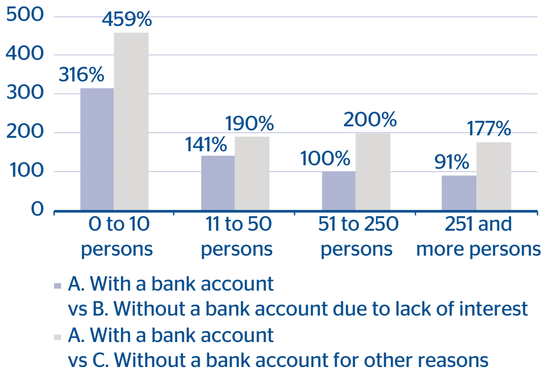
With regard to the profit margin (calculated as the sum of revenues collected minus the sum of expenses and taxes paid), the economic units with a bank account registered higher profits, both in absolute terms as well as in relative terms, than the companies that do not have a bank account, independently of the reason for not having this financial instrument (Graphs 37 and 38).

Graph 37
Differences in the Average Profit Margin by Economic Unit (Millions of Pesos Annually)



Source: BBVA Research with 2009 Economic Census data. Refers to the sum of revenues and taxes collected minus the sum of expenses and taxes paid. The percentage difference was calculated as (Profit margin per economic unit with a bank account – profit margain per economic unit without a bank account) / Profit margin per economic unit without a bank account.

Graph 38
Differences in the Average Profit Margin by Economic Unit (Percentage)



Source: BBVA Research with 2009 Economic Census data. Refers to the sum of revenue and taxes collected minus the sum of expenses and taxes paid. The percentage difference was calculated as follows: (Profit margin per economic unit with a bank account – profit margin per economic unit without a bank account) / Profit margin per economic unit without a bank account.

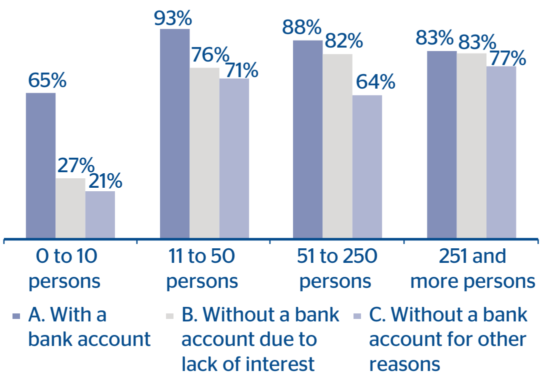
The difference in the profit margin is sharper when compared with companies that face some type of involuntary rationing (Group C): in the case of the smallest units, this difference is 459%, while it is above 150% for the rest of the other size companies by stratum of employed personnel.

3.a.4 The economic units with bank services register in general more salaried employees, higher compensation payments and better productivity indicators

The economic units that manage a bank account have a higher proportion of salaried workers for any size of company, although the sharpest differences are seen in companies with fewer than 51 employees (Graph 39). In the case of the smallest units (up to 10 employees) 65% of the personnel is salaried, more than triple the proportion registered by the units that face involuntary rationing (which reported 21% ot its personnel as salaried workers). In addition, it is significant that among the large companies with involuntary rationing (Group C: without an account for other reasons), although 77% declared having salaried personnel, on average posted a higher number of this type of workers (Graph 40).

Graph 39

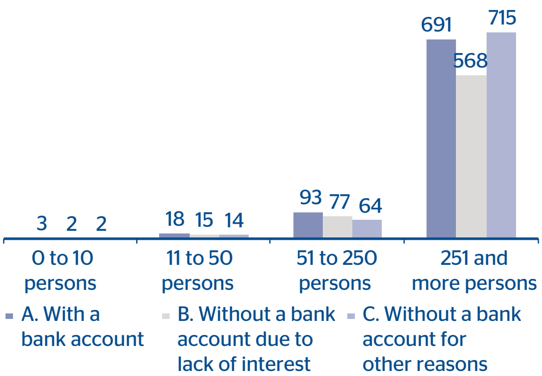
Percentage of Econimic Units with Workers Paid with Fixed Wages and Salaries (%)



Source: BBVA Research with 2009 Economic Census data.

Graph 40

Number of Workers Paid with Fixed Wages and Salaries (Average per Economic Unit)



Source: BBVA Research with 2009 Economic Census data.

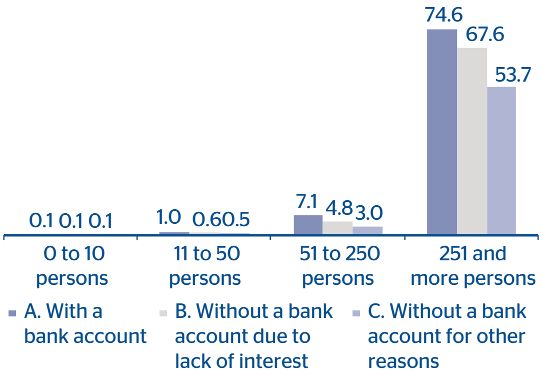
These two characteristics (percentage of salaried personnel and average number of salaried workers) illustrate the potential of companies to facilitate that other users also participate in the banking system. In this case, the companies that have a bank account can make payments through bank services, such as payroll accounts, of the wages and salaries of their workers and provide them with a debit card that will allow them to purchase goods and services in retail establishments as well as a history that will enable the banks to grant them loans on their payroll.

Moreover, the wages paid illustrate the monetary flows associated with payments to salaried workers. As is to be expected, companies with a bank account pay, on average, higher wages than those units that don't have a bank account, In this case, the differences are sharper among the medium and large-size companies (with more than 50 employees, Graph 41).

Upon reviewing the relationship between total expenses in goods and services and those earmarked for the payment of wages and salaries, it is significant that, for any size of company, those that have a bank account allocate a very similar proportion for the payment of remunerations to salaried personnel, between 10% and 12% (Graph 42).

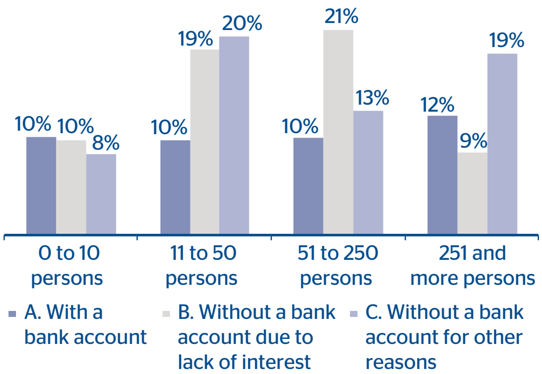
It is also significant that among the companies that show involuntary rationing (Group C. Without a bank account for other reasons), the proportion of expenses directed toward the payment of wages for units with more than 10 employees surpasses the 10% observed in companies that manage a bank account (20%, 13%, and 19% respectively), which again suggests that there is a potential in this type of companies to introduce services that facilitate the payment of their payroll.

Graph 41
Wages, Salaries and Profit Sharing (Millions of Pesos, Average per Economic Unit)



Source: BBVA Research with 2009 Economic Census data

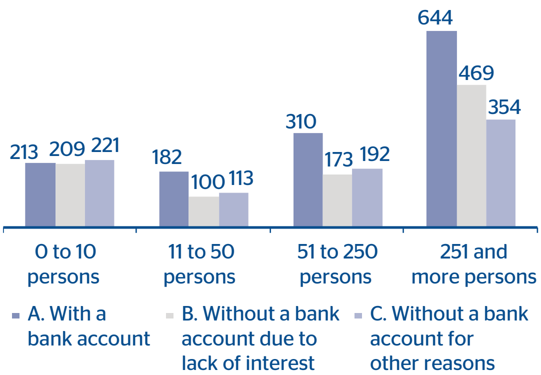
Graph 42
Wages, Salaries and Profits Shared as a Percentage of Total Expenses (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data

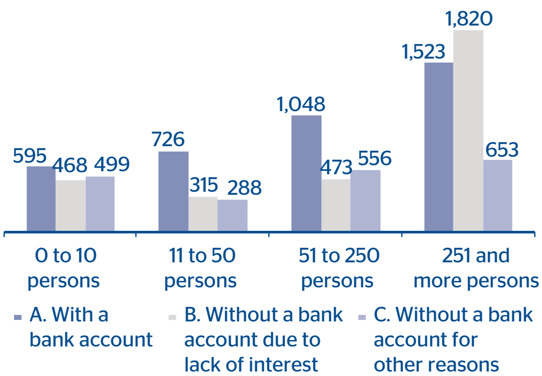
The patterns observed in wages paid by the economic units could be related to differences in productivity, which in general are greater as the size of the company increases. For example, the total value of assets per salaried worker is greater in the economic units with a bank account and this difference is sharper for medium and large size companies (with more than 50 employees, Graph 43). On the other hand, for units with fewer than 250 employees, the average income generated by salaried worker is greater for companies that manage a bank account (Graph 44).

Graph 43
Total Value of Fixed Assets per Salaried Worker (Thousands of Pesos, Average per Economic Unit)



Source: BBVA Research with 2009 Economic Census data.

Graph 44
Revenues per Salaried Worker (Thousands of Pesos, Average per Economic Unit).



Source: BBVA Research with 2009 Economic Census data.

3.a.5 The economic units that manage a bank account show more characteristics of formality, including compliance with tax and social security obligations

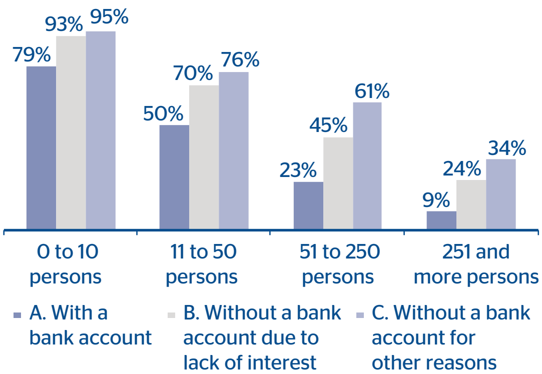
The type of labor relations between the economic unit and its employees, in addition to the patterns reported of compliance with tax and social security obligations, could indicate traits regarding the formality of the economic unit's activities. In particular, due to the fact that in addition to facilitating the management of payments to employees and suppliers, the presence of a bank account is also useful in complying with the company's payments associated with tax and social security obligations. It is to be expected that the economic units that manage a bank account show greater traits of formal compliance with their obligations. .

With regard to the type of relationship with their employed personnel, a greater percentage of economic units with a bank acocunt report having unpaid personnel (owners, relatives and others). For example, in the economic units with fewer than 11 employees, 79% of those that manage a bank account report unpaid personnel vs. 95% in the units that don't have an account for reasons other than a lack of interest (Graph 45).

A third type of relationship with employed personnel (in addition to salaried and unremunerated workers reviewed previously) is through the payment of commissions without a base wage. In this case, for units with more than 10 employees, the proportion of personnel on commission is lower in those companies that manage a bank account (Graph 46).

Graph 45

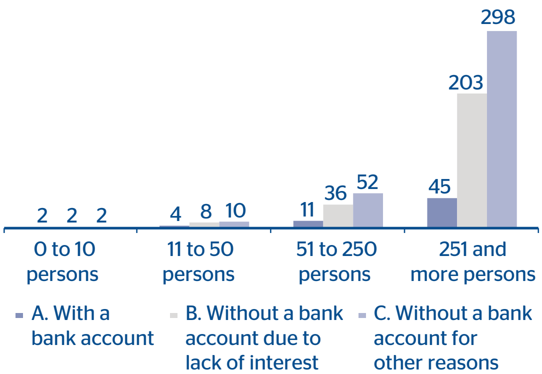
Economic Units with Unremunerated Personnel (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

Graph 46

Economic Units with Personnel Employed on Commission, without a Base Salary (% by Stratum of Employed Personnel)



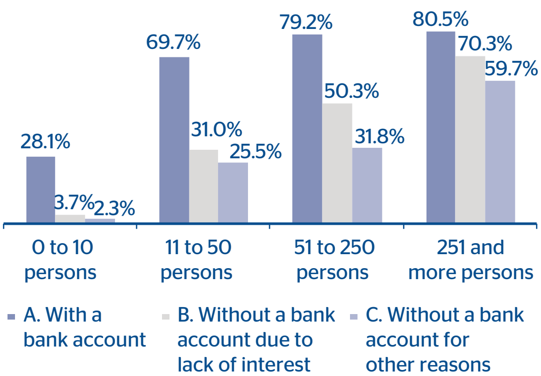
Source: BBVA Research with 2009 Economic Census data.

Another characteristic that might suggest greater compliance of companies' obigations or formality is that related to the payment of social security contributions, independently of the size of the economic unit; the difference with regard to companies that do not manage a bank account for any reason. is lower as the size of the company increases. ing (Graph 47).

As regards to the payment of taxes other than the VAT (value added tax), a greater proportion of economic units that manage a bank account reported paying taxes (Graph 48). This percentage increased with the size of the economic unit (from 1% in those with fewer than 11 employees up to 59% in those with more than 250 employees).

Graph 47

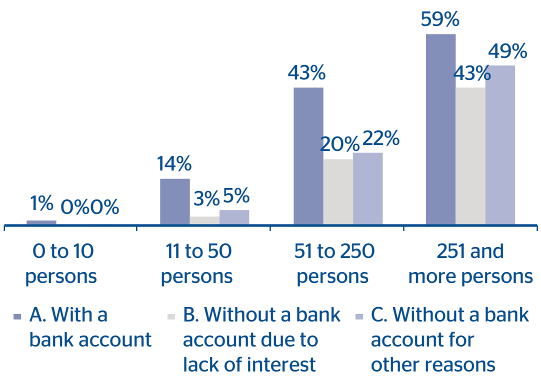
Percentage of Economic Units with Social Security Contributions (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

Graph 48

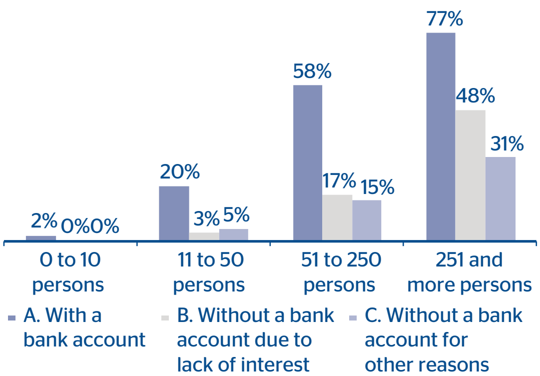
Percentage of Economic Units that Pay Taxes (Except VAT) (% by Stratum of Employed Personnel



Source: BBVA Research with 2009 Economic Census data.

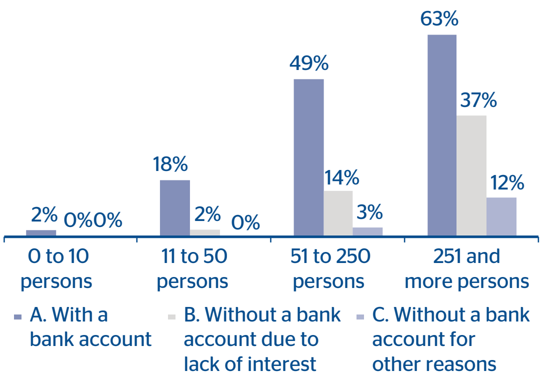
As regards to compliance with the payment and collection of the VAT, a greater proportion of economic units with a bank account comply with this obligation, independently of the stratum of employed personnel (Graphs 49 and 50). This difference is greater when compared with the economic units of Group C (those that experience involuntary rationing).

Graph 49
Percentage of Economic Units with VAT Paid (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

Graph 50
Percentage of Economic Units with VAT Collected (% by Stratum of Employed Personnel)



Source: BBVA Research with 2009 Economic Census data.

3.a.6 Conclusions

The 2009 Economic Census allows an initial comprehensive approach to the characteristics of the economic units that use financial services, either through deposit products or through credit products. The reason is that the data compiled in the Census included, for the first time, questions regarding obtaining credit and the use of bank accounts among Mexican companies. Because this is information gathered among the total population, the information compiled by the Census makes it possible to obtain a comprehensive and unbiased view of certain characteristics of the universe of economic units in the country.

The evidence reported both in this issue as well as in the November 2011 edition of ***Mexico Banking Outlook*** indicates that companies that use bank services share distinct traits. This information is useful not only to measure the size of the financial services market but also to identify some needs among the companies in the country and based on this develop products that will be more attractive.

As the census information indicates, independently of the stratum of employed personnel, the economic units with banking services are most frequently established as commercial corporations and have been in operation longer.

Regarding the generation of cash flows, important differences were seen among the units that manage a bank account and those that don't. The most distinct differences are reported when comparing companies that experience involuntary rationing, which for all strata of employed personnel, reported lower revenues and lower profit margins..

Upon analyzing the variables related with employment, wages and productivity, important variations were observed when considering the management of a bank account. In most cases, the companies that managed this financial instrument report, on average, more salaried workers. pay higher wages and register better productivity indicators, measured either through assets or revenues.

It is important to note that the differences found among companies with bank accounts and those without bank accounts are not completely explained by the fact that companies have bank accounts also have bank credit (see Box 3: The Joint Use of Financial Services). The management of a bank account sets a common base of desirable characteristics based on which obtaining bank credit is more feasible, although it is significant that despite the use of bank accounts it does not require evidence of payment capacity and many of the variables for determining this (revenues, assets, ets.) are related with its adoption. This does not have to be the case and there is an important challenge for companies to divulge the benefits and advantages that bank accounts offer for the management of their cash flows, beyond the fact that they facilitate generating useful information for obtaining credit.

The fact that both for obtaining credit as well as for the management of bank accounts, voluntary rationing is significant, in the sense that an absence of demand for these financial products, due to lack of interest or need is manifested. This type of rationing in the case of credit varies between 44.8% and 52.4%, depending on the size of the economic uit. In the case of the management of a bank account, voluntary rationing is less homogeneous, along the order of 50% among smaller size companies, but only 3.1% among the larger companies.

Given the characteristics detected with regard to relations with employed personnel and the payment of tax and social security obligations, these data regarding vouluntary rationing could be related with the intention of companies of not generating evidence of revenues perceived in order to remain in the informal market. However, the Census information, although indicative of the presence of voluntary rationing, is not enough to explore the reasons behind the lack of demand referred to. Given the proportion of companies that declared they did not need financial services, it is important to gather more information to understand this phenomenon in order to generate policy strategies and options that facilitate the inclusion of financial services among these agents.

In the case of involuntary rationing, the bank products most affected are bank accounts, and one of the reasons mentioned is the lack of knowledge of the requirements or procedures for requesting an account. Therefore, the dissemination of the benefits of the use of a bank account, how to apply for one and the development of the most appropriate products together with the specific needs of companies, above all for the smaller ones, could contribute to expanding their adoption. In this case, the benefits of the inclusion of this financial product could multiply, since once the economic unit manages a bank account, it has the possibility of making electronic payroll payments and to suppliers, as well as receiving payments from its clients through electronic means, making it a channel to bring financial services to other agents.

Acknowledgements

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Inset 2: A Comparison of the Different Sources of Information on Access to and Use of Bank Credit among Mexican Companies

To better understand the relevance of the 2009 Economic Census data in making a diagnosis of the conditions of access to and use of bank credit in Mexico it is useful to contrast the data the census provides with that of other existing sources of information, which helps to understand how they complement each other. The characteristic that makes the Economic Census a key element of such diagnosis exercises is that, for the first time in the most recent year for which the survey was conducted, 2009 some questions on the use of credit and bank accounts were included. Furthermore, the census compiles information from the entire universe of private sector companies and government-owned companies that operated in Mexico in 2008, which in that year totaled more than 3.4 million economic units.

All the other available sources use a much smaller sample of companies which, if well designed, will provide data consistent with those of the total universe or a subsector of it that it seeks to represent. The benefit of obtaining information from representative samples of a specific category rather than doing so on the basis of the total corresponding universe is that, due to its lower cost, such surveys can be more frequently undertaken (the economic census in Mexico is conducted every five years) and much more detailed questionnaires can be applied on the characteristics of companies, their owners, employees, etc. (see Chart 6).

Since the first quarter of 1998 Bank of Mexico has conducted its Survey on the Conjunctural Evaluation of the Credit Market (ECMC by its Spanish acronym). This is a quarterly survey conducted with a sample that is distributed nationally and involves data from at least 450 companies, whose size is determined based on the value of their sales as reported in the 1997 Economic Census. This survey includes questions on whether the companies needed financing and what type of loans (bank or non-bank) as well as if the companies granted credit. Among the companies that obtained financing, the ECMC also explores how they earmarked such resources. For the companies that did not obtain financing, the survey inquires as to the reasons for not doing so, offering a long list of possibilities.

The previous point enables the preparation of astringency indexes of the credit market that allows knowing whether less access to bank credit reflects a tightening in lending criteria by the commercial banks (supply) and/or a weakening of the state of the economy and its prospects (demand). For

Chart 6
Sources of Information on Access to and Use of Bank Credit among Mexican Companies

	Conjunctural Survey of the Credit Market	National Micro- Business Survey	Enterprise Survey	Economic Census
Institution in charge of conducting the survey	Banco de México	INEGI	World Bank[1]	INEGI
¿Is it a specialized survey for delving into companies' financing conditions?	Yes	No	No	No
Latest year in which the survey was conducted	2012	2008	2010	2009
Frequency	Quarterly	Undefined (previous survey: 2002)	Undefined (previous survey: 2006)	Bi-weekly (previous survey: no data on the use of financial services)
Sample size	450	30,063	1,480	Not applicable
Type of companies	With sales valued above 1 million pesos.	Economic units that can be classified as "micro-businesses" (with or without physical premises)	With 5 or more employees	Economic units of any sales value and number of employees, with physical premises.[2]
Geographical coverage	National	National	National[3]	National
Economic activity coverage	All	All	All[4]	All

Notes:
[1] Privately hired firms conduct the Enterprise Survey on behalf of the World Bank, due to the sensitivity of the survey questions in relation to company-government relations and bribery on issues related to privately hired firms. Source: Enterprise.
[2] The questions on the use of financial services were applied in the universe of economic units that operated in 2008 and were not engaged in activities involving the generation, transmission, and distribution of electricity, water and gas by pipeline to the final consumer, or activities of financial companies, public sector enterprises, religious organizations, and households with economic activity in a shared space.
[3] On a state level, it contains information on Mexico City, Jalisco, the State of Mexico, Nuevo León, Guanajuato, Puebla, Coahuila, and Veracruz.
[4] The earlier survey included only companies in the manufacturing sector.
Source: BBVA Research with data from the Banco de Mexico, INEGI, and the World Bank.

example, in the Bank of Mexico 2010 Financial System Report, based on these indicators, the central bank determined that the decline in bank credit that occurred following the collapse of Lehman Brothers can be attributed to a greater extent to the weakening of demand rather than the tightening of the commercial banks' lending policies.[1]

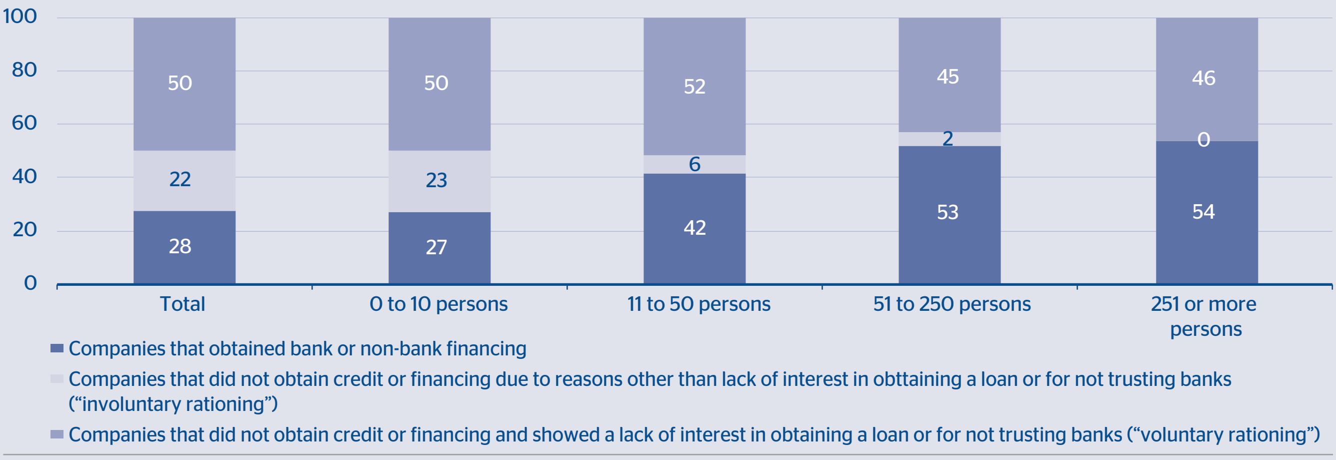
Furthermore, although the list of reasons for not obtaining a credit in the ECMC is much more complete than the corresponding question in the 2009 Economic Census, it is not possible to use the ECMC information to measure market size. As we explained in the November 2011 ***Mexico Banking Outlook***, based on the question in the 2009 Economic Census it is, in fact, possible to obtain an estimate of the potential size of the credit market, separating out companies that do not participate in the market for reasons of self-exclusion from those that are not involved because they feel that the supply conditions are not appropriate, i.e., due to rationing supply. This also can be applied to different sample categories that can be considered to be of interest. For example, according to estimates by BBVA Research, in 2008 among large companies (those with more than 250 employees) there were practically no companies that failed to obtain loans due to credit rationing, but among micro businesses (10 employees or less) nearly one in four companies indicated that they had not obtained loans due to credit rationing (Graph 51).

The main characteristic of the National Microbusiness Survey (ENAMIN by its Spanish acronym) conducted by INEGI is that it is focused on companies that meet INEGI's definition of microbusiness.[2] Through this survey, the INEGI seeks, among other objectives, to increase awareness of the operational modalities of microbusinesses, their productive resources (including questions on financing sources to start the business and once the business has been launched) and organization, as well as the amount and breakdown of their revenues and expenditures; obtain information regarding the workforce that is employed in these businesses; and specify the sectors and types of activity in which the microbusinesses are concentrated as well as the links between them and with other larger size units.[3]

The frequency with which the ENAMIN is conducted is undefined, since during the 1990s the survey was applied in 1992, 1996, and 1998, but in the next decade it was only done in 2002 and 2008, with the latter being the latest survey. The size of the 2008 ENAMIN sample was around 30,000

Graph 51

Economic Census: Statistical Breakdown of Private Sector Companies and State Owned Enterprises that Operated in 2008 based on whether they Obtained Credit or Financing (Percentages)



Note: Reasons other than lack of interest or trust in the banks for not obtaining loans: 1) high interest rates, 2) did not believe that their company meets the requirements, 3) were unaware of the procedure for applying for credit, 4) the institutions are very far away, 5) a loan was requested but not granted, and 6) other causes.
Source: BBVA Research with 2009 Economic Census.

[1] The aggregate results of this survey are published quarterly on the Banco de México web page. The central bank also issues a communiqué describing the most relevant variables. It should be noted that some changes have been introduced into this survey in terms of sample size and the format of the questions, and therefore some of the data can only be compared to each other from 2009 onward.
[2] INEGI defines microbusinesses as those economic units with up to six people employed (including the owner and the employees, paid or unpaid) in the following activities: mining and construction industries, retail, services, and transportation, and units with up to 16 people (including the owner and employees, paid or unpaid) in the manufacturing sector. For further details, consult the ANAMIN's micro-site through the INEGI web page:
[3] Source: 2008 National Microbusiness Survey, INEGI.

people with microbusinesses, selected based on the respondents obtained from the National Survey of Jobs and Employment (ENOE by its Spanish acronym).

The relevance of the ENAMIN is due to the absolute and relative importance of microbusinesses in the Mexican economy. According to the 2008 ENAMIN, in that year more than 8.1 million microbusinesses operated in the country. This exceeds the 3.3 million public and private sector establishments with 10 or fewer persons employed that operated in 2008, according to the latest Economic Census. Given that the universe of economic units of ENAMIN that operated out of fixed premises or a place of business must be coupled with those economic units that do not have such premises that operated at it is for this reason that the ENAMIN in not applied in commercial establishments but in homes.

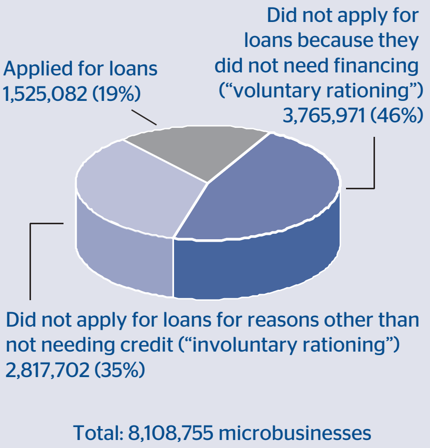
According to the ENAMIN, among microbusinesses operating in 2008, a total of 1,525,082 requested loans (19%); 3,765,971 did not seek credit because they did not need financing (45%); and 2,817,702 did not seek loans for reasons other than that they did not need financing (35%) (Graph 52).[4]

With respect to 2002, these figures suggest growth in demand for credit, since in that year 4,794,077 microbusinesses were in operation, of which 379,477 (9%) requested loans and the remaining 4,035,123 (91%) did not (Graph 53). Furthermore, the figures also indicate that the percentage of companies that applied for funding and received it was similar: 91% in 2002 and 89% in 2008 (Graph 54).[5]

Furthermore, it should be noted that although not all microbusinesses are commercial establishments with 10 or fewer people employed, a comparison between the figures from the Economic Census (Figure 51) and the ENAMIN (Figure 54) suggests that in 2008 among the microbusinesses, credit supply conditions were relatively less important a constraint in obtaining a loan than the weakness of demand.[6]

Graph 52

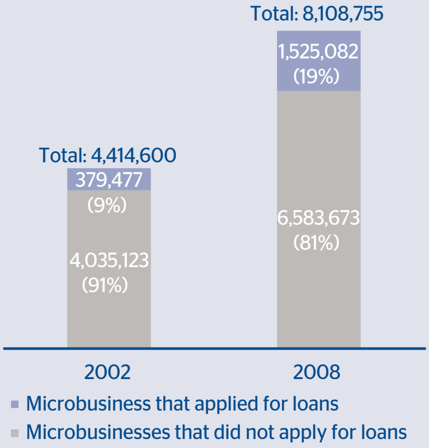
Statistical Breakdown of the Microbusinesses in Operation in 2008, According to whether they had Applied for Loans (Number and Percentage)



Note: List of reasons for not having applied for loans other than not needing financing: 1) Did not know how to go about requesting credit, 2) Thought they could not obtain the loan, 3) Very high interest rates or commissions, 4) Too much paperwork involved, and 5) Other Source: BBVA Research with 2008 ENAMIN (INEGI) data.

Graph 53

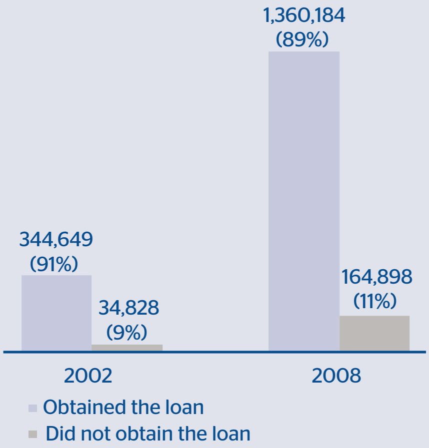
Statistical Breakdown of the Microbusinesses, According to whether they had Applied for Loans in 2002 and in 2008 (Number and Percentage)



Source: BBVA Research with data from the 2002 and 2008 ENAMIN (INEGI).

Graph 54

Statistical Breakdown of the Microbusinesses that Applied for Loans, According to whether they Obtained them in 2002 and in 2008 (Number and Percentage)



Source: BBVA Research with data from the 2002 and 2008 ENAMIN (INEGI).

[4] The ENAMIN contains questions on the financing obtained for both starting up the business as well as the last loan requested. The second question is more comparable to that of the Economic Census, in terms of referring to credit obtained in 2008 by companies that were already in operation.
[5] 5To identify the source of the financing obtained it is necessary to process the micro-data because the basic tabulators of the ENAMIN available in publications and the INEGI website organize and classify the responses in a way in which the figures are not directly comparable.

To determine whether this is due, as expected, to characteristics of the microbusinesses such as whether or not they have their own premises (for example, value of the revenue from the sale of goods and services or value of fixed assets), or different attributes of their owners or the people who work in them (educational level, gender, age, work experience, etc.) requires a deeper analysis of the ENAMIN micro-database.

One reason to delve further into this type of analysis on the characteristics of the companies (and the business persons) that affect their decisions on sources of funding is that the technological and regulatory conditions that separate the traditional clients of the different financial intermediaries is increasingly tenuous. Probably the most representative example of this trend was the conversion of the non-profit microfinance company "Compartamos" into a very profitable bank with plans to expand its operations to other Latin American countries (for details see section 3.c.1. Costs and Benefits of the Participation of Global Banks in Emerging Economies). The transforming of "Compartamos" was facilitated by the easing of the requirements for establishing niche banks.[7]

A third source, which is useful for comparisons with other countries in terms of conditions of access to banking services, is the Enterprise Survey sponsored by the World Bank.[8] When it began in 2002, different units within the institution conducted various surveys concerning companies . Since 2005-06, most efforts in the field of data collection have been centralized. To a large extent, this allowed for the standardization of data collected on a range of issues, including access to financing, to make them comparable across countries and regions. This is a company survey with a representative sample of the private sector of the economy. This survey has been conducted twice in Mexico, in 2006 and 2010, but when comparing the two it is important to note that in addition to some changes in the questionnaire, in the case of Mexico there was also a modification in the composition of the sample. In 2006 the survey was only conducted among companies in the manufacturing sector while in 2010 firms in the services and retail sectors were added.[9]

The percentage of companies, considering all the sectors, with a loan or bank account in 2010 was 32%, very similar to the average for the rest of the world and lower than in Latin America and the Caribbean (Chart 7). This survey also indicates that the percentage of companies with bank financing increases with its size. It should be noted that the definition of company size used by the Enterprise Survey is different than the basic stratification of employment categories developed by the INEGI, so the results are also not directly comparable to the 2008 figures from the Economic Census.

In conclusion, Mexico currently has four sources of information that are useful for describing access to bank financing. They are: i) the 2008 Economic Census, ii) the Credit Market Survey sponsored by the Banco de México, iii) the ENAMIN conducted by the INEGI and iv) the World Bank's Enterprise Survey.

Chart 7
Enterprise Survey: Breakdown of companies in Mexico with a bank loan or credit line in 2010 (%)

	Percentage of all companies
All countries worldwide	36.1
Latin America and the Caribbean	47.6
Mexico	32.0
Small companies (5-19 persons employed)	26.8
Medium size companies (20-99 persons employed)	36.7
Large companies (100+ persons employed)	54.0

Note: Actually, the 2010 survey results are not available for most of the countries. For Brazil, the latest survey is from 2009.
Source: BBVA Research with data from the Enterprise Survey Mexico 2010 (Enterprise Analysis Unit, World Bank).

[6] It should be noted that the questions from these two sources are not the same. However, among the economic units surveyed by the Census, for those companies that did not receive funding, the frequency of the response "a loan was requested but not given" is very low (around 1% of the universe of companies surveyed, even among those with 10 or fewer employees).
[7] Castañeda, Castellanos, and Hernández (2011) provide a more detailed review of the still recent experience of Mexico in easing regulations to allow business groups dedicated to retail sales and/or other specialized financial intermediaries to become "store banks" or "niche banks". For these authors, the main challenge facing the authorities in relation to niche banks in Mexico and other countries that this experience could be exported to is to establish a flexible regulatory framework that would promote both the strength of as well as good practices among financial service providers, such as financial inclusion.
[8] See, for example, the Segundo Reporte de Inclusión Financiera, CNBV, 2010.
[9] The change in the sample or the questionnaire of a survey may affect the comparability of the information collected. However, as a reference, through the linear extrapolation of public information available from the Enterprise Survey for Mexico, it was estimated than in the manufacturing sector, the percentage of companies with a bank loan or credit line increased from 11% in 2006 to about 25% in 2010 (extrapolation uses the percentage of companies with a bank loan or credit line in 2010 = 32%, the total number of companies = 1.471, and the number of manufacturing companies = 1.168).

Each of these sources of information contributes differently to a better understanding of this phenomenon. One element that is still missing, considering that the next Economic Census will not be undertaken until 2014, is a survey designed to show in timely fashion how access to financing is evolving.

As we have seen, none of the sources reviewed can accurately answer the basic question of whether the number of companies with access to credit has increased in recent years, and this is relevant in the light of various measures that both financial authorities as well as banks have implemented for this purpose. During 2011, the financial authorities (the National Banking and Securities Commission (CNBV), the central bank, Banxico, and the IDB with the support of INEGI) conducted a National Survey on Financing for Companies (ENAFIN by its Spanish acronym).[10] Its results will be announced in the near future. If the ENAFIN provides data comparable to the Economic Census it will be possible to measure whether between 2008 and 2011 the country's companies improved their access to bank financing. Similarly, a specialized and periodically applied survey such as the ENAFIN will be a very useful tool that will help guide the decisions of providers of financial services and regulatory efforts in the credit to companies segment, and it will allow for quantifying the progress made in terms of financial inclusion and credit penetration.

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[10] Salazar and Rios (2012) present a brief description of the ENAFIN with some preliminary results and a comparison of statistics on access to bank credit with those obtained from other sources of information for Mexico.

Inset 3: Combined Use of Financial Services

Introduction

According to the 2009 Economic Census, a total of 668,574 businesses, also denominated as economic units, had bank accounts in 2008. To determine whether once this link with the financial system was established, there were distinguishing characteristics among companies that use a second financial product such as credit, based on Census data. This article will review the characteristics of the economic units that, having a bank account, also obtained loans or financing, for which, three categories can be identified:

- Group A.1. Economic units with a bank account and bank credit
- Group A.2. Economic units with a bank account and non-bank financing
- Group A.3. Economic units with a bank account and no credit or financing.

I. Category and age of the business correlated with whether credit was obtained

Within the category of companies that have a bank account, a higher percentage of those that obtained credit or financing correspond to businesses established as commercial corporations. The latter percentage is 37%, exceeding the 26% observed both in economic units with non-bank financing (Group A2) as well as companies that did not obtain credit or financing (Group A3).

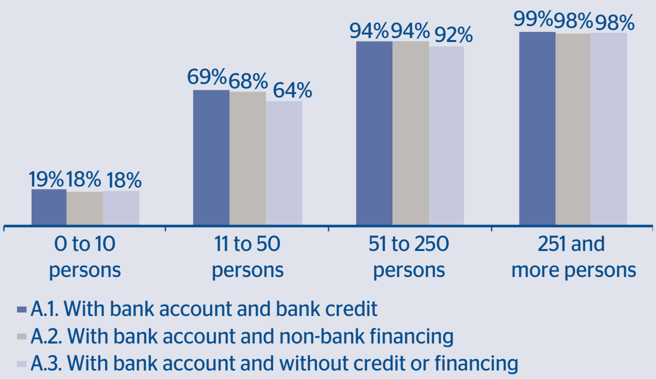
Among the micro businesses, a smaller percentage was established as corporations. In fact, the corresponding figure is less than 20%, regardless of whether they obtain credit, significantly below the more than 90% for medium and large companies (Graph 55). It should also be emphasized that within each company size category, the percentage of economic units established as corporations does not appear to be related to whether or not they obtained credit, as this percentage varies little between companies with bank loans, with bank financing, or without credit or financing.

At the same time, companies that manage a bank account and obtained bank loans tend to have been in business for a longer period of time since, regardless of their size, a higher percentage of these companies began operating before 2004 (Graph 56). In this case, for any size company, the difference in the amount of time in business is more significant among firms with bank credit (Group A.1) and those that obtained non-bank financing (Group A.2).

II. Cash flow and earnings are more important for obtaining credit in the case of smaller companies

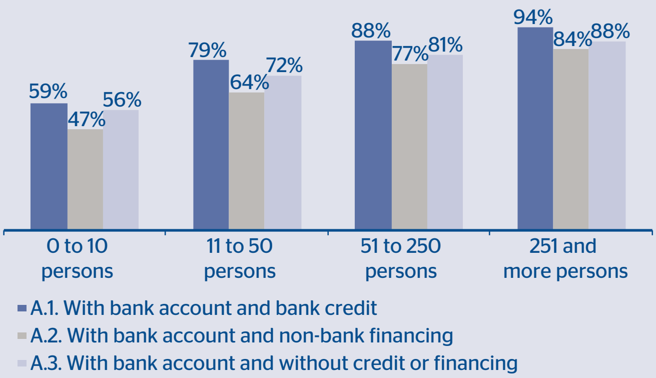
Micro, small, and medium-size economic units that had bank accounts and obtained bank loans posted higher revenues than those that received non-bank financing and those that did not obtain credit[1] (Graph 57). Furthermore, the micro, small, and medium size economic units with a bank account and bank loans also report higher expenditures than those units that benefited from other types of financing or that did not obtain credit (Graph 58). Except in the case of micro businesses, the percentage difference in both revenue and expenditures is more perceptible when companies with bank credit (Group A.1) are compared with companies that did not obtain financing (Group A.3).

Graph 55
Economic Units with a Bank Account Established as Commercial Corporations (% by Stratum of Employed Personnel)



Source: BBVA Research with data from the 2009 Economic Census.

Graph 56
Economic Units with a Bank Account that Began Operations Before 2004 (% by Stratum of Employed Personnel)



Source: BBVA Research with data from the 2009 Economic Census.

[1] En el número anterior de Situación Banca México (Noviembre 2011), se detalló que las unidades económicas con más de 250 personas ocupadas son las que en mayor porcentaje manifestaron no necesitar crédito bancario (69% de acuerdo al Chart 5, Pag. 16).

In addition, micro, small, and medium-sized companies with bank accounts and bank credit posted higher profit margins (Graph 59). In relative terms, for micro businesses (fewer than 11 employees) the profit margin for those with a bank account and bank credit was 49.4% higher than for companies that obtained non-bank financing and for small companies (those with 11 to 50 employees) it was 44.0% higher (Graph 60).

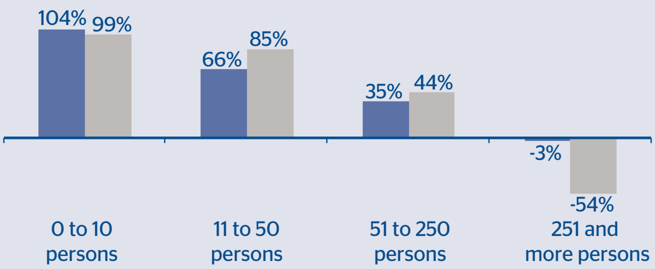
III. Employees with salaries and wages and productivity indicators

Economic units with bank accounts had a very similar percentage of employees within each company size category, since the difference in this percentage between companies with bank loans and the rest is up to 6% in the case of micro businesses (70% vs. 64%) and at least 3% in the case of small and medium-size companies (Graph 61).

Meanwhile, among the micro, small, and medium-size companies, the average number of salaried employees per economic unit does not show a very marked variability that might be associated with obtaining credit (Graph 62).

Graph 57

Difference in Average Revenues Per Economic Unit, (%)

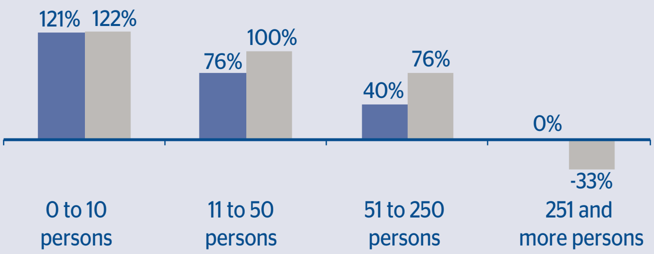


A.1 With bank account and bank credit vs. A.2 With bank account and non-bank financing
A.1 With bank account and bank credit vs. A.3 With bank account and without credit or financing

Source: BBVA Research with data from the 2009 Economic Census. The percentage difference was calculated as: (Revenues (expenditures) per economic unit with a bank account and bank financing - Revenues (expenditures) per economic unit with a bank account and non-bank financing (or without financing, depending on the case) / Revenues (expenditures) per economic unit with a bank account and non-bank financing (or without financing, depending on the case) / revenues (expenditures) per unit.

Graph 58

Difference in Average Expenditures Per Economic Unit, (%)

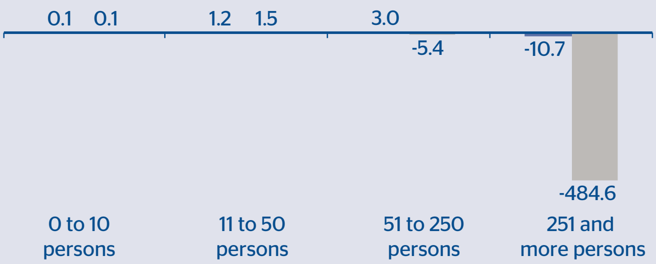


A.1 With bank account and bank credit vs. A.2 With bank account and non-bank financing
A.1 With bank account and bank credit vs. A.3 With bank account and without credit or financing

Source: BBVA Research with data from the 2009 Economic Census. The percentage difference was calculated as: (Revenues (expenditures) per economic unit with a bank account and bank financing - Revenues (expenditures) per economic unit with a bank account and non-bank financing (or without financing, depending on the case) / Revenues (expenditures) per economic unit with a bank account and nonbank financing (or without financing, depending on the case)./ revenues (expenditures) per unit.

Graph 59

Difference in Average Profit Margin Per Economic Unit (Millions of Pesos Annually)

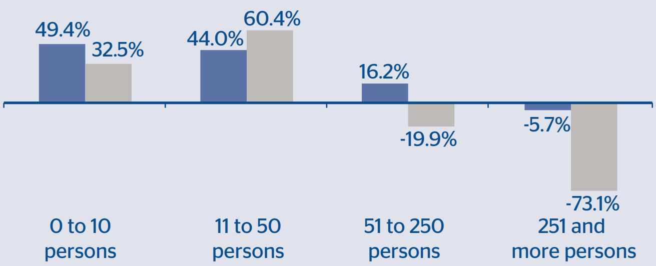


A.1 With bank account and bank credit vs. A.2 With bank account and non-bank financing
A.1 With bank account and bank credit vs. A.3 With bank account and without credit or non-bank financing

Source: BBVA Research with data from the 2009 Economic Census.

Graph 60

Difference in Average Profit Margin Per Economic Unit (Percentage)



A.1 With bank account and bank credit vs. A.2 With bank account and non-bank financing
A.1 With bank account and bank credit vs. A.3 With bank account and non-bank financing

Source: BBVA Research with data from the 2009 Economic Census.

After considering the existence of a bank account, productivity as measured by fixed assets per salaried worker remains quite comparable across the condition of whether credit is obtained among micro, small, and medium-size economic units (Graph 63).

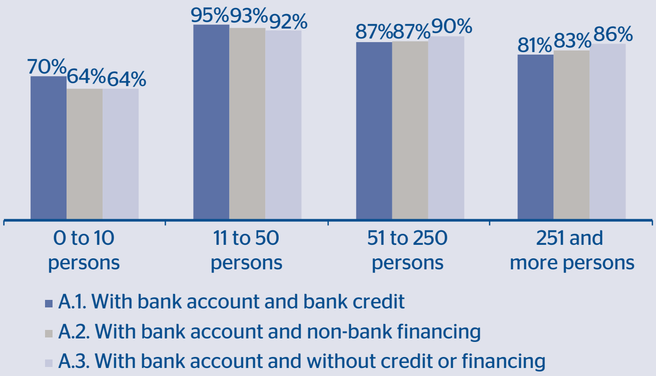
In contrast, when measured by the revenue generated per employee, among micro, medium-size, and small companies, those that have (in addition to a bank account) bank credit posted, on average, higher revenue per employee (Graph 64). Since the average number of salaried employees does not vary significantly within a given company size category, this difference can be attributed to the greater generation of revenue in businesses that obtain bank credit.

IV. Characteristics that indicate formality

In the case the employee variable, greater formality can be inferred from the lower is the percentage of non-remunerated workers or workers without a base salary. More specifica-

Graph 61

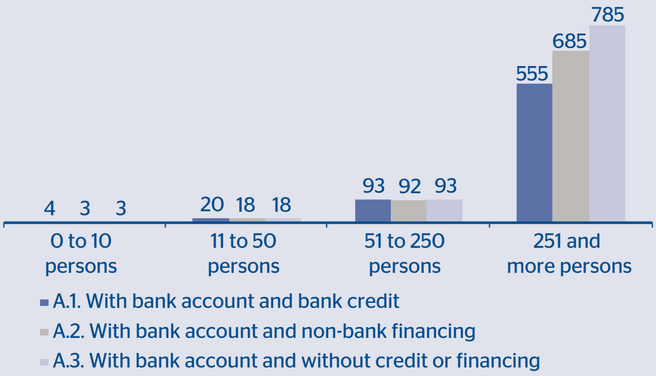
Percentage of Economic Units With Workers Paid with Fixed Salaries or Wages (%)



Source: BBVA Research with data from the 2009 Economic Census.

Graph 62

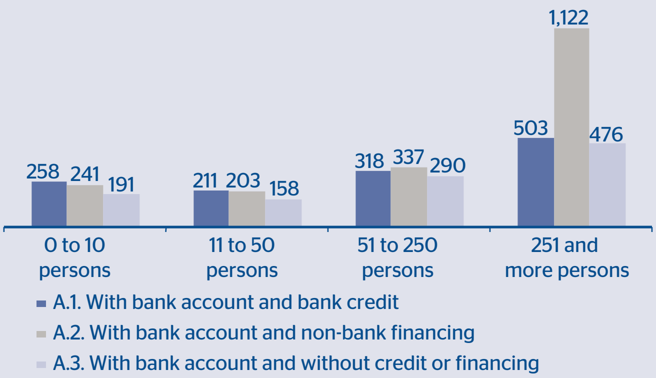
Salaries, Wages and Profit Sharing (Thousands of Pesos Annually, Average Per Worker)



Source: BBVA Research with data from the 2009 Economic Census.

Graph 63

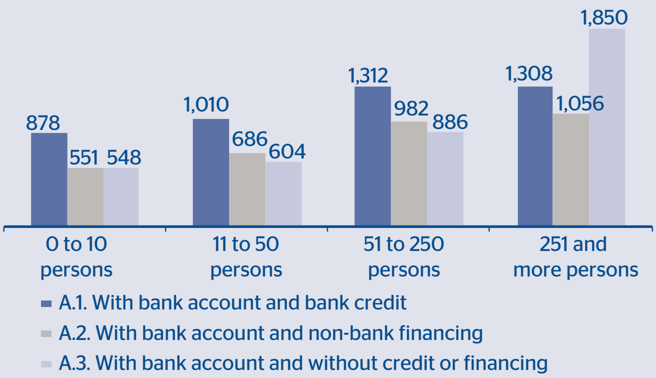
Total Value of Fixed Assets Per Salaried Worker (Thousands of Pesos, Average Per Economic Unit)



Source: BBVA Research with data from the 2009 Economic Census.

Graph 64

Revenues Per Salaried Worker (Thousands of Pesos, Average Per Economic Unit)



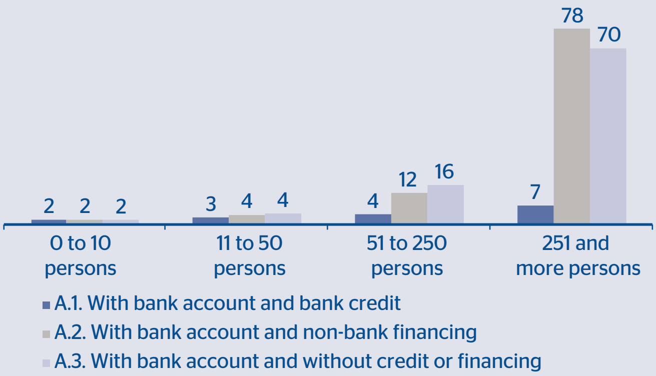
Source: BBVA Research with data from the 2009 Economic Census.

lly, medium-size and large companies with bank accounts and bank credit had, on average, fewer non-remunerated personnel, while among micro and small businesses, once the existence of a bank account has been factored in, a significant difference cannot be discerned from the criteria of having received credit or financing (Graph 65). The same pattern can be observed when considering employees paid by commissions without a base wage (Graph 66).

Among the micro, small, and medium-sized companies with bank accounts, those that obtained bank credit most frequently registered fee payments to the social security system. The difference with the other categories (non-bank financing or no credit or financing) is more pronounced among the small and micro businesses (Graph 67). In the case of tax payments other than the VAT, regardless of company size, those businesses that have bank accounts and obtained bank credit most often reported tax payments (Graph 68).

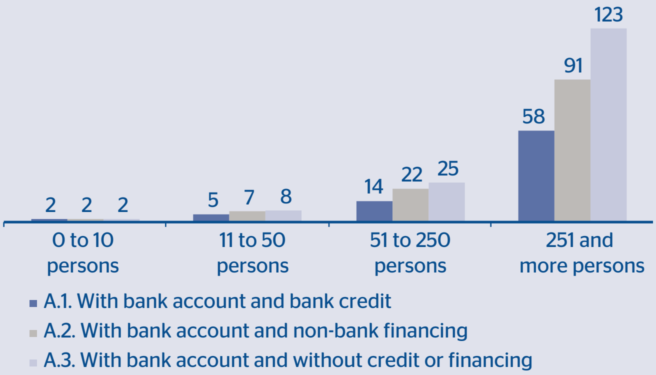
Similarly, when considering compliance with the payment and retention of the VAT, in reviewing the details of the economic units that have bank accounts, it can be noted that for any company size category, companies with bank credit more often reported the payment and collection of the VAT (Graphs 69 and 70).

Graph 65
Non-Remunerated Employees (Average Number of Workers Per Economic Unit)



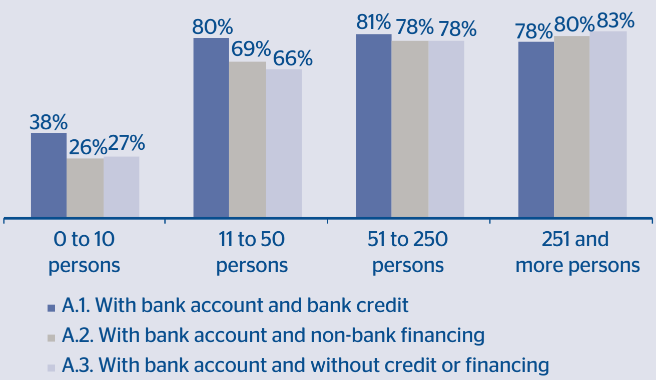
Source: BBVA Research with data from the 2009 Economic Census.

Graph 66
Employees Paid by Commissions Without a Base Wage, (Average Number of Workers Per Economic Unit)



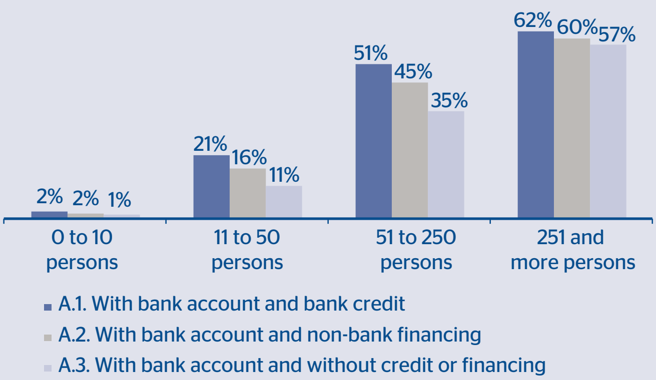
Source: BBVA Research with data from the 2009 Economic Census.

Graph 67
Percentage of Economic Units that Pay Fees to the Social Security System (% by Stratum of Employed Personnel)



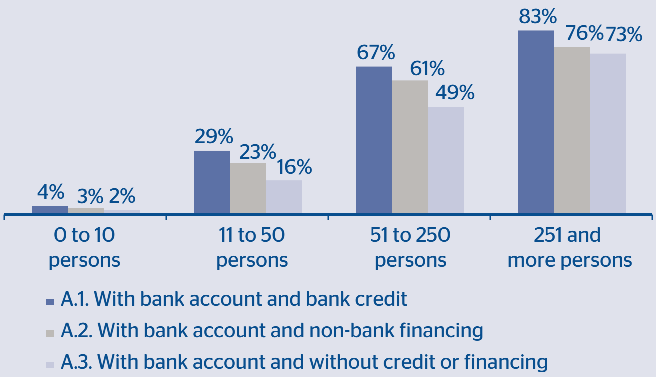
Source: BBVA Research with data from the 2009 Economic Census.

Graph 68
Percentage of Economic Units that Pay Taxes (Except VAT) (% by Stratum of Employed Personnel)



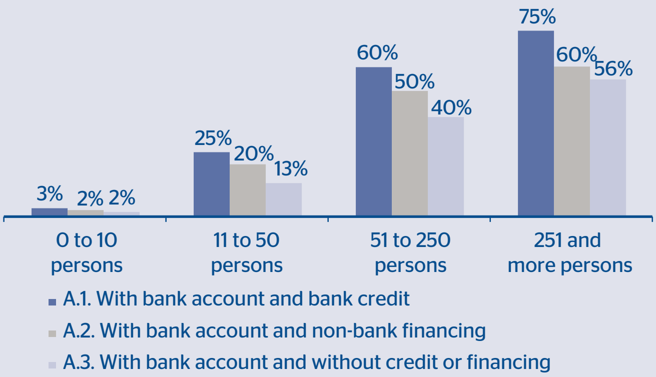
Source: BBVA Research with data from the 2009 Economic Census.

Graph 69
Percentage of Economic Units that Pay VAT
(% Per Stratum of Employed Personnel)



Source: BBVA Research with data from the 2009 Economic Census.

Graph 70
Percentage of Economic Units that Collect the VAT
(% Per Stratum of Employed Personnel)



Source: BBVA Research with data from the 2009 Economic Census.

Conclusions

In the analysis of the combined use of bank accounts and financing, once again a series of variables that characterize the use of these financial services are found. However, among these variables it is possible to identify two groups or categories. In the first group of variables, the use of a bank account does not appear to make a significant difference among companies of similar size. Based on whether they have obtained financing, in the second group of variables, those companies that received bank credit outperform the others.

Within the former group are variables such as having been established as a corporation, employee breakdown by category (whether salaried, non-remunerated, or paid through commissions without a base wage) or productivity as measured by assets per worker.

The lower variability within each company size category suggests that businesses with a bank account share characteristics that represent a starting point for users of financial services and once they have them, they do not show a significant additional advantage for obtaining credit or financing.

On the other hand, there is a second group of variables, which being distinctive for managing a bank account, appear to be even more important for obtaining credit. Besides, for these variables, differences associated with company size can be observed. These variables are those that measure the length of time that a business has been in operation, cash flow generation through revenue or profit margins, and formality based on fee payments to the social security system and taxes, which differ most notably between micro, small, and medium-size companies that obtained bank loans compared with those that received non-bank financing or which did not obtain credit.

Census data indicate that although managing a bank account provides a common basis for the use of financial services for micro and small businesses, there are important characteristics that indicate that payment capacity and formality in meeting its obligations are elements that can facilitate the acquisition of bank credit.

For smaller companies that by managing bank accounts already have certain desirable characteristics of formality and revenue generation, a more detailed analysis is required concerning the reasons for not obtaining credit. This is relevant in order to discern the relative importance of supply or demand factors, since based on such considerations it will be possible to develop products that meet the needs of these companies, taking into account that they already have a link with formal financial institutions.

Although the Census data does not allow this factor to be discerned, it does point to some actions that could help improve access to financing. These include facilitating the incorporation of smaller companies into the formal sector, providing technical assistance to increase their productivity (and therefore their cash flow generation and their survival rate) and providing consultancy services for generating and reporting their financial information and projects so as to reduce the cost of risk assessment. The above mentioned points are factors that contribute to increasing the use of credit products among smaller-size companies.

3.b Evolution of Family Credit and Debt Service : 2000 - 2011

3.b.1 Introduction

The motivation for this article of ***Mexico Banking Outlook*** arises from the interest in quantifying the total service charge on debt that families in Mexico contracted from 2000 to 2011 due to housing loans and consumer credit both of bank and non-bank origin. Thus, an approximation can be reached of the information required for analyzing the financial situation of families. To this end, throughout this article a detailed explanation is provided of the work done for presenting to the reader the assumptions and the methodology leading to the results of this analysis. Succinctly, for this illustrative exercise, the annual flows of various items that form part of the debt service of families.are estimated. First, the total debt of the families was estimated based on information from various sources and, then, assumptions were applied regarding interest rates and amortizations of the different types of credit.

This article takes into account that the debt service of families consists in the obligation that they have for making their periodic payments due to interest, amortization, annuities, commissions (loan openings and management) and payments of insurance premiums for the time the loan is in force before it is totally liquidated . Families' debt service implies a financial burden for them, which can be measured as the proportion that the total flow represents of the expenditures that families have to make to meet all their financial obligations in terms of an important measure of their income.

In Mexico, there is an important lack of official statistics that would help to quantify the service and the financial burden of families' debt, for this reason it is important to take Into account that surveys can be conducted that would allow knowing with a high degree of reliability what the financial situation of families is, like other countries have been able to do. The information of the surveys will also help to detect what the potential for the sustained growth of loans to families is, within a context of delimited risks. In this sense, the estimate presented in this article of ***Mexico Banking Outlook*** of families' debt service can be complemented and defined more accurately to a greater extent with the information that this type of surveys will indicate when they are available.

3.b.2 Surveys on the financial situation of families in the United States and in Spain

As has been mentioned, in Mexico, official statistics do not exist that would timely and in detail show the total balance of the loans that the families have contracted. On the other hand, in the case of the information available that allows estimating accurately the debt service of families, the situation is less favorable since there is a greater lack of statistics. The above points are important limitations that exist for estimating the total balance, the service cost and the financial burden of families' debt in Mexico.

In some countries, there are surveys that allow the authorities and other users to have estimates of the total balance of the debt and of the service cost that families are facing. For example, in the United States, for several decades the Federal Reserve Bank has sponsored the Survey of Consumer Finance).[1] In a similar manner, the Bank of Spain publishes the Financial Survey of Families (FSF, 2002, 2005 and 2008).[2]

[1] Survey of Consumer Finances (SCF), Board of Governors of the Federal Reserve System. Latest Survey Available: 2009.
[2] Bover Olympia, "The Spanish Survey of Household Finances (EFF), description and methods of the 2008 wave", Bank of Spain, Occasional Documents 1103, 2011.

As can be seen in Chart 8, the information of these surveys is useful for knowing in detail and the amount of the various loans that families have, and also because it allows quantifying, to an important degree of precision, the service cost and the financial burden that they are facing in a specific period. Also, the existence of several surveys of this type makes it possible to analyze other aspects such as financial performance and the payment capacity of families over time, given the prevailing macroeconomic environment. This information also helps to estimate if certain segments of families will eventually face some problem of over-indebtedness and its magnitude. These surveys are also indicative of what could be the growth rate of credit to families and of the service cost within a context of delimited risks and in which the credit expansion that they receive is In accordance with their payment capacity.

Chart 8

Topics Contained in the Surveys of the Financial Situation of Families in the United States and Spain

United States: Survey of Consumer Finances (SCF)	Spain: Financial Survey of Families (FSF)
1) Income	1) Rent and wealth of household
2) Sources of Income	2) Assets
3) Reasons for saving	2.a Real assets
4) Net wealth of the family	2.b Financial assets
5) Assets	3) Debts (liabilities)
5.a Financial assets	4) Debt burden
5.b Non-financial assets	4.a Reason for debt payment/ Home rent
6) Liabilities	4.b Reason for debt / Household wealth & others
6.a Referred to residential property	5) Other information
6.b Other liabilities	5.a Value of durable goods
7) Reasons for requesting a loan	5.b Main expense items
8) Selection of the entity from which the loan is requested	
8.a Bank	
8.b Non bank	
9) Financial burden of the families' debt	
9.a Debtors with debt service charge > 40% of Income	
9.b Debtors with overdue payments and others	

Source: BBVA Research with Federal Reserve Bank of the United States data. "Changes in U. S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances", *Federal Reserve Bulletin*, February 2009; *and Bank of Spain, Economic Bulletin, Financial Survey of Families (FSF) 2005: methods, results and changes between 2002 and 2005*, December 2007

In Mexico it is necessary to expand the available information of the loan balance to families, and also to have detailed information of the various items that would allow the correct quantification of their service cost. Similarly, it would be beneficial that surveys be conducted in the country similar to those existing in the United States and in Spain, which allow knowing in detail what the financial situation of families is. These surveys will be reliable indicators of the burden and of the financial health of the families in the country. It is also necessary that the coverage of the statistics be expanded regarding the liabilities that families have contracted. More statistical information among other factors, will help to understand the mechanism and the conditions by which credit can help to increase the families' well-being permanently.

3.b.3 Available information on the balance of family debt

Banco de Mexico (Banxico) publishes a series of statistics on the financing of the country's private sector, which includes data to the end of the quarter of the loan balance that the families have received regarding consumer credit and housing loans. The information on consumer credit that is reported includes credit granted by: i) commercial and development banks; ii) credit granted by non-bank financial intermediaries (NBFI) in the country that are regulated (Sofoles or limited objective financial corporations and Sofomes or multiple-purpose financial corporations); and iii) other alternative financing sources (department stores). On the other hand, housing loans include those coming from: i) commercial and development banks; Ii) those granted by NBFI regulated (mortgage sofoles and sofomes); and iii) other alternative financing sources (Infonavit or the National Housing Fund Institute for Workers and Fovissste, the Housing Fund Institute for the Social Security and Social Services of State Workers).

Even when this information is of great use and allows for a quarterly follow-up on how the balance of the main family loan items has performed, the data that the central bank publishes does not incorporate all of the credit sources or amounts that they have received.

Among the statistics that are not included are those of consumer credit such as credit granted by: i) National Workers Consumer Fund (FONACOT by its Sapanish acronym); ii) pawn shops; iii) non-regulated sofomes; iv) credit or loans granted by non-financial companies where members of the family work.

It should be mentioned that information regarding credit granted by non-financial companies to their workers appear in the National Survey of Household Income and Expense (ENIGH by its Spanish acronym) that the National Institute of Statistics and Geography (INEGI by its Spanish acronym) publishes. The importance of this type of credit to families is relevant within the payment that families have to make for their different debts. This last aspect reveals the importance of having the information with greater frequency, not only of the payments that this credit implies, for limities but also of its balance and of its penetration in the economy.

In regards to housing loans, the statistics of the central bank do not take into account: i) the loan portfolio that the banks, the sofoles, the Infonavit and the Fovisste have securitized; ii) and do not include the statistics of loans granted by either the state housing organizations or trusts.

3.b.4 Information required for quantifying the debt service cost and financial burden of the family

The estimate of families' debt service and, therefore, of the financial burden that they are facing, requires the availability of three types of data for each type of loan or credit that they have received. The information required is: i) amount of interest charged by the creditors; ii) amount of amortizations or minimum equivalent payments of each loan; and iii) total amount of the payment for commissions (for example, credit card annuities, opening and credit management, and others). This information is required for all consumer and housing loans, independently of whether they have been granted by banks or non-banks.

Currently, the National Banking and Securities Commission (CNBV by its Spanish acronym) only provides detailed monthly information on the amount of interest, of commissions and of interest rates implicit in consumer and housing loans that the banks charge their customers. Up to now, authorities have not published statistics on the amortizations that bank customers have to make on these two credit categories. That is, the information available for quantifying the amount of the debt service of families is limited, and a large part of it, if not in its totality, does not exist in the case of consumer credit and housing mortgage loans granted by non-bank companies.

3.b.5 Estimate of the balance, the service cost and the financial burden of families in Mexico

Given the information limitations referred to, an estimate was made of the total balance of families credit by using the central bank's quarterly statistics and that of other complementary sources on the liabilities that they have with banking institutions and non-bank companies. Thus, in the case of housing loans, in addition to the central bank data, statistics on loans that have been securitized by the Infonavit, Fovissste, the commercial banks and the sofoles mortgage companies were included. Also included were data from the non-regulated mortgage sofomes that are members of the Mexican Association of Specialized Financial Entities (AMFE by its Spanish acronym) and provide information to that institution.

In the case of consumer credit, the information from Banxico, and from other financing sources that the central bank does not include was considered. This was the case of the debt data that families have with the Fonacot and with the non-regulated consumption sofomes that are affiliated to the AMFE. It also was considered the information from ENIGH about expenditures that families have to make for the item of the loans they receive from the company where they work or from third persons. Similarly, information was taken from the Economic Census of the INEGI with regard to pawn shops.

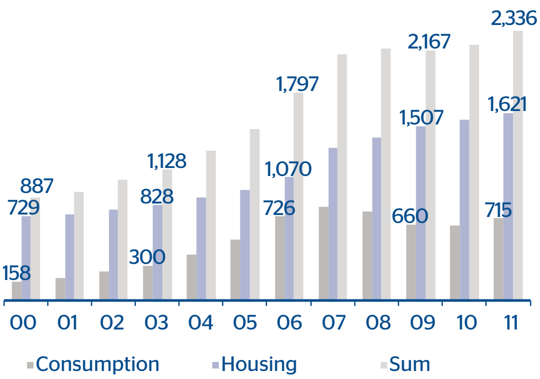
An interest rate and an amortization rate were applied to the information of the balances of all the types of consumer credit and housing loans when data was lacking with regard to the respective amounts. Many of the interest rates on consumer and housing loans of a non-banking origin were estimated based on the information of the implicit Interest rates of the CNBV. On the other hand, all of the amortization rates of the loans granted to families were estimated, by making assumptions on the average life and revolving time of those loans. Through this procedure, an estimate was obtained regarding families' debt service.. To the extent that there is greater statistical information on the financial situation of families, the approximation here presented regarding debt service could be improved for it to be a more robust and accurate estimate.

3.b.6 Evolution of families´ total loan balance: 2000 - 2011

Based on the available information, it is seen that, from 2000 to 2011, the balance of total loans granted to families (consumer credit plus housing loans of banking and non-banking origin) registered a positive performance and in real terms increased 163.3%, from 887 to 2,336 billions of pesos (Graph 71). This figure indicates that in those eleven years, credit to families, on an annual average, grew at a real rate of 14.8%. During this time lapse, the proportion of family credit in relation to GDP also increased, with this debt ratio rising from 8.7% in 2000 to 16.3% in 2011.

Graph 71

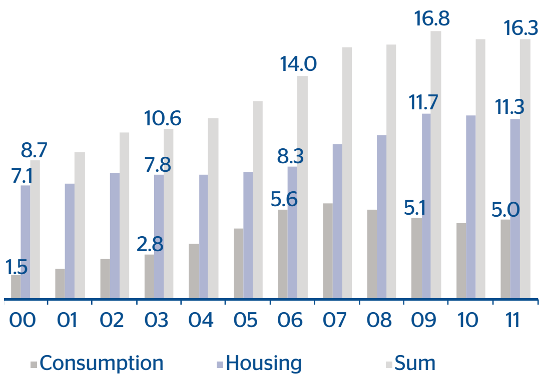
Credit Granted to Families: Consumer and Housing Loans (Balances in Billions of Pesos of December 2011)



Source: BBVA Research with Banxico, SHF, AMFE, Infonavit, Fovissste, and INEGI (ENIGH) data.

Graph 72

Credit Granted to Families: Consumer and Housing Loans (Percentage of GDP, %)



Source: BBVA Research with Banxico, SHF, AMFE, Infonavit, Fovissste, and INEGI (ENIGH) data

The most dynamic component of total credit to families in the period under consideration was consumer credit. It grew a real 353.4% in that time lapse, which reflects a real annual average growth rate of 32.1%. In turn, housing loans rose more moderately, although no less importantly, and the rise in its balance in those years was a real 122.2% (annual average of 11.1%, Graph 72). The great dynamism of consumer credit can be explained, among other reasons, by its massive growth and because the amount granted in this category is but a fraction of that granted to acquire real estate, which allows that its placement be relatively easy, besides to the fact that there are fewer requirements to granted it.

It should be mentioned that there are three differences among consumer and housing loans, which have had important effects on their growth. These differences also influence their service cost and, therefore, the financial burden of families. The first of these refers to interest rates. Interest rates on consumer credits are higher than those on housing loans because in many cases the former lack of guarantees. The second difference is in the amortization term in the case of certain consumer loans (payroll and credit for purchasing a car) which is done in a relatively short term. The third difference is due to the easy and fast massive growth of consumer credit. For example, the massive growth of this type of credit that occurred in in the recent past through the rapid placement of credit cards or through advertising campaigns to promote payroll loans.

3.b.7 Estimate of families' debt service: 2000 - 2011

Once the estimate of families' debt balance was obtained, the process was to estimate the flows of interest and amortization payments that constitute the debt service. In order to achieve the above, the available information of the CNBV was taken into account regarding amounts, interest rates and commissions that the banks apply to consumer and housing loans was added to these data of the families' debt service with banks. The amount of the debt service on the loans that families had obtained from non-bank companies. In this last case, when there was no information available, the statistics were estimated based on assumptions based on relevant or similar information of the CNBV.

As it has been commented, no published information exists on the loan amortizations that families have contracted. This is one important limitation of the available information and it was remedied by making assumptions regarding the average life of non-revolving loans. This allowed estimating an amount or an amortization rate for each type of loan. To the extent that there is no precise information of the amount of all the types of credit amortization that families make, there is the possibility that the estimated financial burden of these could be lower than the real burden. The latter could also be true, particularly in the case of housing loans. In this case, the monthly payment of these loans also includes the payment of real estate insurance, and of life and unemployment insurance of the borrower. These items also form part of the service cost and of the financial burden that families face, and there are also no available data on these, the reason for which they were not considered in the estimate of the families' debt service that is presented below. A similar situation is presented with loans for purchasing an automobile. In this case, insurance is also required throughout the life of the loan.

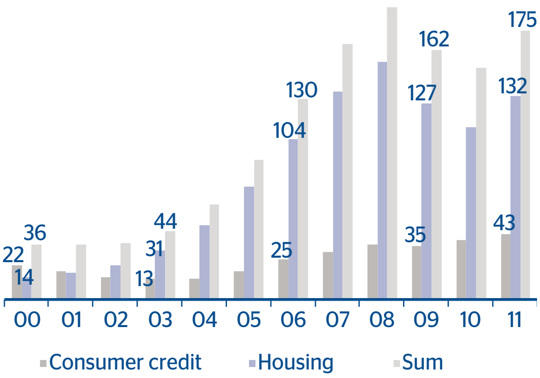
3.b.8 Estimate of the amount of interest of credit contracted by families: 2000 - 2011

The CNBV statistics on the payment of interest due to consumer and housing loans granted by the commercial banks clearly illustrate the manner in which the service cost and, therefore, the families' financial burden rose quickly from 2000 to 2011.[3] In 2000, the total expenditures pertaining to bank interest, a result of the sum of these types of loans, were almost 36 billion pesos (constant) of December 2011, which increased to 190 billion pesos in 2008 (the year prior to the recession of 2009) and were almost 175 billion pesos in 2011 (Graph 73). That is, from 2000 to 2011, the amount of the total payment of interest that families paid on bank credit that they had contracted rose by 392%.

In 2000, the structure of the bank interest payment was as follows: 60.5% of the total amount corresponded to housing loans and the remaining 39.5% to consumer loans. The great dynamism of consumer loans modified these proportions and, in 2011, it occurred that now bank interest rates on housing loans represented 24.4% of total expenditures on bank interest, and consumer loans represented the remaining 75.6% of that payment.

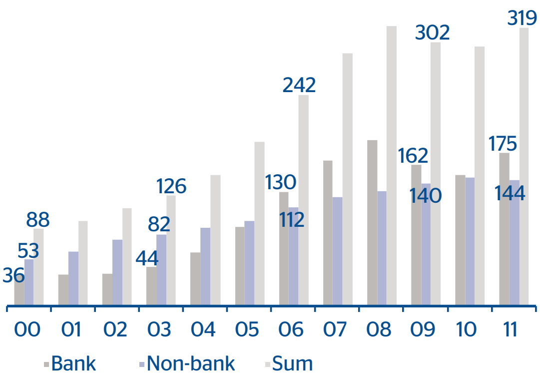
[3] In the case of the data on interest payments on consumer credit and housing loans granted by the multiple purpose banks, the monthly data that the CNBV publishes on these items were used. For the case of other loans, the assumptions of interest rates are detailed below: a) Housing loans: The amount of interest charged by the Infonavit was obtained from the quarterly information of that Institute as of 2004, and an interest rate of 10.1% was assumed for the previous years. For loans granted by non-bank financial intermediaries (IFNB for their Spanish initials), the securitized loan portfolio and the Fovissste loans, It was assumed that the interest rate was 9.5%; b) Consumer credit: The interest rate that was assumed for consumer credit granted by department stores was 35% and the assumed interest rate on consumer credit granted by non-bank financial intermediaries (IFNB, like the automobile sofoles can be) was 17%.

Graph 73
Interest Payments on Consumer and Housing Loans Granted by Commercial Banks (Figures in Billions of December 2011 Pesos, Observed Data)



Source: BBVA Research with CNBV data

Graph 74
Interest Payments on Consumer and Housing Loans of Bank and Non-Bank Origin (Figures in Billions of December 2011 Pesos, Observed and Estimated Data)



Source: BBVA Research with Banxico, SHF, AMFE, Infonavit, Fovissste, and INEGI (ENIGH) data and own estimates

In order to determine the amount of total expenditures for the item of interest on consumer and housing loans, the figures observed of interest paid on bank loans for these two items was added to the amount estimated for the same items on loans of non-bank origin. Thus, from 2000 to 2011, the total amount estimated for the expenditure of interest payments on consumer and housing loans of bank and non-bank origin grew from 88 billion pesos to 319 billion pesos, both at December 2011 prices (Graph 74). The rise in this type of expenditure of families was a real 261.3% in those eleven years.

Of the amount of 319 billion pesos, 49.1% is due to interest payments on all the types of housing loans and the remaining 50.9% corresponds to consumer loans. On the other hand, 45.2% of the total amount spent on the item of interest payments came from loans of non-bank origin and the remaining 54.8% corresponded to bank credit.

3.b.9 Estimate of the amortization amounts on loans contracted by families: 2000 - 2011

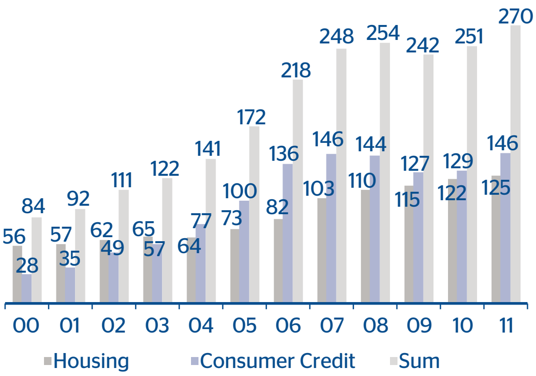
On the other hand, the estimate of the amount of expenditures that families made for the total amortization of their consumer and housing loans was based on assumptions determined on the average life of those loans.[4] This implies that all the loans that the families receive have an annual amortization rate and this was used to estimate the expenditures that the families have to pay for this item. It should be mentioned that the higher the balance of a loan, the higher the amount that has to be amortized, given the term agreed upon of the loan.

Based on the amortization rates that were estimated for each type of credit or loan that the families received, we proceeded to calculating the expenditures that families must make regarding this item. It should be mentioned that the total expenditures estimated of this item in 2000 was of almost 84 billion pesos in December 2011 and rose to 270 billion pesos in 2011 (Graph 75). These figures indicate a real increase of 222.3% of expenditures for the amortization item that families paid in the eleven years of the period under consideration.

[4] The assumptions on amortization rates were as follows: a) Housing loans. The assumption rates were as follows: Annual amortization rate of 6% for loans granted by the banks and all of those that are securitized (banks, sofoles, Infonavit, and Fovissste); 4% of loans granted by non-bank financial intermediaries (IFNB for its Spanish initials), amount of amortization taken from the item of Loan Recoveries from the financial information of the Infonavit, which makes reference to a rate of 9% or slightly higher. It is applied to a rate similar to that of the Infonavit for the case of Fovissste loans; b) Consumer credit: a 25% rate for credit granted by the IFNB, 40% for credit granted by department stores, 30% for credit granted by the banks that are not credit cards, payroll and acquisition of durable consumer goods. These assumptions of amortization rates and their corresponding flows could not correspond to the amounts that were actually paid. To the extent that there is official information on this subject, the estimates made regarding this item will have a lower margin of error.

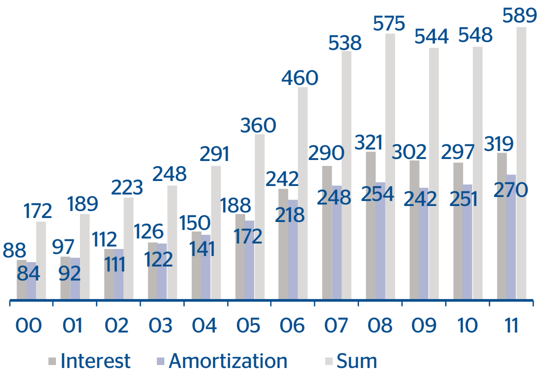
On the other hand, in 2011, 46.1% of the total amount of amortizations that families paid on loans that corresponded to housing, and the remaining 53.8% on consumer credit.. These figures are the result of the higher amortization term for housing loans and the relative short term of consumer credit amortization as are those loans for purchasing an automobile and payroll loans.

Graph 75
Bank and Non-Bank Consumer Credit and Housing Loans Amortizations (Figures in Billions of Dec-2011 Pesos. Estimated Data)



Source: BBVA Research with Banxico, CNBV, SHF, Infonavit, Fovissste, AMFE, and INEGI (ENIGH) data.

Graph 76
Total Families' Debt Service. Interest and Amortization Payments on Consumer Credit and Housing Loans (Figures in Billions of Dec-2011 Pesos. Estimated Data)



Source: BBVA Research with Banxico, SHF, AMFE, Infonavit, Fovissste, and INEGI (ENIGH) data.

3.b.10 Total amount of expenditures for families' debt service on credit: 2000 - 2011

The estimated sum of the total expenditures that families made for the payment of interest plus amortization payments for these two types of loans from bank and non-bank origin rose from 172 billion pesos in 2000 (at December 2011 prices) to 589 billion pesos in 2011 (Graph 76). In those eleven years, families' debt service for the item of interest and amortization payments on consumer and housing loans grew 242.5% in real terms

The percentage structure of families' debt service for the item of interest and amortizations in 2011 indicates that 47.7% of the 589 billion pesos that families spent in that year corresponded to housing loans and the remaining 52.3% to consumer credit. Now, from the perspective of the relative importance of the payment of interest and amortizations, in 2011, 45.9% of the 589 billion pesos spent by families for debt service corresponded to amortizations and 64.1% to interest payments.

It should be mentioned that the figure of debt service of 589 billion pesos of 2011 only considers estimates of expenditures that the families made in that year for the item of payment of interest and amortizations of all consumer credit and housing loans that they had received. In order to have a more realistic approximation of the total cost of debt service of families, other relevant items must be added to that figure.

In the first place, the payment of bank commissions for the use of housing loans and consumer credit, which the CNBV reports only in the case of loans that the commercial banks granted the families must be added. A second relevant item is the debt that families have with third persons of the non-financial sector and with the company where they work, according to the data that the ENIGH refers to. A third item refers to the liabilities that families have derived from consumer credit that the workers have received from the Fonacot; and the fourth item refers to the loans that workers have received from pawn shops. The expenditures of families due to these four Items were added to the 589 billion pesos estimated for 2011 and the new amount that was obtained was 12.2% higher,at 661 billion pesos (Chart 9).

As reference has been made, a large part of the figures in Chart 9 are estimates which, in turn, are based on data that are also approximations of the total amount of credit to families and of diverse payment items that families must make to meet their financial obligations. Among the data that could still have to be considered regarding families' debt service would be life and real estate insurance payments that are made by those who obtain a housing loan, in addition to the expenditures that come from the families' debt service from sources that were not considered in preparing Chart 9. This indicates the possibility that the datum estimated for families' debt service under-estimates the real amount of expenditures that families have to make.

Chart 9

Families' Debt Service for Consumer and Housing Loans (Estimated Figures in Billions of December 2011 Pesos)

Consumer credit (bank and non-bank)	2000	%	2007	%	2010	%	2011	%
Interest	25.7	13.4	168.1	27.7	144.2	23.2	162.4	24.6
Amortization	27.8	14.5	145.5	24.0	129.1	20.8	145.6	22.0
ENIGH: Company Debt and with Third Parties	18.5	9.7	45.9	7.6	36.9	5.9	35.7	5.4
Commissions CNBV	-	0.0	21.1	3.5	13.4	2.2	13.1	2.0
Fonacot + Pawn Shops	-	0.0	0.0	0.0	21.2	3.4	20.7	3.1
Sum of consumption	**71.9**	**37.6**	**380.6**	**62.8**	**344.7**	**55.5**	**377.5**	**57.1**
Housing Loans (Bank and non-bank)								
Interest	63.0	33.0	122.4	20.2	153.7	24.8	157.4	23.8
Amortizations	56.1	29.3	102.6	16.9	121.5	19.6	124.8	18.9
Commissions CNBV	-	0.0	0.6	0.1	0.9	0.1	1.4	0.2
Housing Sum	**119.1**	**62.4**	**225.5**	**37.2**	**276.1**	**44.5**	**283.6**	**42.9**
Total = Consumer credit + Housing loans	**191.0**	**100.0**	**606.1**	**100.0**	**620.8**	**100.0**	**661.1**	**100.0**

Source: BBVA Research with Banxico CNBV, SHF, Infonavit, Fovissste, AMFE, INEGI (ENIGH and Censo Económico 2009), and Fonacot.

3.b.11 Estimate of the financial burden of families' debt: 2000 – 2011

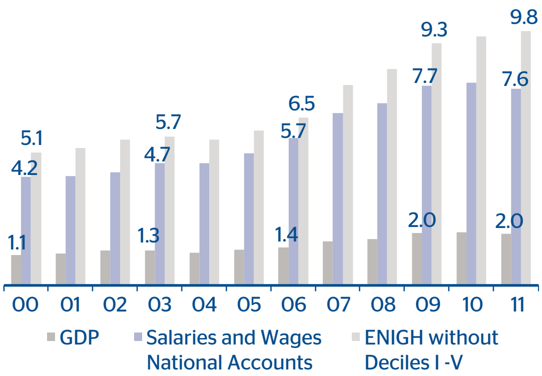
The estimate of the total expenditures that families have made to meet all their financial obligations resulting from all the credit that they have contracted allows quantifying the total cost of their debt service. In a subseqauent stage, the financial burden that families are facing, generated by the liabilities that they have contracted was estimated, at the time that the estimate of the debt service was made, as a proportion or ratio of the family income. So as to estimate the families' financial burden diverse income measures can be taken, such as GDP, Wages and Salaries of the National Accounts, annualized family income as reported on the ENIGH, total wages of workers in the formal sector both of the private and the public sector, and total wages of workers affiliated only to the IMSS.

It should be mentioned that, independently of the measures of the income considered, all of them show that families' financial burden has risen throughout the years, both in the case of housing loans and of consumer credit (Graphs 77 and 78). The above is a result that was expected given the quick and important expansion of credit to families from 2000 to date. Moreover, the financial burden of consumer credit is considerably higher than the financial burden from housing loans. This is a consequence of the high growth rate of consumer credit, of higher Interest rates and shorter amortization term.

It should be mentioned that the financial burden of consumer credit decreased in 2009 and 2010 as a result of the contraction of consumer credit, first as a result of the economic slowdown that was registered in the second half of 2008, and later due to the severe recession of 2009, the year in which the GDP contracted 6.1%. The recovery and consequent expansion of consumer credit that was registered since the second half of 2010 began to reflect a higher financial burden as of 2011 in this credit category. It should also be commented that the financial burden of housing loans was not reduced despite the adverse macroeconomic environment that was registered in 2008 and 2009, because in those years housing loans continued to grow.

Graph 77

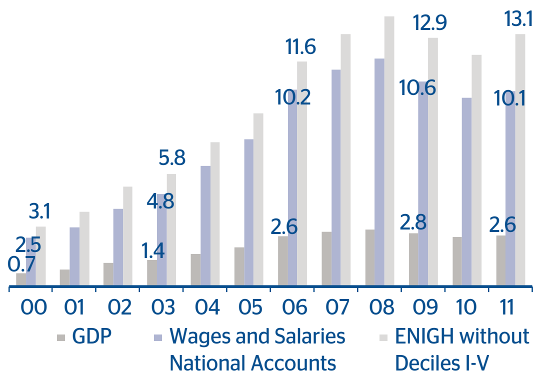
Financial Burden of Housing Loans Debt Service as a Reason for the Different Measurements of Income (%, Estimated Data)



Source: BBVA Research with Banxico, Infonavit, Fovissste, SHF, AMFE data.

Graph 78

Financial Burden from Consumer Credit Debt Service as a Reason for the different Measurements of Income (%, Estimated Data)

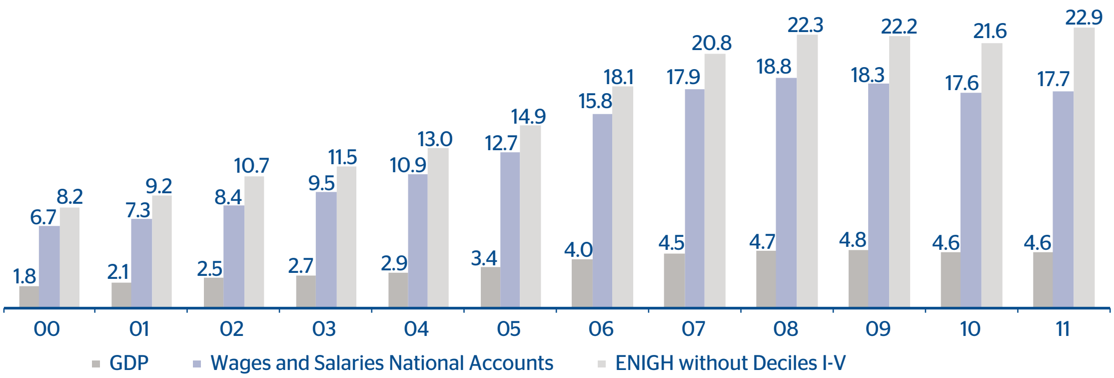


Source: BBVA Research with Banxico, Fonacot, INEGI (ENIGH and Censo) and AMFE data

On the other hand, the important expansion of housing and consumer loans that was seen from 2000 to 2011, caused families' financial burden to grow from 1.8% of GDP in 2000 to 4.6% In 2011 (Graph 79). That is, in those eleven years, it increased 2.5 times. If the financial burden is considered comparing it to the aggregate of Salaries and Wages of the National Accounts that the INEGI publishes, it happens that in that time lapse, families' financial burden increased 2.6 times. In the same manner, the annualized financial burden that considers family income detailed in ENIGH, without the five lower income deciles of the country; it happens that it increased 2.8 times in the years referred to. That is, the various income measures indicate that families' financial burden has risen and that the proportion in which it has done so does not present great variability independently of the income measurement used.

Graph 79

Total Financial Burden: Consumer Credit and Housing Loans Debt Service as the Reason for Different Measures of Income (%, Estimated Data)



Source: BBVA Research with Banxico, Infonavit, SHF, Fovissste, AMFE, Fonacot, INEGI (ENIGH and Censo) data.

3.b.12 Conclusions

The measurement of the total balance of families' debt, as well as its service cost and the financial burden that this represents is important because it allows analyzing, in perspective, the evolution of these three variables throughout time. This focus indicates that even though the ratio of total credit to families in terms of GDP grew between 2000 and 2011, rising from 8.7% of GDP to 16.3%, the implication of this fact can only be viewed clearly to the extent that in the country there are surveys regarding families' financial situation. Based on these two types of information, it will be known whether a specific level of families' debt service and the financial burden that this implies is high or low.

It is also true that most of the available information, be it from robust statistics or from surveys, will also help to detect in a timely manner and to set early alerts on the latent risks of family loans. Thus, the existence of greater information and of better tools for analysis will help to improve risk control to families. This, in turn, will allow that credit to families continue to flow with delimited risks for the benefit of families who use loans responsibly as support to the financial situation that will allow increasing their well-being.

References:

Board of Governors of the Federal Reserve System, "Survey of Consumer Finances (SCF)", 2009.

Bover Olympia, "The Spanish Survey of Household Finances (EFF), description and methods of the 2008 wave", Bank of Spain. Occasional Documents. 1103, 2011.

3.c Banks in Mexico at Three and a Half Years from the Global Financial Crisis

3.c.1 Introduction

Last March, the restructuring process of the Lehman Brothers investment bank concluded.[1] After several months, that institution had not been able to find a buyer, because it was facing enormous losses due to its participation in the financing of the mortgage markets and it had lost investors' trust. A new company emerged as liquidator and its main activity will be to pay its creditors and investors a sum in the order of 65 billion US dollars (USD) during the coming years.[2]

Three and a half years after the event that shocked the financial markets around the world, the Mexican financial system has maintained its strength. Contributing to this were various aspects that are related both with the nature of the financial crisis and with economic policies as well as financial regulations that have been adopted to overcome it, many of which had been implemented in Mexico before the global financial crisis exploded.

It is important to recall that this financial crisis originated due to the excesses in the granting of credit in several developed countries, which, in several cases, led to the formation of price bubbles in the markets of certain assets (for example, the mortgage and loan derivatives markets in the United States), and to a strong leverage of households. In certain cases, these elements were combined with an inadequate measurement of risks and a lax or incomplete supervision, which allowed very complex financial products to proliferate and the loans not to have sufficient guarantees, or even the surge of pyramided investment schemes (Ponzi)[3]. Thus, in several countries, among the first steps taken to solve the crisis, thought was given to eliminating or making the complex financial products more expensive in favor of simpler products, of which the valuation would also be easier, as well as to increase the capital levels of the financial institutions.

In contrast with this situation of the developed countries, among the emerging countries, including Mexico, the effects of the financial turbulence were forthcoming from abroad and became manifest until they produced a hardening of the global financial and economic conditions through marked volatility of currencies and interest rates, as well as a slowdown of international trade. It should be added that in Mexico there were no investments on "toxic" financial products or problems in the origination of credit. There was a balanced equilibrium between assets and liabilities and funding primarily through retail deposits in local currency[4]. Also, this solid position has allowed for a quick recovery of credit in the country, once global economic activity has been reactivated.

In this context, this section of ***Mexico Banking Outlook*** is dedicated to three very related topics. In the first part, the current status of the discussion regarding the costs and benefits of the operation of global banks in the emerging economies is dealt with. One of the important conclusions of that discussion is that there were many specific institutional elements of the host countries of the global banks that affected their performance during the crisis. The second part, describes in a general way the basic organization models of the global banks and, in a more specific manner, the scheme of affiliates in force in Mexico. Finally in the third part, the plans for adopting the new international regulation that has emerged, are described. In December 2010 and during 2011, the rules for the definition and provision of capital

[1] The process for the restructuring of companies provided for under U.S. legislation is known as Chapter 11. Lehman Brothers requested its restructuring through this procedure on September 15th, 2008.
[2] The new liquidator company is called Lehman Brothers Holdings Inc. A series of articles that narrate the main findings of the administrators of the restructuring process of this institution are available at the site Lehman Brothers Holdings Inc, New York Times: http://topics.nytimes.com/top/news/business/companies/lehman_brothers_holdings_inc/index.html.
[3] The pyramid investment schemes in the manner of "Ponzi scheme" are fraudulent investment operations that pay returns to investors through a discount of their own invested money, without their knowledge of these, or of the money of subsequent investors, instead of from the earnings made through the shares of the individual or organization holding the investment operation. This past month of March, the trial against, Allen Stanford, a Texas financier, ended in the United States. The Stanford International Bank, operated for over 20 years through schemes of this type, which sometimes occur when financial supervision is lax. For more details see: http://www.nytimes.com/2012/03/07/business/jury-convicts-stanford-in-7-billion-ponzi-fraud.html?pagewanted=all).
[4] In the February 2010 issue of Mexico Banking Outlook the characteristics of the Mexican banking system that contributed to mitigate the impact of the crisis are described in greater detai.

of Basel III were made known at a global level, as well as the methodology for identifying global banking institutions of systemic importance. (Systemically Important Financial Institutions, SIFIs) and the requirements of additional capital defined for them for absorbing losses, which constitute fundamental elements of that institutional framework. The Mexican financial authorities participated very actively in the work of the Basel Committee of Bank Supervision and of the G-20 for defining both ordinances. In 2012 Mexico presides over the work of the G-20 and in this month of June, Los Cabos, Baja California Sur will be the headquarters for the meeting of the Heads of State of the G-20. The current adoption plans reflect to a large extent the positions that Mexico has maintained in those forums.

3.c.2 Costs and benefits of the participation of the global banks in emerging economies

The importance of giving a voice to Mexico and other emerging economies in the work groups for developing the new operating rules of the international financial system, is evident once the discussion is reviewed regarding the costs and benefits of the participation of the global banks in those economies. In fact, years before the financial crisis exploded, the important growth in their participation in the emerging and developing economies of global banks that originated in the advanced economies had been the object of various analysis. This has improved the understanding of the factors that motivate their establishment in certain countries and their different models of organization. In particular, their impact on the banking systems of the host countries where they are established (efficiency, depth, etc.), and their importance in the propagation of external economic fluctuations.

The impact of the penetration of foreign banks in emerging and developing countries has been widely studied and, in general, indicates that it has brought benefits, such as improvement in technology, better methods for financial management and risks, and more competition. For example, Ranciere, Tornell and Westermann (2006) presented a breakdown of the effects of financial liberalization on economic growth and the incidence of crisis, and show how the direct effect of financial liberalization on growth, measured through variations in GDP, overcompensation, to a great measure the indirect negative impact of a greater propensity to undergo a crisis. Also, Calvo and Loo-Kung (2009) find that this is also the case when consumption is used to measure the impact in well-being, and that it is not necessary to observe a long period of high economic growth in order to achieve greater growth than what is achieved under the alternative scheme of an economy with closed capital accounts. In turn, the longitudinal analysis for a group of Latin American countries conducted by Martínez Peria and Mody (2004) finds that foreign banks charge lower interest rates than local banks and that the entry of foreign banks is associated with a general increase in administrative efficiency and the reduction of interest rates, which suggests that the entry of foreign banks boosts competition.[5] In another recent article that researches the consequences of the entry of foreign banks on the performance of the local companies and real activity, Bruno and Hauswald (2012), find three positive effects associated with their entry. First, once the response of the local banks has been discounted, it is observed that the foreign banks alleviate the effects of external financial restrictions on the performance of the companies and the problems of information and compliance with debt agreements. Also, foreign banks offset the effects of local bank crises because they reduce the dependence of companies on credit granted by the local banks, which mitigates the impact of the credit contraction and stabilizes economic activity. Finally, although the entry of foreign banks without ambiguity stimulates economic activity, only that which comes through the acquisition of local banks, which provide access to local experience in the origination of loans, contributes to relaxing the external credit restrictions of companies. It should be added that these three results are robust to considerations of local institutional development.[6] Despite the above, there are other studies that indicate that these patterns have not been observed in some countries.[7]

[5] Other studies for Turkey (Denizer, 1999), Philippines (Unite y Sullivan, 2003), and Uganda (Kasekende and Sebudde, 2002) find similar results to those of Martínez Peria and Mody (2004) on improvements in efficiency from the participation of foreign banks.
[6] For this analysis, Bruno and Hauswald use data of 22 advanced countries and 59 developing economies from the World Bank data base on foreign banks during the 1995 to 2003 period. The financial needs of the companies are estimated based on the statistics for 36 industries of the UNIDO, using as reference United States companies from the Compustat base. The authors obtain estimators of differences on differences through regressions of ordinary minimum panel squares.
[7] See, for example, the analysis of the banks in Poland by Havrylchyk (2006), the analysis of the banks in Brazil by Cardim de Carvalho (2002), or the analysis for a sample of developing countries by Demirguç-Kunt and Huizinga (2001).

Added to the research agenda described is the analysis of their importance in the propagation of disturbances in financial variables as a result of the financial crisis that begin in the advanced economies. The analysis by Aisen and Franken (2010), that uses a data base of 83 advanced, emerging and developing countries reveals that the countries with (a) high growth of credit prior to the crisis, (b) a sharp contraction in demand after the Lehman Brothers, bankruptcy, (c) a high financial integration with the rest of the world and (d) a weak countercyclical monetary policy, presented on average lower growth rates of credit in the period following the Lehman Brothers collapse.

The high financial integration that characterizes Latin America compared to other developing regions of the world has led to a more profound analysis of their experience. Izquierdo and Rojas-Suárez (2010), who focus their analysis on the Latin American countries, report that for a broad variety of international financial disturbances, there is a positive relationship between financial integration and the growth of real credit, even after discounting the negative impact on the growth of credit that external financial disturbances bring. Also, according to these authors, a greater integration with the international financial markets is associated with lower interest rates on average, but they believe that their results in this regard are less conclusive than the results for credit growth. Consequently, even despite the fact that a greater integration with the international financial markets constitutes a channel through which the adverse effects of external financial disturbances are amplified in the contraction of local credit and increase in interest rates, it is also true that financial integration can increase the depth of the credit markets and reduce the cost of financing.[8]

Another important question in the literature is to verify whether all foreign banks are behaving in the same manner in face of the crisis. To answer this, Galindo, Izquierdo and Rojas Suarez separate the foreign banks by their country of origin among Spanish banks, U.S. banks and banks from the rest of the world (European countries other than Spain, Canada, Australia, Israel, Japan, South Korea and Taiwan). Their estimates reveal that the foreign banks of Spanish origin do not exhibit a behavior significantly different from that of the local banks as to their real credit or their real interest rates. That is, their behavior in the Latin American markets did not exacerbate the contraction of global credit in a greater proportion than the decisions of the local banks did. However, the U.S. banks did significantly reduce their real credit, although they did not raise their real interest rates.

The results regarding the effect of the international financial crisis in Latin America are confirmed in other studies that analyze the same phenomenon with data bases that incorporate other regions of the world. García Herrero and Martínez Peria (2007) and Kamil and Rai (2010) also report that the financing of foreign banks in Latin American countries is much more stable than in countries of Asia or Eastern Europe and responds in a lower proportion to changes in international liquidity or to the financial situation of their matrixes. According to estimates with data from the Bank for International Settlements conducted by Kamil and Rai, toward the end of June 2009, the total obligations of foreign banks in Latin America had increased slightly compared to the end of September 2008 (once these are measured with constant exchange rates), which contrasts sharply with the reduction of the obligations of foreign banks in the emerging countries of Asia (along the order of 8%), Europe (along the order of 4.5%), and Africa and the Middle East (along the order of 3%) in the same period. Kamil and Rai emphasize, among the factors that contribute to this pattern the following:

(i) Foreign banks operating in the Latin American region conduct their loans through local subsidiaries instead of through branches (see Chart 10);

(ii) A greater proportion of the financing by the subsidiaries of foreign banks in Latin America comes from local sources, such as deposits, instead of the resources from the matrix bank or placements in the wholesale financial markets.

[8] More recently, using a very extensive and complete data base on banking operations around the world during the 1995 to 2009 period, Claessens and van Horen (2012) find that, among advanced and emerging countries, there is no significant positive or negative impact from the participation of foreign banks in the ratio of bank credit to GDP and that only among the developing countries a negative impact is observed.

(iii) The global foreign banks in Latin America had low exposure to the emerging countries of Europe so that they were not susceptible to a contraction by contagion similar to that which was experienced in that region.

Chart 10
Basic Models of Organization of the Global Banks in Countries Other than the Country of Origin

1. Office of Representation: It is a facility with limited servicers for offering the bank services of the matrix office in the destination country: and to indentify new customers, but does not accept deposits or grant credits. Its main function is, therefore, providing support services to the matrix office and to client.

2. Agency: In many host countries an agency does not accept deposits from the public although it does accept requests for credit. It provides or resolves credit agreements, it issues letters of credit, provides technical assistance and consultation to customers (mainly corporations and government), it manages the accounts at the sight of the customers and assists them in purchase and sale transactions of securities.

3. Joint venture: A bank with business contacts in another country, although concerned about exposure to risk when entering the market of another country or with limited knowledge of that market, can be associated with a bank or a non-bank financial institution of that country and share revenues and expenditures.

4. Branch: This organization structure predominates among the global banks, and normally offers a complete variety of services. Branches are not separate legal entities, but local offices that represent one sole financial corporation. They can accept deposits from the public subject to the regulation of the country where they are located, and they can dissociate themselves from some regulations that the branches of the bank itself face in the country of origin. For example, the loans granted in the branches located in other countries, may not require the establishing of certain legal reserves or the deposits received through them may not pay premiums in the protection institute of bank deposits in the country of origin.

5. Subsidiary (Affiliate): When a global bank acquires the majority ownership of another bank, legally different, situated in another country, it is said that this bank is a subsidiary of the global bank. Since the subsidiary is a legal independent entity and with equity of its own capital, it does not necessarily close in case the global bank fails. Similarly, the subsidiary can close without significantly affecting the global bank that owns it. Subsidiaries are also established instead of branches in jurisdictions where the local regulations restrict branch operations, or due to tax advantages. Many global banks also purchase banks in other countries to acquire an already established client portfolio.

Note: The models are placed in ascending order of complexity.
Source: BBVA Research, with information of Rose, P. S. and S. C. Hudgins (2005), Bank Management and Financial Services, McGraw-Hill International Edition, Sixth Edition, Singapore.

Certain characteristics of the organization of the global banks in the differenct countries explain why they responded differently to the financial crisis. Kamil and Rai also identify in their study a differentiated response from the foreign banks according to nationality. In particular, they report that the loans of the Spanish banks slowed down during the financial crisis in a lower proportion than that of the other foreign banks. The two factors to which this pattern is attributed are the proportion of long-term obligations and the requirements of financial autonomy in the management of liquidity with respect to the matrixes. It should be observed that the previous factors point to the fact that the foreign banks of Spanish origin do not exhibit a significantly different behavior from that of the local banks, as is reported in the study of Galindo, Izquierdo and Rojas Suárez. Among the Spanish banks, the proportion of long-term obligations in the emerging markets is 60% and among the U.S. banks it is 20%, which allows the U.S. banks to adjust their exposure to risk more easily.

The other factor, probably more important, is that the regulation of the Bank of Spain for subsidiaries of the Spanish banks requires them to maintain financial autonomy with respect to their matrix, in terms of liquidity, in such a way that they finance the greater part of their operations in each market with retail deposits. This also contributed to the fact that the subsidiaries of the Spanish banks were better prepared to face the global financial crisis and decrease their credit in a lower proportion.

These results, on the importance that both the ownership of the banks and the funding strategies have, are corroborated in the recent study conducted by De Haas and Van Lelyveld (2012). This analysis on the evolution of credit in the European countries in the 1992 to 2009 period finds that, the most recent crisis had a more extensive impact than the other previous crises experienced in that region. Also, that the funding strategies have an important influence on the behavior of both the foreign banks and the local ones. In the European emerging countries, the local banks that fund their activity mostly through deposits were in a better situation for continuing to grant credits during the crisis. For the authors, these patterns suggest that in the future it is probable that the business models and the funding strategies of the foreign banks in the countries of the Emerging Europe will resemble more closely those that operate in Latin America, either as a result of their own decision or by complying with new regulations.

To summarize, following the collapse of, Lehman Brothers, there has been an intense review of the role that global banks had in the propagation of the financial crisis. This review of the facts and the figures reveals various characteristics of the institutional framework both in the countries of origin and in the host countries of the global banks, and of the organization models of the global banks contributing to effects of a different magnitude in different regions of the world. All of these are important lessons (particularly those that point to stability of credit granted in local currency and financed with retail deposits of the host country) to facilitate that the participation of the foreign banks in local bank systems allow the emerging economies to obtain more benefits from the financing of the global banks and create integration mechanisms that will be more resistant to external financial crises.

The above turns out to be particularly relevant in view of the fact that many analysts are anticipating that, in the coming years, the banks of emerging countries with capital are those that could expand their operations in a more accelerated manner in the coming decade. However, the analysis of the impact of the foreign banks has been launched and will continue to advance as better data is obtained and new techniques are used to analyze them. In particular, several analysts have suggested that for this, it is very important to have a complete economic cycle of financial activity in order to be able to determine whether the effects on credit are due to the operation of the foreign banks or to other factors, such as a more generalized reversion of capital flows.

3.c.3 Organization models of the global banks

There are two motivations for presenting this section of ***Mexico Banking Outlook***: a more detailed description of the main models of operation that exist in general and in Mexico in particular. The first motivation is the empirical evidence previously described regarding the importance that the organization models of the global banks can have for the financial development of the host countries and the propagation of real or financial disturbances from abroad. The second motivation is the importance of better knowing the scope and limitations of the institutional framework operating currently, in order to identify which are the elements susceptible of improvement as a result of the discussions in the regulation forums sponsored by the Bank for International Settlements (BIS) and the Financial Stability Board (FSB) and what effect the regulatory adjustments could have on the financial system of Mexico.

The banks use a broad variety of organizational structures in their search for business around the world (see Chart 10). Not In all the countries do institutional frameworks allow the global banks to operate under any of these modalities. In the case of Mexico, for the provision of financial services by foreign banks, the Law for Credit Institutions (LIC for Ley de Instituciones de Crédito) allows for only two possibilities to organize themselves and operate under the legal capacity of a multiple service bank[9] which are representation offices and authorized affiliates or subsidiaries.

[9] This is due to the fact that the legislation stipulates that in Mexico bank and credit service may only be provided by credit institutions which can be multiple banking institutions (of a private nature, with authorization to organize and operate from the National Banking and Securities Commission (CNBV for its Spanish Initials). as per general provisions of the Law for Credit Institutions (LIC for its Spanish initials) or development banks (of a public nature, with organization and operation features as per the specific legislation for their creation.) For further details see Article 1 of the LIC.

The CNBV can grant (or revoke) the authorization so that representative offices of financial entities from abroad can be established on national territory. These offices may not conduct any activity of financial intermediation on the national market, which requires the authorization of the Federal Government, nor operations to obtain resources from the public, either by their own or through an alien account. Despite the above, representative offices can provide, at the request of their customers, information regarding the operations that the financial entities abroad that they represent conduct in the country of origin, in the understanding that such offices cannot advertise or issue propaganda to the general public regarding liability operations.[10]

In turn, the Mexican legislation stipulates that the authorization for operating as a multiple banking institution is also granted by the CNBV.[11] Besides, such authorization can only be obtained by a fixed-capital corporation, organized in accordance with the General Corporation and Partnership Law,[12] (Ley General de Sociedades Mercantiles), and by the Affiliates of foreign banks, which are Mexican corporations authorized to organize and operate as multiple banking institutions and with a capital share by an External Financial Institution or an Affiliate Controlling Corporation.[13] The multiple banking institutions so authorized are subject to the provisions regarding minimum capital, the establishing of Boards of Directors and of Operation as provided for in Mexican legislation (Chart 11).[14,15]

Thus, the operating format for foreign banks in Mexico, by establishing an independent legal personality from that of its matrixes for Affiliates or subsidiaries, delimits to a great extent the uncertainty on the destination of the assets of the national banks of foreign ownership in face of problems that could arise in the matrix bank. It should be added that there currently exist in Mexico 42 institutions of multiple banks of which 17 are affiliated to financial entities abroad, and in addition there are 62 representative offices of foreign banks.[16]

Chart 11

Main Provisions Applicable to Multiple Banking Institutions

Operations	The multiple banking institutions may only conduct financial operations (fundraising, granting of credit, issuing of bank bonds and subordinate operations, transactions with securities and currencies, etc.) that the law allows, providing they are foreseen in their by-laws and they have the approval of the CNBV in terms of stipulations in the legislation, and that they are carried out according to the regulation which in the scope of their competence the CNBV itself and other financial authorities issue.
Minimum Capital	The minimum capital subscribed and paid by the multiple banking institutions is determined by the CNBV through provisions of a general nature in terms of the operations that such institutions have expressly considered in their social by-laws, the necessary infrastructure for their development, the markets where they seek to participate and the risks that this bears, among others, and not of the specific legal capacity under which they were incorporated.
Administration	The administration of the multiple banking institutions is entrusted to a Board of Directors and to a Chief Executive Officer in their respective spheres of competence. The Board of Directors of the Multiple banking institutions should be formed by a minimum of five and a maximum of fifteen proprietary board members, of whom those included, at least 25% should be independent. An independent board member is understood as the person that is detached from the administration of the respective multiple banking institution, in the case of the affiliates of foreign banks and that it meets the requirements and conditions determined by the CNBV with regard to provisions of a general nature.

Source: Credit Institutions Law, several articles.

[10] For their other operations, the representative offices are subject to the regulations issued by the Finance Ministry and the supervision of the CNBV. For further details, see Article 7 of the LIC (*Ley de Instituciones de Crédito* or Credit Institutions Law).
[11] See for further details Article 8 of the LIC.
[12] See for further details Article 9 of the LIC.
[13] See for further details Articles 45-A, 45-B, 45-C, 45-D, 45-E and 45-I of the LIC.
[14] It should be noted that the Mexican legislation also stipulates that when the supervising authorities of the country of origin of the Foreign Financial Institution, owner of the representative shares of the capital stock of an Affiliate or an Affiliate Controlling Corporation, as the case may be, wishes to conduct inspection visits, they should request this of the CNBV itself, which at its discretion can decide to make the visits, without having the participation of the other supervisory authorities mediate. See for further details Article 45-N of the LIC.
[15] An additional characteristic that it is advisable to note in view of the characterization of Chart 10 which refers to the nature of the Foreign Financial Institution (or Affiliate Controlling Corporation) provided for in Mexican legislation does not make a distinction with respect to whether such institutions have organization models through "branches" or "subsidiaries". Instead, they have to deal with whether the countries of origin of those institutions have signed a treaty or an international agreement by virtue of which the establishment of Affiliates is permitted on national territory.
[16] The percentage share in the assets of the multiple banking institutions of the 17 affiliates is around 75%.

Other additional elements to this scheme that have contributed to limit the contagion of the situation of the matrix banks abroad to the banks in Mexico are:

(i) **The high capitalization index of the commercial banks in Mexico,** which for many years has remained very much over the regulatory minimum capital requirement of 8% and of "early alerts" of 10% currently in force;

(ii) **The approval in March 2011 of the reduction of the limits** to exposure that the banks which operate in the country may have **with respect to related persons,**[17] and

(iii) The modification of the accounting criteria as regards credit reserves following the guidelines of the Basel Bank Supervision Committee, **migrating from one model of losses incurred to a model of expected losses.**

(iv) **The agreement for adopting in an anticipated manner the international regulations of Basel III.**[18]

Notwithstanding the above, the Financial System Stability Board (FSSB) of Mexico, in its most recent annual report emphasizes that, despite these strengths of the Mexican financial system, it is not completely immune to the situation that might affect the matrix banks of the affiliates. The reason is that the deterioration of the matrix bank could damage its subsidiaries through lower net resources available and the establishment of policies that do not increase their capitalization indices, or it could lead the matrix banks to adjust their direct investments in assets in the country.

In brief, the operating regime for foreign banks in Mexico not only allows them to operate with sufficient independence from their matrix offices, negotiating in a decentralized manner their liquidity and their capital; but also, it isolates them to a good extent from the problems that they could possibly face. We will see in the following section how these conditions have contributed favorably for Mexico to be in position to adopt most of the recommendations to strengthen the operations of the financial institutions that have emanated from the international work groups.

3.c.4 The adoption and capital requirement plans of Basel III in Mexico and other countries

On June 1st, 2011, the Basel Committee on Banking Supervision (BCBS) published a revised version of the Basel III framework that it made known in December 2010.[19] The revision was focused on the treatment of capital as to credit risk of counterparts in bilateral transactions and it resulted in a modification of the credit valuation adjustment, CVA).[20] The CVA is the risk of loss caused by changes in the credit spreads of one counterpart in response to changes in their quality or credit rating.[21]

Based on an evaluation of the impact of the regulation that concluded in the first quarter of 2011 and that showed that the method originally proposed punished counterparties excessively with low credit qualifications in transactions with long-term maturity, the Basel Committee agreed to reduce the weighting factor applied to the counterparts with a CCC rating from 18% ti 10%. In this manner, the total capital requirements of Basel III due to the counterpart's credit risk, with the addition of the charge due to CVA risk is estimated at double that of the Basel II requirements.

[17] This change to the regulation for the treatment of related credits is described in the July 2010 issue of ***Mexico Banking Outlook***.
[18] See for further details the Annual Report on the Condition that the Financial System Stability in Mexico has and on the Activities conducted by the Stability Board of the Financial System; March 2012.
[19] The main provisions of Basel III on the capital and liquidity requirements are briefly described in the March 2011 issue of ***Mexico Banking Outlook***.
[20] Still pending is the evaluation of the impact surrounding the provisions of capital due to credit risk associated with central counterparts, for which the termination date was foreseen for the end of 2011.
[21] The risk of non-compliance of a counterpart and the risk of credit migration were already considered in the regulatory framework of Basel II, but the losses related to the CVA were not. However, during the financial crisis, around 2/3 of the losses attributable to the credit risk of the counterparty were due to losses from CVA and 1/3 to losses for non-compliances actually occurring. So in the regulatory framework of Basel III which was published in December 2010, rules of capital were established for the CVA risk, but the level and reasonability of the definitive standardized capital charges were subject to an evaluation of impact. For further details, see Capital treatment for bilateral counterpart credit risk finalized by the Basel Committee, Bank for International Settlements, June 1, 2011.

Despite this type of adjustments and modifications in the evaluations of the impact of the new capital requirements, the adoption process of the regulatory recommendations of Basel III began in 2011. In Europe, the adoption is being carried out through modifications of the legislation in force, in the Guidelines of Capital Requirements, version IV. In the United States new bank regulations are also being issued to comply with Basel III, the Dodd-Frank Act and the Volcker. Rule. The emerging countries have also welcomed the measures of Basel III and not only as a means for strengthening the global financing system. On the one hand, the financial systems of many emerging countries like Mexico, India, South Korea, Malaysia, Chile and Colombia, among others, are well capitalized and currently comply better with the recommendations of Basel III than the developed countries. For example, the Basel Committee estimates that for the whole of the internationally active banks with basic capital higher than three billion euros, the adoption of the Basel III criteria to establish the Total Capitalization Index (TCI), would reduce the current capital by 35.3% compared with the current level, and for the group of internationally active banks with a base capital lower than three billion euros, it would reduce it by 25.9%. In contrast, for Mexico, the CNBV estimates that the adoption of these criteria would imply a reduction of only 1.3 % of the Total Capitalization Index compared to the current level (Chart 12). On the other hand, the new provisions seem attractive to the regulators of some emerging countries that had experienced strong credit expansions in recent years, like Brazil and China (Chart 13).[22]

Chart 12

Percentage Change in the Capitalization Indices at the International Level from Applying Basel III

	Core Tier 1	Tier 1	Total Capitalization Index
Average Banks Group 1*	-26.5%	-33.0%	-35.3%
Average Banks Group 2*	-19.4%	-20.0%	-25.9%
Mexico	-1.3%	-1.7%	-2.4%

* Group 1 consists of banks with capital higher than three billion euros that are internationally active; the other banks belong to Group 2.
Source: Table taken from "National financial environment in face of the current global situation", National Banking and Securities Commission, Presentation, January 2012. It uses data from Quantitative Impact Study, August 2011, Basel Committee for Banking Supervision and calculations of the CNBV (National Banking and Securities Commission)..

Chart 13

The plans for adopting Basel III in China and Brazil

China	At the beginning of 2011, the Banking Regulation Commission of China announced its plans to strengthen supervision through the implementation of the regulations of Basel III and a schedule to implement them that started at the beginning of 2012 to conclude at the end of 2016, even in 2013 in the case of the financial institutions that were considered of systemic importance. In particular, the Chinese financial authority planned to impose differentiated criteria for financial and non-financial institutions that are systemically important, even without having the criteria to define them. Among other provisions, the new rules propose Including countercyclical capital requirements over the normal capital requirements (up to 2.5%), leverage coefficients (minimum 4%), total provisioning/loan coefficients (a minimum 2.5%) and liquidity coefficients (coefficient of liquidity coverage and coefficient of net stable funding), 100% minimums.. However, the Chinese authority decided to postpone indefinitely the implementation of the stricter capitalization and liquidity rules in line with Basel III in view of the uncertainty in the international environment and of the growing concerns regarding financial growth and health of the banks that materialized at the beginning of this year.
Brazil	In Brazil, the rules and the calendar schedule for their adoption were announced since February 2011. The supervisors of that country had proposed the adoption of the regulations of Basel III, before they were effective internationally. For example, it was announced that the Central Bank of Brazil would add countercyclical requirements of capital in such a way that the ratio of total capital required would be 11% en 2013, and between 10.5% and 13% -according to whether the countercyclical requirement of capital was added- from the beginning of 2017 and onward. The regulators had also established a leverage coefficient in a preliminary manner (minimum 3%) and liquidity coefficients (minimum liquidity coverage coefficients and net stable funding coefficient of 100% minimum), Notwithstanding the above, also in that country, as the international environment weakened these plans were delayed and the suggested International calendar was adjusted.(So it happened that just last February 17th, the Central Bank of Brazil opened a 90-day public consultation that ended in May regarding a new proposal for adopting the capital regulations of Basel III where it was suggested that such adoption be gradual during a period of two years and according to the International calendar. Therefore, the adoption of the measures in that country would start on January 1st, 2013.

Source: BBVA Research.

[22] Other emerging countries of Latin America and Asia where there are regulators, have also expressed their intention of implementing some of the recommendations of Basel III, and they are in the process of evaluating the way to do it. They are Peru, Colombia, Hong Kong, India and South Korea.

In México, the financial authorities presented in May 2011 a project for incorporating in the Mexican regulation the recommendations of Basel III, and in September of that same year, the Finance Ministry included in the General Criteria of Economic Policy 2012, the early adoption of said regulatory framework, as a fundamental macro prudential element to preserve the stability of the financial system. The CNBV has estimated, given that since the current Mexican rules of capitalization are very similar to those proposed by Basel III for the Mexican banking system as a whole a decrease in the Total Capitalization Index of 0.4 percentage points would be produced in the first year (Chart 24). So, these rules would have a minimum effect on the banks that operate in the country (Graph 80).

Chart 14

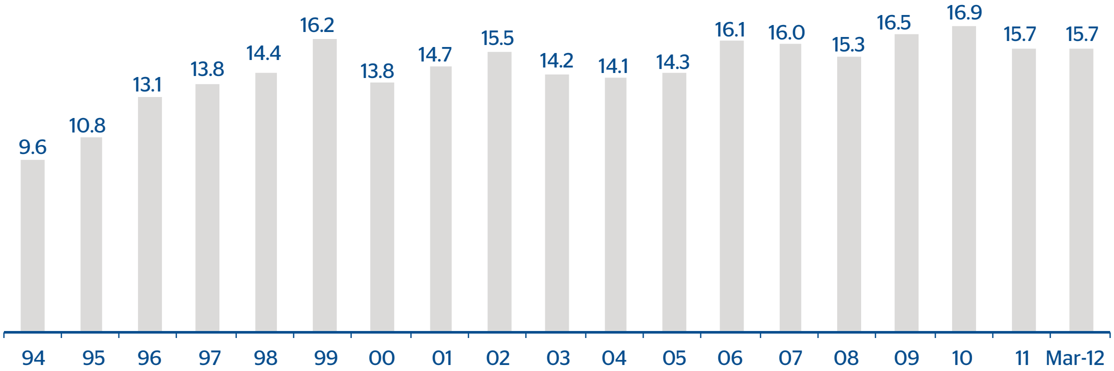
Application of the New Basel III Capital Requirements in the Mexican Banking System

	Current Situation (figures to June 2011)	Basel III
Core Tier 1	13.7%	13.5%
Tier 1	14.3%	14.1%
Total Capitalization Index	16.5%	16.1%

Source: Framework taken from "National financial environment: in face of the current global situation. National Banking and Securities Commission, Presentation, January 2012. It uses CNBV calculations.

Graph 80

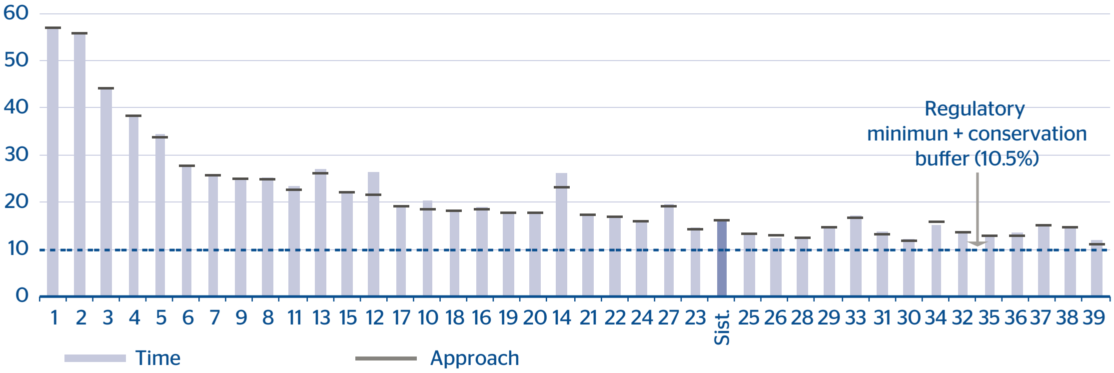
Total Capitalization Index of the Multiple Banking Institutions (Percentage)



Source: BBVA Research with data of Bank of Mexico and CNBV

Graph 81

Preliminary Impact on the Total Capitalization Index of Multiple Banking Institutions (Percentage)



Note: Information to June 2011.
Source: Framework taken from "National financial environment in face of the current global situation". National Banking and Securities Commission, January 2012. It uses CNBV calculations.

Also, relative to the new requirements on the needs of liquidity that were established in Basel III (liquidity coverage coefficient and net stable funding coefficient), that authority anticipates that, due to the fact that the Mexican banking system is characterized as having stable funding sources, as is obtaining retail deposits; just a minority of the banks would be forced to reduce their dependence on their funding on the interbank market (Graph 81). Therefore, the CNBV has announced that it will inform regarding the detail of the rules of Basel III for the Mexican banking system next September and that the schedule for its implementation will begin during the second half of 2012.

Furthermore, in its most recent annual report of activities, Mexico's FSSB, of which the CNBV forms part, has ratified that the greater part of the recommendations of Basel III on capitalization and liquidity indices will be implemented this year. Nevertheless, that report also points out four measures considered in the international regulatory agenda whose entry in force in other countries could have an undesired impact on the Mexican financial system:

(i) **The conditions established in Basel III so that the subordinate debt issued by the subsidiaries of foreign banks can qualify as matrix capital.** Within the Basel III definition of capital, it was established that subordinate debt issued by the affiliates of the global banks could only be considered as part of the capital of the global bank when it contains clauses that allow for its convertibility into shares or in a reduction of its nominal value at the initiative of the financial authorities of the global bank. Since if this condition is maintained, the subordinate debt issued by the Mexican banks that are affiliates of banks abroad will be prevented from being considered in the capital of their matrixes, the Mexican financial authorities consider unacceptable to allow the debt issued by banks that operate in a country to be converted into shares at the initiative of the authorities of another country, since this would expose adequate levels of liquidity and capital to the creditors of a bank to suffer losses when the financial institution abroad is in unlawful possession of the ownership of the affiliate in face of problems of solvency, as its supervising authority might determine.

(ii) **The new capital requirements for the book of negotiations established in Basel 2.5.** The financial authorities consider that these requirements can have an important effect on the appetite for risk of the global banks in emerging economies, particularly in those with lower credit qualifications.

(iii) **The additional capital requirements for banks with systemic importance** (See Chart 4: Regulation for Systemically Important Financial Institutions (SIFIs). Although these requirements have as their objective increasing the banks' capacity to face adverse shocks, due to their size or degree of interconnection with the rest of the financial system it is considered important to strengthen them, it is undeniable that the benefits derived from higher capital exceed the costs. The Mexican financial authorities consider that these could have an adverse effect on the countries where the affiliates of the global banks are established. The reason is that the cost of this measure, derived from the need to structure a higher level of capital, would be Incurred by all the entities that form part of the global bank, but the additional capital would be at the disposal of the matrix, without there existing any legal obligation for it to support the affiliates in problems. This situation could produce an asymmetric situation between the benefits and the costs.

(iv) **The Volcker Rule, which consists in a series of restrictions for the U.S. banks to conduct operations of negotiation and investment in private funds and of coverage for their own account.** This rule, as it is defined, has an important reach outside the U.S. since it considers regulating the activities of any bank that has an affiliate or agency in that country, independently of the jurisdiction of incorporation of the bank in question. In particular, the proposal published establishes various restrictions to the negotiating operations with securities, derivatives, commodities and currencies, despite the fact that this also establishes exclusions and exceptions that seek to reduce the negative impact on the U.S. markets (and other jurisdictions). The financial authorities of Mexico believe that the Volcker Rule has an important impact on the country due to the characteristics of its financial system, since the majority of the banks in the country are affiliates of U.S. banks or affiliates of the banks of other countries which, in turn, have an affiliate in the U.S., or banks of Mexican capital with affiliates in that country.

For this reason, the Presidency of Mexico of the G20, regarding finance, has proposed as a priority topic for the work of that group, the analysis of the international regulatory agenda and of other developments after the financial crisis in the emerging economies, with the objective of identifying areas that might require policies to support a quick and consistent implementation of an agenda for financial reform[23] mutually agreed upon.

3.c.5 Conclusions

In brief, notwithstanding that certain aspects of the rules of Basel III are still being reviewed, several emerging countries have planned to take advantage of the current health of their financial systems so as to make known and start, in some of them, a preliminary adoption of these rules. The above, despite the fact that on a medium- and long-term perspective, the stricter requirements of capital and liquidity can have an impact in terms of the penetration of the banking system and growth of their economies slightly more negative than in the developed countries (see, for example, ***Mexico Banking Outlook***, March 2011). In a situation where the international financial institutions forecast a lower average growth rate among the emerging countries (including some of those that made known their adoption plans of the Basel III rules detailed last year), Mexico, where economic growth is forecasted over its long-term trend in 2012, could well be among the first countries in the world to implement the new Basel III standards of capital and liquidity and thus consolidate the reputation of strength and solidity of its banking system as a fundamental base to expand banking services coverage in a healthy and sustainable manner.

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Inset 4: Regulation for Systemically Important Financial Institutions (SIFIs)

In November 2011, the G-20 approved the final version of the institutional framework to identify, regulate, and supervise what are known as global systemically important banks or G-SIBs. The following is a description of the three main elements of this institutional framework.

I. Higher capital requirements for G-SIBs, to decrease their likelihood of bankruptcy

A quantitative methodology has been established to identify the G-SIB, which is based on five concepts: global activity, size, interconnectivity, substitutability, and complexity (Chart 15).

In addition to these concepts, a monitoring criterion can be included on an exceptional basis to deal with the limits imposed by the quantitative approach.[1] The Financial Stability Board (FSB) has issued a provisional list of 29 G-SIBs located in the G-20 countries, out of a sample of 73 banks, which will be updated annually. Of the 29 financial institutions, 27 of them were chosen based on quantitative indicators and two additional banks (Bank of China and Lloyds) were added to the list using the monitoring criteria at the request of their local supervisors (Chart 16).

Of these 29 financial institutions, 13 have a presence in Mexico, under the figure of multiple banking institutions. At the end of 2011, these 13 banks together had a 47.8% share of the Mexican banking system's total assets, 36.7% of total loans, and 43.7% of total deposits. However, it is important to note that three of them (Banamex-Citibank, Santander, and HSBC) account for almost the entire percentage share of the loan portfolio and deposits of this group of financial institutions.

At the same time, BBVA and Scotiabank were not classified as G-SIB in this measurement.[2] The respective percentage share held by BBVA Bancomer on the date in question was 21.1% of total assets, 25.4% of total loans, and 22.5% of total deposits, thus being the largest bank in the Mexican banking system. The corresponding figures for Scotiabank were 3.7% of total assets, 4.6% of total loans, and 4.6% of total deposits.

Chart 15

Methodology Based on Quantitative Measuring Indicators for Identifying G-SIBs

Element (weighting)	Indicator (individual weighting)
I. Inter-jurisdictional activity (20%)	**I.1 Inter-jurisdictional assets (10%):** Sum of two components (both measured based on latest risk): (i) international credits, which are cross-border assets (from an office in one country to a borrower in another country) or local assets in foreign currency (from the local office of a bank to borrowers in that location in a currency different from that of the location), and (ii) local assets in local currency (similar to the other local assets, but in the currency of that location). The assets include deposits and balances in other banks, loans and advances to banks and non-bank entities, and securities holdings and equity stakes. Since these data refer to consolidated activities, they exclude all intra-office assets. **I.2 Inter-jurisdictional liabilities (10%):** Includes the liabilities of all the offices of the same bank (both the head office as well as branches and subsidiaries in different jurisdictions) corresponding to institutions located outside the home market. The sum includes all the liabilities corresponding to non-residents of the country of origin and they compensate each other for net balances of the intra-office liabilities (so that it coincides with the criteria applied in the inter-jurisdictional asset indicator). This is calculated as follows: total external liabilities (in aggregate terms for all the local offices) - Liabilities corresponding to related offices (in aggregated terms for all the local offices) + local liabilities in local currency.
II. Size (20%)	**Total exposure for the purposes of conforming to the Basel III leverage ratio (20%):** The definition of total exposure is used (the measurement of exposure used for the leverage ratio) as specified in paragraphs 157 to 164 of the Basel III regulatory text.

Continued on the following page

[1] The above, provided that the criterion is underpinned by solid qualitative and quantitative information (e.g., number of jurisdictions, total revenue and its foreign percentage, or market capitalization).

[2] Even though the list of the 73 financial institutions that comprise the sample has not been published, it is known that: 1) it involves banks in Germany, Australia, Belgium, Brazil, Canada, China, Korea, Spain, United States, France, India, Italy, Japan, the Netherlands, United Kingdom, Sweden, and Switzerland. 2) Together they represent approximately 65% of global banking assets. 3) This sample of 73 banks was selected from among the top banks in the world based on size and the judgment of the supervisory authorities, members of the Basel Committee. Due to their country of origin and relative size in their respective local markets, we can assume that both BBVA and Scotiabank belong to the initial sample of 73 banks although they do not appear in the list of the 29 G-SIBs.

Element (weighting)	Indicator (individual weighting)
III. Interconnectivity (20%)	**III.1 Assets within the financial system (6.67%): Sum of:** • Loans granted to financial institutions; • Equity holdings issued by other financial institutions; • Repurchasing agreements based on market prices signed with other financial institutions, expressed in net terms; • Securities entrusted to financial institutions, at market prices, expressed in net terms, and • Over The Counter (OTC) derivatives, at market prices with financial institutions, expressed in net terms **III.2 Liabilities within the financial system (6.67%): Sum of:** • Deposits held by financial institutions; • All tradable securities issued by the bank; • Contracts with repurchase agreements valued at market prices and signed with other financial institutions, expressed in net terms; • Securities taken as loans from financial institutions, at market prices, expressed in net terms; and, • OTC derivatives at market prices with financial institutions, expressed in net terms. **III.3 Wholesale funding ratio (6.67%):** Calculated by dividing the difference between total liabilities and retail financing between total liabilities. Retail financing is defined as the sum of retail deposits (including certificates of deposit) and debt securities held by retail clients.
IV. Substitutability (20%)	**IV.1 Assets in custody (6.67%):** Defined as the value of the assets held by a bank in its capacity as the depositary entity divided by the sum of the figures reported by banks in the sample. **IV.2 Payments cleared and settled through payment systems (6.67%):** Calculated as the value of a bank's payments transmitted through all main payment systems of which it is a member, divided among the total sum of the figures reported by the banks in the sample. **IV.3 Amount of the transactions subscribed in the debt and equity markets (6.67%):** Calculated as the amount of the debt and equity instruments guaranteed by the bank in the year divided among the total sum of the figures reported by the banks in the sample.
V. Complexity (20%)	**V.1 Notional value of OTC (over-the-counter) derivatives (6.67%):** Gross nominal or notional value of all contracts entered into and not yet settled at the date at which the information is submitted. The banks are asked to declare the figure of the total notional amount of all types of risk categories and instruments (i.e., the sum of currency, interest rates, equities, commodities, CDS, and others unassigned. **V.2 Level 3 Assets (6.67%):** These are assets whose fair value cannot be determined using observable measurements, such as models or market prices. Level 3 assets are illiquid, and their fair values can only be calculated using estimates or ranges of values adjusted for risk. This classification system seeks to bring clarity to the assets of companies' balance sheets. Banks with a high percentage of Level 3 assets in their balance sheets could face serious problems of market valuation in case of difficulties, which affect market confidence. **V.3 Value of assets held for trading and available for sale (6.67%):** This is calculated as the ratio between the total value of the bank's trading portfolio and the category of securities available for sale, and the sum total of the figures reported by the banks in the sample.

Note: To determine the indicators, data were used that the banks with international operations report on a quarterly basis to the central bank of their respective jurisdiction of origin for the preparation of the consolidated banking statistics of the Bank for International Settlements.
Source: The world's systemically important banks: evaluation methodology and requirements for additional loss absorption, Bank for International Settlements, November 11, 2011.

Chart 16

Global Systemically Important Banks (G-SIB) in Accordance with the List Published by the FSB in November 2011

Financial institution	Does it operate in Mexico?	If it operates in Mexico, what is its percentage share within the Mexican banking system of its		
		Total assets?	Total loan portfolio?	Total deposits?
1 Dexia, Belgium				
2 Bank of China, China				
3 BNP Paribas, France				
4 BPCE France				
5 Crédit Agricole, France				
6 Société Générale, France				
7 Commerzbank, Germany				
8 Deutsche Bank, Germany	Yes	3.5	0.0	0.1
9 Unicredito, Italy				
10 Mitsubishi, Japan	Yes	0.2	0.1	0.1
11 Mizuho, Japan				
12 Sumitomo Mitsui, Japan				
13 ING, Netherlands	Yes	1.6	0.1	0.1
14 Santander, Spain	Yes	12.7	12.7	12.1
15 Nordea, Sweden				
16 Crédit Suisse, Switzerland	Yes	0.8	0.0	0.2
17 UBS, Switzerland	Yes	0.1	n.a.	
18 Barclays, United Kingdom	Yes	0.3	n.a.	
19 HSBC, United Kingdom	Yes	8.7	7.6	11.2
20 Lloyds, United Kingdom				
21 RBS, United Kingdom	Yes	0.1	0.0	0.2
22 Bank of New York Mellon, United States	Yes	0.0	n.a.	
23 Bank of America, United States	Yes	0.8	0.0	0.2
24 Citigroup, United States	Yes	18.6	16.0	19.4
25 Goldman Sachs, United States				
26 JP Morgan, United States	Yes	0.5	0.0	0.1
27 Morgan Stanley, United States				
28 State Street Bank, United States				
29 Wells Fargo, United States				
Sum of percentage share of the Mexican banking system		**47.8**	**36.7**	**43.7**

Source: BBVA Research with data from Policy Measures to Address Systemically Important Financial Institutions; Financial Stability Board, November 4, 2011 and the CNBV (Mexico National Banking and Securities Commission) through December 2011.

The list is not permanent and every year financial institutions can be added or withdrawn depending on the relative changes they post with respect to the quantitative criteria. The first mandatory list will be published in November 2014. The G-SIBs included in the list will face additional capital requirements of between 1% to 2.5% to absorb additional losses. Four categories were defined. For the G-SIB within the lowest category, an additional requirement of 1% minimum capital for loss absorption was assigned, and from now on, the banks in each category are assigned a 0.5% increase.

There is also a fifth category above the maximum level, which for the time being has not been filled, which provides for an additional 3.5% capital requirement to offset losses to discourage banks from becoming even more systemically important. If this category were to be filled in the future, an additional category would be added above it, with a higher additional applicable cushioning level. These requirements are applied above and beyond the Basel III standards.

The requirements for additional capital to absorb losses will be introduced alongside the requirements for capital preservation and counter-cyclical absorption of economic shocks, from the beginning of 2016 until the end of 2018, so that they will be fully effective as of January 1, 2019. Thus far it has not been revealed which banks will be included in each of the categories of additional capital requirements, but it is expected that all the banks in the sample will publicly disclose their individual relevant data once the G-SIB policy enters into effect.

Finally, it should be added that it is anticipated that the institutional framework for the G-SIB will be extended to other systemically important local banks (SIB) and other systemically important financial institutions (SIFIs).

II. Improved resolution and recovery policies to mitigate the impact of G-SIFIs bankruptcies

The bank resolution authorities that deal with bankruptcies will intervene and resolve the situation of financial institutions that are not viable. The overall goal is to establish plans for the orderly resolution of a bankrupt financial institution without exposing taxpayers to the risk of incurring losses, while protecting the continuity of the institution's vital economic functions. The idea is to achieve this through loss-sharing arrangements among the shareholders and unsecured creditors, respecting the priority of creditors in the settlement process. The FSB requires that the different jurisdictions develop a common resolution framework that would contain at least the following elements:

i) **Sufficient powers for the resolution authorities to ensure an appropriate intervention in and resolution of the problems of the financial institutions that are not viable.** It should be noted that the precise definition of the scope or extent of such powers is still pending in many jurisdictions, including Mexico.

ii) **Strong promotion of cross-border cooperation, which would favor the exchange of information among countries and maintain Crisis Management Groups for the G-SIFIs.** The FSB has offered a proposal for a legal framework in this area, which is a first step in mutual recognition and international cooperation. However, the development of more restrictive mechanisms will take longer because, until now, it has been difficult to achieve a minimum level of convergence of the legislative policies in this regard.

iii) **The G-SIFIs should design asset recovery and resolution plans on an annual basis, beginning in late 2012. In turn, the authorities should develop and have a resolution plan in place.** The resolution plan should define the powers of the corresponding authorities and identify critical economic and financial functions, resolution options that preserve or develop these functions in an orderly manner, potential barriers to effective resolutions and actions to mitigate them, and measures to protect insured depositors and holders of insurance policies.

III. Effective supervision is confirmed as a key element of the institutional framework for the SIFIs

The authorities will have to effectively strengthen their monitoring of the SIFIs because current supervisory practices do not provide the support needed for the SIFIs to properly conduct their operations. To guide these efforts, the FSB added five new recommendations to address the lack of resources and information from the SIFIs in relation to the principles for effective monitoring that were announced in November 2010:

i) The FSB will define a set of criteria and goals from the vantage point of monitoring that must meet SIFIs aggregate data standards in terms of accuracy, integrity, completeness, timeliness, and adaptability.

ii) Toward the end of 2012, the FSB will assess whether the resources for supervisors are suitable along with the potential future cost that implies improved monitoring.

iii) In 2012, the FSB will produce a new report on the progress in the implementation of all the recommendations that affect monitoring, with particular emphasis on the proper use of supervision methods and tools, reviewing risk management practices in companies and the quality of external audits.

iv) The FSB will conduct a thematic review on risk management, which will focus on the risk committees of the Executive Boards and risk management functions, and how the supervisors evaluate their efficacy.

v) The Basel Committee on Banking Supervision (BCBS) will review its report on 2008 External Audits and Bank Monitoring Quality in order to strengthen the quality of the audits.

In addition, the BCBS is updating the Basel Core Principles for Effective Banking Supervision, with higher standards in terms of resources and independence. Similarly, the FSB is request that the International Monetary Fund and the World

Bank increase the amount of resources earmarked for reviewing the Financial Sector Assessment Program (FSAP).

Meanwhile, there has been a delay in the international work groups in defining the pertinent rules to make the operations of the financial institutions classified as domestic systemically important banks (D-SIBs) and other systemically important financial institutions (SIFIs) more secure.

On April 16, 2012, the FSB released some details of the work plan to design the guidelines of the minimum institutional framework for the D-SIBs.[3] The FSB emphasized the need for the institutional frameworks of the G-SIBs and D-SIBs to be consistent, both for the country of origin of the company's home offices as well as the host country of a subsidiary. To do so, the FSB feels it is necessary to analyze in greater depth how situations of insolvency in subsidiaries of the G-SIBs that are systemically important in host countries are dealt with (which in the case of Mexico could be subsidiaries of BBVA and Scotiabank) and their impact in these nations.

Through the minimum guidelines that the FSB release in November 2012 efforts will be made to implement appropriate and consistent incentive structures both on a local as well as international level, and between various types of institutions.

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[3] For more details see "Extending the G-SIFI Framework to domestic systemically important banks. Progress Report to G-20 Ministers and Governors," Financial Stability Board, April 16, 2012.

4. Statistical Appendix

Chart 17

Financial Savings: Balances in Billions of March 2012 Pesos

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I-12	Struc. % I-12
M4a	4,703	4,911	5,369	5,719	6,356	6,906	7,402	8,113	8,310	8,914	9,931	10,146	
- Bills and coins held by the public	310	342	374	406	438	488	519	560	588	628	672	643	
= Financial savings *	4,394	4,569	4,995	5,314	5,918	6,417	6,882	7,553	7,722	8,286	9,259	9,502	100.0
I. Depository institutions	2,111	2,022	2,140	2,256	2,417	2,422	2,639	2,955	2,972	3,111	3,296	3,289	34.6
Resident commercial banks (demand + term)	1,698	1,604	1,725	1,834	1,920	1,982	2,193	2,479	2,467	2,589	2,740	2,700	28.4
Demand	777	816	891	924	1,039	1,132	1,242	1,284	1,343	1,471	1,605	1,578	16.6
Term	921	788	834	910	881	850	951	1,195	1,124	1,118	1,135	1,122	11.8
Foreign agencies of commercial banks	76	65	46	53	55	65	87	95	81	89	105	108	1.1
Savings & Loan Associations (S&L)	9	11	13	15	18	21	23	24	52	57	59	59	0.6
Development banks	327	342	356	353	424	354	336	357	372	376	393	422	4.4
II. Securities issued by the public sector	1,728	1,929	2,133	2,268	2,652	3,058	3,249	3,339	3,494	3,875	4,580	4,802	50.5
III. Securities issued by private companies	143	194	249	275	279	311	359	349	336	348	387	407	4.3
IV. SAR outside of Siefores	411	425	474	515	570	626	635	910	920	952	996	1,005	10.6
Financial savings = I + II + III + IV	4,394	4,569	4,995	5,314	5,918	6,417	6,882	7,553	7,722	8,286	9,259	9,502	100.0
Instruments included in financial savings													
TOTAL SAR = Siefores + SAR outside of Siefores	797	902	1,043	1,160	1,335	1,528	1,635	1,970	2,153	2,382	2,555	2,625	
Siefores	387	478	569	645	765	902	1,000	1,060	1,233	1,430	1,560	1,620	
SAR outside of Siefores	411	425	474	515	570	626	635	910	920	952	996	1,005	
Financial savings without SAR total	3,596	3,667	3,953	4,154	4,583	4,890	5,247	5,583	5,569	5,904	6,704	6,877	
Debt mutual funds	401	426	438	442	565	734	846	764	874	1,067	1,069	1,072	
Real annual percentage change,%													
M4a	11.6	4.4	9.3	6.5	11.1	8.6	7.2	9.6	2.4	7.3	11.4	11.9	
- Bills and coins held by the public	4.7	10.4	9.2	8.6	8.0	11.4	6.4	7.9	4.9	6.9	7.0	10.7	
= Financial savings *	12.2	4.0	9.3	6.4	11.4	8.4	7.2	9.7	2.2	7.3	11.7	12.0	
I. Depository institutions	3.7	-4.2	5.9	5.4	7.2	0.2	9.0	12.0	0.5	4.7	6.0	6.8	
Resident commercial banks (demand + term)	2.2	-5.5	7.5	6.3	4.7	3.2	10.6	13.1	-0.5	4.9	5.8	6.8	
Demand	21.6	5.0	9.1	3.8	12.4	8.9	9.7	3.4	4.7	9.5	9.1	11.6	
Term	-9.9	-14.4	5.9	9.0	-3.1	-3.5	11.9	25.7	-6.0	-0.5	1.5	0.8	
Foreign agencies of commercial banks	-16.9	-15.2	-28.4	13.4	4.4	18.3	34.7	9.0	-15.1	10.5	17.0	-7.8	
Savings & Loan Associations (S&L)	13.2	12.4	21.5	19.4	19.0	16.6	9.3	2.4	115.8	9.3	3.8	2.5	
Development banks	19.2	4.5	4.1	-0.7	19.8	-16.4	-5.1	6.4	4.1	1.1	4.6	12.1	
II. Securities issued by the public sector	24.9	11.6	10.6	6.3	16.9	15.3	6.3	2.7	4.7	10.9	18.2	17.2	
III. Securities issued by private companies	3.6	35.6	27.9	10.7	1.2	11.7	15.4	-2.9	-3.7	3.6	11.2	15.8	
IV. SAR outside of Siefores	14.5	3.3	11.5	8.8	10.6	9.9	1.3	43.4	1.1	3.5	4.6	5.1	
Financial savings = I + II + III + IV	12.2	4.0	9.3	6.4	11.4	8.4	7.2	9.7	2.2	7.3	11.7	12.0	
Instruments included in financial savings													
SAR TOTAL = Siefores + SAR outside of Siefores	27.6	13.2	15.5	11.3	15.1	14.5	7.0	20.5	9.3	10.7	7.2	10.2	
Siefores	45.3	23.6	19.1	13.4	18.6	17.9	11.0	6.0	16.3	16.0	9.0	13.7	
SAR outside of Siefores	14.5	3.3	11.5	8.8	10.6	9.9	1.3	43.4	1.1	3.5	4.6	5.1	
Financial savings without SAR Total	9.2	2.0	7.8	5.1	10.3	6.7	7.3	6.4	-0.2	6.0	13.5	12.7	
Debt mutual funds	60.2	6.2	2.8	0.9	27.8	30.1	15.2	-9.7	14.4	22.2	0.1	5.6	
Percentage of GDP													
Financial savings = I + II + III + IV	42.5	45.5	46.7	46.0	49.1	49.3	50.3	54.7	59.1	60.4	63.9	64.7	
I. Depository institutions	20.4	20.1	20.0	19.5	20.0	18.6	19.3	21.4	22.7	22.6	22.7	22.3	
Resident commercial banks	16.4	16.0	16.1	15.9	15.9	15.2	16.0	18.0	18.9	18.9	18.9	18.4	
Development banks	3.2	3.4	3.3	3.1	3.5	2.7	2.5	2.6	2.8	2.7	2.7	2.9	
I Rest (Agencies abroad + S&L)	0.8	0.7	0.5	0.6	0.6	0.6	0.8	0.8	1.0	1.0	1.1	1.1	
II. Securities issued by the public sector	16.7	19.2	19.9	19.6	22.0	23.5	23.8	24.2	26.7	28.2	31.6	32.7	
III. Securities issued by companies	1.4	1.9	2.3	2.4	2.3	2.4	2.6	2.5	2.6	2.5	2.7	2.8	
IV. SAR outside of Siefores	4.0	4.2	4.4	4.5	4.7	4.8	4.6	6.6	7.0	6.9	6.9	6.8	
Percentage of GDP, other concepts included in financial savings, %													
Total SAR	7.7	9.0	9.7	10.0	11.1	11.7	12.0	13.9	16.4	17.3	17.6	17.9	
Siefores	3.7	4.8	5.3	5.6	6.3	6.9	7.3	7.7	9.4	10.4	10.8	11.0	

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

Chart 18

Credit and Financing to the Private Sector: Balances in Billions of March 2012 Pesos

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I-12	Struc. % I 12
Total: All categories	3,195	3,331	3,465	3,701	3,914	4,018	4,726	5,329	5,061	5,175	6,008	5,875	100.0
Bank	1,083	1,046	1,008	1,045	1,185	1,486	1,823	1,953	1,868	1,953	2,204	2,210	37.6
Non-bank	2,113	2,284	2,457	2,656	2,729	2,531	2,903	3,376	3,193	3,222	3,804	3,665	62.4
Total consumer	161	215	253	348	482	610	696	658	577	579	658	670	11.4
Bank	101	130	174	246	359	491	594	555	448	447	533	545	9.3
Non-bank	60	85	79	102	123	119	102	104	129	132	125	126	2.1
Total housing	750	794	835	898	949	1,043	1,245	1,260	1,282	1,334	1,404	1,456	24.8
Bank	267	235	197	189	237	306	350	370	389	415	432	441	7.5
Non-bank	483	559	638	708	712	738	895	890	893	919	972	1,015	17.3
Total companies	2,284	2,322	2,376	2,456	2,483	2,364	2,785	3,411	3,203	3,261	3,945	3,749	63.8
Bank	714	681	636	610	590	690	879	1,028	1,031	1,091	1,239	1,224	20.8
Non-bank	1,570	1,640	1,739	1,846	1,893	1,674	1,906	2,383	2,172	2,170	2,706	2,524	43.0
V Real annual percentage change,%													
Total: All categories	-6.6	4.2	4.0	6.8	5.8	2.6	17.6	12.8	-5.0	2.2	16.1	7.4	
Bank	-13.0	-3.4	-3.7	3.7	13.4	25.4	22.6	7.1	-4.3	4.5	12.9	11.1	
Non-bank	-3.0	8.1	7.5	8.1	2.7	-7.2	14.7	16.3	-5.4	0.9	18.1	5.3	
Total consumer	26.2	33.1	17.9	37.2	38.7	26.6	14.1	-5.4	-12.4	0.4	13.6	15.0	
Bank	27.6	28.0	34.4	41.0	46.1	36.9	21.1	-6.6	-19.2	-0.2	19.2	20.0	
Non-bank	23.7	41.8	-7.2	28.9	21.0	-3.2	-14.7	1.8	24.1	2.8	-5.2	-0.6	
Total housing	1.9	5.8	5.2	7.4	5.8	9.9	19.3	1.2	1.8	4.1	5.3	5.4	
Bank	-18.7	-11.9	-16.2	-4.0	25.1	28.9	14.6	5.7	5.2	6.5	4.2	6.1	
Non-bank	18.4	15.6	14.2	11.0	0.6	3.6	21.3	-0.6	0.3	3.0	5.7	5.1	
Total companies	-10.7	1.7	2.3	3.4	1.1	-4.8	17.8	22.5	-6.1	1.8	21.0	6.9	
Bank	-14.6	-4.6	-6.6	-4.2	-3.3	17.0	27.3	17.0	0.2	5.9	13.6	9.4	
Non-bank	-8.9	4.5	6.0	6.1	2.5	-11.6	13.9	25.0	-8.8	-0.1	24.7	5.8	
Percentage of GDP, %													
Total: All categories	30.9	33.2	32.4	32.0	32.4	30.9	34.6	38.6	38.7	37.7	41.5	40.0	
Bank	10.5	10.4	9.4	9.0	9.8	11.4	13.3	14.1	14.3	14.2	15.2	15.1	
Non-bank	20.5	22.7	22.9	23.0	22.6	19.5	21.2	24.5	24.4	23.5	26.3	25.0	
Total consumer	1.6	2.1	2.4	3.0	4.0	4.7	5.1	4.8	4.4	4.2	4.5	4.6	
Bank	1.0	1.3	1.6	2.1	3.0	3.8	4.3	4.0	3.4	3.3	3.7	3.7	
Non-bank	0.6	0.8	0.7	0.9	1.0	0.9	0.7	0.8	1.0	1.0	0.9	0.9	
Total housing	7.3	7.9	7.8	7.8	7.9	8.0	9.1	9.1	9.8	9.7	9.7	9.9	
Bank	2.6	2.3	1.8	1.6	2.0	2.3	2.6	2.7	3.0	3.0	3.0	3.0	
Non-bank	4.7	5.6	6.0	6.1	5.9	5.7	6.5	6.4	6.8	6.7	6.7	6.9	
Total companies	22.1	23.1	22.2	21.3	20.6	18.2	20.4	24.7	24.5	23.8	27.2	25.5	
Bank	6.9	6.8	5.9	5.3	4.9	5.3	6.4	7.4	7.9	8.0	8.6	8.3	
Non-bank	15.2	16.3	16.2	16.0	15.7	12.9	13.9	17.3	16.6	15.8	18.7	17.2	

Infrastructure and Number of Bank Cards - Units

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I 12
ATMs	na	17,011	17,758	20,416	22,900	25,687	29,333	31,932	33,905	35,936	36,448	38,047
POS terminals	na	129,971	146,029	160,289	201,852	305,144	418,128	446,025	446,792	482,299	547,708	nd
Branches*	na	7,849	7,768	7,788	7,972	8,404	9,230	10,722	10,731	11,291	11,786	11,756
Number of current cards at the end of the quarter (figures in millions)												
Credit	na	7.8	9.4	11.6	14.7	21.4	24.8	25.2	22.1	22.4	24.7	na
Debit	na	32.4	32.2	31.8	36.1	51.7	51.9	56.9	60.8	75.2	85.6	na

Continued on the following page

Credit and Financing to the Public Sector: Balances in Billions of March 2012 Pesos

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I 12	Struc. % IV-11
Commercial bank credit	331	362	356	281	282	209	205	178	267	325	329	na	5.0
Federal government	284	295	260	115	72	39	35	25	32	45	36	na	0.5
States and Municipalities	16	22	36	71	79	68	77	99	143	196	200	na	3.0
Decentralized gov't ag.	30	45	60	95	132	103	93	55	93	84	93	na	1.4
Development bank credit	181	206	167	166	172	161	155	160	125	130	126	na	1.9
Federal government	119	112	86	86	98	82	98	102	51	56	25	na	0.4
States and Municipalities	12	14	14	33	32	33	34	29	44	49	79	na	1.2
Decentralized gov't ag.	50	79	67	47	42	45	23	29	30	25	22	na	0.3
Debt issued in the country	1,715	2,048	2,345	2,504	2,873	3,346	3,598	3,767	4,097	4,327	4,960	na	74.8
Federal government	1,064	1,170	1,356	1,400	1,530	1,967	2,169	2,291	2,604	2,677	2,911	na	43.9
States and Municipalities	0	8	20	27	28	46	54	58	61	62	67	na	1.0
Decentralized gov't ag.	-	-	21	64	133	166	157	146	157	193	241	na	3.6
IPAB	236	340	437	515	644	744	833	821	835	817	844	na	12.7
Banco de Mexico	317	383	329	314	339	215	219	283	271	409	728	na	11.0
FARAC	97	147	182	183	201	208	167	167	169	169	168	na	2.5
External financing	914	986	1,116	1,067	938	671	643	763	1,033	1,090	1,215	na	18.3
Credit and financing TOTAL	3,141	3,602	3,985	4,019	4,267	4,396	4,626	4,890	5,522	5,873	6,630	na	100.0

Real annual percentage change in the balance, %

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I 12
Commercial bank credit	-7.1	9.6	-1.7	-21.0	0.4	-25.8	-2.0	-13.3	50.2	21.6	1.3	na
Federal government	-13.9	3.8	-11.7	-56.0	-37.4	-46.0	-8.9	-29.5	27.8	42.2	-20.3	na
States and Municipalities	-31.4	34.6	64.6	96.1	10.6	-14.4	14.4	27.4	45.1	37.2	2.1	na
Decentralized gov't ag.	1328.6	50.4	30.9	60.4	38.1	-21.8	-10.2	-41.0	69.7	-9.5	10.9	na
Development bank credit	7.7	13.6	-18.7	-0.6	3.4	-6.3	-3.5	3.0	-22.1	4.5	-3.3	na
Federal government	10.3	-5.5	-24.0	0.7	14.3	-16.2	19.2	3.5	-50.1	9.7	-54.3	na
States and Municipalities	27.1	17.6	4.1	128.4	-4.4	4.9	1.2	-13.2	50.3	12.8	59.2	na
Decentralized gov't ag.	-1.4	57.8	-15.3	-30.1	-11.4	8.7	-48.4	24.5	3.4	-16.4	-13.7	na
Debt issued in the country	25.6	19.4	14.5	6.8	14.8	16.4	7.5	4.7	8.8	5.6	14.6	na
Federal government	16.3	9.9	15.9	3.3	9.3	28.6	10.2	5.7	13.7	2.8	8.7	na
States and Municipalities	0.0	5610.1	147.6	37.7	0.8	65.7	18.1	8.5	3.6	2.9	8.0	na
Decentralized gov't ag.	0.0	0.0	0.0	200.6	107.1	24.8	-5.4	-7.3	8.1	22.5	25.1	na
IPAB	104.9	44.0	28.7	17.8	25.0	15.5	12.0	-1.4	1.6	-2.1	3.3	na
Banco de Mexico	20.8	20.9	-14.1	-4.7	7.9	-36.4	1.6	29.5	-4.2	50.6	78.1	na
FARAC	33.4	51.3	23.3	0.7	9.6	3.8	-19.9	0.3	1.0	-0.1	-0.2	na
External financing	-0.7	7.9	13.2	-4.4	-12.0	-28.5	-4.1	18.7	35.3	5.6	11.5	na
Credit and financing TOTAL	11.7	14.7	10.6	0.9	6.2	3.0	5.2	5.7	12.9	6.4	12.9	na

Credit and Financing: Percentage of GDP, %

	IV 01	IV 02	IV 03	IV 04	IV 05	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	I 12
Commercial bank credit	3.2	3.6	3.3	2.4	2.3	1.6	1.5	1.3	2.0	2.4	2.3	na
Federal government	2.7	2.9	2.4	1.0	0.6	0.3	0.3	0.2	0.2	0.3	0.2	na
States and Municipalities	0.2	0.2	0.3	0.6	0.7	0.5	0.6	0.7	1.1	1.4	1.4	na
Decentralized gov't ag.	0.3	0.5	0.6	0.8	1.1	0.8	0.7	0.4	0.7	0.6	0.6	na
Development bank credit	1.8	2.0	1.6	1.4	1.4	1.2	1.1	1.2	1.0	0.9	0.9	na
Federal government	1.2	1.1	0.8	0.7	0.8	0.6	0.7	0.7	0.4	0.4	0.2	na
States and Municipalities	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.5	na
Decentralized gov't ag.	0.5	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	na
Debt issued in the country	16.6	20.4	21.9	21.7	23.8	25.7	26.3	27.3	31.4	31.5	34.2	na
Federal government	10.3	11.6	12.7	12.1	12.7	15.1	15.9	16.6	19.9	19.5	20.1	na
States and Municipalities	0.0	0.1	0.2	0.2	0.2	0.4	0.4	0.4	0.5	0.5	0.5	na
Decentralized gov't ag.	0.0	0.0	0.2	0.6	1.1	1.3	1.1	1.1	1.2	1.4	1.7	na
IPAB	2.3	3.4	4.1	4.5	5.3	5.7	6.1	5.9	6.4	6.0	5.8	na
Banco de Mexico	3.1	3.8	3.1	2.7	2.8	1.7	1.6	2.1	2.1	3.0	5.0	na
FARAC	0.9	1.5	1.7	1.6	1.7	1.6	1.2	1.2	1.3	1.2	1.2	na
External financing	8.8	9.8	10.4	9.2	7.8	5.2	4.7	5.5	7.9	7.9	8.4	na
Credit and financing TOTAL	30.4	35.9	37.2	34.8	35.4	33.8	33.8	35.4	42.3	42.8	45.8	na

Source: Banco de México and National Banking and Securities Commission

5. Amendments to the Legal Framework Applicable to Commercial Banks

Chart 19

Reforms to the Legal Framework Applicable to Commercial Banks: October 2011 - April 2012

No.	Topic	Scope of the Reform	Modified Legal Dispositions	Publication in the Daily Gazette of the Federation (*Diario Oficial de la Federación*)
1	INFONAVIT second mortgage loan	This envisions the right of workers to receive a second home loan from the INFONAVIT housing agency in partnership with financial institutions, once they have paid off the first mortgage loan. For this second loan the worker can use the resources accumulated in his or her housing sub-account and his or her credit worthiness will be determined by the projection of subsequent payments into the account.	National Workers Housing Fund Institute (INFONAVIT) Law	12/I/2012
2	Public sector - private sector partnerships	Establishes a special legal framework for the formalization and implementation of partnerships between the federal public administration and third parties for the provision of services, including those in which infrastructure construction is required. It can also involve public - private partnership projects that are undertaken to develop productive investment projects, applied research, and/or technological innovation It allows for establishing a long-term contractual relationship between divisions and agencies of the federal public sector and the private sector for providing services -to the public sector or the end-user- in which infrastructure might be used that is wholly or partly provided by the private sector. Partnership projects must be fully justified, specifying the social benefit that is sought and demonstrating its financial advantage over other forms of financing.	A new law on Public Private Partnerships was issued. The following laws were amended: Law on Public Works Projects and Related Services; Law on Public Sector Acquisitions, Leasing, and Services; Expropriation Law; General Law on National Assets; and the Federal Code on Civil Procedures.	16/I/2012

6. Special Topics Included in Previous Ssues

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February 2010

Credit to the Private Sector

TAC, Total Annual Cost of Financing

Regulatory Changes and Consumer Protection

Changes to the Rules for the Creation of Loan Loss Provisions for Consumer Credit through Credit Cards

Trends in Supervision and Regulation on an International Level

Solvency of the Mexican Banking System

A Brief Review of the Literature on Determining Factors in Credit Penetration Brazil's Correspondent Bank Model

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