Situación

Economic Research Department

Third Quarter 2006

México

2006: a good growth year
Inflation: slight impact due to raw material prices
Will the monetary "pause" be maintained?
Will the peso and the markets remain strong in 4Q06?
How would progress in reforms affect interest rates?
Main risk: adjustment in the U.S, a low probability

Mexico: Editorial

The Mexican economy is currently marked by a favorable environment. The boost in activity comes from external demand, mainly in the automotive sector, which has allowed the country to gain a growing market share of U.S. imports in the past few months. This has been accompanied by the considerable strength of domestic demand, mainly in services. Although the high growth rates seen in the first half of 2006 will taper off in the second half, Mexico is on the road to 4.3% growth for the year as a whole. Moreover, this occurs with an inflation rate that, despite some tensions in the services sector and from imports, is very close to the Banco de Mexico's central target of 3%. In conclusion, the outlook is favorable, with growth above the potential and inflation under control.

This situation has allowed the Banco de México to maintain its position regarding monetary policy at 7%, despite the recent rises in Federal Fund rates in the United States, which have reduced the spread in short-term rates between the two countries by 175 bp. The central banks of the different countries around the world are restricting their monetary policy, which has affected the financial markets in several emerging economies, causing depreciations of their currencies, interest rates rises, and increased country risk. Mexico has not been exempt from this process—and as we will discuss in this issue—there is clear evidence that in the months prior to the elections, the expectation of reduced international liquidity has been the main determining factor behind the volatility in the financial markets.

There is no doubt that healthy public accounts, a good position abroad, and the strength of the institutions have helped offset this reduced liquidity. Countries' fundamentals carry considerable weight in attracting investments and avoiding adverse financial adjustments, and this will be the case even more so in the future. However, we are nearing a point at which, if the inflationary pressures in the United States materialize—which will force the Federal Reserve to continue to boost its reference rate significantly—the Banco de México could see the need to tighten the country's monetary policy further. We are using the conditional tense "could", not only because this scenario for the United States involves a low probability of risk, but also because there is room for reforms in Mexico that would allow for a further reduction in the spread with U.S. rates without producing upheavals in the financial markets.

As we have always argued in this publication, there are pending reforms that could provide greater stability to the economy and moderate the pressures that are generated on an international level. In particular, this issue includes an article in which through the use of a "small macro model", a simulation is made of the impact of measures that would increase supply in the economy. The results leave little room for doubt that an increase in productivity would create an increase in supply, which would spur the growth of the economy without generating inflationary pressures and, along with it, nominal interest rates would tend to be lower.

It is indispensable to promote the pending reforms. If an environment is generated in which investment increases its weight in GDP to up to 25%, job creation could reach the levels that Mexico needs in order to absorb the entry of new workers in the labor market.

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Real Exports
Annual % change
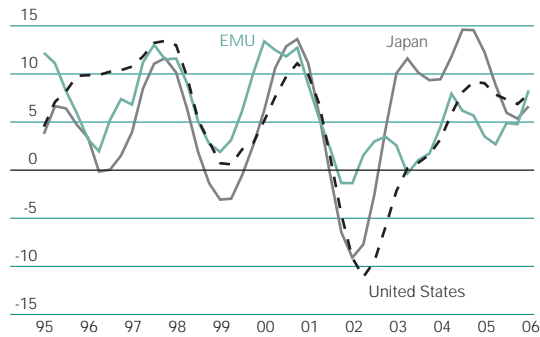
Source: BBVA with Bloomberg data

Global growth continues, but so do the risks

The first half of 2006 ended with some global economic growth levels that have continued to surpass the most optimistic forecasts. Among the developed countries, the U.S. registered an annual average GDP growth rate of 3.5% during the last year, while both Japan and the Euro zone have shown signs that point to strong growth rates. The main emerging economies have remained at levels of high growth.

This international environment continues to be characterized by moderate inflation, despite not only the economic expansion course itself, but also the price increases in raw materials. However, there is a growing concern regarding the possibility that inflationary pressures derived from the higher prices of inputs may eventually be transmitted to the rest of the economy. This has led to greater uncertainty regarding the monetary policy, particularly in the U.S., although we are approaching the conclusion of the upward cycle; and in the area of the euro and Japan, clearly already en route to higher rates. When comparing the interest rates discounted in May with current ones, it is clear that there has been an increase; and, consequently, lower global liquidity is a scenario with greater probabilities than some months ago. This has translated into a situation where volatility abandons minimums and the appetite for risk decreases.

The emerging markets are where this lower liquidity seems to be having a greater impact. Financial investment has shown more aversion to risk since May, which has translated into a significant drop in the stock markets of the main emerging markets. Markets that are more vulnerable in their fundamentals (i.e. Hungary, South Africa, Turkey), or that had been revalued to a greater extent in previous quarters, have supported a greater adjustment, through the depreciation of their currency or of a rise in their risk premiums.

In any case, the forecasts are indicating that relatively generalized growth is going to continue. There is also greater concern regarding the imbalances characterizing this expansion cycle. In fact and, although in the short term the global economy could coexist with this situation (a high current account deficit in the U.S., oil prices), the consensus regarding the need of an adjustment in the medium term is increasingly higher. We must take note of statements by the IMF calling for a modification of the exchange rates as a tool to balance the capital flows of the global economy. Despite everything and, given the adjustment in some financial variables, optimism is prevailing and the geographical distribution of global growth makes the strength observed up to now less vulnerable

World activity: more major players

It has already been several quarters ago that diverse and multiple risk factors with respect to global growth have been considered. But despite these, the economy continues to experience marked strength that includes several geographic regions and which, in turn, has been the one with the highest intensity since the end of the decade of the sixties.

Industrial Confidence
Standardized indices
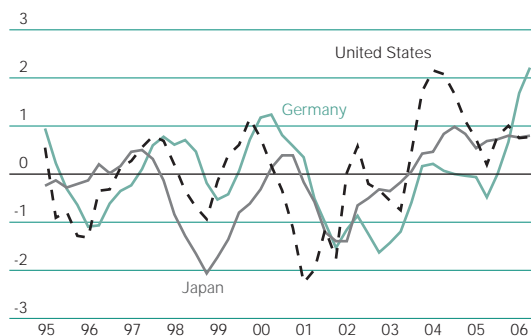
Source: BBVA with IFO, ISM and Tankan data

Despite the fact that some economic indicators in the U.S. have recently pointed toward moderation in activity, the growth rate observed and forecast continues to be positive. The industrial sector and its investment levels continue to be favored by business earnings, although the upward trend in interest rates and a possible increase in nominal wages, which have risen less in this expansive cycle, could moderate this trend. On the other hand, consumption tends toward certain stability. Despite the performance of energy prices or real estate assets, the consumer confidence indices are favored by the cumulative financial wealth on the stock markets and by low unemployment levels. These factors could offset the slowdown of the real-estate sector, from which a slight moderation in private consumption could follow in the second half of 2006. In our central scenario, we expect U.S. GDP growth of 3.3% in 2006 and slightly lower next year.

In the EMU, the first signs of a recovery in family spending have finally appeared. In Germany, one of the economies lagging the most in the current expansion, indicators continue to be positive and there is a more generalized optimism. The marked strength observed in the first quarter of 2006 will continue in the second. However, some of the recent indicators of industrial confidence have regressed slightly. This would be reflecting a divergence between the expectations of analysts (more pessimistic) and those of businessmen (more optimistic). Lastly, Japan continues on its course toward average growth of 3%. At the end of the first quarter of this year, the output gap of the Japanese economy was situated on positive territory for the first time in more than eight years. Expectations continue to be optimistic and sustained throughout 2006 and 2007.
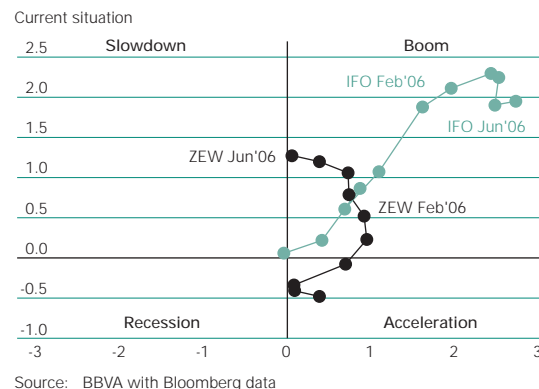
This new world equilibrium, where domestic demand is recovering in Europe and Japan, allows less dependence on economic growth in the U.S. and China and is seen as a factor that could help in the gradual adjustment of imbalances. This favorable international environment will continue to boost support for world trade and for the exporting industrial sectors.
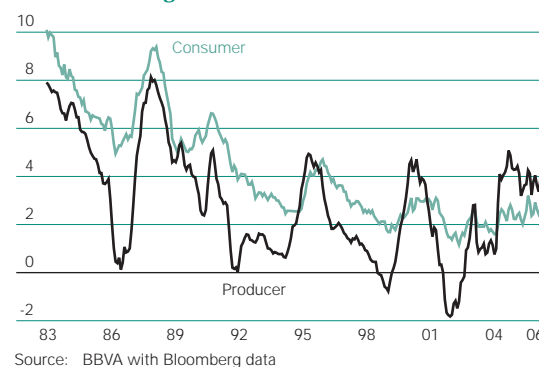
Monetary policy at the forefront

During the first quarter of 2006, the U.S. continued its upward cycle that began in June 2004 and the question was: "Has this cycle already ended? The answer seemed clear; the cycle was about to end. However, following the Federal Reserve meeting of May 10, during which a pause in interest rate increases was not confirmed; and following the bullish statements by the monetary authorities, the markets began to discount greater increases in interest rates, pointing toward 5.50%. Within this context, the Fed is debating between two possibilities. Either to continue the upward course, given the concern over core inflation, or, in contrast, estimate that the upward cycle has come to its end and make a pause on rate increases so as to analyze the effects of its monetary policy strategy and have more data available regarding the effect of the cumulative rise in energy prices, inflation and consumption.

In any case, even if the upward cycle continues in the U.S., and taking into account that the EMU would follow this same course throughout
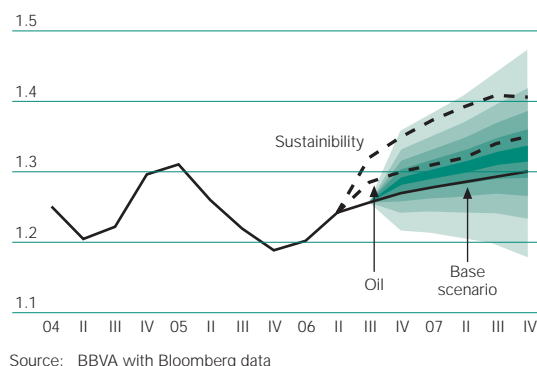
Activity Phases as Per Indicators

Current situation

Source: BBVA with Bloomberg data

OECD: Inflation
Annual % change

Source: BBVA with Bloomberg data

Euro - Dollar

Source: BBVA with Bloomberg data

U.S.: 10-Year Interest Rates
%

Source: BBVA with Federal Reserve data

2006, interest rates would move within a neutral rate range. On the other hand, Japan, with its good results in activity and prices, would also be on the verge of starting its upward cycle and abandon its relaxed monetary policy. For the time being, after abandoning its policy of extraordinary liquidity, the reference rate has already risen for the first time in six years from 0% to 0.25%.

In the U.S., there are signs pointing toward the acceleration of core inflation, which would remain high during the second half of this year (although still within the range of the Fed's forecast, which has been high for the whole of 2006). This, together with the potential rise in short-term inflationary expectations, a low unemployment rate and high capacity utilization are important risks that the monetary authority will have to consider. This, together with the moderation in the activity growth rate, assumes a more detailed attention of the current situation so as to determine the course that monetary policy will take, although what is relevant are the forecasts for inflation and growth in the medium term.

The central forecast is that, given stable growth and relatively controlled inflation, the official rates in the U.S. will remain at 5.25% in 2006 and 2007. Meanwhile, the EMU will end this year at 3.50% and next year at 4.0%, given the improvement in growth expectations and the existence of inflationary pressures. With this base scenario and in the assumption that the upward cycle in the U.S. has ended, the ten-year rates would fluctuate within a range of 5.1%-5.25%, although maintaining a bias upward should situational surprises in growth or inflation emerge. The forecast for the base scenario for the euro zone leaves long-term rates between 4.2% and 4.3%. This performance in interest rates will no longer favor the dollar as it did some quarters ago, which together with the growing consensus on the need for a greater depreciation of the U.S. currency, takes our forecast to a range of 1.25-1.30 per euro.

The risks give an upward bias to short-term rates

Within this economic framework, what are the main risks? One of the most important is a direct consequence of the relative uncertainty of the U.S. Federal Reserve policy. We cannot eliminate the possibility of the Fed showing a greater rallying attitude for the sake of not only containing inflationary tensions but also of convincing the markets of its determination regarding monetary policy. This context tends to favor a slight "over-restriction", which will raise reference interest rates above the levels the market is currently discounting. With these considerations, should this scenario materialize, we would hope that the rise in interest rates would increase the inflows of foreign investors in U.S. public debt, guided by the "refuge effect", which reduce the volume of financial flows that the emerging economies have received until very recently. The inflows into the U.S. fixed-income market would not prevent a depreciation of the dollar or a limited rise in the long-term rates in that country. Now, in this scenario, part of the rise in the official rates would revert in 2007.

The second risk scenario has, as the triggering factor, the generalized conviction regarding the non-viability of the U.S. deficit. This financial shock would bring with it considerable rises in U. S. interest rates,
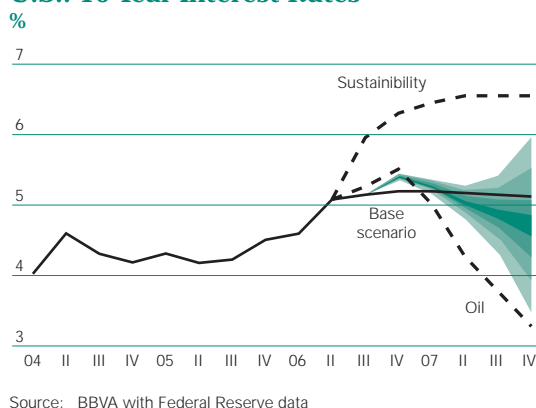
a depreciation of the dollar, drops in stock market prices and a later drop in GDP. In Europe, the appreciation of the euro would limit interest rate increases.

The final risk abandons the financial aspects to concentrate on the real economy, in particular on the continued high levels of oil prices. The base scenario considers an average price per barrel for the Brent of US$61.4 per barrel in 2006 and of US$56.7 in 2007. In an alternative scenario, oil would reach US$82.5 in 2006 and US$91.6 in 2007. Also, there would be a considerable drop in the main stock market indices, of 10% in 2006 and 20% in 2007. Interest rates would experience an increase somewhat higher than that of our base scenario in 2006, to drop substantially in 2007.

Even so, inflationary pressures as well as stability in global growth depict a horizon in which interest rates show a slight upward trend during 2006. In 2007, the bias would be downward both in the U.S. and in the euro zone. For its part, the dollar shows a clearly depreciating bias, given the ample current deficit in the U.S. and the distancing of the U.S. advantage in the interest rates.

BBVA; Oil Price Scenarios
US dollars per barrel
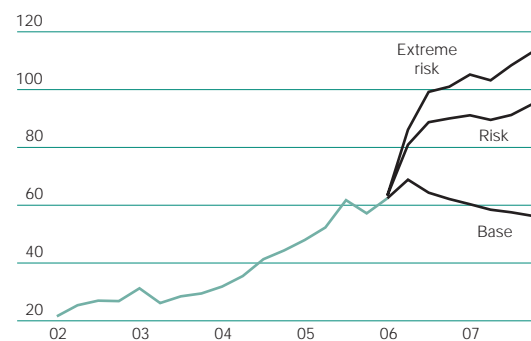
Source: BBVA with Bloomberg data

After a Strong Appetite, Some Caution

2006 began with an appetite and is now neutral

Net capital inflows in the emerging markets have been basically shored up by two very important factors: a strong appetite for risk on the part of investors—accompanied by low volatility in the capital markets—and abundant international liquidity. In 2005 and through May 2006, volatility was maintained at minimum levels and the appetite for risk at maximum levels. This supported the rise in the price of assets and strong capital inflows. In June, investors' appetite began to correct, but it has done it going toward an area of neutrality, not of aversion. In addition, in the case of the appetite for risk, it could be argued that it was also backed by a clear strategy of a search for yields on the part of investors.

Volatility: MSCI of Emerging Markets
Annualized volatility

Source: BBVA with Capital Flows data

Should volatility be of concern?

On one hand, based on the startup levels, increased volatility should not generate excessive concern. In May 2006, after the Federal Reserve meeting during which the rising cycle of interest rates was not finalized, volatility rallied to levels not seen since May 2004. Later, it corrected downward. In fact the markets were expecting a moderate rebound in volatility, although it is true that the abrupt performance took investors by surprise. So much so that, in May, there was speculation as to the start of a financial crisis or about volatility being caused by the Hedge Funds operation. The truth is that there were no important changes at a macroeconomic level. Therefore, everything seems to indicate that the most reasonable explanation of what occurred in May is that, after a long period of bonanza, investors judged that "certain" emerging markets could be over-valued and decided to take their profits. Expectations of higher interest rates supported that decision.

In the last month and a half, market performance has confirmed the probability of this explanation. Volatility has corrected to a large extent, given that part of the uncertainty that existed on the market dropped with the rise in interest rates by the Federal Reserve on June 30 and, particularly, by a communication that seemed to discard extreme scenarios of rises in interest rates. Jointly, we have a patent differentiation by the investors when purchasing assets, in which countries with weaker fundamentals are penalized. Markets such as Mexico or Brazil were not "punished", while others, such as Turkey, have been penalized. On the other hand, investors could assimilate the negative effects that could be produced on the markets, in view of the current situation. The latter is determined to a large extent by the higher interest rates in developed countries and the strong geopolitical tensions that are being produced in the Middle East.

Latin America: Aversion Index
Dollars
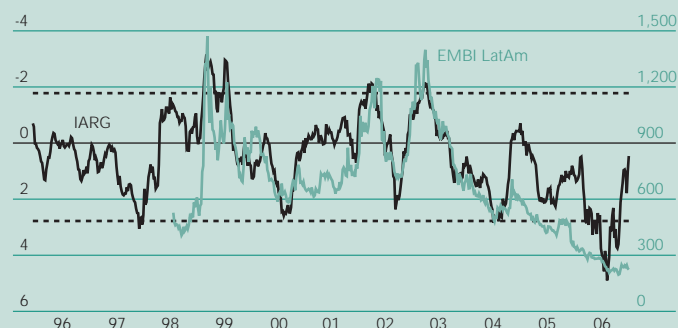
Note: Aversion to risk in each period is calculated as the slope of the transversal regression between the returns in excess and volatility
Source: BBVA with Capital Flows data

Undoubtedly, these conflicts could trigger a higher rise in the prices of raw materials, something that could produce inflationary pressures and, ultimately, higher interest rates. For the emerging markets, a scenario of higher interest rates, volatility and a growing aversion to risk would be less comfortable.

In conclusion, there should be caution

The effects of a higher level of volatility, together with the significant risk of higher global interest rates (inflation), would have a negative impact on investors' appetite for risk. In that respect, the valuation of emerging assets would be impaired and the risk premiums would rise. Everything indicates that investors are more selective. Because of this, perhaps this is the time to be prudent as well as bold, to approach the reforms (macro and micro) that could isolate the economies from such negative effects.

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Strong Economic Recovery in the First Half of 2006, Moderation for the Second

The first half of 2006 surprised favorably due to the rate of economic activity: domestic demand and GDP maintained their recovery that had started in the second quarter and that had been begun again in the last two quarters of 2005. In the first half of 2006, industrial growth recovered in such a way that, together with the services sector, the two were the drivers for growth.

For the second half of 2006 and probably for 2007, we will be facing a less promising panorama, framed within the context of a moderate slowdown in the U.S. The magnitude of the impact on the Mexican economy and the strength of domestic demand will be key factors for strong growth in the coming months.

Strong supply and demand in the first half

In terms of production, in the early months of 2006, a generalized recovery was seen in the different sectors of activity, services and industry being the driving forces for growth. In industrial production, all of their components (mining, manufacturing, construction and electricity) grew at higher rates than the average of the two previous years.

Nevertheless, it should be pointed out that the stimulus in the manufacturing sector has been centered on certain branches of production. The automobile sector, with a leading role in the industrial slowdown in the first half of 2005, headed the recovery in manufacturing, in particular in its exporting segment: in the first six months, auto exports grew 65% compared to the same period of 2005. We should recall that this sector represents a little over 20% of the value of industrial production and almost 16% of manufacturing exports.

This favorable performance of industry has been reflected in increases in investment. Of note is the imported machinery and equipment item, which contributes 38% of investment and which, in the first four months of 2006, has grown an annual 17.5%. In the first quarter, growth in domestic demand was higher than that of GDP (7.8% vs. 4.2%, respectively in seasonally-adjusted series). Both consumption and investment had higher than average growth since the start of the recovery in 2002.

In terms of domestic demand in services, that related to transportation and communications, as well as financial services is significant. This dynamic reflects factors such as macro stability, low interest rates, credit expansion and new products supply. It should be mentioned that an additional stimulus factor for growth in the first half of the year stems from oil surpluses, the amount of which contributed to increased public sector expenditures. (See Article: The Sweet and Sour Aspects of Oil for Mexico).

Where will moderation come from?

The favorable performance of the manufacturing industry benefited from foreign demand and, in particular, from manufacturing strength in the U.S. The recovery has reached the point where this trend has

Gross Domestic Product
Annual % change, seasonally-adjusted
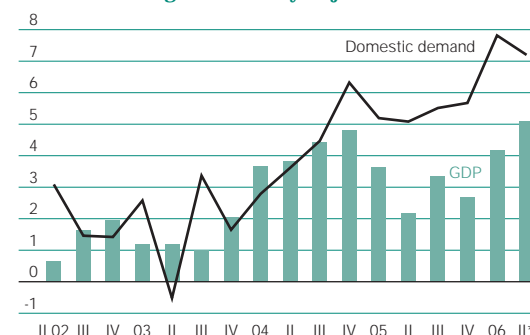
Source: BBVA Bancomer with INEGI data

Exports and Sales
Annual % change
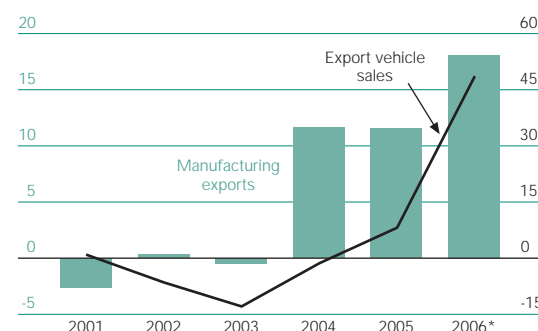
*   For manufacturing exports, January - May; for vehicles sales, January - April
Source: BBVA Bancomer with INEGI data

GDP
Annual % change in GDP, contribution to growth rest of variables
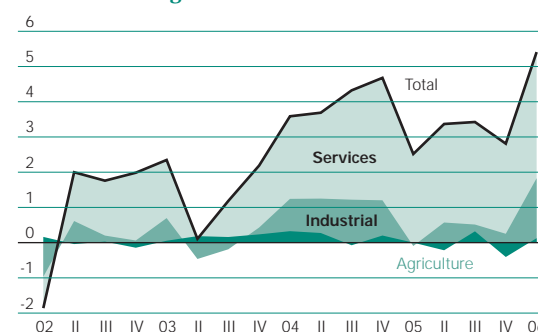
Source: BBVA Bancomer with INEGI data

Industrial Production
Annual % Change, seasonally-adjusted

Source: BBVA Bancomer with INEGI data and U.S. Department of Commerce

Main Export Products
Change and share

	Annual % chg		Share[1]	
	2005	2006*	2005	2006**
Mineral fuels	37.0	47.9	9.0	10.3
Land vehicles	12.4	38.8	13.4	15.3
Electric machinery	12.2	18.5	19.2	20.6
Mechanical apparatuses	-0.2	11.3	12.1	12.4
Medical instruments	24.8	24.9	13.6	14.2

1   Share of Mexican products in the United States
*   January - May
**   January - March
Source: BBVA Bancomer with INEGI data and U.S. Dept. of Commerce

Consumption and Services
Annual % change, seasonally-adjusted

|	1Q05	2Q05	3Q05	4Q05	1Q06
Total private consumption	5.61	4.79	5.83	5.33	6.50
Commerce, rest. & hotels	5.99	1.74	3.07	1.68	3.16
Financial services	5.11	5.47	6.24	6.21	5.63
Transportation & storage	7.83	7.29	6.97	6.26	8.74
Community & pers. servs.	2.43	1.45	2.41	2.24	2.50

Source: BBVA Bancomer with INEGI data

translated into a greater share of Mexican goods in U.S. imports. However, in view of the imminent context of U.S. economic moderation, it is advisable to be aware of possible effects in the real Mexican sector.

The synchronization between the Mexican manufacturing industry and its U.S. counterpart rose in the early months of this year; the greater part of this synchronization is due to the extraordinary performance of the automobile export industry. The improved exporting strength has permeated products related with the automobile industry, in this case those of machinery and electrical devices, fuels, mechanical apparatuses and other products such as medical instruments. The concentration of exports is evident: these five groups represent 72% of total exports[1], and have shown a recovery of the market share in the U.S. compared to its main competitors, mainly Asian.

Given the concentration of exports in a reduced number of products, the U.S. moderation could have a marked effect on total exports: in the first months of the year, the five main export[2] products contributed close to ten percentage points of export growth (of a total of 22.8%), of which 2.7 are for the export of vehicles.[3]

Likewise, it is advisable to consider that the improvement in exports is not generalized: in 25% of the products, less was exported than in the early months of 2006, compared to the previous year. These products are concentrated in sectors such as textiles, footwear and chemical and pharmaceutical products, industries that have most appreciably felt the effects of the entry of Asian competitors and would probably be among the most affected by the slowdown in the U.S.

Is domestic demand ready?

Consumption of goods and services in the first part of the year has shown high growth rates, although within this item imbalances persist: growth has been centered on services and, to a lower extent, on merchandise. While durable goods (9% of purchases of goods inside the country) have grown at annual rates of 14 %, non-durables (42% of the purchases) have grown more moderately since 2003 and have been a key factor in the recovery of consumption.

The consolidation of consumption and investment will be decisive in mitigating the impact of the U.S. slowdown. Although both components of domestic demand have shown comparable strength with previous cycles, it is necessary to pay close attention to factors that could limit domestic demand, such as employment, remittances, and to a lower extent, the possible saturation of the credit market for consumer goods.

Key factors for domestic demand: employment, credit and remittances

In recent years, employment has been an important element for growth recovery: a record number of jobs[4] have been created and

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1   The total classification includes 97 groups of products.
2   These are: mineral fuels, land vehicles, electric machinery, mechanical apparatuses and medical instruments.
3   Variations in U.S. dollars.
4   In the last 12 months, close to 830,000 jobs were generated.

the unemployment rates have dropped consistently since 2005. However, compared to previous cycles, indicators such as affiliated workers in social security and total wages have shown lags in the present cycle.

As to the breakdown of employment, there is also a lag: despite the fact that employment has grown considerably compared to 2005, it is not at the levels of permanent employment generation seen in 2000.[5] Since the middle of last year, the creation of jobs has been based on part-time workers: currently, 42% of the jobs are permanent, while in 2000 they were 75%. Employers' preference for part-time workers could be due to factors related to rigidities in the labor market, the importance of the informal economy and greater caution in employing personnel, in view of future growth expectations.

On the other hand, and notwithstanding the extraordinary flow of bank loans to homes, possible market saturation could limit the expansion rate in the following months. Finally, the entry of remittances, which has tripled compared to its level at the beginning of this administration, might also feel the effects of the impact of the slowdown in the U.S.

Outlook

Leading indicators are endorsing the expectation of a good second quarter in activity; such is the case of construction, retail establishments and foreign trade. In the case of construction, we expect that in the second quarter of the year the effect of the conclusion of public works will be reflected, and, in the rest of the year, the materialization of housing construction programs.

In foreign trade, imports of intermediate goods have grown in the neighborhood of two digits, to a large extent boosted by in-bond manufacturing exports. Timely figures of importers of capital goods and consumer goods are pointing to sustained growth. These trends, together with greater financial stability following the elections, indicate higher GDP growth in the second quarter than in the first and around 5% in an original series and 4.2% in a seasonally-adjusted series.

For the second half of the year, activity will be framed within a context of economic moderation, in which the risk factors will be mainly related to U.S. strength and to oil prices. On the domestic side, factors that will moderate the economy are related with lower expenditure allotments to public works and lower oil surpluses. The effect that the rise in the prices of metals for industrial use (mainly zinc, copper, silver and aluminum) will have on industries, such as the automobile and the construction, which will be the most affected, will have to be considered. Jointly, it is estimated that annual GDP growth in the first half will be 4.6% and 4.3% in the whole year (in seasonally-adjusted series).

Total Social Security Affiliates Index
Index = 100 in recovery quarter
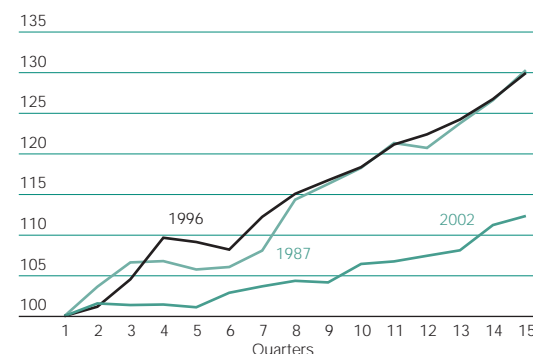
Source: BBVA Bancomer with IMSS data

Social Security Affiliated Workers
Annual % change, last 12 months, bi-weekly data
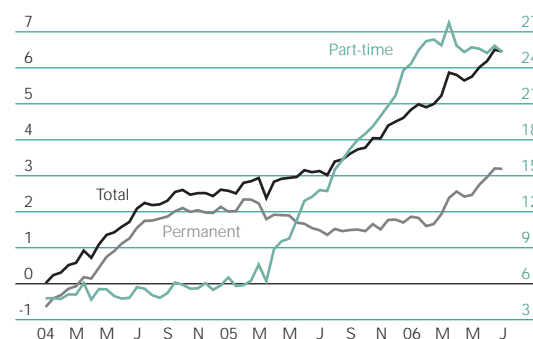
Source: BBVA Bancomer with IMSS data

Macroeconomic Chart of Mexico
Annual % change, seasonally-adjusted series

	2004	2005	2006e	2007e
GDP	**4.2**	**3.0**	**4.3**	**3.4**
Total demand	6.2	4.6	6.9	4.6
Domestic	4.3	5.4	6.6	4.7
Consumption	3.6	4.8	5.9	4.3
Private	4.1	5.4	5.9	4.6
Public	-0.4	0.3	5.7	1.4
Investment	7.5	7.6	9.6	6.0
Private	8.8	9.6	9.7	5.7
Public	2.5	-0.4	9.6	7.4
Foreign	11.7	6.8	11.5	8.2
Goods & servs. imports	11.6	8.6	13.1	7.5

e   estimated
Source: BBVA Bancomer with INEGI data

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5   Through July 2000, 560,000 formal jobs had been created; 349,000 in 2006.

Demographic Change: an Opportunity to Boost Growth

Demographic changes are slow, but inevitable. Although modifications to the environment or public policies (birth rate incentives, health, immigration measures, etc.) can alter a country's demographic structure, these changes typically have an impact in the medium and long term more than in the short term. Thus, demographics impose some conditions that, in the short term, are given. Since the population's growth rate, its gender and age structure, and even its formation are established for the next few years and are key elements that determine economic variables as important as the medium-term growth rate or the savings and investment rates in the economy, studying such phenomena is indispensable for understanding economic possibilities. An especially favorable characteristic of Mexico's demographic structure is the relation between the economically dependent population and the working age population, that is, the dependency ratio.[1]
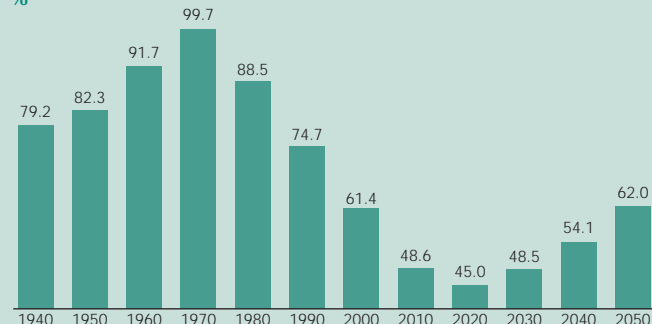
Dependency Ratio
%

1940	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050
79.2	82.3	91.7	99.7	88.5	74.7	61.4	48.6	45.0	48.5	54.1	62.0

Source: BBVA Bancomer with census data, INEGI

The tendency to reduce birth and mortality rates modifies the population pyramid, gradually increasing the width of the peak. This trend is inexorable but gradual and passes through a period in which the dependency ratio is low. In Mexico, this ratio reached its maximum level in 1970, when for each economically dependent person there was one at an independent age. The minimum level, according to current projections, will be registered around 2020.

The lower the ratio is, the greater is the possibility of increasing the economy's savings and consumption capacity. It is important to point out that from 2006 to 2020, the dependency ratio will continue decreasing and it will reach its lowest point in recorded and comparative demographic history; that is, since 1895. It will represent

1   Dependency ratio = [(Population 0-14 years + Population 65 and older) / Population 15-64 years of age]*100.

a stage marked by the opportunity to increase growth, in which it will be indispensable to boost investment and productively use the available human resources.

Economically Active Population
Net average annual change, thousands

2005-10	2010-15	2015-20	2020-25	2025-30
984.9	885.2	711.7	534.9	419.7
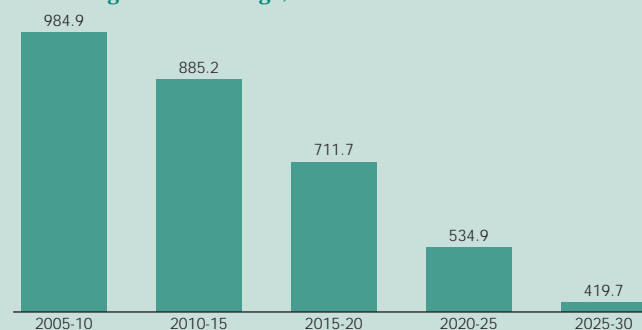
Source: BBVA Bancomer with Conapo data

It is estimated that in the next five years, Mexico's economically active population will increase on average by almost one million people annually, a figure that will diminish gradually over the following 30 or 40 years. The incorporation of this population into the formal markets is a challenge, but also an opportunity and an attractive element for the growth of the economy, both on the side of supply as well as demand.

Economically Active Population in Mexico
1st quarter 2006

	Millions	% structure
Total population	106.3	100.0
Population 14 years of age and older	75.5	71.0 [1]
Economically active population	43.9	58.2 [2]
Employed EAP	42.4	96.5 [3]
Companies and businesses	21.2	50.1 [4]
Companies and corporations	9.6	22.7 [4]
Not established in companies	11.6	27.4 [4]
Institutions	6.0	14.1 [4]
Private	0.8	2.0 [4]
Public	5.1	12.2 [4]
Household sector	14.8	35.0 [4]
Informal	11.8	27.8 [4]
Paid domestic work	1.7	4.1 [4]
Subsistence agriculture	1.3	3.1 [4]
Unemployed economically active population	1.5	3.5 [3]
Non-economically active population	31.6	41.8 [2]

1	Percentage of total
2	Percentage of the population 15-64 years of age
3	Percentage of the economically active population
4	Percentage of employed EAP

Source: BBVA Bancomer with ENOE, INEGI data

To increase production, it is necessary to improve the workplace conditions of an important part of the country's current workers, either because they are employed

in precarious jobs, in the informal economy, etc. According to the National Statistics Institute (INEGI) Job and Employment Survey (ENOE), in the first quarter of 2006, the economically active population[2] was comprised of 43.9 million workers, with 1.5 million unemployed and almost five million who said they were available to work, but were not seeking a job because they felt they would not find one. Based on this same source, it is estimated that there are close to 12 million people employed in the informal economy. The need and advisability of better employing human resources is evident.

A first approximation in considering the relation between growth, employment, and investment can be found in the external and internal historical evidence. The countries that are most dynamic in this regard are also those in which investment plays an important role within the economy. Capital wealth and assets are the result of a continuous process, in which the conditions and incentives to attract and retain investment (infrastructure, productive plant, equipment, technology) are not temporary but permanent features. In Mexico, this relation can also be noted and the statistics on the number of workers affiliated in the Mexican Social Security Institute (IMSS) indicate a close relationship between private formal sector employment and economic activity.

International Comparisons
Annual average, 2000-2004

	Investment, % GDP	GDP, annual % chg.
China	39	9.4
Thailand	27	5.4
Ireland	25	5.1
Malaysia	23	4.4
New Zealand	23	4.0
Chile	23	3.7
Mexico	**20**	**2.6**
Brazil	21	2.0

Source: BBVA Bancomer with World Bank data

How should investment evolve in order to be able to incorporate youth who are entering working age? How many of the new jobs should the private formal sector absorb in order to improve the conditions of total employment?

Based on the historical relationship in the period between 1994 and the first quarter of 2006[3] between growth-

employment and growth-investment (R^2: 0.57 and 0.92 respectively and using the number of workers affiliated in the IMSS as the employment indicator) an approximation can be made concerning the necessary effort to incorporate the new economically active population into employment in the formal private sector.

Mexico: GDP, Investment and Employment

	GDP, ann. % chg.	Invest./GDP, %	Employm.*
1990 - 1994	3.9	18.5	212.5
1995	-6.2	14.6	-130.6
1996 - 2000	5.5	19.0	795.2
2001 - 2003	0.7	19.4	-65.9
2003 - 2005	3.6	20.3	519.9

* Workers affiliated in the IMSS, thousands annually, end of period,
Source: BBVA Bancomer with INEGI and IMSS data

Based on the premise of a million new jobs necessary per year and their total absorption by the formal private sector, this would imply maintaining an average and sustained economic growth rate of at least five per cent and increasing investment in the economy toward levels of 25% of GDP, that is, almost five points above levels registered in 2005.

Growth Rate Required for:

Absorption*	Employm.**	GDP, avge. % chg	Invest./GDP, %
75	750	≥ 4.0	22.0
100	1,000	≥ 5.0	24.5
125	1,250	≥ 6.0	26.7

* Of the total number of new jobs necessary, %
** Thousands of new jobs created
Source: BBVA Bancomer

Of course, growth is somewhat more complicated than some simple relationships and this exercise is only a basic approximation on the issue. The amount of the investment is important, but also its quality, and the same can be said in relation to labor power. Human capital increases with education, health, training and the regulatory framework for the labor market. In this sense, an issue that should be considered is the legal conditions of the labor market, which can inhibit the generation of formal employment.

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2 Persons 14 years of age or older who during the period in question had or carried out an economic activity (employed population) or were actively seeking to do so (open unemployed population), provided that they were willing to work in the week under consideration.

3 In Mexico, the historical analysis of these relationships has some limitations. The economic cycles are affected by financial crisis, it is difficult to construct series of total employment and the structural change generated new relations between the variables. Therefore, this study incorporated the past 12 years and information from the IMSS as an employment indicator.

Is the Price Increase in Raw Materials a Risk for Inflation?

Producer Prices: Raw Materials
Selected branches of activity, annual % change

	Dec'05	Jun'06
Producer prices w/o oil	**2.5**	**7.9**
Machinery and electrical equipment	0.4	38.2
Construction	3.5	21.3
Machinery & non-electrical equipment	-3.0	17.6
Engines and auto parts	-3.3	16.7
Compressed wood	3.7	16.2
Basic metals	-6.9	13.4
Home appliances	-0.7	12.8
Corn	-3.5	12.5
Structural metal products	-11.1	9.5
Footwear	1.6	9.3
Metal furniture	-5.1	9.1
Soft drinks	0.3	7.8

Source: BBVA Bancomer with Banco de México data

Inflation
Annual % change

Source: BBVA Bancomer with Banco de México data

Transfer of Producer Prices to Consumer Prices: Merchandise*
Spread in annual rate changes**

*   Based on the divisions of the manufacturing industry
**   Refers to the difference in percentage points between annual producer and consumer price rate. Positive figures reflect capacity of transferring costs to the final consumer and vice versa
Source: BBVA Bancomer with Banco de México data

The performance of inflation throughout 2006 has been favorable. Year-to-date inflation in the first six months is only 0.67%, the lowest for the same period at least since the sixties. Core inflation, the best indicator of pressure has continued to fluctuate around the Banco de México (Banxico) target (3%), with an even better performance than in the previous year. These trends respond to the sum of positive conditions: better agricultural prices, government-managed and regulated prices determined to achieve compliance with the inflation target, contained inflation in the U.S. (lower prices as a result of the advantages of production in China). However, on the other side of the coin, symptoms have been observed that it is advisable to review: rises in the prices of some services, within a context of economic growth and, what is most outstanding, the significant increase in the prices of raw materials, to a large extent explained by the expansive phase of the global economic cycle. For example, producer prices have gone from negative growth rates to two-digit growth rates in the course of 2006. In this sense, the intent of this section is to analyze these trends and to evaluate whether they represent risks for inflation.

Costs that are not transferred

How is it explained that, between December 2005 and June 2006, the annual change in producer prices rose 5.5 points (from 2.5% to 8%), and, in the same period, core inflation grew 0.1 percentage points (from 3.1% to 3.2%)? Moreover, the rise in core inflation essentially was due to only one of its components, housing services, because in manufacturing prices (grouped in the food and other merchandise sub-indexes), the trend was of stability and even downward.

The absence of a pass-through between producer and consumer prices reflects important transformations in industry in the last decade and the monetary context in which the country has evolved. If the sample is divided into two periods, 1996-2000 and 2001-2006, the difference between producer and consumer prices (using as proxy the divisions of the manufacturing industry) helps to discover these transformations. In the first period, the transfer is clear and significant: in all the manufacturing divisions, consumer prices were higher than producer prices, some cases, such as wood and chemical products, with differences of up to two digits. For the second period, history reverts itself and, in all the cases, producer prices are higher that consumer prices, that is, cost increases have not passed through. Two possible explanations of this phenomenon would be: first, an increase in productivity; technological innovations, investment in capital goods and higher rating in labor are key factors for absorbing cost increases due to raw materials, without this forcing a pass-through of said costs to the final consumer or reducing industrial profitability. In turn, an indirect way of confirming the hypothesis of higher productivity is through exports: greater productivity should be associated with a greater capacity for competing internationally.[1]

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1   The effect of the exchange rate, of which the appreciation of the peso in recent years could have a negative bearing on the competitiveness of the exporting sector, would tend to be diluted in recognizing its effect in reducing input costs.

The second explanation is simply the effect of competition: the entry of China in the World Trade Organization (WTO) and, in general, the trade opening, nullify the possibility of transfer; this together with a lag in production, forces industry to reduce margins in industry and/or to absorb the losses, within a context of a relatively short demand recovery cycle. The evidence favors this second hypothesis: exports do not support the argument of greater productivity, seeing that their growth rate in the period 2001-2006 is, in all cases, lower than that seen in the nineties, with even a drop in the textile-apparel and leather-footwear chain, as well as in wood products.

Price transfers from abroad, increasingly more important

On the other hand, given the industrial integration between Mexico and the U.S. that began with NAFTA, the influence of international prices on Mexico is also not surprising, particularly those of the U.S. It can be said that the convergence of inflation between both countries is a consequence of this.

The goods that are subject to the transfer of imported inflation represent around 70% of core inflation: food (21%) and other merchandise (32%), as well as housing services (17%), where there is a direct relationship with construction materials (own and rented housing). When incorporating the respective sub-indexes into a single one and comparing its performance in both countries from the beginning of 2002 through mid-2006, their relationship is confirmed: although with more subtle variations in the U.S., the periods in which prices rise or fall in that country, are later seen in Mexico, with a two-to four-month lag.

Traditionally, the response in Mexico to changes in the U.S. has been more than proportional, although in the recent period of June 2005 to May 2006, the upward pressures in that country have generated more modest and lagging impacts in Mexico. However, it is also clear that to the extent that pressures on core inflation increase in the U.S., the possibility of additional decreases in Mexico's core inflation tends to disappear, in general or due to effects derived from the rise in prices of raw materials.

The contribution of the volatile components

The second element that stands out in the results of inflation in 2006 is the favorable performance of the non-core sub-index. Beyond the agricultural component—which, due to its nature and importance in the NCPI, will permanently be an important source of volatility—the policy of alignment of public prices to the inflation target has partially isolated the increase in the final price of energy, one of the most important of the raw materials.
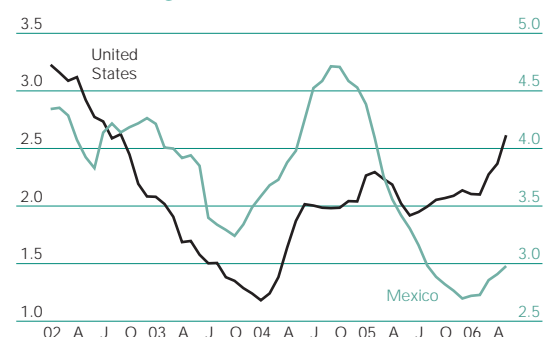
Unlike other years, when the change rates of government-managed prices (gas, electricity and gasoline) and the regulated prices (public transportation, water service, etc.) contrasted with the downward trend in the rest of the sub-indexes, in the first half of 2006 it has remained practically stable at around 4.5%. It is clear that the counterpart is what it has implied in terms of subsidies in this stability (See Article: The Sweet and the Sour Aspects of Oil for Mexico).

**Manufactured Products:
Exports vs. Price Margins**

	1996-2000		2001-2006	
	Exp	PM	Exp	PM
Food, beverages and tobacco	7.6	4.1	6.9	-2.9
Textiles, apparel & footwear	18.0	8.3	-3.4	-3.3
Wood and its products	2.3	15.7	-5.0	-3.4
Paper, publishing & printing	10.9	3.1	5.4	-4.3
Chem. & their prods. (w/o oil)	10.9	11.0	6.9	-4.7
Non-metallic minerals	13.4	1.8	5.9	-5.1
Metal prods., mach. & equip.	17.8	0.6	3.0	-4.9
Other manufactured prods.	18.8	4.7	8.7	-4.1

Exp   Exports, average annual growth rate, %
PM   Price Margin, difference in percentage points between the annual change rate of consumer prices vs. producer prices
Source: BBVA Bancomer with Banco de México data

Compound Core Inflation Index*
Annual % change

*   Structured with comparable price sub-indexes in: food, transportation, clothing, housing, audio & video equipment and recreation products
Source: BBVA Bancomer with Banco de México and BLS data

Non-Core Inflation
Annual % change

Source: BBVA Bancomer with Banco de México data

Inflation 2005 - 2006
Annual % change
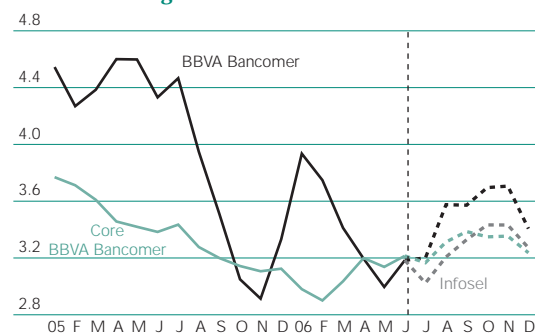
Note: Estimated as of July 2006
Source: BBVA Bancomer with Banco de México data

Price stability will continue

Despite the marked increase in the prices of raw materials and the possible reversion in agricultural prices, the outlook for inflation in the short and medium terms is one of relative stability. The key factor will be the international context: a gradual slowdown of the U.S. economy during the second half of 2006 and in 2007 could keep core inflation contained and, in time, could allow a drop in the price of raw materials, which, overall, would reduce pressure on inflation. It should be mentioned that, having achieved the Banco de Mexico inflation target in 2005 almost precisely (headline 3.3% and core 3.1% vs. the target of 3%) additional significant decreases will be increasingly more difficult. So as to achieve this, it is necessary to advance in two fronts: in the real part through greater productivity and competitiveness of the economy and in the monetary part through a greater deepening and consolidating a greater credibility of the central bank, in addition to that already earned, that will allow a reduction of inflation expectations.

Thus, our forecast is that, at the close of this year, headline inflation will stand at 3.4% and core inflation at 3.2%. However, in annual averages, an improvement is seen compared to last year. Headline inflation would drop from 4% to 3.5% and core inflation from 3.4% to 3.2%. For 2007, the outlook is practically one of stability, with a marginal improvement in core inflation (3%), and levels of around 3.5% for headline inflation.

Surprises in Inflation: What do they tell us?...

Can surprises in inflationary data, measured by the difference between the figures registered and those anticipated by the market, contain useful information to explain the formation of expectations or their relation to interest rates? Are the surprises of the first two weeks of the month equally important as those of the second half of the month? This article provides an analysis that could contribute to the debate on these issues.

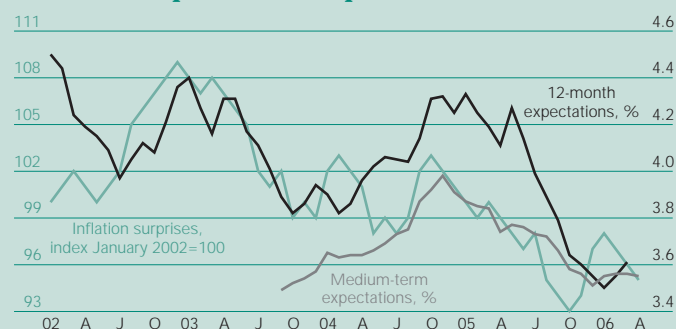### Inflation Surprise Index (ISI - BBVA Bancomer)
Using the Banco de México's expectations survey as reference, errors in projecting estimates for headline inflation and wages one month in advance, as well as the core inflation estimate (which is requested when the datum is about to be published) were formed to construct an Inflation Surprise Index (ISI) by BBVA Bancomer. The sample period, restricted due to the availability of information, ranges from August 2001 to May 2006. Through the variation coefficient method, the year 2002 was used as a base (January). To correct aspects of weight and scales, the differences in projections were normalized through their

absolute value. The variations in the index were calculated as of the sum of the deviations once normalized. The construction of the index follows a methodology similar to that used by BBVA for other countries.

A positive slope in the index reflects higher than anticipated prices or "negative" inflationary surprises. In contrast, if the slope is negative, the interpretation is of lower than expected inflation, or "positive" surprises. The evolution of the ISI shows that, in general terms, inflationary surprises have alternated in recent years: 2002 and 2004 were primarily marked by rises, while 2003 and 2005 were for the most part characterized by declines.

The ISI confirms the importance of inflationary surprises as to expectations. Both short-term (12 months) and medium-term (4 years) expectations incorporate the trend of the surprises within a period of up to two months.[1] This strengthens the argument that in Mexico the formation of inflationary expectations has an adaptive or weak rationality pattern.[2]

Inflation Surprises and Expectations

12-month expectations, %

Inflation surprises, index January 2002=100

Medium-term expectations, %

Source: BBVA Bancomer with Banco de México data

Thus, it is not strange that if the economic agents relate surprises in inflation with changes in expectations, they also transfer them to long-term interest rates, albeit with changes in funding rate expectations or in the inflation premium demande by investors. In fact, it is equally possible to establish a direct relationship between the inflation surprise index and long-term interest rates.

Inflation Surprises and M10

M10, %

Inflation surprises, index 2004-2005=100
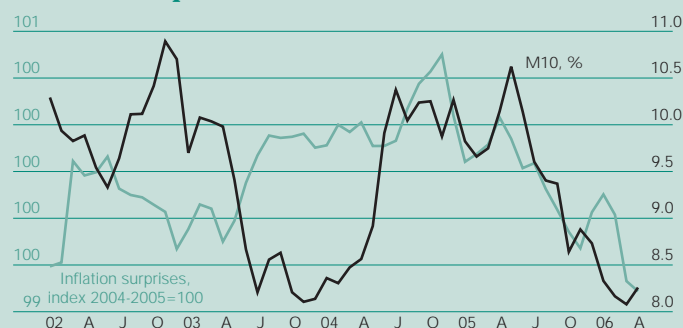
Source: BBVA Bancomer with Banco de México data

Differences between first and second half of the month

Given that data on inflation indices in Mexico are released on a bi-weekly basis, when analyzing inflationary surprises, it is advisable to distinguish between the first and the second half of the month in order to identify the relative importance of each period. For all of the NCPI and the majority of the sub-indices, most of the monthly variations are registered in the first two weeks of the month. The most illustrative cases are the sub-indices for public prices (government managed and regulated), as well as educational costs, in which the variations in the first two weeks are nearly 30 times more important than in the second half of the month. At the same time, the cases in which the differences are less pronounced correspond to the sub-indices that involve food prices, especially fresh produce, but processed food products as well.

This difference in the relative importance of bi-weekly inflation according to the sub-index has at least two important implications for the analysis of inflation as well as of the surprises. First, the most important variations occur in the first half of the month and second, in the estimates for the second two weeks, the monitoring of agricultural prices represents a key element. In fact, if only the errors in projections for the second two weeks of the month are analyzed, that is, the inflationary estimates when the data is about to be released,[3] it can be noted that the figure bears a close relation to the evolution of agricultural prices, with the correlation between the two for the 2000-2006 period being 0.68.

Errors in Inflation Projections & Agricultural Prices*

Bi-weekly % change

Percentage points
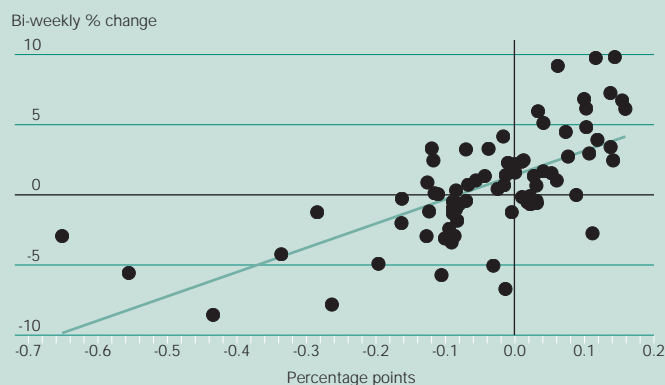
*   Error in projection based on the survey nearest to the publication date (incorporating information from the first two weeks of the month); for agricultural prices, the variation corresponds to the second two-week period.

Source: BBVA Bancomer with Banco de México data

The ISI a useful guide

Monitoring and following the errors in inflation projections represents a useful tool in the analysis of the formation of expectations and price volatility. Thus, for example, the construction of an inflation surprise index allows us to confirm that inflationary surprises are rapidly incorporated into expectations, especially short-term, and to some extent medium-term expectations. In the former, the correlation is 0.6 and for the latter, 0.4. At the same time, it is useful to distinguish between surprises in the first two weeks and in the second half of the month, with some applying to all the sub-indices, while others are limited by the volatility of agricultural prices.

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1   With this delay, the correlation coefficients were the highest. For the 12-month expectations, the January 2000 to June 2006 period was used as a reference, while for the medium-term expectations, the sample began as of when this question was included in the Banco de México survey, in September 2003.
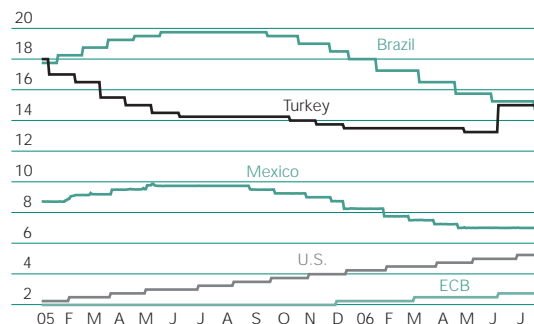2   See Situación México, 1st quarter of 2005, box on inflation expectations.
3   The Banco de México survey is conducted on the 20th day of each month, when the figures for the first two weeks are already known.

International Monetary Cycle and its Effects on the Financial Markets in Mexico
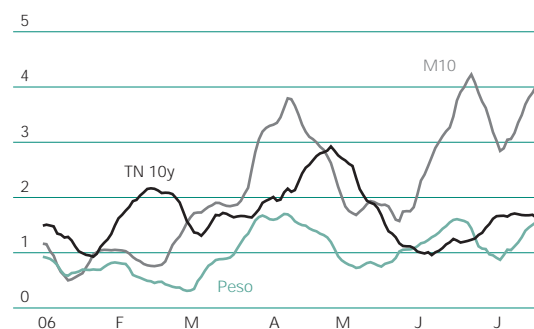
Monetary Cycle in Selected Economies
Reference interest rates, %

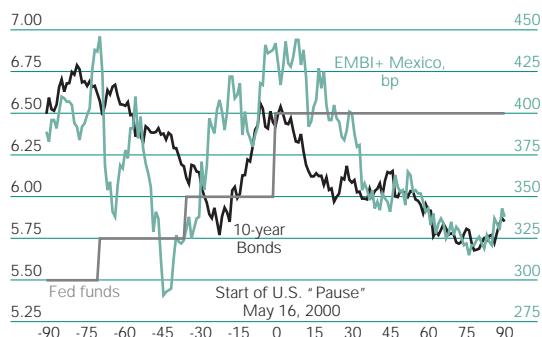Source: BBVA Bancomer with Bloomberg data

Volatility on the Financial Markets
Change coefficient, seasonally-adjusted over average, %, 2006

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

End of Restrictive Cycle in U.S. and Market Reaction in 2000

Source: BBVA Bancomer with Bloomberg and Federal Reserve data

In June 2004, the restrictive monetary cycle in the U.S. began, with the Federal Reserve Bank raising its reference rate on 17 occasions to place it at 5.25% at the end of July 2006. Thus, it went from an "expansive" monetary position to a "neutral" one. The possibility of maintaining a restrictive monetary policy, given the economic conditions of the U.S, would seem that it is beginning to have a greater bearing on the decisions of international investors, which—together with geopolitical conflicts, fears of a strong slowdown and international inflationary risks regarding raw materials—could limit the availability of financial funds for emerging countries.[1]

Notwithstanding the possibility of a coming pause in the upward cycle of interest rates in the U.S., the financial volatility observed prior to the rise by the Federal Reserve of June 29, could reflect the feeling among international investors that the federal funds rate level reached (5.25%) implies, either a balance of risks on inflation that is more pessimistic than the one considered months ago, or that monetary policy in the U.S. has reached restrictive ranges for the market—that could be prolonged—which would tend to limit international liquidity and eventually have an impact on economic activity.

Beyond the effects seen in volatility on the financial markets in Mexico (see chart), we might ask ourselves under this new international monetary environment what the monetary policy trend in Mexico could be for the rest of the year, as well as the probable answer regarding risk premiums of our country, the effects on the yield curve and the performance of the foreign exchange market in the country.

The monetary uncertainty in the U.S. triggers the volatility of emerging markets

To the extent that a greater implicit probability was seen that the Fed would place its reference rate over 5% (July 28), a moderation in the appetite for risk was felt, giving rise to an increase in the sovereign spreads and a decline in the financial flows to the emerging markets.[2] In Mexico's case, we see that, as of May, the sovereign risk (EMBI+) kept increasing until it reached 159 bp in June (vs. minimums of 95 bp in February) and the position of foreigners on the government money market dropped 10% (equivalent to US$1.3 billion). In this environment, the foreign exchange and the M10 rate reached their maximum levels in more than one and a half years: the peso/dollar exchange rate went from the 10.4 ppd minimum for the year (end of February) to 11.5 in June and the 10-year bond rate (M10) rallied from a minimum of 7.8% in 2006 to 9.7% in June.

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1   Together with the Fed movements, also of note are the increases in the reference interest rates in the Central European Bank (75 bp in 8 months to stand at 2.75% currently), the rise of 25 bp by the Bank of Japan—the first movement in six years—and the increases in some emerging countries such as Turkey.

2   The IMF R.G. Rajan Conference (June 8, 06) in the Banco de España stresses that a drop in the aversion to risk could happen when the outlook of low interest rates motivates "Hedge Funds" and financial institutions (for example: pensions) to seek new markets to increase their performance income and /or to cover guaranteed obligations. Thus, the outlook of higher interest rates would decrease this incentive.

These movements, together with a formal pause in the monetary cycle of Mexico —announced since April of this year that placed the bank funding rate at 7%— implied an increase in the slope of the yield curve that indicates greater local and international uncertainty. While in the first quarter of this year, the differential between the M10 rate and bank funding was 270 bp, the average for July stood at 168 bp.

Will what was experienced in 2000 be repeated?

During 2000, we saw an economic environment similar to the one foreseen for the rest of this year. On the international plane, the Federal Reserve was approaching a monetary pause (May 2000 at 6.5% which was prolonged for almost a half year) and, later, the U.S. economy entered a slowdown phase (that led to a recession in March 2001) which had been partially anticipated from the drops in the long-term bond rate and the consequent inverted yield curve (a differential between 10 years and federal funds up to -150 bp at the close of 2000 vs. 125 bp at the beginning of that year). For its part, in the domestic scene, it underscored the rally in the uncertainty among investors derived from the presidential election of that year.

Both factors led to a rise in financial volatility during the first half of 2000—similar to the one we have seen on the financial markets—which moderated once the monetary pause in the U.S. was confirmed and the electoral results were announced. Even more, when the expectations of an economic slowdown in the U.S. materialized—which was linked to the relaxing of monetary policy—lower pressure on the financial markets in Mexico was seen, in such a way that the spread of sovereign risk (EMBI+) in 2000 went from 446 bp in May to 305 bp in October of that year, which implied a 10% peso appreciation in that same period (from 10.1 to 9.2 ppd).

While market performance in 2006 is similar to that of 2000, there are substantial differences that favor the markets at this time. The Mexican economy today presents greater macroeconomic firmness, with inflation close to the Banco de México target (3% vs. 9% in 2000), a reduced fiscal deficit (0.1% GDP estimated in 2006 vs. 1.1%),[3] solvency in the financing of its external accounts (i.e. remittances and international reserves 7.2 times the current account deficit) and an adequate handling of the public debt (prepayment of foreign obligations, the decision to reserve amortizations through mid-2007 and to delimit the foreign exchange risk when reducing the liabilities amount denominated in foreign currency). Due to this, it is foreseeable that in view of possible foreign shocks (i.e. the U.S. slowdown and geopolitical conflicts), the adverse response of the financial markets in Mexico, in comparison to the past, would be limited and of short duration (see Situation Mexico, Second Quarter 2006). Nevertheless, the realization of structural reforms would provide greater flexibility to the Mexican economy and would make it more competitive.

End of Restrictive Cycle in the U.S. and Market Reaction in 2000

Source: BBVA Bancomer with Bloomberg and Federal Reserve data
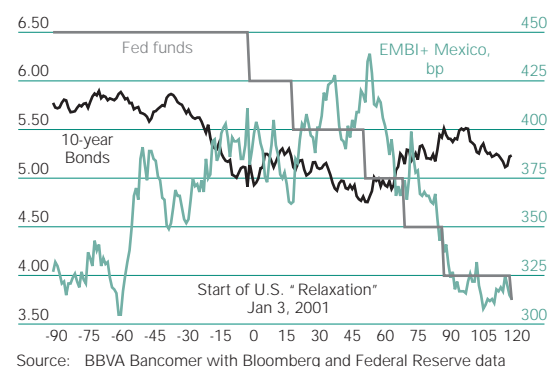
EMBI+ Mexico Evolution: 2000 and 2006
Index January 1 = 100

Source: BBVA Bancomer with Bloomberg data
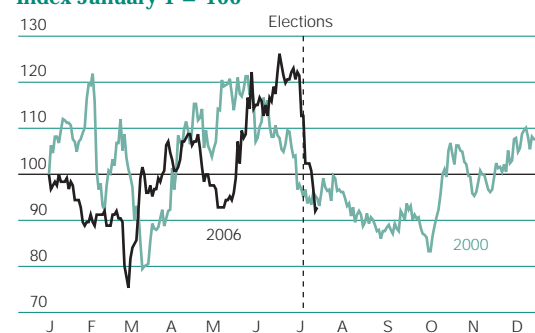
Peso Evolution Mexico: 2000 and 2006
Index January 1 = 100

Source: BBVA Bancomer with Banco de México data

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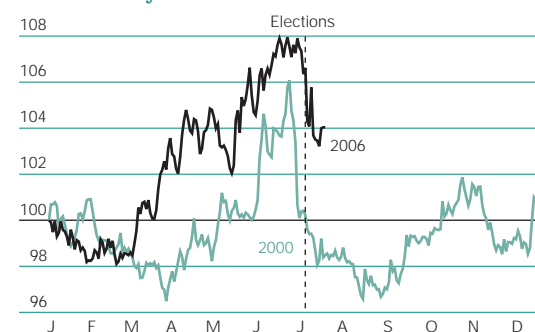
3   With the oil prices observed, a surplus in the fiscal accounts could be seen in 2006.

Monetary Cycle in Mexico and the U.S.
%

U.S. Fed funds

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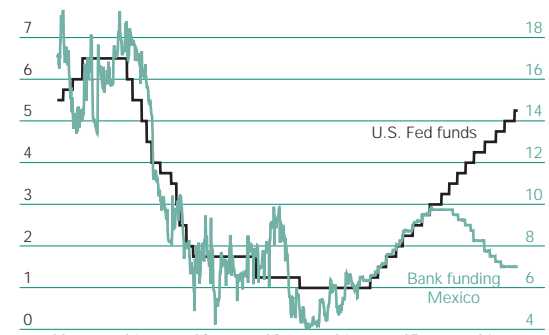
Source: BBVA Bancomer with Banco de México and Federal Reserve data

Yield Curves in Mexico
Generic interest rates, %

June

July

January

March

O/N 1m 3m 6m 1y 2y 3y 4y 5y 6y 7y 8y 9y 10y 15y 20y
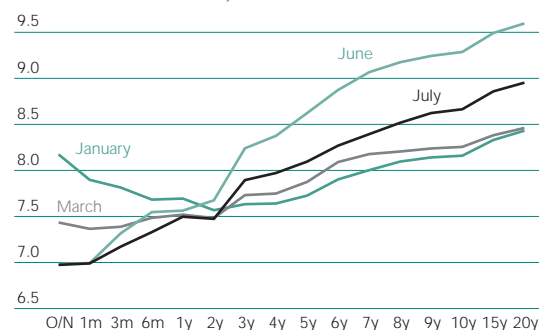
Source: BBVA Bancomer with Banco de México data

Yield Curve Slope
10-year bond less bank funding, bp

U.S.

Mexico

J 01   02   03   04   05   06
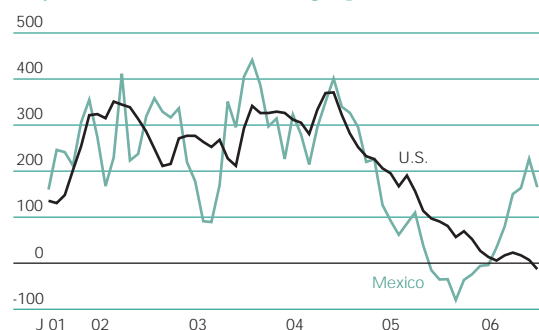
Source: BBVA Bancomer with Banco de México and Federal Reserve data

Monetary course: Will Mexico's central bank synchronize with the Fed in 2006?

Last April 21st, Banco de México indicated to the market the formal start of the pause following a process of monetary relaxation that took the funding rate of 9.75% in August to 7% at this time. Among the conditions that led to this reduction in interest rates, the following are significant: first, the convergence of both headline and core inflation, advancing toward the 3% target; second, lower pressure since 2Q05 in view of the slowdown of demand in the country; and, third, the continuation of high international liquidity that led to greater demand for financial assets denominated in pesos, and, therefore, to greater strength of the peso.

However, upon visualizing greater volatility on the markets due to higher interest rates set by the Fed and in view of the proximity of the electoral process that led to a greater foreign exchange depreciation of the peso, Banco de México opted to avoid a greater relaxation of the domestic monetary conditions so as to limit said volatility. For its part, the high prices of raw materials and producer prices; the price rally in the U.S.—in particular in tradable goods—and expectations of domestic inflation advancing toward the target (3%) were additional factors that reduced the space available for new drops in the bank funding rate.

It is important to point out that to date there have been 11 months where the monetary policy phase in Mexico (expansive) does not coincide with that of the U.S. (restriction), bringing the short-term interest rate spread to narrow by going from 675 bp in April 2005 to 175 bp currently. There is sense in the lack of coordination of both policies to the extent that the real cycles of each economy differ (for example: demand pressures, saturation of installed capacity) and/or disturbances to the economy affect asymmetrically (for instance, high oil prices benefit net producers such as Mexico and are prejudicial for net importers such as the U.S.).

Nevertheless, we believe that the elements that caused a lack of monetary coordination are no longer present: first, the international shocks in raw materials (for example, oil) and the shock of international liquidity (for example: high flows to emerging countries), which initially benefited the exchange rate (peso/dollar) were already discounted by the market in such a way that the continued high prices of crude oil products is beginning to pressure producer prices in the country, in a way similar to that previously registered in the U.S. Second, the expectation of economic strength for the rest of the year in the NAFTA countries is of a gradual slowdown. In this sense, we think that, going forward, Mexico's central bank will maintain the funding rate at 7% in the hopes of once again synchronizing with the Federal Reserve monetary cycle. A reduction in the funding rate could only be seen in case of the renewed strength of the international flows, which would translate into a strong foreign exchange appreciation (of the peso); additional drops in medium- and long-term inflationary expectations; or the realization of structural reforms that will boost productivity in the economy.

Long-term interest rates: there is space for greater reductions in the year

The rally in domestic and international uncertainty during the second quarter of the year was reflected in long-term interest rate increases in the country, leading therefore, to a high slope of the yield curve. From our standpoint, the slope levels reached were higher than what the structural strength of the economy suggests, particularly the favorable outlook for long-term inflation, the exchange rate and the country's sovereign risk. In this sense, we estimate that the M10 rate has quoted between 50 and 120 bp over the theoretical levels (0.8% vs. 8.8% and 9.3% on average for May and June, and 8.5% the last datum) which would tend to decrease throughout the second half of the year as investors gather further information on events, the monetary direction in the U.S. and greater weighting is assigned to the structural firmness of the economy.

In this sense, we estimate that long-term interest rates (M10) in Mexico would move toward levels close to 8.2% toward the end of the year; with greater volatility in the third quarter (8.4-9.0%) particularly before the monetary course in the U.S. is clarified (August 8 and September 20) and the electoral process in Mexico is brought to a close (September 6). As a result of this, we would observe a gradual flattening of the yield curve consisting in: (1) long-term inflationary expectations within the tolerance range (a Banco de México poll establishes 3.5% for 3 years); (2) short-term interest rates anchored at 7%; (3) outlook of a gradual economic slowdown; and (4) a coming announcement of a monetary pause in the U.S. (be it at 5.25% or 5.5%) and a Treasury-bond rate at levels close to the current ones (5.2% vs. the estimated close of 2006 and 2007 at 5.2% and 5.1%, respectively).

Exchange rate: possible cycle of strength, a potential appreciation of the peso, approaching 10.8 ppd by the end of the year

The outlook for a change in the environment of international liquidity and the electoral process has had a bearing on a period of exchange-rate volatility, which will tend to correct in the coming months. While we could expect fluctuations in peso/dollar parity to continue throughout the third quarter of the year (between 11.2 and 10.8 ppd), it is foreseeable that once the restrictive cycle ends in the U.S.—and the short-term rates differential stabilizes with Mexico between 175 and 150 bp—the peso could stand at 11.0 ppd at the end of the year, within our base scenario.

In addition to the above-mentioned structural factors (interest rate spread, inflation and structural firmness), high oil prices through the rest of the year sustain a high accumulation of international reserves and make it possible that we will see historically high levels of dollar auctions by the central bank and the probability of continuing the advance amortization programs of government obligations. We estimate that the total amount of dollars to be auctioned in 2006 by the central bank could represent up to 50% of foreign investment on the money market in the country.[4]

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4   Considering the current oil price levels, we estimate that the international reserves could stand at US$80 billion (even considering the prepayment of US$7 billion announced by the Finance Ministry) which would imply that, for the November 2006 to January 2007 period, Banco de México could continue to auction US$45 billion, which would imply that in this year up to US$6.8 billion would be auctioned (0.09% of GDP). See PesoWatch, May 2006.

10-year Bond Rates
Average %
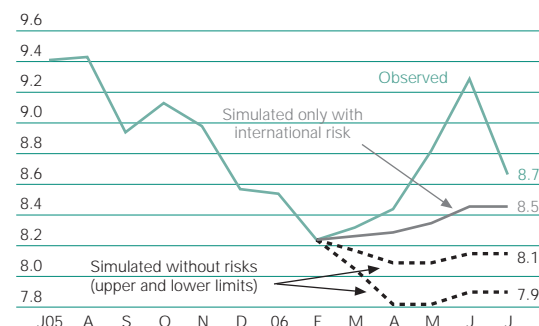
Source: BBVA Bancomer with Banco de México data

Real and Theoretical Exchange Rate
Pesos per dollar, base 2004

Source: BBVA Bancomer with Banco de México data

Spread between Long-Term Interest Rates and Exchange Rate

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

Financial Projections
End of period

	Optimistic	Base: Moderation	Pessimistic
Exchange rate, pesos per dollar			
3rd. quarter 2006	10.9	11.2	11.4
4th. quarter 2006	10.8	11.0	12.3
Average 2006	11.0	11.1	11.5
M10 Bond, %			
3rd. quarter 2006	8.1	8.5	9.3
4th. quarter 2006	7.6	8.2	10.2
Average 2006	8.3	8.5	9.0
Bank funding, %			
3rd. quarter 2006	7.00	7.00	7.30
4th. quarter 2006	6.75	7.00	8.00
Average 2006	7.10	7.20	7.40

Source: BBVA Bancomer

When a quick monetary pause in the U.S. is confirmed and the post-electoral debate is diluted, we do not discard the resurgence of favorable expectations for the realization of structural reforms in the country that would lead to optimism regarding investment in assets denominated in pesos. In this case, we do not rule out a bias of a strong peso toward the end of the year, at around 10.8 ppd within a context of additional reductions in interest rates.

The risks of a financial weakening in the year are delimited

We believe that, at present, the main risk is forthcoming from the international uncertainty caused among investors by the international liquidity in view of a slow adjustment in growth (as of 3Q06), the persistence of high oil prices, geopolitical conflicts and the international monetary conditions in such an environment. While our scenario is sustained on a gradual adjustment in growth and in a coming pause in U.S. monetary policy, it is important to point out that a more abrupt adjustment in both variables—be it due to a greater drop in growth or to higher increases in the Federal Reserve rate—could be associated with a sharp decrease in capital flows to emerging economies.

While Mexico has solid macroeconomic fundamentals to face and delimit these effects in the medium- and long-term trend, the short-term repercussions would come from a rally in the sovereign risk that would translate into higher interest rates (particularly long term) and in a more depreciated exchange rate (a low probability scenario for now).

What Caused the Increase in Uncertainty in the Mexican Financial Markets?

Since the end of the first quarter of this year, we have been witnessing an increase in the volatility of Mexico's financial variables. One possibility is that the gradual escalation of the electoral and post-electoral conflict led to a greater risk aversion. However, most of the emerging markets have also experienced severe adjustments. It is felt that the possibility of facing an environment of reduced international liquidity in response to a scenario of further increases in interest rates in the United States, Europe and Japan is the cause of the heightened uncertainty in the markets. Given this situation, it is worthwhile to quantify the relative contribution of both U.S. monetary policy and the Mexican electoral conflict to financial uncertainty in Mexico.

The financial volatility is the result of the international uncertainty

Volatility is calculated through GARCH models to approximate estimates of financial uncertainty.[1] The exercise is conducted with daily data from January 2005 to June 2006 on the changes in the exchange rate, the Embi+ Mexico, and the long-term rate (M10). We use our Latin American foreign-exchange rate index and that of JP Morgan to estimate uncertainty in the region.

As additional explanatory variables in the conditional variance equation, a series is introduced that represents and reflects the changes in the probability in the futures market that at the next meeting of the Fed, the benchmark rate will be increased by 25 basis points. A variable is also included that represents the differential in the surveys between voter preferences for Felipe Calderón and Andrés Manuel López Obrador, the two leaders in the polls. The idea is to estimate whether this variable has some significant effect on volatility (positive or negative). The conditional variance equations are represented as follows:

$$\hat{\sigma}^2_{i,t} = C + \beta e^2_{i,t-1} + \hat{\sigma}^2_{i,t-1} + \lambda D_1 + \alpha D_{j,2} + \gamma D_{k,3}$$

in which the D variables correspond to the variable of the elections, the probability of increases in the Fed rate (for the whole sample and starting from 5.0%), and other factors. The results indicate that the electoral process did not influence the increase in volatility of the Mexican financial variables. The greater uncertainty emerged as

soon as the futures market began to envision that the Fed rate could reach or exceed 5.0%.

Thus, the complete cycle of the elimination of the expansive monetary policy in the United States did not influence the nervousness in the markets. The uncertainty was generated when the perception began to emerge that the Fed rate could be entering more restrictive ranges. We estimate that around 80% of the rise of volatility in the exchange rate can be attributed to the probability that the Federal Reserve will continue restricting monetary conditions. Furthermore, although this article does not present the results or graphs for the cases of the Embi+ Mexico and long-term interest rates (M10), their estimated contributions are 90% and 80% respectively.[2]

Volatility and International Uncertainty
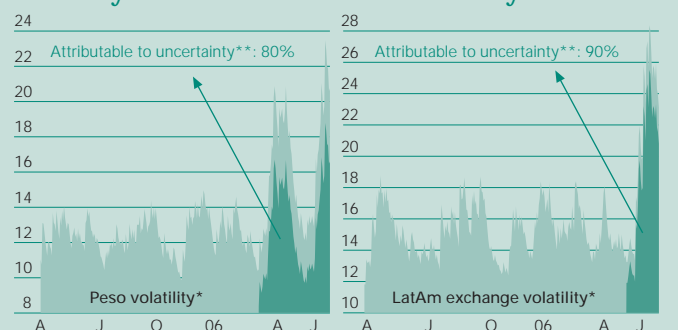
* Annualized conditional volatility, GARCH(1,1), incorporating implicit probability of Fed rate increases
** Volatility explained by monetary uncertainty in the U.S.
Source: BBVA Bancomer Economic Research Department

This same effect can be seen in other Latin America countries. In fact, 90% of the increase in uncertainty is due to the international monetary environment. This therefore confirms that the adjustments registered in the past four months are not only characteristic of the Mexican market, but are common in the region

Despite its not having been a decisive factor in the increase in financial volatility, the post-electoral scenario will play an important role in the degree of adjustment in the market. Nevertheless, considering that the greater uncertainty was the result of the international monetary context, the scope of the corrections will depend to a large extent on whether or not the Fed continues to raise interest rates.

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1   Econometric model that estimates the variance in the changes of a variable (subject to this variance not being constant).

2   See PesoWatch, July 17, 2006.

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A Small Scale Macroeconomic Model for Mexico

Background

The conditions that mark the strength of economic activity in Mexico have gradually changed throughout the course of the past two decades. Greater international competition and the repercussions of advances in technology and productivity on a world level are the result of the processes of liberalization and globalization in which the economy has entered. This new environment, coupled with modernization, deregulation, the disintermediation of the financial system, the autonomy of the central bank, and the adoption of inflation targets with a fluctuating exchange-rate policy, clearly define the new structure of the Mexican economic system. The greater flexibility in this system, which is reflected in less volatility in the main economic variables, has increased the importance of some factors in the determination of the economic cycle, such as, for example, that of (short- and long-term) interest rates as well as the role played by expectations.

The performance of the economy is subject to a great variety of shocks, the impact of which does not only depend on their intensity and origin, but also on the capacity and credibility of the economic policies to confront them.[1] The theoretical framework that currently dominates the debate and the actions of the monetary authorities, presupposes that inflation and growth are somewhat counterposed in the short term and that, therefore, it is possible to affect the evolution of prices through its influence on the expectations of the economic agents as well as on the strength of demand (through its impact on investment and consumption). Furthermore, the goal of maintaining stable inflation remains a priority in relation to other important economic factors. In fact, it is clear that although some central banks have not established a system of inflation targets, we can infer through their official statements or policy decisions that they implicitly assume such a stance. In the long term, it is assumed that price stability is a necessary condition of economic stability.[2]

In order to consider the scope of the economic shocks that Mexico faces, it is necessary to have an econometric tool that reflects this new structural environment. With this in mind, a model has been developed that reflects the advances of economic thinking and debate, which is defining the orthodoxy in monetary policy, and that in addition projects the main conditions of Mexico's macroeconomic reality. This article will partially employ this model to present two simulations that are of special interest; namely, the impact of an unexpected increase in prices and the effect of expanding potential growth.

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1   A shock is an unexpected and exogenous (or independent) disturbance to the dynamics reflected in an economic model. The impact of these shocks depends on the parameters and specification of the model.

2   A contrary position exists, although its theoretical weight has not been very decisive among economic advisers and policy makers whose economic philosophy raises the need to expand the objective series of variables of the central banks. It is argued that stability has spurred the formation of economic and financial excesses that have changed the characteristics of the economic cycles (see White (2005).

Model Structure

The details of the macroeconometric model specification for Mexico are presented in the working paper "*Small Scale Model with Rational Expectations for the Mexican Economy*" No. 1 dated June 2006.

The theoretical basis for the estimates is the "Neo-Keynesian" school, whose importance and intellectual recognition have made it a reference model for contemporary debate. Its conceptual framework is derived from the incorporation of micro-economic fundamentals into the traditional focus of the IS-LM curves (which represent demand) and of supply. The structure of this generation of models presupposes the existence of the optimum behavior of the agents (companies, consumers and policy makers), which takes place in an economic environment in which real and nominal rigidities (prices) exist that prevent the efficient performance of the economy. Thus, the dynamism of the main macroeconomic variables can be obtained with the specification of three sectors: (1) a sector that defines the behavior of consumption, savings, and investment (IS curve—demand), (2) another sector that simplifies the price formation in the economy (Phillips curve—supply), (3) and finally, a sector that exemplifies the performance of monetary policy (monetary regulations) and that allows the model to be closed. With the aim of extending and offering a better representation of the behavior of the variables studied for the Mexican case, two financial relations (exchange rate and long-term interest rates) are incorporated that will allow, through the restrictions that we will impose, an analysis to be made on the common dynamics between macroeconomic and financial factors.
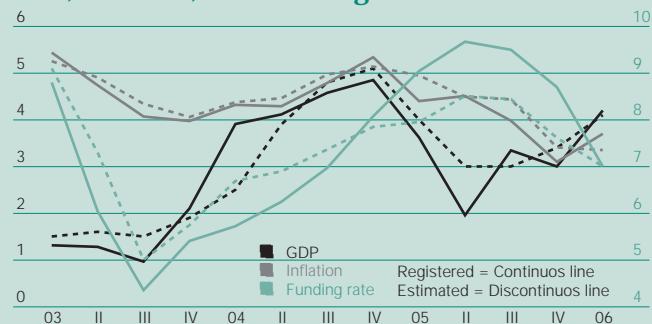
bank have been concentrated on influencing inflationary expectations, but at the same time allowing a gradual convergence that is consistent with the cycle of economic activity. The expectations on inflation and economic growth play an important role in the cycles without excluding the significance of the persistence of the variables. As can be seen in the graph, the theoretical basis that when taken as a whole estimates the demand, supply, and monetary policy equation, does indeed provide a stylized representation of the strength of the economy.

	Equation 1 (Eq. 1) Monetary Policy				Equation 2 (Eq. 2) Phillips				Equation 3 (Eq. 3) Demand		
	Qtr	Mon	Simul		Qtr	Mon	Simul		Qtr	Mon	Simul
ϕ	1.3	2.1	1.7	λ	0.57	0.36	0.51	B	0.36	0.44	0.29
	(11.4)	(3.6)	(1.7)		(7.49)	(1.9)	(2.6)		(4.87)	(2.1)	(3.9)
θ	0.47	0.38	0.56	α	0.39	0.5	0.46	δ	0.58	0.65	0.72
	(4.86)	(1.74)	(3.1)		(11.1)	(7.3)	(3.3)		(2.51)	(6.3)	(4.8)
ρ	0.35	0.5	0.58	τ	0.08	0.13	0.19	μ	0.09	0.01	0.01
	(5.5)	(6.6)	(4.2)		(3.2)	(1.76)	(1.4)		—	—	—
R² aj.	0.85	0.8	0.87	γ	0.07	0.02	0.05	Γ	0.61	0.8	0.65
J-est.	0.17	0.12	0.08		(1.4)	(1.6)	(2.9)		(5.5)	(3.9)	(5.1)
				R² aj.	0.92	0.85	0.8	η	-0.23	-0.14	-0.06
				J-est.	0.15	0.08	0.11		(-3.75)	(-1.6)	(-1.5)
								R² aj.	0.93	0.89	0.86
								J-est.	0.12	0.14	0.09

Eq. 1 $\quad i_t = c + \phi(E_t\pi(t+4)-\dot{\pi}) + \Theta \hat{Y}_t + \rho i_{t-1} + e_t$

Eq. 2 $\quad \pi_t = \lambda + (E_t\pi(t+4)) + \alpha\pi_{t-1} + \tau\Delta SR_{t-1} + \gamma \hat{Y}_t + u_t$

Eq. 3 $\quad \Upsilon_t = + B(E_t\Upsilon(t+4)) + \delta\Upsilon_{t-1} + \mu\Delta\Upsilon SR_t + \Gamma\Upsilon_{t-1}^* + \eta r(t) + v_t$

Qtr: Quarterly   Mon: Monthly   Simul: Simultaneous
Notes: Statistic T between parentheses. GMM estimates
Source: BBVA Bancomer Economic Research Department

Equation 4 Exchange Rate	Equation 5 Long-tem Interest Rates
$\Delta S_t = 0.7\Delta S_{t-1} + (i^T_t - i^{T*}_t)$	$i^T_t = E_t(i_t + i_{t+1} + i_{t+2} + i_{t+3} + \ldots)/(T+1) + \sigma_t$

i = Benchmarh rate; π = Annual inflation; $\hat{Y}$ = Output gap = $\Upsilon_t - \bar{\Upsilon}_t$

$\bar{\Upsilon}_t = 0.98\bar{\Upsilon}_t + c_t$; r = Real interest rate = $i - E_t\pi(t+4)$

i^T_t = Long-term interest rate; Υ_t = Annual economic growth

Υ_t^* = Annual U.S. economic growth;   SR = Real exchange rate

$\Delta SR_t = \Delta S_t - \pi t$

In which i_t, $\hat{Y}_t$ and π_t represent the short-term interest rate controlled by the central bank, the output gap, and inflation, respectively (e_t, u_t, v_t and σ_t symbolize the shocks of the equations and $\bar{\Upsilon}_t$ corresponds to the growth of potential GDP. In the case of the latter variable, it is assumed that its stochastic process is within the range between permanent fluctuations and a very gradual convergence toward the equilibrium level). E_t is the operator of the expectations conditional on the information available in t, or expectations consistent with the model. That is, based on quarterly data $E_t\pi(t+4)$ is the expectation for inflation in one year (four advanced quarters). Since the model is also obtained with monthly information, the one-year expectations will reflect the 12-month projection $E_t\pi(t+12)$.

GDP, Inflation, and Funding Rate

GDP
Inflation
Funding rate
Registered = Continuos line
Estimated = Discontinuos line

Source: BBVA Bancomer Economic Research Department

The charts present the parameters of the macro model with rational expectations. The results allow us to conclude that the specification is consistent, efficient, and robust. It corroborates that the actions of the central

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Response to Supply Shocks (RSS): Demand

Source: BBVA Bancomer Economic Research Department

RSS: Inflation

Source: BBVA Bancomer Economic Research Department

RSS: Monetary Policy

Source: BBVA Bancomer Economic Research Department

RSS: Long-Term Rates

Source: BBVA Bancomer Economic Research Department
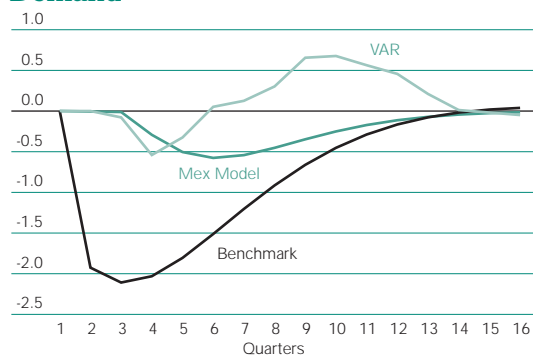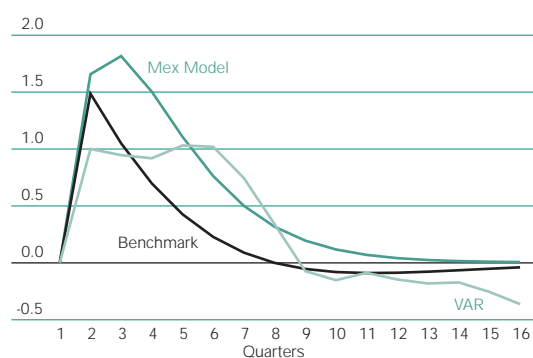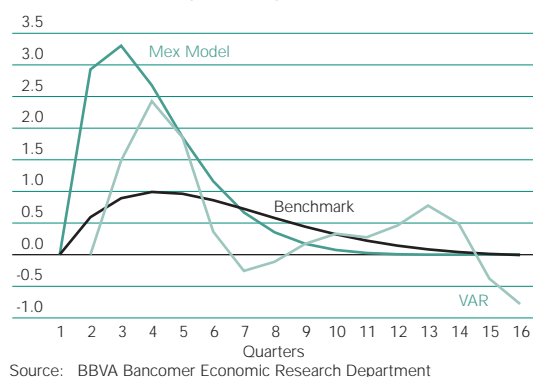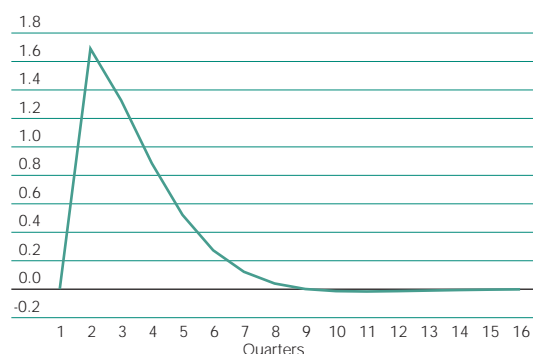
Transmission of macroeconomic shocks
Simulation 1: Negative supply shock with impact on prices

The econometric model allows us to analyze economic and financial behavior in response to different shocks. For example, unexpected changes in the supply equation, that is, increases or declines in prices not explained by productive conditions and demand pressures of the economy are continually a source of long-term inflationary risk in Mexico.

The most recent experience occurred in 2004. Constant increases in agricultural prices other than those of fruits and vegetables and in government-managed and private-sector regulated prices of goods and services put the 2005 projected inflationary convergence at risk. Annual non-core inflation went from 4.66% in December 2003 to 8.9% in November 2004, which implied a more than 1.4% increase in headline inflation as well as in inflation expectations. The Banco de México, with the intention of preventing this shock from contaminating the rest of the prices in the economy—core inflation fluctuated between 3.60% and 3.84% in this period— initiated a restrictive monetary cycle by increasing the money market "short" on several occasions and by allowing the bank funding rate to maintain its upside trend.

In order to get a sense of the behavior of the main macroeconomic variables in response to a new negative shock in price formation, we simulated a stochastic shock in the supply equation that implies an unexpected increase of 1.0% in just one quarter. The graphs present the dynamics of the economy in response to this transitory upset (it can represent the transmission of increases in agricultural or energy prices or changes in the country's competitive structure). In addition, this dynamic is compared with those that are obtained through applying VAR and benchmark models used by McCallum (2001) for the United States, in which inflationary expectations and economic growth projections dominate the model's dynamics.

The inflationary response shows considerable inertia, similar to that of the VAR. But in addition to following a very gradual trajectory, the initial impulse generates a greater expansion of the inflationary spiral than in the case of the benchmark model. While in our specification, inflation increased more than 1.8 points, the corresponding figure for the McCallum model was 1.5. The persistence of inflation led it to take more than eight quarters to converge with the target (compared to seven quarters in the McCallum model). It should be pointed out that in the benchmark model there is no direct response from monetary policy to the output gap and there is no persistence in the demand equation, and therefore it is natural to observe that both inflation as well as expectations fall more quickly and prevent a more intense wave of price hikes. In the model's price formation process for Mexico, it is perceived that, on the one hand, an abysmal decline in aggregate demand will not be allowed, and therefore the expected value of inflation will increase in the short term (with the result that the initial rise in prices has a feedback effect). On the other hand, the more drawn out evolution of inflation itself, of the exchange rate (pass-through), and interest rates, make the convergence slower.

Short-term interest rates respond immediately and rise considerably in a situation marked by unexpected increases in inflation, since price increases start accelerating due to the major loss in the value of the peso (in nominal and real terms). The peso depreciates as a result of greater inflationary expectations, which is reflected in higher interest rates. This slowness of the evolution of inflation to once again approach the long-term equilibrium point is consistent with models that only incorporate delays (or that assume adaptive expectations) in the supply equation. The difference lies in that this semi-structural model that is proposed for Mexico incorporates the effect that the inflationary spiral generates in short-term expectations. Such projections are adjusted once monetary policy has fulfilled its purpose. That is, as of the second quarter, inflation converges more rapidly than in a model that does not take into account the strength of expectations. The long-term interest rates also anticipate a fall in prices, and therefore only increase in the first few quarters.

Above all, these results confirm that the persistence of inflation has diminished in relation to other periods of analysis. The difference between the dynamics of prices in this document and that of studies of other countries is not so significant. It is also true that the greater delay in mitigating a shock such as the one simulated in this model is the result of the country's domestic economic structure. The distortions that affect the flexibility in different markets of the economy affect the degree of transmission from volatile to nonvolatile prices, and therefore long-term expectations continue depending to a large extent on the current evolution of inflation. Finally, aggregate demand takes two quarters to slow down given that it is offset in the short term by the depreciation of the currency.

Simulation 2: Increase in potential growth

At the present time, the debate on the need to improve economic efficiency and enhance the population's living standards in Mexico is quite exhaustive. Even though there is no single recipe available to increase the productivity and wealth of the Mexican economy, a series of proposals have in fact been raised in different forums that seek to lay the groundwork for resolving the structural problems that the country faces.[3] The end principle of the different measures that have been formulated is to expand the country's productive capacities that stimulate potential long-term growth.

As an additional exercise, and in response to the interest in anticipating the macroeconomic consequences that would be derived from promoting the economic reforms, the effect of a 1.0% increase in potential GDP will be simulated. Clearly, this increase would be the reflection of a transformation on a micro-economic level that would eliminate obstacles to investment and companies' competitiveness. We are referring to improvements in tax revenue collection levels, the consolidation of macroeconomic stability, the viability of the pension system, ensuring the supply of energy, the formation of human capital, strengthening the rule of law and competition, which when taken as a whole would increase the efficient use of the factors of

RSS: Real Exchange Rate
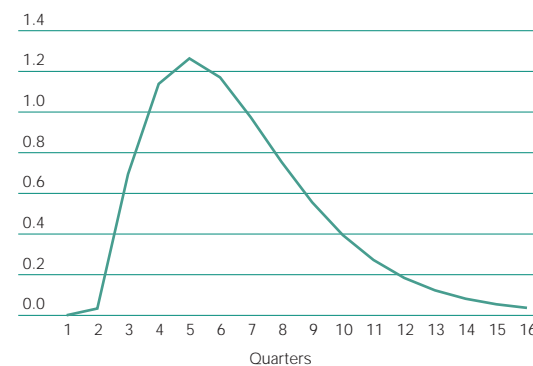
Source: BBVA Bancomer Economic Research Department

Response to Potential Growth Shock (RPGS): Gross Domestic Product
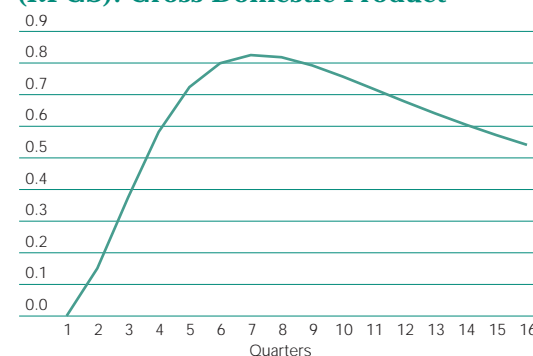
Source: BBVA Bancomer Economic Research Department

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3   For example, see Serie Propuestas BBVA Bancomer; in particular the special January 2006 issue.

RPGS: Inflation
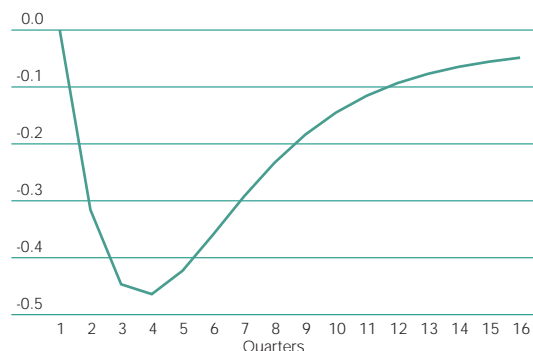
RPGS: Monetary Policy
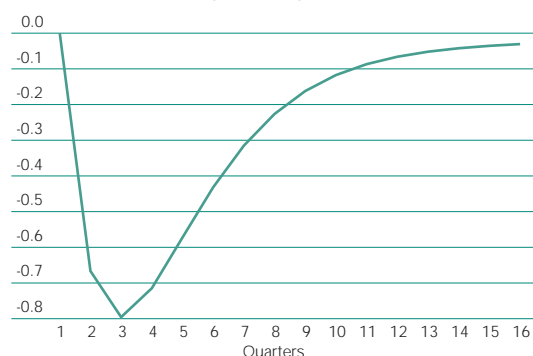
RPGS: Exchange Rate
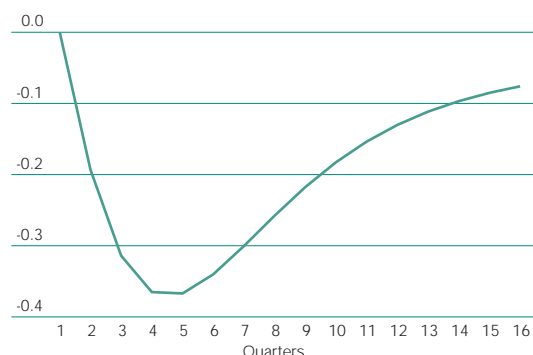
RPGS: Long-Term Interest Rates
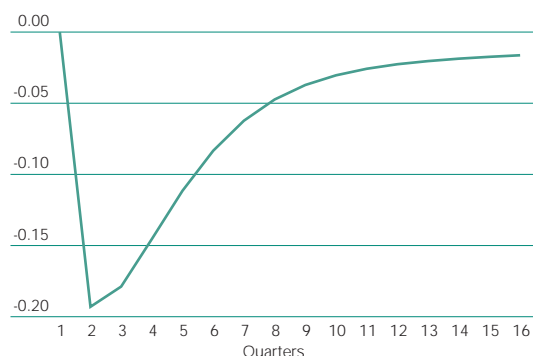
production in Mexico (and that would generate, as a minimum, a one-percentage-point increase in GDP additional to the current long-term potential growth of between 3.0% and 3.5%).

We could expect that a greater potential growth in GDP (in this case, of an additional percentage point) would translate into higher employment levels and further boost demand. In response to the simulation of a shock of this magnitude in the model, aggregate demand increases almost 0.9% (from the level of the growth in equilibrium) and remains at levels above 0.5%. Prices fall and they remain below the long-term average for more than two years. This provides maneuvering room to a process of a peso appreciation in foreign exchange and lower interest rates. The benchmark rate would have room to diminish almost 100 bp. The long-term rate does not fall as much the result of greater economic growth as for being the element that makes all the variables of the system converge.

In synthesis, given a scenario of this scope, living standards will improve as a result of a greater growth in demand and investment (additional to what is necessary to increase potential growth and productivity) through lower interest rates. This does not generate inflationary pressures since the new potential GDP leads to lower inflation and prevents such effects from emerging. It is important to point out that implicitly and within the theoretical framework of the model, it is assumed that throughout the increase in potential growth, it will exceed the expansion of domestic demand, a factor that is decisive in reducing inflation and the space for decreases in short-term rates. The real interest rate in this exercise converges with its long-term equilibrium. In this horizon, however, or in case an immediate feedback effect occurs between supply and demand, the real equilibrium interest rate should increase at a level consistent with potential growth. However, since in point of fact, inflation would also cede ground as a result of greater productivity given the more efficient use of productive inputs, and that in response to this scenario, inflationary risk premiums and longer term interest rate risk premiums would decrease, the central bank would have room to accommodate its monetary policy to such structural changes. This would imply that in the short term we could be seeing lower nominal and real interest rates, the latter reverting in the long term to a probably greater equilibrium level.

Conclusion

Within the simulations allowed by this model, the two that are presented in this article alert us to the consequences of facing major supply shocks that are not anticipated in advance, allowing us to prevent the emergence of an inflationary spiral. In addition, the model indicates the possible benefits of promoting a strategic policy that would develop the productive capacities of the economy and minimize the variability of the economic cycles.

The specification of the macroeconomic model produces trajectories in accordance with economic theory and empirical evidence, in addition to allowing consistent, efficient, and singular solutions. In addition, it appropriately expresses the dynamics of inflation, growth, and monetary policy. In the latter case, we should reiterate that the

steps taken by the central bank have been centered on influencing inflation expectations, but at the same time allowing a gradual convergence that is consistent with the cycle of economic activity.

Despite the possible extensions that undoubtedly would improve this model's conclusions, its current structure is indeed capable of reflecting the dynamics of the main economic variables and allows different analytical questions to be dealt with. The current model will serve both as a tool in the generation of stress scenarios (oil, U.S. economic slowdown, etc.), as well as a benchmark for BBVA Bancomer's macroeconomic projections for Mexico.

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Oil: the Sweet and the Sour for Mexico

Oil Exports
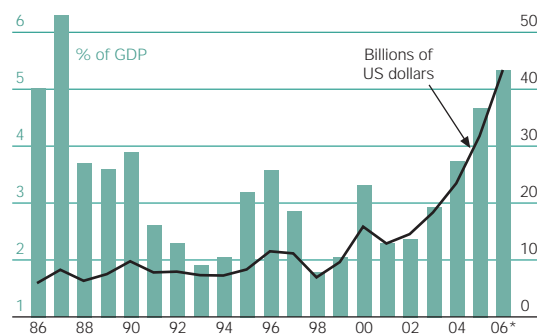
*   Estimate based on the average registered price, January-June
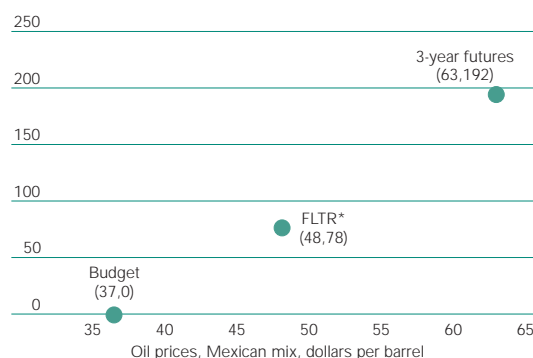Source: BBVA Bancomer with Banco de México data

Impact of Oil on External Accounts

Possible price range	Price[1]	Exports[2] bn	Exports[2] % GDP	Bal	Current acc. bn	Current acc. % GDP
Historical*	34.4	23.9	3.5	-20.2	-19.2	-2.5
Budget	36.5	25.3	3.7	-18.6	-17.5	-2.3
FLTR**	48.1	33.4	4.9	-9.6	-8.5	-1.1
Jan-Jul 2006***	54.4	37.7	5.5	-4.7	-3.6	-0.5
3-year futures	62.9	43.6	6.4	1.9	3.0	0.4

1	US$ dollars per barrel
2	Crude oil exports, with an export platform of 1.9 million barrels daily. Does not include oil by-products
Bal	Trade balance, billions of US$ dollars
bn	Billions of US$ dollars
*	1968-2006 average. Valued at 2006 prices
**	Federal Law on Treasury Responsibility
***	With information through July 21
Source:	BBVA Bancomer Economic Research Department

Oil Revenue Potential 2006 Surplus

*   Estimate based on the formula established in the Federal Law of Treasury Responsibility
Source: BBVA Bancomer with Bloomberg data

Following a practically uninterrupted upward trend that has lasted more than four years now, high oil prices have ceased to be a novelty. Given the frequency with which new historical records in oil prices are reached, in a context where the strong fluctuations in supply and demand are adorned with a permanent component of political uncertainty in the main oil producing regions of the world, the most probable scenario in the short and medium term will continue to be high energy prices (see section on the international environment). High prices imply additional revenue to pay external accounts, for public finances, resources for the state governments, and support for the peso. But they also imply distortions in relative prices due to the high subsidies, for example, on electricity rates and natural gas and gasoline prices. This is without considering the harmful effects on international economic activity that thus far have not materialized, but which could eventually be transmitted to the country (see box). In this context, the questions that arise are: what is the final balance sheet, positive or negative? What are the risks? This article will present an analysis of the benefits and the costs that the current situation in the oil market represents for Mexico.

The sweet: considerable increase in flows

The official projection for the price of the Mexican crude mix during 2006, namely, that it will average 36.5 dollars per barrel (dpb), has been considerably surpassed, and along with it, the expectations for oil revenue. Year to date, through July, the average for the Mexican mix was US$54 dpb. In terms of the external accounts, each dollar increase in the price of a barrel of oil is equivalent to nearly US$800 million annually in export revenue.

Therefore, if the average price registered between January and July were to remain the same for the rest of the year, the additional external revenue in relation to the figures estimated in the budget would reach close to US$12 billion, and the deficit in the current account measured as a percentage of GDP would dip to around 0.3%. If, on the other hand, the price were to reach US$63 dpb, as indicated by three-year futures, the extraordinary revenue would total US$18 billion and the current account would end the year with a surplus equivalent to 0.6% of GDP. In any case, 2006 will be the year in which the highest revenue for oil exports will be posted in practically two decades.

In terms of fiscal revenue, at the close of the first half of the year, surplus oil revenue reached 38 billion pesos. For the second six months, the amount will probably be greater, although the range of possibilities is still broad, depending on oil prices for the remainder of the year (the May-October period for fiscal effects). For example, with an average price in 2006 of close to US$50 dpb, surplus oil revenue would total around 80 billion pesos; if, on the other hand, the price were to average US$55 dpb, the surplus could reach 130 billion pesos. Measured as a percentage of GDP, the above-mentioned scenarios would place the surplus at between 1% and 1.5%. In an extreme case, if prices were to reach an annual average of close to US$65 dpb, the surplus could represent as much as 2% of GDP.

Whatever level the price reaches, it is clear that oil revenue will make an important contribution, not only in terms of strengthening the financial position of the public sector (including debt prepayments) but also in decreasing the external account deficit, supporting the peso, boosting aggregate demand, and even in reducing the country's risk premium (albeit only temporarily). For 2006, a moderate surplus in public finances could be registered, for the first time in more than a decade.[1]

The sour: How is the money spent?

The other side of the ledger of oil benefits is the authorities having prioritized export revenue to pay current expenditures more than investment. The subsidies for energy and fuel products are an example. A direct calculation based on the differential between the international and national prices reveals, in the case of natural gas for example, that the treasury lost US$2.6 billion in 2005, and US$700 million in the first four months of 2006. In electricity, the subsidy in both periods reaches US$2 billion and US$500 million, respectively. Taken together, in 2005 both subsidies represented around 0.6% of GDP, significantly less than what was obtained from extraordinary revenue.

For gasoline, the analysis is different, because traditionally prices in Mexico have been higher than those paid in the United States. This can be interpreted however as an opportunity cost, since the amount of tax revenue that the government failed to collect due to not having increased the price of gasoline in the same proportion as occurred abroad (leaving the differential constant in relative terms), reached approximately US$ one billion and US$500 million in 2005 and the January-May 2006 period respectively. The counterpart to this, a favorable effect that would also necessarily have to be taken into account, would be lower inflation, for not having transferred the increase in international benchmark prices to the consumer.

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1 The most recent fiscal surplus, according to the traditional definition, was registered in 1993 (0.6% of GDP). This time around, the surplus could represent close to 0.2% of GDP.

Crude Oil Prices and Surplus Revenue to be Distributed to State Governments

Surplus revenue, billions of pesos
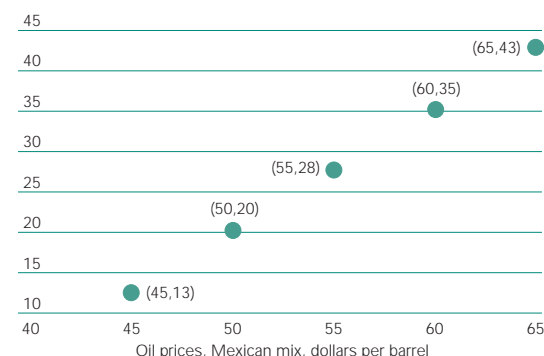
* Assumes that, on average, for each dollar increase in the mix price in relation to the level projected in the budget, resources for the states will rise by 1.5 billion pesos
Source: BBVA Bancomer with Bloomberg data

Estimated Oil Surplus Resources and Impact on Public Finances*

	Oil price, dpb		Oil revenue, registered			Impact on public finances***		
	Registered	Difference**	US$ billions	% of GDP	% total revenue	US$ billions	% of GDP	% total revenue
2000	24.6	9.1	41.6	7.2	33.1	5.9	1.0	4.7
2001	18.6	0.6	41.4	6.7	30.4	-0.1	0.0	0.0
2002	21.2	5.7	42.5	6.5	29.6	3.6	0.6	2.5
2003	24.8	6.5	49.4	7.7	33.3	4.6	0.7	3.1
2004	30.9	10.9	56.5	8.3	36.0	8.1	1.2	5.2
2005	42.6	15.6	66.7	8.7	37.3	9.6	1.2	5.4
2006ª	54.4	17.9	73.1	8.9	40.7	12.4	1.5	6.9
2006ᵇ	62.9	26.4	79.0	9.6	44.1	18.3	2.2	10.2

2006ª Based on average registered from January to July
2006ᵇ Based on three-year futures
* Only considers crude oil (excludes oil by-products)
** Difference vs budgeted amount
*** From differential of oil revenue vs budget
Source: BBVA Bancomer Economic Research Department

Gasoline Prices*
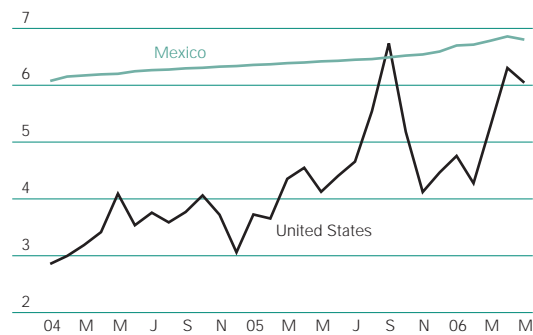**Pesos per liter**

* Weighted averages between high and low octane, and for Mexico between regions (interior vs border areas); for the U.S., the Gulf zone is used as reference
Source: BBVA Bancomer with Bloomberg data

It would also be necessary to consider that even though the rules on distributing the surplus have as their criteria the prioritization of expenditures in investment (Pemex, 50%; the Oil Revenue Stabilization Fund, 25%; investment in the states, 25%), in practice there is no control agency that guarantees the use of the resources on a state and municipal level in infrastructure projects. For example, according to figures from the National Statistics Institute (INEGI)[2], between 2001 and 2004, state government gross revenue rose 18.5% in real terms; in this same period, public work projects increased a real 2.1%, and current expenditures increased 21.4%.

How much can the surplus resources for the state governments reach? In 2005, when oil prices were almost US$16 higher than projected in the budget (US$42.6 vs US$27 dpb), the resources transferred to the state governments in the surplus revenue item (25% of the total, once non-programmable expenditures were discounted) totaled 22 billion pesos, that is, almost 1.5 billion pesos for each dollar in the price of oil above the projected level.[3]

A positive balance sheet… up to now

If it is necessary to quantify the net effect, the favorable effects of high oil prices for the Mexican economy are plain for all to see. These include solid public finances, more resources for Pemex, external accounts that are practically balanced, spurring the growth of the economy through greater public spending, and the strength of the peso. But the balance sheet should also include the opportunity cost of not having earmarked a greater percentage of such revenue to improving Pemex's production capacity, to public investment, or to the stabilization fund. The negative aspects include the accumulation of risks of a downturn in U.S. economic activity, as well as the latent pressures in inflation, up to now contained by the existence of subsidies.

Drawing up a balance sheet, if the gross oil revenue is added up (equivalent to as much as 2% of GDP) and the costs corresponding to subsidies are deducted (up to 1% of GDP), the result is a surplus equivalent to 1% of GDP. For 2006, this could allow a surplus in public finances as well as favor the growth of economic activity.

For a long-term vision

It is foreseeable that the volatility in the oil market will continue in the short and medium term, and that prices will remain at high levels. It is important, however, not to lose sight of what is key, and that in managing this extraordinary revenue a priority should be placed on the long-term view. Oil revenue, and especially the surplus, should mainly be earmarked for investment or savings. Such resources are extraordinary in their origin and therefore should also be so in their application. They should be earmarked for infrastructure projects and the modernization of Pemex, over and above current expenditures, and should yield positive results in the future, with a greater return, or even be considered for possibly paying the public debt.[4]

2 Mexico's State and Municipal Public Finances, 2001-2004. 2006 Edition.
3 Based on these figures, it can be established that a price range from US$ to US$65 dpb implies additional resources of between 15 billion and 45 billion pesos for the states, which, as can be seen, represents a broad range.
4 On June 22 the substitution of foreign for internal debt was announced, for an amount equivalent to seven billion dollars, given the high level of the country's international reserves.

High Oil Prices: a Recession Risk?...

High oil prices and the scant probability that they will decline significantly in the short and medium term are generating fears of an economic recession in the industrialized countries. In point of fact, more than three years after oil prices started to escalate (the beginning of 2003), these fears have not materialized. Contrary to what occurred in the 1980s and in previous crises, the industrialized countries have sufficient flexibility to absorb increases in the prices of raw materials. In this context, the historical experience offers some conclusions that it is useful to consider in the current situation. This section deals with this issue by analyzing the latest episodes of oil shocks (as of the 1970s) in terms of their impact on the United States and, consequently, on Mexico.

How high are oil prices at this moment?

In general terms, considering its nominal or current prices, oil is at its historical maximum levels, although in real terms it is still below its highest rate; measured at 2006 prices, the price of crude oil in U.S. refineries reached US$78 dollars per barrel in 1981. The price of the Mexican mix must be around this level in order for it to hit its highest price in real terms.[1]

Oil Prices
Dollars per barrel
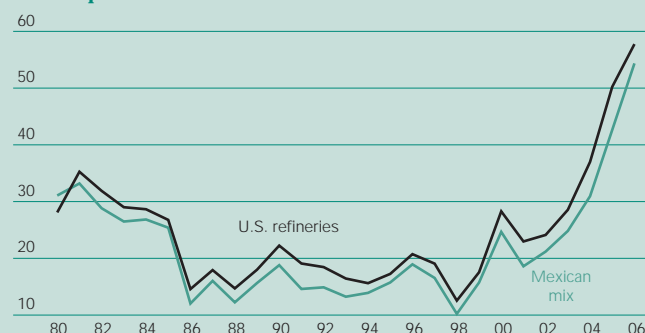
Source: BBVA Bancomer with Bloomberg data

Are there risks of a recession?

Do the current oil price levels imply the risk of a world recession? Not necessarily. As of the 1970s, it has been possible to identify four oil shocks that have had a strong impact on U.S. economic activity. The first, resulting from the oil embargo derived from the 1973-1974 Arab-Israeli war; the second, stemming from the Iranian revolution

in 1979; the third, due to the Gulf War in 1990-1991; and the latest shock, not associated with a war, but due to the imbalances generated by increased demand in Asia and insufficient production capacity in the short-term.

Oil*
Dollars per barrel
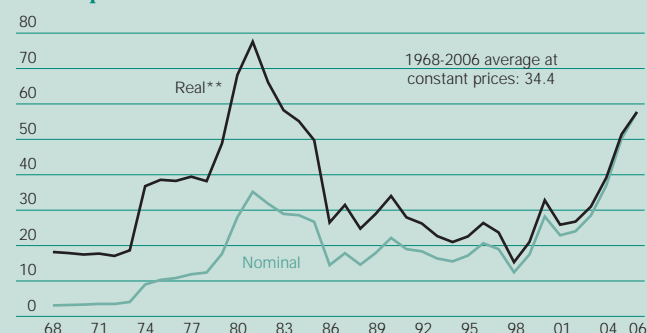
*   Acquisition cost in refineries
**   At 2006 prices
Source: BBVA Bancomer with Bloomberg data

Oil Shocks and U.S. Economic Cycles
Annual % change
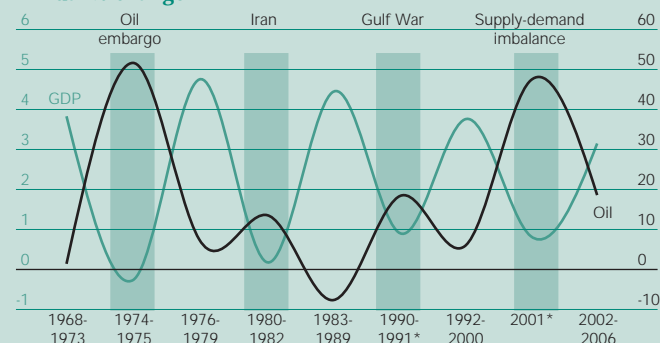
Note: The increase in oil prices preceded the recession by at least one year
Source: BBVA Bancomer with Bloomberg data

The fall in crude oil production was related with the characteristics of the oil shock (scope, duration and intensity) and the capacity of the economies to absorb them. In three of the four recessions, U.S. inflation reached levels ranging between 5% and 11%. In the most recent period (2002-2006), the oil price increases have been along the order of 18%, but economic growth has been maintained above 3%, and inflation below that level, on average, at 2.5%, although in the past 12 months it has risen, reaching 4.3% in June, with core inflation at 2.6%. Thus, the risk of recession has to do with the size and scale of the transfer of oil price increases to headline inflation and the need to implement a restrictive monetary policy, which thus far has not occurred. This impact has been cushioned, however, by an increase in productivity, high margins posted by U.S. companies, and globalization,

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1   Historically the cost of crude in U.S. refineries has maintained a level practically equal to that of the Mexican mix. In addition, given that it is an international reference, it can be deflated with the prices of that country.

which intensifies competition and encourages determining prices based on international criteria.

Cronología de los Choques Petroleros

	Oil[1]		U.S. GDP[3]	Annual inflation[4]
	Dpb[2]	Annual % chg		
1974-1975	37.7	50.8	-0.3	8.8
1980-1982	70.6	12.8	0.1	10.3
1990-1991*	34.0	17.3	0.9	4.8
2001*	26.9	46.5	0.8	3.1
1968-2006 avge.	**34.4**	**5.9**	**3.1**	**4.7**

1	Acquisition cost in refineries
2	US$ dollars per barrel at 2006 prices
3	Annual % change
4	Considers the inflation increase the year before the recession
*	The increase in oil prices precedes the recession by at least one year
Source:	BBVA Bancomer with Bloomberg data

A similarity with Mexico?

Given that Mexico is an exporter of crude oil, the question arises whether the oil shock will be favorable for its economic growth, contrary to what occurred in the United States. The relationship is not clear, given the economic crises that have occurred. In 1982, for example, a year of high oil prices, the situation combined with a recession, while in the 1990-1991 period, also marked by high oil prices, it was characterized by the country leaving behind the low-growth period of the 1980s. In contrast, the most recent price shock, the rise in energy costs in the 1999-2000 period, had a negative impact on the economy, with Mexico's industrial integration with the United States clearly being the predominant factor. In synthesis, the increase in oil revenue in the periods of high oil prices in the 1980s and 1990s was not enough to correct the imbalances that led to economic crises in those years. At the same time, once the North American Free Trade Agreement (NAFTA) entered into effect, commercial and financial relations with the United

States intensified, and therefore the link between oil prices and lower U.S. economic growth took on added importance.

Oil Shocks and Mexican GDP
Annual % change
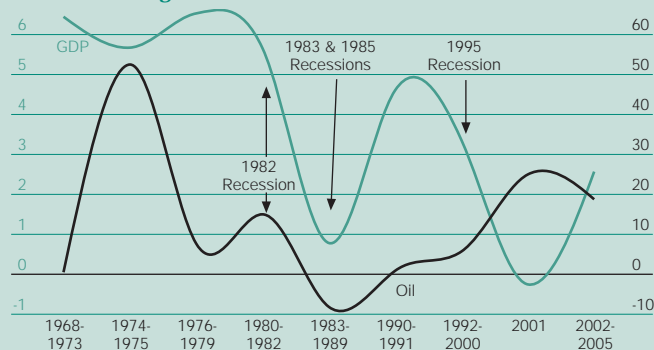
Source: BBVA Bancomer with INEGI and Bloomberg data

Are the current price levels a risk?

The projections for the second half of 2006 and during 2007 indicate, in accordance with the base scenario provided by Grupo BBVA, that prices will begin to decline gradually, so that, on average, the increase in oil prices during 2006 will be close to 11% and in 2007 it will fall to nearly 7% (see section on International Environment). In an extreme case, in a scenario of a new, major war in the Middle East, the variations could reach 50% this year and 15% in 2007. Evidently, the risks of a low-growth phase for the United States and Mexico would be associated with this second scenario.[2]

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2   Exercises show that in this scenario, U.S. GDP would grow around 1.7%, and inflation would rise slightly, to 2.4%. In Mexico, this would translate into a moderation of economic activity, to 1.9% GDP growth, and a moderate increase in inflation, to around 4%.

United States Indicators and Forecasts

	III'05	IV'05	I'06	II'06	III'06	IV'06	I'07	II'07	2005	2006	2007
Economic Activity											
GDP (real annual % change)	3.4	3.1	3.7	3.5	3.0	3.2	2.9	2.9	3.2	3.3	3.2
Personal consumption expenditures	3.8	2.9	3.4	3.0	2.7	3.8	2.9	3.2	3.5	3.2	3.1
Gross fixed investment	7.4	6.8	6.9	4.1	4.0	3.8	3.7	3.5	7.5	4.7	3.9
Non-residential	6.4	5.6	7.4	6.8	8.1	7.7	7.4	7.2	6.8	7.5	7.4
Structures	-1.6	1.8	2.6	6.3	5.7	4.4	4.5	4.5	1.1	4.7	4.5
Equipment and software	9.3	7.0	9.2	6.9	7.0	7.1	6.5	6.6	8.9	7.5	7.4
Residential	9.1	9.0	6.1	-0.2	-2.3	-2.4	-2.8	-3.6	8.6	0.2	-3.3
Total exports	6.8	6.7	9.0	7.4	7.4	7.2	7.6	7.2	6.8	7.8	7.0
Total imports	4.9	5.2	6.4	6.1	5.9	5.8	4.3	4.4	6.1	6.1	4.0
Government consumption	1.0	1.2	2.0	1.9	1.8	1.8	1.5	1.5	0.9	1.9	1.5
Contribution to Growth (pp)											
Personal consumption expenditures	2.7	2.1	2.4	2.1	1.9	2.7	2.1	2.3	2.5	2.3	2.2
Private investment	0.6	1.0	1.0	1.3	0.9	0.4	0.4	0.3	0.9	0.9	0.6
Net exports	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	0.1	0.1	-0.3	-0.2	0.1
Government consumption	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Prices and Costs (annual % change, average)											
CPI	3.8	3.7	3.7	4.1	3.7	3.5	3.4	2.2	3.4	3.8	2.3
Core	2.1	2.1	2.1	2.5	2.9	2.6	2.6	2.2	2.2	2.5	2.3
PCE	3.1	3.0	3.0	3.3	2.9	2.9	2.7	1.9	2.8	3.0	1.9
Core	1.9	2.0	1.9	2.2	2.3	2.2	2.1	1.9	2.0	2.1	1.9
GDP deflactor	3.1	3.1	3.1	3.3	3.1	3.1	3.0	2.5	3.0	3.1	2.5
Productivity	3.1	2.5	2.5	2.8	2.8	2.8	2.5	2.5	2.7	2.7	2.5
Real compensation per hour	1.7	-0.8	-0.9	1.9	1.9	1.9	1.8	1.8	1.7	1.2	1.8
Unit labor cost	2.4	0.3	2.4	0.3	0.3	1.4	1.4	1.4	2.3	1.1	1.3
Other Indicators											
Industrial production (real annual % change)	2.8	3.0	3.3	4.6	4.2	3.9	4.0	3.1	3.2	4.0	3.3
Capacity utilization (%)	79.9	80.5	81.1	82.0	81.9	82.2	82.3	82.5	80.1	81.8	82.6
Light weight vehicle sales (millions, annualized)	18.0	15.9	16.9	16.4	16.9	16.9	16.9	16.9	16.9	16.8	16.9
Housing starts (thousands, annualized)	2,101	2,060	2,123	1,878	1,868	1,869	1,869	1,871	2,073	1,935	1,890
Nonfarm payrolls (thousands of new jobs, average)	155	179	176	108	160	160	140	140	165	151	140
Unemployment rate (average, %)	5.0	4.9	4.7	4.6	4.6	4.6	4.6	4.7	5.1	4.6	4.7
Personal savings rate	-1.6	-0.5	-1.4	-1.3	-1.4	-1.3	-0.6	-0.4	-0.5	-1.3	-0.2
Trade balance (US$ billions)	-183	-223	-209	-217	-213	-225	-216	-219	-724	-799	-802
Current account balance (US$ billions)	-734	-892	-849	-869	-851	-902	-864	-874	-805	-868	-863
% of GDP	-5.8	-7.0	-6.5	-6.6	-6.4	-6.7	-6.3	-6.3	-6.4	-6.5	-6.2
Fiscal balance (US$ billions, fiscal year)	—	—	—	—	—	—	—	—	-318	-350	-279
% of GDP	—	—	—	—	—	—	—	—	-2.6	-2.6	-2.0
Brent (dollars per barrel, average)	65.5	61.1	66.4	65.6	60.8	59.4	58.1	57.2	58.3	63.1	56.7
Financial Markets (eop)											
Fed Funds (%)	3.75	4.25	4.75	5.25	5.25	5.25	5.25	5.25	4.25	5.25	5.25
3-month Libor (%)	4.07	4.54	5.00	5.37	5.37	5.37	5.37	5.37	4.54	5.37	5.37
10-year Treasury Note (%)	4.32	4.39	4.85	4.90	5.00	5.20	5.18	5.15	4.39	5.20	5.10
Dollar/euro	1.20	1.18	1.21	1.21	1.22	1.23	1.24	1.25	1.18	1.23	1.26

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

Mexico Indicators and Forecasts

	2002	2003	2004	2005	2006	I'05	II'05	III'05	IV'05	I'06	II'06	III'06	IV'06
Economic Activity													
GDP (seasonally-adjusted series)													
Real annual % change	0.8	1.4	4.2	3.0	**4.3**	3.6	2.2	3.4	2.7	4.2	**5.2**	**3.9**	**3.8**
Per inhabitant (US dollars)*	6,520	6,355	6,727	7,415	**7,574**	6,994	7,410	7,398	7,858	7,562	**7,564**	**7,284**	**7,885**
US$ billions	649	639	676	769	**798**	713	760	764	841	831	**813**	**790**	**878**
Inflation (eop, %)													
Headline	5.7	4.0	5.2	3.3	**3.4**	4.4	4.3	3.5	3.3	3.4	3.2	**3.5**	**3.4**
Core	3.8	3.7	3.8	3.1	**3.2**	3.6	3.4	3.2	3.1	3.0	3.2	**3.4**	**3.2**
Financial Markets													
Interest rates (eop, %)													
Bank funding	—	6.1	8.8	8.3	**7.0**	9.5	9.8	9.3	8.3	7.3	7.0	**7.0**	**7.0**
28-day Cetes	7.0	6.0	8.6	8.0	**7.1**	9.6	9.6	9.0	8.0	7.3	7.0	**7.0**	**7.1**
28-day TIIE	8.5	6.3	9.0	8.6	**7.4**	9.9	10.0	9.5	8.6	7.6	7.3	**7.3**	**7.4**
10-year Bond	10.1	8.3	9.7	8.5	**8.2**	10.5	9.6	8.5	8.5	8.7	9.7	**8.5**	**8.2**
Exchange rate													
Pesos per dollar, eop	10.3	11.2	11.3	10.7	**11.0**	11.3	10.8	10.8	10.7	11.0	11.4	**11.2**	**11.0**
Public Finances													
Fiscal balance (% of GDP)	-1.2	-0.6	-0.3	-0.1	**0.2**	nd	nd	nd	-0.1	nd	nd	**nd**	**0.2**
FRPS (% GDP)	3.3	3.1	2.7	2.1	**1.5**	nd	nd	nd	2.1	nd	nd	**nd**	**0.5**
External Sector**													
Trade balance (US$ billions)	-7.6	-5.8	-8.8	-7.6	**-3.4**	-10.2	-9.7	-9.5	-7.6	-5.0	-4.4	**-4.2**	**-3.4**
Current account (US$ billions)	-13.5	-8.6	-6.6	-4.8	**-2.3**	-7.8	-8.0	-7.2	-4.8	-1.2	-0.6	**-1.2**	**-2.3**
Current account (% of GDP)	-2.1	-1.4	-1.0	-0.6	**-0.3**	-1.1	-1.1	-1.0	-0.6	-0.1	-0.1	**-0.1**	**-0.3**
Oil (Mexican mix, dpb, eop)	21.5	25.7	28.6	44.9	**57.6**	38.4	44.1	51.5	44.9	51.4	55.5	**60.5**	**57.6**
Monetary Agreggates & Banking Activity (ann. % chge.)													
Core bank deposits	-5.5	7.5	6.3	4.5	**7.8**	3.1	2.3	4.0	4.5	6.0	7.4	**7.3**	**7.8**
Commer. banks performing loans***	8.5	8.6	26.1	27.1	**24.9**	29.6	30.0	29.3	27.1	30.1	30.9	**28.7**	**24.9**
Agreggate Demand (ann. % chge., seasonally-adjusted)													
Total	1.0	1.2	6.2	4.6	**6.8**	4.3	4.1	4.9	4.9	7.7	**7.7**	**6.6**	**5.4**
Domestic demand	0.9	1.8	4.3	5.4	**6.4**	5.2	5.1	5.5	5.7	7.8	**7.2**	**5.7**	**5.2**
Consumption	1.3	2.1	3.6	4.8	**5.7**	4.9	4.3	5.1	5.0	6.6	**6.4**	**5.0**	**4.8**
Private	1.5	2.2	4.1	5.4	**5.7**	5.6	4.8	5.8	5.3	6.5	**6.4**	**5.0**	**4.8**
Public	-0.2	1.0	-0.4	0.3	**5.7**	-1.0	0.2	-0.2	2.4	7.0	**6.0**	**5.0**	**5.0**
Investment	-0.7	0.4	7.5	7.6	**9.5**	6.6	8.4	7.0	8.4	12.9	**10.3**	**8.5**	**6.7**
Private	-4.1	-1.6	8.8	9.6	**9.5**	4.8	7.7	6.5	20.7	11.2	**10.5**	**9.0**	**7.5**
Public	16.8	8.5	2.5	-0.4	**9.6**	17.2	12.1	9.4	-19.7	22.1	**9.5**	**5.8**	**4.1**
External demand	1.4	2.7	11.7	6.8	**11.3**	8.0	4.4	5.8	9.2	11.1	**13.0**	**11.5**	**9.5**
Imports	1.4	0.7	11.6	8.6	**12.9**	6.0	8.8	8.9	10.5	16.4	**13.5**	**13.0**	**9.0**
GDP by sectors (annual % change)													
Agriculture	7.9	0.7	3.4	-1.5	**1.6**	-0.8	-3.4	6.2	-6.1	1.7	**4.1**	**0.3**	**1.0**
Industrial	-4.8	0.6	-1.3	1.6	**4.7**	1.5	1.1	0.9	2.7	4.7	**5.8**	**5.3**	**3.3**
Mining	0.2	0.7	3.4	1.2	**3.7**	-0.3	0.6	1.4	2.7	4.5	**3.4**	**3.6**	**3.3**
Manufactures	-5.6	0.2	-2.7	1.2	**4.8**	2.4	0.4	0.4	2.3	4.5	**5.6**	**5.7**	**3.4**
Construction	-5.3	2.0	3.0	3.3	**5.0**	4.7	2.5	2.2	4.4	6.2	**6.6**	**4.7**	**2.7**
Electricity, gas and water	1.9	2.4	0.4	1.4	**3.6**	0.2	2.9	2.0	0.5	4.1	**4.4**	**2.4**	**3.6**
Services	-0.1	2.5	2.1	4.2	**4.7**	4.9	3.6	4.4	3.9	4.5	**5.5**	**4.5**	**4.1**
Retail, restaurants and hotels	-4.3	2.2	1.2	7.1	**8.4**	4.3	3.2	3.2	2.5	4.5	**5.6**	**3.9**	**2.6**
Transportation and communications	1.9	2.4	5.2	3.1	**4.1**	9.1	7.4	7.0	7.0	8.1	**8.8**	**8.7**	**7.2**
Financial, insurance and real-estate	4.7	4.0	3.8	5.8	**5.1**	4.4	5.3	6.2	6.0	5.7	**5.3**	**4.8**	**4.8**
Community and personal	-0.1	1.3	-0.3	2.1	**2.4**	1.5	2.0	2.8	2.9	2.6	**2.0**	**2.4**	**2.8**

eop   end of period
dpb   dollars per barrel
*   Seasonally-adjusted series for quarterly data
**   Accummulated, last 12 months
***   To the private sector
FRPS   Financial Requirements of the Public Sector, % of GDP
na   not available
Note: **Bold** figures are forecast

Economic Research Department Presentations

Title	Institution - Client	Place and date

Buenos Aires www.bancofrances.com.ar

Panorama Macro Financiero de Argentina 2006/2007	Global Markets and Distribution Clients	Buenos Aires, April 2006
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Perspectivas Económicas 2006-2007	Corporate Banking Clients	Buenos Aires, June 2006
Argentina: Escenarios de Riesgo en Cuenta Corriente 2006-2008	Banco Central de la República Argentina	Buenos Aires, June 2006
Consistencia de la Política Monetaria, Cambiaria y Fiscal	Professors of Economic Science Council	Buenos Aires, June 2006
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Flujos de Fondos, Tasas y Tipo de Cambio en el Mercado Global	Venezuelan-American Chamber	Caracas, April 06
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América Latina en el Escenario Internacional	Universidad del Rosario de Colombia	Lima, April 2006
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Perú: Escenario Económico y Financiero	Economics for Executives Meeting	Lima, May 2006
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