# Mexico

# **Economic Outlook**

Third Quarter 2010

**Economic Analysis** 

- Mexico, exposed to the best of the external environment, continues to expect a more solid recovery in consumption of households.
- Inflation fell in the first half of 2010 and will rise in the second half; but without pressure for the central bank to touch rates until the second quarter of 2011.
- Public finances, for the first time consistent with the economic cycle, although medium-term vulnerabilities remain.



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Closing date: July 28, 2010

# 1. Summary

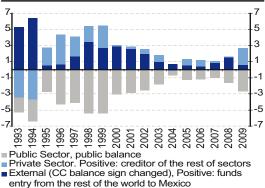
The Mexican economy continues on a road to recovery supported by its integration with the U.S. Following the slight drop in GDP in 1Q10, in the second quarter, Mexico has returned to growth at rates close to 1% quarterly, supported by the cyclical boost from U.S. demand. Throughout the past months, the expansion of exports has been maintained and in general, among manufacturing activities linked mostly to external demand, the production of durable consumer goods. Thus, the classic pattern of behavior of the Mexican economy is repeated, with an evolving cycle determined by that of its economic trading partner. This cyclical boost, which will lead to growth close to 4.5% in 2010 has been supported, or at least not stopped, by the cost of the use of capital, of financing from the public and private sectors, and the expectations of agents who have not suffered the shocks of the uncertainty prevailing in Europe, very far from Mexico, as we have seen this quarter.

The distance from Europe and uncertainty and Mexico's commitment to fiscal consolidation are being a support factor. It is not just the fact that the weight of exports to Europe has lowered -1% of Mexico's GDP in the case of sales of non-oil goods- it is also that if anything characterizes Mexico it is its fiscal certainty, contrary to the perception that the markets have of Europe. Mexico has a lower public deficit, which did not reach 3% of GDP in 2009, and will be close to 2% in 2010, bound by an annual rule and with a commitment to fiscal sustainability reflected in higher taxes -and an adjustment in spending- determined during the recession of 2009. With this, paradoxically, two of the main vulnerabilities of the Mexican economy from a medium-term perspective, its dependence on a single economic partner and a rigid fiscal policy, with little capacity for cyclical stabilization -although the contrary up to a couple of years ago- have become its strong points in 2010. But these cyclical strengths are still vulnerabilities in the medium term. The first, due to an excessive dependence on the U.S. and because there is no comparable support point in sources of domestic growth, and the second because a tax increase that changes the oil mix versus the non-oil only minimally is not enough to forget the pro-cyclical nature of spending -through the participation of the states directly dependent on revenue or on the lack of automatic stabilizers- or the distortions in the decisions of agents, which produce a tax system full of exemptions and special treatments. All things considered, the adjustment of the public deficit and the limited pressure of private

#### Real income for work and Consumption Mar-05=100 120 120 115 115 110 110 105 105 100 100 95 -95 90 90 1010 3Q09 3Q05 3006 3Q08 Q06 Q08 Q09 001 300<u>1</u> g Consumption Formal Market Total Labor Market

Graph 1





Source: BBVA Research. Note: Number of total employees in the economy and income of ENOE for the total, and employment in the private sector and wages of IMSS-affiliated workers for the formal market. Source: BBVA Research with Banco de Mexico data

internal demand have led to a lower appeal to external savings to finance the Mexican economy, another element of tranquility for the markets.

**Household spending improves with employment but is held back due to real income.** This exposure to the best of the global scenario has produced very positive impacts in the domestic market through employment, which in the case of formal employment in the private sector already reached, in June 2010, the levels prior to the crisis, something that in the case of GDP will not be seen until next year, in line with our scenario. And this is because consumption of households, close to 70% of GDP from the standpoint of spending, has been stagnant during the last quarters. We expect that consumption will ultimately grow, in annual terms, nearly 2% in 2010, and we have even slightly revised our forecast upward from that of three months ago, given the descent in inflation expectations. But, from a medium-term perspective, the pattern of evolution of households' disposable income continues to be held back due to salaries that are still low, in real terms, and also due to the weight of informal activity, which makes the consolidation of expectations of more or less stable permanent income difficult, in order to plan spending on consumption over time.

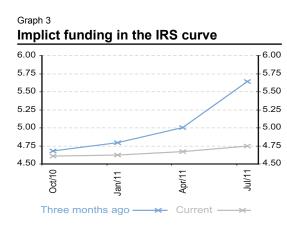
Inflation is also a positive surprise due to a combination of volatile factors and the weakness of domestic demand. In the second half of the year, inflation is expected to **rise.** The big surprise of recent months has been the stagnation of consumer prices in 2Q10, only three months after a rise in direct and indirect tax rates and duties was implemented. This was the result, again, of a favorable combination of intense declines in the prices of the basket of agricultural and livestock products and lower growth of the rest of merchandise as a result of the lower pressure on costs - the appreciation of the peso, the drop in dollar prices of imports- and the lack of significant pressure on demand, given a product gap that is still clearly negative. The perspectives for the second half of 2010 are of gradual rises, not because volatile food prices could rise, which could also occur, but because the base effect after the intense slowdown of prices in 2009, especially toward the end of the year, almost demands it, and more so considering a policy of rising government-managed prices and some prices on services that, especially in some areas, show certain levels of the markets' rigidness to take these changes upward. All in all, year-end perspectives for the National Consumer Price Index (INPC for its Spanish initials) are lower than those estimated three months ago, with foreseeable inflation of 5% in the last quarter of 2010, precisely at the mid-point of the central bank's target range.

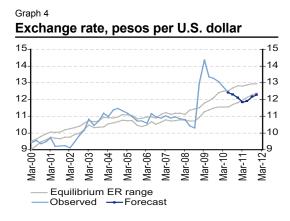
The central bank will maintain the monetary pause until 2Q11, without inflationary expectations justifying a descent in the funding rate. The monetary pause, which is now more lasting since the central bank (Banxico) set an inflation target, will continue until next year, given that it is highly probable that inflation will remain under the range set by Banxico for 3Q10 and in 4Q10, and especially throughout 2011. It is not clear whether inflationary convergence toward 3% will be achieved in the expected terms, given the medium-term perspectives, anchored at close to 3.5% and an output gap –demand pressures– that is increasingly more negative. In addition, monetary conditions are already expansive, as reflected by any calculated index of monetary conditions.

The positive differentiation of the Mexican financial variables in the global markets has also been observed in the peso, which has an additional margin of appreciation. The peso maintains an appreciation trend since 4Q09, better than that of other currencies in emerging economies, at least in part because up until that time, its relative performance had also been worse, given Mexico's proximity to the epicenter of the crisis. The episodes of the peso's appreciation posted since 2Q10 were interrupted by the high volatility in the global markets and doubts regarding the growth trend in the U.S., but we believe that the peso's margin of appreciation is open for the second half of the year. In the first place, investors'

search for earnings activates the arbitrage strategies on rates in an environment of lower risk aversion and greater liquidity in view of the perspectives of the extension of lax monetary policies in the more developed countries. In the second place, the positive differentiation of the domestic market against other emerging markets in a context of cyclical recovery will continue to be relevant, and more so as Mexico's economic recovery is not accompanied by a deterioration of its current account balance, which would moderately increase its deficit balance in line with a gradual growth of internal demand and rising oil revenues and remittance flows. As an additional element that has an impact both on the exchange rate and on interest rates is the incorporation of Mexico in the WGBI index as of next October, which has already been recognized and considered. In the case of Mexico, we estimate that in the last four quarters, the entry of capital flows has represented some US\$9 billion, a figure that is still distant from what is projected as that which could enter (around US\$14 billion would be a reasonable approximation), with additional capital inflows estimated during the second half of 2010 of between US\$5 billion and US\$7 billion. With this, we believe that the earnings curve could continue to benefit from the strong recovery of foreign investment flows to this market. To this can be added the greater demand by local institutional investors, which have begun to invest in securities after the financial crisis.

According to our estimates, the exchange rate observed in recent weeks, between 12.50 and 13.00 pesos per dollar, is very close to the upper limit of the band that configures our estimate for the long-term equilibrium exchange rate. However, the current financial and economic situation described above could boost the exchange rate toward the lower band; that is, a level of greater appreciation of the peso and even closer to areas of over-valuation. We estimate that the peso-dollar exchange rate could end the year at around 12 ppd and fluctuate around that level during the first half of next year. Toward the end of next year, the international monetary cycle could again show a slight bias of volatility which, together with the trend given by the spread in inflation and productivity in Mexico vs. the U.S. could take the exchange rate toward areas close to 12.5-13.0 once more.





Source: BBVA Research with Valmer data. Implicit funding: adjusted by the spread of equilibrium between the TIIE and Funding, and by the term premium in the IRS curve

Source: BBVA Research

# 2. Reevaluation of the outlook for the global economy

The effects of the fiscal adjustment on growth in Europe will be less than what might be assumed. The positive repercussions on credibility will almost offset the negative effects of the reduction in public demand. On the contrary, the medium-term risks derived from unsustainable fiscal situations in other developed regions are possibly being underestimated.

One of the most important channels through which the fiscal crisis has affected the European economy has been the loss of confidence, and a sine qua non requirement to reestablish such trust is fiscal prudence. The European consolidation plans are being implemented in accordance with a calendar presented to the EC at the beginning of 2010. The European fiscal consolidation must be centered on the structural level, but a positive factor is that the adjustment is rapid and is oriented toward a reduction in spending, which will improve confidence and practically counteract the negative effects on growth derived from lower public demand. Therefore, as long as the fiscal consolidation persists, the repercussions on European economic activity will be limited and transitory. Moreover, other advanced economies in which fiscal stimuli have been substantial and whose debt levels grew at the same rate as in Europe, have been shown to be relatively slow in facing their obligation to reduce their deficits, and at least stabilize their debt levels. There is a medium-term risk that is being underestimated, since experience shows that the effects of a lax fiscal policy on interest rates are highly non-linear, with the risk of a sudden increase in long-term rates and a shift in private demand, exactly the opposite effect that the fiscal stimuli packages seek to achieve.

The main risk for the global outlook still comes from the financial markets. The stress tests have had positive, if asymmetric, repercussions, in Europe. Although the risks have decreased, the possibilities of a setback continue to be significant.

The financial risks, derived from sovereign debt problems, resulted in a vicious circle that ended up increasing market risk and absorbing liquidity, particularly in Europe. Nevertheless, the strong increase in financial stress in Europe during the second quarter is beginning to recede (see Graph 1). Publication of the results of the stress tests in Europe has had the positive effect of reducing tensions, although a clear differentiation has been observed among the countries. Specifically, they can serve as a strong motive to dissipate uncertainty with regard to the Spanish financial system, since the implementation of the stress tests has been rigorous and their results, which are very informative, appear credible. Undoubtedly, the risks for Europe and for the world economy coming from the financial markets continue to be the main cause for concern.

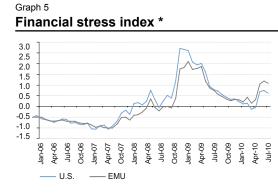
Growing divergence in the strategies of monetary policy. The increased uncertainty will lead the Fed and the CBE to delay the withdrawal of the monetary stimuli. On the opposite end, in a large part of Asia and Latin America, the rise in interest rates has already begun.

The financial tensions in Europe and the uncertainty with regard to the rhythm of the U.S. economic recovery will force the central banks of both regions to delay their initial interest rate hikes, as well as to maintain very low benchmark rates over a prolonged period. The inflationary pressures in both areas will continue to be under control, which will allow the authorities to maintain flexible monetary policies. Nevertheless, a more rapid economic recovery in the United States will lead to a change in monetary policy in that country before it occurs Europe, and both factors will weigh on the euro. Although the two central banks will postpone the

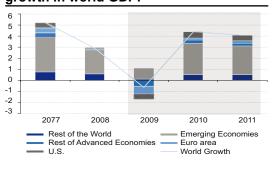
monetary adjustments, the manner in which such decisions are communicated and how risks are evaluated continue to be different for the two institutions, which limits the CBE's relative ability to react, especially to deflationary risks. At the same time, in the emerging economies the increases in benchmark rates has already begun, following the pause (especially in Asia) that caused the European debt crisis. This will contribute to reducing inflationary pressures in Asia —where they had begun to mushroom— and will prevent possible pressures from emerging in South America later on this year. An important exception is the Banco de México, (Mexico's central bank) which could possibly maintain its interest rates until the second quarter of 2011. Inflation will increase over the course of the second half of 2010, but in the 4Q10 it is expected to reach 5%, in the center of the range anticipated by the central bank, and with a long-term outlook very much anchored at the 3.5% level. With inflation being anchored at above 3%, the gradual reduction of the negative output gap, and the existing rigidities in price formation in some markets will allow ruling out additional rate reductions in the projected scenario.

The world economy is moving toward a soft and differentiated downturn. This situation will be advantageous for China and the rest of the emerging Asian economies, since a convergence in growth will take place with a trend toward more sustainable rates. Nevertheless, private U.S. demand will continue to be fragile without official support, while in Europe confidence will be negatively affected by the consequences of the financial crisis.

The fallout from the European financial crisis in other geographical regions has been relatively limited. Nevertheless, in the near future the global economy can be expected to slow down (see graph 6). The seriousness of the European financial tensions will affect confidence and will reduce growth in the second half of 2010 and the beginning of 2011. Furthermore, external demand will not be as solid as during the first half of the year, although it will contribute a certain degree of support to economic activity. In the United States it is likely that the recovery will lose some steam as a result of the situation in the labor and housing markets. This shows the limits of private demand as an autonomous driving force for growth. In China, the downturn in the growth of GDP in the second quarter and some indicators of an easing of economic activity demonstrate that the authorities' adjustment measures are being effective in directing the economy toward more sustainable growth rates. The economy is also expected to slow down in Latin America during 2011, although maintaining high growth indexes. As a result, the disparities will continue growing between the advanced and emerging economies, and also within each of these categories..



Graph 6 Contributions to growth in world GDPI



\* Index comprised of financial stress in three credit markets (sovereign, corporate, and financial), liquidity restrictions, and volatility in interest rates, exchange rates and equity markets. Source: BBVA Research

Source: BBVA Research, based on national accounts

# Although some measures have been taken in the right direction, with a view toward the future, the necessary global rebalancing of demand and the reduction in global imbalances is still pending.

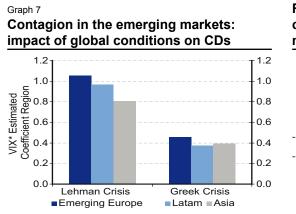
The re-equilibrium of the Chinese economy toward an increase in internal demand (especially consumption) has begun and the reinitiation of a more flexible exchange rate should contribute to this process. Nevertheless more reforms are necessary to better adjust the weight of consumption toward levels similar to those of the region. Furthermore, other advanced economies with surpluses should implement reforms to increase internal demand, notably in the services sector. At the same time, the United States and other countries with important external financing needs should move from a model based on consumption to another based on investment, especially in the tradable goods sectors. The recent financial crisis has shown the limits of external financing of growth. The economies with high external financing needs are very vulnerable to the worsening of international financial tensions, and the resulting sudden fluctuations of the exchange rates can undermine global financial stability.

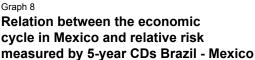
# 3. Mexico, exposed to the best of the external environment

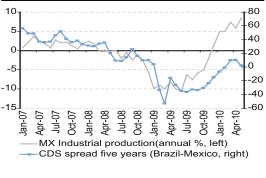
The global risk balance considered by the financial markets today grants lower relative weight to doubts regarding the strength of the recovery in the United States against the economic and fiscal uncertainty in Europe. Up until 3Q09, in the risk premiums and the evolution of financial flows, uncertainty weighed mainly on the sustainability of the cyclical recovery in the U.S. From the end of last year to date, evidence of the recovery in progress in the U.S., more intense than in Europe, and above all, the doubts regarding the solvency of the public debt of some European countries in view of the intense and rapid deterioration of their public deficits, have been determining factors in the performance of the financial markets. The nervousness has lasted, transmitting its effect to some members of the Euro zone (Greece, Portugal, Spain, Italy) and the economies of Eastern Europe. The absence of coordinated and believable measures for the markets in view of the fiscal crisis and other accumulated imbalances and the possible effects that the high-risk premiums could generate in the weak European recovery and its financial system have been key factors in the financial volatility of this first half of 2010.

In this context, the domestic financial variables have shown a positive differentiation in 2010, in contrast to the performance of 2008 and 2009. The performance of the markets in Mexico, in relative terms, have been more favorable than the average for the emerging markets. The reason for this positive differentiation this year, and negative the previous year, is the greater exposure of the Mexican economy to the U.S. cycle. In fact, making use of an analogy, the current perception of the risks of the domestic financial variables is like a reflection, in a pool of water (considering the volatility of the markets), of those perceived at the beginning of the financial crisis with the Lehman Brothers bankruptcy. After that episode, and with the recession in progress both in the U.S. and in Mexico, the deterioration of public finances raised doubts regarding the sustainability of the public debt and the financing of the deficit in the balance of payments, even more so in view of declining oil prices. Moreover, the major rating agencies lowered their classification of Mexican debt, although always within the investment grade and with a stable outlook. The situation today is the opposite.

Once recovery was intiated, both in the U.S. and in Mexico, the implicit risks in the Mexican financial variables fell, due to a more favorable cyclical environment and the reorganization of public accounts. In addition to the better cyclical perception due to the recovery of demand in the U.S., there are the budgetary adjustments implemented to strengthen the sustainability of public finances--higher taxes and expenditure cuts. Moreover, oil prices have risen, which, together with the improvement of external demand, support a better outlook in the balance of payments. In the face of an international environment dominated by the effects of the financial crisis and doubts regarding fiscal sustainability, the strengths of the Mexican financial system and the profile and structure of the public debt stand out. The fiscal risk is not focused on the levels of debt or of the deficit, but on the vulnerability of the structure of revenue in view of negative shocks in the cycle and oil prices, as occurred in 2008 and 2009. Mexico is in a calmer financial environment because it notably avoids the concerns of international investors.







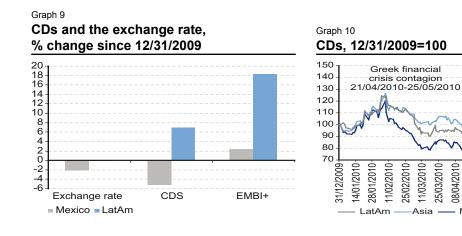
Note: Estimate of panel for 23 countries, with daily CDs explained by interaction variables between VIX and regional dummies. Source: BBVA Research

Financial flows to the domestic markets have again increased, in line with a context of the search for earnings and lower premiums in assets of the emerging markets. Nevertheless, the inflow in debt instruments, continues to be more intense. Since 4Q09, foreign capital flows have reverted their abrupt exit of 2008 and 2009. In Mexico, an inflow into the money market of 6 billion dollars is estimated as of the start of 2010, a volume that is equivalent in relative terms to the dynamism of flows to other emerging markets. Nevertheless, the prices of Mexican assets on the international markets, mainly in debt instruments and the exchange rate, have shown a better performance than the average for the emerging markets. This can be corroborated by observing the trend in the appreciation of the peso, its implicit volatility, the descent of 5-year CDs and of the Embi+ or CEMBI spreads since the end of 2009. Thus, although the situation in Europe has set the pace of volatility, the markets in Mexico have been affected relatively less than their peers due to this source of uncertainty.

Source: BBVA Research

Toward the end of 2Q10, new episodes were registered of high volatility associated with the risk of interruption of the recovery in the U.S., which marginally reverted the positive differentiation with Mexico; these episodes have been short-lived. Economic data in the U.S. have shown a weak recovery in employment. Although this is in line with our forecasts, still beneath that of the consensus, questions have re-surfaced regarding the sustainability of the recovery, beyond the stimulus provided by the fiscal and monetary policies. As a whole, however, there is no evidence that conditions will accentuate that could again lead the economic cycle to a recessive phase, since, although slowly, the recovery of employment, domestic spending and industrial activity, are being maintained. On the other hand, although the risk of economic contagion is real, in view of the weakness of the European economy and doubts regarding the process of fiscal consolidation currently underway are real, the growth rate of other economic areas, in Asia and Latin America, suggest that the probability of an interruption in 2011 of growth in the U.S. due to external shock, is low. According to our projections, the U.S. will grow 3% in 2010 and 2.5% in 2011.

In this concurrence of economic events and news in the U.S. and Europe, the global markets slowed down their affluence of assets in the higher-risk emerging markets, and the capital flows slowed down their entry rates, awaiting greater clarity regarding the prevailing scenario. Thus, the domestic variables temporarily interrupted their favorable evolution in the face of other emerging markets and fluctuated within the average of the markets that had shown greater volatility at the close of 2Q10. Nevertheless, currently the context of continuity of the cyclical recovery of the U.S. dominates the scene and thereby a lower aversion to Mexico's relative risk. The financial variables are favorable again.



Note:Latin America considers the simple average of Argentina, Brazil, Chile, Colombia and Perú Source: BBVA Research

Note: Latin America is the simple average of Argentina, Brazil, Chile, Colombia and Perú; Asia includes China, South Korea, Phillipines, Indonesia, Malaysia and Thailand Source: BBVA Research

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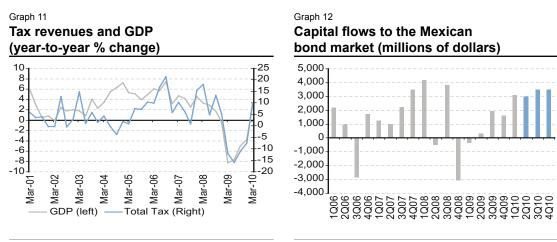
Mexico

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The mirrored reflection of domestic financial variables: a negative differentiation against other emerging markets when there are doubts regarding the U.S. cycle, and a positive differentiation when this concern is mitigated. The Mexican financial variables are affected by the uncertainty associated with economic growth in the U.S. The reason is clear; if the U.S. doesn't grow, new uncertainties regarding the capacity of the Mexican economy to strengthen its internal demand beyond the stimulus from the U.S. and the strength of its public finances are again unleashed. There is no doubt that it is better to be exposed now to the U.S. cycle than to the European cycle, since growth expectations for the U.S. economy are greater over the next few years. Also, the better current cyclical environment, in addition, highlights other positive elements in Mexico, such as the strength of its financial system, a low public deficit, and the fact that it is bound by strict budget regulations, a low level of public and private debt, a public debt structure with an increasingly higher average maturity term, anchored inflation expectations, monetary credibility and the challenge of the boost to reforms to raise potential economic growth.

In this manner, an economic and financial profile is being shaped in which Mexico will not face an additional risk premium above the average for the emerging markets. In addition, the dominant risk scenario will continue to be focused on Europe. That is, we would expect that, as long as fiscal, economic and financial uncertainty continues to dominate in Europe, the emerging markets, and in particular Mexico, should benefit from the flows in search of returns and therefore, from a lower aversion toward these assets, which should prevail beyond foreign-exchange stability and favorable credit spreads (including the corporate). This financial scenario has a direct and positive impact on the activity of the Mexican economy given the lower cost of the use of capital, which raises the profitability of investment projects, activity and employment.

The most important financial risks that Mexico faces going forward are: 1) the sensitivity of the source of public income to marginal changes in macroeconomic assumptions, especially oil prices; 2) the fact that the search for profitability will lead to capital inflows more dependent on the weaknesses of the developed countries than on Mexico's own merits. neither of these is a short-term risk and both could be dealt with by structural reforms: both in the structure of public revenue as in those that justify a strong investment in portfolio and direct investment, in view of expectations of greater potential growth.



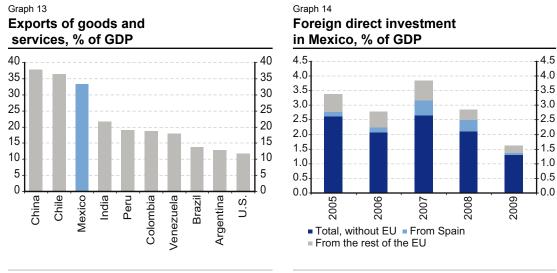
Source: BBVA Research with Banco de México data

Note: estimates as of 2Q10 Souce: BBVA Research with Banco de México data

# Mexico, near the U.S., far from Europe and with a high fiscal certainty

Mexico is one of the most open economies in the world in terms of the weight of its exports of goods and services, in total GDP, one third of the total. This makes any global event have an important impact on the performance of Mexican growth. Moreover, its high degree of economic integration with the U.S. (its most important client, the destination of 80% of Mexico's exports of goods, the origin of remittances from immigrants that represent between 2% and 3% of Mexico's GDP each year, the origin of 78% of international tourists that visit Mexico, and 53% of foreign direct investment in Mexico), accounts for Mexico's growth cycle to be determined by its neighbor to the North. In the process of the recovery currently underway, this assumes a relative strength over other emerging areas more exposed to Europe and allows relating the impact of those more exposed to Asia and the cycle of prosperity of raw materials. Mexico's exposure to Europe is limited, both from the standpoint of the trade channel as well as that of the origin of direct investment. Thus, for example, of total non-oil exports from Mexico (23% of GDP in 2009), 18 pp were destined for the U.S. and only 1 pp for Europe. The scant geographic diversification of the export markets, which assume in general an element of vulnerability, becomes one of strength in a recovery such as the current one. Somewhat greater is the entry of FDI (foreign direct investment) from the European Union, which every year is between one fourth and one third of the total; in 2009, 0.3 pp of the 1.6% of GDP that came into Mexico. However, it should be noted that FDI flows are directed in a greater measure by the perspectives of activity of the destination area, than by the area of origin, and it is difficult to think that growth perspectives such as those of Mexico would not continue to be attractive compared to those of European countries.

**Mexico's distant location from the European scenario is also an element of uncertainty with regard to the markets.** The performance of the financail markets in recent months has its origin in three types of doubts fundamentally. In the first place, uncertainty regarding the public debt payment capacity of some European countries<sup>1</sup>. In the second place, the markets doubt the growth capacity of countries submitted to a fixed exchange rate in a monetary union that, at the same time posts sustained positive inflation spreads that reduce its price competitiveness against its main trading partners. In the third and last place, the markets are also doubtful of those economies in which the growth of the last expansive cycle was produced due to an intense appeal to external savings by the domestic private sectors, consistent with an availability and price of liquidity totally different from that in place since the end of 2008.



Source: BBVA Research

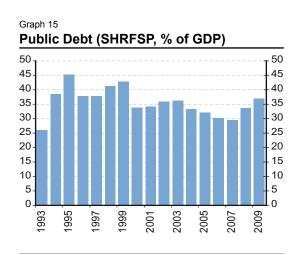
Source: BBVA Research

None of these doubts are present in the Mexican economy, at least not in the current scenario of the global cycle of recovery in the U.S. and of significantly higher oil prices than in 2009. In the first place, if anything characterizes Mexican fiscal policy it is the certainty and commitment to its fiscal consolidation. The current fiscal rule establishes the annual equilibrium of budgetary balance, called the Traditional Balance, in addition to anticipating objectives for the concept of a broader fiscal balance, the Financial Requirements of the Public Sector (RFSP for its Spanish initials). This rule has consolidated the sustainability of the public debt, which maintains levels lower than 40% of GDP. Proof of this commitment is that between May and July of 2009, in the midst of the crisis of the H1N1 influenza, a series of cuts in current expenditures was announced. In addition, in the 2010 Budget, direct and indirect tax increases were approved (a permanent 1% increase in the VAT, a temporary two percentage point increase in the income tax rate, until 2012) aimed at increasing the non-oil component of budget revenue, one of the structural vulnerabilities of the Mexican fiscal system, which in this year 2010, will confront the difficulties of 2009.

1: That solvency is directly related with the risk premium that those same markets assign to the debt, in a game of retro-feeding of expectations and reality in which the latter is structured based on the former.

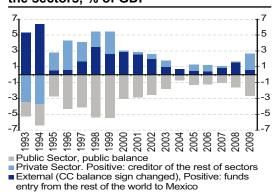
In the second place, the free-floating exchange rate policy provides the capacity to absorb the adjustments of external demand, such as those produced in 2009. It is true that the transmission to the process of the formation of domestic prices due to higher import costs is a risk, but recent experience seems to show that this transmission has been very limited when compared with what occurred in previous experiences of the peso's depreciation. The anchoring of inflation expectations resulting from economic policies of demand, aimed in a continuous and coordinated manner toward this objective, is one of the key elements in maintaining the nominal stability of the Mexican economy<sup>2</sup>.

In the third place, the financing needs of the private sector is not a risk factor, precisely the opposite of what occurred in the crisis of the mid 1990s. If, at that time, the need of financing the public and the private sectors had to be met with foreign savings –the negative balance of the current account balance– up to levels that resulted incompatible with the established exchange rate, now the private sector is a supplier of financing, together with the external sector, for the public sector. This creditor position of the private sector and the limited external deficit are consistent with a scenario such as that of 2009, of an intense recession of acitivity. In 2010 and going forward, the flow of funds from the private to the public sector should be gradually reduced in an environment of greater activity and spending. In turn, the control of the public deficit should allow for a more limited appeal to external savings, something that in turn points to a moderate recovery rate of private domestic demand.



Source: BBVA Research

Graph 16 Flow of funds among the sectors, % of GDP



Source: BBVA Research

<sup>2:</sup> The use of econometric instruments of the VAR model types with different specifications en terms of delays and variables provide, as a greatly robust result, a very intense descent of the pass through from the exchange rate to inflation as could have occurred in the second part of the decade of the 90s and the beginning of the present one and of more recent years. This statistical result is consistent with a change in the regime of the price formation process in Mexico, so that the anchoring of inflation expectations helped raise the threshold of the depreciation of the peso, based on which participants lost confidence in the nominal stability of the economy.

# Inset 1: Mexico's external vulnerability: fundamentals and cyclical factors

The external vulnerability of an economy, understood as the greater or lesser possibility of confronting tensions in its financing on the international markets, can help explain the differentiation that these same markets can display at specific times. This is particularly so for emerging economies if there is no generalized risk aversion that would eliminate any degree of differentiation between instruments and countries, something that occurred in the case of the Lehman Brothers crash.

To analyze the degree of external vulnerability of the Mexican economy, and if a greater/lesser degree of resistance to external shocks is reflected in a positive/negative differentiation with higher/lower country risk premiums, in line with the IMF (2010)<sup>1</sup>, an External Vulnerability Indicator (IVE for its Spanish initials) was calculated with quarterly data from 2003 to 2009, a period in which the Mexican economy had total access to the capital markets and an investment grade (BBB -, S&P, Feb. 2002).

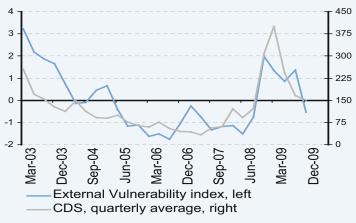
The estimated indicator contains variables representative of the strength of the economy in relation to tensions in external financing: i) Short-term foreign debt (reserves %), ii) growth in exports (annual %), iii) Current account balance (% of GDP), iv) Foreign debt (% of GDP), and v) Fiscal balance (% of GDP). The first and fourth variables have a direct relation to vulnerability; in the rest of the cases, it is inverse.

The question of what variables to include and the method for weighing them is not closed. We have considered a reduced number of variables that usually appear in studies on the matter, weighing them as less ad hoc as possible. For such purposes, we obtain the first main component of the five standardized variables, the linear combination that explains most of their overall variance, and which should therefore be a good approximation of the degree of vulnerability or risk<sup>2</sup>. As can be seen in the graph, Mexico had managed to significantly reduce its degree of vulnerability until mid-

2008, when a reverse trend was observed in the indicator. This was the result of a poor performance of exports, the most cyclical and least idiosyncratic variable of the indicator. In addition, at the same time that the indicator weakened, the country risk premium (5-year CDs) rebounded. However, as of March 2009, once the recovery began, the External Vulnerability Indicator decreased again, while the sovereign risk premium did so more rapidly and intensely. In April 2009, Mexico obtained availability of a new financial contingency facility from the IMF, a Flexible Credit Line, for 47 billion dollars.

In general, a lower degree of vulnerability in the fundamentals most related to restrictions on external financing supports the recovery due to the lower cost of capital involved. At the same time, the relationship also occurs in an opposite sense, from the cyclical evolution to the solvency of the fundamentals, with external demand being an important factor to gauge the degree of vulnerability of the economy.





Source: BBVA Research

1: IMF (2010), "How Did Emerging Markets Cope in the Crisis."

2: Moreover, the signals obtained for the weighing of each variable correspond with those that were projected in accordance with the ratio between the variable and the greater or lesser degree of vulnerability in accordance with economic theory.

# Inset 2: Public finances, for the first time consistent with the economic cycle

The negative effects of the recent global financial crisis were not limited to their impact on the financial variables and domestic economic activity. They also translated into a considerable decline in fiscal revenue. This reduction in federal public sector revenue can basically be attributed to three factors: the abrupt fall in oil prices, the decline in oil production and, finally, to the decrease in tax revenue closely tied to economic activity, especially the collection of the VAT and income tax (ISR) and to a lesser extent in revenue from other state-owned enterprises or agencies other than Pemex. However, it is important to emphasize that despite this, and for the first time in a recessive cycle, fiscal policy was counter-cyclical, with expenditures maintaining their uptrend, mitigating the effects of the crisis.

The comparison with 1995 is interesting. In the period marked by the crisis that began in December 1994, the Mexican government was forced to apply a strict fiscal adjustment program, which implied both an increase in taxes as well as an important reduction in spending. In contrast, during 2009, even though the contraction in the government's budgetary revenue was on a scale similar to that of 1995, spending experienced an uptrend, to a large extent thanks to a responsible management of the deficit and the public debt. Of particular importance during the past few years was the reduction of debt and its restructuring -internal for external- which reduced the exposure of public finances to financial shocks. In this manner, the government could incur in a public deficit that allowed it to discretionally increase spending during the recession, preventing the contraction in aggregate demand from being greater in scope.

The deficit incurred to maintain the growth in spending represented a shift away from the rule of balanced public finances established in the Federal Budget and Fiscal Responsibility Law, which implies a zero balance (which is equivalent to a positive primary balance) and as a result, debt as a percentage of GDP rose. Even though public sector debt has remained at reasonable levels (35.5% of GDP in 2009), with a temporary structure and a balance between internal and external liabilities that is not very vulnerable<sup>1</sup>, Mexico saw its sovereign debt rating reduced by Standard and Poor's and Fitch rating agencies from BBB+ to BBB -still two steps above investment grade-. Among the factors that led to this adjustment are the uncertainty over the oil platform, the reduced maneuvering room that exists to face new external shocks in the short term, and the less dynamic growth of the Mexican economy, in contrast with countries of similar characteristics. The Mexican government, aware that the crisis put the spotlight on some weaknesses in the structure of public finances, decreed hikes in some taxes in the 2010 Federal Revenue Budget in order to raise the weight of public revenue not tied to oil. There was a permanent 1pp increase in the general VAT rate (from 15% to 16%) and a transitorily 2pp hike in income tax (ISR) (from 28% to 30% through 2012, diminishing to 29% in 2013 and returning to 28% in 2014). Increases were also applied to other taxes such as the Cash Deposit Tax (IDE), which seeks to tax non-fiscalized cash transactions, and subsidies were decreased on fuels, especially gasoline and diesel, which will be adjusted on a monthly basis to approach international benchmarks. These measures, together with the reduction in rating, contributed to a modification in the outlook on Mexican debt by the two rating agencies, which changed their outlook from "negative" to "stable", in the process eliminating the uncertainty regarding such ratings for the future.

In this inset we offer a brief overview of the recent evolution of public sector finances and their recent balances. First we will analyze the performance of revenue, expenditures, balances, and the debt. We will then proceed to explain and analyze the construction of the structural budgetary balance, which provides a more accurate idea of the government's fiscal approach.

<sup>1:</sup> The foreign debt rose from representing 23% of the total public debt in 3Q08 to 27% in 4Q09, largely due to the depreciation of the peso. In 2010 it stabilized (26.6% of the total in 1Q10).

## Growth and tax hikes lead to a lower public deficit.

According to the preliminary data through May, during 2010 budgetary revenue rose 1% in accumulated real annual terms, a figure that could appear low considering the increase in tax rates, but this can attributed to a situation in April 2009 in which non-tax-non-oil revenue grew 311%, spurred by the central bank's operating surplus (95 billion pesos), non-recurrent revenue. However, the performance of both recurrent oil revenue as well as tax revenue has been very positive.

Oil revenue has grown 15.3% in real terms, in the year to date, supported by the stabilization of oil production and higher prices in comparison with the same period in 2009 (71.9 dpb in 2010 vs. 39.5 dpb in 2009). The main growth in oil revenue has corresponded to the Federal Government, which boosted its take by a real 55.5% in the year, and within the category of particular importance is the 104.4% growth in ordinary hydrocarbon duties. At the same time, tax revenue has increased 12.8% in real terms from January to May, spurred by both higher VAT and ISR rates as well as the greater dynamism in economic activity. The two previously mentioned taxes represent 83.5% of total tax revenue and their collection levels have grown

### Graph 18

# Budgetary revenue in periods of crisis, Index, 100=Q1 (beginning of the recession) accumulated 12-month flows



Source: BBVA Research with SHCP (Ministry of Finance) data

17.6% and 23.1%, respectively in the past year. Revenue from non-oil state-owned enterprises and agencies has also begun its recovery, increasing 0.5% y/y, very much tied to economic activity. Given that their revenue depends to a large extent on the fees and payments made by their workers, it is expected that as the economic cycle improves, the recovery in revenue will intensify. In this sense, what is most noteworthy in the recent evolution of fiscal revenue is that even though in real terms it is only 1% greater than in the previous year, the main recurring sources of revenue –i.e., oil and tax revenue– have experienced a major recovery. The real growth in revenue on a comparable basis –adjusted for the central bank's operating surplus of P\$95 bn in April 2009– is 10.3% compared to the previous year.

In contrast with the growth trend in revenue, budgetary expenditures, after increasing 2.4% in 2009 due to the counter-cyclical fiscal policy that was applied to mitigate the effects of the recession, in 2010 grew at a lower rate (0.4%). However, within this item, non-programmable expenditures increased at a rapid rate due to the 17.9% growth in federal government budgetary transfer outlays, which represent 16.4% of total spending. This high growth is due to the increase in contributing federal government tax revenue<sup>2</sup>.

### Graph 19

# Budgetary expenditures in periods of crisis, Index, 100=Q1 (beginning of the recession) accumulated 12-month flows

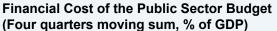


Source: BBVA Research with SHCP (Ministry of Finance) data

2: The budgetary transfer outlays or contributions are Federal Government expenditures that are more or less automatically transferred to the state governments in accordance with the evolution of collection levels. Programmable expenditures have diminished 2.2% given that their main components, current expenditures and investments, have contracted 0.4% and 8.8%, respectively, both as a result of the advanced spending that occurred in 2009 as well as due to the counter-cyclical fiscal approach assumed by the government in this year of economic recovery.

During 2009, the public sector budget deficit was 2.3% of GDP, while considering both the non-budgetary balance as well as the financial requirements of the institutions and agencies that act on behalf of the government (the Bank Savings Protection Institute (IPAB), Pidiregas (Deferred Investment Projects in the Expenditure Registry), (the development banks), the broad public sector deficit, known as Public Sector Financial Requirements (RFSP), totaled 2.6% of GDP in 2009. This result led to an increase in the public sector's total expanded debt (Historical Balance of the Public Sector's Financial Requirements, SHRFSP) to 35.5% of GDP from 34.2% registered in 2008. This increase can also be explained by the depreciation of the peso, with the increase in the peso value of the foreign debt. The breakdown between internal and foreign debt of the RFSP at the close of the 2009, was 73% and 27%, respectively.

### Graph 20





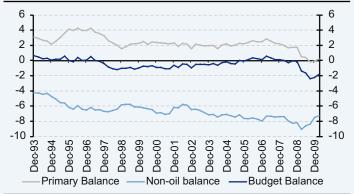
Source: BBVA Research with SHCP (Ministry of Finance) data

For the first quarter of this year the budgetary balance posted a P\$25.3 billion surplus. By adding to it the nonbudgetary balance and the requirements of the institutions and agencies that act on behalf of the government, a broad deficit (RFSP) of barely 0.1% of GDP was reached. This result enabled the SHRFSP to be reduced to 34.2%, declining for the second consecutive quarter, from a maximum level of 35.9% reached in 3Q09.

# An adjustment in the impact of the cycle on the budgetary balance

Thus, it appears that the government is achieving a rapid return to the road of balanced public finances, which contributed to the sustained decline in the public debt in previous years. However, the figures commented on here can be biased, in reference to the nature of fiscal policy, due to being influenced, both in terms of revenue as well as expenditures, by the economic cycle. To correct this bias, it is necessary to calculate the Structural Balance of the Public Sector (BESP). The BESP is an estimate of the public balance adjusted for the effects of the economic cycle and of other exogenous factors, such as the price cycle of oil and other commodities, which influence the evolution of public spending and revenue. This balance is useful as an indicator of fiscal policy, so that if the balance improves (if the deficit is reduced) we can speak of a budgetary policy aimed at fiscal consolidation. With regard to the economic cycle, the BESP allows us to identify whether the government's fiscal approach amplifies the effects of the economic cycle -i.e., if it is pro-cyclical- or if it tends to soften them -i.e., it is counter-cyclical. In this sense, it is said that the BESP is pro-cyclical when the direction of its variation is contrary to

## Graph 21 Primary, Budgetary, and Non-Oil Budgetary Balance (Four quarters moving sum,% of GDP)



Source: BBVA Research with SHCP (Ministry of Finance) data

that of the change in the output gap in the economy, while if the direction of the change in the BESP and the output gap are the same, the budgetary policy is counter-cyclical. It is important to know the pro-cyclical or counter-cyclical nature of fiscal policy in order to understand the economy's maneuvering room in periods of crisis and the sustainability of public finances in the medium term. To calculate the BESP we used the approximation employed by the Center for Studies of Public Finances (CEFP)<sup>3</sup>, which, in turn, is based on the work of Burnside and Meschyachova<sup>4</sup>. This methodology consists in breaking down the budgetary balance in its cyclical and structural component through the adjustment of the revenue and expenditures items that have a high correlation with the GDP cycle. In addition, given that in Mexico around one third of public sector budgetary revenues comes from the oil sector, this revenue is also adjusted in relation to the cycle of international oil prices.

To carry out the calculation, the first step was to obtain a measurement of Mexico's GDP trend and therefore of its cyclical position<sup>5</sup>, its output gap. The second step is to choose the items within revenue and expenditures that are to be adjusted given their high correlation with the development of economic activity. In this exercise we use the items considered by the CEFP<sup>6</sup>. In terms of revenue, there are the VAT, ISR, import tax, revenue of non-oil state-owned enterprises and agencies (i.e., the Mexican Social Security Institute, IMSS); and on the side of expenditures, only the budgetary outlays provided to the state governments<sup>7</sup> will be adjusted.

The third step is to break down all the selected series of revenue, expenditures, and the international oil price benchmark into their recurring and structural components, which is done in the same way as with GDP.

Next, the elasticity of the cyclical component of the selected non-oil items is calculated in relation to the cyclical component of GDP, and the cyclical component of oil revenue compared with the cyclical component of international oil prices. This estimate is made using the ordinary minimum square method, in accordance with the following equation:

$$x_{t}^{c} = ey_{t}^{c} + u_{t}$$

in which  $x_t^c$  is the cyclical component of the revenue or expenditure item,  $y_t^c$  is the cyclical component of revenue (in the case of the adjustment of oil revenues, it is the cyclical component of the price of crude), and e is the estimated

revenue elasticity. Table 1 presents the elasticities obtained.

Finally each of the selected items was adjusted to isolate them from their cyclical component, in accordance with the following formula:

$$x_{t}^{s} = x_{t} (ey_{t}^{c})$$

in which  $x_{t}^{s}$  is the structural component of each adjusted item,  $x_{t}$  is the datum of the item to be adjusted and  $(ey_{t}^{c})$ is the product of the elasticity corresponding to the cyclical component of revenue. The adjustment of the oil revenue is done in the same manner, but substituting the cyclical component of GDP with the cyclical component of oil prices. Thus, the BESP was finally calculated with the following equation:

$$BESP=(I_{\tau}-G_{\tau})-(\sum_{j=1}^{s} I_{\tau}^{s}-X_{g\tau}^{s})$$

in which the first term on the right side is the BESP that is calculated normally, and the term on the right side is the sum of the adjusted revenue items minus the adjusted expenditure item. In this manner, the cyclical component of the budgetary balance has been removed and therefore only its structural component remains.

# Fiscal policy with maneuvering room, albeit limited

In observing the annual evolution of the BESP and of the budgetary balance as a percentage of GDP and its relation to the output gap, the following conclusions can be drawn: i) at least up to 2008, the distance between the BESP and budgetary balance is very reduced, which says much about the limited scope of the automatic stabilizers of revenue and expenditures, of the slight capacity for cyclical adjustment of Mexican fiscal policy, and even more so considering the high volatility of the output gap and; ii) as a direct consequence of this, the pro-cyclical character of public finances in Mexico can be discerned. During the 1995 crisis, the government was obligated to carry out an abrupt adjustment, boosting the VAT rate from 10% to 15% in a time of recession, a measure that was decidedly pro-cyclical. In the 1997-2003 period, the BESP posted a deficit, with a slight trend toward equilibrium levels, which were reached in the final year, precisely when the output gap became more negative and again showed the

3: CEFP, (2009) "Estimate of the Structural Balance for Mexico".

<sup>4:</sup> Burnside, Craig (Editor) y Meshcheryakova, Yuliya (2005), Fiscal Sustainability in Theory and Practice. A Handbook. Chapters 5 and 6.

<sup>5:</sup> The Hodrick-Prescott filter is applied with  $\lambda$ =1600to the real quarterly un-seasonally-adjusted series of GDP, expanded at the end of the sample with consistent provisions with the economic scenario of BBVA Research.

<sup>6:</sup> They are identified through the statistical criterion provided by the methodology of dynamic factors. The selected series are converted into real pesos using the GDP deflactor. and were seasonally-adjusted by using the X-11 methodology For the oil Income, a more aggregate series was used that includes the Pemex and the Federal Government oil income. Also, a reference was constructed of the international oil price by using the monthly average price of the WTI converted into pesos by using the nominal average monthly exchange rate. These last two series were deflated and seasonally-adjusted in the same way as the previous ones.

<sup>7</sup> Assignations foreseen in the expense budget that should be delivered to the State Governments and their municipalities, as well as the Federal District derived from the agreements of the Fiscal Coordination.

pro-cyclical nature of public finances. During the 2006-2009 period, the BESP posted small deficits during the phases of a positive output gap; however, in 2009 even though the output gap fell strongly, with very negative implications for public finances, the BESP remained negative. Budgetary spending continued to grow, softening the effects of the crisis, despite the collapse in revenue, which represented the first counter-cyclical application of fiscal policy in the history of the Mexican economy. Even though in 2009 the BESP is greater than the budgetary balance, that is, the counter-cyclical effect was present, but it was not on the scale that might have occurred given the weakening of the traditional deficit measures, which were not corrected.

Once the worst of the crisis was behind, the government was able to implement changes, seeking fiscal consolidation, reestablishing equilibrium in the budget balance. These consolidation measures, which were counter-cyclical, also turned out to be appropriate with regard to the economic moment, considering that the economy is in a recovery phase. In conclusion, the fiscal approach of the past two years has been appropriate in trying to stabilize the economic cycle. However, it should also be emphasized that if another recessive episode were to emerge in the

short term, it is possible that a counter-cyclical policy on a similar scale might not be implemented this time around, given that the financial maneuvering room to do so is reduced. For example, the financial cost of the public sector budget halted its downtrend in the 4Q08 and posted a significant increase during 2009 until reaching 2.2% of GDP in the fourth guarter of that year (in comparison with the minimum reached in 3Q08 of 1.9% of GDP). Furthermore, it should not be forgotten that one third of public revenue is oil-related, and such resources contribute to improving the BESP, since only their cyclical component is eliminated, and therefore a oil surplus" trend" remains, which, all in all, in the end, is dependent on very exogenous variables, such as oil production levels and the evolution of oil prices. All of this presupposes a latent vulnerability that appears repeatedly in the reports on the ratings for Mexican public debt.

Therefore, it is important to move toward attaining a fiscal policy that generates important savings in times of economic expansion (in addition to the existing mechanisms such as the Oil Stabilization Fund), in order to mitigate the effects of the crises at a lower cost, in fundamental terms of growth and employment and as a result of the ratings on the country's sovereign debt

Table 1

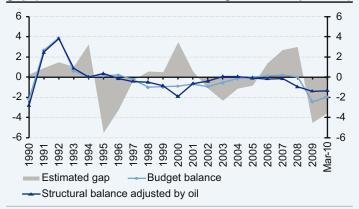
# Revenue elasticities and price of the components of the budgetary balance

	Elasticity	T statistic
VAT	1.07	3.64
Income tax	2.30	7.38
Imports	3.57	11.05
Organisms and Companies	0.82	4.20
Participations	1.80	6.16
Oil income*	0.40	12.60

\* Elasticity vs. the WTI price cycle

Source: BBVA Research

## Graph 22 Annual BESP, budgetary balance and output gap (% of GDP, March 2010, moving sum of 4 quarters)



Source: BBVA Research

# 4. Awaiting the recovery of household spending

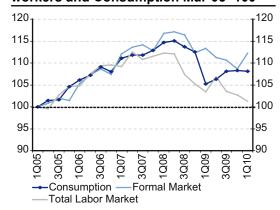
Even though the beginning of the economic recovery took place in the third quarter of last year, the components of aggregate demand are still showing unequal dynamics: an exporting sector with marked dynamism, in contrast with domestic demand that is barely improving, particularly with regard to consumption. Based on prior experiences of adjustment of the components of demand after a recessive event like the one experienced in 2009, the adjustment in private consumption can be expected to lag somewhat, while that of private investment is particularly sensitive to the evolution of the real cost of capital and expectations of activity. Thus, for example in 1995, while the GDP level prior to the crisis recovered after nine quarters, it took 13 quarters for private consumption to return to its previous levels and nine quarters for investment to do so. In that episode, growth in activity was generated to a great extent by exports, given Mexico's recent entry to the North America Free Trade Agreement (NAFTA) and the boost of the devaluation of the peso vs. the dollar (exports tripled their nominal value in two years).

The current cycle presents some similarity with the other one as to the intensity of the drop in GDP but also with marked differences. At the present time, the adjustment that led to the recession came from abroad and, although in the recovery stage, Mexico is exposed to the best of the foreign environment, the rally in exports will not be as intense as it was at that time, and internal driving forces show scant dynamism.

When speaking of internal driving forces, we centered our attention on private consumption, responsible for close to 70% of total spending in the economy. Throughout the last six months (4Q09 and 1Q10), this component has practically remained stagnant, even showing a regression in quarterly terms in the first three months of this year, without the most recent indicators of the current situation, like retail sales, showing intense recovery. Household consumer spending evolves in line with families' permanent disposable income, the result of their current disposable income and existing expectations regarding the future. The most important component of this income is the one forthcoming from the labor market, in terms of real wages (or more generally, of wages received per hour of work, whether salaried or not) and employment, crucial factors to understanding the limited strength of consumer spending.

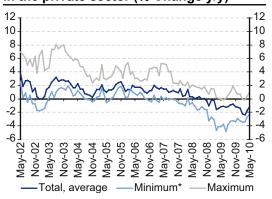
# Graph 23

Real income for work of total employed workers and Consumption Mar-05=100



Note: Number of total employees in the economy and income from ENOE for the total, and employment In the private sector salaried IMSS-affiliates for the formal market. Source: BBVA Research

# Graph 24 Real Wages in the private sector (% Change y/y)

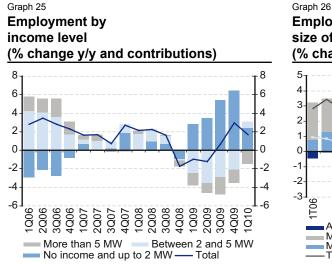


\*Excluded from the covering are the agricultural and mining industry and electricity sectors due to their high volatility and indifference with respect to the cycle. Source: BBVA Research Employment and real income for work lead to a level of Total Income for employment (ITT for its Spanish initials)) in the economy that is no higher at the start of 2010 than it was in 2005<sup>3</sup>. After having maintained a growing trend through the middle of 2008, income for work both at a level of formal employment and once the rest of other employment is incorporated, an important trend began toward moderation, which was transferred to the dynamic of private consumption. Thus, this variable is still far from reaching the levels seen prior to the beginning of the recession, and projects very moderate growth for 2010. In any case, it calls attention to how the profile of private consumption seems to be closer, in the more recent cyclical phase of ITT (total income for employment) of the formal private sector, than to that of theoverall Mexican economy.

Private consumption, stagnant due to the evolution of real wages and, more recently, from the moderation in job creation, particularly among those of higher salaries. Based on ITT information, forthcoming from the ENOE (Spanish initials for National Survey of Jobs and Employment), we can conclude that for the whole of the economy, the relative worsening of income for work is due to a combination of low employment growth, although the levels prior to the crisis have been recovered, and particularly to a drop in income per capita, a consequence of a lower level in the salary structure of new employment and of higher inflation growth than that of nominal wages. Thus, taking as reference the data provided by the IMSS for wage earners in the formal private sector, real wages continue to contract practically in all the sectors compared to the level observed a year ago (the exception is the mining, electric and water industry, a sector of activity that has not been affected by the current cyclical situation, given its monopolistic nature in most of the branches that form it and because it is accompanied by lower productivity). In real terms, the average salary among the formal workers of the private sector has maintained a declining trend and has shown, in fact, negative year-to-year variations since the middle of 2008. This evolution has been generalized among the sectors of the economy and is particularly intense in industries like construction and retail trade (Graph X).

A moderate rate of total job creation points to a low profile in employment created as of the start of the recovery. Inquiring into the other component of the ITT (total income for employment), that is, in total employment and its characteristics, we find a panorama up to now that is not too encouraging. Thus, if the continued recovery of total employment in the formal private sector of the economy since the summer of 2008 is true, total employment started to rise already in the 2Q09 -- a reflection of the counter-cyclical nature of employment in the informal sector --, although in the 1Q10, it fell 2%. Also, in terms of income level, the improvement in employment is concentrated on jobs with remuneration of two or fewer minimum wages (the number of jobs with payment of one minimum wage or less has been the highest since 2005). By scope of employment, even though the small and micro companies have always been a fundamental element in obtaining jobs, at the start of the recovery, the micro businesses and, particularly, those reported as "with no facilities" have been particularly relevant. It should also be noted that the participation of employment in economic units, which due to their characteristics do not offer health services to their employees is also significant. Thus, slightly more than 28 million workers (from a total of 43 million that make up total employment of the economy) do not have health benefits. In this current situation, employment provided by the household sectors has been particularly dynamic. Under this classification are found those jobs created in the informal sector, such as domestic workers and subsistence agriculture. Employment generated in these units as a whole explains most of the new jobs created at the beginning of the economic recovery.

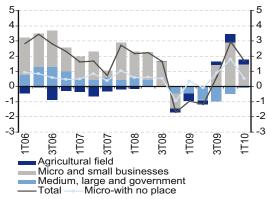
<sup>3:</sup> Although there is no long and trustworthy series of available income, it becomes very useful to utilize as a representative variable what we denominate Total Income from employment (ITT) of the economy, a variable that combines the dynamics of employment (total: private, public, self-employment, etc.) with the income obtained by temporary period in real terms.



Source: BBVA Research with INEGI data

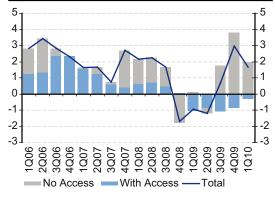
Graph 27

Employment by scope and size of the economic unit (% change y/y and contributions)



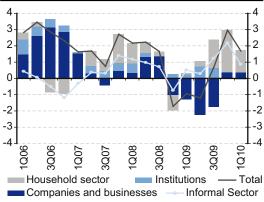


Employment by access to health services (% change y/y and contributions)



Source: BBVA Research with INEGI data

## Graph 28 Employment by type of economic unit (% change y/y and contributions)



Source: BBVA Research with INEGI data.

Source: BBVA Research with INEGI data

# The sustenance of external demand and a lower outlook for inflation than expected up to now will be key in the recovery of consumption.

Mexico's great link with the external cycle provides positive signs for the coming quarters. The exporting sector is being the trigger for the recovery of the economy. The best outlook for consumption of U.S. households, which is already beginning to materialize, will be one of the factors behind the reactivation that is already underway in the national industry and, by this, in the creation of more and better jobs. The other key factor will be a more benevolent inflationary panorama, which would imply an improvement in terms of real wages. By this, we trust that the components of ITT (total income for employment) will enjoy a positive boost that will lead to an improvement in consumption in 2010 and consequently, in domestic demand. It should be recognized, however, that private consumption will grow at comparatively modest rates, 1.9% in the year. If the structural reforms were to materialize as relevant as the one concerning economic competence, we could see a more efficient adjustment of employment to more productive sectors, as well as less resistance to the decline in inflation, which would result in higher disposable income for households and increasingly more positive effects for 2011.

# 5. Outlook

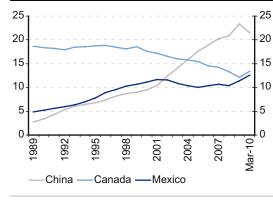
# Activity under the influence of the U.S. cycle

During the first quarter of the year, the GDP data on a downtrend was surprising (the variation in the guarterly rate was of (-)0.3% vs. an estimated 0.5) due to the unexpected drop in private consumption, the moderation of manufacturing activity and the related erratic behavior with the seasonal adjustment of the variables. In the early months of the year, private consumption surprised with a quarterly drop (-0.1%); in contrast, the other private component of domestic demand, investment, rallied (0.9% g/g), which is the first positive datum after six guarters of declines, being in addition the highest guarterly change in this variable since 2007. This combination of factors, together with the continued growth in inventory stock in the economy, led to a positive contribution (although decreasing) of private demand to quarterly growth (0.7 pts). For their part, the public components of demand drained growth for the second consecutive quarter, which could continue given their counter-cyclical evolution since 2009, the most recent data on the execution of the budget and the measures announced. Finally, in the first guarter, the value of exports of goods and services was almost 24% higher than in the same period one year before (7% in a quarterly rate), annual growth only comparable with the end of the 1995 crisis. In contrast with this positive export data, the internal sources of growth demanded comparatively fewer goods and services, by which imports grew only 3.5% compared to the previous guarter.

Up to now, the external sector of demand has advanced in line with what was foreseen, contributing positively to growth, a trend that will continue through the rest of the year. As for external demand, it should be considered that 2010 will be marked by the combination of some exports that will strongly recover (for the year as a whole, we estimate growth along the order of 21%) together with some imports that will grow at a lower rate, given the limited recovery in domestic spending. With this, net exports have positively contributed to growth in Mexico's trade balance. It should be recalled in this sense that, in terms of oil exports, Mexico will benefit from a greater export platform and the improved prices of the blend. Manufacturing exports, in turn, will have the stimulus of consumer spending in the U.S. Toward the first quarter of the year Mexico's manufacturing exports to the U.S. were those that benefited the most among the three main external manufacturing suppliers in the U.S.

#### Graph 29 Current account of the balance of payments and contribution to growth of net exports (% of GDP and ppts) 0.0 2.0 25 -0.5 1.5 20 -1.0 1.0 15 -1.5 0.5 10 -2.0 0.0 -2.5 5 -0.5 -3.0 0 1.0 -3.5 -4.0 1.5 2000 2002 2004 2006 2008 2010 1998





Source: BBVA Research

Source: BBVA Research

Despite this disparity between external and internal demand shown up to now, going forward we trust that, in addition to the recovery derived from exports, the rally of domestic demand will be added, with higher consumption and investment rates. For the forecast of the evolution of consumption, we took into account the expected dynamics of total employment, of wages in real terms, and of a short-term interest rate. It should be recalled that, in contrast to the 1995 crisis, in the most recent episode, formal employment has shown notable resistance downward. Even though in total employment it is possible to evaluate job quality, it is true that a recovery is being observed among the employed population, which we believe will remain as it is in the coming quarters. In turn, although the expected evolution of nominal wages has shown few variations, the outlook for inflation compared to that prior to knowing its evolution throughout the second quarter of the year, contributes in real terms, to better performance of the purchasing power of the employed population than had been foreseen previously. In addition, the stability in monetary interest rates, at least through April 2011 and some long-term rates, favors the cost of consumer financing so that it will not be an additional limiting factor to its demand. With all of this, we estimate that, in terms of annual change, consumer spending of households will go from the 6.2% drop in 2009 to a positive 1.9% change in 2010, 0.6 pp more than expected three months ago.

The other component of significant weight in domestic demand, private investment, should begin to reflect the positive effect of the lower real cost of the use of capital, as indicated by the spreads downward of the financing of the companies in the markets and the consolidation of the outlook for cyclical recovery.

On another note, in the public components of domestic demand, we believe that 2010 will show a contrasting evolution to that of the previous year. During 2009, for the first time, a counter-cyclical fiscal policy was applied that counteracts the negative effects of the recession. Thus, and in contrast to the private components of demand, government spending and its investment contributed 0.8 points to growth in 2009, mitigating a recession that, in the end, was of 6.5 pp. In 2010, however, and according to the cyclical recovery, the public components of spending will adjust slowly downward as has already been the case since the last quarter of the previous year.

As a consequence mainly of the negative surprise of the first quarter, our central scenario considers a slight adjustment downward from the 5% previously estimated for 2010, down to 4.5% that we now estimate. Based on what has been stated in this chapter and the previous one, said forecast is subject to the recovery process of domestic demand and capitalizing for Mexico the expansive stage of the external cycle.

Graph 31

						Graph 31							
Table 2					Mexico GDP:								
Central Scenario	, Mexi	ico			components (% change & contributions)								
	2007	2008	2009	2010	2011	81							
GDP	3.3	1.5	-6.6	4.5	3.7	6							
Consumption	3.9	1.7	-5.1	1.3	2.4	4							
Private	4.0	1.9	-6.2	1.9	2.6								
Public	3.1	0.9	2.3	-1.7	0.9	2							
Investment	6.7	3.9	-9.9	3.1	6.7								
Private	5.9	2.9	-15.3	5.3	9.3	-2							
Public	9.8	7.9	10.8	-3.4	-1.5	-4							
Exports	5.7	0.7	-15.1	21.3	8.0								
Imports	7.1	3.1	-18.5	15.3	7.0								
Employment (% avg.)	4.2	2.0	-3.1	2.8	3.9	<sup>3-1</sup> 2009 2007 1 <sup>8-</sup> 2010 2007 2009 <sup>18-</sup>							
Unemployment (% EAP)	3.7	4.0	5.5	5.0	4.2	2005 2005 2005 2006 2003 2009 2010 2011							
Inflation (eop)	3.8	6.5	3.6	5.2	3.7	<ul> <li>Investment Consumption Net exports</li> <li>Gap addtion</li> </ul>							
Funding (eop)	7.5	8.3	4.5	4.5	6.0								
Exchange rate (eop)	10.9	13.4	12.9	12.0	12.3								

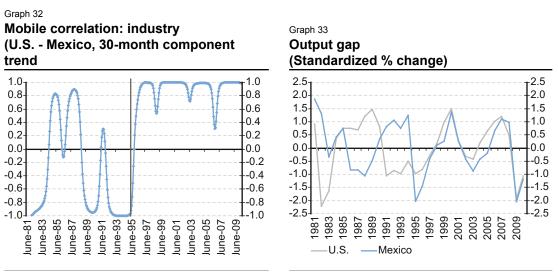
Source: BBVA Research with INEGI data

Source: BBVA Research with INEGI data

The very close relationship of the Mexican economy with that of the U.S. determined in good measure the 2009 recession and, as a counterpart, Mexico's recovery in 2010. The most significant structural change that the Mexican economy has undergone in the last 30 years is the process that was started at the end of the decade of the 80's, which was the opening of the economy to international trade, initially through the General Agreement of Tariffs and Trade (GATT), and, as of 1994, with the entry into force of the North American Free Trade Agreement, NAFTA. In line with this new order in trade, a series of structural reforms were implemented, among which most notable were the privatization of companies and banks that, up to then, were in the hands of the State, and, on the other hand, the adoption of measures leading to the nominal stabilization of the Mexican economy. As a result of this process, we can speak of a before and after NAFTA (and the crisis of 1995) of the Mexican economy. One of the clearest examples of this is the very close link of the economic cycles of the Mexican economy with those of the U.S., specifically in the industrial sector, and, through it, to the rest of the economy through exports. So much so, that the correlation in terms of annual growth of the trend of the industrial production series of both economies definitely changed from being erratic prior to NAFTA, to being practically one as of that time (Graph x).

Another way of seeing this very close relationship for the whole of the economy is through the comparison of the output gap of both countries. We calculate the gap as the difference between the data observed of total production (GDP) and a filtered series that approaches production under conditions of full employment, that is, under production potential that implies the most efficient combination of the resources of the economy **The comparison of the output gap for both economies yields a figure the dynamics of which is divergent and even opposed to that prior to the NAFTA and with an extreme similitude after that date.** 

Knowing the main characteristics of the Mexican cycle, considering it as the "Siamese twin" of the U.S., it is easy to guess that the dynamics of that country is the key factor in understanding the magnitude and speed of the Mexican recovery. This synergy is, on the other hand, the main challenge for the Mexicna economy, which must find internal driving forces for growth, beyond the economic performance of the U.S. Diverse simulation exercises of the dynamics of both economies point to the fact that **Mexico overreacts to movements in the U.S. (such as what occurred in 2009 and which, in the absence of positive shocks in the U.S. economy, the dynamics of Mexican growth tends to wear out within a very short time lapse.<sup>4</sup>.** 



Source: BBVA Research with INEGI and Bloomberg data.

Source: BBVA Research and INEGI

# Contained inflation despite January tax raises

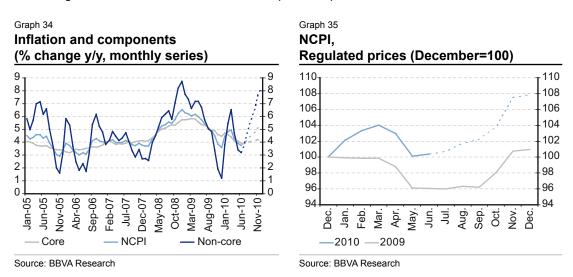
# Inflation will come to 5% by the end of the year, with balanced risks: upward due to possible supply shocks and downward in view of additional weakness in demand

The positive and consecutively accumulated surprises as of April that have taken inter-annual inflation to its lowest level in the year in June at 3.7% were fundamentally the result of a downward adjustment in the non-core component by supply shocks in agricultural products. However, due to its nature, this component is very volatile both from the seasonal point of view and from the possibility of climatic shocks. Based on previous cycles and to certain advanced indicators like prices in wholesale markets, in the short term the start of an upward cycle in the agricultural price quotations is expected. The above is added to a trend also upward in the regulated prices by the change in policy in 2010 by going, for example, in the heading of greater impact, of price freezing of gasoline to increases posted at regular Intervals at least throughout this year. As a whole, it is considered that these factors will have an upward effect on inflation rates during the 2H10. Therefore, a reversion is expected in the disinflation observed in recent months in the non-core component during the second half of the year.

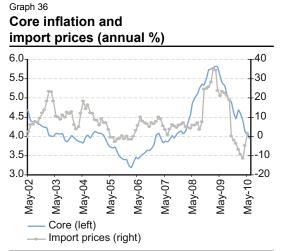
<sup>4:</sup> This can be illustrated with a VAR-type model between U.S. and Mexico GDP, where, in addition, the responses to shocks in the variables can be restricted considering, for example, the initial state of the variables of or specific paths of exogenous variables. Thus, the upward response obtained of Mexican GDP in view of a positive shock in U.S. growth is less lasting than the dynamic that the shock generates in U.S. GDP.

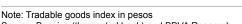
In turn, the core component has also shown a downward performance in the previous months mainly as a result of weak domestic demand, as well as cumulative drops in import costs thanks to a scenario with a peso-dollar exchange rate with a higher appreciation of the peso and downward inflation in the U.S., -which has dropped from 2.7% y/y in January to 2.0% v/v in May-, the main origin of Mexican imports (close to a 50% average this year). Still, the price index of imports in pesos has stopped falling, which could suggest that the downward trend in the prices of merchandise could begin to revert in the short term. Also, in the services component, which represents almost 38% of the NCPI basket, an already slightly upward trend is observed, with a rate close to 4% in June. It should be noted that this component adds very diverse headings (housing use, education, transportation, tourism, among others), but in any case this is about markets relatively less exposed to competition via prices -whether it is due to the very nature itself of services provided and/or the organization of the marketsat historically very low levels, without additional drops in inflation being foreseeable without alterations in the mechanisms of the setting of prices of same. In addition, the "other services" component, which weighs 15% of the NCPI basket has maintained a very stable annual rate for seven years, at levels which tend to rise again when they approach 3.5%.

On the other hand, the latent risks upward are explained via a less benevolent scenario in the 2H10 due to a gap in the lower output and a considerable base effect when it already stands at historically low levels and very close to the thresholds where the rigidness of the markets could begin to discount a brake to additional price drops.

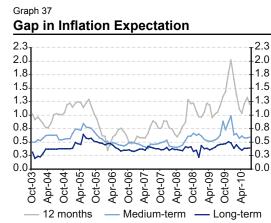


To summarize, inflation performed very favorably in 2010, in such a way that, as opposed to what was foreseen, stagnation in the price level was seen in the quarter. As per the available information, it is highly foreseeable that inflation will stand close to 5% in 4Q10, at the center of the central bank range and with a very stable risk balance: upward via supply shocks in the non-core component and downward in face of a scenario of weakness in demand. Even then, it does not seem likely that the stability objective will be achieved in the forecast horizon of prices set at 3% by Banco de México. Also, the gap in the inflation expectations of analysts remained at reasonable levels and a bit more stable as the reference term is expanding.





Source: Banxico (the central bank) and BBVA Research



Note: Gap in expectations as the difference between the monthly average of the expectations of each corresponding period and the long-term inflation target of 3% as of 2002. Source: INFOSEL and BBVA Research

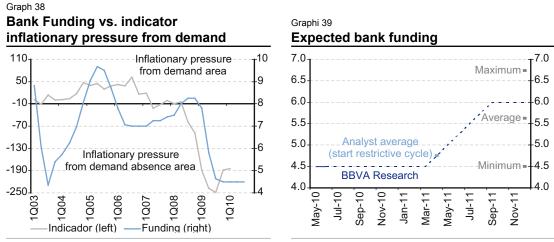
# Monetary stance, financial flows and cyclical impulse, support of the yield curve and the exchange rate

# Monetary policy: the longest cycle of monetary slackening continues since the implementation of inflation targets

The Banco de México will maintain the monetary pause throughout the rest of 2010: the space for withdrawing the monetary stimulus will open between the end of 1Q11 and the beginning of 2Q11. The risk balance that has justified this position for more than a year continues to provide a margin for the monetary authority to maintain funding and continue to evaluate the evolution of economic activity and its effects on inflation –contingent demand pressures– as well as the inflationary risks derived from changes in relative prices (supply shocks).

On one hand, the positive cumulative surprises of inflation in recent months have diminished the probability that annual inflation will be located above the band projected by the central bank (Banxico) by the end of 2010. Nevertheless, these favorable results have been sustained mainly by the non-core inflation component and, therefore, volatile, due to which an upward risk cannot be ruled out from these same items, as indicated in the previous section. Also, inflation will grow in the 2H10, boosted by the policy of government-regulated prices and the base-comparison effect with 2009 in recent months, without forgetting a less benevolent environment for the core component from the demand side, with an output gap that is, in any case, less negative of what it was in the first half of the year. Banxico has emphasized that the rally in economic activity in Mexico continues to be more limited in the case of domestic demand. This lower dynamism of domestic demand, together with greater stability in foreign exchange, is generating lower pressure on core Inflation, which has lowered short-term risks.

Now, the favorable current situation of inflation is far from justifying additional drops in the funding rate. On the one hand, the monetary conditions are already expansive, as reflected in any index of monetary conditions that is calculated. Also, the balance of risks on inflation has not changed and the outlook for the 2H10 is of an increase in the year-over-year rate. It is still not clear whether the expected inflationary convergence in 2011 by the central bank will come close to 3.0% in the delineated terms.



Source: Banxico and BBVA Research

Source: BBVA Research

The convergence of inflation with the 3.0% target for the end of 2011 is facing important challenges such as an increasingly negative output gap within a context of expectations beyond the goal. All of this supposes a limit to the response margin of the central bank in a scenario of a cyclical recovery of the economy. A drop in inflation in response to the recent surprises could translate into a rally in medium-term expectations –which continue closer to 4.0% than to the 3.0% target– thereby making it difficult for the convergence of inflation with the target. Finally, the strong capital of credibility accumulated by Banxico to negotiate the expectations of market participants is also the result of communication where any change in the monetary position is anticipated and is based on keeping the actions based on medium-term expectations. The communication by Banxico of its monetary policy in July does not reflect any change in tone that would lead to thinking of a drop in rates in a foreseeable future under the current economic. scenario.

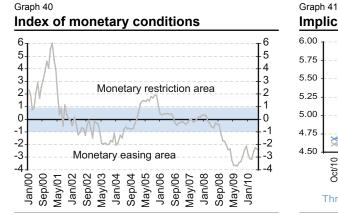
At the same time, there is nothing in the evolution and forecasts of inflation, in its longer-term expectations and in the evolution of wages that would justify the need to raise the rates. In brief, Banxico will maintain the funding rate at 4.5% during all of 2010, a level that has prevailed since 2009. We believe that the space for beginning to gradually withdraw the monetary stimulus will open as of the 1Q11.

# Outlook for leveling the yield curve, although limited

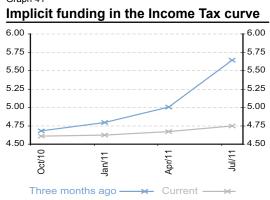
Throughout the 2Q10, the slope of the government yield curve diminished by 69bp (10 years–3 months). The factors that led to this performance are the outlook for a prolonged monetary pause (domestic as well as in developed economies), capital flows in search of returns, a gradual recovery of liquidity in the local market and, above all, the implicit risk-premium excess that the long-term sections were presenting previously.

The monetary positions implemented as of the global economic crisis prevail as a nominal anchor of the public bonds in Mexico and in other emerging economies. The central banks of developed economies maintain their opportunistic positions and have still not shown any signs regarding the start of a restrictive cycle this year; and, by the way, we do not expect them to show any. The withdrawal of the measures implemented to provide liquidity to their financial systems will be gradual and is still distant. Similarly, Banco de Mexico, through its monetary policy communications has been adjusting its tone toward the backing of the extension of the monetary pause in the coming months in accordance with our expectations Together with a favorable current inflationary situation, the expectations of the domestic

financial markets have finally discounted this scenario, eliminating the upward pressure of rates throughout the curve. Given that the withdrawal of the monetary stimulus is not foreseen either in Mexico or in the U.S., this year, this element should not be a determining factor in medium- and long-term Interest rates during these coming months. Nevertheless, we believe that the tensioning of monetary policy could gain weight in the evolution of the financial markets in the last months of 2010 when the topic of the start of the restrictive cycle re-emerges in the heat of a rally in inflation.



Source: BBVA Research



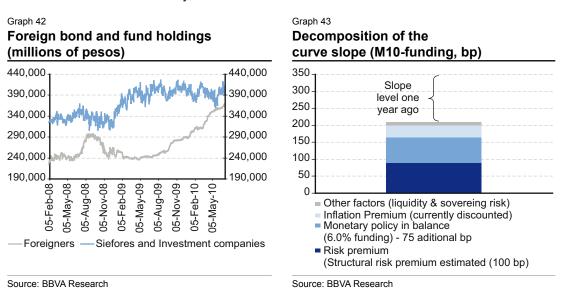
Implicit funding: adjusted by the spread of equilibrium between the TIIE and Funding rate and for the term premium in the Income Tax curve. Curve: BBVA Research with Valmer data.

Capital flows to the bond market could continue: search for yields and incorporation of Mexico in the global WGBI Index, the determining factors. The lower appetite for the instruments of some developed economies in Europe, as well as of other emerging markets linked to problems of economic and fiscal solvency have opened a transmission channel of flows, additional to those generated by the financial measures implemented and that have stimulated international liquidity toward some emerging markets. In addition, the risks associated with the European crisis have no direct link, not even close, to the financial and cyclical context in Mexico. As we mentioned in Section 3, the markets in Mexico could continue to benefit from their proximity to the economic growth of the U.S. and their low exposure to the European crisis.

Another element to take into account is the inclusion of Mexico in the WGBI Index as of the coming month of October although already known and previously discounted. According to the experience of other emerging markets, capital flows to the bond market are activated even in the months prior to the official incorporation in the index. In Mexico's case, we estimate that in the last four quarters, around US\$9 billion have been accumulated, a figure that is still far from what is projected that could enter (around US\$14 billion could be a reasonable approximation). If we assume that a large part of this entry of capital responds to the WGBI effect and that it will be prolonged, although at a more conservative rate, additional flows could be anticipated in the 2H10 in an amount between US\$5 billion and US\$7 billion. This amount, in terms of that reported in the balance of payments and the size of the market, is an extraordinary figure. With this, we believe that the yield curve could continue to benefit from the strong recovery of foreign investment flows in this market<sup>5</sup>. To this, is added the greater demand by local institutional investors that have once again invested in the market after the financial crisis.

The implicit risk premium on the long part of the curve was very high, which opened the margin of adjustment once the growth and fiscal risk had been diluted in Mexico: this premium should be absent in the current phase of the economic cycle. According to our estimates, the slope of the curve still observed in the 1Q10 of over 300bp (M10-funding), exceeded by more than 100bp the expected slope in an environment of lack of liquidity and

fiscal solvency risks. We believe that given the recent evolution of inflation, the current relaxed monetary position and taking into account an approximation of the slope of the equilibrium curve, it should fluctuate around 200bp. Currently, the slope oscillates within a range of 230bp, which is why there is a slight space downward in the long-term rates, even somewhat higher if inflation continues to evolve within the central bank range and foreign capital flows again accelerate their participation. In any case, given the profile of the balance of inflationary risks toward 1Q11 and 2Q11, the leveling space should give out toward the end of 2010. In brief, we still see the margin of declines in the long part of the curve, although with more limited movements than those already observed.



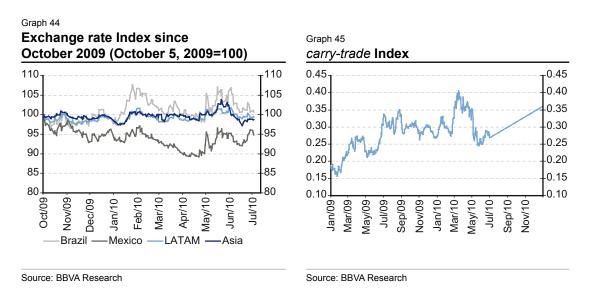
# Appreciation of the peso rate toward the 2H10

The positive differentiation of the Mexican financial variables in the global markets has also been seen in the peso. There is an additional margin of appreciation. The peso has maintained an appreciation trend since the 4Q09 more pronounced than that of other currencies of emerging economies, at least in part because, up to that time, its relative performance had also been worse –a lower appreciation compared to the end of 2008– affected by the relatively lower exposure to the nucleus of global economic adjustment. Despite this positive differentiation linked to the recovery of the economic cycle of the U.S., the average exchange rate of recent months is still far from the average "pre-Lehman" level, at least further than that of other currencies of emerging economies.

5: There is high uncertainty surrounding these projections, in particular, because it is not clear, observing the empirical evidence as to time, when these foreign flows could enter the bond market.

The episodes of appreciation in foreign exchange registered during the 2Q10 were interrupted by high volatility in the global markets and doubts regarding the U.S. growth path. If a cycle of greater aversion to risk had not been newly activated, linked in its origin to Europe, the peso/ dollar exchange rate could possibly be oscillating at close to 12ppd. Thus, we believe that the peso's margin of appreciation is open for this second half of the year. A first element of support to the peso's value is the search for yield by investors as a result of the high international liquidity, which, together with the rate spread mentioned will activate carry-trade strategies once again (rate arbitrage). This liquidity could be maintained in view of the outlook for an extension of lax monetary policies in the more developed countries, at least through the rest of this year, and a context of lower aversion to global risk. Despite the fact that Banco de Mexico is also implementing an opportunistic monetary policy, consisting in the risk balance between inflation and growth, the more developed economies maintain their reference interest rates at zero or very close to zero. Thus, the rate spreads are considerably high even if they are adjusted for the risk perceived in the markets, and this rate spread is not expected to change in 2010 and part of 2011.

Another element behind the outlook for the exchange rate is the positive differentiation of the domestic market in face of the other emerging markets, within a context of cyclical recovery. The different measures of aversion to financial risk, both global and domestic, will return to a positive path as the economic recovery in the U.S. consolidates and, consequently, the outlook for growth in Mexico.

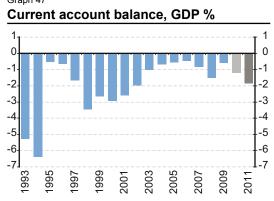


Finally, it should be mentioned that the economic recovery in Mexico is not being accompanied by a deterioration of its current account balance. That is, no financing risks are perceived in the balance of payments, being that this will be expanded moderately in line with gradual and moderate growth in domestic demand and higher oil prices than in 2008. Also, the financing of this deficit will not be problematic in a financial environment of a lower aversion to risk and an increase to the flows to the emerging markets, both in the more short-term, such as FDI (foreign direct investment), and a fiscal policy with limited appeal to external savings.

With all of this, according to our estimates, the exchange rate observed in recent weeks, between 12.5 and 13.0 pesos per dollar, is very close to the supper limit of the band that forms our estimate of the equilibrium long-term exchange rate. However, the current financial and economic situation previously described could boost the exchange rate toward the lower band,

that is, a more peso-appreciated level or even closer to overvaluation areas. We estimate that the peso/dollar exchange rate will close the year at around 12 ppd, and fluctuate around this level during the first half of the year. Toward the end of next year, the international monetary cycle could once again cause a slight bias of volatility, which together with the trend in the spread in inflation and productivity between the U.S. and Mexico, would lead the exchange rate to areas close to 12.5 pesos per dollar again.

#### Graph 46 Equilibrium exchange rate with bands and expected peso/dollar Graph 47 exchange rate, 15-15 1, 0-14 14 -1 13 13--2 12-12 -3-11 11 -4 10 -5-10 -6-9 9 Mar-02-Mar-12 Mar-00<sup>-</sup> Mar-03-Mar-05-Mar-07-Mar-08-Mar-09-Mar-10 Mar-04 Mar-06 Mar-11 ò -7 Mar-1993 Equilibrium ER range Observed --Forecast



Source: BBVA Research

Source: BBVA Research

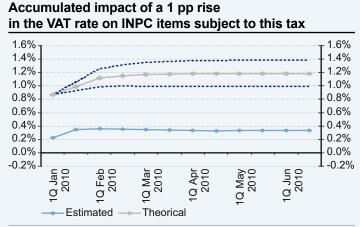
# Inset 3: An estimate of the impact of the 2010 Tax Package on Inflation

The evolution of inflation during the 1H10 was better than expected, both for BBVA Research as well as analysts' consensus. Factors such as the nominal appreciation of the peso-dollar exchange rate, the weakness of domestic demand, and an exceptionally bearish behavior of the prices of some agricultural products, coincided to mitigate the upward pressures derived from the higher costs implied by the tax increases that went into effect in January.

The upward pressures on consumer prices were derived from the following three tax modifications<sup>1</sup>: (i) an increase in the VAT rate from 15% to 16% (from 10% to 11% in the border areas; (ii) higher tax rates on production and services (IEPS) for some goods and services; (iii) a hike in the marginal maximum income tax (ISR) rate from 28% to 30%. While the first two changes have a direct effect on inflation in taxing the price of goods and services that comprise the National Consumer Price Index (INPC for its Spanish initials), the latter has an indirect effect because for business entities it is a cost associated with production. Both in one case as in the other, companies have the choice of transferring the added tax burden to consumers, increasing the prices of the goods and services that they produce<sup>2</sup>, depending on their competitive position in the market or of the strength of demand for the product in question.

Estimating the specific impact of the variations in tax costs implies a high margin of uncertainty since the INPC is based on prices registered for sales to the public and not directly on costs in the economy. Data is not always available to conduct the natural experiment of comparing prices of the same good with two different tax charges<sup>3</sup>.

Even with all these limitations, an approximation can be made of the impact of the tax rise on prices, at least in the case of the VAT–from 15% to 16%– and for the INPC on the basket of goods and services to which the VAT is applied. (INPC-VAT). To do so, first of all it is necessary to approximate the theoretical impact of the increase of the tax as a 1% upside shock in the December 2009 INPC-VAT. This shock is applied to a simple self-regressive model with two delayed variables estimated with biweekly data from July 2002 to December 2009. As shown in the corresponding graph, which involves the accumulated response in the INPC-VAT, in principle, the total pass through could be even greater than the initial shock, which would be consistent with a price formation process with a high price-setting power on the part of companies and rigidities in the demand for the product. With the aim of comparing this theoretical impact with what was been registered through June 2010, the same model was re-estimated through the second two weeks of June 2010, including a dichotomic variable with a value of 1 as of January 2010 and whose estimated elasticity seeks to reflect the tax impact on prices. As can be seen in the graph, beyond the specific scope, the difference between the two estimates suggests that the rise in the VAT rate has had less of an impact on the prices of the products to which this tax is applied than what had been contemplated in the theoretical model. This result is consistent with a scenario of weakness in internal demand and a fall in import costs.



Source: BBVA Research

Graph 48

<sup>1:</sup> Also reviewed have been the rate and public rights that are also costs conforming consumer prices.

<sup>2:</sup> Surely, certain transmission of the direct effect will be superfluous, although it is not obligatory if the company acts in a market with price liberty.

<sup>3:</sup> This could be done with the change in the VAT tariff to 15% in 1995, which was not applied in the border areas of the country. See study by Aportela and Werner (2002) "The Reform to the Aggregate Value Tax of 1995: The Inflationary Effect, Incidence and Relative Elasticity", No. 2002-01, Economic Research Main Office, Banco de Mexico.

# 6. Appendix

## Table 3

# **United States Indicators and Forecasts**

	2008	2009	2010	2011	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11	2Q11	3Q11
Macroeconomic Indicators												
Real growth (%)	0.4	-2.4	3.0	2.5	2.4	0.1	2.4	3.3	3.4	2.6	2.5	2.5
Personal consumption (real % change)	-0.2	-0.6	2.3	1.9	1.6	1.0	1.6	2.6	2.5	2.6	2.3	2.0
Government consumption (real % change)	3.1	1.8	0.6	1.9	1.8	1.3	1.5	0.3	0.0	0.7	1.7	1.8
Gross fixed investment (real % change)	-5.1	-18.3	1.6	6.7	8.5	-13.8	-2.6	2.2	3.6	3.4	5.4	6.0
Construction <sup>1</sup>	-22.9	-20.5	1.2	8.4	10.3	-12.6	-4.0	4.6	1.8	2.7	7.8	7.9
Industrial production (real annual % change)	-3.3	-9.2	4.7	3.5	2.5	-3.8	2.7	7.2	4.5	4.5	3.5	3.5
Current account balance (% of GDP)	-4.9	-3.0	-3.7	-3.9	-4.2	-3.3	-3.6	-3.4	-3.6	-4.0	-4.2	-3.7
Final annual inflation	0.1	2.7	1.0	2.2	2.0	2.7	2.3	1.1	1.1	1.0	1.2	2.0
Average annual inflation	3.8	-0.4	1.6	1.8	2.2	1.4	2.4	1.8	1.1	1.0	1.0	1.7
Primary fiscal balance <sup>2</sup> (% of GDP)	-3.2	-9.9	-10.7	-8.5	-5.3	-9.9	-	-	-	-10.7	-	-

### Table 4

# Mexico Indicators and Forecasts

	2008	2009	2010	2011	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10
Economic Activity												
GDP (seasonally-adjusted series)												
Real annual % change	1.5	-6.6	4.5	3.7	-9.1	-8.5	-6.2	-2.4	4.4	5.6	4.3	3.6
Per inhabitant (US dollars)	10,305	8,144	9,551	10,159	7,500	7,977	8,321	8,778	9,208	9,381	9,591	10,024
US\$ billions	1,099	876	1,035	1,110	807	858	895	944	998	1,017	1,040	1,087
Inflation (average, %)												
Headline	5.1	5.3	4.5	3.9	6.2	6.0	5.1	4.0	4.8	4.0	4.2	5.0
Core	4.9	5.3	4.2	3.9	5.8	5.6	5.1	4.6	4.6	4.0	4.0	4.1
Financial Markets (eop, %)												
Interest rates												
Bank funding	7.9	5.4	4.5	5.3	6.8	4.8	4.5	4.5	4.5	4.5	4.5	4.5
28-day Cetes	7.6	5.4	4.5	5.4	7.0	5.0	4.5	4.5	4.5	4.5	4.6	4.6
28-day TIIE	8.3	5.9	4.9	5.5	7.7	5.3	4.9	4.9	4.9	4.9	4.9	4.9
10-year Bond (%, average)	8.4	8.0	7.1	7.8	8.0	7.9	8.1	8.0	7.8	7.2	6.7	6.8
Exchange rate (average)												
Pesos per dollar	11.1	13.5	12.5	12.0	14.4	13.3	13.3	13.1	12.8	12.4	12.6	12.1
Public Finances*												
FRPS (% of GDP)	-1.6	-2.7	-2.3	-1.9				-2.7				-2.3
External Sector												
Trade balance (US\$ billions)	-17.3	-4.6	-12.9	-22.6	-2.3	0.4	-2.8	0.0	0.4	0.8	-7.3	-6.8
Current account (US\$ billions)	-15.9	-5.2	-12.9	-20.7	-1.2	0.4	-3.7	-0.7	-0.5	0.2	-6.3	-6.2
Current account (% of GDP)	-1.5	-0.6	-1.2	-1.9	-0.6	0.2	-1.7	-0.3	-0.2	0.1	-2.4	-2.3
Oil (Mexican mix, dpb, eop)	84.4	57.6	70.1	74.8	39.4	56.2	64.3	70.3	71.3	70.7	67.6	70.9
Employment												
Formal Private (annual % change)	2.0	-3.1	2.8	3.9	-2.3	-3.8	-3.9	-2.2	1.3	2.9	3.5	3.4
Open Unemployment Rate (% active pop.)	4.0	5.5	5.0	4.2	4.8	5.7	5.8	5.6	5.4	5.1	4.9	4.7

## Aggregate Demand<sup>3</sup> (ann. % chge., seasonally-adjusted)

Total	1.9	-9.6	6.9	4.5	-13.2	-13.5	-9.4	-1.8	7.6	10.1	5.8	4.5
Domestic demand	2.2	-6.1	1.7	3.3	-6.9	-7.5	-5.7	-4.4	1.6	2.4	0.3	2.5
Consumption	1.7	-5.1	1.3	2.4	-6.7	-6.5	-4.0	-3.1	2.4	2.6	-0.6	1.0
Private	1.9	-6.2	1.9	2.6	-8.3	-7.6	-4.9	-3.8	2.8	2.9	-0.2	2.0
Public	0.9	2.3	-1.7	0.9	4.1	1.4	2.2	1.4	0.4	0.8	-3.0	-5.1
Investment	3.9	-9.9	3.1	6.7	-7.5	-11.2	-11.5	-9.3	-1.3	2.0	3.5	8.4
Private	2.9	-15.3	5.3	9.3	-13.0	-17.9	-17.1	-13.2	-1.5	4.0	7.2	12.1
Public	7.9	10.8	-3.4	-1.5	15.2	16.3	9.1	3.8	-0.9	-3.8	-6.8	-1.9
External demand	0.7	-15.1	21.3	8.0	-23.4	-24.5	-15.7	6.8	23.7	28.8	19.6	14.3
Imports	3.1	-18.5	15.3	7.0	-25.0	-27.5	-18.6	0.0	18.8	26.3	10.5	7.4
GDP by sectors (ann. % chge., seasonally-adju	sted)											
Primary	1.1	1.8	1.2	3.0	1.2	2.5	1.5	2.0	-0.6	1.7	2.0	1.5
Secondary	-0.6	-7.3	6.3	3.3	-11.6	-9.0	-6.3	-2.1	6.0	7.0	5.9	4.4
Mining	-1.4	1.0	1.0	-0.1	-1.1	1.2	2.4	1.3	3.9	0.0	0.1	0.0
Electricity	-2.2	1.1	2.6	3.2	-2.5	-0.1	4.0	3.3	1.5	2.8	3.2	3.0
Construction	0.6	-7.5	2.2	4.5	-9.8	-6.1	-7.1	-6.9	-3.7	-0.1	4.6	7.9
Manufactures	-0.6	-10.2	9.0	3.5	-15.4	-14.2	-9.3	-1.6	10.7	12.5	8.6	4.5
Tertiary	3.1	-6.7	4.4	4.2	-7.9	-9.6	-6.2	-2.9	4.4	5.9	3.6	3.7
Retail	2.3	-14.7	8.1	6.3	-19.1	-18.8	-16.1	-3.8	14.8	9.0	4.8	4.4
Transportation, mail and warehouse	0.2	-8.2	6.6	4.5	-11.5	-11.9	-7.5	-1.3	6.8	9.1	6.0	4.7
Masive media information	8.0	1.6	9.3	5.6	-0.6	1.6	1.9	3.4	6.1	9.6	10.9	10.4
Financial and insurance	18.7	-3.8	1.8	7.6	-0.8	-5.5	-2.3	-6.4	0.6	2.2	2.1	2.3
Real-estate and rent	3.2	-5.3	2.7	3.5	-8.5	-6.4	-3.4	-2.7	2.7	1.8	2.5	3.9
Prof., scientific and technical servs.	3.1	-5.3	-1.4	2.4	-2.7	-3.4	-5.7	-9.2	-4.0	-2.0	-1.5	2.0
Company and corporate management	-2.9	-3.5	-1.4	0.8	0.1	-1.2	-3.9	-8.9	-2.0	-2.1	-2.4	1.0
Business support services	1.8	-5.3	2.1	2.1	-2.7	-5.7	-5.8	-6.8	-1.0	3.2	3.7	2.5
Education	1.6	-4.5	6.1	2.5	0.1	-16.6	-0.7	-0.8	0.3	21.9	2.6	2.2
Health and social security	-1.2	-0.1	-0.1	1.2	-2.2	3.8	-1.0	-1.2	1.1	-2.7	1.0	0.2
Cultural and sport	1.3	-2.3	1.5	2.4	-3.0	-3.4	-2.5	-0.5	-0.9	2.0	2.5	2.3
Temporary stay	0.8	-9.6	4.3	4.5	-7.9	-17.0	-8.4	-5.0	-1.7	12.2	3.1	4.8
Other services exc. government	0.6	-2.6	2.9	2.0	-2.0	-4.5	-1.7	-2.3	-0.7	5.3	3.9	3.0
Government activities	1.2	3.7	0.1	0.8	5.7	5.8	2.2	1.1	0.0	-1.0	0.8	0.8

1: Residential Investment 2: Fiscal Balance (% GDP)

3: Base 1993=100; GDP by sectors base 2003=100. The observed data of the primary, secondary and tertiary sectors are seasonally-adjusted by INEGI, the rest are own seasonally-adjusted

eop: end of period dpb: dollars per barrel

\*: As of 2009 the Fiscal Balance definition changes, therefore data is not comparable

FRPS: Financial Requirements of the Public Sector

Note: Bold figures are forecast

Source: BBVA Research with Federal Reserve, Bureau of Labor Statistics, Bank of Mexico, INEGI and SHCP data,

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### This report has been produced by

**F**ditor Julian Cubero juan.cubero@bbva.bancomer.com

Liliana Castilleja liliana.castilleja@bbva.bancomer.com

Javier Amador javier.amador@bbva.bancomer.com

Juan Ruiz juan.ruiz@bbva.bancomer.com Ociel Hernández o.hernandez@bbva.bancomer.com

Cecilia Posadas c.posadas@bbva.bancomer.com Pedro Uriz pedro.uriz2@bbva.bancomer.com

### **BBVA Research**

Group Chief Economist José Luis Escrivá

#### Chief Economists & Chief Strategists:

Regulatory Affairs, Financial and Economic Scenarios: Mayte Ledo teresa.ledo@grupobbva.com **Financial Scenarios** Daniel Navia daniel.navia@grupobbva.com Financial Systems Ana Rubio arubiog@grupobbva.com **Economic Scenarios** Juan Ruiz juan.ruiz@grupobbva.com **Regulatory Affairs** María Abascal

Market & Client Strategy: Antonio Pulido ant.pulido@grupobbva.com Equity and Credit Ana Munera ana.munera@grupobbva.com Interest Rates, Currencies and Commodities Luis Enrique Rodríguez luisen.rodriguez@grupobbva.com

maria.abascal@grupobbva.com

Asset Management Henrik Lumholdt henrik.lumholdt@grupobbva.com

## Contact details:

**BBVA Research Mexico** Avda. Universidad 1200 Colonia Xoco C.P. 03339 México D.F. Teléfono: + 52 55 56216620 E-mail: researchmexico@bbva.bancomer.com

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> Argentina Gloria Sorensen gsorensen@bancofrances.com.ar Chile

Alejandro Puente apuente@grupobbva.cl

Colombia Juana Téllez juana.tellez@bbva.com.co

Perú

Hugo Perea hperea@grupobbva.com.pe Venezuela Oswaldo López

oswaldo\_lopez@provincial.com

Spain and Europe Rafael Doménech r.domenech@grupobbva.com

> Spain Miguel Cardoso miguel.cardoso@grupobbva.com

Europe Miguel Jiménez mjimenezg@grupobbva.com

United States and Mexico: Jorge Sicilia j.sicilia@bbva.bancomer.com United States Nathaniel Karp nathaniel.karp@bbvacompass.com Mexico Adolfo Albo a.albo@bbva.bancomer.com Macro Analysis Mexico Julián Cubero juan.cubero@bbva.bancomer.com