

# Mexico

# Economic Outlook

1<sup>st</sup> QUARTER 2016 | MEXICO UNIT



01  
Global growth is weighted to the downside. The outlook is less favourable for commodity-exporting economies

02  
Growth in Mexico will remain at a similar level to last year, supported by domestic consumption

03  
The transfer of exchange-rate depreciation to prices will continue to be limited. Inflation is expected to close the year at around the Central Bank's target rate

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Closing date: February 26, 2016

# 1. Summary

Global growth risk has intensified over the first quarter of the year, leading to a further downward revision of world growth forecasts. Advance indicators of business confidence and the return of financial tensions point to a start to 2016 marked by more moderate growth than was forecast three months ago, so that, should this trend be confirmed, world GDP will grow just 3.2% in 2016, a very similar figure to that recorded in 2015 and below the 3.5% forecast previously. This moderate growth, the lowest since 2009, is mainly due to two factors. The first is the fragile recovery of the developed economies, whose dynamism has been affected by the impact of the slowdown in world trade and the financial instability hitting industrial production, investment decisions and private sector consumption. The second is the slackening demand in the emerging economies, particularly Latin America, which look like contracting for two years in a row. The transition toward a growth model based on China's domestic demand has been accompanied by uncertainty as a result of the rapid slowing down of its economy, which in turn has led to episodes of marked volatility and significant falls in commodity prices. All this means a much less favourable outlook for commodity-exporting economies and those perceived as more financially vulnerable. The slight improvement in economic activity across the developed economies, with 2.5% growth in the US and just below 2% in the Eurozone, are therefore insufficient to compensate for the expected performance from the emerging economies.

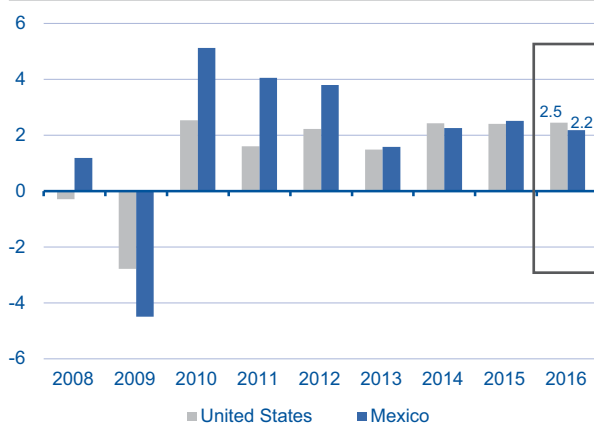
Given the collapse in oil prices and less optimistic medium-term forecasts, the greatest risk to growth and lower inflation in developed countries can be seen in the forecasts that the monetary policy of the main central banks will continue to be highly accommodative, even more so than was predicted at the end of 2015. As far as the Federal Reserve is concerned, although it is continuing its monetary normalisation discourse, the members of the Federal Open Market Committee (FOMC) have expressed their concern regarding the impact of global volatility and slowdown on the achievement of the Fed's targets. In fact, in the case of derivatives markets, no upward movement is expected from the Fed this year. As far as the European Central Bank (ECB) is concerned, the temporary extension of the quantitative easing programme and the cutting of the deposit rate to -0.3% in December indicated its willingness at the start of the year to continue to boost inflation. Finally, the Bank of Japan has also decided to adopt negative rates in order to penalise the accumulation of cash holdings and support aggregate demand.

Within this increasingly adverse context, the peso-dollar exchange rates have been the variable most affected by the increased volatility and by the effects of greater risk on a global level, particularly the fall in oil prices. The peso is above the 18 pesos to the dollar rate after a depreciation of over 5% over the year, the highest among the emerging economies with a flexible exchange rate. Given this significant depreciation, which reached around 10% during early February, the country's tax and monetary authorities announced a package designed to correct certain atypical traits in the exchange market and in turn to mitigate the risk regarding economic activity over the coming months. One of these measures was the unexpected increase of 50 p.b. in the key rate, through which the Bank of Mexico (Banxico) decoupled its monetary policy from the Fed's. Nevertheless, after this movement we expect to see a return to synchronisation during the year in order to maintain a higher differential over the federal funds rate and thus reduce the chance of foreign capital outflows from the country's bond market. Similarly, the higher monetary policy rate, along with the move toward discretionary intervention by the Exchange Commission, will reduce the incentive to take speculative positions against the peso.

Despite the significant depreciation of the exchange rate, inflation recorded an all-time low in 2015. We expect to see it close the year at around 3% in 2016. The better-than-expected performance of inflation last year was supported by reductions for certain components, such as telecommunications prices and lower fuel price increases, among others, which more than compensated for the higher prices that resulted from higher exchange rates. It should be pointed out that these price rises are still limited to consumer durables, with no

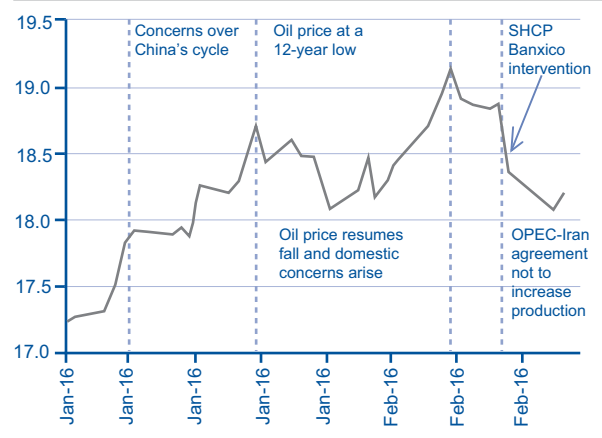
second-round effects recorded. Forecasts for 2016 are favourable within a context of considerable economic leeway, the anchoring of inflation expectations and a transfer of the depreciation of the exchange rate with a limited possibility of there being second-round effects. We therefore foresee headline inflation closing 2016 slightly below 3%.

Figure 1  
**Annual GDP growth in Mexico and the US (Percentage)**



Source: INEGI, BEA & BBVA Research

Figure 2  
**Exchange rate (Pesos per dollar)**



Source: INEGI & BBVA Research.

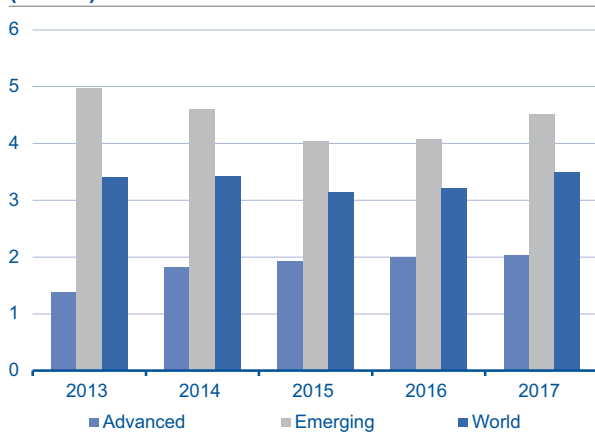
Finally, with regard to economic growth, we estimate that GDP will grow 2.2% in 2016 and 2.6% in 2017. The forecast for this year is lower than it was last quarter due to the weakness of manufacturing in the US, the reduced impetus provided by public expenditure owing to a series of cuts announced by the government and the less optimistic outlook suggested by domestic indicators, such as employment levels, for the final quarter of 2015. In a similar way to last year, we expect domestic private sector consumption to be the main factor backing growth, albeit to a lesser extent than in 2015. It can be assumed that favourable factors, such as the increase in remittances and real salaries, will not have the same impact in 2016. We should stress that the collapse in oil prices and the challenges that this has meant to public finance have increased the vulnerability of external accounts, which will be an issue to follow closely over the coming months.

## 2. A global outlook of anaemic and more fragile growth

The intensification during the last quarter of 2015 of some of the risk clusters with a global impact led to a further downward revision of world economic growth forecasts for this year. The transition to a lower growth pattern in China, with economic reforms and changes to key objectives such as the exchange rate, is being accompanied by bouts of intense financial volatility and falling commodity prices. All this leads to a much less favourable global panorama for large commodity-exporting economies such as Russia or Brazil, but also for those perceived as more vulnerable financially.

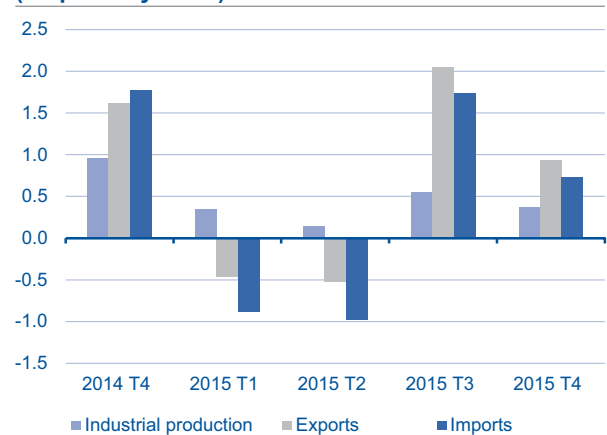
Although the level of activity seen in the second half of 2015 is consistent with quarterly growth of 0.75% in world GDP, above those seen in the first half of the year, the leading indicators (confidence indices) and the increase in financial stresses point to more moderate growth in early 2016 than was foreseen three months ago, as reflected in our estimates for the first few months of the year.<sup>1</sup> If this trend is confirmed, world GDP will grow by just 3.2% in 2016, repeating the advance of 2015 and postponing the recovery to 2017 when it should reach rates of around 3.5%. This lower growth rate, still the lowest since 2009, reflects slackening demand in the emerging economies, particularly those of Latin America, which look like contracting for two years in a row. Recovery in the developed economies is still fragile, and highly dependent on the eventual impact of the slowdown in world trade and the increase in financial instability on industrial output, corporate capital expenditure decisions and consumer spending. With the US growing at 2.5% and the euro zone by less than 2%, the tenuous improvement in activity in the developed economies as a whole will not be enough to offset emerging markets' expected relatively poor performance.

Figure 2.1  
**World GDP  
(% YoY)**



Source: BBVA Research & IMF

Figure 2.2  
**World industrial output and trade of goods  
(% quarterly rates)**



Source: BBVA Research & CPB

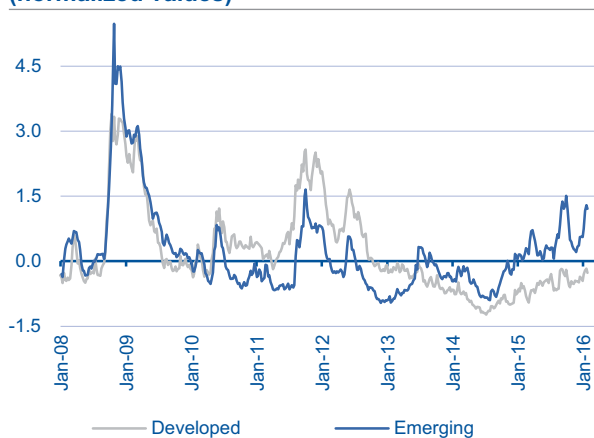
<sup>1</sup> Estimate based on the BBVA Research global activity indicator (GAIN). Details of methodology at <http://bit.ly/1nI5RIn>

The recent behaviour of the financial markets is largely explained by doubts about the strength of the world economic cycle. Activity indicators continue to show the greatest degrees of deterioration concentrated in manufacturing and trade: as to the former, world output grew by less than 2% YoY (the lowest rate since 2012), while in the case of exports, weighed down by developments in the US and emerging Asia, the increase on the previous year was less than 1% (figures to October 2015 in both cases). Activity in services, which until now had benefited from the recovery of private consumption in the major developed economies, is also starting to show signs of less dynamism.

Even leaving the extent of China's slowdown out of the equation, the fact that the major emerging economies are all being affected by the persistent fall in commodity prices (with only a few net oil-importing countries likely to benefit from cheaper energy) has contributed to increasing risk aversion on a global scale. Moreover, a further source of uncertainty has arisen in the form of the Chinese yuan, a reserve currency with an exchange rate more subject to market forces since the summer of 2015 and on which the authorities are not succeeding in anchoring market expectations. In this situation, the capital outflows that the emerging economies have been suffering since the beginning of 2015 are rivalling those seen in 2013, when the markets had factored in an interest rate hike by the US Federal Reserve which in the end did not take place. As shown by the persistent withdrawal of capital, across the board, with very little discrimination among economies, the nature of the current episode is such that it may have more serious consequences for access to financing and for the growth rate of those economies that are most reliant on external savings.

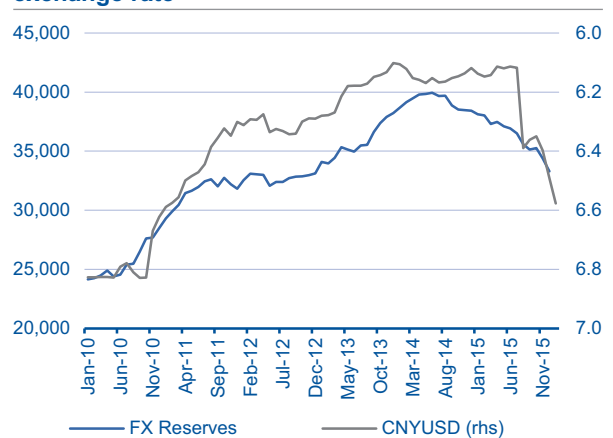
China and the Latin American countries are together those with the biggest capital outflows and consequently those in which financial conditions are deteriorating most. BBVA Research's Financial Stress Index for emerging countries has climbed back up to the levels seen in the summer of 2015 (first wave of the Chinese stock exchange crisis), reaching the stress levels of 2011. Unlike then, volatility remains contained in the developed economies, in a context in which the reallocation of capital to financial assets with a lower risk profile is intensifying the flight-to-safety in sovereign bonds of countries such as Japan, the US and Germany.

Figure 2.3  
**BBVA index of financial tensions (normalized values)**



Source: BBVA Research

Figure 2.4  
**China, FX reserves (US\$100 million) and exchange rate**



Source: BBVA Research & Haver

The depreciation of emerging currencies, which in some cases has brought their exchange rates to similar or even higher levels than those seen in the crisis of 2008, is one of the most clear signs of the punishment suffered by the emerging financial markets. In addition to doubts about the effects of the China's economy adjustment on global trading channels and financing, external imbalances, renewed flare-ups of geopolitical tension and the constraints faced by the authorities in managing the economic slowdown without compromising financial stability are growing. In those cases where the cumulative depreciation of the currency is more intense and lasting, rates of inflation are starting to pick up and to diverge from the levels set by their central banks as monetary policy targets. The change of regime in the pricing of the yuan constitutes, without doubt, an additional depreciation factor for most emerging currencies, in an environment of lower external demand in which a significant deterioration in the terms of trade may exacerbate the correction of domestic demand.

The dilemma faced by emerging market central banks is heightened by the risks entailed by the accumulation of debt by the business sector over the past decade and, with greater intensity, from 2007. The abundant liquidity in the capital markets and the reduction of financial costs were triggers for the private sectors of quite a few emerging countries to increase the recourse to debt, in many cases denominated in foreign currency. An increase in financial costs (and corporate credit spreads have come under significant stress in the past few months), in a context of lower revenues and falling business profitability, may jeopardise debt servicing and lead to a sharp reduction in capital expenditure, raising credit risk and endangering the stability of the banking system and the country's external creditworthiness.

In this regard, the approach to monetary policy adopted by the developed economies' central banks will continue to be of decisive importance. The start of the process of normalisation of interest rates by the US Federal Reserve in December 2015 has not led to any substantial increase in financial volatility, thanks to the Fed's repeated assurances that the process will be a gradual one. The majority of Latin American central banks matched the measure, increasing their reference interest rates in similar or greater proportions, since it was in their economies that the effect of currency depreciation on consumer prices was being felt most. In Europe and emerging Asia, management of monetary policy was characterised by stable rates (in consonance with the strengthening of the stimulus measures by the ECB) or even rate reductions, as in China and India.

The recent correction in inflation figures in the developed countries in response to falling oil prices and the renewed fall in medium-term price expectations may once again change how their central banks react; in the case of the Fed, delaying the next rate hike; in that of the ECB and the Bank of Japan, making their monetary strategy even more accommodative. Following the temporary extension of the bond-buying programme and the cut in its deposit facility rate to -0.3% in December, at the beginning of this year the ECB hinted at its readiness to continue stimulating price recovery; the Bank of Japan for its part has decided to follow the lead of its European counterpart in penalising the holding of liquidity positions, taking reference rates into negative territory. With average inflation rates in the world's four biggest economies (USA, euro zone, Japan and China) below 1% since mid-2014, monetary policy in the developed countries will continue to be highly accommodative, even more so than was being forecast in mid-2015.

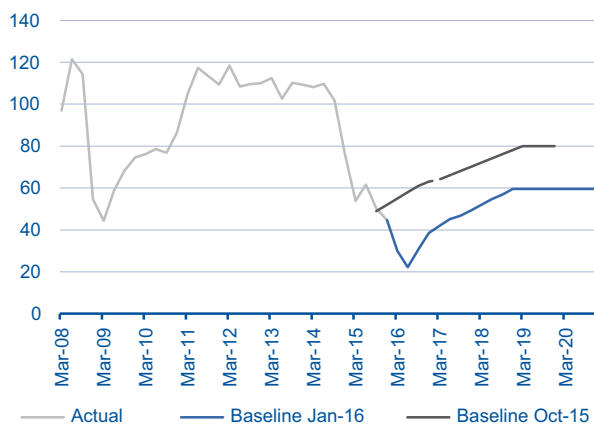
However, with this price containment taking place within a context of weak growth in demand, persistently high indebtedness and reference interest rates firmly anchored to the bottom, close to zero in Europe and Japan, the margin for monetary policy to reactivate growth and dispel doubts about the effects of the adjustment in emerging markets is very limited. This is particularly so when the downturn in emerging market activity is due not just to cyclical factors but also to a secular decline in key sources of revenue such as the export of commodities.

The fall in prices of the major commodities since mid-2014, most marked in the case of oil, and the adjustments to China's manufacturing sector have created an entirely new growth scenario for emerging markets as a whole. The downward revision of medium-term forecasts of the price of oil bears testimony to this. Compared with the \$100 a barrel at which Brent crude was trading in 2014, our forecasts put the expected price for 2016 at an average of around \$30, recovering gradually to around \$55 in 2018 (nearly \$20 below our previous forecast).

The sharp correction in oil prices is explained, in part, by the intense increase in stocks (as result of a persistent excess of supply on the contemporaneous demand needs), unprecedented in recent years, but also by the expectations that this evolution of stocks could remain in the future due to an deterioration of global economic growth and/or an slow adjustment of the high oil supply.

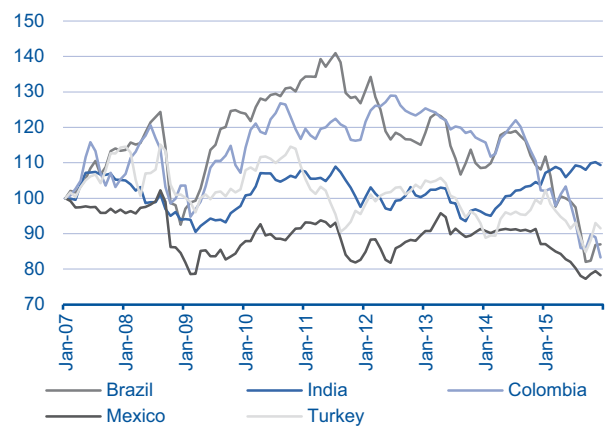
Until the spring of 2015, the excess supply was due to increased US output, plus the change in OPEC policy from late 2014, with no cuts in production in response to falling prices. Since September 2015, production has started to decrease, especially in the US and other non-OPEC countries where production costs and increased leverage are beginning to take their toll. However, there is still excess supply equivalent to 1.2% of world consumption. Added to this resistance of supply to a lower price environment, more recently we have started to see a context of financial instability and risk aversion that is symptomatic of a gradual lowering of expectations of demand. All these factors have accelerated the falling prices in the last part of 2015 and early 2016. In the medium term, as excess supply dwindles, there should be a gradual increase in prices, albeit less intense than that forecast in a scenario in which the world economy were to regain more vigorous growth rates than the current ones.

Figure 2.5  
**Oil prices**  
**(Brent, dollars per barrel)**



Source: BBVA Research & Bloomberg

Figure 2.6  
**Real effective exchange rate (base 100 = January 2007). Increases means appreciation**

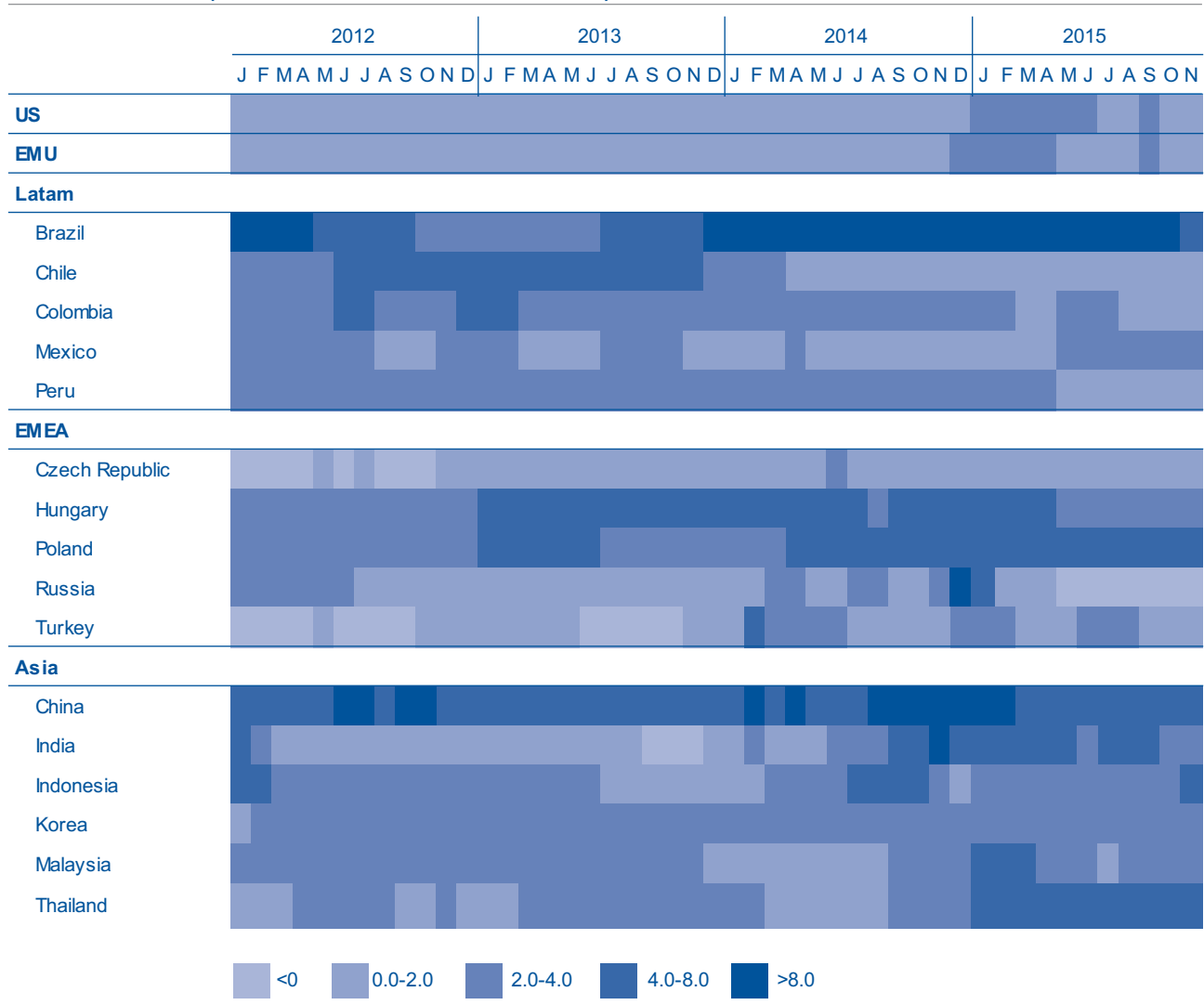


Source: BBVA Research & BIS

All the same, the world economy faces a 2016 of limited growth (3.2%), similar to that of 2015, and with a balance of risks showing a negative bias and concentrated in the emerging bloc. How China's economy evolves, both as regards the degree of slowdown in activity and how the authorities manage the financial imbalances that exist, will continue to have a significant influence on capital flows and commodity prices in general, not just oil. The level of corporate indebtedness in those emerging countries most vulnerable to the circumstances described constitutes an additional source of instability, in a context of lower profits and higher funding costs (high risk premia). Allied to this, geopolitical tensions in certain parts of the world and the risk of a scenario of low growth and low inflation in the major developed economies complete the outlook for the world economy in 2016.



Figure 2.7  
**Real interest rates (reference interest rates less inflation), %**



Source: BBVA Research & Haver

## USA: moderate growth and depending on consumer spending. Weak capital expenditure, low inflation and increased global financial volatility limit the Federal Reserve's scope for increasing interest rates

In the second half of 2015, US economic growth steadied at around 2.5%, in line with forecasts of three months ago. However, the slowdown in activity in the fourth quarter, together with advance signals given by business confidence indicators, increases the likelihood of growth in 2016 being less. Our base scenario maintains estimated growth of 2.5% for this year and next. Even if private consumption maintains the dynamism showed in the last two years, becoming the main growth driver, weak capital expenditure and stagnating exports will limit the extent to which aggregate demand can improve.

The sustained increase in employment, with an average of 240,000 jobs being created every month, in a context of low prices, will continue to boost households' disposable income and growth in private consumption, which could settle at annual rates of 2%. The positive effect of cheaper energy products on spending decisions may be countered by loss of domestic consumer confidence, as a result of the economic and political uncertainty at both domestic and international level and the reduction of their financial wealth in answer to the recent fall in stock markets.

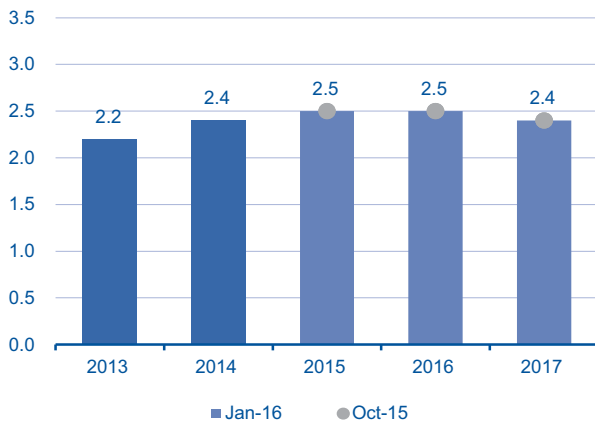
The very limited increase expected in capital investment reflects the impact of the adjustment to capital expenditure in the energy sector, as a result of the fall in oil prices, and the gradual recovery in the residential sector. The possibility that decreased dynamism of energy production and the deteriorating profitability that companies in the sector have already started to suffer might also have more serious spillover effect than expected on manufacturing employment cannot be discounted. This, combined with the weakness of exports, a consequence of the slowdown in international trade, but above all of the cumulative appreciation of the dollar<sup>2</sup> (in 2015 it appreciated by 10% in terms of real effective exchange rates), explains the fall in the business sentiment indices in industry (compatible with a contraction of activity at the end of 2015) and the stabilisation of economic growth at low rates – lower than those seen in other expansionary periods. The slowdown foreseen in bank lending, particularly to businesses, is in line with the moderated advance described for domestic demand.

In the absence of any upward pressure on underlying inflation from a substantial reactivation of private spending, falls in oil prices will again drive headline inflation far below the 2% set as a monetary policy objective by the Federal Reserve. Our projections put headline inflation for 2016 at 1.3% (compared with 0.1% in 2015), 0.5% below the previous quarter's estimate. The absence of inflationary pressures, accentuated by lower commodity prices (the fall in import prices reached 10% YoY in the last few months of 2015) and the appreciation of the dollar, will continue to determine the Federal Reserve's action, in a context in which the high degree of uncertainty about the strength of the global economic cycle and the response of other developed country central banks (maintaining or strengthening monetary stimulus measures) will also exert influence.

For these reasons, the Federal Reserve has repeatedly stressed that the path of interest rate increases that started in December 2015 will be gradual and subject to the continuation of the dynamic of domestic demand and inflation. The latest forecasts of the FOMC (Federal Open Market Committee) include four rate hikes for 2016, which would put federal funds at 1.5% at year-end, whereas the market consensus (including BBVA Research) expects at most two interest rate hikes, a divergence that has been widened recently by the decline in inflationary expectations, the increase in volatility in the financial markets ("safe haven effect") and the downward adjustment of US GDP in the fourth quarter. In fact, the probability of the next hike's taking place before September, already factored in by the markets, has decreased substantially, at the same time reducing the yields of long-term sovereign debt (the ten-year interest rate could fluctuate around 2% until the end of 2016). The financial context of risk aversion may continue to prevail over interest rate differentials among the major economic areas when explaining the strength of the dollar at medium term.

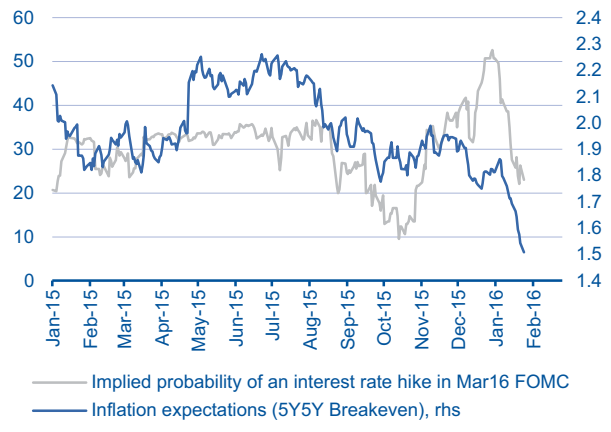
<sup>2</sup> If the dollar appreciates by 5% in any given year, US real GDP growth may fall by 0.6% for that year and by nearly 0.4% in the following year, according to BBVA Research estimates.

Figure 2.8  
**USA, economic growth**  
(% YoY)



Source: BBVA Research

Figure 2.9  
**USA, inflation expectations and probability of an increase in interest rates in March 2016 (%)**



Source: BBVA Research & Haver

## China: the main challenges in the short term are eliminating financial instability and confining the impact of the industrial adjustment on aggregate demand

Doubts about China’s ability to successfully manage the transition to a more moderate and balanced economic growth model resurfaced in the last quarter of 2015 following a new bout of financial instability deriving, as last August, from the stock and currency markets. The measures adopted by the authorities to limit the volatility of shares, suspending trading on days with sharp falls (circuit breakers) and limiting sales by investors with significant shareholdings, further exacerbated the financial stresses. The gradual but persistent depreciation of the yuan (against the dollar, it was trading at 6.35 in September and at more than 6.55 at year-end), accompanied by divergent prices in the onshore and offshore markets (greater depreciation in the latter), also played a key role in contagion of the remaining financial markets, the more liquid emerging markets being the most penalised.

The volume of capital outflows in the past year highlights the pressures for the yuan to devalue, contained only by the sale of foreign currency reserves by the central bank (the total volume of reserves fell by nearly US\$520 billion in 2015, approximately 10% of the total). Capital outflows, as well as limiting liquidity in yuan and the domestic markets, are hampering management of monetary policy: further cuts in key interest rates may give residents extra incentive to hold positions in currency abroad. In fact, according to BBVA Research estimates, the fall in value of the reserves in the past year is 55% due to the process of diversification embarked upon by the private sector in its portfolios of financial assets (increased proportion of dollar-denominated assets) and to exporters’ deciding not to repatriate their income to China. Only 25% of the fall is due to the loss of value of reserves denominated in currencies other than the dollar (“valuation effect”) and nearly 15% is due to debt repayment (reducing external liabilities). In this context, the central bank is opting for more flexible monetary stimulus measures than simply cutting interest rates, such as the direct provision of liquidity to banks.

While maintaining financial stability is crucial in order to avoid any repetition of episodes of risk aversion such as the recent one (a sudden depreciation of the yuan would lead to a sharp correction in other emerging market currencies and a significant increase in sovereign and corporate risk premia from current levels), the growth dynamic shown by China in the short and medium term continues to be of decisive importance for the world economic cycle. Any deterioration in activity increasing the likelihood of a sharp slowdown in China's GDP could intensify the withdrawal of capital, the fall in commodity prices and the adjustment in demand already being suffered by most of the emerging economies.

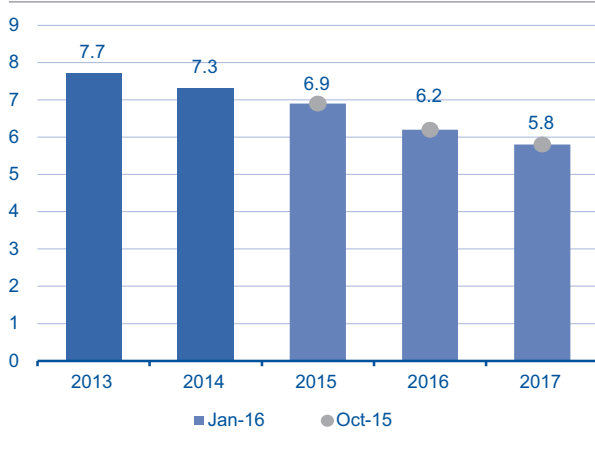
The official National Accounts figures still show a continuation of the gradual moderation of growth that started in 2011. In the fourth quarter of 2015, GDP grew by 6.9% on an annualised basis, supported by the increase in private sector consumption (the tax incentives might partly explain the reactivation of expenditure on durable goods and services). The weakness of capital expenditure and the downturn in exports are mirrored in the slowdown in manufacturing activity (with output growing at the lowest rate of the past few years, at 5% YoY, and business confidence indices contracting for several months in a row) and in the persistent decline in the flow of imports. It is for this reason that the current account surplus continued to increase in the second half of 2015.

The speed at which the process of rebalancing from a growth model based on industry and investment to one more biased towards consumption and services takes place is one of the big question marks, the answer to which will define China's economic scenario. The increased share of services in nominal GDP (its weight has gone from 42% in 2006 to 48% in 2015) can be considered the most convincing evidence of this process. However, trends in prices and the sectoral structure of employment show that, although the process is under way, it is still a process aimed more at a relative adjustment of prices than at an incipient reallocation of employment.

Specifically, while industrial prices show annualised falls since 2012 (-6% to the end of 2015), consumer prices, although slowing down somewhat, grew at a rate of 1.5%. The structure of employment by branches of activity shows that between 2010 and 2014 the manufacturing sector retained its share of the total, and the decline in agricultural employment was more than offset by the increase in employment in construction. In the case of services, the trends are divergent: the slight increase in the relative weight of trade and catering is in contrast with the diminished importance of other services such as transport and particularly education.

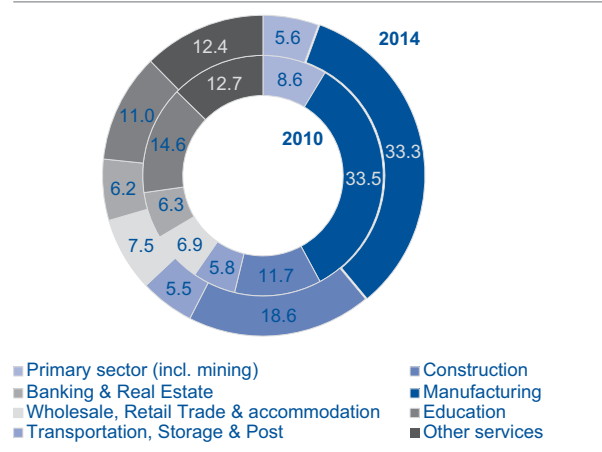
Nevertheless, our base scenario holds GDP growth for 2016 at 6.2% and at 5.8% for 2017, with inflation at 1.7% and 2.5% respectively. Additional monetary stimulus measures during 2016 in the form of key interest rate cuts cannot be discounted (specifically to 3.85% from the 4.35% at year-end 2015), although they will be constrained by the impact they might have on capital flows. The yuan could continue to depreciate to a level of 7.10 against the dollar next year, although uncertainty about the outlook for the exchange rate is running high, and indeed is one of the reasons for the financial volatility and the fall in asset prices worldwide. Finally, this soft landing scenario, being the more probable, is quite likely to lead to another scenario of greater risk given the doubts about the pace of rebalancing of the economy and the authorities' room for manoeuvre for managing it smoothly.

Figure 2.10  
**China, economic growth (% YoY)**



Source: BBVA Research

Figure 2.11  
**China, structure of employment by branches of activity (% of total)**



Source: BBVA Research & Haver

**Eurozone: no changes to expected growth, inflation forecasts revised sharply downwards. The ECB, prepared to strengthen monetary stimulus measures**

No changes in economic growth forecasts but inflation forecasts for 2016-17 revised sharply downwards. Eurozone GDP has replicated the behaviour expected three months ago, settling at quarterly growth rates of 0.3-0.4%, giving an advance expected figure of 1.5% for the whole of 2015. If the recent recovery dynamic is maintained, the eurozone could grow this year by 1.8% and 2.0% in 2017, the same figures as forecast last quarter. The positive effect that the fall in energy prices, a more expansionary fiscal policy and the continuation of loose monetary conditions would have on domestic demand and specifically on private consumption, would be partly offset by the negative impact of the slowdown in international trade on the export of goods and of increased financial and political instability on investment decisions.

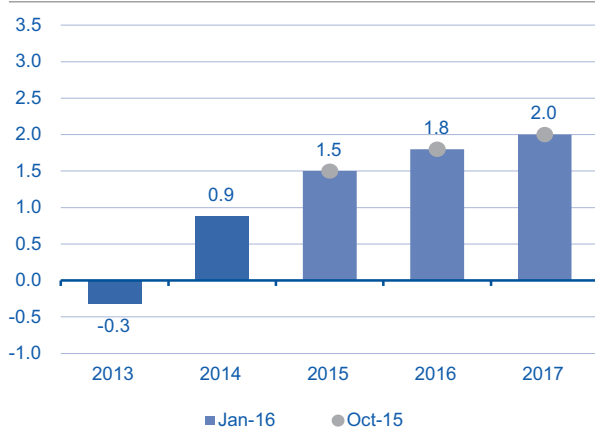
In fact, the composition of GDP for the third quarter of 2015 and forecast for the fourth shows consumption, both public and private, as the most dynamic item, thanks to the recovery in employment and the fall in prices due to cheaper oil, in a context in which household confidence has remained high. The negative surprises come basically from capital expenditure, despite businesses' improved perception of the economic situation, the increase in new bank lending and the low interest rates.

Doubts about the strength of external demand (trade in eurozone goods is suffering as a result of both falling sales to the emerging bloc and a slowdown in sales to developed countries) and the political uncertainty prevailing in certain countries (the forming of a new government in Spain, elections in Germany and France in 2017, the stability of the current Greek and Portuguese governments) could be acting as a drag on investment. Furthermore, the delay in meeting public deficit objectives and implementing key structural reforms to revitalise activity in the medium term are other factors that may also be hindering capital expenditure decision taking.

In this context of political instability, exacerbated by the lack of progress on economic and fiscal integration at European level, the risk associated with the possibility of the UK's leaving the EU and the rifts brought about by the handling of the refugee crisis, the role of the ECB will continue to be decisive in avoiding a sharp deterioration in financing conditions. In December de 2015, faced with a deterioration in the global economic context and the fall in commodity prices, the ECB decided to bolster its stimulus measures with a further cut in its deposit facility rate to -0.3% and the extension of its bond-buying programme until at least March 2017.

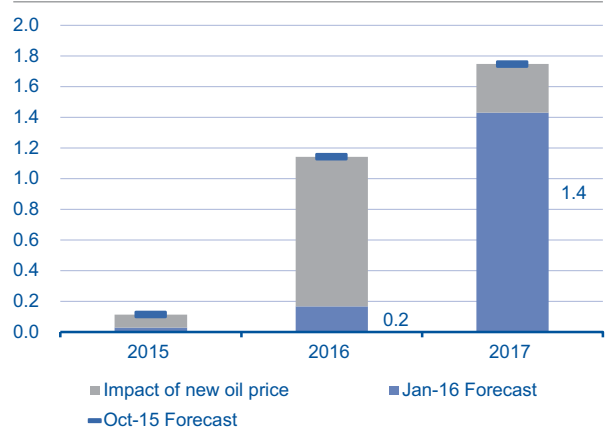
The stability of the euro exchange rate against the dollar, in a range of 1.08 to 1.10 in the past two months, and above all the fall in inflation rates caused by the downward revision of the oil price forecast for 2016 led the ECB to open the door to a new round of stimulus measures at the January meeting of its Governing Council, steps which might even be announced in March. If Brent crude trades at an average of 30 dollars a barrel in 2016, eurozone headline inflation would be just 0.2%, 0.9 percentage points less than was forecast three months ago. The gradual recovery of energy prices in 2017 also reduces expected inflation for the following year, which at an average of 1.4% is far removed from the ECB's objective of price stability. All this, without assuming significant second round effects on core inflation deriving from cheaper energy.

Figure 2.12  
**Eurozone, economic growth**  
(% YoY)



Source: BBVA Research

Figure 2.13  
**Eurozone, headline inflation**  
(%)



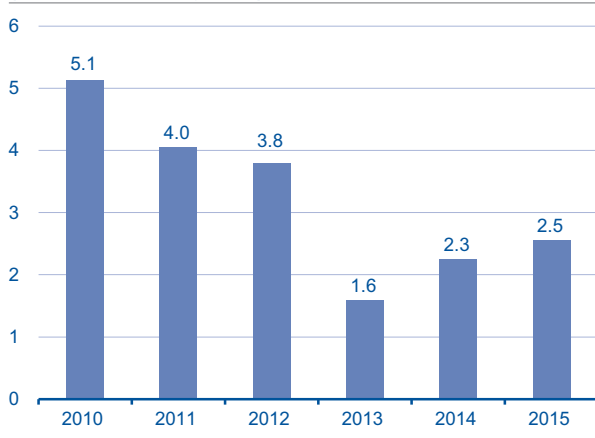
Source: BBVA Research

### 3. Growth in economic activity in Mexico similar to 2015 levels

#### 3.1 Private sector consumption to offer the biggest support to economic activity, given the fall-off in the dynamism of the external sector

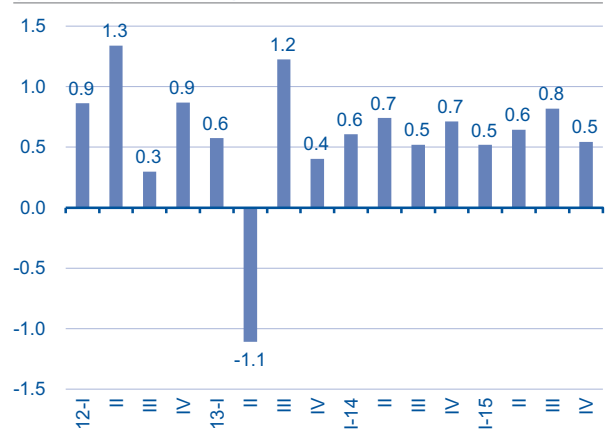
In 2015, the annual GDP growth rate was 2.5%. This rate was higher than in 2013 (1.6%) or 2014 (2.3%). From the perspective of quarterly GDP growth, it should be noted that over the first three quarters of 2015, growth in economic activity rose (IQ15 – 0.5%; 2Q15 – 0.6%; 3Q15 – 0.8%) but dropped off in the fourth quarter (4Q15 – 0.5%).

Figure 3.1  
**Gross Domestic Product**  
**(Annual % change, sa)**



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted.

Figure 3.2  
**Gross Domestic Product**  
**(% change QoQ, sa)**

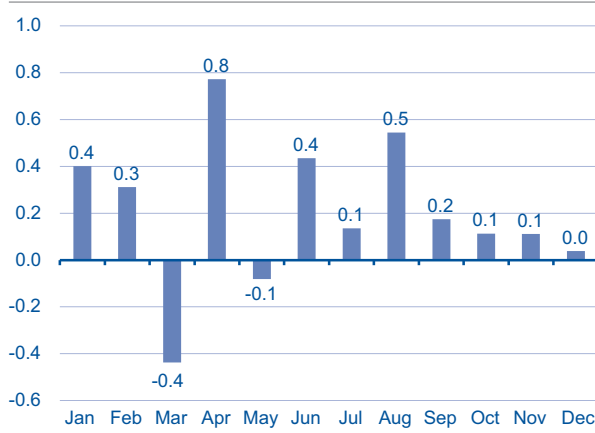


Source: BBVA Research with INEGI data.  
sa = seasonally adjusted; QoQ = quarter-on-quarter

Quarterly GDP growth for the last quarter of 2015 indicates that the dynamism of economic activity in the first quarter of this year may be moderate. This point is given additional weight if we take into account that the seasonally-adjusted monthly evolution of Mexico’s Global Economic Activity Indicator (IGAE) over the second half of 2015 recorded slower growth from September onward. If this trend continues in the short term, there will be less momentum in terms of economic activity in the first quarter of 2016.

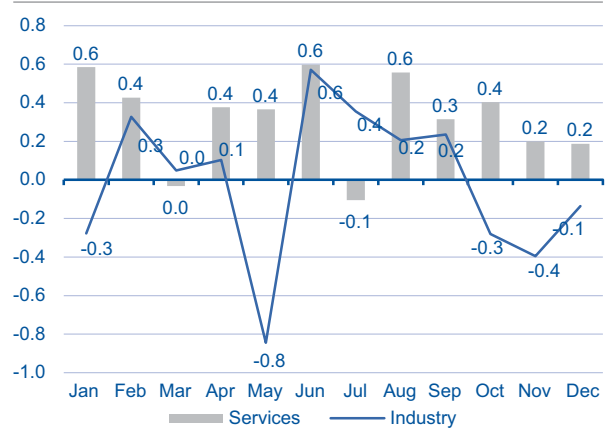
The main components of the IGAE are its secondary economic activity indicator (the industrial sector) and tertiary activity indicator (the service sector). Throughout 2015, the sector which contributed most to the growth of IGAE was the tertiary sector. Furthermore, the average monthly growth rate for this sector over 2015 stood at 0.3%, while average industrial sector growth stagnated at 0%. The average monthly growth rate for the primary sector (agriculture) stood at 0.5%. While this could be seen as high, the effect of this rate on IGAE growth is somewhat limited due to the fact that participation in the agriculture sector within the IGAE as a whole is around 6%.

Figure 3.3  
**Global Economic Activity Indicator (IGAE)**  
(% change MoM, sa)



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted; MoM = Month-on-Month

Figure 3.4  
**IGAE industrial and services sectors**  
(% change MoM, sa)

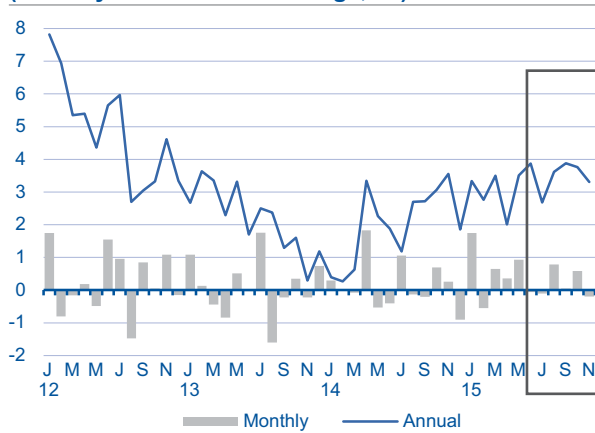


Source: BBVA Research with INEGI data.  
sa = seasonally adjusted; MoM = Month-on-Month

### 3.1.1 Domestic demand indicators: private sector consumption and gross fixed investment

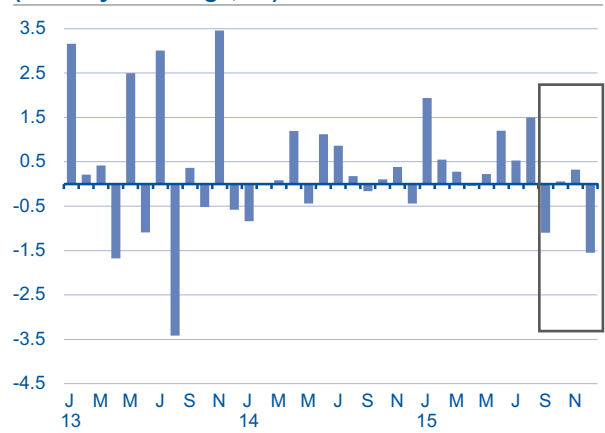
The performance of certain indicators covering demand for goods and services over the latter months of 2015 illustrate the lower dynamism of 4Q15 GDP growth. For example, while the private sector consumption indicator recorded annual growth rates above 3% in the second half of 2015, monthly growth rates over this period were both positive and negative. In addition to this, the average monthly growth in private sector consumption from January to June 2015 was 0.5%, while for July to November it was just 0.2%.

Figure 3.5  
**Private sector consumption index**  
(Monthly and annual % change, sa)



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted

Figure 3.6  
**Retail sales index**  
(Monthly % change, sa)



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted

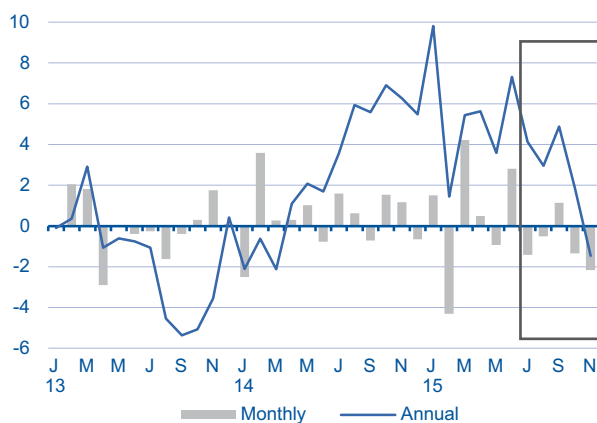


Another indicator which highlights that private sector consumption performed better in the first six months of 2015 is the retail sales index. This index covers the whole year and shows that the average monthly growth rate for the first half of the year was 0.7%, while over the second six-month period it collapsed to 0%. In other words, if the trend toward lower private sector consumption carries on into 2016, first quarter 2016 GDP could show slower growth than it has recently.

A further indicator that shows how economic activity lost momentum in the second half of 2015 is the monthly growth rate of gross fixed capital formation. The persistently low and negative monthly growth rates meant that gross fixed investment for November reported an negative annual growth rate of -1.5%. In this case the continuing short-term low and negative monthly growth rates have already affected the annual growth rate, a situation which will continue as long as short-term growth continues to record negative monthly growth.

Figure 3.7

**Gross fixed capital formation index (Monthly and annual % change, sa)**



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted

Figure 3.8

**Non-automotive manufacturing exports (Monthly % change, sa)**



Source: BBVA Research with INEGI data.  
sa = seasonally adjusted

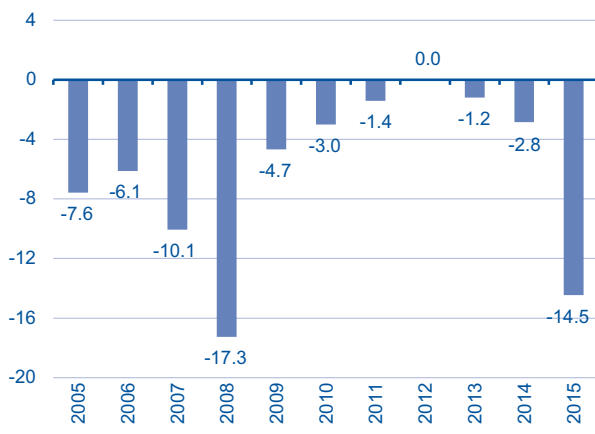
A further indicator that is important to Mexico’s macroeconomic situation is the monthly growth of non-automotive manufacturing exports. These represent 60% of total goods exports. Over the course of 2015, these export sales have not shown significant dynamism. Furthermore, the average monthly growth rate from July to December was 0.2%, while in November and December, monthly growth was in the red.

To summarise, we can say that an important group of economic activity indicators, such as private sector consumption, gross fixed investment and the country’s export sector, point to the existence of less momentum in short-term economic activity. If this situation persists, economic activity for the first quarter of 2016 will be lower. In turn, this may reduce the forecast of 2.2% GDP growth for 2016.

### 3.1.2 External sector: weaker balance of trade

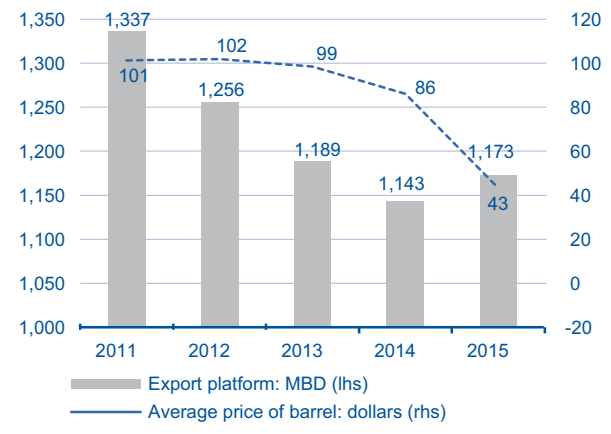
In 2015, Mexico’s balance of trade showed a US\$14.3 billion deficit. This figure stands in significant contrast to the moderate deficit that characterised the period from 2009 to 2014 (see Figure 3.9). The most important cause of this deterioration was the fall in the export price of crude oil. For example, in 2014, the average price per barrel for export was 84 dollars. In 2015, this halved to 43 dollars, as the daily export platform for crude oil did not change to any meaningful extent over these two years.

Figure 3.9  
**Balance of trade (US\$ billions)**



Source: BBVA Research with INEGI data.

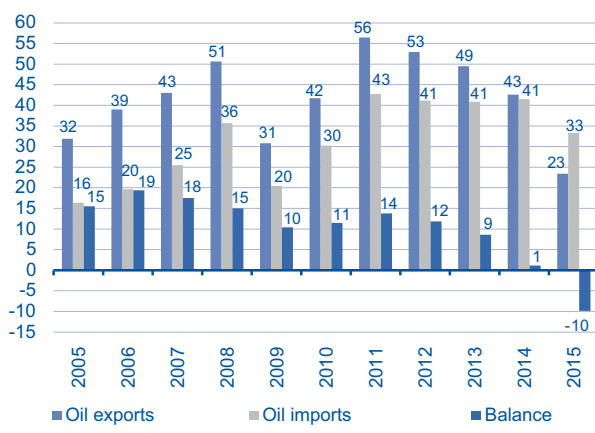
Figure 3.10  
**Crude oil exports (Thousands of exported barrels and average annual price in dollars)**



Source: BBVA Research with INEGI data.

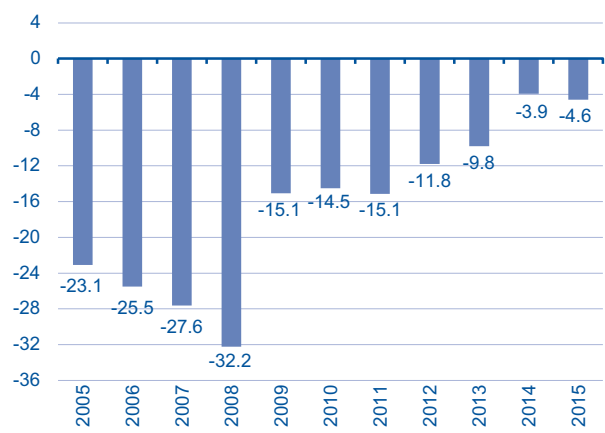
The importance of falling crude oil exports for the trade balance is illustrated by the fact that since the latter half of the previous decade, imports of oil-based products have increased significantly. In 2005, these imports rose by US\$16 billion, while in 2015 they increased to US\$33 billion. In this same period, the value of Mexico's oil exports, the vast majority of which is crude oil, dropped from US\$32 billion to US\$23 billion. In 2014, there was a surplus in the oil trade balance, which in 2015 became a US\$10 billion deficit. To summarise, the weakening of the oil trade balance, characterised by growing imports of oil-based products, as well as the drastic fall in the export price of crude, meant that in 2015 there was a significant oil trade deficit of US\$10 billion.

Figure 3.11  
**Mexico's oil trade balance: oil exports – oil imports (US\$ billions)**



Source: BBVA Research with INEGI data.

Figure 3.12  
**Non-oil trade balance (US\$ billions)**



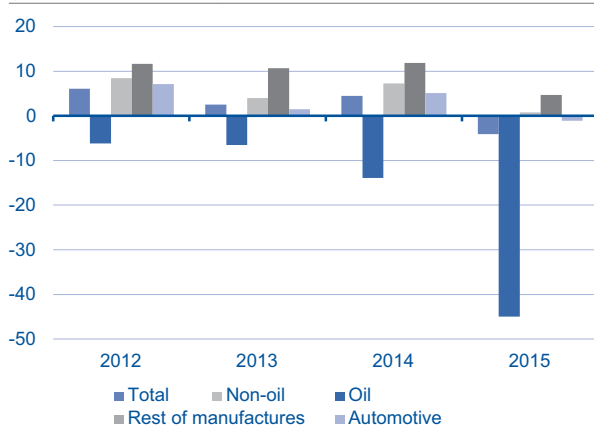
Source: BBVA Research with INEGI data.

As far as the trade balance for non-oil goods is concerned, once the economic crisis of 2008-2009 had passed, the deficit shrunk significantly. Also, the surplus balance resulting from oil trade to 2014 meant that the effect of the non-oil trade deficit lessened. However, in 2015 there was a significant oil trade deficit of US\$10 billion, a figure which, when taken together with the US\$4.6 billion non-oil trade deficit, meant that Mexico's total trade deficit rose to US\$14.5 billion.

### 3.1.2.1 Exports based on type of goods: slow growth limits economic activity momentum

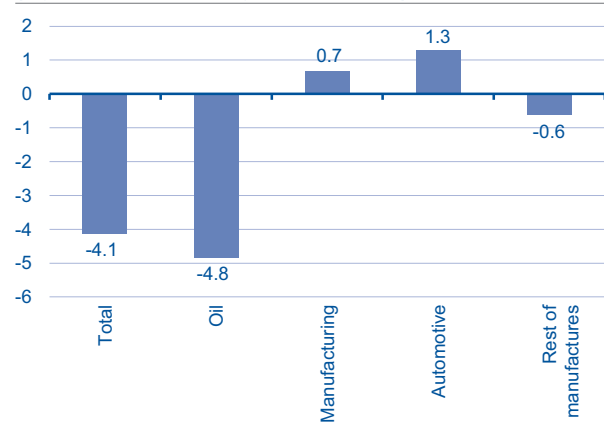
In 2015, total export growth was negative, at 4.1%. This figure contrasts with the 4.5% growth in exports recorded the previous year. It should be mentioned that in 2014 the export of manufactured goods grew 7.3%, while in 2015, it fell to 0.8%. The subject of manufacturing exports is very important in order to understand the performance total of exports. In 2015 they accounted for 89% of total exports (30% automotive exports and 59% other manufacturing exports).

Figure 3.13  
**Exports based on type of goods in 2015**  
(Annual % change)



Source: BBVA Research with INEGI data.

Figure 3.14  
**Total exports 2015, contribution to growth**  
(figures in percentage points, p.p.)



Source: BBVA Research with INEGI data.  
Manufactureras incluye automotrices y no automotrices.

Nevertheless, the previous comparison has not improved in recent years if automotive exports are taken into consideration or if we analyse the rest of manufacturing exports. In the case of automotive exports, growth fell from 11.9% in 2014 to 4.7% in 2015. As far as other manufacturing exports are concerned, it is even more important to understand the behaviour of the non-oil trade balance. This can be seen if we bear in mind that in 2014, the growth of these exports was positive (5.1%), in contrast to negative growth in 2015 (-1.1%). Furthermore, if the stagnancy of non-automotive manufacturing exports continues, one of the main driving forces behind GDP growth will be eliminated.

We should mention that the contribution of manufacturing exports to growth (0.7% of the -4.1% by which total exports fell) was not enough to offset the adverse effect of the drop in oil exports. These figures indicate that total exports of goods will grow when manufacturing exports increase to such an extent that they offset the impact of the decline in oil exports. In addition, while Mexico's external sector continues to show reduced signs of growth in demand for non-automotive manufacturing exports, this should not be seen as a factor that will drive the expansion of economic activity.

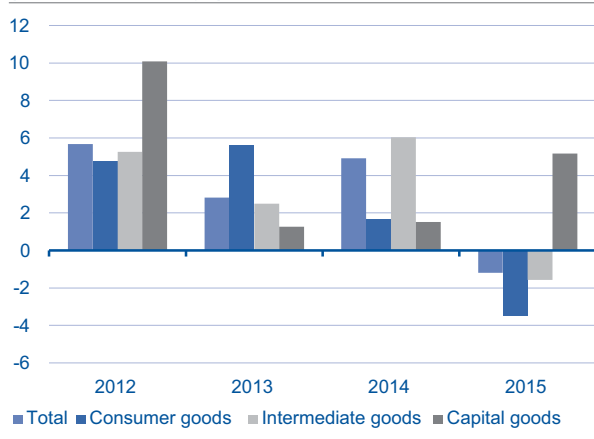
**3.1.2.2 Imports based on type of goods: slow growth limits economic activity momentum**

Total import growth in 2015 was also negative, at -1.2%. The relative importance of total imports are as follows: consumer goods, 14% of the total (4% oil-based products, 10.6% of non-oil-based products), intermediate consumer goods, 75.5% of the total (6.4% oil-based products and 69.1% other products), and capital goods, 9.9%. It should be mentioned that in 2015, consumer and intermediate goods imports recorded negative growth rates of -3.5% and -1.6%, respectively.

Imports of capital goods grew 5.2%. The exchange rate may have had an impact on imports of consumer and intermediate goods, while the capital goods imports may have been linked with private venture projects that require investment in imported machinery and equipment. The positive performance recorded by capital goods imports meant that foreign purchases of this kind have a positive impact on total imports, although not enough to counteract the negative impact on total import growth of foreign purchases of consumer and intermediate goods.

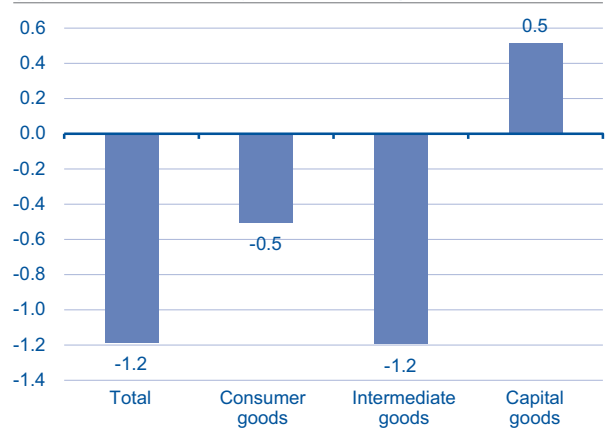
As we have mentioned, total exports and imports of goods in 2015 recorded negative growth. Exports (-4.2%) shrank more than imports (-1.2%), a factor that meant that Mexico's trade deficit increased from 2014 to 2015 from US\$2.8 billion to US\$14.6 billion. Remedying this deficit requires exports to grow faster than imports, if the weakness of the country's external sector is to end.

Figure 3.15  
**Imports based on type of goods (Annual % change)**



Source: BBVA Research with INEGI data.

Figure 3.16  
**Total imports 2015, contribution to growth (figures in percentage points, p.p.)**



Source: BBVA Research with INEGI data.

**3.1.2.3 The external sector in January 2016**

In January 2016, the trade deficit stood at US\$3.441 billion, a figure which compares unfavourably with the US\$3.262 billion deficit for the same month in 2015. It is important to point out that total exports have fallen by an annual -7.6% while total imports shrunk less (-6.2%). The annual growth rate for manufacturing exports in January was also negative, -3.9 for the month, while the growth in automotive exports was positive, if modest (1.8%). The annual growth rate for non-automotive manufacturing exports, which represented 65% of all manufacturing exports, was negative (-6.6%).

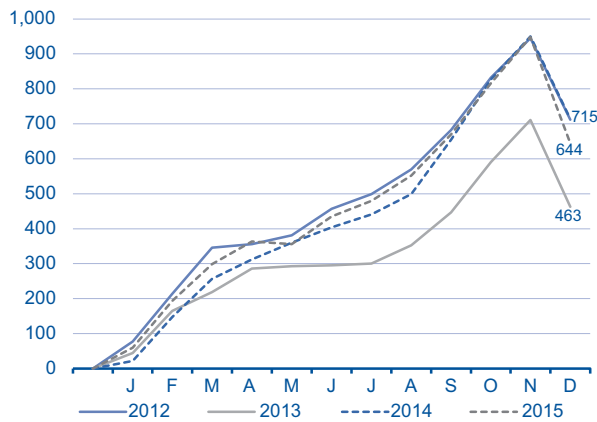
Figures for January 2016 indicated that the weakness of Mexico’s export sector was set to continue. As long as this situation persists, the external sector will not be a driving force in the country’s economic activity.

**3.1.3 Recent evolution of formal employment in the private sector (Mexican Institute of Social Security)**

In 2015 the number of workers registered with the Mexican Institute of Social Security rose by 644,000, although this figure was lower than the almost 715,000 enrolments reported by this institute in 2014. From January to November 2014, the total number of workers registered with the Mexican Institute of Social Security increased by 950,016. In the first eleven months of 2015, this increase was practically identical, with 948,160 enrolments. Meanwhile, December’s annual seasonal drop-off in Social Security-registered workers was much greater in 2015 (303,714 people) than it had been in 2014 (235,490 people).

Figure 3.17

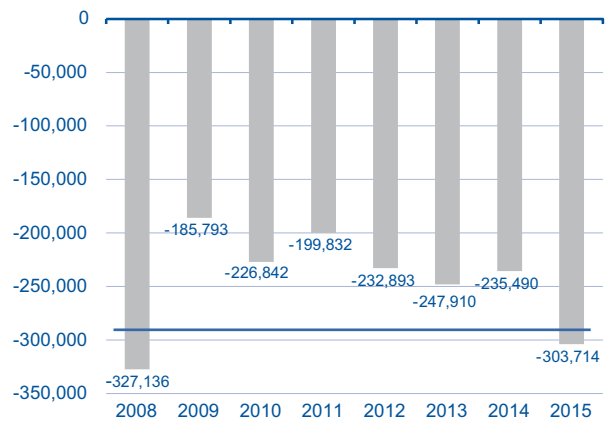
**Accumulated monthly increase in the total number of workers registered with the Mexican Institute of Social Security throughout the year (thousands of people)**



Source: BBVA Research with INEGI data.

Figure 3.18

**Seasonal December fall in the total number of people registered with the Mexican Institute of Social Security (thousands of people)**

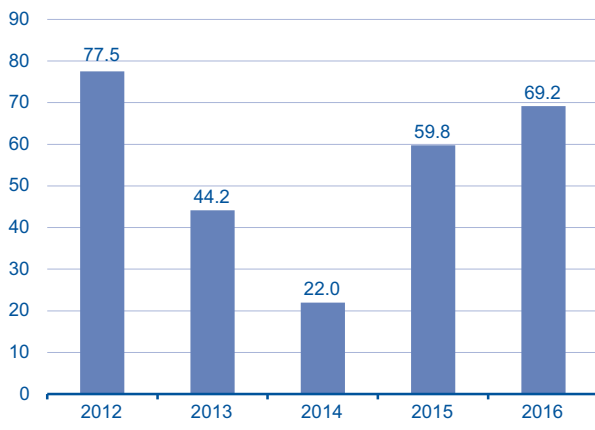


Source: BBVA Research with INEGI data.

As we have shown, while it is true that in December each year there is a significant drop in the number of workers registered with the Mexican Institute of Social Security due to seasonal factors (the end of the Christmas sales period and fewer new orders), the drop in December 2015 was 29% greater than in December 2014. This statistic points to slower growth in the final month of the year.

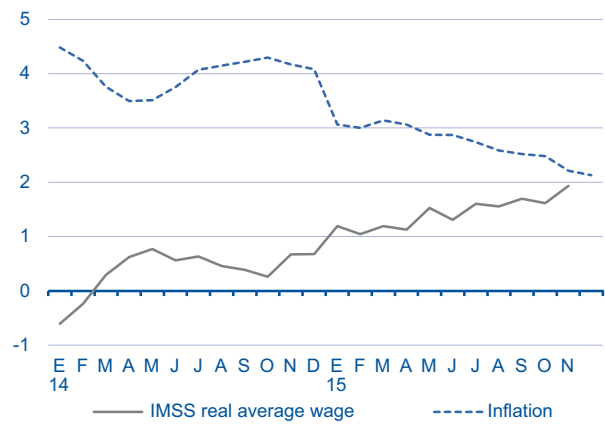
As we have said previously, seasonally-adjusted IGAE figures for December 2015 confirm that monthly growth on this indicator of economic activity stood at 0%. Mexican Institute of Social Security figures showing an increase in employment in January 2016, whilst positive, are not much higher than the monthly increase in employment numbers for January 2015. We therefore cannot say that this year's January employment figures indicate the possibility of greater momentum at the start of 2016 as far as economic activity is concerned.

Figure 3.19  
**Monthly increase for January in the total number of people registered with the Mexican Institute of Social Security (thousands of people)**



Source: BBVA Research with INEGI data.

Figure 3.20  
**Seasonal December fall in the total number of people registered with the Mexican Institute of Social Security (thousands of people)**



Source: BBVA Research with INEGI data.

Since the second half of 2014, the average salary for workers registered with the Mexican Institute of Social Security began to show real signs of positive growth. Real salaries began to increase in 2015. In January 2015, the average salary of Social Security-registered employees recorded a real year-on-year growth of 1.2%, which increased over the year. In November 2015 (the most recent figures available) real annual growth was higher, at 1.9%. We expect to see real salaries continue to grow in 2016 at a more moderate rate.

If real salaries continue to increase, so will families' disposable income. This will in turn lead to higher private sector consumption and give greater momentum to economic growth in 2016 in a similar way to what happened in 2015.

### 3.1.4 Public finance: a gradual slowdown in public sector spending

Total income from the public sector budget, without taking into account revenue from financing in 2015, was 4.2% higher in real terms than in 2014. In 2015 a total income budget of 4.6967 trillion pesos, including 4.0221 trillion pesos as tax and non-tax revenue plus financing of 672.6 billion pesos. As we have seen, total revenue rose to 4.9371 trillion pesos (4.2646 trillion pesos as tax and non-tax revenue plus financing of under 637.6 billion pesos), 5.2% above the budgeted figure. These figures suggest that the higher budgetary revenues will mean that it will not be necessary to use all the financing approved for 2015.

Tax revenue performed favourably in 2015, and, in particular, income tax revenue. It is difficult to think that in 2016 this item will grow as rapidly as in 2015. Nevertheless, if the authority continues its fiscal policy, income tax revenue might record high growth in 2016.

It should be mentioned that VAT revenue increased slightly, up 3.2%, in line with the 2.5% growth in economic activity. Dynamism in 2016 in this revenue area was largely conditioned by the economic activity growth rate. As our forecast for 2016 GDP is for growth of just 2.2%, slightly down on 2015, we do not expect budgetary revenue to increase significantly.

Table 3.1

**Total public sector budgetary revenue in 2014 and 2015 (billions of pesos)**

|                       | 2014            | 2015            | Real %<br>chge. | %<br>struc.  |
|-----------------------|-----------------|-----------------|-----------------|--------------|
| <b>Total</b>          | <b>3,982.1</b>  | <b>4,264.6</b>  | <b>4.2</b>      | <b>100.0</b> |
| Federal Government    | 2,888.1         | 3,180.0         | 7.2             | 74.6         |
| Tax                   | 1,807.8         | 2,366.4         | 27.4            | 55.5         |
| Income Tax            | 959.8           | 1,222.4         | 24.0            | 28.7         |
| VAT                   | 667.1           | 707.2           | 3.2             | 16.6         |
| Non-tax               | 1,080.2         | 813.6           | -26.7           | 19.1         |
| Agencies & companies  | 1,095.0         | 1,084.5         | -3.1            | 25.4         |
| Gvmnt. productive co. | 796.9           | 770.9           | -5.8            | 18.1         |
| Pemex                 | 440.7           | 427.1           | -5.7            | 10.0         |
| CFE                   | 356.1           | 343.8           | -6.0            | 8.1          |
| <b>Total</b>          | <b>3,983.06</b> | <b>4,264.55</b> | <b>4.2</b>      | <b>100.0</b> |
| Oil income            | 1,221.2         | 841.5           | -32.9           | 19.7         |
| Non-oil income        | 2,761.9         | 3,423.0         | 20.7            | 80.3         |

Source: BBVA Research with SHCP data.

Table 3.2

**Total public sector budgetary expenditure in 2014 and 2015 (billions of pesos)**

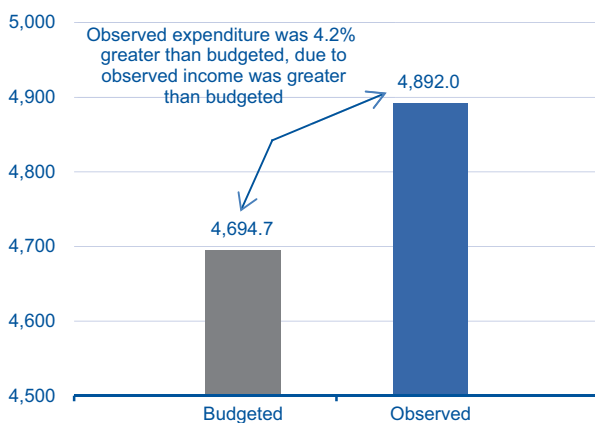
|                       | 2014           | 2015           | Real %<br>chge. | %<br>struc.  |
|-----------------------|----------------|----------------|-----------------|--------------|
| <b>Total</b>          | <b>4,528.0</b> | <b>4,892.0</b> | <b>5.2</b>      | <b>100.0</b> |
| Projected expenditure | 3,577.8        | 3,826.2        | 4.1             | 78.2         |
| Current expenditure   | 2,682.0        | 2,889.4        | 4.9             | 59.1         |
| Capital expenditure   | 895.7          | 936.8          | 1.8             | 19.1         |
| Non-projected expen.  | 950.3          | 1,065.8        | 9.2             | 21.8         |
| Investments in states | 584.9          | 629.1          | 4.7             | 12.9         |
| Borrowing cost        | 346.0          | 407.9          | 14.8            | 8.3          |
| Adefas* and other     | 19.4           | 28.8           | 44.6            | 0.6          |

Adefas: Liabilities carried over from previous years  
Source: BBVA Research with SHCP data.

As far as 2015 public spending is concerned, this recorded real growth of 5.2% from the 2014 figures. Here we should highlight the increase of 14.8% in expenditure associated with financing costs. This item, which refers to outlays made by the public sector as a whole to cover the cost of its debt, takes on particular importance if we remember that the 407.9 billion pesos outlay in 2015 represented 43.5% of investment for that year. Furthermore, in 2014, this proportion was lower at 38.6%. The fact that it increased to 43.5% suggests that the public sector is investing less because it has to channel a greater proportion of its resources to cover the financial cost of its debt. This point can be seen if we bear in mind that in 2014, 7.6% of total public sector expenditure went to covering the cost of its debt and this figure rose to 8.3% in 2015.

Figure 3.21

**Accumulated public sector budgetary expenditure in 2015, programmed and observed (billions of pesos)**



Source: BBVA Research with SHCP data.

Table 3.3

**Public sector financial situation in 2014 and 2015 (billions of pesos)**

|                                 | 2014    | 2015    | Real % chge. |
|---------------------------------|---------|---------|--------------|
| Public Balance                  | -543.1  | -637.6  | ns           |
| Pub. Bal. w/o Prod. investment  | -186.3  | -184.3  | ns           |
| Budget Balance                  | -545.0  | -627.4  | ns           |
| Budget Revenue                  | 3,983.1 | 4,264.6 | 3.4          |
| Net Budget Expenditure          | 4,528.0 | 4,892.0 | 3.9          |
| Federal Govnmt. Balance         | -487.3  | -548.4  | ns           |
| Agencies & Co. Balance          | -57.7   | -79.0   | ns           |
| Primary Balance                 | -191.9  | -217.6  | ns           |
| Budget Balance                  | -199.0  | -219.5  | ns           |
| Federal Government              | -195.4  | -226.2  | ns           |
| Agencies & Companies            | -3.6    | 6.7     | ns           |
| Pemex                           | -90.0   | -74.7   | ns           |
| Other institutions              | 86.4    | 81.4    | -8.4         |
| Indirectly-controlled institut. | 7.2     | 2.0     | -73.4        |

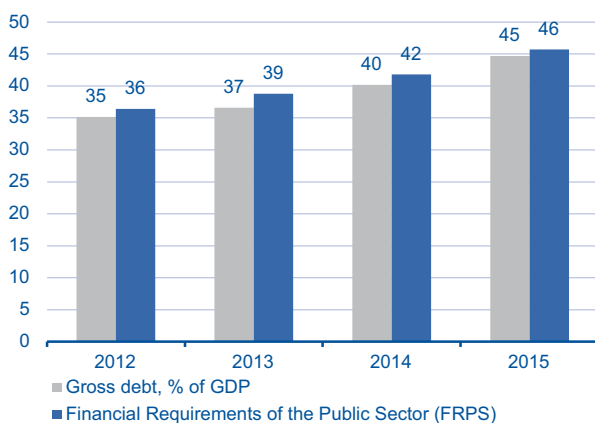
ns=not significant

Source: BBVA Research with SHCP data.

A further important point is that in 2015 observed total public sector expenditure was greater than total programmed spending, something that was achieved without increasing the approved total available for financing. This happened because, as we have mentioned, the total revenue obtained that year was greater than the budgetary revenue. This larger recorded income covered the increased public sector expenditure, along with a slight reduction in the total amount approved for 2015.

Figure 3.22

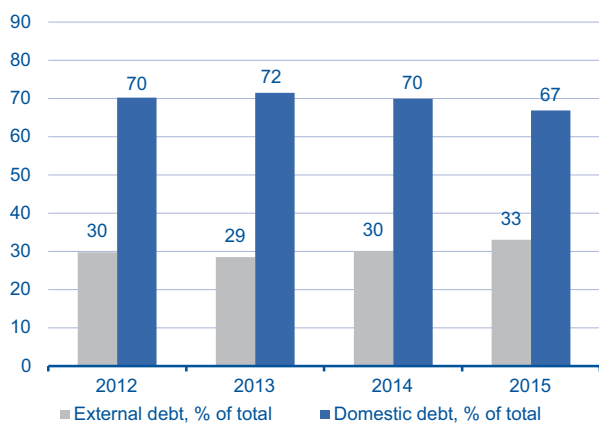
**Public sector gross debt and financing requirements (% of GDP)**



Source: BBVA Research with SHCP data.

Figure 3.23

**Percentage structure of internal and external public sector debt (% of the total debt)**



Source: BBVA Research with SHCP data.

At the end of 2015, public sector gross debt stood at 44.7% of GDP. This was 9.5% higher than in 2012; in other words, in just three years, the gross public sector debt position rose by almost 10%. As well as being high, this figure also reflects a public debt policy that is unsustainable in the long term, although not to the extent that it would have significant consequences for economic growth. An example of this is the service or cost of the debt that accompanied the higher level of indebtedness. Because of it, a greater proportion of pu-



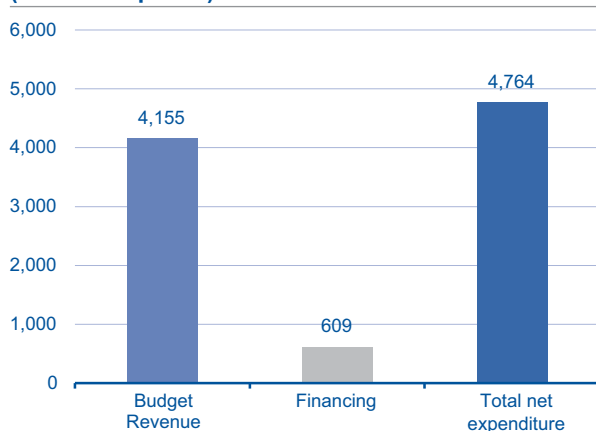
blic sector expenditure was earmarked for outlays caused by the cost of the debt than for investment, as we mentioned in the previous section.

Finally, the budget for income and expenditure that was approved for 2016 stipulates that total net public sector spending will rise to 4.764 trillion pesos, made up of 4.155 trillion pesos budgetary revenue plus 609 billion pesos of financing or total deficit. It should be mentioned that the budgetary resources required for financing in 2016 is slightly less than that observed in 2015 (638 billion pesos). The Ministry of Finance and Public Credit also announced that it had hedged oil prices at US\$49 a barrel.

Given the previous context and based on the amount of the Ministry of Finance and Public Credit's oil price hedge, as well as GDP growth above 2%, it is to be expected that there could be no reason to alter the budget approved for 2016. Nonetheless, in mid-February 2016, the Ministry of Finance and Public Credit announced an adjustment to the approved budget of 132 billion pesos, of which 32 billion pesos will come from the federal government and the remaining 100 billion pesos from the state-owned oil company Pemex.

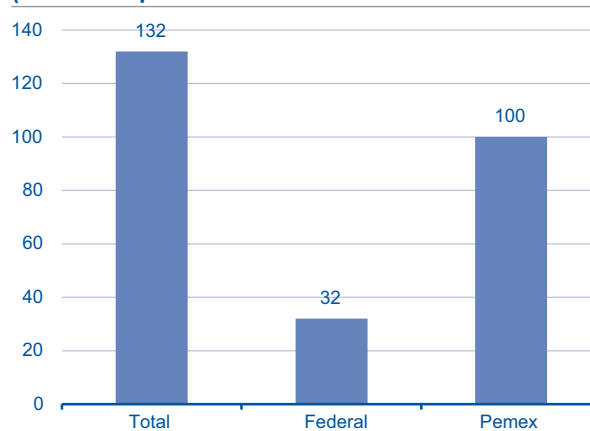
While this step will take place within a context of other economic policy measures to counteract an adverse exchange-rate scenario, it is noticeable that this is a significant adjustment that will effect Pemex considerably. This measure calls for regular monitoring of revenue performance throughout 2016 due to the possibility of its being below budgetary levels and to ensure that there are no unexpected adverse situations in public sector financing at the end of the year.

Figure 3.24  
**Net public sector budgetary revenue and expenditure in 2016 (billions of pesos)**



Source: BBVA Research with SHCP data.

Figure 3.25  
**Adjustment to net budgetary expenditure for 2016, as announced in February 2016 (billions of pesos)**



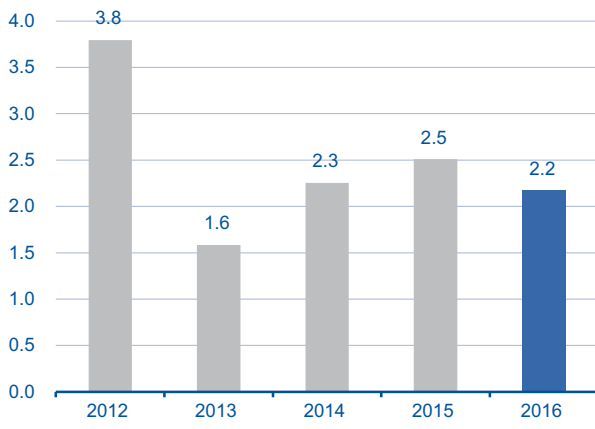
Source: BBVA Research with SHCP data.

### 3.1.5 Forecasts for the Mexican economy in 2016

We expect to see annual GDP growth of 2.2% in 2016. This growth rate is the consequence of a macroeconomic context that is tighter than it was in 2015, meaning that growth that year was higher (2.5%). As we have noted in this section, this year there have been factors that pose a challenge to the high levels of growth in Mexican economic activity. This is the situation for public sector expenditure and the recent evolution of the country's export sector.

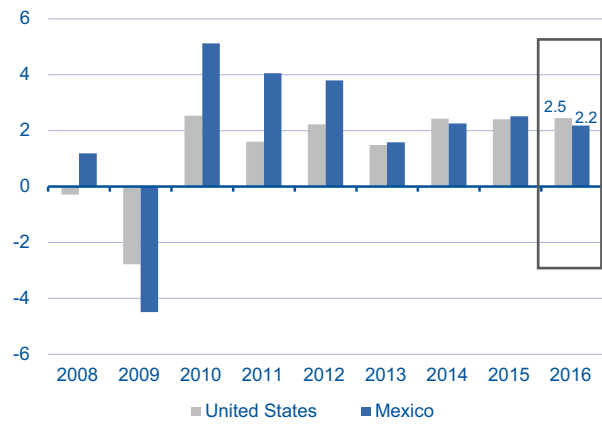
Our growth forecast for 2016 is based on improved performance from the export sector, the result of greater dynamism in the US economy and an increase in real salaries, at similar levels to those recorded in 2015.

Figure 3.26  
**Annual GDP growth in Mexico (YoY % change)**



YoY = Year-on-Year.  
Source: BBVA Research with INEGI data.

Figure 3.27  
**Annual GDP growth in Mexico and the US (YoY % change, sa)**



sa = seasonally adjusted. YoY = Year-on-Year.  
Source: BBVA Research with INEGI & BEA data.

**Box 1. Seasonally adjusted evolution of IGAE and its components**

The National Institute of Statistics and Geography publishes the Indicador Global de Actividad Económica (IGAE) on a monthly basis, as well as a press release announcing the latest movements of this indicator, both as a whole and for each of its components. These IGAE components correspond to activities in the primary, secondary and tertiary sectors. The IGAE provides a useful monthly approximation to GDP performance and its constituent components. The press release issued by the National Institute of Statistics and Geography offers information on original annual growth rates and IGAE seasonally-adjusted annual and monthly growth rates.

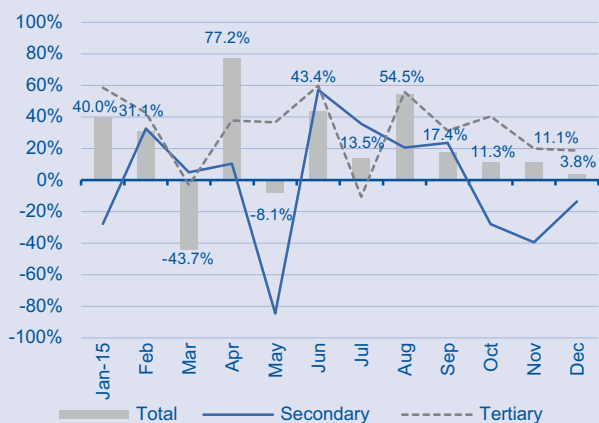
As far as the monthly information that the National Institute of Statistics and Geography supplies to the IGAE, the total monthly IGAE growth rate is calculated using the contribution from the growth of its components. Then, as shown in Table 1, calculation must ensure that the rate does not coincide with the total IGAE growth rate that the National Institute of Statistics and Geography publishes. It should be mentioned that the National Institute of Statistics and Geography press release states that “The IGAE seasonally-adjusted series is calculated independently from its components”.

While the National Institute of Statistics and Geography realises that the total IGAE growth rate does not coincide with the contribution of its components to growth, the institute does not provide details regarding what factors or element cause these differences. For example, if we consider the IGAE for June 2015, the monthly growth rate reported by the National Institute of Statistics and Geography for this date was 0.3%, which differs from the 0.1% rate obtained by taking into account the contribution to growth of its components. In other words, in this case the monthly growth rate that the Institute said was appropriate for the total IGAE was greater than that estimated for its components (See Table 1). In December 2015 the monthly growth rate reported by the IGAE was lower (0%) than that obtained from the estimate for its components (0.2%).

The previous paragraph highlights the usefulness to users of the information that the National Institute of Statistics and Geography publishes in each press release indicating which factors determine that total IGAE growth does not coincide with the monthly estimated growth of this indicator. This information is most useful to users in the sense that it allows them to better understand which factors play a part and affect measurement, and what can be expected in the future in terms of economic activity once the factors that create this discrepancy have been taken into account.

Figure 3.28

**IGAE total for secondary and tertiary sectors  
(% change MoM, sa)**



Source: BBVA Research with INEGI data.

Table 3.4

**IGAE total and by components  
(Structure % and % change MoM, sa)**

|                        | IGAE: Economic activities |                |               | IGAE total published by INEGI |
|------------------------|---------------------------|----------------|---------------|-------------------------------|
|                        | Pri-<br>mary              | Sec-<br>ondary | Tertia-<br>ry |                               |
| <b>Jun-15</b>          |                           |                |               |                               |
| Structure %            | 3.1                       | 33.2           | 60.9          |                               |
| Growth rate            | -7.8                      | 0.2            | 0.5           |                               |
| Contribution to growth | -0.2                      | 0.1            | 0.3           | <b>0.1</b> <b>0.3</b>         |
| <b>Sep-15</b>          |                           |                |               |                               |
| Structure %            | 3.2                       | 33.2           | 61.0          |                               |
| Growth rate            | -0.1                      | 0.4            | 0.2           |                               |
| Contribution to growth | 0.0                       | 0.1            | 0.1           | <b>0.3</b> <b>0.2</b>         |
| <b>Dec-15</b>          |                           |                |               |                               |
| Structure %            | 3.1                       | 32.9           | 61.2          |                               |
| Growth rate            | 4.6                       | -0.1           | 0.2           |                               |
| Contribution to growth | 0.1                       | 0.0            | 0.1           | <b>0.2</b> <b>0.0</b>         |

Source: BBVA Research with INEGI data.

Box 2. Recent evolution of the price of oil on international markets

From 2011 to the first half of 2014, international oil prices stayed at a significantly high level of around US\$100 a barrel. This situation changed in the second half of 2014. The price of a barrel of Brent oil went from US\$111.80 in June 2014 to US\$97.10 in September. By December, the price fall had accelerated, dropping to US\$62.30. In other words, in a six-month period, the price of Brent fell 44.2%.

The collapse continued, falling to US\$37.90 in December 2015, a drop of 39.1% from the close of 2014 to the close of 2015. This means that between June 2014 and December 2015, the price of Brent has fallen 66%. This collapse in the price of Brent has had repercussions on other categories of exported oil, including on the export price of Mexican mix. This in turn has had significant effects on the Mexican economy, such as the creation in 2015 of an oil trade deficit totalling almost US\$10 billion, putting pressure on public finances due to the fact that a significant part of the country's budgetary revenue comes from the export of crude oil.

It should be mentioned here that three years ago, public sector oil revenue accounted for a third of all income. This proportion fell to 20% as a result of both the fall in international oil prices and recently approved energy reforms, which, among other things, saw a reclassification of certain items, through which some sources that had previously been considered to be oil revenue are now classified as tax revenue, such as the Special Tax on Production and Services on petrol and diesel. In addition to the lower oil price, there is the problem of falling exports of crude oil that Mexico has experienced in recent years, as shown in Figure 3.30.

**Oversupply and strategies employed by oil-producing countries after the price collapse**

While a wide range of factors can explain the fall in oil prices on international markets, we should stress that it has been all of these elements together that have most affected the international oil market. Nevertheless, it is possible that some of these individual factors have had a greater bearing than others when seeking to explain the recent evolution of oil prices. The following are some of the most important factors:

Figure 3.29

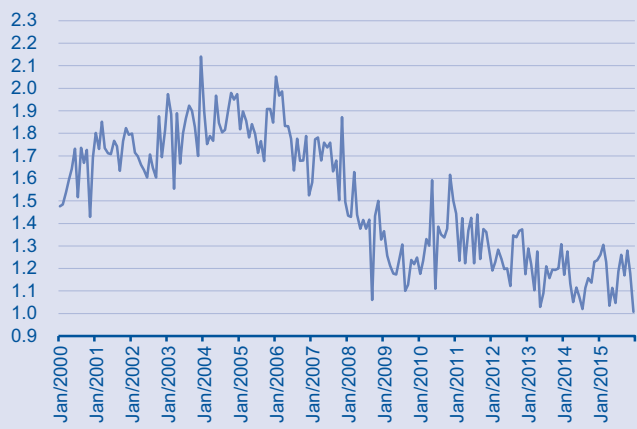
**Price of Brent Crude US\$ per barrel)**



Source: BBVA Research with US Energy Information Administration data.

Figure 3.30

**Mexican crude oil exports (Million barrels per day, MBD)**



Source: BBVA Research with Energy Ministry data.

1) Oversupply of crude oil

One important reason is the oversupply of crude seen on the market since mid-2014, which is reflected in a close inverse relationship between the oversupply of crude and the price of a barrel of Brent. It should be mentioned that in 2015, the global oil oversupply stood at 2 million barrels per day (MBD). As long as the factors that have encouraged this remain in place, we can expect to see low crude oil prices continue in 2016 and 2017, and possibly even later.

Oversupply has also been associated with an increase in oil inventories in a number of countries. The U.S. is an example of this oversupply due to the increase in unconventional oil extraction (shale) which has taken place in the country since 2010. This method of crude oil production has higher costs than other conventional techniques, but offset by shorter periods of time between exploration and production. The increase in the production of crude from this source was due to the high oil prices in place until mid-2014, which favoured the use of hydraulic fracturing and horizontal drilling. This meant that total U.S. oil production<sup>1</sup> increased from around 9 million barrels per day in 2010 to 15 million in 2015, making the country the leading producer of crude oil in the world at the mo-

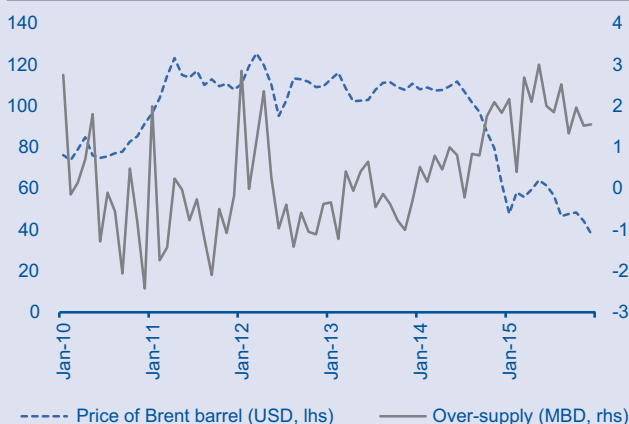
ment. This greater supply of oil from America means that the cycle of low crude prices will be different from those seen in the past.

Earlier we mentioned another element associated with the oversupply of crude: the accumulated inventories in both oil-consuming and oil-producing countries. It is estimated that current oil inventories exceed demand for any given period in a year. For example, in the case of America, in May 2014 total crude oil inventories rose to 397 million barrels, reaching a record high of 486.5 million barrels in January 2016 (excluding the country's strategic oil reserves).

When analysing which countries have contributed the most to the growth in oil production and therefore its oversupply, two time-frames should be considered. One of these is the long-term perspective from 2000 to 2015, while the other looks at the medium term, from 2010 to 2015. In both cases, the U.S. was the country that contributed the most to the growth in oil supply, as can be seen in Table 1. Looking at the long-term time-frame, America, OPEC and Russia are the countries that most contributed to increased supply. They were responsible for 85% of the total increased supply over the fifteen-year period.

Figure 3.31

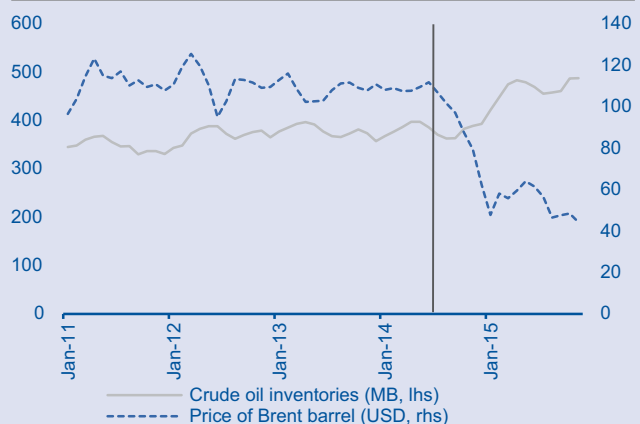
Oversupply of oil and price per barrel (millions of barrels per day, MBD, US\$ per barrel)



Source: BBVA Research with US Energy Information Administration data.

Figure 3.32

Oil inventories and price per barrel (millions of barrels per day, MBD, US\$ per barrel)



Source: BBVA Research with US Energy Information Administration data.

<sup>1</sup> The total supply figure includes crude oil (including condensed oil), natural liquid gas, biofuels, other liquids and profits from refinery processing.

The medium-term time-frame from 2010 to 2015 shows that the country that most contributed to increased oil supply was the U.S. It accounted for 71% of the total increase in supply over this period. In second and third place came the OPEC countries and Canada, with lower shares of the increase.

It should be said that the revolution in unconventional extraction in America has not only resulted in a greater supply of crude oil but may also lead to a change in the nature of price cycles and oil production. Previously, when there was a shock to the oil market that triggered a fall in crude prices, companies tended to reduce their investment. This led to a drop in supply and allowed prices to recover. These were long-term increases in the price of oil. Although they encouraged new investment, this would take a long time to materialise. Now, however, the difference is that investment in unconventional extraction (oil shale) takes much less time to come into effect and increase crude production. By allowing rapid increases in oil production, this factor may lead to higher per-barrel crude prices lasting longer than in the past.

## 2) Changes to the production strategies of OPEC countries

As far as the changes to OPEC production strategies are concerned, these were a reaction to the initial scenario of an oversupply of crude. The response from OPEC has, since November 2014, been to refuse to cut oil production.

One explanation for OPEC's intransigence may be that it is an attempt to share the high costs of the oversupply of crude that its member countries have had to absorb with the countries and companies responsible for the oversupply. OPEC's refusal to cut production is therefore another factor that explains and has an influence on the drop in oil prices. This strategy may correspond to a medium- and long-term goal of not losing their oil market share and thus ensure, to a certain extent, a greater long-term revenue flow. This might not happen if OPEC loses ground in the market due to other countries increasing their domestic crude supplies.

Table 3.5

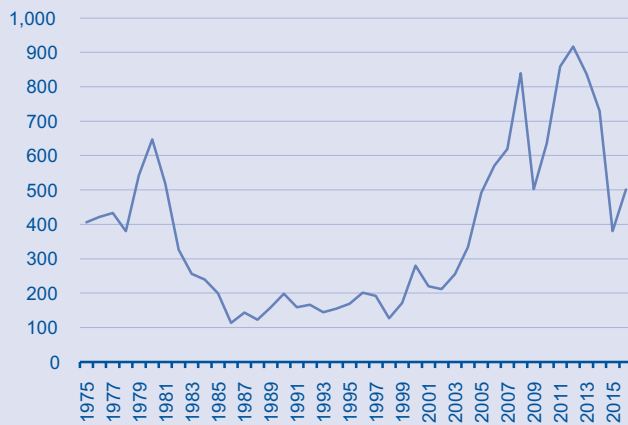
### World oil production, main producing countries (MBD and %)

| Country           | Production<br>(millions of barrels per day) |             |             |             | Structure %   |               |               |               | Contribution to increased supply |             |             |              |
|-------------------|---|-------------|-------------|-------------|---------------|---------------|---------------|---------------|----------------------------------|-------------|-------------|--------------|
|                   | 2000  | 2005        | 2010        | 2015        | 2000          | 2005          | 2010          | 2015          | 2000-2005                        | 2005-2010   | 2010-2015   | 2000-2015    |
| <b>Total</b>      | <b>77.7</b>                                 | <b>85.1</b> | <b>88.1</b> | <b>95.6</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>9.4%</b>                      | <b>3.6%</b> | <b>8.6%</b> | <b>23.0%</b> |
| OPEC              | 32.7  | 36.5        | 36.8        | 38.2        | 42.0%         | 42.9%         | 41.7%         | 39.9%         | 4.9%                             | 0.4%        | 1.6%        | 7.1%         |
| USA               | 9.1   | 8.3         | 9.7         | 15.0        | 11.7%         | 9.8%          | 11.0%         | 15.7%         | -0.9%                            | 1.6%        | 6.1%        | 7.7%         |
| Russia            | 6.7   | 9.5         | 10.3        | 11.0        | 8.6%          | 11.2%         | 11.7%         | 11.5%         | 3.6%                             | 0.9%        | 0.8%        | 5.4%         |
| China             | 3.4   | 3.8         | 4.4         | 4.7         | 4.3%          | 4.5%          | 5.0%          | 4.9%          | 0.6%                             | 0.7%        | 0.4%        | 1.7%         |
| Canada            | 2.8   | 3.1         | 3.4         | 4.5         | 3.5%          | 3.6%          | 3.9%          | 4.7%          | 0.5%                             | 0.4%        | 1.2%        | 2.2%         |
| Brazil            | 1.5   | 2.0         | 2.7         | 3.2         | 2.0%          | 2.4%          | 3.1%          | 3.3%          | 0.7%                             | 0.8%        | 0.5%        | 2.1%         |
| Mexico            | 3.5   | 3.8         | 3.0         | 2.6         | 4.5%          | 4.4%          | 3.4%          | 2.7%          | 0.4%                             | -0.9%       | -0.4%       | -1.1%        |
| Norway            | 3.4   | 3.0         | 2.2         | 2.0         | 4.3%          | 3.5%          | 2.4%          | 2.0%          | -0.5%                            | -1.0%       | -0.2%       | -1.8%        |
| Kazakhstan        | 0.7   | 1.3         | 1.6         | 1.7         | 0.9%          | 1.6%          | 1.8%          | 1.8%          | 0.8%                             | 0.3%        | 0.1%        | 1.3%         |
| Colombia          | 0.7   | 0.5         | 0.8         | 1.0         | 0.9%          | 0.6%          | 0.9%          | 1.1%          | -0.2%                            | 0.3%        | 0.2%        | 0.4%         |
| Rest of the world | 13.4  | 13.2        | 13.3        | 11.8        | 17.2%         | 15.5%         | 15.1%         | 12.3%         | -0.3%                            | 0.1%        | -1.7%       | -2.0%        |

Source: BBVA Research with US Energy Information Administration data.

Figure 3.33

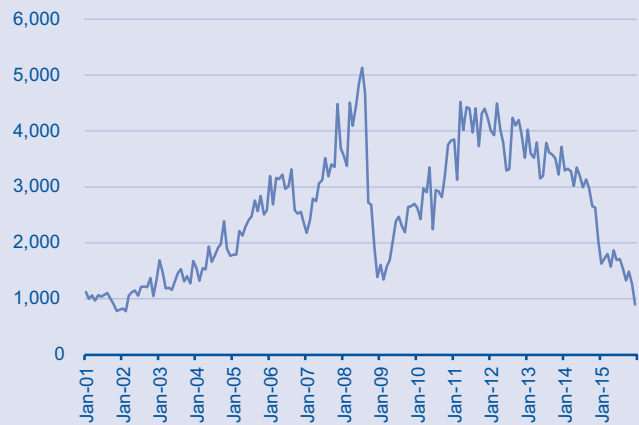
**OPEC: Net revenue from oil exports (US\$ billions, 2014)**



Source: BBVA Research with US Energy Information Administration data.

Figure 3.34

**Mexico: Value of oil exports (US\$ millions)**



Source: BBVA Research with Energy Ministry data.

**3) Geopolitical tension in various countries**

The lessening of geopolitical tension associated with conflict in the Middle East and eastern Europe have also increased world demand for oil. For example, the domestic conflict in Libya since the 2011 civil war initially affected its role in world oil supply. However, in 2014 and 2015 the country was able to place around 0.5 million barrels per day on the world market.

Another important case in this regard is Iraq. Iraq's crude oil production rose from an average of 3.3 million barrels per day in 2014 to 4.1 million in 2015. In addition, in January this year, economic sanctions imposed on Iran were lifted. Iran is currently involved in a conflict with Saudi Arabia, a factor that suggests that Iran will make a significant contribution to oil oversupply in 2016, with crude production rising from 3.1 million barrels per day to 3.6 million in 2017.<sup>2</sup>

Meanwhile, the economic sanctions placed on Russia as a result of the conflict in Ukraine has apparently had no significant effect on oil production, nor is it expected to in the coming years. It is forecast that in 2016 and 2017, Russia will maintain production levels of crude oil and other liquids at around 10.8 million barrels per day, with no incentives in place to reduce output.

<sup>2</sup> EIA, Short-Term Energy Outlook, January 2016.

**4) Weak global demand for crude**

As was the case with crude oversupply, weak global demand for oil can be analysed from a long-term perspective covering the period from 2000 to 2015, and a medium-term view for the five years between 2010 and 2015. In both cases, China has been the country that has made the greatest contribution to increased demand for crude oil, followed by the Middle East.

China's contribution accounted for 38% of the increase in the demand for crude between 2000 and 2015, with the Middle East responsible for 21% and India 17%. In other words, taken together, these three consumers accounted for 76% of the increase in world demand over the period in question.

In the case of China, we can say that although it has recorded slower economic growth in recent years, it will still contribute to a lesser extent and less significantly to global oil demand than it did between 2000 and 2015.

Weak demand for crude may also be explained by the behaviour of the European countries and the United States. Figures indicate that demand for crude in Europe has not increased in recent years and has

even fallen off. For example, in 2000 Europe consumed 15.9 million barrels per day, while in 2015 consumption had dropped to 14.4 million. This can be explained by the greater efficiency in the use of non-renewable energy and a greater use of alternative renewable sources. In America, oil consumption also fell over this period. In 2000, the figure stood at 19.7 million barrels per day, while by 2015 it had dropped to 19.4. In other words, Europe and the U.S. exemplify countries that have made a negative contribution to the increased demand for crude oil in recent years. A number of industry analysts estimate that in 10 to 15 years America could stop importing oil, as by then it will be completely self-sufficient in terms of oil consumption. Should this happen, crude oil oversupply pressures on the international market may persist or be latent in the long term.

#### Outlook for oil prices in the medium term

While the overall factors that have contributed to low oil prices continue, it is difficult to expect any significant, sustained increases in crude prices. Some scenarios for oil prices in 2016 and 2017 indicate that any increase will be subject to certain determining factors. For instance, Russian output is not expected to grow in the coming years, while OPEC is not expected to increase production either.

If these two conditions are met, the price of a barrel of Brent may go up. The U.S. Energy Information Administration, for example, estimates that the price of a barrel of Brent may rise from an average US\$30.80 in January 2016 to a year-average price of US\$37.50, rising further to US\$50 in 2017. In other words, over the coming years, the price of a barrel of oil will not return to the highs of the first half of 2014. It should also be remembered that a price of US\$50 per barrel is less than half the price of US\$111.80 that oil stood at in June 2014. The significance of these factors leads us to forecast that the current cycle of low oil prices is set to continue.

#### The effect of the collapse in the price of oil on the Mexican economy

As we have mentioned in the Activity section, the lower oil price has created a greater trade deficit, which has had a direct bearing on the creation of a larger deficit in the country's current account. Similarly, the lower export price for oil has had a major impact on budgetary revenues, and therefore on public sector spending. This situation will continue as long as the circumstances that led to the price collapse persist. In a best-case scenario, these will improve and the price will increase in 2016 and 2017, although the levels it will reach will still be far from those in place in the first half of 2014.

Table 3.6

#### World oil consumption, main consuming countries (MBD and %)

| Country           | Consumption (millions of barrels per day) |             |             |             | Structure %   |               |               |               | Contribution to increased consumption |             |             |              |
|-------------------|---|-------------|-------------|-------------|---------------|---------------|---------------|---------------|---------------------------------------|-------------|-------------|--------------|
|                   | 2000                                      | 2005        | 2010        | 2015        | 2000          | 2005          | 2010          | 2015          | 2000-2005                             | 2005-2010   | 2010-2015   | 2000-2015    |
| <b>Total</b>      | <b>76.9</b>                               | <b>84.6</b> | <b>88.2</b> | <b>93.8</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>10.0%</b>                          | <b>4.3%</b> | <b>6.3%</b> | <b>21.9%</b> |
| United States     | 19.7                                      | 20.8        | 19.2        | 19.4        | 25.6%         | 24.6%         | 21.7%         | 20.7%         | 1.4%                                  | -1.9%       | 0.2%        | -0.4%        |
| Europe (OECD)     | 15.9                                      | 16.4        | 15.4        | 14.4        | 20.7%         | 19.4%         | 17.4%         | 15.4%         | 0.6%                                  | -1.2%       | -0.9%       | -1.9%        |
| China             | 4.8                                       | 6.8         | 8.9         | 11.2        | 6.2%          | 8.0%          | 10.1%         | 11.9%         | 2.6%                                  | 2.5%        | 3.0%        | 8.3%         |
| Middle East       | 4.9                                       | 6.0         | 7.4         | 8.5         | 6.4%          | 7.1%          | 8.4%          | 9.0%          | 1.4%                                  | 1.7%        | 1.3%        | 4.6%         |
| Japan             | 5.5                                       | 5.3         | 4.4         | 4.2         | 7.1%          | 6.3%          | 5.0%          | 4.5%          | -0.2%                                 | -1.0%       | -0.2%       | -1.6%        |
| India             | 2.2                                       | 2.6         | 3.3         | 4.0         | 2.8%          | 3.0%          | 3.8%          | 4.2%          | 0.5%                                  | 0.9%        | 0.8%        | 2.4%         |
| Russia            | 2.6                                       | 2.8         | 3.1         | 3.5         | 3.4%          | 3.3%          | 3.5%          | 3.7%          | 0.3%                                  | 0.4%        | 0.4%        | 1.1%         |
| Brazil            | 2.1                                       | 2.2         | 2.7         | 3.1         | 2.8%          | 2.6%          | 3.1%          | 3.3%          | 0.1%                                  | 0.6%        | 0.5%        | 1.3%         |
| Canada            | 2.0                                       | 2.3         | 2.3         | 2.4         | 2.6%          | 2.7%          | 2.6%          | 2.5%          | 0.4%                                  | 0.0%        | 0.0%        | 0.4%         |
| Mexico            | 2.1                                       | 2.1         | 2.1         | 2.0         | 2.7%          | 2.5%          | 2.4%          | 2.1%          | 0.0%                                  | 0.0%        | -0.1%       | -0.2%        |
| Rest of the world | 15.2                                      | 17.4        | 19.3        | 21.3        | 19.7%         | 20.5%         | 21.9%         | 22.7%         | 2.9%                                  | 2.3%        | 1.3%        | 7.9%         |

Source: BBVA Research with US Energy Information Administration data.



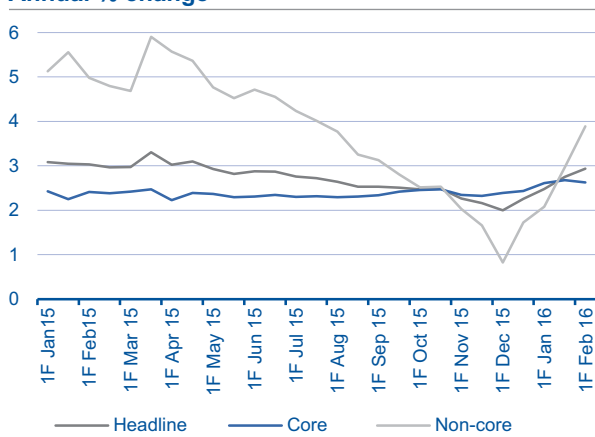
The low international price for a barrel of oil has also affected the financial situation at Pemex. This lower price per barrel has meant fewer resources available to tackle a variety of financial commitments, such as the well known situation regarding debts to suppliers and the reduction in its credit rating. We feel that only a profound change to the state-owned oil producer, increasing efficiency and reducing current expenditure, will be the only way for the company to become profitable within a context of low international oil prices. This situation is viable if we bear in mind that the company's crude oil extraction costs can be less than US\$10 a barrel in the shallow waters of the Gulf.

The advances made in the financial shoring up of Pemex will also mean that the country is less vulnerable to low oil prices. The major change needed by Pemex should also include the following elements: (i) a smaller workforce to reduce labour liabilities, (ii) the sale of non-strategic assets, (iii) a greater number of productive associations with the private sector and (iv) an injection of capital. Unless these steps are taken, Pemex's situation will not improve and an important factor will remain that will weaken Mexico's public finances.

### 3.2 Inflation will not fall: the upturn at the start of the year responded to a supply shock to agricultural produce and an unfavourable comparison base effect

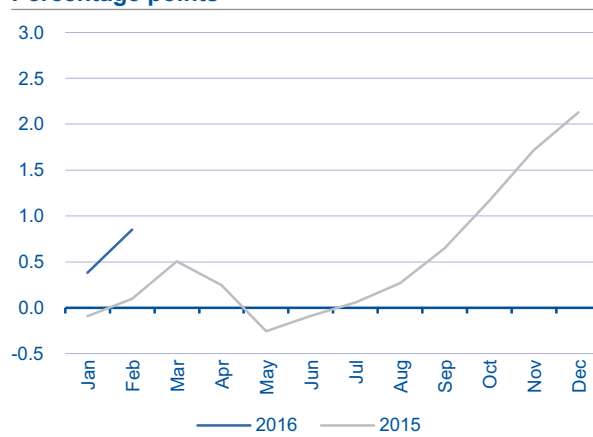
As we predicted, annual inflation stood at a record low at the close of 2015, with an upturn at the start of this year. During the fourth quarter of 2015, inflation continued the trend of the previous two quarters. From April to December 2015 inflation was below the 3% target set by Banxico, the central bank, recording consecutive record lows over the last six months of the year. This favourable evolution was due to a number of factors: (i) the comfortable state of the economy, (ii) the favourable base effect due to the lessening of the supply shock caused by the 2014 tax increases on a series of goods, (iii) lower charges for telecommunications services, (iv) lower price increases at the petrol pump and reductions in the price of electricity, (v) much improved performance in livestock prices compared to 2014 and (vi) the credibility of the central bank, which has anchored expectations regarding inflation, despite a series of alterations to relative prices, especially those related to the transfer of the exchange rate to the prices of certain goods, mainly consumer durables.

Figure 3.35  
**Inflation and components**  
Annual % change



Source: BBVA Research with INEGI data.

Figure 3.36  
**Year-on-year cumulative inflation**  
Percentage points



Source: BBVA Research with INEGI data.

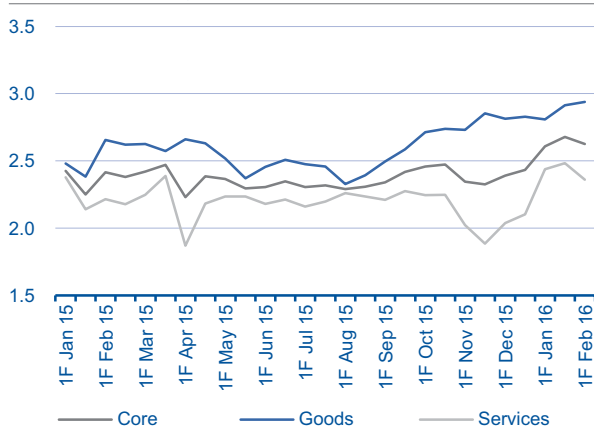
The lower charges for telecommunications services are related to the reform measures passed for the sector, while the lower electricity prices are due to both an energy reform programme and the reduced cost of the inputs used in power generation. The main consequence that these lower telecommunications and energy charges have on inflation is direct, although it may also have a small indirect effect on the economy, allowing companies to at least partially absorb the higher costs resulting from the depreciation of the exchange rate. In other words, it is probable that the lower costs of energy inputs and telecommunications have given some space to companies so that, in a context of economic flexibility, they can absorb the higher costs associated with the change in the exchange rate, at least temporarily. This high level of economic flexibility and relatively weak domestic demand may see businesses' profit margins shrink. The above has contributed to the pass-through of the exchange rate being limited to consumer durables with no second-order effects on pricing, as can be seen in the economy. Until now, the depreciation of the peso has only resulted in a change in relative prices. We therefore do not anticipate a lasting effect on prices in 2016. The recent measures adopted by Banxico (the

preventive increase of 50 b.p. in the benchmark rate) and the Exchange Commission are aimed at limiting the risk that there may be second-order effects on prices. The two measures together seek to increase the cost of speculating against the peso (i.e., taking short positions).

Until now, the effect that the marked depreciation of the peso since November 2014 has had on prices has been compensated, for the reasons we set out earlier. Although in the first three quarters of 2016 there was a 0.8% upturn in headline inflation to 2.94% (see Figure 3.35), this increase was due neither to a deterioration in inflation factors nor to a faster pass-through. Two main factors explain this increase: (i) a base effect comparing the lessening of the favourable effect on inflation of the elimination of long-distance tariffs and roaming charges in January 2015 and (ii) a supply shock affecting fruit and vegetables and the price of eggs. In fact, during the first fortnight of February inflation for these goods stood at 28.6%, the highest annual increase in nearly 13 years (since the first fortnight of March 2003). Over the first six weeks of 2016, cumulative inflation in this regard was 7.7%. While this sub-index only represents 3.6% of headline inflation, price increases for the products in question account for 0.28% of the 0.67% cumulative headline inflation over the first six weeks of the year. In other words, these pressures represent 41% of the cumulative inflation for the year, even though their relative importance for the general price index is less than 4%. This major supply shock is the main reason that cumulative inflation to date is much higher than seen in 2015 up to February. Therefore, although in February 2015 cumulative inflation was only 0.1%, up to the first fortnight of February 2016, it stood at 0.67%. We expect the February figure to be 0.85% (see Figure 3.36).

Figure 3.37

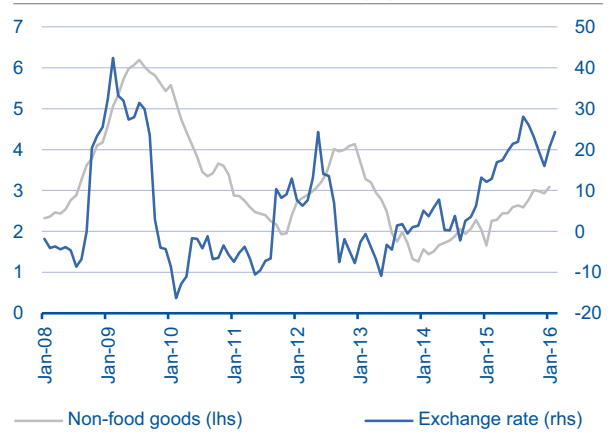
**Core inflation and components**  
Annual % change



Source: BBVA Research with INEGI data.

Figure 3.38

**Annual inflation of non-food commodities and the annual peso depreciation rate (%)**



Source: BBVA Research with INEGI data.

The upward trend affecting annual inflation mainly reflected the faster increase in non-core inflation. No deterioration has been noted in core inflation: the evolution of the two main components reflects the adjustment in relative prices described previously. This change has led to increases in the annual inflation affecting goods and the annual variation in the cost of services remaining low, if we eliminate the effect on telephone service prices, which is relatively stable, (see Figure 3.37). Annual inflation for goods has shown an upturn, from 2.48% in the first fortnight of January 2015 to 2.94% in the first fortnight of February 2016. This trend can be explained by the increase in the prices of non-food commodities. In terms of an annual rate, the variation of this component increased 1.54% from 3.11% over the same period. In other words, while annual inflation for non-food com-

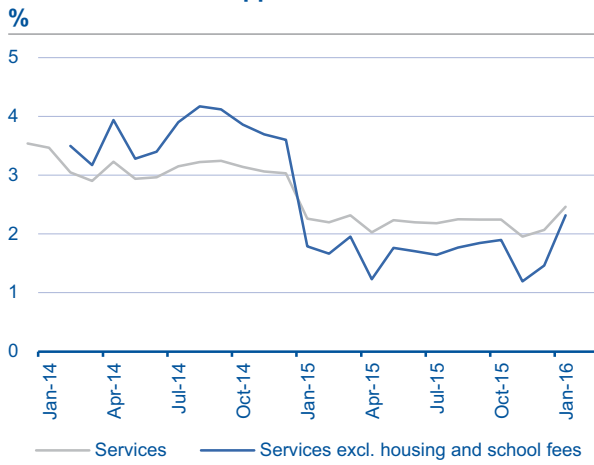
modities remains low, it is clear that there is a direct effect on pass-through (see Figure 3.38). Moving forward, bearing in mind that the exchange rate will remain at high levels and that it is foreseeable that there will not be a return to a lower rate in the near future, in a context of global risk aversion, we forecast that this trend will continue in the coming months. This tendency may increase if domestic demand shows greater dynamism, giving more room to companies to continue transferring the higher costs of imported products, whether inputs or final goods, to final prices. In contrast, annual inflation for services remains stable at low levels, averaging 2.26%, 2.15%, 2.22% and 2.09% in the four quarters of 2015 and 2.43% over the first six weeks of 2016. This upturn results from the end in January 2015 of the positive effect stemming from the elimination of long-distance tariffs and roaming charges. Without this effect, stability remains at low levels in response to ongoing reductions in charges for telecommunications services (see Figure 3.39), due to the greater competition in the sector and the marked flexibility of the economy.

### We forecast that annual inflation will remain close to the 3% target throughout 2016

Taking into account that the factors that explain the upward trend in inflation are the result of a change in relative prices that has not had any second-order effects on pricing, and that the main cause of higher price increases is the supply shock affecting fruit and vegetables, our outlook for inflation in 2016 continues to be favourable, in a context of greater flexibility in the economy and the anchoring of inflation expectations. The favourable effects of more competition in the telecommunications sector are continuing, with the evolution of inflation further encouraged by falling petrol prices and the positive effects on electricity tariffs of lower generating fuel costs. As we have mentioned in the economic activity section, we have also slightly lowered our 2016 growth forecast (from 2.5% to 2.2%), which means a further broadening of the already high economic flexibility. This will help to ensure that the transfer of the depreciation of the peso to inflation continues to be limited and that it will remain unlikely that second-order effects are noted.

Figure 3.39

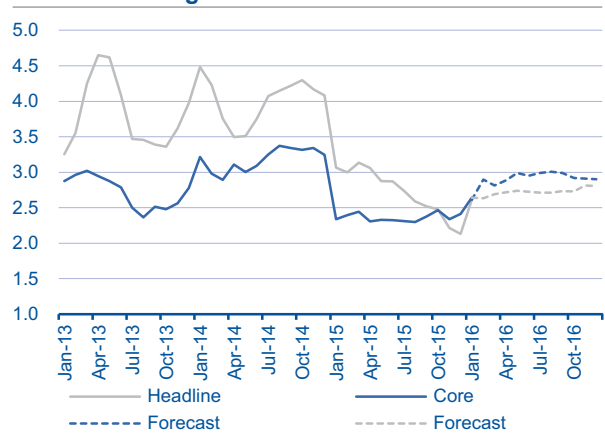
#### Annual inflation as applicable to services



Source: BBVA Research with INEGI data.

Figure 3.40

#### Inflation outlook



Source: BBVA Research with Survey of the Private Sector Analysts data.

We are therefore maintaining our forecast for headline inflation at 2.9% at the close of 2016, with a yearly average of 2.9% in comparison to 2.7% in 2015. We also expect annual core inflation to average out at 2.7% this year, 0.3% more than in 2015 (2.4%).

New forecasts are subject to both upside and downside risk. The main downside risk is the economy's lower-than-expected momentum, which is resulting in an additional increase in the product gap and the possibility of further reductions in mobile telephone services if competition in the sector continues to grow. Meanwhile, upside risk would come from the exchange rate, should it remain at its current level or see further depreciation, and from any additional supply shock to more volatile prices.

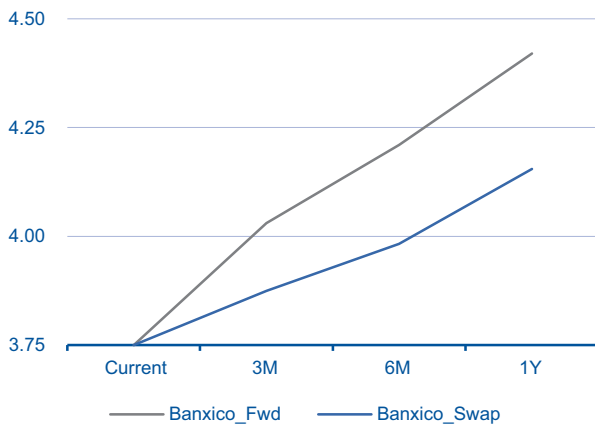
### 3.3 Unforeseen 50 b.p. increase given the greater risk that pass-through may affect inflation

The increase in upside risk to inflation arising from a significant depreciation of the exchange rate may lead Banxico to disengage from the Federal Reserve’s monetary policy. A couple of weeks ago at a meeting called outside the regular schedule, Banxico unexpectedly increased the monetary policy rate by 50 b.p to 3.75%. As well as reducing the risk of depreciation of the peso affecting inflation, the fact that this measure was announced alongside modifications to mechanisms in place for discretionary interventions in the exchange rate market by the Exchange Commission indicates that, to a large extent, these measures were the result of the need to stabilise the erratic performance of the peso over recent weeks. In the first weeks of February the exchange rate fell 3.2% to close at an intraday rate of 19.5 pesos to the dollar, accentuating the negative difference between the peso and other emerging currencies.

There are two main channels through which these measures might influence the peso exchange rate. Firstly, a change to intervention measures based on regulations applicable to discretionary interventions reduces the effectiveness of speculative strategies against the peso. In fact, some authorities have commented on the fact that minimum-price auctions fell prey to high-frequency speculation and, in some cases, contributed to even greater depreciations. Secondly, by increasing the monetary policy rate, the cost of taking short positions (i.e., selling pesos to deliver on a future date) increases, making it relatively more expensive to speculate against the peso. Additionally, a greater spread in the federal funds rate might have an effect on the margin and, assuming there is no downturn in country risk, higher demand for short-term bonds. It should be pointed out that these provisions are designed to stabilise the exchange-rate market. It is therefore unlikely that in and of themselves they will have a significant effect on the peso. This will be even less likely if the downward trend in oil prices continues, a factor that has been shown to be the main variable affecting the value of the peso.

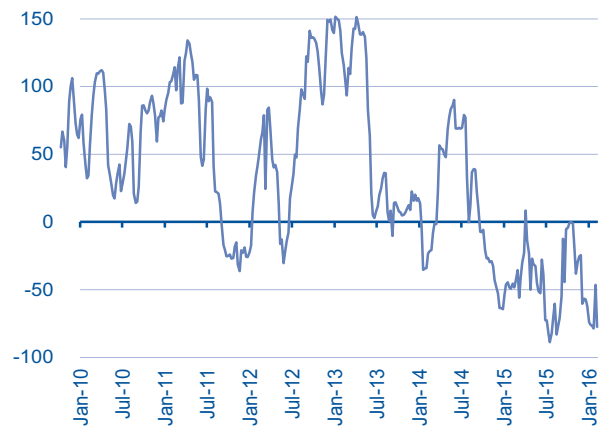
Moving forward, we expect to see Banxico seek to maintain the federal funds rate spread over the coming months, which is consistent with the idea of synchronization with Federal Reserve movements. This is even more pertinent if the financial markets continue to be volatile. Later on, Banxico may consider domestic conditions and decide to disengage itself from U.S. monetary policy, taking into account that the distance from the current rate to the natural rate is much less in Mexico’s case.

Figure 3.41  
**Forecast for the monetary policy rate implicit in derivatives markets (%)**



Source: BBVA Research with Bloomberg data.

Figure 3.42  
**Non-commercial contracts net of the peso-dollar exchange rate (thousands of contracts)**



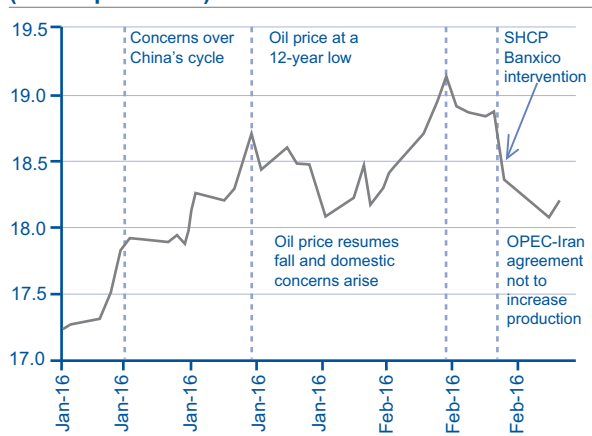
Source: BBVA Research with Bloomberg data.

### 3.4 The Mexican peso continues to experience difficulties

Concerns regarding the global economic cycle and the downward trend affecting oil prices have been the main factors behind risk-aversion movements on financial markets since the beginning of the year. In Mexico, the exchange rate has been the variable that has been most affected by these factors, above all in terms of the collapse of the oil price. Since late 2014, the association between exchange-rate parity movements and the price of energy has increased to such an extent that this relationship recently reached its maximum level (around -0.7%) for the past 5 years, one which is even higher than that recorded by the currencies in other oil-exporting countries (see Figure 3.44). It is also worth highlighting the fact that in recent weeks, not only has this relationship increased, but it has also become asymmetrical. In other words, the fall in oil prices was closely tied to the depreciation of the peso. Nonetheless, price rises were not related to a firming up of the Mexican currency.

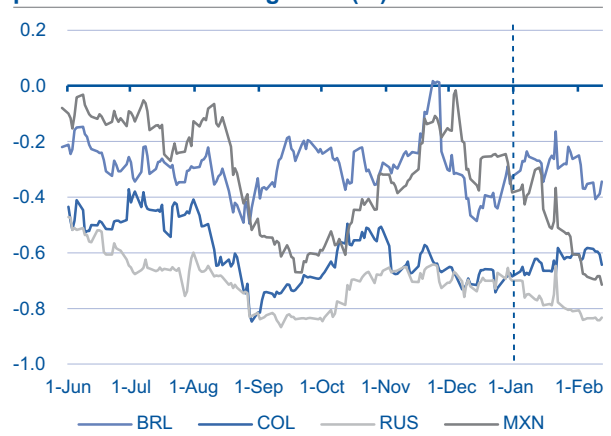
The reason for this phenomenon might be attributable to two factors that have exacerbated depreciation. Firstly, net speculative positions against the peso on derivatives markets have been at maximum levels since last July (see Figure 3.45). In other words, a large number of investors also expect to see the peso at a lower value in the future and are putting their resources behind this point of view. The Mexican peso's high degree of liquidity in recent years has meant that its performance is closely related to global risk aversion. It is therefore profitable to take short positions in pesos in order to hedge against international market volatility, as seen recently. Secondly, over the past few weeks, largely motivated by announcements made by the authorities, the attention of the markets has focused on certain domestic vulnerabilities. In particular, the question of Pemex's financial weakness and its effect on public finances within a context of low oil prices had a bearing on an increase in sovereign risk, measured by the 5-year CDS spread, at levels similar to those seen during the worst of the European recession in 2011. In fact, Mexico's sovereign rating on markets is that of a BBB+ country, not that of a country with an A- rating (see Figure 3.46). These movements also adversely affect the value of the peso, differentiating it negatively from the currencies of other emerging countries.

Figure 3.43  
**Exchange rate  
(Pesos per dollar)**



Source: BBVA Research with Bloomberg data.

Figure 3.44  
**30-day rolling correlation between variations in oil prices and the exchange rate (%)**

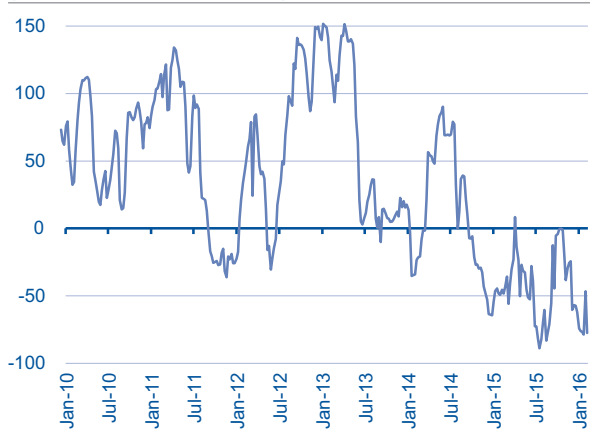


Source: BBVA Research with Bloomberg data.

Within this context of downward pressure, in mid-February 2016, the Exchange Commission took the decision to suspend minimum price auctions while not discounting discretionary interventions. Meanwhile, the Bank of Mexico unexpectedly opted to increase the monetary policy rate by 50 b.p. The Ministry of Finance and Public Credit also announced public spending cuts of around 0.7% of GDP, which include changes to the Pemex budget, details of which will be given in the coming weeks. The immediate effects of these provisions on the exchange rate are difficult to separate from oil-price movements, above all when they practically coincided with the agreement between Russia, OPEC and Iran not to increase oil production, which was reflected in a temporary price increase. Nevertheless, a week after this announcement, the asymmetry in the peso-oil price relationship has lessened, allowing the peso to gain around 3%. It should be pointed out that these provisions are designed to stabilise the exchange-rate market. It is therefore unlikely that in and of themselves they will have a significant effect on the Mexican currency. We can, in fact, expect to see the inverse relationship with the price of oil continuing to be the main determining factor behind exchange-rate parity movements.

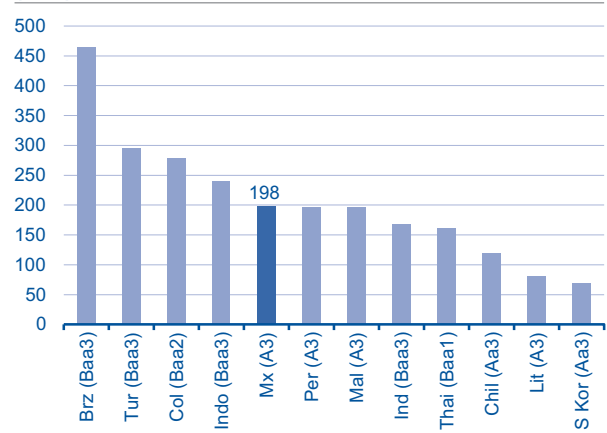
In this context of financial volatility, the performance of foreign-held government bonds and long-term rates was similar to last year. The important reduction in capital inflow from abroad continues, as does an absence of outflow in the medium- and long-term sections of the curve. In fact, over the first six weeks of the year, the number of foreign-held bonds increased by slightly over one billion dollars, below the average of one and a half billion dollars recorded in 2015. The 50 b.p. increase in the monetary policy rate might lead to increased foreign holdings of short-term bonds, and reduce the fall in the number of such holdings, as has been seen since early 2015. In any event, in the absence of significant risk aversion, an increase in the base rate might reduce the risk of foreign investment suddenly flooding out of the government bond market.

Figure 3.45  
**Net positions of non-commercial contracts regarding the Mexican peso on the CME (thousands of contracts)**



Source: BBVA Research with Bloomberg data.

Figure 3.46  
**Sovereign risk. 5-year CDS Spread (b.p.)**



Source: BBVA Research with Bloomberg data.

The yield on maturity of medium- and long-term bonds has remained relatively stable in this period of risk aversion. Unlike other similar episodes, long-term interest rates have not been affected. As shown in Figure 3.47, over the past three months (i.e., from the close of November to date) pressure on the peso has intensified. Over this period, at the maximum point of 19.15 pesos to the dollar, reached on 11 February, the peso had depreciated 15.5%. During the same period, the 10-year interest rate fell 11 b.p. From the end of November to date, the peso has depreciated 8.9%, while the performance of the M10 bond has dropped 17 b.p. The average for the 10-year interest rate over the first quarter (6.14%) is therefore practically the same as the fourth quarter of 2015 (6.1%).

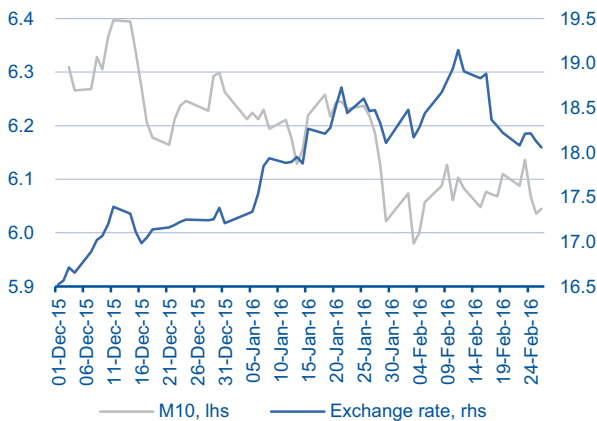


We feel that the relative stability of long-term interest rates is due to a number of factors. After the first rate hike announced by the Federal Reserve in December 2015, market expectations have adjusted to the current point, when futures markets do not rule out an additional increase in 2016. Furthermore, there is the marked refuge effect that has pushed ever-greater capital flows toward assets seen as being lower risk, mainly U.S. Treasury Bonds. These two factors have led to significantly poorer long-term performance in the U.S. From the close of 2015 to date, the 10-year Treasury Bond interest rate had fallen 51 b.p. As in the last two years, if we ignore transitory periods, long-term interest rates have moved in line with expectation regarding the normalisation of U.S. monetary policy (see Figure 3.48).

Low interest rates in the U.S. have served to anchor long-term interest rates in Mexico. Similarly, other factors have allowed relative stability in terms of long-term performance. We should point out that the current level is close to the estimated long-term balance level (around 6.5%), while inflation forecasts have fallen back to a target approaching 3%. Taken together, and in the absence of capital outflow from bond markets, these factors may continue to offer stability to long-term interest rates, despite continued global risk aversion. The preventive increase of 50 b.p. in the base rate was not passed on to the long-term segments in the performance curve, in part due to these factors and also because no further increases to Mexico's benchmark rate are expected beyond those associated with a probable synchronisation with movements in the U.S. federal funds rate.

Figure 3.47

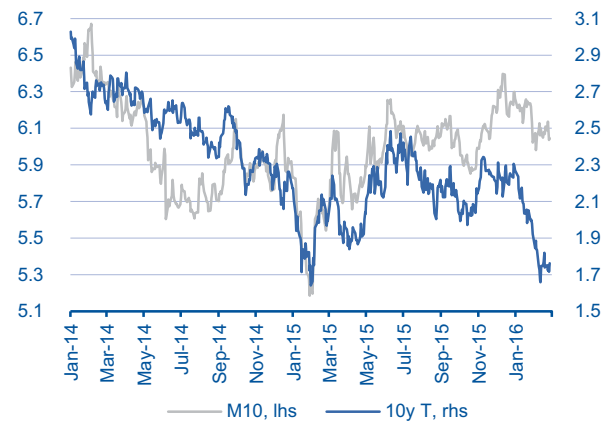
**Yield on maturity of 10-year government bonds and exchange rates (% and peso-to-the-dollar)**



Source: BBVA Research with Bloomberg data.

Figure 3.48

**Yield on maturity of 10-year government bonds (%)**



Source: BBVA Research with Bloomberg data.

Moving forward, we expect to see the exchange rate show a limited appreciation to levels approaching 17 pesos to the dollar. This may occur as the result of a scenario in which the price of oil recovers over the second half of the year, there is greater momentum in manufacturing activities in the U.S. and a considerable effort is made toward restructuring Pemex's finances. As far as interest rates are concerned, we feel that the margin for increase is limited by the above-mentioned factors, and that any movement will continue to be tied to U.S. interest rates. We therefore forecast that the performance of the M 10 bond might settle at slightly below 6.5% at the close of the year.

## 4. Indicators and forecasts

Table 5.1

### Macroeconomic forecasts: Gross Domestic Product

| (YoY growth rate) | 2013 | 2014 | 2015 | 2016 | 2017 |
|-------------------|------|------|------|------|------|
| United States     | 1.5  | 2.4  | 2.4  | 2.5  | 2.4  |
| EMU               | -0.3 | 0.9  | 1.5  | 1.8  | 2.0  |
| Germany           | 0.4  | 1.6  | 1.5  | 1.9  | 1.8  |
| France            | 0.7  | 0.2  | 1.1  | 1.4  | 1.7  |
| Italy             | -1.8 | -0.4 | 0.7  | 1.5  | 1.6  |
| Spain             | -1.7 | 1.4  | 3.2  | 2.7  | 2.7  |
| UK                | 2.2  | 2.9  | 2.2  | 2.0  | 2.0  |
| Latin America *   | 2.7  | 0.8  | -0.5 | -0.9 | 1.9  |
| Mexico            | 1.6  | 2.3  | 2.5  | 2.2  | 2.6  |
| Brazil            | 3.0  | 0.1  | -3.8 | -3.0 | 1.3  |
| EAGLES **         | 5.6  | 5.2  | 4.6  | 4.7  | 5.0  |
| Turkey            | 4.1  | 2.9  | 3.6  | 3.9  | 3.9  |
| Asia-Pacific      | 5.8  | 5.7  | 5.5  | 5.2  | 5.2  |
| Japan             | 1.5  | 0.0  | 0.6  | 1.0  | 0.7  |
| China             | 7.7  | 7.4  | 6.9  | 6.2  | 5.8  |
| Asia (exc. China) | 4.3  | 4.2  | 4.3  | 4.4  | 4.6  |
| World             | 3.3  | 3.4  | 3.2  | 3.2  | 3.5  |

\* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela

\*\* Bangladesh, Brazil, China, India, Indonesia, Irak, Mexico, Nigeria, Pakistan, Philippines, Russia, Saudi Arabia, Thailand and Turkey.

Forecast closing date: 5 February 2016.

Source: BBVA Research and IMF

Table 5.2

### Macroeconomic Forecasts: inflation (Average)

| (YoY growth rate) | 2013 | 2014 | 2015 | 2016 | 2017 |
|-------------------|------|------|------|------|------|
| United States     | 1.5  | 1.6  | 0.1  | 1.3  | 1.9  |
| EMU               | 1.4  | 0.4  | 0.0  | 0.2  | 1.4  |
| Germany           | 1.6  | 0.8  | 0.1  | 0.1  | 1.3  |
| France            | 1.0  | 0.6  | 0.1  | 0.2  | 1.4  |
| Italy             | 1.3  | 0.2  | 0.1  | 0.0  | 1.4  |
| Spain             | 1.4  | -0.2 | -0.5 | -0.1 | 1.7  |
| UK                | 2.6  | 1.5  | 0.0  | 0.8  | 1.6  |
| Latin America *   | 9.2  | 12.6 | 15.5 | 32.6 | 32.7 |
| Mexico            | 3.8  | 4.0  | 2.7  | 2.9  | 3.0  |
| Brazil            | 6.2  | 6.3  | 9.0  | 8.2  | 5.1  |
| EAGLES **         | 5.2  | 4.6  | 4.4  | 4.1  | 4.0  |
| Turkey            | 7.6  | 8.9  | 7.7  | 9.5  | 7.9  |
| Asia-Pacific      | 4.0  | 3.3  | 2.3  | 2.6  | 3.1  |
| Japan             | 1.6  | 2.7  | 1.0  | 1.0  | 1.6  |
| China             | 2.6  | 2.1  | 1.4  | 1.7  | 2.5  |
| Asia (exc. China) | 5.2  | 4.4  | 3.0  | 3.4  | 3.6  |
| World             | 4.2  | 3.9  | 3.7  | 5.0  | 5.3  |

\* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela

\*\* Bangladesh, Brazil, China, India, Indonesia, Irak, Mexico, Nigeria, Pakistan, Philippines, Russia, Saudi Arabia, Thailand and Turkey.

Forecast closing date: 5 February 2016.

Source: BBVA Research and IMF

Table 5.3

**United States indicators and forecasts**

|   | 2014 | 2015        | 2016        | 2017        | 1Q15 | 2Q15 | 3Q15 | 4Q15        | 1Q16        | 2Q16        | 3Q16        | 4Q16        |
|---|------|-------------|-------------|-------------|------|------|------|-------------|-------------|-------------|-------------|-------------|
| <b>Macroeconomic Indicators</b>         |      |             |             |             |      |      |      |             |             |             |             |             |
| GDP (real % change)                     | 2.4  | 2.4         | <b>2.5</b>  | <b>2.4</b>  | 0.6  | 3.9  | 2.0  | 0.7         | <b>2.8</b>  | <b>3.3</b>  | <b>2.9</b>  | <b>2.6</b>  |
| Personal consumption (real % change)    | 2.7  | 3.1         | <b>3.1</b>  | <b>2.6</b>  | 1.7  | 3.6  | 3.0  | 2.2         | <b>3.1</b>  | <b>3.6</b>  | <b>3.3</b>  | <b>2.8</b>  |
| Gov. consumption (real % change)        | -0.6 | 0.8         | <b>1.7</b>  | <b>0.9</b>  | -0.1 | 2.6  | 1.8  | 0.7         | <b>2.0</b>  | <b>1.8</b>  | <b>1.6</b>  | <b>1.6</b>  |
| Gross fixed investment (real % change)  | 5.3  | 4.0         | <b>5.6</b>  | <b>6.5</b>  | 3.3  | 5.1  | 3.7  | 0.2         | <b>8.4</b>  | <b>7.5</b>  | <b>6.5</b>  | <b>7.1</b>  |
| Construction                            | 5.2  | 5.8         | <b>4.9</b>  | <b>5.6</b>  | 7.4  | 8.3  | -0.8 | 1.6         | <b>7.8</b>  | <b>7.0</b>  | <b>5.3</b>  | <b>4.9</b>  |
| Industrial prod. (real annual % change) | 3.7  | 1.3         | <b>-0.4</b> | <b>1.9</b>  | 3.5  | 1.5  | 1.1  | -0.8        | <b>-1.2</b> | <b>-0.7</b> | <b>-0.6</b> | <b>0.9</b>  |
| Current account balance (% of GDP)      | -3.0 | <b>-2.6</b> | <b>-2.9</b> | <b>-3.1</b> | -2.7 | -2.5 | -2.8 | <b>-2.7</b> | <b>-2.8</b> | <b>-2.9</b> | <b>-3.0</b> | <b>-3.0</b> |
| Final annual inflation                  | 0.8  | 0.7         | <b>1.9</b>  | <b>1.9</b>  | -0.1 | 0.1  | 0.0  | 0.7         | <b>1.0</b>  | <b>1.1</b>  | <b>1.7</b>  | <b>1.9</b>  |
| Average annual inflation                | 1.6  | 0.1         | <b>1.3</b>  | <b>1.9</b>  | -0.1 | 0.0  | 0.1  | 0.5         | <b>1.1</b>  | <b>1.1</b>  | <b>1.5</b>  | <b>1.7</b>  |
| Primary fiscal balance (% of GDP)       | -2.8 | <b>-2.6</b> | <b>-3.1</b> | <b>-3.0</b> |      |      |      | <b>-2.6</b> |             |             |             | <b>-3.1</b> |

 Note: **Bold** figures are forecast

Source: BBVA Research

Table 5.4

**Mexico Indicators and Forecasts**

|   | 2014   | 2015  | 2016  | 2017  | 1Q15  | 2Q15  | 3Q15  | 4Q15  | 1Q16  | 2Q16  | 3Q16  | 4Q16  |
|---|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Economic Activity</b>                |        |       |       |       |       |       |       |       |       |       |       |       |
| <b>GDP (seasonally-adjusted series)</b> |        |       |       |       |       |       |       |       |       |       |       |       |
| Real annual % change                    | 2.3    | 2.5   | 2.2   | 2.6   | 2.5   | 2.2   | 2.3   | 1.9   | 2.2   | 2.3   | 2.5   | 3.0   |
| Per inhabitant (US dollars)             | 10,619 | 9,347 | 8,774 | 9,583 | 9,763 | 9,550 | 8,962 | 9,092 | 9,189 | 9,491 | 9,642 | 9,923 |
| US\$ billions                           | 1,271  | 1,131 | 1,073 | 1,184 | 1,181 | 1,156 | 1,085 | 1,100 | 1,124 | 1,161 | 1,179 | 1,213 |
| <b>Inflation (average, %)</b>           |        |       |       |       |       |       |       |       |       |       |       |       |
| Headline                                | 4.02   | 2.72  | 2.91  | 3.04  | 3.07  | 2.94  | 2.62  | 2.27  | 2.78  | 2.94  | 3.00  | 2.91  |
| Core                                    | 3.18   | 2.36  | 2.72  | 3.10  | 2.39  | 2.32  | 2.33  | 2.40  | 2.66  | 2.73  | 2.72  | 2.78  |
| <b>Financial Markets (average, %)</b>   |        |       |       |       |       |       |       |       |       |       |       |       |
| <b>Interest rates</b>                   |        |       |       |       |       |       |       |       |       |       |       |       |
| Bank funding                            | 3.00   | 3.02  | 3.40  | 4.35  | 3.00  | 3.00  | 3.00  | 3.08  | 3.58  | 3.75  | 3.75  | 3.83  |
| 28-day Cetes                            | 3.00   | 3.25  | 3.41  | 4.31  | 2.94  | 3.01  | 3.05  | 3.04  | 3.55  | 3.71  | 3.71  | 3.79  |
| 28-day TIIE                             | 3.35   | 3.44  | 3.72  | 4.66  | 3.30  | 3.31  | 3.32  | 3.39  | 3.89  | 4.05  | 4.05  | 4.14  |
| 10-year Bond (% average)                | 6.01   | 5.96  | 6.18  | 6.57  | 5.92  | 6.09  | 6.13  | 6.22  | 6.05  | 6.15  | 6.25  | 6.37  |
| <b>Exchange rate (average)</b>          |        |       |       |       |       |       |       |       |       |       |       |       |
| Pesos per dollar                        | 13.4   | 16.0  | 17.9  | 16.7  | 15.1  | 15.5  | 16.6  | 16.8  | 18.2  | 18.4  | 17.8  | 17.2  |
| <b>Public Finances</b>                  |        |       |       |       |       |       |       |       |       |       |       |       |
| *FRPS (% of GDP)                        | -4.6   | -4.1  | -3.5  | 3.0   | -     | -     | -     | -4.1  | -     | -     | -     | -3.5  |
| <b>External Sector<sup>3</sup></b>      |        |       |       |       |       |       |       |       |       |       |       |       |
| Trade balance (US\$ billions)           | -2.8   | -14.5 | -17.5 | -21.0 | -2.2  | -1.9  | -6.5  | -2.5  | -2.6  | -3.0  | -6.5  | -5.2  |
| Current account (US\$ billions)         | -24.8  | -32.4 | -33.7 | -37.0 | -8.6  | -8.0  | -7.9  | -8.0  | -8.4  | -8.5  | -9.0  | -9.4  |
| Current account (% of GDP)              | -2.0   | -2.9  | -3.1  | -3.1  | -2.9  | -2.8  | -2.9  | -2.9  | -3.0  | -2.9  | -3.1  | -3.1  |
| <b>Employment</b>                       |        |       |       |       |       |       |       |       |       |       |       |       |
| Formal Private (annual % change)        | 3.5    | 4.3   | 4.2   | 3.8   | 4.5   | 4.4   | 4.4   | 3.5   | 4.2   | 3.6   | 3.6   | 3.3   |
| Open Unemployment Rate (% active pop.)  | 4.8    | 4.4   | 4.6   | 4.6   | 4.2   | 4.3   | 4.6   | 4.5   | 4.7   | 4.5   | 4.7   | 4.6   |

Continues on next page

**Mexico Indicators and Forecasts**

|   | 2014 | 2015 | 2016        | 2017        | 1Q15 | 2Q15 | 3Q15 | 4Q15 | 1Q16        | 2Q16        | 3Q16        | 4Q16        |
|---|------|------|-------------|-------------|------|------|------|------|-------------|-------------|-------------|-------------|
| <b>Aggregate Demand <sup>4</sup> (annual % change, seasonally-adjusted)</b> |      |      |             |             |      |      |      |      |             |             |             |             |
| Total   | 3.1  | 2.9  | <b>2.2</b>  | <b>3.3</b>  | 3.5  | 3.1  | 2.8  | 2.2  | <b>2.1</b>  | <b>2.1</b>  | <b>2.2</b>  | <b>2.4</b>  |
| Domestic Demand   | 1.9  | 1.2  | <b>1.8</b>  | <b>2.5</b>  | 0.7  | 1.1  | 1.1  | 1.8  | <b>1.9</b>  | <b>1.8</b>  | <b>1.9</b>  | <b>1.5</b>  |
| Consumption   | 1.9  | 2.7  | <b>2.2</b>  | <b>2.6</b>  | 3.3  | 2.5  | 2.6  | 2.5  | <b>1.9</b>  | <b>2.1</b>  | <b>2.1</b>  | <b>2.5</b>  |
| Private   | 1.8  | 2.8  | <b>2.3</b>  | <b>2.7</b>  | 3.3  | 2.4  | 2.8  | 2.6  | <b>2.0</b>  | <b>2.2</b>  | <b>2.2</b>  | <b>2.6</b>  |
| Public  | 2.4  | 2.3  | <b>1.5</b>  | <b>1.9</b>  | 3.1  | 2.7  | 1.2  | 2.0  | <b>1.2</b>  | <b>1.6</b>  | <b>1.4</b>  | <b>1.8</b>  |
| Investment  | 2.8  | 4.0  | <b>0.5</b>  | <b>2.9</b>  | 5.9  | 5.0  | 3.6  | 1.7  | <b>0.5</b>  | <b>0.6</b>  | <b>0.0</b>  | <b>0.8</b>  |
| Private   | 4.7  | 5.9  | <b>2.3</b>  | <b>4.4</b>  | 8.0  | 6.5  | 6.1  | 3.1  | <b>2.3</b>  | <b>2.2</b>  | <b>1.8</b>  | <b>2.9</b>  |
| Public  | -4.5 | -3.9 | <b>-8.2</b> | <b>-4.6</b> | -2.8 | -1.2 | -7.1 | -4.4 | <b>-7.7</b> | <b>-7.1</b> | <b>-8.5</b> | <b>-9.4</b> |
| External Demand   | 7.0  | 8.1  | <b>3.5</b>  | <b>5.6</b>  | 12.5 | 9.2  | 7.9  | 3.3  | <b>2.9</b>  | <b>2.9</b>  | <b>3.1</b>  | <b>5.0</b>  |
| Imports   | 5.9  | 4.1  | <b>2.3</b>  | <b>5.3</b>  | 6.7  | 5.2  | 3.2  | 1.2  | <b>2.5</b>  | <b>1.5</b>  | <b>1.9</b>  | <b>3.5</b>  |
| <b>GDP by sectors (annual % change, seasonally-adjusted)</b>                |      |      |             |             |      |      |      |      |             |             |             |             |
| Primary   | 4.6  | 3.1  | <b>2.5</b>  | <b>2.4</b>  | 2.9  | 2.8  | 4.0  | 2.9  | <b>2.6</b>  | <b>4.2</b>  | <b>1.5</b>  | <b>1.7</b>  |
| Secondary   | 2.6  | 1.0  | <b>1.7</b>  | <b>2.4</b>  | 1.7  | 0.7  | 1.2  | 0.2  | <b>1.1</b>  | <b>1.3</b>  | <b>2.1</b>  | <b>2.3</b>  |
| Mining  | -1.5 | -5.7 | <b>-1.1</b> | <b>-0.4</b> | -5.3 | -7.9 | -5.6 | -4.1 | <b>-1.6</b> | <b>-1.6</b> | <b>-0.6</b> | <b>-0.6</b> |
| Electricity   | 8.2  | 3.8  | <b>3.6</b>  | <b>2.9</b>  | 5.7  | 2.3  | 3.7  | 3.6  | <b>3.8</b>  | <b>3.7</b>  | <b>3.9</b>  | <b>2.9</b>  |
| Construction  | 1.9  | 2.6  | <b>3.1</b>  | <b>2.6</b>  | 4.6  | 3.0  | 3.3  | -0.5 | <b>2.9</b>  | <b>2.0</b>  | <b>3.8</b>  | <b>3.7</b>  |
| Manufacturing   | 4.0  | 2.7  | <b>1.9</b>  | <b>3.3</b>  | 3.8  | 2.7  | 3.0  | 1.4  | <b>1.1</b>  | <b>1.8</b>  | <b>2.2</b>  | <b>2.7</b>  |
| Tertiary  | 1.9  | 3.3  | <b>2.4</b>  | <b>2.7</b>  | 2.9  | 3.2  | 3.4  | 3.7  | <b>2.5</b>  | <b>2.7</b>  | <b>2.5</b>  | <b>2.0</b>  |
| Retail  | 3.1  | 4.5  | <b>3.5</b>  | <b>2.7</b>  | 5.9  | 3.6  | 4.7  | 4.0  | <b>3.6</b>  | <b>4.0</b>  | <b>3.6</b>  | <b>2.7</b>  |
| Transportation, mail and warehouse  | 3.2  | 3.5  | <b>3.0</b>  | <b>2.8</b>  | 3.3  | 3.0  | 4.1  | 3.5  | <b>2.9</b>  | <b>4.1</b>  | <b>2.5</b>  | <b>2.4</b>  |
| Massive media information   | 0.2  | 10.0 | <b>6.2</b>  | <b>8.3</b>  | 5.2  | 4.6  | 11.7 | 18.8 | <b>7.0</b>  | <b>6.2</b>  | <b>6.0</b>  | <b>5.8</b>  |
| Financial and insurance   | -0.9 | 0.9  | <b>2.6</b>  | <b>3.8</b>  | -0.4 | -0.4 | 1.9  | 2.5  | <b>2.6</b>  | <b>2.9</b>  | <b>2.3</b>  | <b>2.8</b>  |
| Real-estate and rent  | 2.0  | 2.3  | <b>1.8</b>  | <b>2.3</b>  | 1.8  | 3.2  | 2.2  | 2.1  | <b>1.8</b>  | <b>1.9</b>  | <b>2.3</b>  | <b>1.4</b>  |
| Prof., scientific and technical servs.                                      | 1.3  | 3.8  | <b>2.0</b>  | <b>2.0</b>  | 2.9  | 5.8  | 3.2  | 3.2  | <b>1.8</b>  | <b>2.9</b>  | <b>2.0</b>  | <b>1.4</b>  |
| Company and corporate management  | 7.2  | 1.9  | <b>1.8</b>  | <b>1.3</b>  | -2.0 | 1.0  | 4.9  | 3.9  | <b>1.3</b>  | <b>1.6</b>  | <b>1.9</b>  | <b>2.2</b>  |
| Business support services   | -0.2 | 1.0  | <b>1.0</b>  | <b>1.4</b>  | 2.4  | 0.4  | 0.7  | 0.6  | <b>1.1</b>  | <b>1.0</b>  | <b>0.7</b>  | <b>1.1</b>  |
| Education   | 0.1  | 0.7  | <b>0.8</b>  | <b>0.1</b>  | 0.1  | 0.7  | 0.4  | 1.6  | <b>0.9</b>  | <b>0.9</b>  | <b>0.8</b>  | <b>0.7</b>  |
| Health and social security  | -0.6 | 1.3  | <b>0.8</b>  | <b>0.9</b>  | 1.1  | 1.6  | 1.1  | 1.5  | <b>0.8</b>  | <b>0.9</b>  | <b>0.7</b>  | <b>0.9</b>  |
| Cultural and sport  | -1.4 | 4.7  | <b>3.1</b>  | <b>2.2</b>  | 3.3  | 5.9  | 4.5  | 4.9  | <b>3.5</b>  | <b>3.0</b>  | <b>3.6</b>  | <b>2.3</b>  |
| Temporary stay  | 2.9  | 5.9  | <b>4.7</b>  | <b>4.8</b>  | 3.8  | 4.6  | 7.1  | 8.1  | <b>5.6</b>  | <b>5.5</b>  | <b>5.3</b>  | <b>2.5</b>  |
| Other services, except govnt. activities                                    | 1.5  | 2.4  | <b>0.9</b>  | <b>2.0</b>  | 3.1  | 1.7  | 1.3  | 3.3  | <b>0.7</b>  | <b>0.6</b>  | <b>1.7</b>  | <b>0.8</b>  |
| Government activities   | 2.9  | 2.6  | <b>-1.7</b> | <b>1.5</b>  | 5.4  | 4.0  | 0.8  | 0.3  | <b>-1.6</b> | <b>-1.4</b> | <b>-2.7</b> | <b>-1.0</b> |

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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