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Servicio de Estudios Económicos
del Grupo BBVA

Mexico Economic Outlook

Third Quarter 2013
Economic Analysis

- The slowdown in the first half of the year will be transitory. The economy is expected to accelerate in the second half to a rate of 3.0%, and to continue to grow at above that rate in 2014
- The informal economy continues to be one of the country's greatest challenges. A key factor for resolving this issue is to improve the quality and quantity of education, as well as moving forward with the other reforms on the legislative agenda
- The financial markets appear to be entering a cycle of normalization in response to expectations of a reduction in the abundance of liquidity

BBVA Bancomer

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Closing Date: August 2, 2013

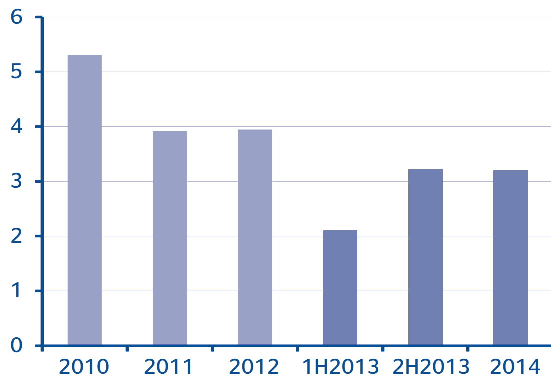
1. Summary

The slowdown in 1Q13 will be temporary and will be reversed in the second half of the year. Growth in 2014 will be above 3.0%

The global economy is showing cyclical weakness, above all in emerging markets, and is facing more difficult financial conditions. The global economic scenario is less favorable than it was three months ago, and we have therefore revised downward the outlook for global growth in GDP to 3.1% in 2013, 0.2 percentage points below the forecasts three months ago. For 2014, we maintain our expectations of continued expansion, in this case at 3.8%, 0.2 pp below the figure we forecast in the last quarter. There are at least two reasons underlying this deterioration and the resulting revision of our forecasts. First, the emerging markets are experiencing a sharper slowdown than expected. This is particularly true in the case of China, which has global implications beyond Asia, for example on the South American economies. Second, there is the unexpected -at least when it occurred- tightening of financial conditions at the global level. This was basically the result of market reaction to the communication by the Fed of the gradual reduction of the third round of its quantitative easing program.

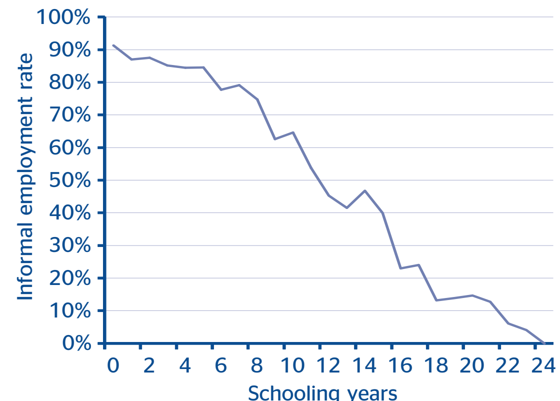
In Mexico, the slowdown observed in the first half of 2013 will be of a transitory nature. The economy is forecast to accelerate in the second half of the year to a rate of 3.0%, and to continue to grow beyond this level in 2014. The slowdown observed in the first part of the year is the result of greater weakness in the construction industry, oil and non-oil exports and public expenditure. These same variables are expected to perform better in the second half of the year. First, because there are expectations of stronger foreign demand in response to the forecast acceleration in the US as a result of three factors: i) lower spending cuts in the second half of the year due to the anticipated deficit reduction in 2013, ii) increased consumption as a result of a wealth effect caused by higher housing and share prices, and iii) recent improvements in the labor market. Second, public expenditure in Mexico is due to increase in order to meet the levels approved in the budget. The figures for June already show a significant upturn, and this pattern is set to continue throughout the rest of the year.

Graph 1
Growth scenario for the GDP (y/y % change)



Source: INEGI and BBVA Research

Graph 2
Schooling and informal employment rate (years, and percentage of employed in 1Q13)



Source: BBVA Research with INEGI data

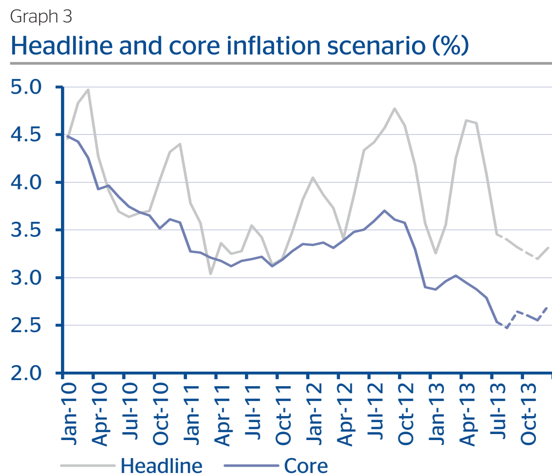
The informal economy continues to be one of the greatest challenges facing the country, in view of the fact that it is associated with low levels of education, productivity and income. For example 80% of the employed population with no more than primary education work in some type of informal economy, whereas among workers with higher education, this figure is only around 20%. Thus a very significant factor when addressing the issue of the underground economy is the improvement in the quantity and quality of education. In view of the fact that educational levels are related to productivity and economic growth, **an educational reform that produces greater efficiency in academic performance -particularly at the secondary and tertiary educational levels- could lead to an increase in the economy's potential GDP. However, there are other reforms that also play a key role in increasing investment, productivity, and thus economic growth**. This means growth in the coming years will hinge on the rate of progress in the reforms proposed in the legislative agenda.

As expected, inflation has returned to well below 4.0%, supported by the easing of supply shocks and a core inflation that stands at an all-time low. There has been a significant contrast between the various components of inflation. Whereas core inflation hit a new all-time low at an average of 2.9% y/y in the second quarter, non-core inflation saw its worst quarter since the fourth quarter of 2004, with a yearly inflation rate of 9.8% in the same period. As a result, when the supply shocks began to ease, headline inflation dropped sharply and now stands at 3.5%. Inflation is expected to continue falling in the coming months and to close 2013 at around an annual 3.3%, with core inflation below 3.0%. However, the upward risks in this scenario include particularly the emergence of further supply shocks, and another period of financial instability that would devalue the peso.

In this benign inflation scenario, Banxico's assessment of the "rate and depth" of the economic downturn suggests that a cut in the lending rate cannot be ruled out. However, this will depend on the evaluation and forecast of a possible acceleration in economic activity in the second half of the year, and to a lesser extent on a possible decrease in exchange-rate volatility. Additionally, there is evidence to suggest that Banxico bases its decisions on both conventional and unconventional monetary measures taken by other central banks, indicating that any new events in this direction could also have an influence.

Graph 3

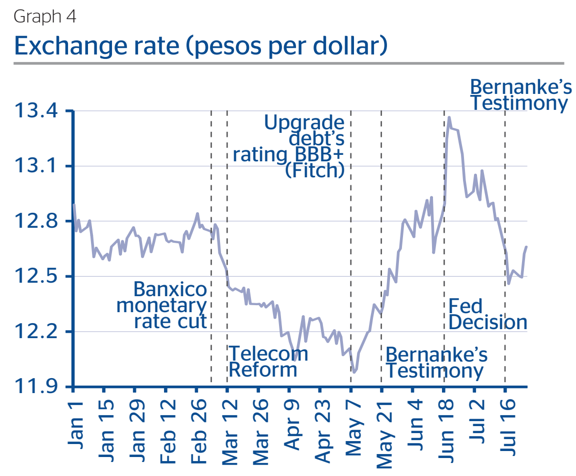
Headline and core inflation scenario (%)



Source: BBVA Research and INEGI

Graph 4

Exchange rate (pesos per dollar)



Source: BBVA Research and Bloomberg

The financial markets appear to be entering a process of "normalization" in response to the expectation of a reduction in the rate of the Federal Reserve's purchases of financial assets, thereby reducing liquidity to levels that are more consistent with its historic average. In this context, the main factor determining movements in the exchange rate and government debt yields in Mexico (and other emerging countries) has been the statement by the Fed and its interpretation by the markets. In the coming months the markets could differentiate the peso positively from other regional currencies, for three main reasons: a) Mexico will be one of the prime beneficiaries of the expected acceleration of the US economy in the second half of the year; b) in relative terms, the slight undervaluation of the peso makes it a more attractive currency; and c) the forthcoming presentation of reform initiatives. For this reason the peso is expected to maintain its positive trend in what remains of the year and to reach an average level of 12.4 to the dollar in 4Q13. However, changes in the Federal Reserve's monetary policy would have an impact on the global risk premium, once again triggering episodes of volatility (possibly temporary) on the currency.

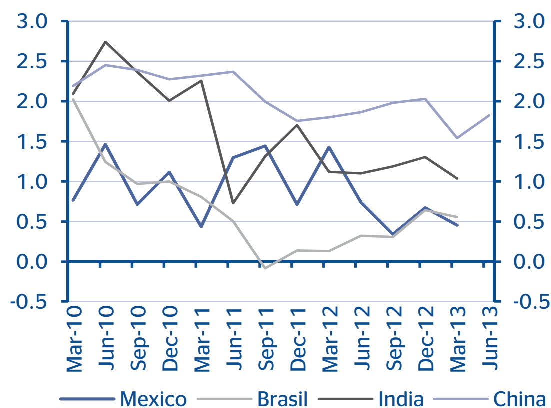
2. Global growth: no improvements until 2014, diversified risks

The global economy is showing cyclical weakness, above all in emerging markets, and is facing more difficult financial conditions

The global economic situation is less favorable than it was three months ago, when we issued our previous growth forecasts. We have therefore revised down our global GDP growth outlook to 3.1% in 2013, 0.2 percentage points below the forecasts three months ago. For 2014, we maintain our expectations of continued expansion, in this case at 3.8%, 0.2 pp below the figure we forecast in the last quarter. At least two reasons lie behind this deterioration and the resulting revision of our forecasts. First, the emerging markets are experiencing a sharper slowdown than expected (Graph 5); above all, they include more moderate growth in China, which has a global impact beyond Asia, for example on the South American economies. Second, there has been an unexpected event, at least at the time when it occurred: the tightening of financial conditions at global level. This increased stress has basically been the result of market reaction to the communication of the details given by the Fed of its steady reduction and subsequent reversion of the third round of its quantitative easing program.

Graph 5

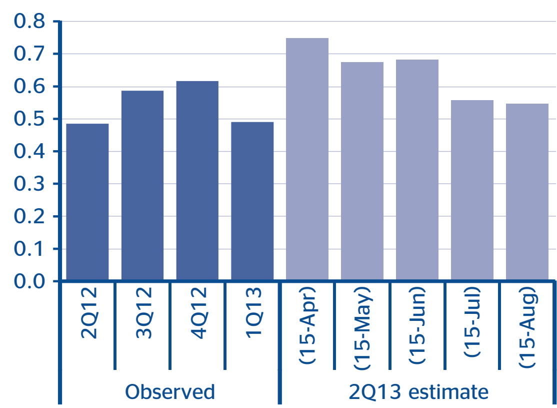
Emerging markets, GDP growth (% q/q, seasonally corrected)



Source: Haver

Graph 6

Growth of global GDP according to the BBVA-GAIN model (% q/q)



Source: BBVA Research

Growth is still not convincing in advanced economies and has deteriorated in emerging markets

In recent quarters, macroeconomic data have surprisingly not in general been positive, and have even generated major concern, at least in some geographical areas. Thus the steady stream of new data has gradually reduced the estimates for quarterly global GDP growth (Graph 6).

On the one hand, the advanced economies have performed in very different ways, but in general growth continues far from robust, except in the case of Japan. Growth in the U.S., while not dramatic (the economy has not grown above 2% since 3Q12), has been in line with expectations. Even so, although these growth rates are poor in comparison with other recoveries in the past, they are particularly significant given the drag on GDP of the fiscal consolidation measures implemented as a result of the partial entry into force of the public-spending sequestration and the tax rises agreed at the start of the year.

There was a disappointing start to the year in Europe, with contraction for the sixth successive quarter. However, the most recent data are more favorable, and in the second quarter the euro zone will probably have avoided another fall in GDP. Meanwhile, in the first quarter Japan experienced an upturn in its GDP and the most recent data suggest that it is maintaining its strength, supported by the monetary stimuli and fiscal measures adopted by the new government. Overall, the advanced economies will have improved their cyclical behavior over recent months, but not sufficiently to modify the perception of their situation and their prospects in the most likely scenario.

In contrast, the macroeconomic situation of the emerging markets has weakened significantly. In the two main emerging markets in Latin America, there is particular concern in Brazil, which appears incapable of a significant upturn from its slump in 2011-2012, and with additional uncertainty due to social tension. Its growth model based on debt-driven consumption - under a framework of extremely limited political reform initiatives- and productive investments appear to be drying up. In addition, the need for monetary policy to control inflation has led to an increase in interest rates, which will make recovery harder in the short term. Mexico has lost momentum in the first half of 2013, due to lower foreign demand along with the impact on public expenditure of the change in government. Overall, there has been modest growth compared with its potential capacity.

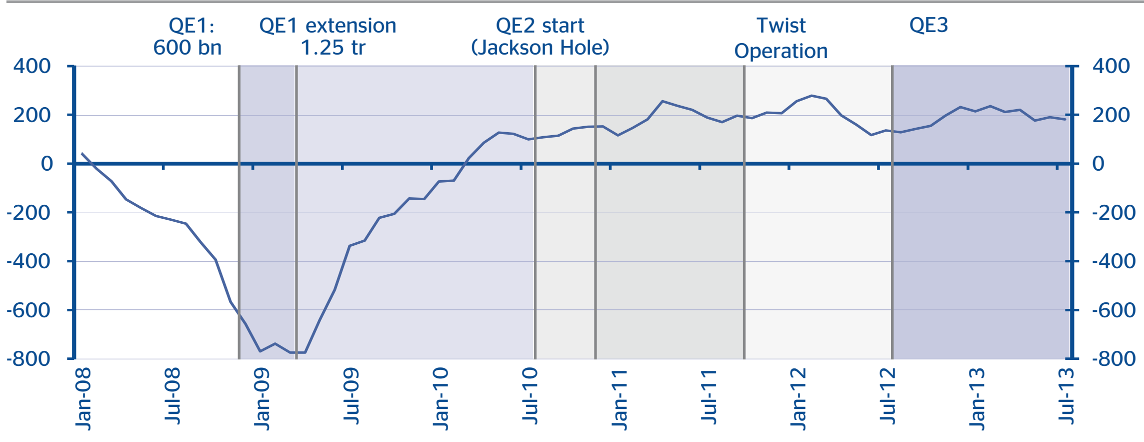
Meanwhile two of the major emerging markets in Asia have weakened in recent quarters (Graph 5). Domestic demand, and in particular investment, has weakened in India, with external conditions also becoming less favorable. In China, a steady slowdown has continued, putting downward pressure on growth in other emerging markets, especially those dependent on demand for commodities and also affecting economies exporting investment goods. The slowdown in China is a result of a combination of sluggish external demand, policies aimed at curtailing domestic financial fragilities at the expense of new stimulus measures (as analyzed in more detail below), and a structural decline in potential growth. In addition, recent data raise doubts about how fast consumption can take over from investment as a driver of medium-term growth as rebalancing of the economy unfolds.

Making the market used to less liquidity

The second factor limiting optimism regarding the global economic outlook is tightening financial conditions at a global level. Although the reasons for this may be varied, most of the shift in financing conditions at global level took place in mid-May, with the details announced by the Fed of its plans to limit and then put an end to its program of monetary expansion. The Fed had in recent months already advanced its intention of beginning a process of exiting the extraordinary liquidity measures that it had adopted in recent years as a response to the crisis. These plans have recently taken shape, so the market has interpreted that in September the Fed will begin to reduce the rate of its asset purchases (from 85 billion dollars per month) and when the unemployment rate reaches 7% (expected for the second quarter of 2014) the Fed will stop buying assets. In addition, the Fed maintains unaltered conditions that could justify interest-rate rises. According to our forecasts, rises will begin some way into the second half of 2015, while the normalization (reduction) of the Fed's balance sheet will not begin until well into 2016.

The Fed has based the implementation of this plan on the U.S. emerging in good (better) shape. In addition, other factors have also probably played a role in this decision, such as fears of generating bubbles in some markets after years of very low interest rates and abundant liquidity, or doubts over the effectiveness of successive rounds of monetary expansion in providing an additional boost to activity. The fact is that there are still doubts about the real strength of the recovery underway in the U.S. Fiscal consolidation is restricting growth (and the process will continue for the immediate future) and the U.S. economy is not finding it easy to grow at an acceptable rate in historical terms (at least 2%), while recently sectors such as manufacturing have shown signs of weakness. The residential construction sector is showing great strength, though in part this has been supported very favorable financial conditions that are beginning to reverse. Consumption remains stable, but this is due to factors such as the reduction in the rate of savings and the positive wealth effect, as well as increased employment and disposable income. What is more, employment is not showing signs of particularly robust growth. The last round of stimuli helped boost job creation again to around 200,000 new jobs per month (Graph 7), not much more than in previous periods in which a new round of fiscal stimuli was eventually necessary.

Graph 7
Non-agricultural job growth (changes in thousands, 3-month moving average)



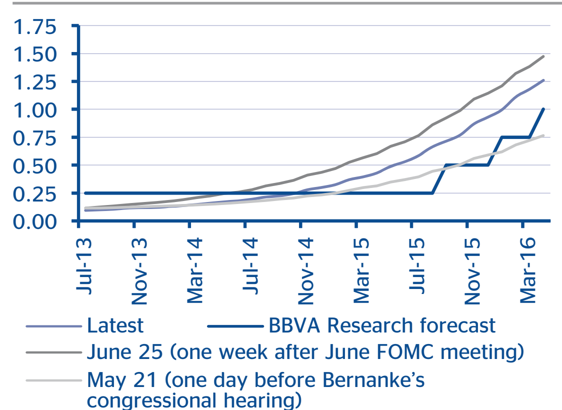
Source: BBVA Research, Haver

In any event, the Fed's plan has been characterized by high level of transparency and prudence. It is notable that asset purchases are not being interrupted immediately, but are being extended for a protracted period of time (the Fed will probably continue to extend its balance sheet for almost another year). The Fed has also reaffirmed its commitment to maintaining interest rates very low for an extended period and, perhaps more importantly, the whole process is conditional on the progress of the economy, i.e. on the economy continuing at "cruising speed".

Graph 8
Interest rates on 10-year U.S. public debt (%)

Source: Bloomberg

Graph 9
Futures on Fed rates



Source: Bloomberg, BBVA Research

However, market reaction to this plan (even after being clarified in all its details) has been stronger than (probably) desired by the Fed. As can be seen in Graphs 8 and 9, long-term interest rates increased by more than 100 basis points, while futures now discount the first rise in rates for the start of 2015, practically one year before expected two months ago. In our opinion, what is being seen on the financial markets is probably partly an over-reaction, as shown by recent downward moves in both long-term rates and expectations of shorter-term rates. Even so, the implementation of the mechanism has generated a process of restructuring of portfolios in the face of the end of abundant liquidity, and thus of extra demand for bonds that kept interest rates at exceptionally low levels. In our opinion, therefore, we are being faced with the start of a cycle of normalization of financial conditions, with higher interest rates and lower demand for risk assets.

Slowdown in China: sluggish external demand and steps to limit indebtedness and the scope of shadow banking

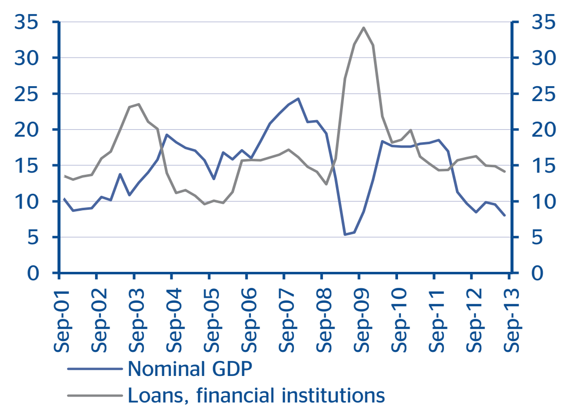
A recent tightening of the Chinese interbank lending market (Graph 10) is an example of the side-effects of the authorities' efforts to limit financial risks associated with rapid credit growth and a buildup in debt (Graph 11). In addition to rapid credit growth in the formal banking system, flows from the unregulated shadow banking system, have led to a buildup in total debt already around 200 percent of GDP. Over the last year, the authorities have adopted a variety of measures aimed at restricting the growth of credit and curtailing shadow banking activities.

While tensions in the interbank system were temporary, it has given a signal regarding the firm will of the authorities and has revealed underlying fragilities and vulnerabilities of the financial system. Credit has not only grown at a faster pace than the economy over recent years, but has financed local government projects of dubious profitability, which were part of the stimulus measures implemented at the end of 2008 and in 2009 to counter the global post-Lehman Brothers recession. The result has been increased doubts about the capacity of the country's economy to continue to grow at recent rates in a very tight global environment.

Graph 10
Interbank market (7-day REPO and Shibor overnight rates)

Source: Bloomberg, BBVA Research

Graph 11
Growth of credit and GDP (% y/y)



Source: Haver, BBVA Research

The baseline scenario continues to be one of a continued moderate slowdown relative to the rapid pace of recent years. The measures taken to limit credit growth will act as a constraint on the room for stimulus measures to support growth. In addition, the Chinese authorities appear more comfortable with the current rates of GDP growth as they focus more on the quality of growth and medium-term sustainability. Even so, we still consider that the government has room for maneuver if the growth slips below the official targets. Moreover, we believe the authorities have resources to prevent financial risks from generating a hard landing in the near term.

The beginning of the end of abundant liquidity has the biggest impact on emerging markets that need short-term finance most

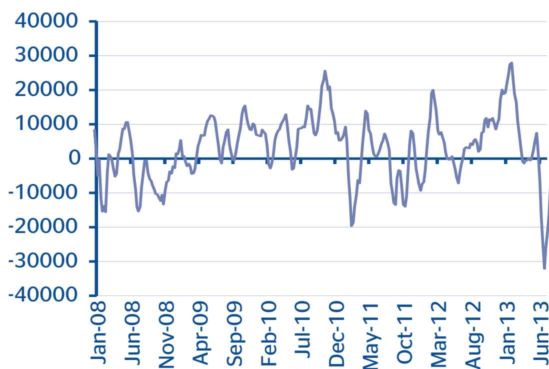
The biggest emerging markets in Asia and Latin America are passing through a stage of weakened activity. It is less intense but more lasting in China, and more intense but probably less lasting in the rest. China could be having a significant effect of dragging down other emerging markets, in particular those that depend on demand from the large emerging markets, whether for final and intermediate goods (basically the Asian economies) or commodities (most of the economies in South America).

Emerging markets have been most affected by the recent upsurge of financial stress. So far, the monetary expansion policies implemented by the central banks in advanced economies (exceptionally low rates and increased balance sheets) have generated flows to assets with higher risk and higher return. Among them are the assets of emerging markets. At times these flows were so strong that some emerging markets adopted measures to limit them (in particular, Brazil). Currently the situation has clearly reversed, with capital outflows from emerging markets in the form of shares and bonds of close to 85 billion dollars between mid-May and mid-July.[1] The size of these outflows has been growing in the most liquid markets (Poland, Turkey, Mexico and Brazil), through portfolio adjustments made by the most important investors, which are those with the longest-term investment horizon. As well as falls in the stock markets and bond prices, there has also been a general depreciation in their currencies. Capital outflows and depreciation in some countries have been so intense that their central banks have had to raise interest rates (Indonesia and Turkey), or eliminate the barriers to the entry of capital flows (also the case of Brazil).

There are various factors behind these major capital outflows (Graph 12). As well as an immediate anticipation of the new liquidity scenario through a restructuring of portfolios, the cyclical weakness of some large emerging markets and the growing risk of a steeper slowdown in China are factors pointing in the same direction. Moreover, monetary expansion in Japan has done little to generate capital flows to emerging markets in search of higher returns.[2]

Graph 12

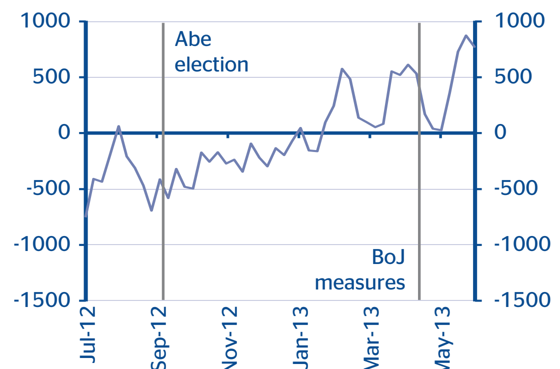
Net flows to EM bond and equity funds (Mln USD per month, four-week average)



Source: Bloomberg, BBVA Research

Graph 13

Japan's net purchases of foreign bonds (JPY bn, weekly data, 4-week average)



Source: Haver, BBVA Research

[1] For more details, see BBVA Research's Economic Watch, "Behind the Emerging Market sell-off: some stylized facts", available from: www.bbvaresearch.com

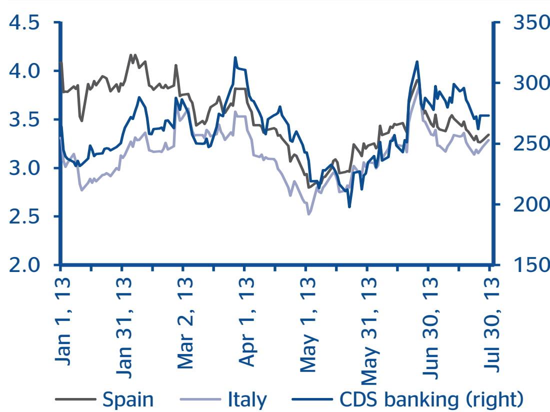
[2] The additional monetary expansion, fiscal and structural reform measures planned by the new Japanese government were successful in weakening the yen, increasing the price of bonds and reducing their yields. This had the desired effect of boosting economic activity and increasing inflation expectations in Japan. The indirect effect that this situation could generate lies in Japanese capital flows moving to other economies in search of greater returns. However, the Japanese Government's economic policy measures have partly disappointed the markets, and some of the yen's depreciation combined with the fall of interest rates has also affected capital outflows.

Overall, however, although the rate of capital outflow from emerging markets is very high, there are reasons for optimism. First, the most recent data on capital flows show more moderate outflows over recent weeks. Second, the profile of investors who have headed up the outflows is of a shorter-term investment horizon, compared with institutional investors with longer-term horizons. Finally, the portfolio reorganization has to take into account that if we are moving towards an environment of lower central-bank support for liquidity, this is because the global economic cycle is tending to improve; and we should not forget the fundamentals that emerging markets have constructed in terms of their policy certainty and comparative advantages against the most developed countries with respect to their solvency ratios.

Europe: prospects for recovery remain, despite the downward revision of growth in 2013

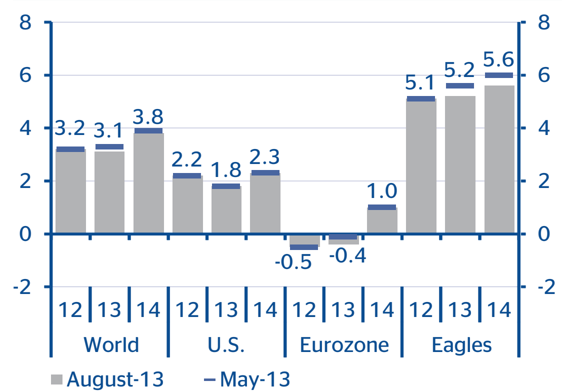
In Europe financial tensions have once more increased in recent months, and undone the improvements made in the first part of the second quarter. Although no important risk event has materialized as in previous quarters, financial stress has at times reached similar levels to the time of the Cyprus bailout crisis (see Graph 14, where this is reflected through peripheral sovereign bonds), although the volatile tone of economic activity has improved in the light of the indicators that are being released. A number of reasons lie behind this situation. First, Europe has probably also been affected by the process of portfolio restructuring following the Fed's announcement. Second, the countries of southern Europe have been affected at the same time by political stability problems. Particularly noteworthy in this respect is the case of Portugal. The episode of government instability now appears closed, but the new government's policy makes plans of returning to the public debt market very difficult. There will probably be some additional aid starting in mid-2014, while the markets fear some form of debt restructuring. Third, some doubts may have arisen regarding the capacity of the ECB's OMT program to contain financial tension as a result of the judicial scrutiny it is being subjected to in Germany. Finally, the process of constructing banking union continues slowly, subject to the needs dictated by economic policy at domestic level.

Graph 14
Europe: Interest rates on 10-year public debt



Source: Bloomberg, BBVA Research

Graph 15
GDP growth by region



Source: Haver, BBVA Research

Overall, the prospects for the economy in the euro zone remain basically unaltered. The reforms designed to improve governance in the zone will probably be boosted following the elections in Germany. However, with the external situation weaker than it has been, it will not be offer greater support than previously expected; quite the reverse. Economic policy appears to have taken a more flexible turn. There has been confirmation of the relaxation of the European Union's fiscal targets for various countries in the zone (not only the periphery). This will make fiscal policy less restrictive in 2013 and

2014. The ECB has taken additional steps to support the economy: first, in May it lowered interest rates; and second, in what is an unusual step, it showed its commitment to the maintenance of benchmark interest rates at current levels or below for a prolonged period of time, in what is a kind of weak version of forward guidance. This move probably aims to differentiate the monetary policy cycle in Europe from the cycle that has just begun in the U.S. In any event, the macroeconomic situation in the zone remains subject to downward risks, so the time for tightening monetary policy appears far off.

More diversified global risk events, but with lower potential impact

The global economic outlook has therefore been modified by two factors. First, by a weaker macroeconomic tone, with the improvement in advanced economies not offsetting the loss of strength of emerging markets, particularly as structural weaknesses have been heightened in some of the latter; so they cannot be expected to have the capacity to boost global demand as they did in the past, at least in the short term. Second, the global situation is already characterized by a process of less abundant liquidity, which is reflected in tighter financial conditions. This scenario has a particular impact on emerging markets, so the global growth forecast for 2013 has been revised down by 0.2 percentage points to 3.1%. In 2014 growth is now expected to be 3.8% (Graph 15).

With respect to risk factors, it is worth noting that the scenario is no longer dominated by a single risk factor with globally disruptive potential. However, some risk factors remain, and others have been added, so risks are more diversified, although their potential impact on the global economy is lower than those defined in previous quarters. First of all, it is worth mentioning the possibility that the exit process announced by the Fed from its expansive monetary policies will be disorderly. If this did occur, and if the rates of risk-free assets rose beyond what is wanted by the Fed and we entered a process of high financial volatility, the impact on global growth through deteriorating confidence and the effect of negative wealth would not be negligible. In any event, lower global liquidity particularly affects those economies, not only emerging, with imbalances in their balance sheets that depend most on external and short-term finance.

A second risk factor, perhaps not imminent but to be taken into account in the short term, relates to possible unexpected events in the long reform process in China, which has to combine a variety of objectives: reduce the obvious fragility of the country's financial sector; and favor change in the growth model from credit-intensive to one more supported by consumption; and all this without a steep reduction in the rate of growth. The measures already adopted to limit credit growth in themselves represent some limit to expansion in a country where part of the growth of recent years has been supported by a high level of debt. The authorities have wide room to deal with these risk events, but in any event if this situation occurred, it could generate a more abrupt adjustment in the flow of credit to the economy and force a major slowdown in China's growth. The impact would spread beyond China and probably affect the economies dependent on Chinese demand, not only demand in the real economy but also for financial assets of the most developed economies.

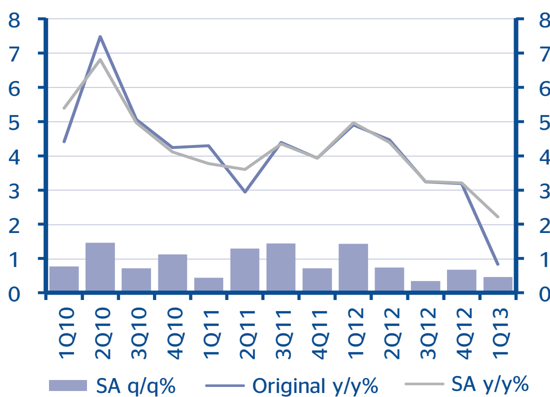
Finally, the most likely among possible risk events continues to be a worsening of the crisis in the euro area. The situation is improving gradually, but it is still very vulnerable. The recent political instability in some southern European countries, and the slow pace of the process of constructing banking union, continue to be elements that could generate financial stress and thus tension in the real economy.

3 Mexico: higher growth in the second half of the year

3.1 Activity: the temporary slowdown is set to reverse in the second half of the year, with continued growth in 2014 of over 3.0%

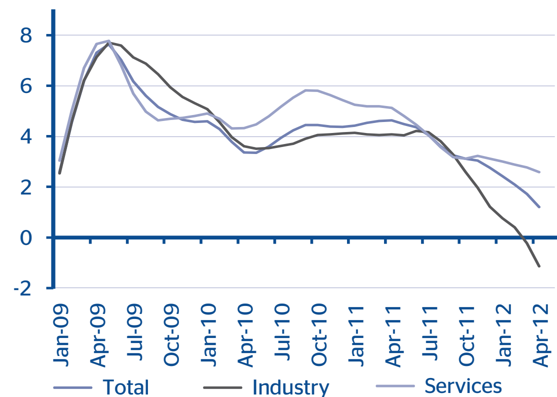
Downward revision of the outlook for economic activity: the first half of the year was characterized by a more acute downturn than originally forecast. Economic activity went from a growth of 0.7% over the previous quarter in the last quarter of 2012 to 0.5% in the first quarter of 2013. It is expected to continue at around this rate in 2Q13, below the quarterly rate of nearly 1.0% forecast at the start of the year. The evident slowdown in the first half of the year is expected to be offset towards the second half as a result of the improvement in two key factors: increased foreign demand, triggering a greater demand for domestic products and thereby driving up exports of goods and services; and second, a boost to the components of public demand, investment and expenditure, which since the final quarter of last year have been holding back growth by some decimal points. Despite this predicted improvement, there are structural issues to be considered that may limit sustained growth; these include the low productivity of the domestic labor force, which has gone hand-in-hand with the persistence of the informal economy (see Box 1), in addition to the area of non-manufacturing exports, with fewer oil resources to be exploited. In both cases, the reform agenda due to be presented to Congress should produce improvements in these aspects that would lead to progress in the economy's growth potential.

Graph 16
Mexico GDP (y/y and q/q % change)



Source: BBVA Research and INEGI

Graph 17
IGAE (y/y % change, trend)



Source: BBVA Research and INEGI.

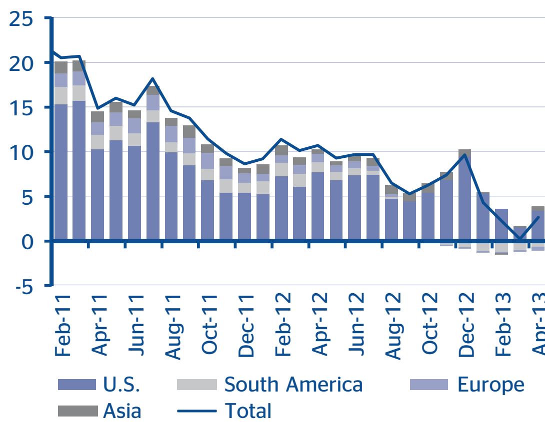
Before analyzing the events in the first half of the year, it is worth recalling the significant calendar-related statistical effects that will partially explain the GDP figures published. First, in 2012 Easter week fell in April (2Q12), whereas this year it came in March (1Q13). And second, last year was a leap year; meaning February had one day more than usual. These two effects mean there are fewer working days in the first quarter of this year. Any comparison with the previous year should take account of this by analyzing the "seasonally adjusted" series rather than the original figures. It should also be noted that the annual growth figure in the original series was 0.8%, significantly lower than in the seasonally adjusted series, at

2.2% (0.5% compared to the previous quarter). However, the negative effects caused by fewer working days will be reversed in the second quarter, and therefore the same precautions apply in considering the seasonally adjusted series.

When these seasonally adjusted series are used, forecast growth for the first quarter was lower than originally anticipated. This lower than expected growth was explained in the first instance by a considerable slowdown in the industrial sector, starting in the closing months of 2012 and continuing in 1Q13. In contrast, at the start of the present year the service sector largely offset the downturn in industry. In the first three months of the year, services grew at a rate of 1.5% q/q, while growth in the industrial sector was barely 0.1%. Although full information for 2Q13 is not yet available, the signs according to the IGAE point to a second-quarter scenario where the results for services will tend to follow more closely those for the industrial sector, with a significantly lower growth than at the start of the year. The slowdown in the rate of job creation and the contribution of the salary component to disposable income in real terms have been significant factors underlying the downturn in domestic demand. Another fact to consider, particularly for certain regions in the country, is the low foreign-currency inflows from remittances, which continue their downtrend.

Graph 18

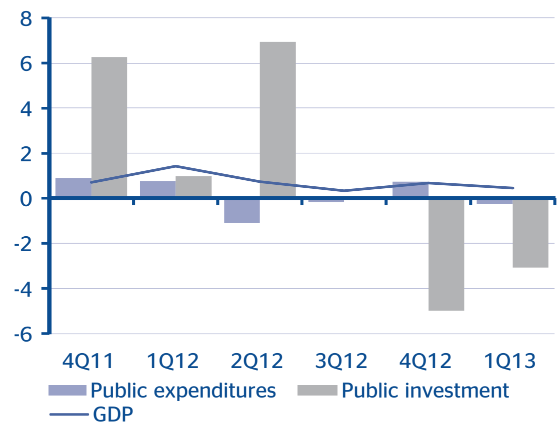
Manufacturing exports by destination (y/y % change and contribution to growth)



Source: BBVA Research and INEGI

Graph 19

GDP, expenditure and public investment (q/q % change)



Source: BBVA Research and INEGI

Mexico's manufacturing and construction sectors have seen the most significant shrinkage since 2009. In both cases the downturn was more severe after the end of 2012. In the case of manufacturing, this was largely related to the slowdown in foreign demand, and it is worth recalling that exports of manufactured goods went from an average growth of 6.5% y/y in 2012 to an average of 0.9% y/y in the fifth month of 2013. By destination of exports, 80% of manufactured goods were destined for the United States, where lower demand led to a slowdown from 8.7% y/y in 2012 to 2.1% in the period from January to April. South America, Europe and Asia, the destination for another 15% of the manufactured goods produced in Mexico, have shown an even sharper fall. Cases in point are the exports to South America, where growth in 2012 was 7.0% y/y, while for the period from January to April the figure was (-)13.0%; and Europe, where the figure is 6.9% as compared to (-)4.5%. Reduced foreign demand therefore acted as a brake on manufacturing output. Separating the manufacturing branches according to their correlation

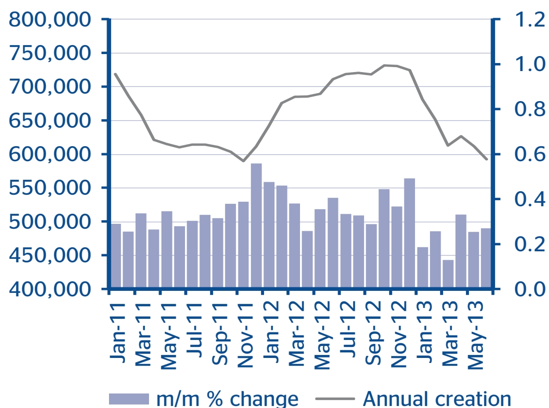
with foreign demand, on average those most closely correlated with the foreign cycle fell by (-)0.4% y/y in the first five months of the year, whereas the branches more closely related to domestic demand grew by 0.7%, after a growth in both cases of around 4.0% in 2012. In this downward scenario, the automobile industry maintains its competitiveness and continues to hold its position as the key segment within the manufacturing sectors. Specifically, exports in this segment continued to show positive growth, unlike the average for the rest of the segments as a whole. Moreover, the transportation equipment segment represents almost 20% of manufacturing output and around 30% of manufacturing exports.

In the construction sector, the decline in output was approximately on a par with the drop in manufacturing. However, its origins differ insofar as it is due to lower public sector expenditure and the reining in of investment in private construction. In the construction industry, the expansion that led to an average annual growth of 3% in 2012 shrank to (-)1% y/y in the first five months of 2013. It should be recalled that almost half the investment in construction comes from the public sector.

In relation to the previous point, public demand contributed negatively to GDP in the first months of the year, and was equivalent to 0.2 percentage points (of the 2.2% y/y observed). With the information available for the second quarter, we estimate that this shrinkage in public demand is set to continue as a result of some delay in the implementation of public expenditure.

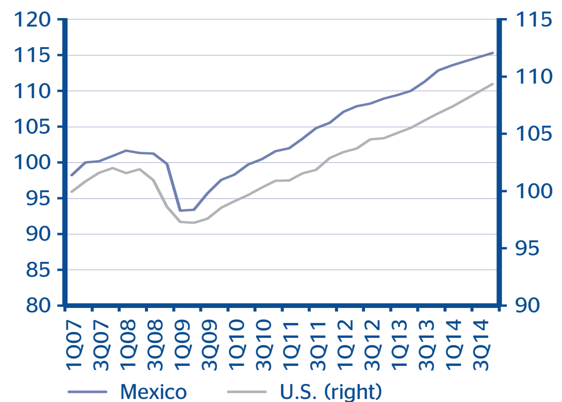
Furthermore, there have been factors on the demand side that contribute to the slowdown in private consumption, such as the lower creation of employment, the limited variation in real wages, and the fall in foreign currency inflows from remittances. Here it is worth highlighting that annual job creation has fallen from 730,000 at the end of 2012, to a figure slightly below 600,000 last June. This slower rate of job creation (although this should still be recognized as being positive) takes place against a backdrop in which real wages have remained unchanged since the previous year. Capital remittances from abroad also saw slower growth towards the second quarter. In the first five months of the year, Mexico reported a drop of (-)10% in the receipt of remittances compared to the previous year. This is due not only to the slowdown in activity in the United States, but also to the volatility in exchange rates and the fact that the average wages of Mexican migrants have not grown significantly since 2005.

Graph 20
Employment in the formal private sector (% m/m change and annual creation)



Source: BBVA Research and INEGI

Graph 21
GDP Mexico and US (2010=100)



Source: BBVA Research and INEGI

Looking forward, the outlook is more encouraging. Specifically, we expect a recovery in activity in Mexico towards the second half of the year based on the reversal of the negative effects described above. First, public expenditure and investment will be concentrated in the latter half of the year with the implementation of the authorized annual budget, and this input will make a positive contribution to growth. In addition, the outlook for growth in the United States is for an acceleration in its activity, with average quarterly GDP growth of 0.4% in the first part of the year rising to 0.6% in the second. This is a result of lower cuts in public expenditure in the second half of the year in response to higher than expected revenues and lower expenses, an increase in consumption in the United States due to the wealth effect produced by the increase in housing and share prices, and improvements in the labor market. In response, employment and remittances in Mexico will recover lost ground. These factors will contribute to an increase in growth in Mexico from around 2.0% annually in the first half of the year to over 3.0% in the second. In view of this, we have adjusted our outlook for growth for this year from 3.1% to 2.7% per year. We continue to take account of the fact that the possible approval of the structural reform package would contribute elements that will improve productivity and increase the potential growth of the economy.

Box 1: Implementation of reforms and reduction of the informal economy: an opportunity for stimulating the country's potential growth

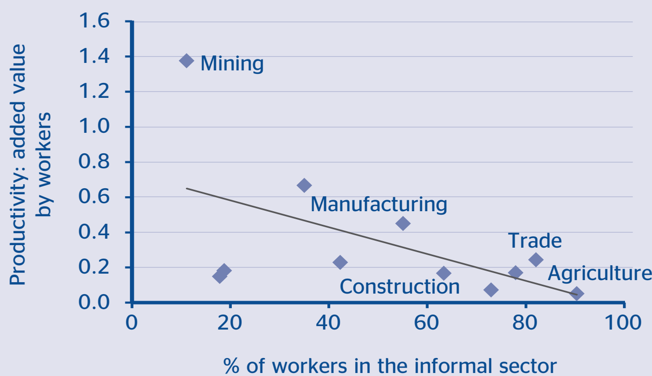
International evidence has demonstrated that higher levels of informal employment go hand in hand with low levels of economic and institutional development, as seen by the comparatively low levels of per capita GDP and the legal environment, respectively. In addition to being associated to sectors with relatively low productivity (see Mexico Economic Outlook 3Q12).[1]

The key features of the informal economy in Mexico include aspects such as the sector involved, low levels of schooling, low productivity, the geographical area and finally, income levels. The possible approval of reforms to the tax, energy, labor, telecommunications and education sectors, and a greater investment in infrastructure would produce greater and better levels of capital and efficiency in the use of the factors. This box surveys certain features of the informal economy in order to motivate and take into account the benefits deriving from the possible approval of these reforms, with an emphasis on education reform.

In its recent publication, INEGI extended the classification of the informal economy based on the OECD criteria. Previously a worker was classified as informal according to whether the economic unit in which he or she worked was itself informal, whereas with the new methodology, informal workers are recognized even in formal companies. In other words, the traditional classification of the informal economy included workers in non-agricultural units run without accounting records, and operating thanks to the resources of the household or of the person responsible for the activity, without being formally constituted as a company. In contrast, the expanded definition also considers subordinate workers who are not registered with the Social Security system, even when they are working in formal companies. This definition extends (but does not duplicate) the first one, and includes workers who are vulnerable by reason of their working conditions; it covers self-employed subsistence farm laborers and workers without Social Security; i.e., workers who are informal due to some vulnerability. According to the traditional definition, almost 14 million workers were informal in 1Q13, the equivalent of 28.7% of the total employed; whereas with the new extended definition, 59% of those employed (28.1 million people) work in a situation of some type of informality.

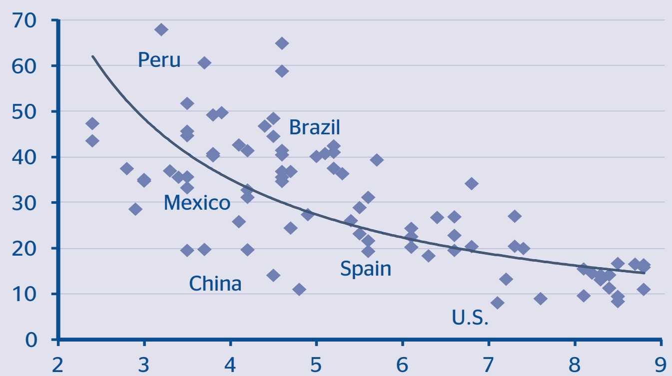
Several studies have linked informal work with low economic productivity, due to the fact that the underground economy goes hand-in-hand with limited access to improvements in physical and human capital. These factors (informality and low productivity) thus produce a feedback effect and create a vicious circle. It should be noted that the potential growth of the economy is typically disaggregated according to three factors: capital, employment and the efficiency or total factor productivity. Informality, as mentioned above, has an impact on each.

Graph 22
The informal economy and productivity by sectors in Mexico



Source: BBVA Research with INEGI data

Graph 23
The informal economy (% of official GDP) and legal environment index



Source: BBVA Research, Schneider (2009).

[1] Box. Informality hinders the growth of productivity and investment http://www.bbvaresearch.com/KETD/fbin/mult/1208_SituacionMexico_3T12_tcm346-351688.pdf

Table 1

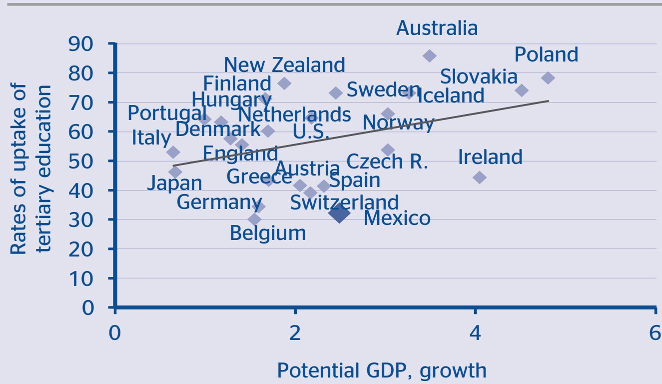
Classification of informality

	Total workers	Formal	Informal	(a) Traditional informal	(b) Informal due to vulnerabilities
Working population	47,777,150	19,594,305	28,182,845	13,725,499	14,457,346
% of total	100.0	41.0	59.0	28.7	30.3
By occupation sector (c):		% per sector			
Primary sector	13.4	9.6	90.4	0.0	90.4
Secondary sector	23.7	47.8	52.2	40.6	11.7
Manufacturing industry	15.5	57.7	42.3	28.2	14.1
Construction	7.4	22.1	77.9	71.0	6.9
Tertiary sector	62.3	45.5	54.5	30.7	23.8
Retail trade	19.6	36.6	63.4	46.0	17.4
Restaurants and accommodation services	7.0	27.0	73.0	52.6	20.3
By level of schooling (c):		% by schooling:			
Unfinished primary	14.3	12.6	87.4	42.6	57.4
Higher intermediate and higher	32.1	65.4	34.6	45.0	55.0
Income per hour worked (pesos)	31.7	40.8	25.5	28.6	22.4
By income level:		% by income:			
Between 0 and 3 times MW	65.8	27.9	72.1	33.8	38.3
Between 3 and 5 times MW	16.2	64.0	36.0	22.8	13.2
Over 5 times MW	7.4	81.2	18.8	10.6	8.2
Not specified	10.6	59.0	41.0	19.3	21.8

(a) Traditional definition of informality: based on economic unit.
(b) Definition of informality due to vulnerability.
(c) Includes only the major sectors in the groups according to number of workers.
Source: BBVA Research with INEGI data

Graph 24

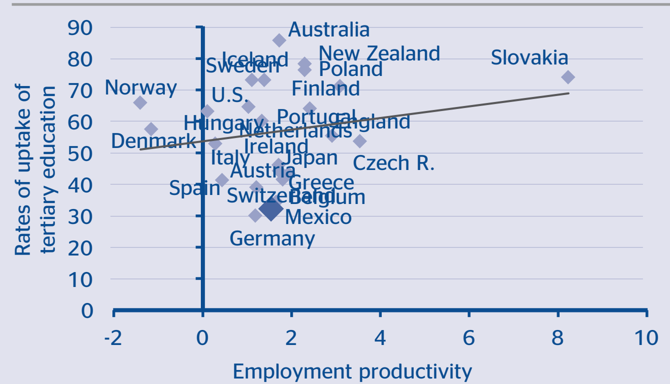
Potential growth and rates of uptake of tertiary education



Source: BBVA Research with OECD data

Graph 25

Labor productivity and rates of uptake of tertiary education



Source: BBVA Research with OECD data

Physical capital bears a direct relation to the level and quality of a country's physical investment year by year; the labor factor is linked to the active working population, whereas the total factor productivity tends to be associated with the economy's capacity to combine the factors for capital and labor efficiently in order to maintain high levels of potential growth (i.e. the economic growth that could be achieved by the country in the medium term without generating inflationary pressures).

Thus the quality of the investments and the labor factor affect the total productivity of the economy; this is the reason investment projects with a lower profitability and impact hinder the efficient combination of resources. Similarly, poorer quality of the education of human capital is linked to lower employment and wages. Finally, the combination of unproductive capital with poorly educated workers leads to the low total productivity of the economy, thereby generating a lower rate of potential economic growth, as has been the case in Mexico in recent years. Informality is in turn a characteristic of economies with lower levels of productivity.

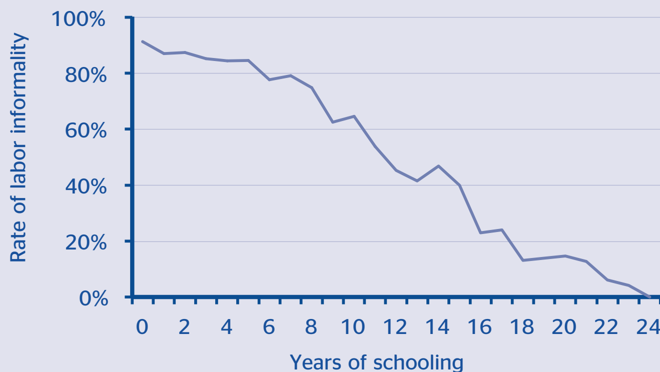
In terms of informality in Mexico, we see very substantial differences between levels of education, sector of activity and income level. In 1Q13 80% of the working population not educated beyond primary level worked in some kind of informal situation in its broadest definition, whereas 65% of the workers in the formal sector are educated to a higher-intermediate or higher level. A look at the figures by sector of activity reveals that 90% of the workers in the primary sector work in the informal economy, whereas in the manufacturing sector, for example, this proportion is 42%. These differences ultimately have an effect on wage levels: in 1Q13 income per hour worked was 40 pesos for formal workers and 25 pesos for informal workers.

A highly significant factor in tackling this issue is to improve the quality and quantity of education. At present, the scope of the educational reforms proposed some months ago by the government is still unclear, but it is essential that particular emphasis should be given to increasing the quality of education. International experience tells us that if the rate of uptake of tertiary education increases by 10%, potential GDP could increase by up to 0.4%. It should be recalled that according to international assessment criteria such as the PISA test, Mexico is trailing at the bottom of the list of OECD countries. In the most recent PISA report assessment, Mexican students have scores that are barely above the minimum considered necessary to engage in productive activities. One of the positive advances that must be considered on the road to resolving this educational gap is the increase in the proportion of students aged between 19 and 23 who are enrolled in tertiary education. Although the rate rose from 14% in 1995 to 32% in 2007, it is still low compared with the OECD average (53%). What is more, Mexico's expenditure on education is not dissimilar to that of the OECD countries. It is therefore important to point out that the educational reform will not necessarily involve an increase in public expenditure, although it will lead to greater efficiency in terms of its allocation.

The elements proposed so far for the education reforms include managerial independence in schools, implying independent management of the allocation of resources. Reforms in the professional teaching provided would entail carrying out an assessment to establish teachers' skills, knowledge and performance, and a review of the processes of selection and professional development based on merit. There is also a proposal to create a National Institute for Educational Evaluation, as well as a census of schools, teachers and students. So far we know that the process of

Graph 26

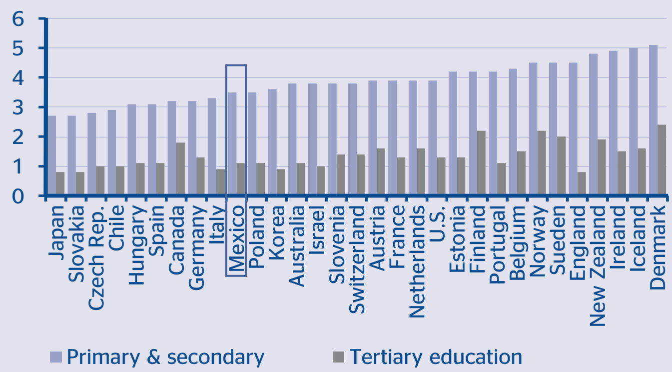
Years of schooling and rate of labor informality, 1Q13



Source: BBVA Research with INEGI data

Graph 27

Public expenditure on education (% GDP)



Source: BBVA Research with OECD data

drafting the secondary laws is underway, although there is still little detail on key aspects of the education reform such as the Professional Teaching Service. These issues remain pending for the following period of sessions. In short, an educational reform that brings greater efficiency in school performance, particularly at the secondary and tertiary educational levels, could lead to an increase in the economy's potential GDP.

Furthermore, certain highly important reforms such as those involving the energy and tax sectors could in the case of energy promote greater investment and creation of formal employment; and in the case of taxation, the transformation of informal into formal employment. If these reforms were to be successfully implemented with the adequate incentives, this would represent a step in the right direction towards increasing long-term growth.

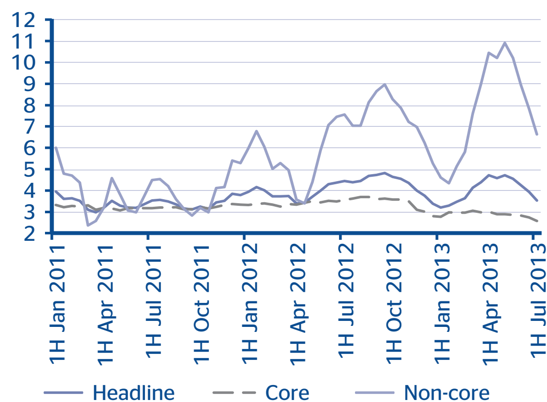
3.2 Inflation returns to below 4.0%, supported by the easing of supply shocks and core inflation at a record low

There has been a significant contrast in the figures for the various components of inflation. Whereas core inflation reached a new all-time low when it hit an average of 2.9% y/y in the second quarter, non-core inflation saw its worst quarter since the fourth quarter of 2004 with a recorded yearly rate of 9.8%. As a result, headline inflation in the second quarter of the year rose from an average figure of 3.7% in 1Q13 to 4.5% in 2Q13. However, in spite of this increase, inflation was not completely unfavorable, as notwithstanding the various supply shocks, core inflation remained stable and was unaffected by second-round effects, continuing to evolve in line with economic activity. Moreover, figures for the first half of July confirmed that inflation continues to fall, and is now clearly within Banxico's variability range (3% +/-1%) at 3.5%, the lowest annual inflation since the first half of February this year. The performance of inflation throughout the second quarter of the year is described in more detail below, along with the outlook for year-close.

Core inflation ended the second consecutive quarter below 3.0%, and in May and June even fell below 2.9% y/y. This positive performance was due primarily to the fact that goods inflation has been falling continually since November 2012, even offsetting a slight rise in services inflation, which remains low. The slowdown in goods inflation was due to the fact that both its food component and that of other goods have recovered from the supply shocks such as high international grain prices and currency depreciation that caused them to deviate from the downward path they had followed for most of the previous year. For example, the average dollar prices for corn and soy were 1.3% and 5.0% lower during the second quarter compared to last year. The stronger currency has also had a beneficial effect on these prices. It is worth noting that processed food prices have undergone constant upward pressure since 2011. Their reduction in recent quarters (which will apparently continue in coming months) will therefore be an important contribution to maintaining low core inflation, and ultimately offer a respite for consumers, who had suffered substantial hikes in food prices during the last two years.

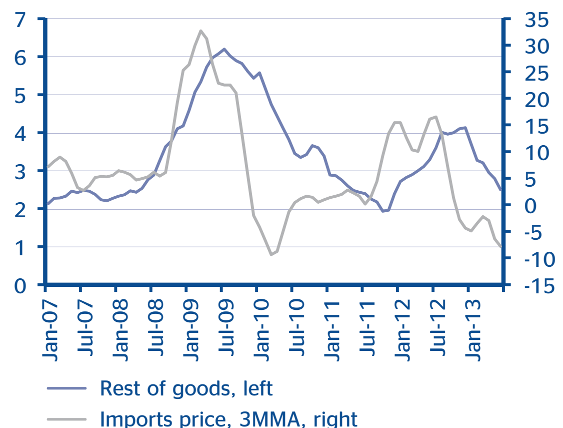
Inflation for all other goods fell from 3.4% y/y in 1Q13 to 2.7% y/y in 2Q13. This favorable performance is consistent with an exchange rate that has appreciated significantly since July 2012 (7.8% annual gain in the second quarter), and a persistent slack in the economy that has averted demand pressures on prices. A possible sign of this are the consistently more aggressive sales periods, which, for example, have contributed to the fact that the bi-weekly change in the first half of July was the lowest in the last five years and one of the lowest in history, at a fall of 0.19% on the previous two weeks.

Graph 28
Inflation and components (y/y % change, bi-weekly series)



Source: BBVA Research with INEGI data

Graph 29
Inflation: rest of goods and imports (y/y % change)



Source: BBVA Research with INEGI data

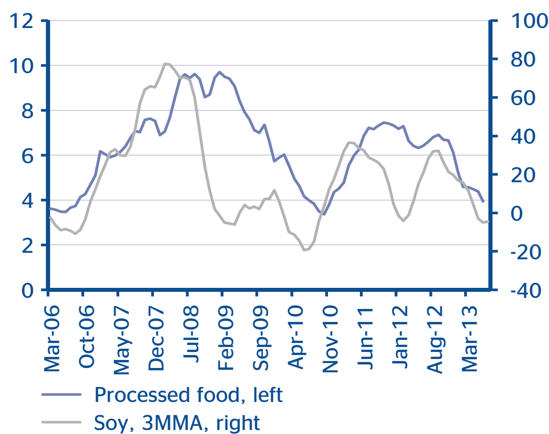
Service prices rose slightly from 2.1% in 1Q13 to 2.4% in 2Q13. Within this category, housing prices remained stable at 2.2% y/y with an average of 2.1% y/y since 2011, as did education prices at 4.4% y/y, in line with the average for the last three years. Finally, inflation for the remaining services rose from 1.3% in 1Q13 to 2.1% due to the termination of the substantial promotional offers for mobile telephone charges which affected the two previous quarters, though these prices continue to contribute negatively to the annual rate. In addition, there were generous promotions in tourism services throughout the second quarter. Evidence for the first two weeks of July shows that prices for telecommunications services will continue to fall. Telephony service prices fell by 6.7% y/y in the first half of the month, following on from the previous highest fall for the year of 5.0% in June. Even greater decreases may be seen in the future given the trend towards a tightening of the regulatory framework.

In conclusion, core inflation is benefiting from the positive performance of its key determinants, which has primarily had a favorable impact on goods throughout the year. Thus in a situation in which the economy continues to grow steadily without putting pressure on prices, it is difficult to see any financial stress that might substantially weaken the peso, and unless the global cycle drives commodity prices up, core inflation will remain low in the future.

Non-core inflation was exposed to various supply shocks and rose sharply to a figure of 9.8% y/y in the second quarter. Inflation in the agricultural price component rose from 9.0% in 1Q13 to 13.8% in 2Q13 due to higher prices for a number of components: green tomatoes, owing to the impact of frost on production; lemons, affected by the "yellow dragon" plague in the state of Colima; and chicken and eggs, again hit by a new outbreak of bird flu in several states. Inflation for the energy component and the prices set by the public sector rose from 4.4% in 1Q13 to 7.4% in 2Q13, triggered by the significant hikes in gasoline and LP gas prices, increases in public transport, and reduced subsidies or the reinstatement of car ownership tax in various states.

Graph 30

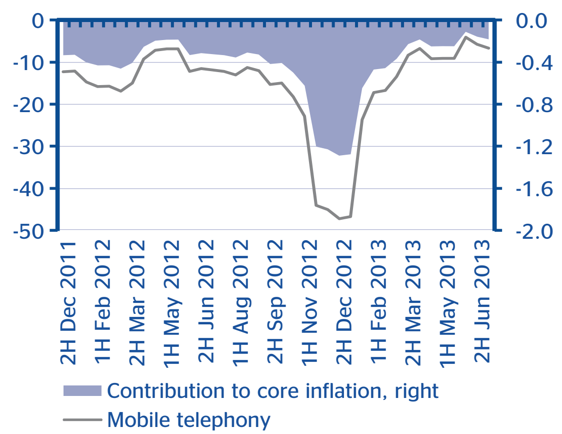
Processed food inflation and soy prices (y/y % change)



Source: BBVA Research with INEGI data

Graph 31

Mobile telephony inflation and its contribution to core inflation (y/y % change and percentage contribution)



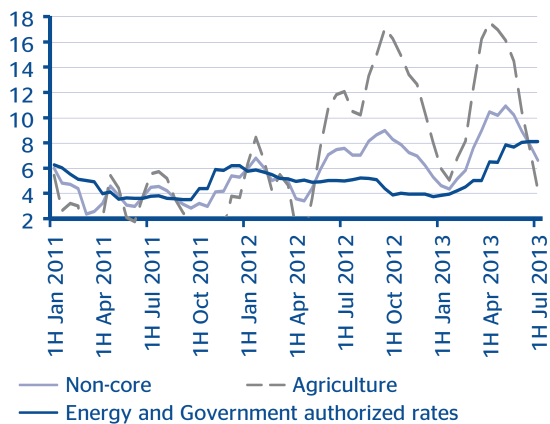
Source: BBVA Research with INEGI data

Fortunately, between the month of June and the first two weeks of July, non-core inflation began to slow down thanks to the prices of lemons, green tomatoes, eggs and, to a lesser degree, chicken, returning to normal. The upward cycle in public transport also appears to be nearing its close, as price hikes usually occur at the start of the year. Although energy prices will possibly continue under some pressure, particularly in the case of natural gas and gasoline, in the absence of renewed supply shocks prices for agricultural products will support a less volatile and lower core inflation for what remains of the year.

Inflation is expected to continue falling in the coming months, and to close 2013 at a yearly figure of around 3.3%. In the absence of new supply shocks, inflation may remain at around 3.0% during the first half of the coming year, thanks to the substantial positive statistical effect for this period. Core inflation will remain below 3.0% in the coming months. Threats to the inflation scenario include: upward, the appearance of new supply shocks and a new period of financial instability that weakens the peso; downward, lower-than-expected economic growth at both local and global level, which would lead to core inflation remaining below 3.0% for longer, and possibly to a sharper downturn in international commodity prices.

Graph 32

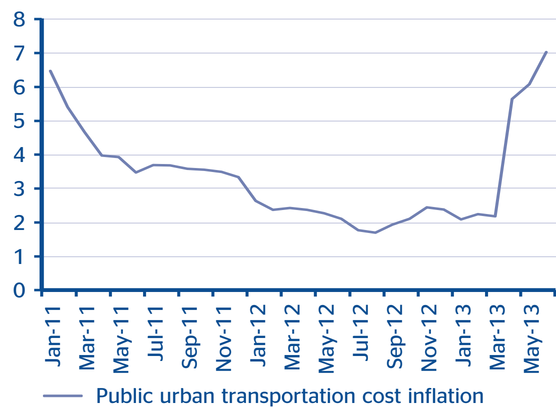
Non-core inflation and its components (y/y % change and breakdown)



Source: BBVA Research with INEGI data

Graph 33

Transportation cost inflation (y/y % change)



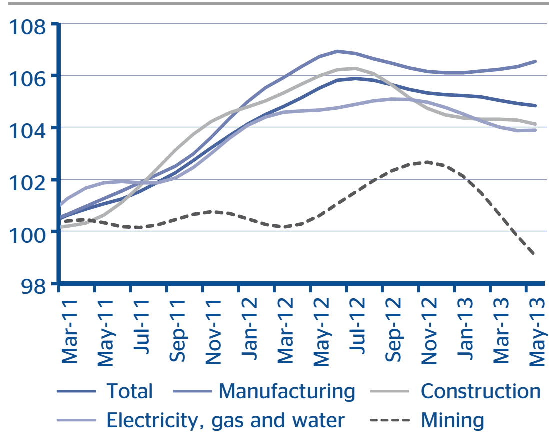
Source: BBVA Research with INEGI data

3.3 In view of Banxico's assessment of the "rate and depth" of the economic downturn, a cut in the lending rate cannot be discounted

In a context of falling inflation, as forecast by the Central Bank, the recent statement by this institution has pinpointed two factors to be taken into account for steering monetary policy: the relative monetary stance of Mexico compared to other countries, and the evolution of its economic activity. As has been argued since 2011, the monetary stance has increasingly been seen as a determining factor in analysts' expectations of monetary policy since late April, when the rise in exchange rates and the cut in the policy rate by several central banks throughout the world contributed to three out of four analysts anticipating a cut as early as July of this year.[1] This was abruptly reversed when faced with the possibility of a reduction in the rate of asset purchases by the Federal Reserve and the resulting currency depreciation. The second factor, the evolution of economic activity, has taken on increasing importance in Banxico's statements. In its monetary policy announcement for July, the central bank indicated that "in view of the rate and depth of the economic downturn, there is a heightened risk of a slowdown in Mexico's economic activity." This strongly determined the tone of the communication, and even more so at a time when inflation is once again returning to 4.0% and when the "inflation risk balance has improved." However, these factors were not sufficient to suggest an imminent change in the monetary policy rate. Despite the clearly relaxed tone of this latest communication, the section on policy omitted to make any explicit mention of a possible cut in the monetary policy rate, as occurred in the statement prior to the cut in March.

Graph 34

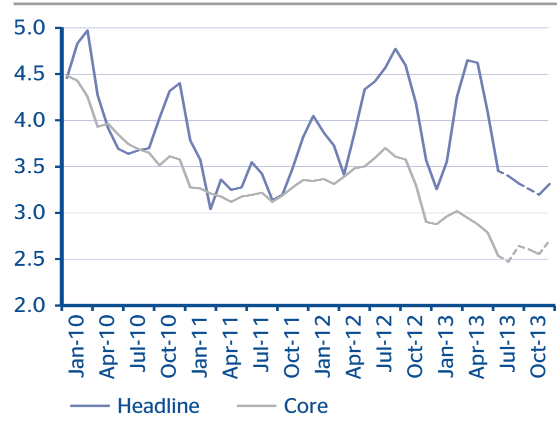
Industrial output: trend (January 2011 = 100)



Source: BBVA Research with INEGI data

Graph 35

Inflation: scenario (y/y % change)



Source: BBVA Research with INEGI data

The fact that no cut was mentioned in the most recent statement significantly reduces the chance of this occurring in the short term. However, it would be unwise to rule out the possibility for the following reasons. First, the latest data on economic activity and employment continue to show weakness. In spite of the good industrial output figures for May, the seasonally adjusted year-on-year rate grew barely 0.5%. Moreover, the slump in motor vehicle output in June (-0.5% y/y) and the fall in producer confidence in four of the last five months do not augur a favorable scenario for the second quarter of

[1] According to the Financial Market Analysts' Survey of May 21, 2013.

2013. Additionally, job creation during the first half of the year fell 35% compared to the first half of 2012, while the latest indicators on credit, which has supported growth in the recovery, already show signs of slowing. Second, although the data for activity in the US show an improvement, there may still be some negative effects on private consumption due to the tax hikes at the start of the year, which may act as a brake on the pace of recovery. Third, in the various minutes of the monetary policy meetings, most of the members of the governing board have been in favor of achieving convergence of inflation at the minimum cost to economic activity. This is significant at a time when core inflation is at a record low of just above 2.5%, and headline inflation is already within the target range.

In short, the fact that Banxico's statement did not explicitly mention a cut in the monetary rate, despite the relaxed tone of the communication, reduces the likelihood of a cut at the September meeting. Furthermore, there has been evidence to suggest that Banxico bases its decision on both conventional and unconventional monetary measures by other central banks, thus indicating that new events in this direction could also have an influence (see Box 2). However, given that the economic data on the third-quarter have yet to show signs of the expected recovery and inflation maintains its downward trend, and while exchange-rate volatility continues to ease, a cut in the lending rate cannot be ruled out.

3.4 The forecast reduction in asset purchases prompts a process of "normalization" in the financial markets

Between January and early May this year, an environment in which no changes were forecast in the prevailing abundance of liquidity, long-term government interest rates fell in response to the global pursuit of yield and to Banxico's cut in the policy interest rate in March. The 10-year bond yield (M10) fell to a record low of 4.4% on 9 May 2013, a level of almost 100 bps lower than at the close of 2012. The exchange rate appreciated significantly in the same period, from 12.85 pesos to the dollar in December 2012 to 11.97 on May 8, 2013, the day on which Mexico's sovereign risk rating was upgraded.

From this point on the primary determining factor in the patterns of financial variables in Mexico (and other emerging countries) was the statement by the Fed and its interpretation by the markets, thus highlighting the degree to which the levels and volatility of variables such as the exchange rate and medium and long-term interest rates depend on the unconventional monetary policy measures adopted by the Fed.

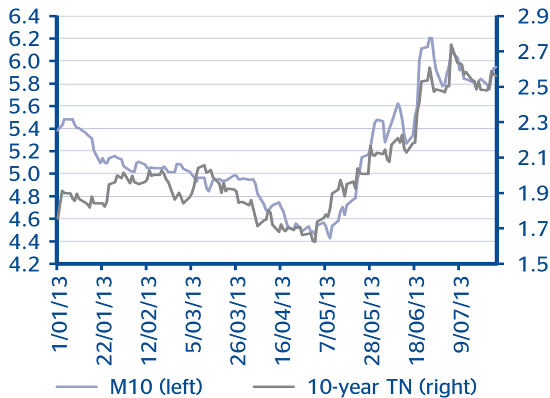
The Fed's recent period of communication can be divided into three stages (see Box 3 for a detailed explanation of the sequence of market reactions in Mexico to the Fed's statements). In the first stage, beginning the second week of May, the early signs -gleaned from statements by some of its members- that the Fed could be about to embark on its exit strategy, prompted uncertainty and volatility that affected bond prices and currencies in emerging markets, among them Mexico. This trend was heightened after Bernanke's appearance before Congress on May 22. The 10-year bond yield began a significant upward trend which took it to levels of 5.6% on 10 June, 120 bps above the minimum levels seen one month earlier, while the exchange rate on the same date fell to 12.9 pesos to the dollar, a loss of 6.9% in one month. This pattern was subsequently reinforced in a second stage starting June 19, when the press conference by Ben Bernanke, Chairman of the Federal Reserve, on the Fed's most recent monetary policy decision, was seen as confirmation that the withdrawal of unconventional monetary stimuli was at hand and the start of the upward cycle was now closer in time than previously anticipated. As a result, the M10 interest rate continued its rapid upward rise to a record high of 6.11% by the end of June. Volatility also reached its highest point, and one day after the monetary decision on June 20, the VIX index (a measure of global risk aversion) reached a maximum for the year at 20.5%. As a result of this volatility, emerging currencies underwent a generalized depreciation, and the Mexican peso suffered the fourth biggest loss of all the currencies, with a drop of 8.73% in the period between 10 May and 20 June, a figure exceeded only by the South African rand, the Brazilian real and the Indian rupee. It should be noted that this sudden depreciation is greater than the 7.31% gain in the peso from the start of the year to May 8, the day on which the country's credit risk rating was upgraded. These significant variations in parity have meant that the volatility observed in the daily movements of the peso has risen to levels of 1.0%, a figure not previously seen since September 2011, when there was a perceived risk of a possible break-up of the euro. Furthermore the implied one-month volatility, a measure of expected short-term volatility, increased to 18%.

This point marked the start of the third stage, involving a partial and gradual reversal of these effects, which was reinforced after Bernanke's latest statement to Congress on July 17 and 18, at which he apparently managed to temper the expectations of the market by making clear that any movement would be tied to the favorable evolution of the economic indicators, and particularly employment. Thus the 10-year bond yield has now returned to levels around 5.8% and the peso has gained 6.5%, the highest rise of all the emerging currencies in the period between June 21 and July 23.

In the coming months the markets could once more differentiate the peso positively for three main reasons: a) Mexico will be one of the prime beneficiaries of the expected acceleration of the US economy in the second half of the year; b) in relative terms, the slight undervaluation of the peso makes it a more attractive currency; and c) the expectation of structural reforms could prompt a further positive differentiation of the peso. The peso is therefore expected to continue its upward trend in what remains of the year and in the first half of 2014, and to increase to average levels of 12.4/USD in 4Q13. However,

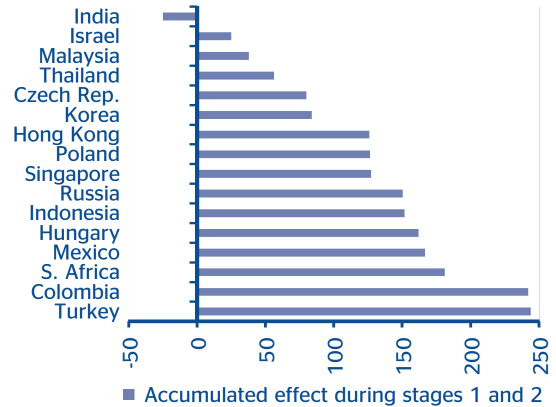
liquidity movements and the forecast changes in the Federal Reserve's conventional monetary policy could have an impact on the global risk premium, once again triggering episodes which could induce deviations (possibly temporary) in this trend.

Graph 36
10-year interest rates (%)



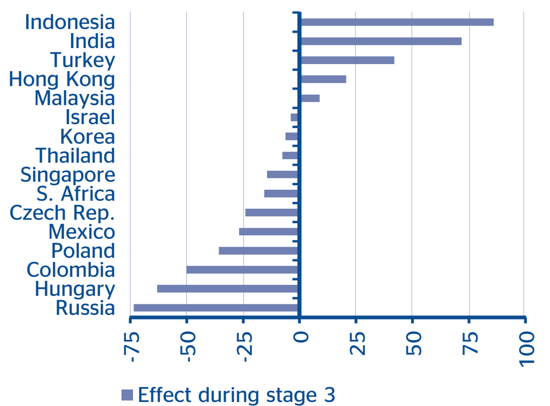
Source: Bloomberg

Graph 37
Accumulated effect on 10-year interest rates during stages 1 and 2 (bp)



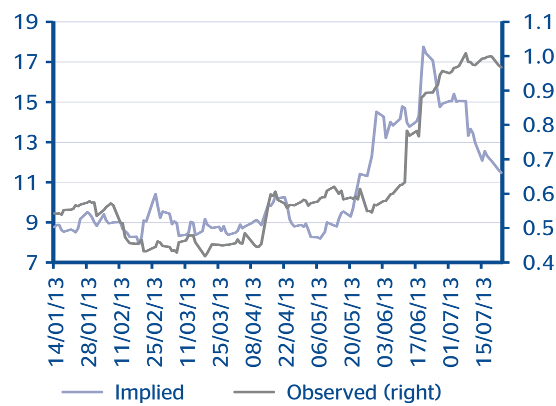
Source: Bloomberg

Graph 38
Effect on 10-year interest rates in emerging markets during stage 3 (bp)



Source: Bloomberg

Graph 39
Exchange rate. Implied 1-month volatility and observed 30-day volatility (%)



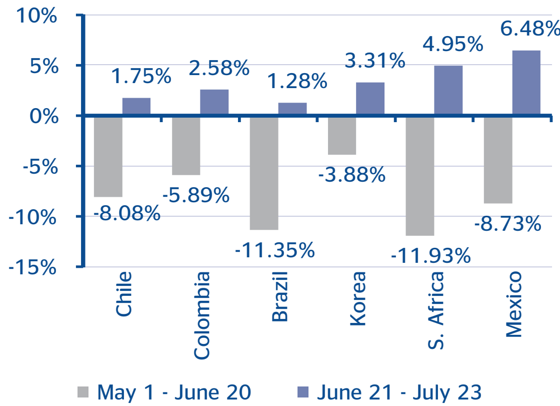
Source: Bloomberg

As mentioned above, the primary determining factor for long-term interest rate movements in Mexico in the different stages is the markets' perception of the future intentions of the Fed. This is the reason for the evident synchronization between the interest rate movements for 10-year T-bills and the rate for M10 (see Chart 36); and also why the pattern of long-term interest rates in Mexico has followed the same line (i.e. in the same direction and with similar magnitude) as that of the main emerging markets (see Chart 37). Looking forward, our baseline forecast is for a slight further decrease. Long-term interest-rates can be expected to rise in 2014 in response to the climate of steady recovery in the global economic cycle,

above all in the US, bringing with it a gradual normalization of US monetary policy. As has become clear in recent months, this factor has indirect effects on the debt markets in emerging markets i.e. greater long-term interest rates and peaks in the yield curve as a result of a revaluation of the perceived risk.

Graph 40

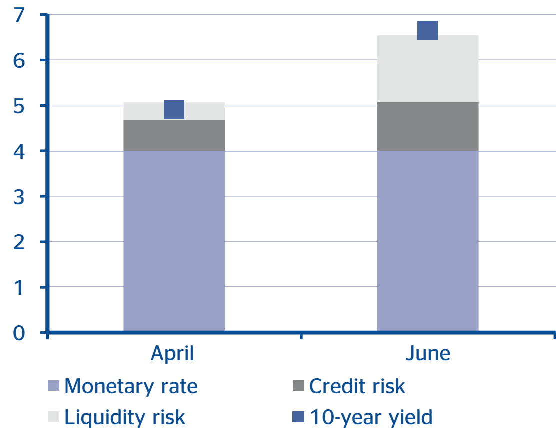
Appreciation/depreciation of emerging currencies (%)



Source: Bloomberg and BBVA Research

Graph 41

Breakdown of the yield to maturity of the 10-year bond (%)



Source: BBVA Research

These patterns in the markets can also be explained as a result of an increase in the liquidity premium of financial assets. An accommodative monetary policy, along with the unconventional measures adopted by the central banks in developed countries, have created an environment in which the pursuit of yield was sustained by a lower risk of converting assets into working capital. Now that the markets expect a reduction in the injection of monetary stimuli by the Fed, in addition to an earlier-than-expected increase in the Fed funds rate, the liquidity risk has gradually risen, as revealed by the adjustment in the price of financial assets, and particularly long-term assets. As an example of this process of "normalization" towards levels that are more in keeping with basic rates, the yield to maturity of the 10-year government bond in Mexico rose from 5.0% to 6.6% between April and June. We calculate that around 1.2% of this rise is due to the increase in the liquidity premium, while the rest can be attributed to greater credit risk.[1]

It is worth mentioning that during this period of volatility, foreign holdings of fixed-rate bonds did not suffer an associated drop in capital outflows, although there was a reduction in the inflow rate. The June reduction in foreign holdings can be almost entirely explained by the maturity of an M bond on June 20, while the CETES rose by USD 2,500 million, the highest figure since August 2012. This pattern is consistent with the adjustment that occurred in the longest section of the yield curve. Until the second week of July, foreign holdings of M bonds increased by about USD 1,400 million, a similar level to the average monthly inflow in the last four years. In the case of CETES, until the second week of July there was a moderate reduction of around USD 500 million in foreign holdings.

[1] For a review of the methodology for the decomposition of the yield to maturity of the 10-year bond, see the box "Improvement in liquidity conditions: support for the fall in interest rates" in Mexico Watch for the 3rd quarter of 2012. Available at: http://www.bbvaresearch.com/KETD/fbin/mult/1208_SituacionMexico_3T12_tcm346-351688.pdf?ts=2472013

Box 2: Analysis of the growing importance of Mexico's relative monetary stance within the Bank of Mexico's reaction function

Since the financial crisis of 2008 and the severe recession in 2009, central banks in emerging countries have seen how the exceptionally low interest rates in developed countries and the abundant and increasing global liquidity due to the application of unconventional monetary policies (especially quantitative easing) have had an indirect impact on their countries, giving rise particularly to strong inflows of investment, primarily in government bond markets. In most cases, this liquidity, coupled with the inflow of capital, has generated appreciating currency exchange rates, which in most countries has tended to lead to tighter-than-desired monetary conditions for the domestic economy and its outlook.

Thus the need to apply aggressive and unconventional monetary policies in certain countries, particularly in the United States, has posed new challenges for central banks in emerging countries. In fact, this year, the increase in inflows, which was reinforced in April by the decisions of the Central Bank of Japan, contributed to the further relaxation of monetary policy in emerging countries by a number of central banks in order to cope with these effects and sidestep a situation where a tighter relative monetary stance could provoke additional appreciations in their currencies, and thus place greater restrictions on their domestic monetary conditions in this climate of economic weakness. More recently, since May when the statement by the US Federal Reserve (Fed) raised the possibility that the start of its exit strategy[1] (i.e. a reduction in its rate of asset purchases as the first step to the normalization of its monetary policy) was around the corner, the indirect effects on global financial markets have been notable. In some cases this has produced higher financing costs due to the sharp rise in the yield curve, and in almost all cases, significant depreciations in exchange rates.

Both the exceptional global monetary slack in recent years, and the gradual normalization of monetary policy looking to the future has imposed new challenges on central banks. This is particularly so for emerging countries, given that their financial markets tend to react more acutely to shifts in global risk perception. Financial assets in these countries are perceived to involve greater risks compared to those in developed countries, and they thus tend to offer higher returns and are more attractive in the context of the pursuit of yields and a country's macroeconomic stability. Furthermore, emerging countries have become progressively more open both economically and financially, implying ever greater exposure to global financial conditions. In short, it could be argued that the growing importance of the relative monetary stance, in view of its considerable effect on domestic monetary conditions, could entail changes in the reaction functions of central banks in emerging countries.

In this global context characterized by the close interdependence between economies and financial markets, the Bank of Mexico (Banxico) has not shied away from these new challenges. In fact, its statement announcing the decision to cut the policy interest rate by 50 bps on March 8 this year alluded to these indirect effects,[2] whereas in the three following statements (April, June and July) it indicated that it would keep a close eye on the possible implications for inflation forecasts of "Mexico's relative monetary stance compared with other countries." This suggests that Mexico is no exception, and that the country's relative monetary stance has assumed increasing importance for Banxico.

An analysis of this issue should seek to answer the following questions: i) What quantitative (and qualitative) variables could bring about changes in Mexico's relative monetary position? and ii) Do these variables offer a more accurate forecast of the target interest rate of Banxico's monetary policy? The answer to these questions is a matter of increasing importance, as it could indicate whether Mexico's relative monetary stance is an element to be taken into account in Banxico's reaction function.

I Selection and construction of variables

In order to analyze the importance of Mexico's relative monetary stance, we first need to identify the changes in other countries' monetary policies that might have an impact on this stance. These fall into two groups: i) changes in conventional monetary policy (i.e. target interest rates), and ii) the announcement and application of unconventional monetary policies in some countries.[3]

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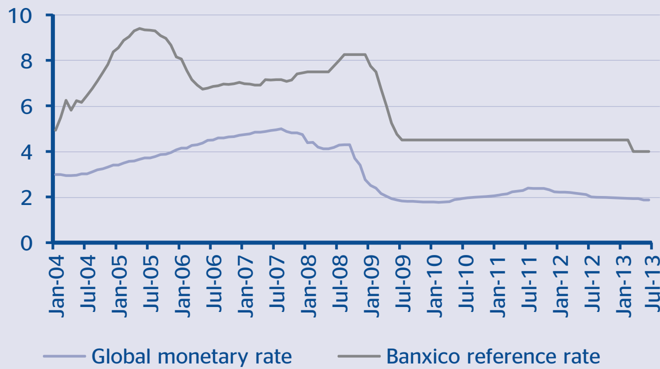
[1] For more details see Box 3: "The peso and government bond yields have moved to the rhythm of the communication by the Fed

[2] "...the substantial additional monetary easing expected in many advanced and emerging economies could spur greater capital flows to our country, thus rendering unnecessary a relative tightening of monetary conditions."

[3] Both the statement (e.g. an explicit indication of the future direction of monetary policy, or more aggressive measures such as a change in the target inflation, meaning interest rates would remain at exceptionally low levels for longer than previously forecast), and quantitative easing (i.e., purchase of assets by the central banks which maintain long-term interest rates under control and generate abundant liquidity).

Graph 42
Global monetary rate* and Banxico policy rate (%)



* * Constructed using a selection of central banks in the main emerging (20) and developed countries (11), and calculated with the relative weight of each monetary policy rate according to its GDP in 2012 dollars.
Source: BBVA Research with data from Banxico, Haver Analytics and in-house calculations

Graph 43
Sum of the assets on the balance sheet of the Federal Reserve, the Bank of England and the Bank of Japan (billions of dollars)

Source: BBVA Research with data from Bloomberg

In order to build a variable that integrates the main changes in policy interest rates around the world, we created a "global monetary rate" compiled by selecting the central banks in the main emerging (20) and developed countries (11),[4] and calculated by weighting the relative importance of each monetary policy rate by GDP in 2012 dollars.[5] As can be seen in Chart 42, the "global monetary rate" is significantly lower than Banxico's target rate,[6] while greater synchronization can be observed between Banxico's monetary cycle and the global cycle from 2008-09; in other words, considerably slacker monetary policies than seen previously have apparently prompted a greater importance for Banxico's reaction function of the monetary stance of the different economies.

For the second group, two variables were built in order to capture unconventional monetary policies, which, as described above, impact monetary conditions and could thus potentially influence Banxico's target interest rate. The first is a quantitative variable: the size of the balance sheets of the central banks that have applied quantitative easing since 2008,i.e. the Fed, the Bank of Japan (BoJ) and the Bank of England (BoE). This is done simply by converting the three balance sheets into the same currency, the United States dollar, and then adding them together (see Chart 43). The second is a quantitative variable that includes the main announcements on unconventional monetary policy since the financial crisis of 2008. These are selected based from the International Monetary Fund document entitled Unconventional Monetary Policies.[7] This variable considers the changes in communication that offer an explicit forward indication of the future direction of monetary policy and the announcements of quantitative easing (see chart at the end).[8] Once the relevant events have been selected, a scale of different values is created to assign a numerical value to the statements on unconventional monetary policies. The statements are classified with values between -1.0, -0.5, +0.5, +1.0, from more relaxed to more restrictive respectively, depending, for example, on the institution that makes the statement (e.g. the weight of a statement by the Fed differs from one from the BoE insofar as it has greater weight), the magnitude of the quantitative easing announced (e.g. in the extraordinary statement of April this year by the BoJ), and the

[4] Emerging: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, South Korea, Malaysia, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey; developed countries: Australia, Canada, Denmark, Eurozone, Iceland, Japan, New Zealand, Norway, Sweden, United Kingdom and the United States.
[5] These countries represent 90% of global GDP.
[6] This is to be expected in view of the greater relative weight in this rate of the larger economies (e.g. USA, Eurozone, Japan, United Kingdom) and their lower inflation and slower growth which implies a lower natural interest rate.
[7] *Unconventional Monetary Policies - Recent Experience and Prospects." April 18, 2013*
[8] Our selection does not include significant announcements with relevant effects on the global risk perception such as LTRO (long-term refinancing operations) programs and OMTs (direct monetary transactions i.e., ie potential purchases of government bonds on the secondary market in countries complying with a bailout program) from the European Central Bank. This is because these programs are designed to provide liquidity to the banking system or to governments in trouble, and do not involve any quantitative easing that generates additional global liquidity.

importance of the changes announced (e.g. the increase in the BoJ's target inflation announced in January this year has a high weight). These values comprise the quantitative index of statements on unconventional monetary policy. Thus a value of +0.5 (+1.0) indicates a (high) additional monetary restriction and the expectation of the normalization of monetary policy, whereas a value of -0.5 (-1.0) indicates a (high) level of additional monetary relaxation. Additional easing suggests the possibility of inflows to emerging economies that might restrict the monetary conditions beyond what is desired in view of the domestic context of inflation and growth, and as a result could potentially point to a cut in Banxico's target interest rate if the other determinants (inflation and growth) allow it.

II Mexico's relative monetary stance as a determinant of Banxico's interest rate

In order to analyze whether the calculated variables contain relevant information to determine Banxico's monetary policy rate we estimated three Taylor rules (1993), each one including one of the three variables calculated as being one of the determinants for the rate. The following rules were estimated:[9]

$$r_t = \alpha + \beta_0 r_{(t-1)} + \beta_1 (\{\pi_{t-k})\} - \pi*) + \beta_2(\{Y_{t-m}\} - Y*) + \beta_3 R_{t-i} + \varepsilon_t$$

$$r_t = \alpha + \beta_0 r_{(t-1)} + \beta_1 (\{\pi_{t-k})\} - \pi*) + \beta_2(\{Y_{t-m}\} - Y*) + \beta_3 EC_{t-l} + \varepsilon_t$$

$$r_t = \alpha + \beta_0 r_{(t-1)} + \beta_1 (\{\pi_{t-k})\} - \pi*) + \beta_2(\{Y_{t-m}\} - Y*) + \beta_3 IA_{t-j} + \varepsilon_t$$

where r is the target interest rate of monetary policy, π denotes the annual inflation rate, $\pi *$ the target inflation rate, the variable Y represents economic output, $Y *$ potential economic output, R is the global monetary rate, EC is the quantitative variable for unconventional monetary policies, IA is the index of unconventional monetary policy announcements (i.e., the qualitative variable), the estimation error is given by ε, and t refers to the time period.

The potential product is estimated by the trend resulting from a Hodrick-Prescott filter. The series are monthly and the sample covers the period from January 2001 to June 2013.

The three specifications, which add together some of the variables selected to measure the impact Mexico's relative monetary stance has on Banxico's decisions, give the signs expected for the coefficients. In each one the additional variable is significant and important, implying that these variables contribute to predicting Banxico's target interest rate as they provide certain information on its decisions that is not found in the traditional variables used to estimate the Taylor rule.

References

Taylor, J. (1993), "Discretion versus Policy Rules in Practice", Carnegie-Rochester Conference Series on Public Policy, 39, 1, pp. 195-214.

IMF Staff (2013), "Unconventional Monetary Policies – Recent Experience and Prospects", pp. 1-43.

[9] The estimates are made using ordinary least squares and the generalized method of moments with instrumental variables.

Table 2

Selection of unconventional monetary policies*

Country	Date	Program	Description
			Forward guidance
U.S.	12/16/08		The Federal Open Market Committee (FOMC) "anticipates...exceptionally low levels of the federal funds rate for some time."
U.S.	3/18/09		The FOMC "anticipates... exceptionally low levels of the federal funds rate for an extended period."
U.S.	9/13/12		The FOMC "will continue to maintain interest rates extremely low at least until mid-2015."
U.S.	12/12/12		The FOMC "decided to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that this exceptionally low range... will be appropriate at least as long as the unemployment rate remains above 6-1/2 percent, inflation between one and two years ahead is projected to be more than a half percentage point above the Committee's 2% longer-run goal, and longer-term inflation expectations continue to be well anchored."
Japan	10/5/10		The Bank of Japan (BoJ) "will maintain the virtually zero interest rate policy until it judges, on the basis of the understanding of medium to long-term price stability."
Japan	1/22/13		The BoJ announces an inflation target of 2%.
Japan	4/4/13		The BoJ announces its intention to meet its 2% price stability target over about two years.
			Bond purchases
U.S.	3/18/09	QE1	The FOMC announces it will purchase longer-term Treasury securities (USD 300 billion) over the next four months.
U.S.	11/3/10	QE2	The FOMC "intends to purchase a further USD 600 billion of longer-term Treasury securities by the end of the second quarter of 2011, a pace of about USD 75 billion per month."
U.S.	9/21/11	OT	The FOMC "intends to purchase, by the end of June 2012, USD 400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less."
U.S.	12/12/12	QE3	The FOMC announces that it will purchase Treasury securities, initially at a pace of USD 45 billion per month. Open ended.
UK	3/5/09	QE1	The Monetary Policy Committee (MPC) announces that it will purchase GBP 75 billion of assets over three months. Conventional bonds likely to constitute the majority of purchases, restricted to bonds with residual maturity between 5 and 25 years.
UK	10/6/11	QE2	The MPC announces that it will expand its asset purchase by GBP 75 billion.
Japan	10/5/10	QE	Announcement purchases of Japanese government bonds (JGBs), commercial paper, corporate bonds, exchange traded funds (ETFs), and Japanese real estate investment funds (J-REITS). Total purchases planned by end of 2013: JPY 76 trillion.
Japan	4/4/13	QQE	Announcement of purchases of JGBs, ETFs and J-REITS with the goal of increasing the monetary base by JPY 60 and 70 trillion annually, increasing the average maturity of JGBs held from three to seven years and meeting the 2% inflation target in about two years.

* Based on the IMF document entitled "Unconventional Monetary Policies - Recent Experience and Prospects" of April 18, 2013

Box 3: The peso and government bond yields have kept pace with the Fed's communication

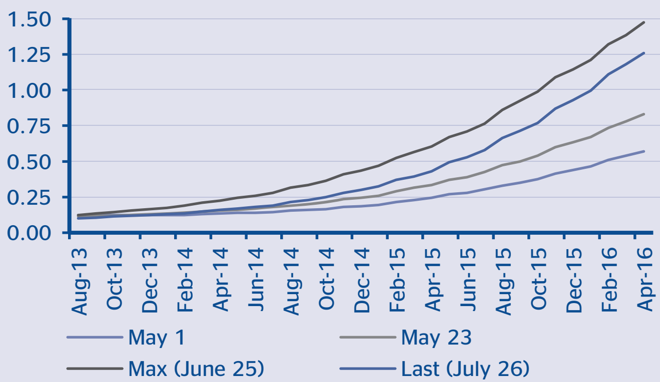
After the reactions to the statement by the Fed (the US Federal Reserve), global markets have gradually digested the message that a reduction in the rate of asset purchases by the Fed (i.e. a lower increase in quantitative easing) and its possible termination does not imply an earlier start of an upward cycle in the policy interest rate. Mexico's financial markets have responded to the indirect effects of a gradual adjustment towards the normalization of monetary policy in the US (i.e, higher interest rates, a steep yield curve and a drop in the currency as a result of the revaluation of perceived risk) in exactly the same way as the financial markets in the rest of the emerging countries.

Why have there been such abrupt changes in the markets' perception of the possible onset of the monetary policy normalization process in the US? How has the Fed's communication gradually changed until it managed to strike a balanced tone? Will the markets once again react to the fundamentals and be less sensitive to the Fed's communications? All these questions are vital for understanding the recent behavior of the financial markets and for assessing their future prospects.

The key aspect in the movements of the global markets is the perception of the tone of the Fed's communication, and the interpretation of its exit strategy (i.e. the process of normalization of monetary policy). The sequence of reactions can be divided into three main stages: 1) the markets' reaction to the early signs that the Fed was about to initiate its exit strategy, which began in the second week of May but gained strength after Bernanke's appearance before Congress on May 22; 2) overreaction by the markets after the perception of a restrictive tone in the latest statement on monetary policy decision by the Fed and Bernanke's press conference on June 19; and 3) a partial and gradual reversal of these effects, which began in the last week of June and gained strength after Bernanke's latest appearance before Congress on July 17-18.

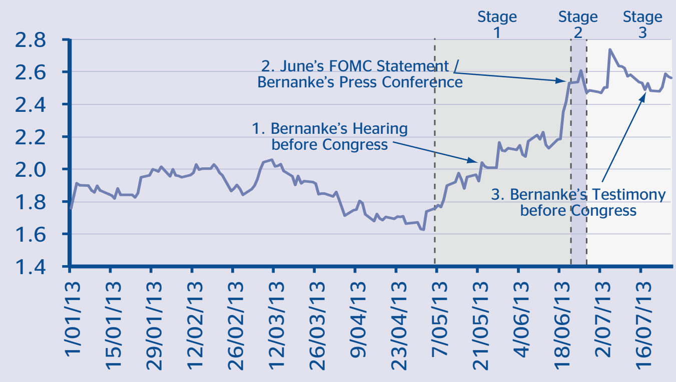
It could be argued that the first stage began in the second week of May when some members of the Fed started to express certain discomfort with the continuation of the latest asset purchase program (QE3), which began to impact the appetite for risk, and even triggered a downturn in the trend for higher risk assets that had gained value significantly in the previous month. The high point in this stage came in the penultimate week in May, when signs were detected in the Fed's communication to suggest that it intended to embark on a less accommodative monetary policy. For example, on May 22, the chairman of the Federal Reserve, Ben Bernanke, displayed a relaxed tone in his statement before Congress; however, in the session of questions he appeared to open the door to a slowdown in the pace of asset purchases in the coming months; i.e., he displayed a less relaxed tone.[1]

Graph 44
Federal funds futures rate (%)



Source: BBVA Research with data from Bloomberg

Graph 45
10-year Treasury note interest rate (%)

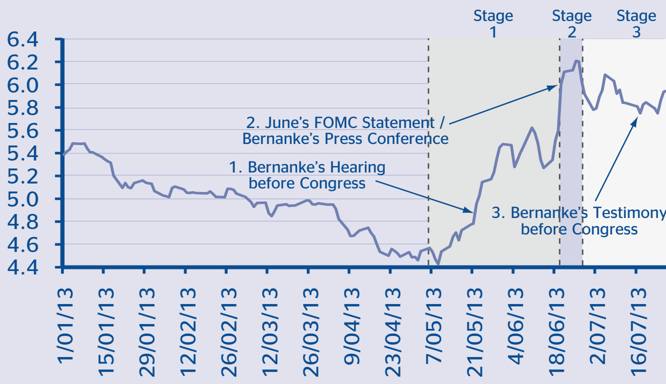


Source: BBVA Research with data from Bloomberg

[1] When he indicated that: "If we see continued improvement and we have confidence that that's going to be sustained then we could in the next few meetings ... take a step down in our pace of purchases."

Graph 46

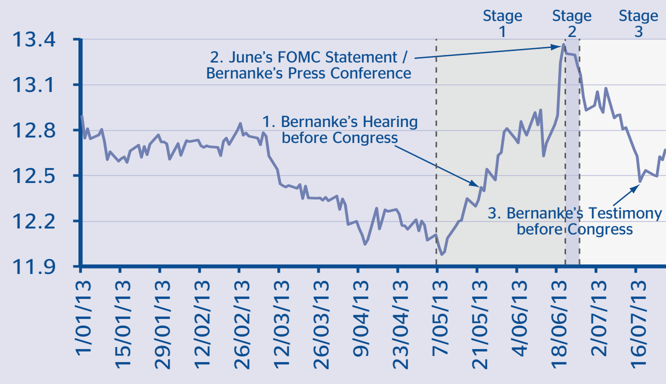
M10 interest rate (%)



Source: BBVA Research with data from Bloomberg

Graph 47

Exchange rate (pesos per dollar)



Source: BBVA Research with data from Bloomberg

In addition, the FOMC (Federal Open Market Committee) minutes reveal that some participants considered there was a possibility of a slowdown in the pace in June, and the discussion highlighted the lack of agreement within the FOMC as to what constitutes sufficient improvement in the economy. The markets reacted strongly to the perception that monetary policy in the US was about to take a giant U-turn. In the US, the futures markets brought forward their expectations of the start of the upward cycle in the policy interest rate (from October 2015 to April that same year) and there was an intensification in the upward trend in long-term interest rates that had begun in the previous weeks (see Charts 44 and 45). Meanwhile in the emerging markets, among them Mexico, there was a significant increase in long-term interest rates and a depreciation in foreign currencies (see Charts 46 and 47).

From that point on and until the Federal Reserve's monetary policy meeting of June 18-19, the uncertainty with regard to the implications of the Fed's perceived change in tone was a contributing factor in consolidating these movements. In the run-up to the meeting it was expected that the movements observed in the financial variables would be maintained, intensified or at least partially reversed, depending on the perceived tone. The tone of the statement and the press conference of July 19, the day that marked the start of the second stage, was viewed as being restrictive and appeared to reflect the Fed's growing discomfort at continuing QE3 for a longer period of time. The Fed stated its intention to begin reducing the pace of asset purchases "later this year" if the economy grew enough to maintain the downward trend in the unemployment rate. Additionally, for the first time it established a framework for the end of quantitative easing, suggesting that an unemployment rate of 7.0% would be consistent with the termination of QE3, and it also maintained the threshold of 6.5% as a necessary condition for initiating the upward cycle in the policy interest rate. This optimism about the economic outlook[2] was seen as a very significant change in tone by the Fed, in part because it appeared to give substantial weight to the decrease in the unemployment rate and the expectation that it would continue this trend, and less weight to the low level of inflation compared to the target. Investors interpreted it as the confirmation that the Fed was on the point of initiating the gradual normalization of monetary policy in the US. The financial markets overreacted, i.e. the financial variables intensified their movements of the previous weeks and the markets anticipated at that time that the start of the Fed's upward cycle would begin in March 2015 (see Charts 44 to 47). The key to this overreaction appears to have been that in spite of Bernanke's attempts,[3] he was unable to disengage the incipient slowdown in the pace of asset purchases from the start of the upward cycle (i.e. uncouple the exit strategy from the unconventional monetary policy from conventional monetary policy).

[2] "The Committee sees the downside risks to the outlook for the economy and the labor market as having diminished since the fall"; "labor market conditions have shown further improvement in recent months".
[3] When he indicated that the increases in the policy interest rate "were still far off" and that the Fed was "a little puzzled" by the recent rise in long-term interest rates.

From that point on, in the third stage starting in the last week of June, we began to see a gradual reversal in the movements of the financial variables primarily for two reasons: a) the reassuring statements by several members of the Fed in an attempt to temper the perceived tone of the recent communication;[4] and b) as a natural consequence of an overreaction in the financial markets. However, this was a slow process, as these reassuring declarations failed to convince the markets that whatever occurred with quantitative easing would not have any impact on the time at which they would begin to increase the policy interest rate. A clue to this behavior is that in spite of the fact that these comments by some members of the Fed did indeed have a certain effect, as the long-term interest rates fell in comparison with their previous record highs, they had a negligible effect on market expectations regarding what would be the first rate rise by the Fed, and they continued to discount the possibility of a rise in March 2015. As a result, the global markets persisted in anticipating the onset of the normalization of monetary policy in the US and thus continued to ignore the fact that the transition period to a revaluation of risk was here to stay. Mexican financial variables partially and slowly reversed their recent movements (see Charts 46 and 47).

Why was it so difficult for the Fed to disengage these two actions? A possible explanation is that previously when the Fed announced further quantitative easing (i.e. asset purchases or an increase in the pace of asset purchases) the markets reacted by anticipating that the start of the upward cycle was further off in time (this was seen both in the futures market and in the yield curve). This is because this change in unconventional monetary policy responded to the worsening economic outlook, the increase in inflation risks, or to a combination of these factors. This same process was now working in reverse, in spite of the fact that the members of the Fed sought to delay the fact that expectations of the first rise in the policy interest rate were now being brought forward. On this occasion the Fed's perceived optimism about the economic outlook, but also the expectation of a stronger recovery and the perception that this would be less fragile in the future (i.e. it would be sustainable without the exceptional help of unconventional monetary policy) increased the likelihood that the upward cycle in the policy interest rate would occur sooner that expected. Additionally, the Fed's increasing attention to the unemployment rate even prompted some analysts to argue that the Fed's reaction function had changed, and now included the unemployment rate as a significant variable.

In response to the increased weight of the unemployment rate, the signs of strength shown by the US labor market after the publication of the figures for job creation for June on the first Friday in July triggered another change in trend in the financial variables. Specifically, the movements of the previous weeks were partially offset in the case of the peso and almost completely in the case of the interest rate for the 10-year government bond (M10). However, from the second week of July, these variables once again resumed their downward trend, which was intensified by Bernanke's most recent statement to Congress on July 18-19. The perception of a greater relaxation in Bernanke's tone compared to the June press conference boosted risk assets. The key points were: a) the emphasis he gave to the fact that normalizing monetary policy was not on a "pre-set course" and continued to depend on the data; b) the greater emphasis on inflation (which remains low and far from the target rate); and c) with regard to whether a substantial part of the reductions in the unemployment rate in the future were judged to reflect declines in labor force participation rather than gains in employment, it "would be unlikely" that unemployment rates of 6.5% would be "a sufficient reason" to raise the federal funds rate. These adjustments in the communication aimed at maintaining flexibility in the Fed's actions appear to have achieved what had not been possible so far, namely that the markets began to separate the coming changes in quantitative easing from the still distant changes in the policy interest rate. After these adjustments, in which the Fed finally seems to have found a balanced tone to explain its exit strategy, expectations of the first rise by the Fed was postponed from March 2015 to May in that same year (see Chart 44) and the assets perceived as being high risk increased in price, principally the currencies of the emerging economies. The peso appreciated significantly, and returned to levels of around 12.5 MXN/USD (see Chart 47), near its estimated long-term equilibrium. Looking forward, now that the Fed has succeeded in shaping the market's expectations concerning its exit strategy, the movements of financial variables could once again respond to the evolution of economic fundamentals, primarily to the US unemployment rate, which is now the key variable in the future monetary policy movements in that country.

[4] Once again repeating that the future actions of the Fed would depend on the data, and that the withdrawal of quantitative easing would be a flexible process.

4. Indicators and forecasts

Table 3

Macroeconomic forecasts: Gross Domestic Product

(YoY growth rate)	2010	2011	2012	2013	2014
United States	2.5	1.8	2.8	**1.8**	**2.3**
EMU	1.9	1.5	-0.5	**-0.4**	**1.0**
Germany	4.0	3.1	0.9	**0.5**	**1.8**
France	1.6	2.0	0.0	**-0.1**	**1.1**
Italy	1.7	0.5	-2.4	**-1.8**	**0.8**
Spain	-0.3	0.4	-1.4	**-1.4**	**0.9**
UK	1.7	1.1	0.2	**1.0**	**1.9**
Latin America *	6.2	4.3	2.8	**2.6**	**3.2**
Mexico	5.3	3.9	3.9	**2.7**	**3.2**
Brazil	7.6	2.7	0.9	**2.3**	**2.9**
EAGLES **	8.4	6.6	5.1	**5.2**	**5.6**
Turkey	9.2	8.5	2.3	**3.7**	**4.8**
Asia-Pacific	8.2	5.8	5.3	**5.3**	**5.6**
Japón	4.7	-0.6	2.1	**1.7**	**1.5**
China	10.4	9.3	7.8	**7.6**	**7.6**
Asia (exc. China)	6.8	3.5	3.6	**3.7**	**4.1**
World	5.1	3.9	3.3	**3.1**	**3.8**

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, Corea, China, India, Indonesia, Mexico, Russia, Taiwan, Turkey
Closing date: August 2, 2013
Source: BBVA Research

Table 4

Macroeconomic Forecasts: inflation (Average)

(YoY growth rate)	2010	2011	2012	2013	2014
United States	1.6	3.2	2.1	**1.6**	**2.2**
EMU	1.6	2.7	2.5	**1.5**	**1.4**
Germany	1.2	2.5	2.1	**1.7**	**1.8**
France	1.7	2.3	2.2	**1.1**	**1.3**
Italy	1.6	2.9	3.3	**1.6**	**1.7**
Spain	1.8	3.2	2.4	**1.7**	**1.1**
UK	3.3	4.5	2.8	**2.7**	**2.2**
Latin America *	6.4	8.0	7.5	**8.7**	**8.6**
Mexico	4.2	3.4	4.1	**3.7**	**3.3**
Brazil	5.0	6.6	5.4	**6.2**	**5.7**
EAGLES **	5.3	6.0	4.1	**4.1**	**4.2**
Turkey	8.6	6.2	8.5	**7.2**	**6.0**
Asia-Pacific	3.6	4.7	3.0	**2.8**	**3.3**
Japón	-0.7	-0.3	0.0	**-0.1**	**0.7**
China	3.3	5.4	2.6	**2.8**	**3.5**
Asia (exc. China)	3.7	4.3	3.3	**2.8**	**3.1**
World	3.7	5.1	4.1	**3.7**	**3.9**

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela
** Brazil, Corea, China, India, Indonesia, Mexico, Russia, Taiwan, Turkey
Closing date: August 2, 2013
Source: BBVA Research

Table 5

United States indicators and forecasts

	2011	2012	2013	2014	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13
Indicadores Macroeconómicos												
GDP (real % change)	1.8	2.8	**1.8**	**2.3**	3.7	1.2	2.8	0.1	1.1	**1.7**	**4.1**	**3.2**
Personal consumption (real % change)	2.5	2.2	**2.0**	**1.9**	2.9	1.9	1.7	1.7	2.3	**1.8**	**2.8**	**2.3**
Gov. consumption (real % change)	-3.2	-1.0	**-2.0**	**-0.1**	-1.4	0.3	3.5	-6.5	-4.2	**-0.4**	**-0.2**	**-0.1**
Gross fixed investment (real % change)	6.2	8.3	**5.2**	**6.9**	8.6	4.8	2.7	11.6	-1.5	**6.3**	**9.3**	**9.0**
Construction	4.4	3.4	**4.1**	**4.3**	1.3	1.8	2.8	5.7	3.8	**3.9**	**4.5**	**6.1**
Industrial prod. (real annual % change)	3.4	3.6	**2.6**	**4.5**	4.0	4.5	3.3	2.8	2.5	**1.9**	**2.7**	**3.3**
Current account balance (% of GDP)	-3.0	-3.0	**-3.7**	**-5.0**	-3.1	-2.8	-2.7	-2.6	-2.7	**-4.0**	**-4.2**	**-4.2**
Final annual inflation	3.0	1.7	**2.2**	**2.1**	2.7	1.7	2.0	1.7	1.5	**1.8**	**1.6**	**2.2**
Average annual inflation	3.2	2.1	**1.6**	**2.2**	2.8	1.9	1.7	1.9	1.7	**1.4**	**1.6**	**1.9**
Primary fiscal balance (% of GDP)	-8.7	-7.0	**-4.0**	**-3.4**				-7.0				**-4.0**

Note: **Bold** figures are forecast
Source: BBVA Research

Table 6

Mexico Indicators and Forecasts

	2010	2011	2012	2013	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13
Economic Activity												
GDP (seasonally-adjusted series)												
Real annual % change	5.3	3.9	3.9	**2.7**	5.0	4.4	3.3	3.2	**2.2**	**2.0**	**2.9**	**3.6**
Per inhabitant (US dollars)	9,557.5	10,443.2	10,872.4	**12,420.5**	10,648.7	10,291.4	10,874.4	11,533.2	**11,693.9**	**12,173.8**	**12,761.1**	**13,102.8**
US$ billions	1,032.4	1,139.4	1,192.7	**1,327.1**	1,175.7	1,140.3	1,192.0	1,263.0	**1,286.7**	**1,309.6**	**1,319.6**	**1,392.5**
Inflation (average, %)												
Headline	4.2	3.4	4.1	**3.7**	3.9	3.9	4.6	4.1	**3.7**	**4.5**	**3.4**	**3.3**
Core	3.9	3.2	3.4	**2.7**	3.3	3.5	3.6	3.3	**3.0**	**2.9**	**2.6**	**2.6**
Financial Markets (eop, %)												
Interest rates												
Bank funding	4.5	**4.5**	4.5	**3.5**	4.5	4.5	4.5	4.5	**4.0**	**4.0**	**3.5**	**3.5**
28-day Cetes	4.4	4.4	3.9	**3.3**	4.3	4.4	4.2	3.9	**4.2**	**3.9**	**3.3**	**3.3**
28-day TIIE	4.9	4.8	4.8	**3.8**	4.8	4.8	4.8	4.8	**4.4**	**4.3**	**3.9**	**3.8**
10-year Bond (%, average)	6.9	6.8	5.7	**5.5**	6.2	5.9	5.3	5.4	**5.1**	**5.3**	**5.7**	**5.7**
Exchange rate (average)												
Pesos per dollar	12.7	12.5	13.1	**12.6**	12.9	13.6	13.1	13.0	**12.6**	**12.6**	**12.7**	**12.4**
Public Finances												
*FRPS (% of GDP)	-3.4	-2.6	-3.1	**-2.4**	-	-	-	-3.1				**-2.4**
External Sector[3]												
Trade balance (US$ billions)	-2.9	-1.2	0.4	**-8.1**	1.8	1.5	-1.1	-1.8	**-0.9**	**-1.0**	**-2.1**	**-4.1**
Current account (US$ billions)	-2.5	-10.3	-11.4	**-17.4**	-2.5	-0.7	-1.2	-7.0	**-5.5**	**-2.4**	**-3.6**	**-5.9**
Current account (% of GDP)	-0.2	**-0.9**	-1.2	**-1.3**	-0.9	-0.3	-1.3	-2.2	**-1.7**	**-0.7**	**-1.1**	**-1.7**
Oil (Mexican mix, dpb, eop)	72.3	101.1	101.8	**99.7**	110.5	100.6	99.7	96.6	**104.3**	**98.5**	**97.9**	**98.1**
Employment												
Formal Private (annual % change)	3.8	4.3	4.6	**3.9**	4.5	4.6	4.7	4.7	**4.2**	**3.9**	**3.8**	**3.9**
Open Unemployment Rate (% active pop.)	5.4	5.2	5.0	**5.0**	5.0	5.0	4.8	5.0	**5.0**	**5.1**	**4.9**	**4.8**

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Mexico Indicators and Forecasts

	2010	2011	2012	2013	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13
Aggregate Demand [4] (annual % change, seasonally-adjusted)												
Total	8.6	4.7	4.0	**2.5**	5.2	4.3	2.8	3.6	**2.0**	**2.0**	**3.0**	**3.0**
Domestic Demand	4.9	3.9	3.8	**2.8**	5.1	4.1	2.8	3.1	**2.5**	**2.7**	**2.8**	**3.1**
Consumption	4.6	4.1	3.1	**2.4**	4.1	3.6	1.9	2.9	**2.1**	**2.6**	**2.5**	**2.5**
Private	5.0	4.4	3.4	**2.6**	4.2	3.8	2.1	3.4	**2.6**	**2.8**	**2.5**	**2.4**
Public	2.3	2.1	1.5	**1.4**	3.1	2.3	0.4	0.2	**-0.8**	**1.0**	**2.2**	**3.0**
Investment	0.3	8.3	5.8	**2.4**	8.2	6.1	5.5	3.6	**1.9**	**1.6**	**2.1**	**4.2**
Private	-0.3	13.9	5.3	**3.8**	9.3	4.8	2.4	4.8	**3.4**	**4.6**	**4.1**	**3.1**
Public	2.7	-7.4	7.8	**-1.8**	4.7	9.6	14.7	2.6	**-1.5**	**-6.6**	**-3.8**	**5.3**
External Demand	21.7	7.6	4.6	**1.6**	5.8	5.1	2.8	4.8	**0.3**	**-0.2**	**3.5**	**2.8**
Imports	19.7	7.1	4.1	**1.9**	6.0	4.2	1.4	4.8	**1.2**	**2.0**	**3.4**	**1.2**
GDP by sectors (annual % change, seasonally-adjusted)												
Primary	2.9	-2.4	6.4	**2.7**	6.3	11.3	1.4	7.3	**2.7**	**4.1**	**1.4**	**2.7**
Secondary	6.1	4.0	3.6	**1.6**	5.0	4.1	3.5	1.8	**0.5**	**0.7**	**1.8**	**3.2**
Mining	1.2	-1.0	1.2	**1.2**	0.9	-0.1	2.3	1.8	**0.2**	**0.1**	**1.9**	**2.5**
Electricity	10.2	6.5	2.4	**1.4**	3.8	2.4	2.2	1.1	**1.4**	**0.6**	**1.0**	**2.7**
Construction	-0.6	4.6	3.3	**0.7**	5.4	4.8	3.8	-0.7	**0.2**	**-0.7**	**-0.4**	**3.7**
Manufacturing	9.9	4.9	4.0	**2.2**	4.7	4.9	3.9	2.7	**1.6**	**1.3**	**2.7**	**3.2**
Tertiary	5.2	4.7	3.8	**3.3**	4.4	4.7	3.0	3.1	**4.1**	**2.4**	**3.2**	**3.6**
Retail	11.7	9.4	5.2	**3.8**	7.5	5.4	2.4	5.5	**3.8**	**2.6**	**4.0**	**4.8**
Transportation, mail and warehouse	7.5	3.2	4.3	**2.8**	5.4	4.2	3.7	4.0	**1.6**	**2.1**	**3.6**	**3.7**
Massive media information	1.6	5.2	8.5	**8.3**	7.7	10.2	9.6	6.7	**7.6**	**7.8**	**9.2**	**8.7**
Financial and insurance	13.1	10.1	8.1	**5.7**	12.7	11.6	5.2	3.5	**3.4**	**4.3**	**7.1**	**8.1**
Real-estate and rent	1.9	2.4	2.4	**1.0**	2.5	2.3	3.0	1.9	**2.6**	**0.7**	**0.1**	**0.8**
Prof., scientific and technical servs.	-0.7	4.8	0.9	**1.2**	4.6	0.8	0.3	-2.0	**1.7**	**1.5**	**0.8**	**0.7**
Company and corporate management	4.9	2.1	4.0	**4.0**	4.8	3.8	4.4	3.2	**4.3**	**3.7**	**4.0**	**3.9**
Business support services	1.5	5.1	4.0	**4.8**	2.8	5.1	3.3	4.8	**6.4**	**4.8**	**4.9**	**3.1**
Education	0.2	1.8	1.1	**0.5**	2.0	0.8	0.6	0.8	**0.5**	**0.5**	**0.6**	**0.5**
Health and social security	0.7	1.8	2.1	**1.9**	2.0	1.8	2.1	2.6	**3.7**	**1.8**	**1.0**	**1.4**
Cultural and sport	5.9	2.5	4.0	**3.1**	0.0	3.5	6.0	6.5	**5.9**	**2.1**	**2.3**	**2.3**
Temporary stay	3.2	2.5	4.9	**2.8**	4.7	4.2	5.7	5.2	**3.8**	**2.6**	**2.3**	**2.5**
Other services, except government activities	0.9	2.9	4.1	**3.5**	3.4	4.5	4.3	4.4	**4.7**	**3.1**	**3.1**	**3.1**
Government activities	3.1	-2.3	0.6	**0.7**	2.0	2.2	-1.4	-0.3	**-2.1**	**0.1**	**2.4**	**2.3**

1: Residential investment
2: Fiscal balance (% GDP)
3: Accumulated, last 12 months
4: Base 1993=100; GDP by sector base 2003=100. The observed data of the primary sector, secondary and tertiary seasonally-adjusted by INEGI, the rest own seasonally-adjusted
bd: billions of dollars
dpb: dollars per barrel
*FRPS: Financial Requirements of the Public Sector
na: not available
Note: **Bold** figures are forecast
Source: BBVA Research with Federal Reserve, Bureau of Labor Statistics, Banco de Mexico, INEGI and SHCP data

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