

# Situación

Economic Research Department

Third Quarter 2005



U.S.: industrial restructuring that affects Mexico

The paradoxes of the oil market

Mexico: domestic demand bolstering economic growth

Will the central bank cut interest rates in the 4Q?

A return to the "super-peso"?

Bank credit in Mexico still with enormous potential

In previous issues of this publication, we have highlighted the advantages that the enormous advances in macroeconomic stability, coupled with the trade opening, have implied for Mexico. In this regard, in this issue we would like to center our analysis on the effects that this macroeconomic stability, together with a cautious financial regulation, has had in the recent recovery of credit growth. It is worth mentioning not only that this recovery began—in relation to consumer credit—in a period marked by an economic downturn, but also that, looking forward, the conditions exist so that such financing can continue to post vigorous growth in the future, although possibly at more moderate real rates than is currently the case.

Both elements are good news for Mexico's growth outlook. The former because credit growth helped the economic recovery that began in the second half of 2003 (or perhaps it prevented the downturn from being, as on other occasions, more pronounced); the latter because it allows to think that financing can be a stabilizing force in economic growth in coming years, tilting growth towards domestic demand. We wish to explore these topics in two articles in this issue. The first illustrates how and why this phenomenon of the reactivation of credit has taken place, while the second analyzes the enormous potential for credit growth in Mexico, as long as macroeconomic stability continues, financial regulations retain the prudent criteria of the past few years, and the banks maintain prudent policies regarding risk management.

The benefits of greater growth of credit can be seen in the performance of domestic demand in the past few months. Although the economy is slightly moderating its rhythm of growth compared to 2004, it is no less certain than most of this downturn is due to a reduced contribution of the external sector, which is being offset by greater strength of domestic demand. Job creation and family remittances are unquestionably supporting this development, but possibly this would not be explained, and much less could we project that such trends will continue in the future, without considering the role of credit. In the near future, this could help enable Mexico to generate an endogenous source of growth, which would allow the country to diversify its sources of growth and cushion the negative effects that could result from a greater economic downturn in the United States.

However, credit in and of itself is not sufficient to guarantee sustained growth. If macroeconomic stability is maintained (or even enhanced), and measures favoring a step up of the process of structural reforms are taken, the likelihood that Mexico finds a solid base for higher (and healthier) economic growth would increase substantially. But keeping macroeconomic stability is a key factor. On this level, it would be desirable to reinforce perspectives for fiscal responsibility, tying new expenditures to additional revenue (or lower outlays in other items), and guaranteeing that the efforts taken to bring down inflation over the past few years are able to anchor inflation expectations closer to the official target (3%) than to the upper limit of the 2-4% Banxico's band, which could eventually occur if core inflation stabilizes at 3%.

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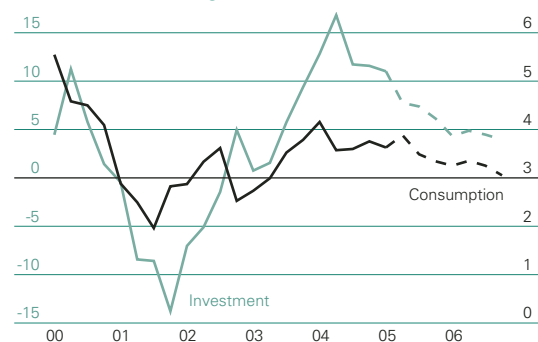
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## Personal Consumption Spending and Gross Private Investment

Real annual % change

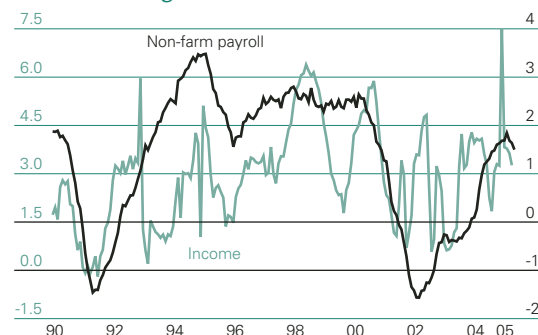


Note: Estimated as of second quarter 2005

Source: BBVA Bancomer with BEA data

## Real Personal Disposable Income and Non-Farm Payroll

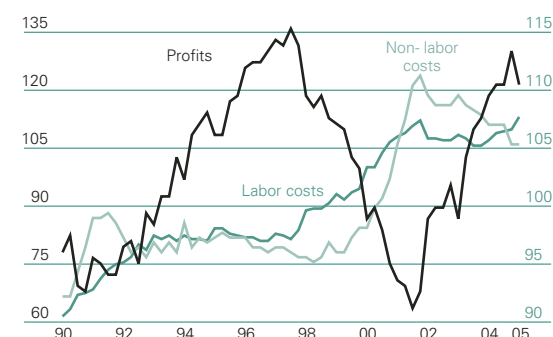
Annual % change



Source: BBVA Bancomer with BEA and BLS data

## Costs and Profits\*

Index 1Q90-1Q05 = 100



\* Per unit of aggregate value of non-financial corporations

Source: BBVA Bancomer with BEA data

## In 2005-06, economic growth will approach its potential

In recent months, volatility in the economic indicators has generated some uncertainty regarding the economic growth rate. Nevertheless, despite these ups and downs which, to paraphrase Greenspan in his speech before the U.S. Congress on June 9th, are possibly due to the reaction of high-frequency data to changes in oil prices, the economy has performed favorably and the economic fundamentals continue to be solid. In our judgment, the data continue to back the expectation that the strength in private consumption and the strong boost from investment will continue to be the main support for economic growth in 2005-06, a period in which it will come close to its potential, although its rate will be lower than in 2004.

Several sectors will continue to support growth in household spending during 2005-06. The first is the performance of productivity. Even though its expansion rate declined in the 1Q05 to 2.5%, significantly lower than the growth rate of 5.5% registered in 2003, it is in line with our expectations and continues to be high: we estimate that it will be between 2% and 2.5% during 2005-06. This will allow maintaining gains in household real income, both due to higher real wages and the rise in employment, particularly in the services sector, which will support private consumption. This will also be backed by the increase in housing values, in face of the possibility of extracting value by taking higher mortgages at reduced rates, although this effect is diminishing. Also, low real interest rates will continue to back the expansion in spending on durable goods.

Private investment, which has accelerated notably in the last year, following the sharp decline that it experienced after the recession of 2001, will continue to boost economic growth. The solid financial situation of companies, the low cost of capital, the growth in expected demand—with the expansion in private consumption—and, mainly, the outstanding performance of the corporate earnings (see graph), will continue to permit high investment growth rates, although at an increasingly lower rate

To the extent that consumption and investment slow down, so will imports. These, too, will decrease in value when energy prices drop in the coming quarters. This implies that the negative contribution of the external deficit will be decreasing gradually during the coming quarters.

The main risk continues to be that oil prices will not drop as foreseen in the new scenario. In this case, the negative effect on consumption and investment (lower company profits) will have as a result a GDP growth rate of close to 3% in 2005. Also, high oil prices would negatively affect industrial production, of which annual growth would drop to below 3% in 2005.

## Core inflation will continue to be contained.

The trend to moderate the productivity growth rate has generated concern due to its impact on labor unit costs, which grew an inter-annual 4.3% in 1Q05, the highest increase since 3Q00. This concern is due to the empirical evidence that shows how the positive shock of higher productivity in the decade of the nineties caused inflation to be lower by almost 1.5 percentage points than it would have been in the absence of that shock<sup>1</sup>, which presents doubts as to how inflation would have developed with more moderate growth in productivity. Despite this, labor wages per hour are not showing signs of acceleration in this period (see attached graph), the downward trend in the annual change in wages as of mid-2000 has not had an inflection and its year to year increase is stable at levels of close to 2.5%. Recent wage increases respond to transitory factors, such as the significantly higher rises in bonds and the earnings obtained by employees from exercising stock options.

Will the increases in unit labor costs be transferred to the final prices? Our central scenario considers that core inflation will remain contained, since the rises in costs will be absorbed to a large extent by a drop in companies' high profit margins. This scenario is not exempt from risk and the degree of cost pass-through to consumers will also depend on the strength of consumption, which we estimate will be moderate, and on the degree of utilization of resources in the economy.

Regarding the degree of utilization of resources, it could be of concern that both idle capacity and the unemployment rate have decreased in recent months. Nevertheless, given the high flexibility of the labor market, the stability of wages, the high margins and company profits—which will continue to allow companies to absorb higher costs without transferring them totally to final prices—and the moderation in the rate of economic activity—which will allow not eliminating the remaining idle capacity in the economy—we maintain our scenario of contained core inflation: 2.3% and 2.1% on average in 2005 and 2006, respectively. The forecasts of PCE core inflation stand at 1.7% and 1.6% in these same years.

This scenario of stability in core inflation contrasts with the situation of headline inflation, which has shown greater pressure than expected due to high oil prices (the Brent oil has averaged US\$51 per barrel during the 1H05, 20% higher than the estimate at the end of 2004). The new scenario of oil prices (see chart: The Paradoxes of the Oil Market) assumes that, in the 2H05, it will stand at levels similar to the average in the 1H05 (48.9 dpb), according to which headline inflation will average 3% in 2005, three tenths higher than the previous forecast. For 2006, the upward correction in oil prices has implied reviewing the forecast in the same direction; thus, we expect that inflation will average 2.9% in 2006. PCE estimates stand at 2.4% and 2.3% for those same years. In this environment, there are two important risks: 1) if oil prices remain at their current levels, inflation

## Productivity and Labor Unit Costs

### Annual % change



Source: BBVA Bancomer with BLS data

## Labor Wage Index

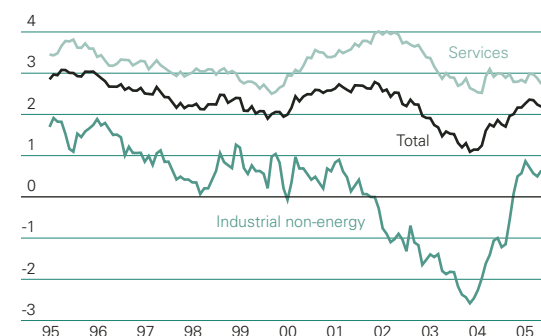
### Annual % change, excluding the military



Source: BBVA Bancomer with BLS data

## Core Inflation

### Annual % change

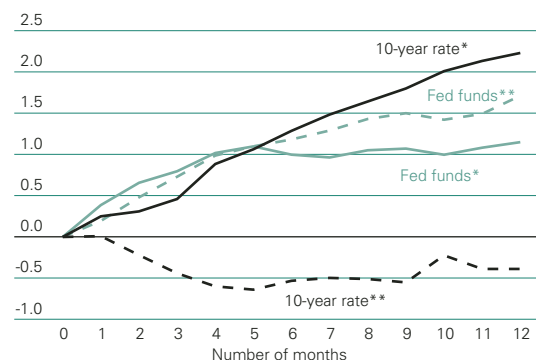


Source: BBVA Bancomer with BLS data

<sup>1</sup> See for example, "Nesting the New Keynesian Phillips Curve within the Mainstream Model of U. S. Inflation Dynamics" Eller and Gordon (2003)

## Interest Rates in Upward Cycles

Basic cumulative points since start of the upward cycle



\* Average cycle  
 \*\* Current cycle  
 Source: BBVA with Federal Reserve data

would be even higher (around 3.2% on average in 2005) and 2) the greater pressure could be transmitted to inflation expectations and to core consumer prices.

## Long-Term Interest Rates: the continuous unknown

Following the upturn seen in March, long-term interest rates have once again declined, until they reached a level close to 4% in the U.S., that is, those prevailing when the Federal Reserve (Fed) began to raise its interest rates in June 2004. This phenomenon seems to have a global component, since, after having slipped downward, EMU long-term interest rates have stood at historic minimum levels. Within this context, real interest rates discounted by the U.S. indexed bond market have remained close to 1.5%, a level that is significantly lower.

What are the reasons that have taken bonds to those levels of profitability? In the first place, the change in the expectations of monetary policy by the market is significant. The increases in the Fed interest rates, discounted by the futures markets, have been significantly moderated, after reaching a maximum at the end of March, when interest rates were being discounted at 4.5% at the end of 2006, the maximum projection on official interest rates for that date now stands at 4%. The relative stability of core inflation slightly above 2%, despite the sustained depreciation of the dollar in the last two years and high oil prices, and the uncertainties regarding the performance of activity, within a context of higher oil prices and of a reduction in companies' expectations, have been behind this moderation of the expectations of official rate increases. The recent dollar appreciation has also contributed to this situation.

Although it is foreseeable that the Fed will continue to adjust its interest rates, which will normalize monetary conditions within a context of notable growth of activity, it is difficult to forecast when market expectations will include this factor, discounting a new increase in interest rates up to levels of 4.5% (our expectation of how high Fed rates might close in 2006), which would spur long-term rates upward.

In the second place, movements of capital flows have also contributed to maintaining low profitability levels in the long end of the debt curve. Notwithstanding the good fundamentals in the corporate sector, the review downward of the ratings of General Motors and Ford in April led to a change in the feelings of investors who were seeking refuge in the public debt. Although part of the deterioration of the corporate spreads was only temporary, debt profitability was not able to recover. The possibilities that the Asian central banks, particularly Japan, which had put into slow motion its rate of reserves accumulation in the first quarter of this year, will increase their activity when the second quarter of the year begins and the fact that, for regulatory reasons, agents such as insurance companies are forced to demand long-lasting public debt assets, have contributed to maintaining profitability low.

## BAA Spread and 10-year Interest Rates



Source: BBVA with Federal Reserve data



Greater globalization could be favoring a reduction in real interest rates. Savings at a world level are increasing as a result of the contribution of the Asian countries, which are able to more than offset the decrease in savings of the developed countries. Within a context of greater savings and one in which investors reduce their domestic preference, this fact could justify lower real interest rates, although it is difficult to quantify the impact that this factor would have. This will make long-term interest rates rise in the coming months in a limited way. We estimate that in the U.S. they will stand at 4.5% by the end of 2005 and at 5.2% at the end of 2006.

For their part, the ten-year rates in the EMU will not surpass 3.5% in 2005 and will only advance to 4% in the coming year, a scenario that assumes an improvement in the data of activity in Europe that will permit the ECB to increase its interest rates by a half percentage point in the second half of 2006. They also assume a reduction in the institutional uncertainty generated, following the triumph of the "no" to the constitution in France and The Netherlands and a recovery of the confidence of economic agents. As a consequence, the interest rate spread between the U.S. and the EMU will remain at high levels.

This last fact implies that the dollar could find an element of support following the recent trend. After three years in which the depreciation of the dollar against the euro has been based on the fear of an abrupt adjustment of the U.S. economy, a consequence of the high current deficit, this factor seems to be losing weight in the current dynamics of the currencies due to the conjunction of diverse factors. In the first place, regarding the extension of the idea that a large part of this deficit is structural, the results of globalization and, in particular, of the surplus savings of the emerging economies and of Europe and Japan, the latter for demographic reasons; in the second place, due to the expected improvement of the U.S. public deficit and in the third place, because the balance of payments of the U.S. continues to be one of surplus. Finally, the balance of productivity will continue to favor the U.S., a consequence of technology pass-through in the services sector, as the recent macroeconomic evidence revealed recently, an aspect in which Europe continues to lag. Despite all of these arguments, both the level of the deficit and the fact that it continues to finance itself without direct investment flows to the U.S., they generate an important element of cautiousness in the medium-term projections for the dollar.

As a whole, the probability of scenarios of an abrupt adjustment of the dollar is reduced significantly and improves the short-term outlook for this currency, particularly if the institutional and economic uncertainty in the EMU is maintained. Also, the outlook of a revaluation of the Chinese yuan, which undoubtedly has increased, could limit the appreciating pressure that the euro has experienced in the last three years. In this sense, the forecast for the dollar-euro exchange rate stands in the range 1.2 to 1.25 dollars per euro for the end of this year, which implies a more appreciated dollar than what was expected at the beginning of 2005. The range for the exchange rate in 2006 is between 1.17 and 1.25 dollars per euro, indicating a consolidation of the dollar with regard to the levels reached in mid-June.

### 10-year Treasury Note



\* Indexed to inflation  
Source: BBVA with Bloomberg data

### Dollar - Euro Exchange Rate Observed and projection limits



Source: BBVA with Bloomberg data

## The Paradoxes of the Oil Market

The oil market is undergoing an important paradox. To the extent that the supply increases and inventory levels rise in the United States, prices are reacting on the upside. While up until 2002, there was a clear and strong negative correlation between oil prices and reserve stocks, since that year, this correlation has become positive.

Traditionally, a 10% increase in oil prices resulted in a fall in the demand for oil of between 0.3% and 0.5% for the developed countries. In the past few quarters, the price increases have not generated the expected adjustment in demand, which seems to indicate a decrease in price elasticity.

Prevailing in today's market is a vision of a fragile balance between supply and demand and, in particular, the concern that in response to a possible withdrawal of an important producer there will not be sufficient capacity to counteract such an eventuality. The basis for such a view is in the reduced additional production capacity on the part of the OPEC and the decline in output by the OECD countries. In 1985, surplus capacity stood at 10 million barrels per day (mbd), equivalent to 17.2% of the demand for that year, while in 2005 the corresponding figure was close to 2 mbd, just 2.3% of the expected demand for this year.

To the extent that the accumulation of inventories responds to an improvement in supply, this results in a fall in additional potential production, which affects expectations, and which, in turn, has an impact on prices. This conjunction of factors, coupled with the preventive accumulation of inventories, which has produced a structural change in the desired level of these reserves, leads to their being viewed more as an increase in "strategic reserves" than as for short-term use.

On the supply side, we estimate that the possibility of a major interruption of oil deliveries is less than 2%. At the same time, the fears over refining capacity mean that even though the United States is at its maximum level of gasoline inventories of the past five years, the increase in demand due to precautionary concerns over supply capacity leads to a perception of a situation different from what is shown by the inventory levels as a whole.

In the short term, can supply accompany a level of demand that is less affected by oil prices than in the past and that, in addition, has the emerging economies playing a leading role? And, in the medium and long term, given the characteristics of the OPEC member countries, in

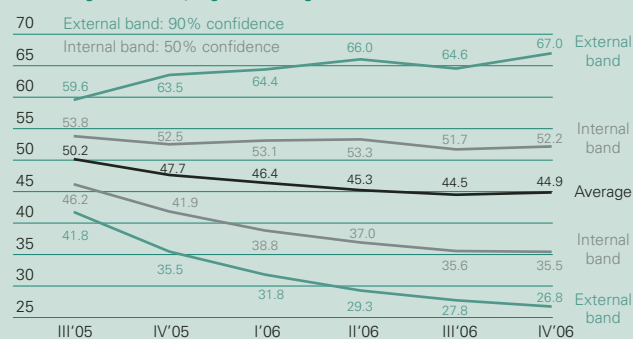
which 80% of the world's oil reserves are located, will the necessary investments be undertaken to transform these reserves in supply and dispel the specter of a crude shortage? The responses that are being discounted by the market are not very encouraging, which is shown in the incorporation of a structural risk premium in the second quarter of the year and that displaces the price curve.

### Revision of the price scenario

Given this paradoxical behavior of the oil market, it has become necessary to upwardly revise the scenario for oil prices, in which the major (and persistent) impact of news and the market's fears concerning the future balance between supply and demand for crude and distilled oil products is incorporated into prices.

In the main scenario, the expected average value for Brent for 2005 is 49.7 dollars per barrel (dpb), while for 2006, the price drops to 45.3 dpb. For the Mexican mix, we estimate 37.8 and 34.8 dpb for 2005 and 2006, respectively. The maximum and minimum limits that represent the goalposts for future uncertainty on prices, point to a lessening of exaggerated fears regarding a possible upward spiral in the average quarterly price of Brent above the US\$70 barrier, developments that, as we have shown in the adjacent graph, have a probability of occurrence of less than 5% within a horizon of one year.

**Estimate of Brent Prices 2005 - 2006**  
Dollars per barrel, April 2005 prices



Source: Estimates from the BBVA Banco Provincial Economic Research Department

Beyond the upward adjustment in our main projection, the declining trend from the previous scenario is maintained. This reflects the view that the shocks from expectations that led to the recent upward rally in prices will be transitory, despite their persistence.

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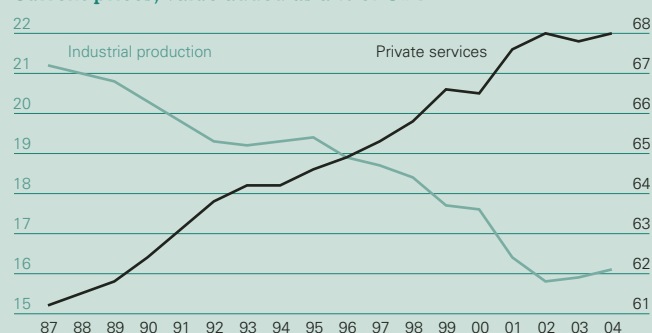


## U.S.: Industrial Production Outlook

### Structural issues

Between 1987 and 2004, U.S. industrial production diminished its percentage share in the economy. Its aggregate value fell from 21.2% to 16.1% of GDP, while the corresponding figure for the private services sector increased from 61.2% to 68%. Nevertheless, this trend has stabilized in the past few years.

### Industrial Production and Private Services Current prices, value added as a % of GDP



Source: BBVA Bancomer with Department of Commerce data

These data do not imply a general weakening of the sectors that comprise the industrial activity index. Within the group of manufacturing industries<sup>1</sup> (85% of the total), machinery, metal products, electrical equipment and others have seen their percentage share in GDP decline, while computers and electronic equipment have maintained a significant level of participation. This reflects the considerable dynamism of the high technology sector. Between 1973 and 2005, this sector grew at an average year to year rate of 21.5% compared to 1.7% for the rest of the manufacturing industries and 3.1% for GDP.

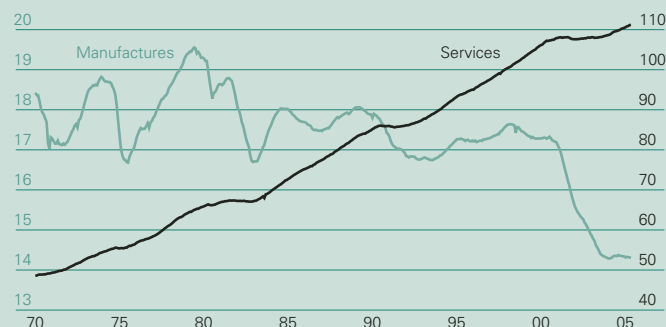
The lower relative importance of the industrial sector has been due both to a progressive decrease in spending earmarked for consumer goods in relation to services, as well as higher imports of intermediate inputs (outsourcing). This structural change has led to a loss of jobs in manufacturing industries that intensified as of the 2001 recession.

Between January 1970 and May 2005, the number of jobs in manufacturing declined by approximately 4 mil-

lion. In the durable goods sector, employment reached a maximum of 8.9 million jobs in 1979 and in May of this year registered 6.2 million. Meanwhile, in May 2005, employment in the nondurable goods sector fell to 3.8 million jobs, 1.9 million less in comparison to the maximum of 5.7 million reached in 1973. In the services sector, employment increased from 48.4 million jobs in January 1970 to 111.2 million in May 2005.

Under normal conditions, we could expect growth in manufacturing employment with the cyclical recovery. However, the long-term trend in manufacturing industry employment seems to indicate that it will be difficult for job levels to return to those registered prior to the recession of 2001. Among the most important factors that explain this phenomenon are outsourcing, a sustained increase in productivity in the manufacturing sector higher than that of the demand for goods, competition with countries whose production costs are lower, and a greater trend toward hiring temporary workers.

### Non-farm Payroll Millions



Source: BBVA Bancomer with Labor Department data

### Short-term aspects

In 2003, industrial production began a stage of recovery, although as of the second half of 2004, it has moderated its rhythm of growth, mainly in electricity, gas, and the manufacturing of durable goods (that, on the whole, represent 54.2% of the total). At the same time, the growth in production of nondurable goods (35% of the total) has remained stable, while mining has experienced a slight rebound.

In production of durable goods, of particular importance is the tapering off of the rate of growth in the automotive sector, from an average of 4.1% in 2004 to 1.4% in May

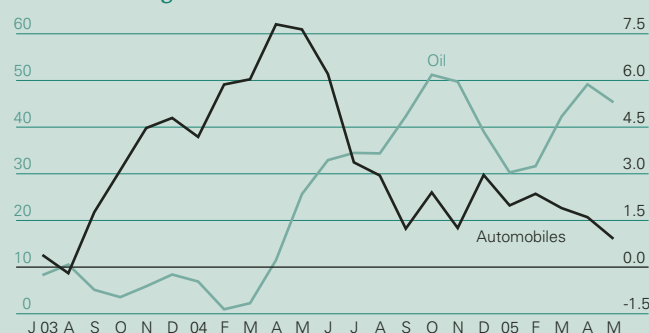
<sup>1</sup> Industrial activity is comprised of three major groups, namely, manufacturing, mining, and utilities such as generation, transmission, and distribution of electricity and the distribution of gas.

2005. This sector (representing 17% of manufacturing production), which is of great importance for Mexico, has mainly been affected by a change in consumer preferences and strategies of domestic companies with limited results in relation to their foreign competitors. This has led, in part, to the acquisition of a greater number of imported automobiles from Europe and Asia.

High oil prices have also negatively impacted auto production. In the past few months, the rise in gasoline prices has encouraged purchases of imported compact vehicles, such as hybrid cars, which are more efficient in the use of fuel. From January to May 2005, sales of imported cars increased monthly at an average year to year rate of 1.9%, while, in the same period, purchases of domestically manufactured vehicles diminished 1.1%.

### Oil Prices and Automobile Production

Annual % change



Source: BBVA Bancomer with Federal Reserve and OPEC data

On the other end, production of computers and electronic equipment (19% of durable goods output) continues growing at high rates (17.9% thus far in 2005 vs. 14.8% in 2004) and represents the main driving force of industrial activity.

The rest of the components can be classified in three groups. The first category contains those whose growth has been more moderate in the past four years; the second group corresponds to those that have posted declines in their activity in the same period; and in the third, those that have registered a permanent decrease.

In the short term, high oil prices will negatively continue to influence the performance of industrial production.

For 2005 and 2006, we anticipate year to year growth of 3.3% (vs. 4.1% in 2004) and 3.0%, respectively.

### Growth of Industrial Activity

Annual average % change

	1980-1989	1990-1999	2000-2005*
<b>Group 1: Downturn with growth</b>			
Computers and equipment	12.4	20.7	12.5
Durable goods	2.6	6.5	2.5
Electricity	3.0	2.4	1.8
Oil and coal	-1.1	1.2	1.7
Automobiles and auto parts	2.6	5.9	1.6
<b>Public services</b>	<b>2.3</b>	<b>2.2</b>	<b>1.6</b>
Chemicals	2.2	2.1	1.5
<b>Manufacturing</b>	<b>2.2</b>	<b>4.2</b>	<b>1.2</b>
<b>Industrial production</b>	<b>1.9</b>	<b>3.8</b>	<b>1.1</b>
Food, beverages, and tobacco	1.6	1.3	0.8
Natural gas distribution	-0.3	1.0	0.6
Non-metallic minerals	0.3	2.2	0.3
Machinery and equipment	0.2	2.5	0.2
<b>Group 2: Downturn with decrease in activity as of 2000</b>			
Non-durable goods	1.9	1.7	-0.2
Furniture	2.3	3.0	-0.3
Other manufacturing industries	2.4	1.0	-0.6
Plastics and rubber	4.5	4.6	-0.7
Wood	2.3	2.3	-0.8
Paper	2.2	1.0	-1.0
Fabricated metal	0.0	2.8	-1.1
Aerospace trans. and others	2.5	-0.4	-1.2
Primary metal	-1.7	1.7	-1.5
Electrical equipment	0.5	2.7	-1.6
Printing and support	4.8	1.4	-2.6
Textiles	1.5	1.1	-4.8
<b>Group 3: Structural weakening</b>			
<b>Mining</b>	<b>-0.6</b>	<b>-0.4</b>	<b>-0.4</b>
Apparel and leather goods	-0.6	-1.0	-10.8

\* May 2005

Notes: In **boldface** are the general index and its three main divisions

It should be mentioned that although the share of industrial activity in total GDP has declined in the past 20 years, its recomposition will continue to favor mainly sectors intensive in human capital as is the case with the high technology industry. To the extent that the industries that are increasing their share in the economy are growing at high rates, the total index will behave more like them and less like those sectors whose participation is declining, because even when their dynamism declines, their effect on the total variation would be less.

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## The Mexican Economy Has Started a Soft Slowdown

The performance of various activity indicators is showing that, while the Mexican economy has recently started a soft slowdown, there is still no reason for pessimism: not only is the slowdown moderate but it is also pertinent to point out that the breakdown of growth is pointing toward a greater participation of domestic demand. This section analyzes these determining factors, presenting forecasts for the year and the risks that will be faced.

### A “cocktail” that complicates the analysis

The figures for activity in the first quarter of this year (annual growth of 2.4%) contrast with the high growth rate of the last three months of 2004 (4.9%). These figures include elements of a different nature, such as the calendar effect, the soft patch of the U.S. economy due to high oil prices and the micro problems of the automobile and construction industries. In fact, what will have a greater impact on this slowdown is purely statistical, eliminating from this series the seasonal effects derived from the pre-Easter week, leap year and other holidays, which implied five fewer working days in this quarter, compared to the same quarter of the previous year (equivalent to 8% of the total), GDP growth would have been 3.8%.

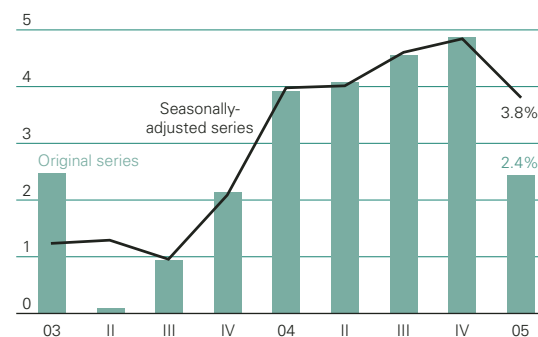
### The result is a slowdown in external demand

However, beyond the statistical effects, it does seem clear that the economy has been slowing down: first, there were exports starting the first quarter of 2004; later, consumption in the last three months of that year; and, finally, investment in the first months of 2005. Despite this chain of events, the most evident sign of this slowdown can be found in external demand, which affected the manufacturing sector and was later transmitted to the rest of the economy.

Posting their greatest expansion in the first and second quarters of 2004, Mexican exports moderated their growth as of the third quarter of that year. This performance is linked to the slowdown in U.S. industrial activity, to differences in the production structure, as well as to the characteristics of the dynamic sectors in the U.S. economy and the high elasticity of Mexican foreign trade revenue. (Please refer to the chart: “USA: Panorama of Industrial Production”). In terms of annual rates, U.S. industrial production went from 4.9% to 2.8% between the second quarter of 2004 and first two months of the same period of 2005, that is, a reduction in its expansion rate of 2.1 percentage points in one year. In addition, the growth characteristics affected Mexican exports: the expansion in high-tech products such as semiconductors and other electronic equipment, simultaneously with a slow and in-depth settling of competitors in other branches such as the automobile industry, in which Mexico has a relatively high share in production and exports. (Please refer to the chart “The Chiaroscuros of the Automobile Industry in Mexico”).

The lower U.S. industrial production is reflected in domestic industrial production, which grew only a cumulative 1.6% through May, lower than the 3.8% of the previous year. Broken down, the lower growth

### Mexican GDP Annual % change



Source: BBVA Bancomer with INEGI data

### Aggregate Demand Annualized quarterly % change

	GDP	Consump.	Invest.	Exports	Imports
I'04	5.8	6.5	15.1	14.5	12.1
II'04	4.2	7.1	6.4	15.6	13.5
III'04	4.0	10.0	12.6	5.1	8.1
IV'04	5.4	1.6	9.9	6.6	14.1
I'05	1.7	5.3	-1.7	2.2	4.8

Source: BBVA Bancomer with INEGI data

### U.S. Industrial Production and Mexican Manufacturing Exports Annual % change, seasonally-adjusted



Source: BBVA Bancomer with Department of Commerce and INEGI data

## Manufacturing Exports

Annual % change

	% brkdn.	2004	2005*
<b>Total</b>	<b>100.0</b>	<b>12.2</b>	<b>8.0</b>
Electrical & electronic equip. & app.	26.3	15.2	6.6
Automobile products	26.1	6.9	4.0
Mach. & special equip. f/diverse ind.	15.9	12.0	-0.4
Textiles, leather apparel	6.6	1.5	3.3
Professional & scientific equip.	3.6	12.6	19.5
Chemicals	3.4	14.4	13.3
Food, beverages & tobacco	3.0	12.3	26.3
Plastic & rubber products	3.0	23.5	16.3
Steel	2.9	45.4	38.8

\* January - April

Source: BBVA Bancomer with INEGI data

is concentrated in equipment and electrical and electronic apparatuses, as well as in machinery and equipment for various industries. Even though, in general terms, Mexican exports are recovering in the 2Q05, it should be recalled that higher oil prices will not only lead to lower industrial production in the U.S. in 2005 and 2006 (3.3% in 2005 and 3% in 2006), but will also consolidate the scenario of lower growth in domestic demand in that country. As a whole, U.S. GDP will moderate its growth rate to around 3.6% this year and 3.2% in 2006, which will maintain moderate growth in Mexican exports.

Aside from the foreign sector, also within the industry, the moderation in construction in the early months of this year is surprising. There are several hypotheses that could justify moderation in this sector. The lagging effect of cost increases of past years, the decrease in the average size of houses built, changes in government agency policies regarding the destination of the loans, the temporary imbalance between housing supply and demand. The trends in housing loans, the historic lag in demand for housing and the foreseeable impact of oil surpluses on public works, surely will improve the outlook for the second half of the year.

## The strength of domestic demand continues.

Contrasting with activities linked to the foreign market, the indicators of the domestic market are favorable: retail sales and imports of consumer goods maintain high growth rates, consumer credit grew higher than 40% in real terms, and urban employment registered the best performance of the last five years, 290,000 new jobs in the first quarter and 407,000 in the last 12 months. Even though employment in the *maquiladoras* is the most dynamic (6.0% through April), in absolute numbers, most of the new jobs are being created in the services sector (67% of the total).

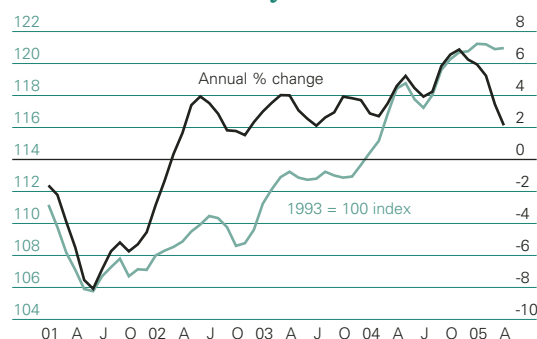
In this context, total wages (comprised of the generation of jobs and real wages) have registered a 4.5% increase in the first five months of the year, which is what supports domestic demand and, together with the high real growth of credit, will continue to be a significant boosting element to GDP growth.

## Outlook for 2005-2006

In this environment, the outlook for the Mexican economy is mainly linked to the performance of domestic demand, although it is also affected by external conditions. Our central scenario maintains the strength of domestic demand, in particular that of consumption, as the basis for growth, within a context in which growth in employment, credit expansion and economic stability will continue to boost activity.

For 2005, we expect growth of 3.9%, although a little lower than that of 2004, which is derived from lower strength in industrial activity due to the conditions of external demand and an increase in imports. However, the domestic market is increasing its thrust. By quarters, we expect a recovery in activity in the second quarter, linked to an improvement in automobile production and construction, although mainly to the lagging effects of employment on consumption.

## Construction Industry



Source: BBVA Bancomer with INEGI data

## Domestic Demand Indicators

Annual % change, seasonally-adj., 3-month moving av.



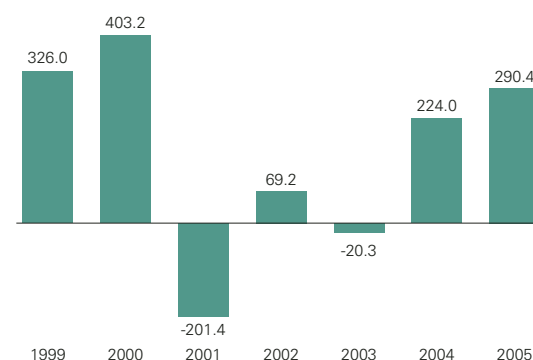
Source: BBVA Bancomer with INEGI data

Of course, this scenario is not free of risk. On the one hand, employment is rising, although with a high proportion of part-time workers, a sign of prudence by employers. On the other, growth in consumption demands products from abroad, which is why part of this demand will be met with imports and will not necessarily contribute to domestic growth. Finally, the development of the political environment, generating volatility on the financial markets in 2006, could end up having an impact on the real variables.

However, the greatest risk at this time could possibly derive from oil prices. If they remain at their current levels or if they rise even more, they will end up generating lower growth in the U.S., which would result in a negative effect on Mexico. As an example, should oil prices remain at their current levels for a prolonged time, say for the remainder of this year, the total impact on U.S. GDP could be of 40 bp, which would probably translate into a similar magnitude in Mexico, taking growth to levels of 3.5%.

## Urban Employment Growth

IMSS-registered workers, January-June, thousands



Source: BBVA Bancomer with IMSS data

## Job Generation

IMSS-registered workers, May 2005

	Thousands	Ann. % chg.
<b>Total</b>	<b>407.0</b>	<b>3.3</b>
<b>Services</b>	<b>271.5</b>	<b>3.8</b>
For companies, persons & home	134.7	5.2
Retail sales	65.6	2.7
Social & community	50.4	3.4
Transportation & communications	20.8	3.1
<b>Industry</b>	<b>93.6</b>	<b>1.9</b>
Manufacturing	38.5	1.0
MEI*	65.5	6.0
Conversion	-27.0	-1.0
Construction	48.4	5.2
Mining	5.8	8.9
Electric & water harnessing	1.0	0.6
<b>Agriculture</b>	<b>41.9</b>	<b>11.2</b>

\* Maquiladora export industry, April data  
Source: BBVA Bancomer with IMSS data

## Macroeconomic Chart of Mexico

Annual % change, seasonally-adjusted

	Observed					Forecasts						Contrib. to growth (pp)		
	2000	2001	2002	2003	2004	2005	2006	1T05*	2T05	3T05	4T05	2004	2005	2006
<b>GDP</b>	<b>6.7</b>	<b>-0.2</b>	<b>0.8</b>	<b>1.4</b>	<b>4.4</b>	<b>3.9</b>	<b>3.5</b>	<b>3.8</b>	<b>3.6</b>	<b>4.0</b>	<b>4.1</b>	<b>4.4</b>	<b>3.9</b>	<b>3.5</b>
Total demand	10.4	-0.6	1.0	1.2	6.0	5.7	5.4	5.5	5.8	5.7	5.8	8.1	8.0	7.5
Domestic	8.5	0.6	0.8	0.7	4.1	5.6	5.5	6.1	5.6	5.4	5.4	4.2	4.1	3.7
Consumption	7.4	1.9	1.4	2.1	4.7	5.8	5.6	6.0	5.9	5.6	5.6	3.8	4.7	4.6
Private	8.2	2.5	1.6	2.3	5.5	6.3	5.9	6.7	6.3	6.1	6.0	4.0	4.6	4.4
Public	2.4	-2.0	-0.3	0.8	-1.2	1.6	2.4	-0.1	2.3	1.8	2.3	-0.1	0.1	0.2
Investment	11.4	-5.6	-0.6	0.4	7.5	5.1	5.1	6.6	4.6	4.6	4.5	1.4	1.1	0.9
Private	9.0	-5.9	-4.1	-1.5	8.5	5.5	4.5	7.9	4.9	4.6	4.8	1.3	0.9	0.7
Public	25.2	-4.2	17.0	8.5	3.6	5.7	4.7	15.4	2.5	1.8	3.3	0.1	0.2	0.2
Chge. inventories**												-1.1	-1.7	-1.8
Net external**												-0.4	0.0	0.5
Gross external	16.4	-3.8	1.6	2.7	11.5	10.7	9.7	7.3	13.7	12.3	9.5	4.0	4.0	3.8
Imports (g. & serv.)	21.5	-1.6	1.5	0.7	10.2	10.4	10.1	10.1	11.6	9.8	10.0	4.4	4.0	3.4

\* Observed

\*\* Annual rates are not presented because are non-representative

Source: BBVA Bancomer with INEGI data



## The Chiaroscuros of the Automobile Industry in Mexico

Recently, the situation that two icons of the automobile industry, General Motors Corporation (GM) and Ford Motor Company, are undergoing is drawing attention. Their sales, particularly in the United States, have dropped, their debt rating has been downgraded and their market share has decreased (see chart). Toyota stands as the second largest global producer, surpassing Ford and, if the trends are not reverted, it could surpass GM in a few years. In this context, it is necessary to reflect on the repercussions that this situation will have on Mexico, since our country's automobile industry supplies the U.S. market and is an important manufacturing center for these companies. Given that 70% of its production is exported to the U.S. and Canada, Mexico is very sensitive to drops in demand of the major U.S. brands.

What is happening to these companies in the U.S.? Given the high price of gasoline, SUV sales have dropped in 2005 (particularly in the case of GM and Ford), and the discounts and incentives that they have offered to avoid this have had negative repercussions on their earnings. This situation has made evident the competitive deficiencies of these companies. The roots of their problems are: 1) little effectiveness in responding to changes in consumer preferences in contrast with the Asian competitors; 2) massive idle capacity in the U.S., which raises production costs; 3) their products are perceived by the consumers as being of lower quality and durability compared to those of the Asians; and 4) high medical and pension expenses.

Up to now, both companies have announced that their plans to restructure will bring with them dismissals and a decline in their installed capacity in North America, among other measures. However, and according to what was announced in their restructuring plans, this would not have a direct impact on production in Mexico, which makes sense, given the comparative advantages in cost that the Mexican plants have, compared to those located in the United States. In fact, platforms for automobiles that are distributed throughout the whole world are produced exclusively here, as well as engines, suspensions and brakes, and exports are strongly dynamic, despite competition from low-cost countries. Moreover, both the auto parts and motor vehicle production could even benefit from the greater competitiveness and vertical integration with the U.S. companies.

### Automobile Industry in Mexico (Industry Numbers)

	1997	2000	2004	2005	Chge*
Economic importance, % of GDP	2.5	3.1	2.8	nd	
Terminal	1.3	1.7	1.5	nd	
Auto parts	1.2	1.4	1.3	nd	
Production <sup>1</sup>					
Terminal	135.5	202.8	194.1	172.2	-9.1
Auto parts	133.5	179.5	175.6	176.3	0.8
Automobile exports <sup>2</sup>	18.7	29.2	31.6	10.1	2.3
Terminal	14.0	22.1	20.8	6.2	-3.9
Light	9.9	16.6	11.6	3.5	-1.9
Heavy	4.1	5.4	9.2	2.7	-6.4
Auto parts	4.6	7.1	10.7	3.9	13.8
Manufacturing	2.1	3.1	4.8	1.8	14.3
Maquila	2.5	4.0	6.0	2.1	13.4
Automobile terminal, exports <sup>3</sup>					
Light	1.0	1.4	1.1	0.4	-4.4
Heavy (units)	4.5	16.5	37.9	16.7	7.0
Sales of light autos in the U.S. <sup>3</sup>	15.5	16.9	16.6	7.0	-1.0
Chrysler, Ford & GM, % of total	70.0	68.8	60.3	61.9	-4.0
Asian companies, % of total	20.3	21.5	28.1	29.8	7.4

1 Volume Index 1993 = 100. In 2005, data from January to March

2 US\$ billions. In 2005, data from January to April

3 Millions of units. In 2005, data from January to May

\* Annual % change

Source: BBVA Bancomer with data from INEGI, Banco de México, Census Bureau & Auto Data

An example of what is to come can be found in the decision made by Ford that, at its plant in Hermosillo, it will produce three new models. Also, even when foreign sales of autos and light trucks fell, exports of heavy vehicles mitigated the negative impact on the production volume and on the exported value of the terminal automobile industry. Both elements have allowed the aggregate value of the industry not to decrease significantly and the exported value to continue to advance (see chart).

Without underestimating the effect that the difficult situation of the U.S. companies has had and could have in the future (particularly GM), the elements explained above allow for moderate optimism with respect to the automobile industry in general in Mexico, and its effect on Mexican production and exports in 2005 and 2006. Due to the above, and based on the performance observed so far this year, light vehicles will continue to drop, although increasingly less in 2005, to later possibly resume recovery in 2006. At the same time, heavy vehicles and auto parts will maintain their positive trend. The former supported by a positive performance of the U.S. economy and the latter based on the fact that the Mexican producers have known how to diversify, thereby entering other markets and introducing other products.

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## 2005 Looks to be a Good Year for Inflation

Following the rallying pressure in 2004, there has been an improvement this year in the performance of prices. Whereas in November 2004 the inflation rate stood at an annual maximum of 5.43%, through June 2005, annual inflation growth was 4.33%, a reduction of more than one percentage point (100 bp).

The better performance of inflation was produced both in core and non-core inflation. Although, quantitatively the latter is more significant, the results of the first are more outstanding due to their importance. Non-core inflation, binding together components of a more volatile nature, fell 250 basis points and contributed 70% to the total drop in inflation during that period.

In core inflation, the results are also positive: their reduction contributes one third of the total decline in inflation, which, in annual terms, is the lowest level posted in the history of this index and seems to indicate that there is a possibility of breaking the resistance shown in the last three years by remaining consistently below 3.5%.

### The decline is concentrated on some products

Despite these good results, upon reviewing the performance of prices in more detail, we find that the gains are not totally generalized and that they are concentrated in some items, as shown in the adjoining charts. Three groups of products (government-managed and regulated, processed foods and housing) comprise half of the price index and determined the total decline in inflation.

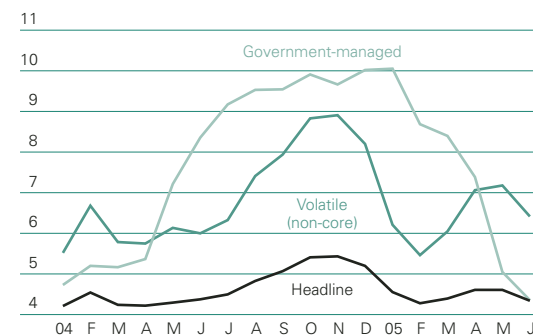
The greatest gain in the reduction of inflation was seen in government-managed and regulated prices: from an annual rate of 7.24% in November, it dropped to 3.52% in June, a decrease of 3.72 bp in the period. This item accounted for 59% of the decrease (0.64 bp of 109 bp). The products that contributed the most were those that were government-managed (electricity, gasoline and gas) and regulated prices such as on transportation. Telephone services did not contribute to the drop in inflation, but helped maintain its low level. The policy of public prices, keeping rates "aligned with" the inflation target, selective subsidies to electricity consumption, technological advances and greater competition on the communications market have led to moderation in these prices.

Processed food and housing contributed 49 bp (45%) to the reduction of inflation. In the first case, due to the improvement in some agricultural prices and to the appreciation of the peso, and in the second, to the rise in the housing supply, which has limited the increase in rents, as well as in those paid as charged. In brief, there has been a significant gain in the reduction of inflation in recent months, although it should be noted that this is only seen in some products.

### What has determined this improvement in inflation?

The recent decline in inflation in Mexico responds, as has been mentioned, both to a price policy on government-managed prices, aligned with the inflation target, and because the "shocks" or supply

### Inflation Annual % change



Source: BBVA Bancomer with Banco de México data

### Core Inflation Annual % change



Source: BBVA Bancomer with Banco de México data

### Contribution of Volatile Prices to the Drop in Inflation Annual % change

	Nov'04	Jun'05	Cont.*
<b>NCPI</b>	<b>5.43</b>	<b>4.33</b>	<b>-1.09</b>
<b>Non-core</b>	<b>8.90</b>	<b>6.41</b>	<b>-0.76</b>
Govmt-managed & regulated	7.24	3.52	-0.64
Electricity	8.59	-3.35	-0.27
Gasoline	6.36	3.18	-0.12
Gas	16.70	14.60	-0.04
Public transportation	13.47	2.97	-0.19
Taxis	8.52	3.33	-0.03
Telephone service	-0.06	-0.34	-0.01
Meat	12.48	7.16	-0.26

\* Contribution, percentage points  
Source: BBVA Bancomer with Banco de México data

## Contribution of the Core Sub-Index to Reduction of Inflation

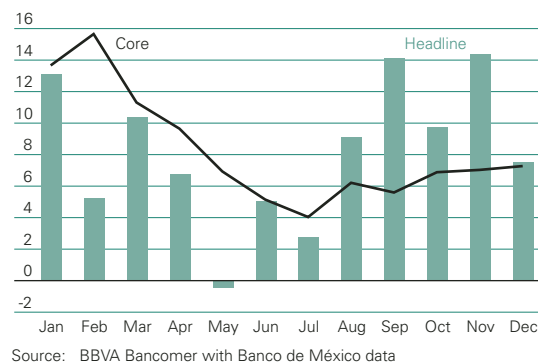
Annual % change

	Nov'04	Jun'05	Cont.*
<b>NCPI</b>	<b>5.43</b>	<b>4.33</b>	<b>-1.09</b>
<b>Core</b>	<b>3.82</b>	<b>3.38</b>	<b>-0.31</b>
Merchandise	3.81	3.46	-0.15
Food	7.00	5.28	-0.25
Apparel & footwear	1.16	0.78	-0.02
Transportation	2.02	2.44	0.01
Health & personal care	2.77	3.13	0.02
Entertainment	0.72	1.60	0.03
Furniture, equip. & access.	1.17	2.39	0.06
Services	3.74	3.27	-0.15
Housing	3.74	2.39	-0.24
Housing owned	3.89	2.09	-0.22
Housing rented	3.46	2.99	-0.01
Transportation	0.82	0.47	0.00
Apparel & footwear	8.15	6.86	0.00
Other services	4.74	5.04	0.02
Health & personal care	2.95	3.99	0.03
Recreation	3.02	4.53	0.05

\* Contribution, percentage points  
Source: BBVA Bancomer with Banco de México data

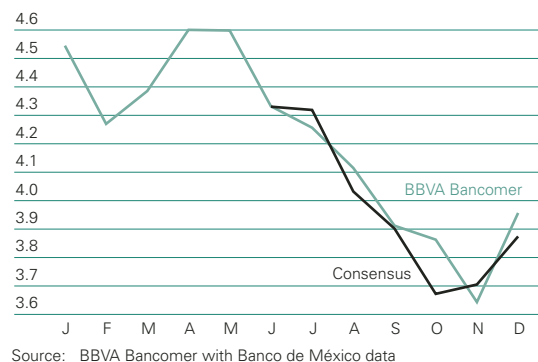
## Seasonal Pattern of Inflation

Monthly contribution, 2000 - 2004 average, %



## Inflation 2005

Annual % change



disturbances (due to a scarcity of products in the agricultural sector as a result of high international oil prices, etc.) have been diluted over time. This last fact is important, because it has been produced without higher wage reviews or a rise in inflation expectations. In addition to these elements, the appreciation of the peso and the slight moderation of activity have contributed to reducing inflation.

## Outlook for inflation

Given that many of these conditions could remain in the second half of the year, the outlook is positive. In our scenario, it is foreseeable that inflation could stand at below 4% towards the end of the year, with relatively stable core inflation close to 3.5%. For next year, these figures could improve and in a steady manner come closer to the Banco de México target (3%).

In line with the seasonal performance of inflation, it is foreseeable to expect moderate increases in monthly inflation as of the second two weeks in August and more markedly in September (due to the beginning of the new school cycle), and between October and November, due to the elimination of the summer subsidies on energy consumption in the hotter zones and the seasonal increase in demand at the end of the year. Within this context, in annual terms, inflation could stand below 4% as of the month of September.

It is important to note that there is an alternative scenario in which a more accelerated convergence of inflation toward 3% is produced. This probability could rise if core inflation does not rally to 3.5% from now to the end of the year. Within this context, diverse econometric models (that use the past performance of inflation in Mexico) indicate to us that under our central scenario for the peso, core inflation could only reach the Banco de México target with GDP growth below the potential, more specifically below an annual 3% (somewhat distanced from our scenario for 2005). This convergence of core inflation with 3% could also occur as a result of a more prolonged peso appreciation, which could lead to moderating both wage adjustments and inflation expectations, with the consequence that core inflation could come close to the target (3%).

At the other extreme, even with less probability than the previous one, we cannot rule out that high oil prices (or even an increase in the agricultural prices, as occurred in the second half of 2004) will continue during the second half of the year. This alternative oil scenario (in the chart on oil, details are given on this scenario of risk) could lead to higher international inflation and in the U.S. This scenario could increase inflation in Mexico to levels between 4.5% and 4.6%.

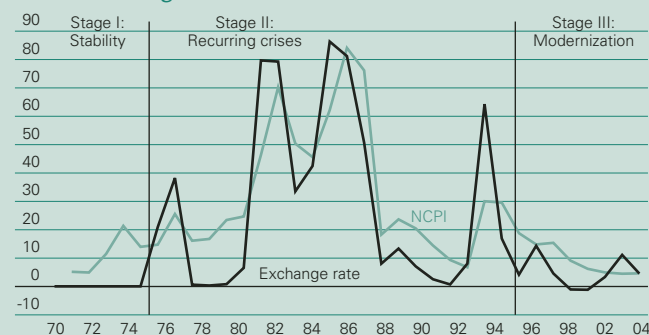
In brief, the performance of inflation is promising, particularly because it has been produced in a high-growth scenario and the outlook is favorable, although not all the unknowns have been resolved so that inflation could stand stably at around 3%.

## The Pass-through of the Exchange Rate to Inflation

Given its historical behavior, it is common to think that an important risk for inflation in the next one or two years would be an abrupt depreciation of the peso, sparked by internal conditions (political uncertainty, loss of confidence in the public institutions in light of the change in the presidential administration, setbacks in structural reforms, etc.) and/or external factors (a strong slowdown in the U.S., reduced capital flows to emerging economies). Given these, this article will analyze the process of the pass-through of variations in the exchange rate to prices. The relation between the exchange rate and prices is summarized in three stages: stability, up to 1975; recurring crises, between 1976 and 1995, with four instances of abrupt adjustments in the exchange rate; and modernization, as of 1996, characterized by a flexible exchange rate régime and macroeconomic stabilization.

### Exchange Rate and Inflation

Annual % change



Source: BBVA Bancomer with Banco de México data

In the stability stage, the peso/dollar exchange rate remained fixed, and therefore it is difficult to statistically link this variable with price formation. The recurring crisis stage was characterized by imbalances in the balance of payments and devaluations in 1976, 1982, 1988, and 1995. The shift of their effect to inflation was direct and very high. Indeed, a 1% adjustment in the exchange rate led to a 3.7-fold increase in inflation and lasted up to three years. It was an explosive effect that mutually influenced each variable.

The third stage was characterized by an important structural change: the move to a flexible exchange rate halted abrupt depreciations of the peso. Also, the country entered a macroeconomic stabilization process. Inflationary response to variations in the peso in the recent period is lower and quicker than in the 1976-1995 period.

But even the results of the recent period indicate significant changes between 1996 and 2000 when the economy was still undergoing an adjustment. The response of inflation to

variations in the exchange rate was up to 1.8 times and the absorption time for the changes took up to one year. For the 2000-2005 period, this response has been less than proportional, only 30%, and its duration, three to five months.

What factors are behind this change? In addition to the floating exchange rate system, progress made in the credibility of the country's monetary policy was also important. Until before 2000, Mexico posted two-digit inflation and its monetary policy was not centered on explicit inflation targets. Both factors seem to have influenced expectations and these, in turn, on price formation. Periods marked by a depreciation of the peso alternated with those of an appreciation, reducing their impact on inflation. Lastly, the "de-dollarization" of the economy could have made a marginal contribution, given the drop in credit and deposits in dollars.

### Exchange Rate and Inflation

	Intensity <sup>1</sup>	Duration <sup>2</sup>	Depre. <sup>3</sup>	Increase in inflation <sup>4</sup>	
				1996-2005	2000-2005
<b>Pass-th. exchange rate to NCPI</b>				<b>Inflation &amp; variations in exchange rate</b>	
1976-1995	3.8	36	5	2.2	0.6
1996-2005	1.3	18	10	4.4	1.1
1996-2000	1.8	18	15	6.6	1.7
2000-2005	0.3	4	20	8.8	2.3
			30	13.2	3.4

- 1 Proportional to changes in the exchange rate
- 2 Months
- 3 Nominal depreciation, %
- 4 Estimates in percentage points

Source: BBVA Bancomer with Banco de México data

Although the importance of the variation pass-through in the exchange rate to prices has been reduced, it still exists. Applying the estimates of the relation between these variables during the 2000-2005 period, a depreciation of 5% in 12 months would add up to 0.6 percentage points to inflation. The enormous anchors of macroeconomic stability and flexibility can be clearly appreciated by using the estimates for the 1996-2005 period. If we applied the parameters estimated in this period, the models would indicate how with the same percentage depreciation of the peso, inflation would rise 2.2 percentage points.

Finally, the estimates also indicate that the depreciation of the peso affects producers more than consumers. The former absorb up to 50% of the higher cost of the dollar. This result is consistent with the expectation that companies' margins allow them to absorb a part of the increases in costs. Meanwhile, when costs decline, as in the case of an appreciation of the peso, consumer prices are not adjusted in the same proportion.

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## Basic Monetary Scenarios

	External environment	Activity	Prices
I. To maintain 'status quo'	Moderate Fed rally	Moderate slowdown	Gradual decline
II. To allow a slackening	Fed rally is postponed	Accentuated slowdown	Rapid convergence to target
III. To sustain restriction	Marked Fed rally	Renewed dynamism	Low resistance & contamination

Source: BBVA Bancomer

## Assumed Scenarios For the end of 2005

	Inf	EI	ER	GDP Mx	Fed
I. To maintain 'status quo'	<4.0	≈3.5	11.0	Near 4.0	4.00
II. To allow a slackening	3.5	≈3.0	>10.8	<4.0	3.50
III. To sustain restriction	4.2 (upward trend)	>3.5	>11.6 (upward trend)	>4.0	4.25

Inf Inflation, %  
 EI Expected inflation, %  
 ER Exchange rate, pesos per dollar  
 GDP Mx GDP Mexico, real annual % change  
 Fed Federal funds, December 2005, %  
 Source: BBVA Bancomer

## Bank Funding according to Rule of Taylor and Inflation & Exchange Rate Scenarios



I BBVA Bancomer 'status quo'  
 II Low inflation or 'slackening'  
 III High inflation or 'restriction'  
 T Central Taylor estimate  
 Source: BBVA Bancomer

On June 24th, Banco de México decided not to modify the "short" and to eliminate the monetary link with the Fed rate increases (established since April 2004). In addition, the central bank announced that "as long as it considers it convenient, domestic monetary conditions should not be slackened". Thus, the central bank has gone from an upward trend toward a neutral trend, which does not imply a fast drop in interest rates. Even though it is difficult to predict a change in the course of monetary policy, we believe that the bank funding rate will remain at its current levels (9.75%) until inflation tends more clearly toward the target (3%) and the inflationary pressures from the international and/or domestic environment, dissipate. Specifically, we believe that it is not necessarily headline inflation that should be on target, but that it will be enough if core inflation is stabilized close to the target and medium-term inflation expectations remain not too far from it.

## What course will domestic rates follow?

We have identified three basic scenarios regarding the management of monetary policy in 2005 in terms of the international environment, domestic activity and the estimated risk balance for inflation.

### I Base Scenario: To Maintain the "Status Quo" (50%)

If the Fed continues to increase the official rates (4.0% through December 2005 and 4.5% in the first half of 2006) under a moderate slowdown in the U.S. (average growth of 3.6% and 3.2% in 2005 and 2006) and contained inflation, the external context would be moderately benign for Mexico in monetary terms. Economic activity in Mexico would maintain a soft slowdown with growth close to 4% in 2005, and slightly lower in 2006, with a favorable inflation risk balance; headline and core inflation rates would stand slightly below 4% and 3.5%, respectively in 2005, advancing toward the target in 2006. This scenario would allow space for absorbing moderate foreign-exchange volatility and slight pressure on the prices of raw materials (agricultural and energy) in the coming months, but would impede the central bank from abruptly changing the course of monetary policy.

In this environment, the bank funding rate would remain at relatively high levels (9.75%) and could descend gradually to 8.75% at the end of 2006, once the advances in core inflation are consolidated, and the Fed stops increasing its reference rate. Should this scenario materialize, rises in the long and medium sections of the curve would be registered, in such a way that it would revert the negative slope posted at the close of June.<sup>1</sup> Thus, we estimate that the 10-year Bond (M10) could come close to 10% (see M10 chart). Nevertheless, rates could rise even more should the extraordinary liquidity observed on the emerging markets, among them Mexico, deteriorate, motivated by increases in long-term interest rates in the U.S. (4.5% and 5.2% at the close of 2005 and 2006, respectively). In this environment, the monetary policy would strengthen as the "anchor" for macroeconomic stability.

<sup>1</sup> We do not believe the inverted slope of the yield curve is sustainable for very long.

## II Market: “To allow a quick slackening” (40%)

The quick reduction of the funding rate is a possible scenario. Mexico's central bank could allow a decrease in the bank funding rate should a rapid reduction in core inflation be achieved—domestically—(toward 3%) and in headline inflation (toward 3.5%), which would favor meeting the target in the medium term. This scenario could occur if pressure on the services sector and on the merchandise sub-index decreases, aided by the strength of the peso. Obviously, a slowdown in domestic demand would facilitate this convergence. Externally, this scenario would have greater probability in case of a pause in the rate of increase of the Fed rate (toward 3.5% and 4%), spurred by lower inflationary pressure in the U.S. economy. We believe this scenario could increase its probability of materializing in the fourth quarter of the year if the current moderation of core inflation continues.

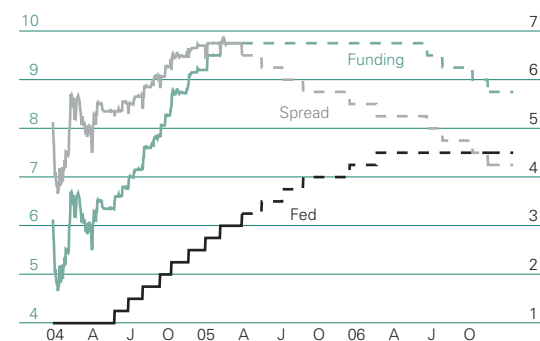
In this case, the decline in inflation (registered and expected) would allow gradual reductions in the funding rate in 4Q05 and close between 9% and 9.25% without this implying instability on the foreign-exchange market. Should this environment persist, we would not rule out that this drop could extend to 2006 and could close the year at 8.25%. To illustrate this scenario and in terms of our exercise of the “Rules of Taylor”, the “theoretical” funding rate would stand at 9.0% at the close of the year under the following conditions: (1) with inflation at 3.76% (estimated by market consensus) and the exchange rate should stand at a maximum of 10.90 ppd; or (2) with an exchange rate of 11.28 ppd (market consensus) a headline inflation of 3.7% would be necessary. In both cases, core inflation should stand close to 3%.

In terms of the yield curve, this scenario of favorable inflation would imply a greater slope of the curve, thanks to reductions in short-term interest rates (approximately 75 bp), accompanied by lower drops in the medium-term segment and levels similar to the current ones in the long-term section this year. In this way, the ten-year bond could pay a rate of 9.6% and 8.9% at the close of 2005 and 2006, respectively; even though the downward trend could be greater in case long-term interest rates in the U.S. do not rise as much as we are considering.

## III Surprising: “Sustaining the Restriction” (10%)

Although with lower probability, we cannot rule out the possibility that the central bank is seeking to continue its monetary restriction cycle should inflation rally due to energy prices and a contingent rise in agricultural and livestock products resulting from climactic reasons, similar to what happened in the second half of 2004, particularly if the strength in domestic demand causes pressure on core inflation. In this sense, there is a latent risk that the high oil prices seen in recent months will have repercussions on higher inflation in the U.S. and, as a result, in Mexico. This could be combined with greater uncertainty in the political process, which would have unfavorable repercussions on the foreign exchange market. Also, it cannot be ruled out that the central bank will seek to induce higher interest rates if it perceives that domestic monetary conditions will start to slacken, contrary to that set forth in its press release of June 24<sup>th</sup>.

### Bank Funding Rate and U.S. Federal Funds %



Note: Estimated as of July 2005

Source: BBVA Bancomer with Banco de México and Federal Reserve data

### 10-year Interest Rate %



Note: Estimated as of July 2005

Source: BBVA Bancomer with Banco de México and Federal Reserve data

### Events in Mexico in 2005

	Political decision <sup>1</sup>		Inflation report <sup>2</sup>	
	Annon. only	W/bulletin	1 <sup>st</sup> half	Prv.mnth.
Jul.	8	22	22	7
Aug.	12	26	24	9
Sep.	9	23	22	8
Oct.	14	28	24	7
Nov.	11	25	24	9
Dec.	9		22	8

1 Broadcast to the market at 9:00 hours, Mexico City time  
2 Broadcast to the market at 14:30 hours, Mexico City time

### Events in the U.S. in 2005

	Meeting of Open Market Committee	Monetary Policy Report
July		X
August	9	
September	20	
November	1	
December	13	



# What is the Expected Performance for 10-Year Rates?

## —A Model for M10—

In July 2001, the Mexican government began to issue fixed-rate bonds with a 10-year term (M10). Since then, this rate has at times risen (for example, 2H02 and 2Q04) to reach maximum levels of 11.4% in 2002 or fallen (for example, all of 2003 and 2Q05) declining to minimum levels of 7.9% in 2003. Recently, the decreases in the M10 rate have even led to a negative slope in the yield curve. In this context, it is important to analyze the variables that have determined their behavior and, therefore, to explore their potential performance.

For such purposes, a quarterly econometric model has been developed to explain the 10-year rate ( $MX10y$ ), using as explanatory variables the nominal three-month interest rate ( $MX91$ ); 12-month inflation expectations ( $INFE$ ); Mexico's sovereign risk ( $EMBI$ ); and the U.S. 10-year bond rate ( $US10y$ ). The model's specification is for correction of errors; it considers  $MX91$  and  $INFE$  as long-term determining factors; and contemporary movements of these variables together with the  $EMBI$  and  $US10y$  as the short-term elements.<sup>1</sup>

### Model Specification and Results

$$\Delta MX10y_t = B_0[MX10y_{t-1} - \alpha_0 - \alpha_1 MX91_{t-1} - \alpha_2 \ln(INFE_{t-1})] + B_1 \Delta MX10y_t + B_2 \Delta \ln(EMBI_t) + B_3 \Delta US10y_t + B_4 \Delta \ln(INFE_t)$$

where,  $\Delta$  is the differential operator of the variable and  $\ln()$  refers to the natural logarithm. The long term relation is between brackets.

Dependent variable:  $\Delta MX10y$

Quarterly sample: 1997-2004

C	$MX10y(-1)$	$MX91(-1)$	$INFE$	$\Delta MX91$
-0.005 (-0.5)	-0.6 (-4.3)	0.4 (4.7)	0.03 (2.2)	0.4 (6.4)
$\Delta \ln(EMBI)$	$\Delta US10y$	$\Delta INFE$	$R^2$	DW
0.03 (3.2)	0.6 (1.6)	0.03 (1.8)	0.92	2.5

Note: A sample since 1997 was considered, based on Aportela, F. et al. (2001), Banco de México methodology. Parameter t between parenthesis.

Source: BBVA Bancomer

### Will the M10 rate rebound?

In the past two months (May-June) decreases were posted in the explanatory variables of the model. The 91-day Cete rate fell 30 basis points (bp); the EMBI+ declined 20 bp; and the 10-year U.S. bond rate dropped 130 bp. As a result, the M10 rate contracted more than 100 bp in this period so that its average during 2Q05 was 10.1%. However, its current level is 70 bp below the theoretical level established by this model, which can be justified by factors not explicitly included, such as the increase in international liquidity for emerging econo-

mies, the greater availability of loanable funds from Asian countries (particularly China) to the rest of the world; and, the pronounced decrease in inflation for 2005, especially core inflation, which has not been passed-through to inflationary expectations to the same extent.

### Assumptions on Evolution of Variables in the Model\*

	MX91	US10y	EMBI	INFE**
2005	9.7%	4.3%	170	3.5
2006	9.6%	4.9%	170	3.7
	2005	2006		
1st. quarter	10.0%	<b>11.1%</b>		
2nd. quarter	9.8%	<b>11.1%</b>		
3rd. quarter	<b>10.3%</b>	<b>10.7%</b>		
4th. quarter	<b>10.8%</b>	<b>10.8%</b>		
<b>Model annual average</b>	<b>10.2%</b>	<b>10.9%</b>		
<b>Estim. BBVA Bancomer</b>				
End of period	<b>10.3%</b>	<b>10.2%</b>		
Average for the period	<b>10.1%</b>	<b>10.3%</b>		

\* Averages for the period  
\*\* INFE is an approximate estimate based on subsequent performance  
Note: The data in **boldface** are estimates

If these factors are corrected, the M10 rate would converge with its long-term performance course, posting, along with it, gradual increases in 2005 and 2006. In particular, the model presupposes that: 1) short-term rates will remain close to their current levels; that is, restrictive monetary conditions will be maintained in the country; 2) the 10-year U.S. bond rate will gradually increase as the Federal Reserve raises its short-term rates; 3) no increases will be registered in the country risk; and 4) projected inflation will remain relatively stable.

### Contributions to 10-Year Mexico Interest Rates Period average

	MX91	INFE	EMBI	US10y	MX10y
2003	3.8	5.7	-0.5	0.0	9.0
2004	4.0	5.7	-0.2	0.0	9.5
<b>2005</b>	<b>5.3</b>	<b>5.0</b>	<b>-0.1</b>	<b>0.0</b>	<b>10.3</b>
<b>2006</b>	<b>5.6</b>	<b>5.3</b>	<b>-0.1</b>	<b>0.1</b>	<b>10.9</b>

Note: The data in **boldface** are estimates

Despite this structural vision, the persistence of the factors not explicitly included in the model (for example, reduced international aversion to risk and the revaluation of the yuan) could limit the amount of the increase in the M10 rate in the next few months. Furthermore, if long-term rates in the United States remain at 4%, and the central bank reduces its interest rates to 9% (in line with market expectations), the 10-year rate would be below 10%

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1 The exchange rate and activity are not included in the model of variables because they are of slight significance.



## Will the Strength of the Peso Continue?

So far this year, the peso has strengthened with a persistence that has been a continuous surprise for many market participants, including us. Currently, it is at its strongest level in the last 24 months. In the second week of July, the dollar was at 10.63 pesos per dollar (ppd), which implies an appreciation of one peso since May 2005 to date (11.63-10.63 ppd). Likewise, in this period, the peso has shown one of the lowest volatility rates compared to those of the main currencies of the world. In this first half of the year the typical deviation (a standard measure of volatility) of the peso-dollar exchange rate was 0.9%, which is lower than that registered by other Latin American currencies, such as the Brazilian real (3.1%) and the Chilean peso (1.3%), and was also lower than that of the dollar versus the euro (1.3%) and the yen (1.5%).

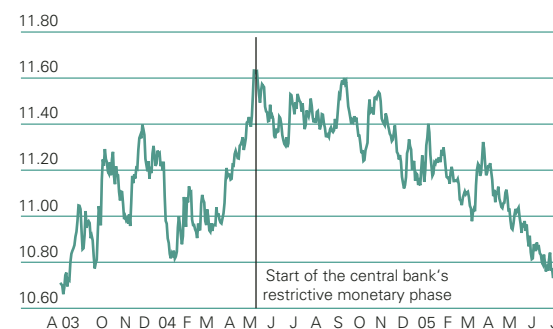
### Liquidity and positive fundamentals explain the strength

The marked strength of the peso has its origin, on the one hand, in the strong international financial flows to emerging markets, and, on the other, in the positive fundamentals in Mexico (such as the convergence of inflation and the expansion of the growth gap between Mexico and the U.S.), which generated an appropriate<sup>1</sup> environment for attracting these capitals. However, the dominant element has possibly been financial liquidity. In recent months, this has been supported by the progress in the restrictive monetary phase in Mexico (April 2004) in comparison to that of the U.S. (July 2004), which implied that the spread between the short-term interest rates of the two economies would expand and close June at 675 bp (vs. 525 bp a year before).

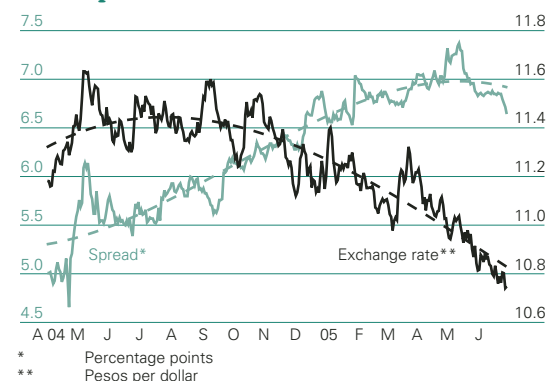
In addition, international flows to emerging economies have been magnified as a result of the lower historical levels of interest rates in the European Union and in the U.S., as well as savings surpluses, coming mainly from Asian countries. In a parallel way, a favorable country-risk environment has been observed. It is important to point out that the emerging currencies, particularly in Latin America, have shown an appreciating trend in recent months; this process has intensified since March of this year. Of note, within this group is the Brazilian real with an appreciation of over 11%. The Mexican peso stands as the second most strengthened currency with its appreciation higher than 4%. This excess liquidity, together with extraordinary revenues derived from oil and remittances, have led to a rise in the dollar supply in the country and has allowed financing (or reducing) the deficit in the current account. Of an initial estimate for 2005 of 2% of GDP, everything seems to indicate that this will not rise beyond 1.5%. Also, capital account flows have increased significantly, generating a better performance and more favorable expectations for the whole of the balance of payments.

For example, a substantial increase in government securities holdings by foreigners has been observed: almost 50% in 1Q05. To this can be added dollar revenues from securities and debt issues abroad by the non-bank private sector (with Pidiregas), which rose to US\$6.15 billion in 1Q05 (vs. US\$3.78 billion in 2004). The entry of revenues from these items reached US\$8.56 billion in 1Q05, similar to that

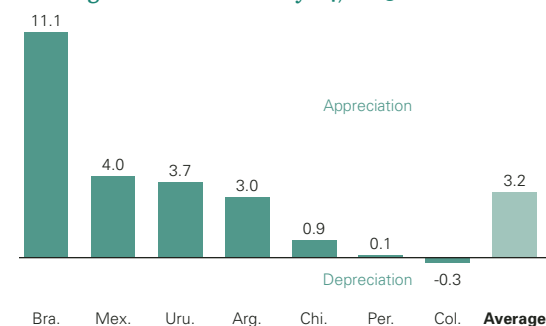
### Exchange Rate Pesos per dollar



### Exchange Rate and One-month Interest Rate Spread between Mexico and the U.S.



### Latin American Currencies vs. U.S. Dollar % change from March to July 14, 2005



<sup>1</sup> See Situation Mexico, second quarter 2005

## Dollar Revenues in 2005

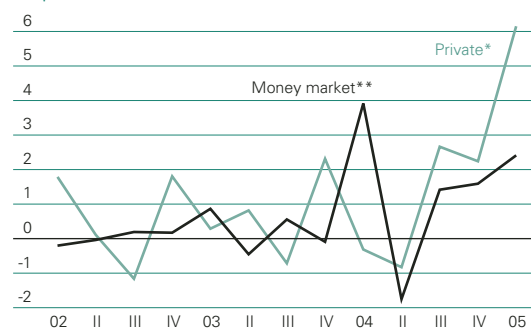
### Cumulative flows in US\$ billions

	May 2005	Change*	%
Money market	2.3	1.5	185
Oil	11.5	2.7	30
Remittances	7.5	1.2	19
<b>Total</b>	<b>21</b>	<b>5.3</b>	<b>33.1</b>

\* Change 2005 - 2004  
Source: BBVA Bancomer with Banco de México data

## Revenue Derived from Government Securities and Private Issues

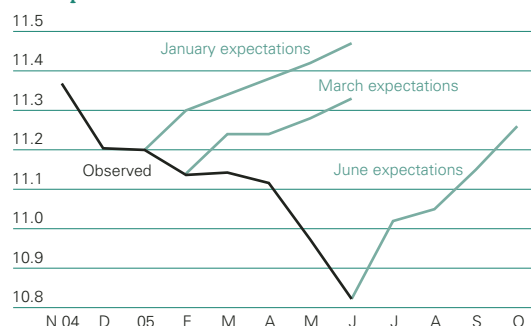
### US\$ billions



\* Securities issued abroad and loans (includes Pidieregas)  
\*\* Foreign investment in the money market  
Source: BBVA Bancomer with Banco de México data

## Exchange Rate and Banco de México Expectations

### Pesos per dollar



Source: BBVA Bancomer with Banco de México data

of all of 2004 (US\$8.97 billion); these flows represent 3.3 times the deficit in the current account of that period.

The importance of family remittances continues to increase in national transactions. In the first three months, remittances totaled US\$4 billion—62% of the foreign investment portfolio—and annual growth of 20.5%. The entry of dollars from this item accumulated over US\$7 billion from January to June (19% higher than that of 2004). Oil revenues have registered significant rises through May 2005; the annual cumulative rise was 30%. Cumulative revenues from oil exports totaled US\$11.5 billion. An additional element of strength for the peso in the future is the recent announcement of the re-financing of all of the debt maturities for 2006-2007, that total US\$4.7 billion; 40% was re-financed through market operations and the rest with dollar purchases from the central bank. These transactions will reduce the demand for dollars due to the public foreign debt.

To summarize, if we jointly consider the revenues from oil exports, remittances and the money market we post a book entry of resources of around US\$21 billion through May 2005; 33.1% higher than in 2004.

## Expectations and risk balance for the peso in 2005

The question that remains is whether the strength of the peso will revert and when it will do so. We consider that two of the factors that have boosted the constant appreciation of the peso are of a temporary nature and will be diluting. First, the interest rate spread between Mexico and the U.S. will tend to decrease as the Federal Reserve's restrictive policy intensifies and the markets assimilate it as a trend and not as the end of a restrictive cycle in the U.S.. However, this effect might not be very strong, to the extent that this foreseeable change of expectations is accompanied (according to us) by expectations of lower reductions in short-term interest rates in Mexico (see section of financial markets.)

Secondly, the high prices of the Mexican oil mix are a transitory element that could revert. Finally, in a country such as Mexico, where the electoral process in the past has tended to generate volatility, it is reasonable to expect that the political risk will be present in 2006 and that it will generate a certain depreciation of the peso. In brief, the exchange rate will revert its trend, although gradually; the intensity will depend on the factors that have led to the expansion of liquidity on the markets. This element will be subject to the dynamics of the spread between domestic and international interest rates, as well as to the availability of international resources. On the other hand, given what the Chinese competition represents for the Mexican economy, the potential revaluation of the yuan could have a positive influence on the peso (see chart: The effects of the revaluation of the yuan on the peso)

In the base scenario, where the factors that have led to the appreciation of the peso gradually revert, we expect a parity of 11 pesos per dollar for the end of 2005. However, we cannot rule a delay in the depreciation of the peso, particularly because the abundance of resources on the international markets continues, and it is not clear when the market will assimilate the dynamics of the spread between short-term interest rates between Mexico and the U.S. In view of this scenario, the peso's appreciation trend could continue and the exchange rate might be at levels lower than 10.80 pesos per dollar at the close of 2005.

## Effects of the Revaluation of the Yuan on the Peso

### International pressure to revalue the yuan

This past July 21st, China announced the revaluation of its currency by 2% and a new narrow flotation regime ( $\pm 0.3\%$ ) joined a basket of currencies. Even though this movement is modest, it will set the guideline to greater adjustments in the future. This news was expected for months. The reasons for these measures are to avoid inflationary pressure in the Chinese economy, to moderate growth and reduce the costly accumulation of international reserves.

### Trade effects

The direct effect of a revaluation of the yuan on the peso is, in principle, very limited because the investment and trade flows between the two countries are relatively small: our foreign trade with China represents only 3.9% of the total with the world. However, it is also worth analyzing the effects that the revaluation will have on Mexican exports to the U.S. where China is also an important competitor.

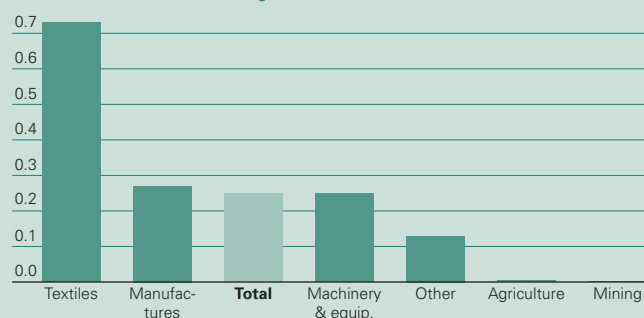
In trade terms, the revaluation of the yuan would lead U.S. imports from China to become more expensive, and imports from other countries could replace them. However, this positive impact on exports, the generation of foreign currency and a possible appreciation of the peso would be limited for the following reasons: a) the strongest competition between China and Mexico is in textiles and light manufactures, but these represent less than 10% of our total exports to the U.S. Also, other countries offer cost advantages (both in labor and energy) that limit the possible benefits for Mexico in this sector; b) the rise in the prices of Chinese exports would be much less than the percentage of the yuan revaluation, because China operates mainly as a "*maquilador*" (assembling products for export) on behalf of other nations and the aggregate value of its exports is low; c) China has a broad maneuvering margin to offset the cost of the revaluation. For example, in manufactures, its labor costs are eight times lower than those of Mexico, to which can be added subsidized access to energy and tax incentives for exports; d) the substitution of Chinese products with those of other countries depends on their competitiveness. However, the constant advance of China in the U.S. reveals that high productivity is a more important element than the value of the yuan/dollar exchange rate at a given time.

We have estimated that a 10% revaluation of the yuan, maintaining everything else constant, would increase our

exports to the USA by only 0.3%, approximately US\$550 million; a very limited effect.

### Impact on Mexican Exports to the U.S. Due to a 10% Revaluation of the Yuan

% increase in Mexican exports



Source: BBVA Bancomer

### Financial effects

China has international reserves worth US\$663 billion, of which the greatest part is invested in U.S. Treasury Bonds. A revaluation of the yuan (unless it would generate new expectations of additional appreciation) could reduce Chinese demand for those securities, which would pressure its interest rates upward. In principle, this movement would reduce the interest rate spread between Mexico and the U.S., which could imply that Mexico was a less attractive destination in relative terms for U.S. portfolio investment; lower capital flows could then pressure the peso. However, since the revaluation of the yuan makes it relatively more expensive to invest in China in face of other emerging economies, it is possible that there will also be a movement of capitals favoring Mexico. Thus, the effects derived from those capital flows might lead to uncertain medium-term results on the peso.

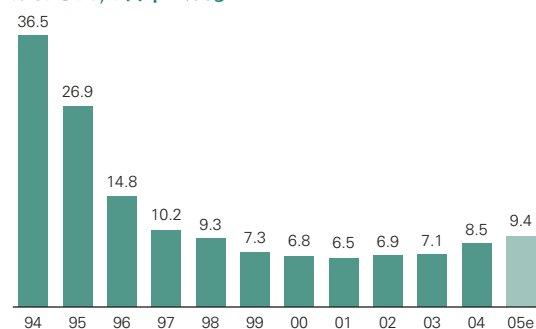
In conclusion, the revaluation of the yuan would have uncertain financial and moderate trade effects favoring a greater market share of Mexican products in the U.S., the generation of foreign currency and the peso. Thus, the appreciation of the yuan would not be a solution, as neither is the depreciation of the peso for Mexican products to gain market share in the U.S. Currently, there are neither short cuts nor better remedies by which to increase domestic competitiveness and exploit the comparative advantages already existing: (geographic location, vertical integration, etc.)

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## Commercial Banks Performing Loans to the Private Sector \*

% of GDP, 1994 - 2005

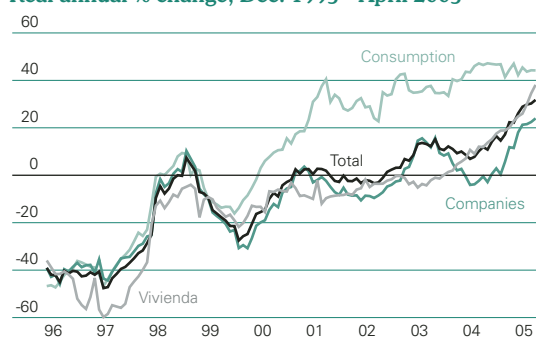


\* Does not include non-performing loans, credits restructured in Udis, and financing granted to companies through the placement of debt securities.  
e estimated

Source: BBVA Bancomer with INEGI and Banco de México data

## Commercial Banks: Performing Loan Portfolio

Real annual % change, Dec. 1995 - April 2005



Source: BBVA Bancomer with Banco de México data

## Commercial Banks Before and After the 1995 Crisis

Weaknesses before the crisis and changes made

### Weaknesses before the crisis

- Deficient legal framework for protecting creditors' rights
- Limited tools for measuring credit risk
- Inadequate and lax accounting and prudential norms
- Deficient capitalization and preventive provision levels

### Changes made

- Modification of accounting rules
- Adjustment of rating rules for loan portfolios
- Introduction of better practices and methodologies for measuring credit risk
- Creation of credit bureaus and the obligation of consulting them before granting new loans
- More rigorous capitalization rules
- Implementation of a system of early alerts
- Total opening to foreign investment

Source: BBVA Bancomer

# Mexico: Reactivation and Recent Expansion of Bank Credit

In 1995, Mexico's GDP declined 6.2%, inflation rose from 7% to 52%, and unemployment increased to 6.2%. This weakening of the economy was accompanied by abrupt increases in interest rates, which severely affected debtors' payment capacity and sparked a major crisis of the banking system. This translated into an increase in the past-due loan portfolio, exacerbated the banks' financial weakness, and led to subsequent efforts aimed at the financial strengthening and recapitalization of the credit institutions. The final effect was a considerable contraction in bank credit to the private sector for more than 7 years. The balance of the performing loan portfolio<sup>1</sup> as a percentage of GDP declined from 36.5% in 1994 to only 6.5% in 2001. As of 2002, credit as a percentage of GDP began to grow again, although it is still far from the levels prevailing before the crisis.

## Causes for the contraction in credit

The banking crisis of 1995 was not only due to the worsening of the country's macroeconomic panorama, but was also the result of the weakness of institutional, legal, and preventive elements and guidelines on revealing financial information, on which the good operation of credit activity depends. This was the case with the legal framework for such activity (which was not focused on protecting the rights of creditors); credit risk (which was neither correctly measured nor sufficiently guaranteed); and accounting rules (which did not reflect the banks' financial reality). Furthermore, the fact that credit was granted at variable rates had an important impact. These elements increased the effects of the banking system's problems when the crisis of 1995 erupted.

## Factors spurring growth and reactivation

The reduced demand for credit associated with the economic crisis and the restrictions on the supply of such financing prevented its quick recovery. Credit was only reactivated when several favorable conditions emerged, both on the macroeconomic level and within the sector, which reduced the risk of granting loans. Particularly important on the macroeconomic level was the reduction in inflation and the greater confidence that the country's economic policies would be firmly directed toward keeping prices stable, thereby allowing the economic agents to make longer term decisions regarding debt accrual. In terms of the regulatory environment, laws and norms on banking activity were modified to make them tighter (accounting criteria); institutional regulations and methodologies were introduced to better measure credit risk (credit bureaus and new rules for rating loan portfolios); and the protection of creditors' rights was improved through the modification of different laws that affect credit activity. In addition, the banking sector was completely opened to foreign investment, which allowed better credit practices to be incorporated and facilitated the capitalization of these financial institutions. All of these factors led to the emergence of the necessary conditions for the economic agents to demand long-term credit.

1 The performing loan portfolio does not include past-due loans; financing granted to companies through debt securities that they have issued; and loans that were the object of special programs that arose due to the 1995 crisis, such as the restructuring of loans in Udis (a value unit pegged to inflation) and the loan portfolios transferred to Fobaproa that were part of the Capitalization and Loan Portfolio Purchase Program



The reactivation of the different types of credit has not been even because the factors behind the reactivation did not take place at the same time nor did they have the same impact in each of the categories due to their different characteristics. Mexico's experience in this sense indicates that it is the sum and the permanency of favorable factors that spur the reactivation and expansion of credit while the absence of some of these elements can prevent such renewed growth. In this sense, as long as the environment and the elements that sustain the good operation of credit activity remain in effect in Mexico, bank financing for the private sector will continue growing (see the following article "Potential Growth of Credit").

## The process of reactivation of consumer credit

In January 2000, consumer credit began to quickly reactivate and such loans have posted 64 months of uninterrupted growth. In this period, the real average growth rate for consumer credit was 33%, which allowed the balance for such financing to experience a five-fold increase from December 1999 to April 2005. Despite this dynamic performance of consumer credit, its balance is low if we take into account that at the end of 1994, it was 2.6% of GDP and in 2004, accounted for 2.2%.

The main reason for the expansion of consumer credit possibly has been the macroeconomic stability that allows the economic agents to adopt long-term decisions and especially the strong reduction in inflation during this period (from 20% to rates below 5%), which allowed credit to be granted under better conditions. For example, the banks introduced promotions to encourage greater use of credit cards based on agreements with companies to allow that the purchases that were made with plastic involved interest-free deferred charges. This promotional campaign began by deferring debts for three months and then, due to the lower inflation, the interest-free period was increased to 12 months.

In addition, the banks replaced credit policies based on variable interest rates with plans based on fixed interest rates, which allowed debtors to be clearly aware of the total cost of the financing they received and, at the same time, made sure that increases in interest rates would not affect clients' payment capacity. These advantages imply a lower credit risk.

These policies favored credit to acquire durable consumer goods, basically aimed at the purchase of automobiles (which act, in turn, as a guarantee on the loan payment) as well as payroll credit, which corresponds to the category of other personal loans and is granted to workers to whom their salary is deposited in a bank account. The amount of credit that an applicant can obtain is equivalent to up to four months of their salary, and the loan is liquidated within a period of up to 36 months. The credit risk here is low because the loan is granted at a fixed rate and the payments are automatically discounted from the account in which the client deposits his or her salary.

The reactivation of credit would have been impossible without the existence of credit bureaus, which turned out to be a very important institutional element for the renewed growth and expansion of financing. Furthermore, the fact that banks are required to consult credit bureaus before granting loans has made them a very useful tool for selecting clients and reducing future risks.

## Consumer Credit

### Reactivation and growth factors

#### Macroeconomic environment:

- Lower inflation and interest rates

#### Better tools for measuring risks:

- Consulting credit bureaus
- Use of models to measure credit risk

#### Use of fixed interest rates

- In loans to acquire automobiles
- Special lines of credit linked to credit cards to be paid off in 12 months on predetermined amounts
- Payroll credits to employees who deposit their salary in bank accounts

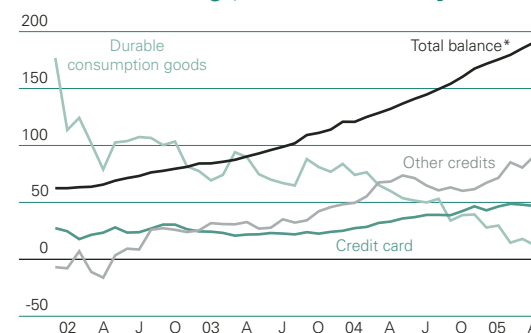
#### Promotional offers and new and flexible products

- Purchases with credit card with interest free deferred payments for 3-, 6- and 12-month terms
- Products tied to fixed interest rates
- Credit in accordance with payment capacity

Source: BBVA Bancomer

## Consumer Credit

### Real annual % change, December 2001 - April 2005



\* Billions of April 2005 pesos  
Source: BBVA Bancomer with Banco de México data

## Housing Loans

### Reactivation and growth factors

#### Reactivation factors

Better legal framework for recovering past-due loans

- The Miscellaneous Regulation on Secured Lending of 2000 established the bases and the modifications of 2003 reactivated the legal framework

Reduced inflation and lower interest rates

- Credits were first allowed to be granted in Udis, after at variable interest rates and finally at fixed rates

Improved measuring of credit risk

- Lower credit risk and better portfolio quality

#### Growth factors

Financing programs at fixed rates

- They reduce uncertainty and allow debtors to be fully aware of the total cost of the credit

Market factors

- Competition led to a decline in interest rates, lowering costs and making credit conditions more flexible for users

Demographic factors

- The high percentage of young people in the country generates a growing demand for mortgage loans

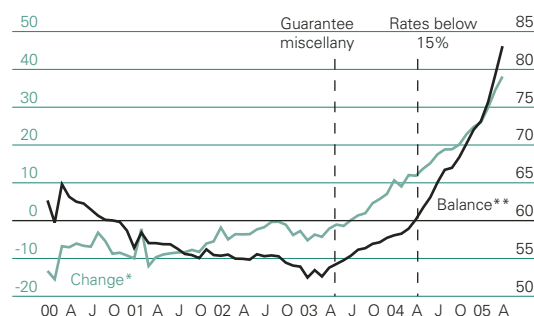
Expansion of the target market

- The purchase of mortgage Sofoles by banks broadens the possibility of placing more credits in other segments of the population

Fuente: BBVA Bancomer

## Performing Housing Loan Portfolio

January 2000 - April 2005



\* Real annual % change

\*\* Billions of April 2005 pesos

Source: BBVA Bancomer with Banco de México data

## The process of reactivation of housing loans

Following the important decline in the housing loan portfolio as a result of the 1995 crisis, the balance for this type of credit steadily contracted in real terms up to 2003. From mid-2003 to date, home mortgage loans have been growing for 22 months at high rates. However, the level registered in April 2005 represents only 21.9% of the balance in home mortgage loans posted at the end of 1994.

The 1995 crisis made it clear that the legal framework prevailing at the time for recovering guarantees on non-performing loans was plagued by many deficiencies. In 2000, a series of reforms to different laws were approved to allow guarantees on non-performing credits to be recovered more quickly. These reforms were known as the Miscellaneous Regulation on Secured Lending (MG) and it was expected that the new legislation would help facilitate a quick reactivation of housing loans. This was not to be, because in the 2000 MG obstacles persisted that prevented the rapid recovery of guarantees on non-performing loans, which implied that the credit risk remained high. In April 2003, another reform was introduced into the MG. By improving procedures and removing legal obstacles, this reform reduced credit risk and allowed for the reactivation of this category of bank credit.

The evolution of interest rates has also influenced the reactivation of housing loans, which began to recover when the use of fixed interest rates became generalized in credit plans, and especially since April 2004, when the fixed rates charged by most of the banks fell below 15%.

This reduction in rates, coupled with the use of flexible financing programs, was spurred by the greater competition among the institutions that grant credit. This greater competition recently has promoted the consolidation of the banking sector with the purchases by some financial groups of some mortgage Sofoles<sup>2</sup>, non-bank financial intermediaries that have been successful in granting credit based on government resources for acquiring housing to social sectors that represent a broad market different from the population groups to which the banks normally direct their efforts. At the end of 2004, the first purchase of a Sofol by a bank took place. This move was followed by other banks and indicates the banking system's intention to expand its market, to compete with another type of intermediary, and to develop flexible products to meet the needs of very different clients.

## Reactivation of credit to businesses and corporations

Contrasting with the behavior of consumer credit and housing loans granted by the banks, to date the performing corporate loan portfolio has not registered sustained growth. This is the case even though the regulatory conditions would normally allow for a sustained reactivation of this credit category following the approval in 2000 of the new Business Bankruptcy Law, which replaced the Law on Bankruptcies and Suspension of Payments. This new law better protects the rights

2 The Sofoles are limited purpose financial companies authorized to grant credit to specific sectors. They cannot directly attract resources from the public. These characteristics make them non-bank credit institutions.



of creditors than was the case with the previous legislation, but it did not generate an important expansion of credit given the weak growth of the economy between 2001 and 2003.

Another obstacle for the recovery of this credit category has been the availability of important and diverse sources of financing that have replaced bank business loans, such as companies with a high credit rating being able to obtain resources by placing securities in the country's corporate debt market. These debt issues are important because: 1) the expansion of pension funds increases the demand for these securities, thus generating a private bond market; and 2) a new type of peso-denominated bonds were introduced, which have been a very successful corporate debt instrument, given that they are quite flexible.

Bank business loans and debt issues are complementary forms of financing. Therefore, it should come as no surprise that the sum of these two sources of funds has posted real positive annual growth rates for three years, as shown in the graph below.

## Outlook

The persistence of the factors that have positively influenced the development of credit in Mexico will allow financing to continue to flow. Such elements include low and fixed interest rates, a more efficient institutional and legal framework, greater competition among banks that encourages more flexible loan policies adapted to the specific needs of clients, and a higher level of economic activity. This outlook is supported by the favorable balance sheet of the banking sector and the existence of resources to finance credit.

We expect that at the end of 2005, consumer credit will grow at rates slightly above 30% in real terms, spurred to a large extent by the new products that the banks have introduced in the past few years. For housing loans, we expect growth in their balance slightly higher than in the case of consumer credit, specifically, between 35% and 40% in real terms by the end of the year, due to the strong competition among financial institutions in the past few months to attract clients, offering them affordable fixed interest rates.

Meanwhile, business loans will continue growing, spurred by the higher level of economic activity. We estimate that bank credit to companies will grow around 8% in real terms by the end of the year. As long as the economy experiences sustained growth, this type of business financing can see an increase in its rhythm of expansion, given its sensitivity to improvements in expectations.

Once this phase in the reactivation of bank credit to the private sector is concluded and its importance as a percentage of GDP increases, its growth rate will possibly taper down. In this new stage, given the persistence of the factors that contribute to and favor the expansion of such credit, it can be expected that the growth rate for bank credit will be 1.5 and 2 times the rate of growth of the economy, in accordance with the experience in other countries (see the following article "Potential Growth of Credit").

## Bank Credit to Companies

### Reduction of risks and performance obstacles

#### Reduction of risks

- Business Bankruptcy Law of 2000
- Miscellaneous Regulation on Secured Lending 2000 and 2003
- Lower levels and less volatility in interest rates

#### Obstacles to the sustained reactivation of credit

- Limited economic growth or unsustained growth at high rates
- Use of variable rates (TIIE + add on rate) and high levels
- Available substitutes for companies with high credit quality
  - Debt placements; wide range of non-bank financial intermediaries; financing from abroad
- Rigidities, risks and different obstacles
  - High sectoral and regional risks; poor credit record; lack of adequate guarantees; limited competitiveness of the economy (lack of structural reforms)

## Issuing & Placement of Corporate Debt

### Growth and limiting factors

#### Growth factors

- Adequate instruments: peso-denominated bonds (debt securities)
- Important demand on the part of Siefors (pensions)

#### Limiting factors

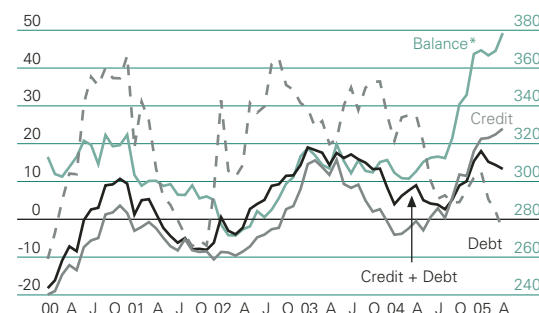
- Instrument accessible only to companies with high credit quality
- Limited economic growth or unsustained growth at high rates
- Volatility of benchmark interest rates (TIIE)

Source: BBVA Bancomer

## Financing for Companies:

### Bank Credit and Corporate Debt

Real annual % change, January 2000 - April 2005



\* Billions of April 2005 pesos  
Source: BBVA Bancomer with Banco de México data

## Performing Loans Granted by Commercial Banks to the Private Sector in the Past 10 Years

End of period

	Dec'94	Dec'95	Dec'96	Dec'97	Dec'98	Dec'99	Dec'00	Dec'01	Dec'02	Dec'03	Dec'04	Apr'05
<b>Balances in billions of April 2005 pesos</b>												
Consumer	151.7	80.7	46.9	41.0	38.9	38.2	47.1	62.4	84.1	120.8	171.7	190.6
Housing	378.6	242.4	105.0	83.2	74.6	64.6	58.7	55.4	53.9	57.7	72.0	83.1
Commercial business	1,503.7	915.8	590.9	441.4	405.8	319.4	324.7	290.2	313.3	311.3	367.4	378.5
Non-bank financial intermediaries	88.7	54.0	24.7	9.2	11.4	21.7	24.9	31.9	25.9	28.2	41.8	46.0
<b>Total</b>	<b>2,122.6</b>	<b>1,293.0</b>	<b>767.4</b>	<b>574.9</b>	<b>530.7</b>	<b>443.9</b>	<b>455.4</b>	<b>440.0</b>	<b>477.1</b>	<b>518.0</b>	<b>653.0</b>	<b>698.2</b>
<b>Balances, % of GDP</b>												
Consumer	2.6	1.7	0.9	0.7	0.7	0.6	0.7	0.9	1.2	1.7	2.2	2.8*
Housing	6.5	5.0	2.0	1.5	1.3	1.1	0.9	0.8	0.8	0.8	0.9	1.2*
Commercial business	25.9	19.0	11.4	7.9	7.1	5.2	4.8	4.3	4.5	4.3	4.8	4.9*
Non-bank financial intermediaries	1.5	1.1	0.5	0.2	0.2	0.4	0.4	0.5	0.4	0.4	0.5	0.5*
<b>Total</b>	<b>36.5</b>	<b>26.9</b>	<b>14.8</b>	<b>10.2</b>	<b>9.3</b>	<b>7.3</b>	<b>6.8</b>	<b>6.5</b>	<b>6.9</b>	<b>7.1</b>	<b>8.5</b>	<b>9.4*</b>
<b>Real annual % change</b>												
Consumer	nd	-46.8	-42.0	-12.4	-5.3	-1.8	23.4	32.5	34.8	43.6	42.2	44.2
Housing	nd	-36.0	-56.7	-20.8	-10.3	-13.4	-9.2	-5.5	-2.8	7.1	24.8	38.1
Commercial business	nd	-39.1	-35.5	-25.3	-8.1	-21.3	1.7	-10.6	7.9	-0.6	18.0	24.0
Non-bank financial intermediaries	nd	-39.1	-54.3	-62.6	23.1	90.9	14.8	28.2	-18.9	8.8	48.4	42.7
<b>Total</b>	<b>nd</b>	<b>-39.1</b>	<b>-40.6</b>	<b>-25.1</b>	<b>-7.7</b>	<b>-16.3</b>	<b>2.6</b>	<b>-3.4</b>	<b>8.5</b>	<b>8.6</b>	<b>26.1</b>	<b>31.7</b>

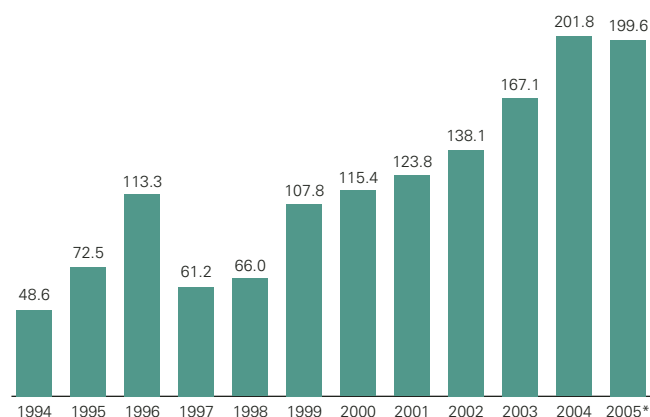
	Dec'94	Dec'95	Dec'96	Dec'97	Dec'98	Dec'99	Dec'00	Dec'01	Dec'02	Dec'03	Dec'04	Mar'05
<b>Non-performing loan portfolio and capitalization index</b>												
• Non-perf. loan portfolio balance, billions of current pesos	43.5	46.5	47.5	79.2	99.5	80.8	54.7	47.2	45.0	31.1	27.0	26.7
• Delinq. index (non-perf. port. / total)	7.3	7.0	6.4	11.1	11.4	8.9	5.8	5.1	4.6	3.2	2.5	2.4
• Non-perf. loan portfolio coverage	48.6	72.5	113.3	61.2	66.0	107.8	115.4	123.8	138.1	167.1	201.8	199.6
• Capitalization index	9.6	10.8	13.1	17.2	17.5	20.4	17.7	19.0	21.0	22.9	22.3	21.8

\* Estimated figures for 2005

Source: Banco de México, National Banking and Securities Commission (CNBV) and INEGI

### Commercial Banks: Non-performing Loan Portfolio Coverage

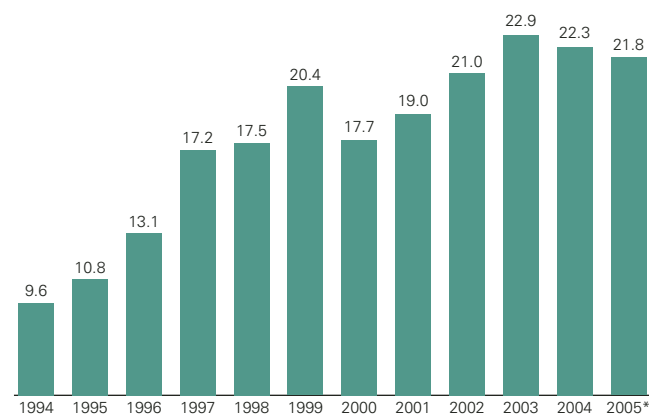
Preventive provisions / non-performing loan portfolio, %



\* Figures through March  
Source: National Banking and Securities Commission

### Commercial Banks: Capitalization Index

%



\* Figures through March  
Source: National Banking and Securities Commission

## Mexico: Potential Growth for Credit

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In the current context of high real growth of credit in Mexico, it is important to wonder how such financing is likely to evolve within a favorable macroeconomic environment and what its long-term potential growth is. In this article we will refer to three illustrative and successful experiences in which credit has grown for many years at rates higher than that of GDP and we will analyze the causes for such a phenomenon. The first occurred during a very successful phase of Mexico's economic history from 1954 to 1970, known as stabilizing development, and the other two experiences correspond to international cases, Chile and South Korea. Mexico shows some similarities with these two nations, because the first two countries both implemented important economic reforms and financial liberalization policies, although they concluded their trade openings before México.<sup>1</sup> Chile, like Mexico, also has free trade agreements and economic complementation treaties with different nations.

The three above-mentioned cases allow us to evaluate the importance that economic growth at high rates and low inflation for long periods has for the sustained expansion of credit. At the same time, when the macroeconomic environment weakens, as was the case in Mexico from 1970 to 1988, credit stops flowing and its importance within the economy diminishes. But these are not the only factors. Today it is recognized that the favorable development of credit requires, in addition to a positive macroeconomic environment, institutional and legal factors that lower the risk of granting loans and allow creditors to recover their resources.

### Credit in Mexico during stabilizing development: 1954-1970

Although in the first years of stabilizing development, credit to the private sector did not grow at high rates, from 1959 until the end of the period it did increase at a strong rhythm. In this period, with an average expansion of GDP of 6.8%, the economy grew almost 120% in 12 years. Furthermore, in this same period, inflation was low, with an annual average of 2.9%. This stable macroeconomic environment led to increased investment opportunities for the private sector, while low inflation led to greater stability in the financial conditions facing the economic agents. This translated into a greater availability of financial resources for lending purposes. In this context, bank deposits increased slightly more than eight fold in real terms in this period.

Between 1959 and 1970, credit granted to the private sector by financial institutions grew an average of 14.2% in real annual terms during that period, which made it possible for the balance of credit granted to the private sector as a percentage share of GDP to increase from 16% in 1958 to 33% in 1970. It can be concluded that in prolonged periods in which the macroeconomic environment is favorable—in this case, 12 consecutive years—credit experienced sustained growth at higher rates than the increase in GDP. In this case, the ratio between growth rates for credit and GDP was two to one.

### Mexico: Commercial Bank Credit to the Private Sector \*

Real annual % change

	Total	Consumer	Housing	Companies	FI
Dec'00	2.6	23.4	-9.2	1.7	14.8
Dec'01	-3.4	32.5	-5.5	-10.6	28.2
Dec'02	8.5	34.8	-2.8	7.8	-18.9
Dec'03	8.6	43.6	7.1	-0.6	8.8
Dec'04	26.1	42.2	24.8	18.0	48.4
Mar'05	30.3	44.3	34.5	22.4	39.8

\* The performing loan portfolio does not include non-performing loans, financing obtained by companies through debt securities issues and credits that were the object of special programs  
FI Non-bank financial intermediaries  
Source: BBVA Bancomer with Banco de México data

### Factors that Favor the Expansion of Credit and Reduce Credit Risk

#### I. Favorable Macroeconomic Environment

- Sustained economic growth at high rates
- Permanent price stability

#### II. Institutional Factors and Tools

- Efficient legal framework for recovering non-performing loans
- Effective credit information systems
- Efficient mechanisms for persuading debtors
- Methodologies for measuring credit risk



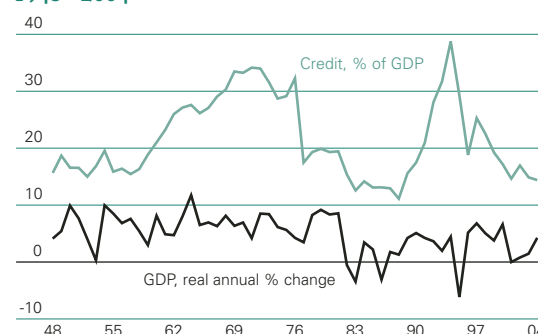
#### They diminish uncertainty and risk for those offering and receiving credit

- They reduce the cost and increase the term of the credit
- They generate flows to liquidate debts
- They allow resources to be channeled to solvent debtors

#### They increase the supply and demand for credit

Source: BBVA Bancomer Economic Research Department

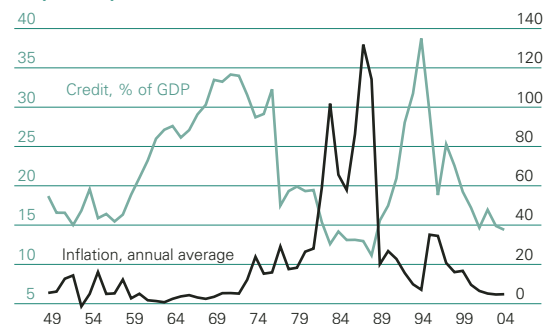
### Mexico: Bank Credit to the Private Sector and GDP 1948 - 2004



Source: BBVA Bancomer with IMF data

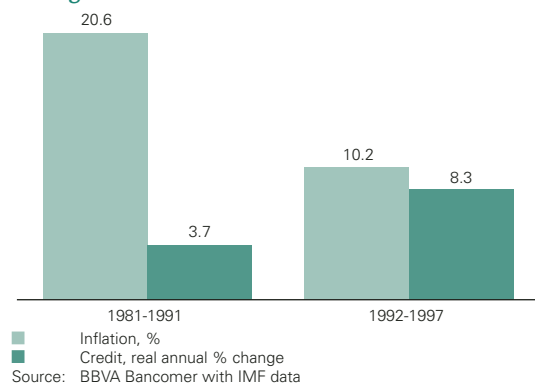
1 León Bendsky and Víctor Godines (1991). *Liberalización financiera en Chile, Corea y España: Experiencias útiles para México*, IMEF.

## Mexico: Credit to the Private Sector and Inflation 1949-2004



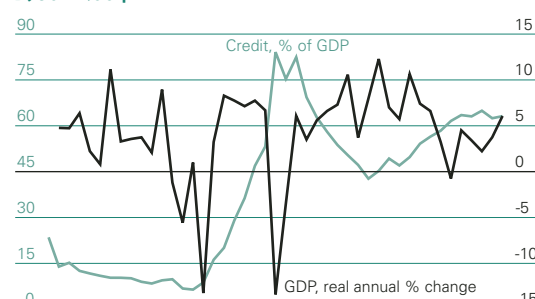
Source: BBVA Bancomer with IMF data

## Chile: Inflation and Credit Averages



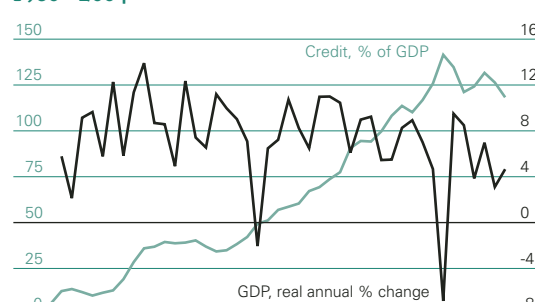
Source: BBVA Bancomer with IMF data

## Chile: Credit to the Private Sector & GDP 1960 - 2004



Source: BBVA Bancomer with IMF data

## Korea: Credit to the Private Sector & GDP 1960 - 2004



Source: BBVA Bancomer with IMF data

## Adverse macroeconomic environment and the weakening of credit in Mexico: 1971-1988

As of the moment in which the country's macroeconomic variables began to weaken, a situation that was reflected in rising inflation as of 1973, credit ceased to grow at high rates and its importance within the economy stagnated or diminished. The development of credit was affected even further as of the devaluation of the peso in 1976 in a context of economic crisis and uncertainty. In 1977 alone, gross investment contracted 7.6% and the balance of credit to the private sector decreased 39% in real terms due to the dollarization of savings and the shortage of resources to be channeled for financing.<sup>2</sup> Thus, from 1977 to 1988, credit to the private sector lost ground within the economy as a result of the prevailing adverse macroeconomic environment, in which GDP declined on several occasions and inflation continued a rising trend, leading to higher interest rates, making credit more expensive and inaccessible for those seeking loans. This should come as no surprise, since it is common to find data in economic literature on the adverse effect of inflation on financial development and economic growth.<sup>3</sup>

## The case of Chile: 1992-1997

The case of Chile exemplifies what happens when a banking crisis (1982-1983) results in credit to the private sector declining in importance as a percentage of GDP and, in addition, it takes several years to recover. In 1982 and 1983, Chilean GDP contracted 13.4% and 3.5% respectively and credit as a percentage of GDP declined from 84% in 1982 to 43% in 1991. This was due, among other factors, to the high inflation that occurred during that period and to the persistence of relatively high levels of non-performing loans that lasted until 1991.

From 1992 to 1997, credit to the private sector posted sustained growth at a real annual average rate of 12.3%, which was higher than the 8.3% increase in GDP registered in this period. This favorable sustained expansion of credit in Chile can be attributed to several factors. On the one hand, the high economic growth allowed for an increase in income for those using credit, and in addition, as of 1992, inflation constantly decreased. On the other hand, the delinquency index in this period declined, which enabled credit to continue flowing at high rates. This index remained low due to the effect of economic growth and the existence of factors that favored credit activity, such as the presence of an efficient credit bureau, an improved legal framework based on the bankruptcy law of 1982, and the use of effective mechanisms of persuasion for delinquent clients.<sup>4</sup> In other words, a favorable macroeconomic environment, coupled with appropriate institutional factors that reduce risks, resulted in credit growing 1.5 times more than GDP between 1992 and 1997.

## The expansion of credit in South Korea: 1961-1997

South Korea illustrates the important relationship that exists between sustained economic growth over long periods and the expansion of

2 José Córdoba and Guillermo Ortiz (1979). "Aspectos deflacionarios de la devaluación del peso mexicano de 1976", Banco de México.

3 Peter Rosseau and Paul Watchel (2000). "Inflation, Financial Development and Growth"; Vanderbilt University and New York University.

4 Rodrigo Fuentes and Carlos Maquerrira (1998). "Determinants of loan repayment in Chile", University of Chile.

credit to the private sector. In that country, credit to the private sector as a percentage of GDP rose from 12.5% to 125.8% from 1961 to 1997, a period that can be subdivided in three stages. The first ran from 1961 to 1973 and was characterized by a high annual average growth rate for GDP and low inflation. Credit as a percentage of GDP reached 39%. From 1974 to 1981, a period in which inflation was on the rise, the growth of credit was more moderate and its percentage share of GDP only increased up to 42%.

The third stage encompassed the 1982-1997 period, one year before the Asian crisis affected the country. In this period, average growth in GDP and prices was 8.1% and 5.2%, respectively. At the same time, the average rate of expansion of credit was higher than GDP growth (16.5% vs. 8.1%), which resulted in its percentage of GDP increasing from 57% to 126% in this period. In a favorable macroeconomic environment, marked by high growth and low inflation rates, credit once again grew at twice the rate of GDP.

### Growth potential for credit in Mexico

In this context, we can be optimistic regarding the growth potential of credit to the private sector in Mexico. Not only because its current percentage share of GDP is low in comparison with countries with similar levels of development and is at similar levels to those registered at the end of the 1950s, but because in the past few years, regulatory measures have been adopted that facilitate greater growth in financing (see chart). These measures improved and strengthened the legal framework for banking and credit activity, resulting in a greater financial strengthening of bank institutions.

The reactivation of credit to the private sector is already underway and its gradual evolution has allowed for the consolidation of its growth. As the previous examples show, the long lasting expansion of financing requires an adequate macroeconomic environment for credit activity, which will also be bolstered by the institutional factors that minimize the risk of granting loans, allow for their rapid recovery in the case of non-performing loans and, therefore, provide confidence for those granting the loans that their resources can be recovered.

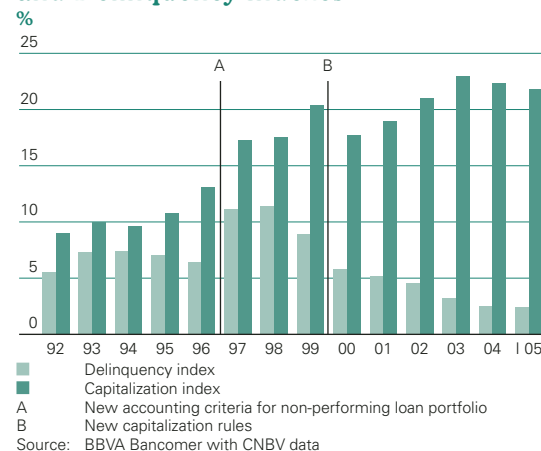
In the next few years, the combined effects of the different factors that favor financing will enable credit to the private sector in Mexico, from both bank as well as non-bank institutions, to grow at high rates for prolonged periods. The slow recovery of credit in the past few years in Mexico can be attributed to the time frame of normal adaptation by the economic agents to an environment of macroeconomic stability that allows them to make long term decisions and to a period in which the banking system was placed on a sound financial footing. The experiences of South Korea and Chile show how once credit in a country flows normally toward the different economic agents of the private sector, its rate of growth could be between 1.5 and 2 times the growth rate of GDP, at least until "normal" degrees of "*bancaización*" (access to banking services) are achieved. At the same time, it is not advisable to let down our guard. If the macroeconomic environment weakens and the institutional factors that support the expansion of credit activity become less efficient, financing will lose some of its dynamism and its growth could slow down.

### Mexico: Some Modifications to the Legal Framework for Banking and Credit Activity

- 1997:**
- New bank accounting criteria. Changes in the registry of the non-performing loan portfolio
- 1999:**
- Credit Institutions Law: allows foreign direct investment without any type of restriction
  - Institute for the Protection of Bank Savings (IPAB) Law: limits protection of bank savings
  - New Rules for Bank Capitalization Requirements: improves the quality of the assets that comprise the capitalization index
  - New rules for rating the loan portfolio by credit category
- 2000:**
- Business Bankruptcy Law: simplifies and speeds up bankruptcy procedures
  - Miscellaneous Regulation: establishes rules for the swift recovery of guarantees on non-performing loans
- 2003:**
- Modifications to the Miscellaneous Regulation: defines conditions and improves procedures

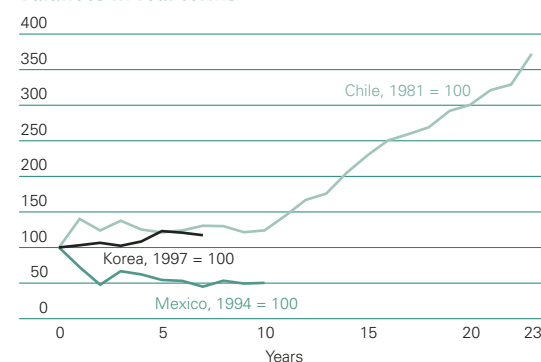
Source: BBVA Bancomer Economic Research Department

### Mexico: Commercial Bank Capitalization and Delinquency Indexes



### Evolution of Credit One Year Before the Bank Crisis

Balances in real terms





## Increase in Credit, Experiences of South Korea, Chile, and Mexico

	South Korea		Chile	Mexico <sup>1</sup>	Average <sup>2</sup>
	1961-1997	1982-1997	1992-1997	1959-1970	
GDP, average annual % change	8.0%	8.1%	8.3%	6.8%	7.7%
Inflation, average	10.3*	5.2	6%	2.9%	6.4%
Growth in credit / GDP growth (times)	2.3	2.0	1.5	2.1	2.0
PP increase in credit / GDP per year	3.1	4.7	1.8	1.2	2.0
Credit / GDP, %	From 13 to 127%	From 57 to 127%	From 43 to 64%	From 19 to 33%	
Number of years of credit expansion	37	16	6	12	

1 Stabilizing development

2 The average includes data for South Korea 1961-1997

\* Average from 1967 to 2003

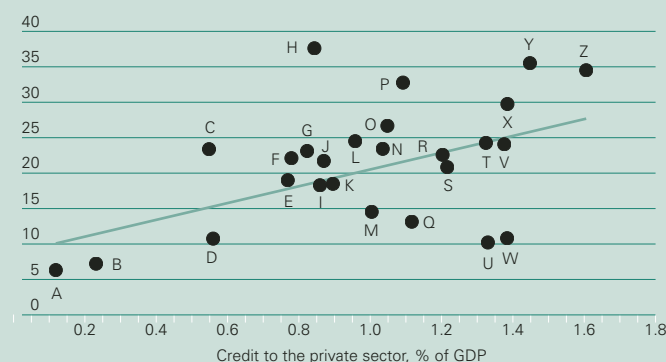
Source: International Monetary Fund, International Financial Statistics

## Economic Development and Bank Credit

In economic literature that analyzes the relation between the development of the financial system and economic growth, two points of view have been offered on how this process functions. One is based on the consideration that the development of the financial sector has an impact on the rhythm of expansion of the economy, because the mobilization and channeling of savings toward viable projects influences growth. The other conception holds that to the extent that the economy grows, the financial sector expands so as to meet the greater demand for its services. It is felt that this relationship is bidirectional, although in the case of the developing countries, the growth of the economy is the predominant factor.<sup>1</sup>

### GDP and Credit to the Private Sector • 2001

Per capita GDP, thousands of current dollars



A Mexico	J France	S Singapore
B Argentina	K Australia	T United Kingdom
C Finland	L Sweden	U South Korea
D Greece	M Spain	V Netherlands
E Italy	N Austria	W Portugal
F Belgium	O Ireland	X Denmark
G Canada	P Japan	Y United States
H Norway	Q New Zealand	Z Switzerland
I Israel	R Germany	

Source: World Bank and IMF

A study on the effect of the expansion of the financial sector on economic growth—which considers the ratio of bank credit to the private sector to GDP as the indicative variable of this process—estimates that if Mexico had the same average percentage of this indicator as registered for the OECD countries in 1996-1998 (71 %), the country's annual growth rate would be 0.6 percentage points higher than was, in fact, registered.<sup>2</sup> This additional dynamism in economic activity would flow from the greater availability of financial resources through which individuals and companies could increase their consumption and investment.

The graph illustrates the relationship that exists between a high ratio of credit to GDP and per capita income in countries with greater levels of development than Mexico. In 2001, the average of this ratio and per capita income was 102.4% and US\$21,900, respectively. That is, the average per capita income in those countries in which credit to the private sector is massively used in the economy was 3.5 times higher than in Mexico. This clearly indicates the benefit that the development of credit provides to the country in the medium and long terms. By supporting economic growth, such a process increases the population's living standards.

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- 1 César Calderón and Lin Liu (2002). "The Direction of Causality Between Financial Development and Economic Growth", Banco Central de Chile.
- 2 Ross Levine (2002). "More on Finance and Growth: More Finance, More Growth?", University of Minnesota.



## United States Indicators and Forecasts

	III'04	IV'04	I'05	II'05	III'05	IV'05	I'06	II'06	2004	2005	2006
<b>Economic Activity</b>											
GDP (real annual % change)	4.0	3.9	3.7	3.4	3.5	3.6	3.2	3.3	4.4	3.6	3.2
Personal consumption expenditures	3.6	3.8	3.6	3.9	3.5	3.3	3.2	3.3	3.8	3.6	3.2
Gross fixed investment	9.4	9.3	9.9	7.9	6.1	5.7	5.1	5.4	10.3	7.4	4.9
Non-residential	10.1	11.0	10.9	9.8	8.0	7.0	6.5	5.9	10.6	8.9	5.6
Structures	1.3	0.0	1.3	1.0	0.8	0.6	0.4	0.4	1.4	0.9	0.5
Equipment and software	12.9	14.5	13.9	10.9	8.5	7.1	6.4	7.1	13.6	10.0	6.4
Residential	8.0	6.5	8.1	5.3	2.9	3.4	3.0	4.4	9.7	4.9	3.6
Total exports	9.4	5.9	6.3	5.3	4.8	6.9	5.5	4.4	8.6	5.9	4.5
Total imports	11.1	9.8	9.5	8.6	5.4	4.3	4.9	4.4	9.9	6.9	4.6
Government consumption	1.8	1.6	1.0	1.3	1.3	1.3	2.2	2.2	1.9	1.2	2.2
<b>Contribution to Growth (pp)</b>											
Personal consumption expenditures	2.5	2.6	2.6	2.7	2.5	2.4	2.3	2.4	2.7	2.5	2.3
Private investment	1.9	1.9	1.9	1.3	1.2	1.0	0.7	0.9	2.1	1.3	0.8
Net exports	-0.7	-0.9	-0.8	-0.8	-0.3	0.0	-0.2	-0.3	-0.6	-0.5	-0.3
Government consumption	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.2	0.4
<b>Prices and Costs (annual % change, average)</b>											
CPI	2.7	3.3	3.0	3.0	3.2	3.0	3.0	2.9	2.7	3.0	2.9
Core	1.8	2.1	2.3	2.2	2.3	2.3	2.3	2.2	1.8	2.3	2.1
PCE	2.2	2.6	2.2	2.3	2.5	2.4	2.4	2.3	2.2	2.4	2.3
Core	1.5	1.6	1.6	1.7	1.8	1.8	1.7	1.7	1.5	1.7	1.6
GDP deflator	2.2	2.4	2.4	2.5	2.8	2.9	2.8	2.6	2.1	2.7	2.6
Productivity	2.7	3.2	2.8	2.4	2.3	2.2	2.2	2.1	3.2	2.3	2.1
Real compensation per hour	1.7	2.8	4.0	3.8	3.9	3.9	3.7	3.6	2.8	3.9	3.5
Unit labor cost	1.6	3.0	4.2	3.6	3.8	4.0	3.7	3.7	1.9	3.8	3.7
<b>Other Indicators</b>											
Industrial production (real annual % change)	4.6	4.3	3.7	3.2	3.2	3.1	3.5	3.2	4.1	3.3	3.0
Capacity utilization (%)	78.2	78.8	79.3	79.6	79.6	79.8	79.9	80.0	78.1	79.7	79.9
Light weight vehicle sales (millions, annualized)	17.1	17.2	16.4	16.9	16.8	16.8	16.7	16.8	16.8	16.7	16.8
Housing starts (thousands, annualized)	1,974	1,973	2,083	2,011	2,044	2,076	2,100	2,115	1,950	2,053	2,139
Nonfarm payrolls (thousands of new jobs, average)	161	183	182	189	163	154	158	162	5.4	172	163
Unemployment rate (average, %)	5.4	5.4	5.3	5.1	5.1	5.1	5.0	5.0	5.5	5.1	5.0
Personal savings rate	0.7	2.2	0.9	0.3	0.8	1.4	1.1	1.1	1.3	0.8	1.6
Trade balance (US\$ billions)	-167	-188	-195	-205	-184	-180	-192	-206	-617	-705	-710
Current account balance (US\$ billions)	-668	-753	-780	-819	-738	-721	-770	-825	-666	-765	-767
% of GDP	-5.7	-6.3	-6.4	-6.6	-5.9	-5.6	-6.0	-6.3	-5.7	-6.1	-5.8
Fiscal balance (US\$ billions, fiscal year)	—	—	—	—	—	—	—	—	-412	-396	-338
% of GDP	—	—	—	—	—	—	—	—	-3.6	-3.2	-2.6
Brent (dollars per barrel, average)	41.5	45.6	47.2	50.6	50.2	47.7	46.4	45.3	41.2	48.9	45.3
<b>Financial Markets (eop)</b>											
Fed Funds (%)	1.75	2.25	2.75	3.25	3.75	4.00	4.25	4.50	2.25	4.00	4.50
3-month Libor (%)	2.02	2.56	3.00	3.50	4.00	4.25	4.50	4.75	2.56	4.25	4.75
10-year Treasury Note (%)	4.19	4.24	4.50	4.00	4.30	4.50	4.70	4.90	4.24	4.50	5.20
Dollar/euro	1.24	1.35	1.32	1.23	1.23	1.23	1.22	1.21	1.35	1.23	1.21

eop      end of period  
CPI      Consumer price index  
PCE      Personal consumption expenditures index

## Mexico Indicators and Forecasts

	2000	2001	2002	2003	2004	2005*	2006*	I'05	II'05	III'05	IV'05
<b>Economic Activity</b>											
GDP (seasonally-adjusted series)											
Real annual % change	6.6	-0.2	0.8	1.4	4.4	<b>3.9</b>	<b>3.5</b>	3.8	<b>3.6</b>	<b>4.0</b>	<b>4.1</b>
Per inhabitant (US dollars)**	5,919	6,259	6,431	6,235	6,453	<b>7,050</b>	<b>6,837</b>	6,867	<b>6,950</b>	<b>7,133</b>	<b>7,248</b>
US\$ billions	581	622	649	639	676	<b>745</b>	<b>764</b>	708	<b>744</b>	<b>737</b>	<b>789</b>
<b>Inflation (eop, %)</b>											
Headline	9.0	4.4	5.7	4.0	5.2	<b>4.0</b>	<b>3.7</b>	4.4	<b>4.3</b>	<b>3.9</b>	<b>4.0</b>
Core	7.5	5.1	3.8	3.7	3.8	<b>3.5</b>	<b>3.5</b>	3.6	<b>3.4</b>	<b>3.4</b>	<b>3.5</b>
<b>Financial Markets</b>											
Interest rates (eop, %)											
Bank funding	—	—	—	6.1	8.8	<b>9.8</b>	<b>8.8</b>	9.5	9.8	<b>9.8</b>	<b>9.8</b>
28-day Cetes	17.6	6.8	7.0	6.0	8.6	<b>9.8</b>	<b>8.9</b>	9.6	9.6	<b>9.7</b>	<b>9.8</b>
28-day TIE	18.4	7.9	8.5	6.3	9.0	<b>10.2</b>	<b>9.4</b>	9.9	10.0	<b>10.1</b>	<b>10.2</b>
10-year Bond	—	10.3	10.1	8.3	9.7	<b>10.0</b>	<b>10.2</b>	10.5	9.6	<b>9.9</b>	<b>10.0</b>
Exchange rate											
Pesos per dollar, eop	9.6	9.1	10.3	11.2	11.3	<b>11.0</b>	<b>11.6</b>	11.3	10.8	<b>10.8</b>	<b>11.0</b>
<b>Public Finances</b>											
Fiscal balance (% of GDP)	-1.1	-0.7	-1.2	-0.6	-0.3	<b>-0.1</b>	<b>-0.2</b>	nd	<b>nd</b>	<b>nd</b>	<b>nd</b>
Financial Require. of the Public Sector (% GDP)	-3.3	-3.0	3.3	3.1	2.7	<b>2.1</b>	<b>1.5</b>	nd	<b>nd</b>	<b>nd</b>	<b>nd</b>
<b>External Sector***</b>											
Trade balance (US\$ billions)	-8.3	-9.6	-7.6	-5.8	-8.8	<b>-10.0</b>	<b>-12.0</b>	-10.2	<b>-10.4</b>	<b>-10.5</b>	<b>-10.0</b>
Current account (US\$ billions)	-18.6	-17.6	-13.8	-8.5	-7.4	<b>-11.4</b>	<b>-13.7</b>	-8.7	<b>-10.5</b>	<b>-11.7</b>	<b>-11.4</b>
Current account (% of GDP)	-3.2	-2.8	-2.1	-1.3	-1.1	<b>-1.5</b>	<b>-1.8</b>	-1.3	<b>-1.5</b>	<b>-1.6</b>	<b>-1.5</b>
Oil (Mexican mix, dollars per barrel, eop)	18.6	14.4	21.5	25.7	28.6	<b>36.7</b>	<b>34.5</b>	38.4	43.9	<b>38.6</b>	<b>36.7</b>
<b>Monetary Aggreg. &amp; Banking Act. (ann. % chge.)</b>											
Core bank deposits	-13.9	2.2	-5.5	7.5	6.3	<b>5.1</b>	<b>4.1</b>	3.1	<b>-1.2</b>	<b>3.5</b>	<b>5.1</b>
Commercial banks performing loans****	2.6	1.3	8.5	8.6	26.1	<b>16.9</b>	<b>14.4</b>	30.2	<b>26.8</b>	<b>24.5</b>	<b>16.9</b>
<b>Aggregate Demand (ann. % chge., seasonally-adjusted)</b>											
Total	10.4	-0.6	1.0	1.2	5.9	<b>5.7</b>	<b>5.4</b>	5.5	<b>5.8</b>	<b>5.7</b>	<b>5.8</b>
Domestic demand	8.5	0.6	0.8	0.7	4.1	<b>3.9</b>	<b>3.7</b>	4.9	<b>3.0</b>	<b>3.2</b>	<b>4.4</b>
Consumption	7.4	1.9	1.4	2.1	4.7	<b>5.8</b>	<b>5.6</b>	6.0	<b>5.9</b>	<b>5.6</b>	<b>5.6</b>
Private	8.2	2.5	1.6	2.3	4.7	<b>5.8</b>	<b>5.6</b>	6.7	<b>6.3</b>	<b>6.1</b>	<b>6.0</b>
Public	2.4	-2.0	-0.3	0.8	-1.2	<b>5.1</b>	<b>4.5</b>	-0.1	<b>2.3</b>	<b>1.8</b>	<b>2.3</b>
Investment	11.4	-5.6	-0.6	0.4	7.5	<b>5.1</b>	<b>5.1</b>	6.6	<b>4.6</b>	<b>4.6</b>	<b>4.5</b>
Private	9.0	-5.9	-4.1	-1.5	8.4	<b>5.5</b>	<b>4.5</b>	7.9	<b>4.9</b>	<b>4.6</b>	<b>4.8</b>
Public	25.2	-4.2	17.0	8.5	3.5	<b>5.7</b>	<b>4.7</b>	15.4	<b>2.5</b>	<b>1.8</b>	<b>3.3</b>
External demand	16.4	-3.8	1.6	2.7	11.5	<b>10.7</b>	<b>9.7</b>	8.0	<b>9.5</b>	<b>9.5</b>	<b>9.5</b>
<b>GDP by sectors (annual % change)</b>											
Agriculture	0.6	3.5	0.1	3.5	4.0	<b>1.5</b>	<b>2.0</b>	-1.5	<b>-1.1</b>	<b>5.0</b>	<b>3.5</b>
Industrial	6.1	-3.5	-0.1	-0.2	3.8	<b>2.8</b>	<b>2.7</b>	1.8	<b>2.9</b>	<b>3.4</b>	<b>3.3</b>
Mining	3.8	1.5	0.4	3.7	2.5	<b>1.9</b>	<b>2.0</b>	0.6	<b>2.4</b>	<b>2.0</b>	<b>2.5</b>
Manufactures	6.9	-3.8	-0.7	-1.3	3.8	<b>2.6</b>	<b>2.6</b>	2.1	<b>2.7</b>	<b>2.9</b>	<b>2.8</b>
Construction	4.2	-5.7	2.1	3.3	5.3	<b>4.9</b>	<b>4.2</b>	1.6	<b>5.1</b>	<b>6.5</b>	<b>6.4</b>
Electricity, gas and water	3.0	2.3	1.0	1.6	2.3	<b>1.1</b>	<b>1.3</b>	-0.3	<b>1.0</b>	<b>2.0</b>	<b>1.8</b>
Services	7.3	1.2	1.6	2.1	4.8	<b>4.5</b>	<b>4.2</b>	5.1	<b>4.5</b>	<b>4.5</b>	<b>3.9</b>
Retail, restaurants and hotels	12.2	-1.2	0.0	1.6	4.9	<b>4.2</b>	<b>4.0</b>	4.2	<b>4.3</b>	<b>4.1</b>	<b>4.0</b>
Transportation and communications	9.1	3.8	1.8	5.0	9.7	<b>8.3</b>	<b>8.0</b>	9.3	<b>8.5</b>	<b>8.0</b>	<b>7.4</b>
Financial, insurance and real-estate	5.5	4.5	4.2	3.9	4.6	<b>4.5</b>	<b>4.2</b>	5.1	<b>4.3</b>	<b>4.7</b>	<b>4.0</b>
Community and personal	2.9	-0.3	0.9	-0.6	1.7	<b>2.0</b>	<b>2.0</b>	2.0	<b>2.4</b>	<b>2.0</b>	<b>1.5</b>

eop end of period  
 \* Forecasts in **bold**  
 \*\* Seasonally-adjusted series for quarterly data  
 \*\*\* Accumulated, last 12 months  
 \*\*\*\* To the private sector  
 na not available

# Economic Research Department Presentations

Title	Institution - Client	Place and date
<b>Bogotá</b>		
El sector financiero colombiano	State University	Manizales, April '05
Situación económica colombiana	BBVA America	Bogota, April '05
Consideraciones macroeconómicas	Investments committee	Bogota, April '05
La ética de las multinacionales	University of Los Andes	Bogota, May '05
Evolución y perspectivas financieras	Breakfasts (Treasury clients)	Bogota, May '05
<b>Buenos Aires</b> <a href="http://www.bancofrances.com.ar">www.bancofrances.com.ar</a>		
El futuro del sistema financiero	Forum-executive information	Buenos Aires, April '05
Argentina: los grandes desafíos del 2005	Corporate Banking-Company Banking	Buenos Aires, April '05
El crédito como motor de crecimiento de la economía en Argentina	CMS-Credit Management Solutions	Buenos Aires, June '05
<b>Caracas</b> <a href="http://www.provincial.com">www.provincial.com</a>		
Perspectivas macroeconómicas 2005-2006	FUNDES	Caracas, April '05
El sector farmacéutico en el actual entorno macroeconómico	Global Banking	Caracas, April '05
Perspectivas macroeconómicas	Caracas Global Banking	Caracas, May '05
Persp. macro, sector petrolero y su impacto en el Estado Zulia	Clients Reunion	Maracaibo, May '05
Persp. macroeconómicas y su impacto en el sector de autopartes	Capmil	Barquisimeto, May '05
<b>Lima</b> <a href="http://www.bbvaibancocontinental.com">www.bbvaibancocontinental.com</a>		
Perspectivas económicas: 2005-2006	Main Clients	Trujillo, April '05
Las claves del escenario macroeconómico y financiero	Spanish Chamber of Commerce	Lima, April '05
Las claves del escenario macroeconómico y financiero	Global Banking	Lima, April '05
Perú: economic performance	MBA University of Baltimore	Lima, April '05
Situación económica	Moody's	Lima, April '05
Perú: economic performance	MBA Desales University	Lima, May '05
Perspectivas económicas: 2005-2006	Universidad Agraria La Molina	Lima, June '05
<b>Madrid</b> <a href="http://www.bbva.com">www.bbva.com</a>		
Presentación del nuevo Situación Portugal	Clients and Press	June '05
Exchange rate strategies in Latin America	IDB	Washington, May '05
El entorno exterior de la economía catalana	Barcelona	May '05
Blurred recovery?: Argentina after the crisis	IIF	London, April '05
Are the stars lined up?: keys to growth in Latin America	Corporate Clients	Hong Kong, April '05
Housing markets	ISB	Basilea, April '05
Globalization and Latin America: joining Asia's bandwagon	IDB	Okinawa, April '05
Europe: just a modest cyclical recovery	IIF	Madrid, April '05
<b>México</b> <a href="http://www.bancomer.com">www.bancomer.com</a>		
Escenario económico y financiero en México	Regional Councils	DF, Pue., Morelia, Agu., May'05
Mexico: economic and financial outlook	Corporate and Company Clients	Mexico City, May '05
Efectos potenciales de la revaluación del yuan en México	Markets, Strategy and Funds Committee	Mexico City, May '05
Escenario económico y financiero en México 2005-2007	National Mortgage Planning Journals	Mexico City, May '05
Escenario económico y financiero en México	ANTAD National Reunion	Mexico City, June '05
<b>BBVA USA</b> <a href="http://www.bancomer.com">www.bancomer.com</a>		
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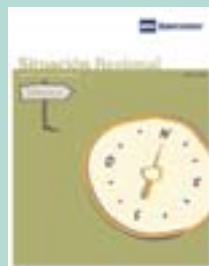
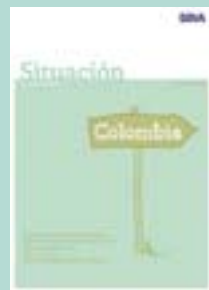
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**Other publications**



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