BANCO DE MÉXICO

Quarterly Report

January – March 2015

BOARD OF GOVERNORS

Governor

AGUSTÍN GUILLERMO CARSTENS CARSTENS

Deputy Governors

ROBERTO DEL CUETO LEGASPI

JAVIER EDUARDO GUZMÁN CALAFELL

MANUEL RAMOS FRANCIA

MANUEL SÁNCHEZ GONZÁLEZ

QUARTERLY REPORT

This report analyzes the development of inflation, the economic activity and different economic indicators in Mexico, as well as the monetary policy implementation in the quarter January – March 2015 and, in general, the activities of Banco de México over the referred period, in the context of the Mexican and international economic environment, in compliance with Article 51, section II of Banco de México's Law.

FOREWARNING

This text is provided for reader's convenience only. Discrepancies may possibly arise between the original document and its translation to English. The original and unabridged Quarterly Report in Spanish is the only official document.

Unless otherwise stated, this document has been prepared using data available as of May 18, 2015. Figures are preliminary and subject to changes

CONTENTS

1. Introduction 1

2. Recent Development of Inflation 3

   2.1. Inflation 3

   2.2. Producer Price Index 11

3. Economic and Financial Environment 12

   3.1. International Environment 12

      3.1.1. World Economic Activity 12
      3.1.2. Commodity Prices 15
      3.1.3. Inflation Trends Abroad 16
      3.1.4. Monetary Policy and International Financial Markets 17

   3.2. Evolution of the Mexican Economy 21

      3.2.1. Economic Activity 21
      3.2.2. Labor Market 28
      3.2.3. Financial Saving and Financing in Mexico 30

4. Monetary Policy and Inflation Determinants 44

5. Inflation Forecast and Balance of Risks 55

Annex 1: Complementary Charts of the Recent Development of Inflation 60

BOXES

1. Trimmed Mean as a Measure of Inflation Trend 8

2. Recent Evolution of the Monetary Base and Means of Payment 35

1. Introduction

The monetary policy implemented by Banco de México seeks to ensure stability of the national currency's purchasing power and has been conducive to achieving an environment of low and stable inflation in Mexico. Inflation practically reached the 3 percent target during the period covered in this Report.

This was achieved despite a complex environment faced by the monetary policy authorities in recent months, where both domestic and external factors that could affect inflation had to be properly weighed. On the one hand, regarding domestic factors, inflation in Mexico has converged to its permanent 3 percent target, it is expected to persist around it and inflation expectations are well-anchored. Furthermore, no aggregate demand-related pressures that could affect it are anticipated since slack conditions prevail in the economy as a result of weaker than expected growth in economic activity. On the other hand, the national currency depreciated in response to external factors. The drop in the crude oil price suggests that a significant part of the aforementioned exchange rate adjustment is accounted for by real factors. Moreover, the prospect of the normalization of U.S. monetary policy and the uncertainty associated with this process were reflected in international financial markets, generating high volatility and widespread depreciations against the U.S. dollar of a vast majority of currencies. So far, inflation has not been affected by the exchange rate adjustment more than estimated by the Central Institute, and it has been several years since the exchange rate pass-through onto prices in Mexico has been low and there have been no second round effects. Still, a risk to inflation as a consequence of depreciation cannot be overlooked. Taking all these elements into consideration, in the period analyzed by this Report, the Board of Governors kept the target for the Overnight Interbank Interest Rate at 3 percent by virtue of the fact that the monetary policy was deemed to be conducive to secure the convergence of inflation to the permanent target.

Annual headline inflation went down considerably in early 2015. The adopted monetary policy contributed to this decrease by correctly anticipating the fading out of the effects on prices generated by the fiscal modifications implemented last year, as well as other shocks, while monitoring that inflation expectations were not affected. Drops in telecommunication services' prices and in some energy prices also contributed, both directly and indirectly. It is noteworthy that this took place even considering the depreciation of the national currency that occurred since mid-2014, whose effects were concentrated in the prices of some durable merchandise. In general, the latter did not affect the price formation dynamics in the economy and inflation expectations remained well-anchored.

In the first quarter of 2015, certain weakness in the performance of economic activity prevailed in Mexico. Indeed, external demand lost dynamism, mainly as a response to the slowdown of the U.S. economy, while domestic demand improved slightly. In this environment, slack conditions persisted in the economy, reason for which no pressures on either prices in the main inputs' markets or on the external accounts were perceived.

World economic activity remained weak in the first months of the current year, while global inflation presented a downward trend, as a consequence of low oil prices, among other factors. Thus, various central banks, both in emerging and advanced economies, adopted more accommodative monetary policies. In this context, uncertainty regarding the onset and the subsequent speed of U.S. monetary policy normalization, combined with a highly lax monetary policy in other advanced economies -which led to a generalized appreciation of the USD- the performance of basic commodity prices, particularly crude oil prices, and the economic situation in Greece led to an environment in which international financial markets kept exhibiting high volatility in the period analyzed by this Report.

The referred volatility affected the performance of domestic financial markets. Particularly, in the first quarter of 2015, the exchange rate depreciated in an environment of high volatility, even when the functioning of the foreign exchange market was orderly and at adequate operating and liquidity levels. Although from April onwards conditions in financial markets improved slightly, a further increment in volatility in international markets, which could further impact the national currency's exchange rate, cannot be ruled out. In light of this possibility, it is important to continue strengthening the macroeconomic framework in Mexico. In particular, consolidation of the adjustment in public expenditure announced by the Federal Government is required in order to stabilize the public debt to GDP ratio and to begin to decrease it as soon as possible, so that public finances do not become a source of vulnerability and facilitate the adjustment to tighter conditions in international financial markets.

As a consequence of downward adjustments to oil production forecast and a lower dynamism of external demand in the first quarter of 2015, combined with a still weak recovery of domestic expenditure, the forecast interval for GDP growth in Mexico in 2015 is revised from 2.5 to 3.5 percent to a new interval of 2.0 to 3.0 percent. Likewise, for 2016, the forecast is lowered from an interval of 2.9 to 3.9 percent to a range of 2.5 to 3.5 percent.

The inflation outlook remains unchanged with respect to that presented in the previous Report. Besides the fact that since January annual headline inflation has lied practically at a level of 3 percent, the monetary stance is expected to continue contributing to the inflation persistence close to this level over the next months and in the second half of the year it will lie slightly below it. Core inflation is anticipated to prevail below 3 percent during all 2015. For 2016, both headline and core inflation are estimated to be close to 3 percent.

In the future, the Board of Governors of this Central Institute will remain alert to the evolution of all inflation determinants and its medium and long-term expectations: particularly, it will monitor the monetary policy stance of Mexico relative to the U.S., as well as the behavior of the exchange rate. Furthermore, it will also be watchful of the evolution of the degree of slackness in the economy. All of the above will be done in order to take the necessary measures to ensure the convergence of inflation to the 3 percent target in 2015 and to consolidate it.

2. Recent Development of Inflation

2.1. Inflation

Just as anticipated by Banco de México, annual headline inflation went down considerably in early 2015 to reach the 3 percent target in the first quarter. This drop was triggered by the conduction of the monetary policy, which anticipated the fading out of the effects of the fiscal modifications implemented last year onto prices and kept monitoring that inflation expectations remained unaffected to avoid second round effects, which would impact the price formation process of the economy. Moreover, drops in telecommunication services' prices and energy prices, derived from structural reforms, also contributed, both directly and indirectly, to the recent decrease in inflation. Thus, despite the depreciation of the national currency, in the first quarter of 2015 annual headline inflation lied close to its target set by Banco de México, registering an average level of 3.07 percent, as compared to 4.18 percent in the last quarter of 2014. Subsequently, in April annual headline inflation was 3.06 percent, and core inflation presented an average of 2.39 percent in the first quarter of 2015, while in the previous one it was 3.30 percent. During April, this indicator further reduced to 2.31 percent. Thus, in the first months of 2015, both annual headline and core inflation located at levels below those registered in late 2013, prior to the referred fiscal changes (Table 1 and Chart 1). Derived from this convergence process, in recent years it has been observed that, given the presence of sudden changes in some relative prices, inflation expectations were increasingly less affected.[1]

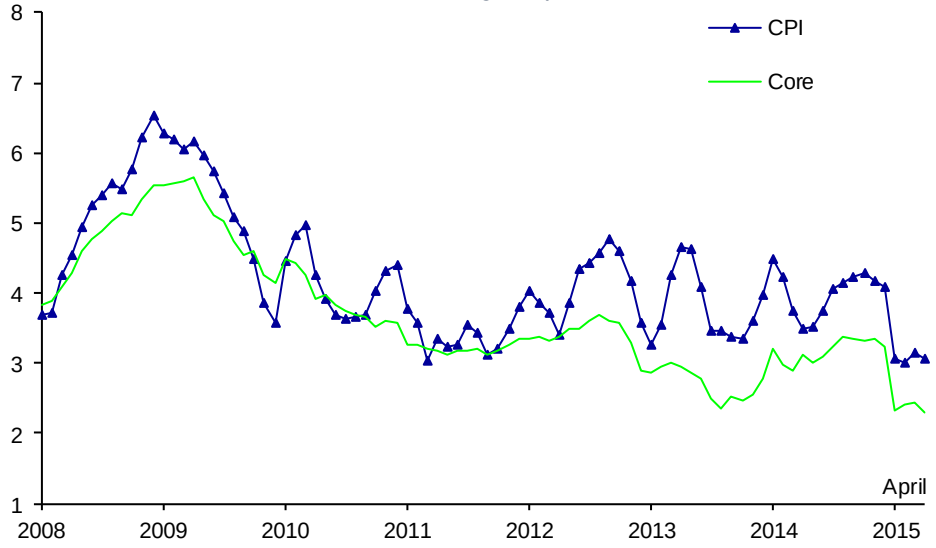
Table 1
Consumer Price Index, Main Components and Trimmed Mean Indicators
Annual change in percent

	2013		2014				2015	
	III	IV	I	II	III	IV	I	April
CPI	**3.44**	**3.65**	**4.16**	**3.59**	**4.15**	**4.18**	**3.07**	**3.06**
Core	**2.46**	**2.61**	**3.03**	**3.07**	**3.32**	**3.30**	**2.39**	**2.31**
Merchandise	**2.58**	**2.09**	**2.91**	**3.10**	**3.46**	**3.57**	**2.56**	**2.65**
Food, beverages and tobacco	3.44	2.92	4.65	4.81	5.32	5.35	3.15	2.89
Non-food merchandise	1.90	1.43	1.51	1.72	1.96	2.13	2.07	2.45
Services	**2.36**	**3.04**	**3.14**	**3.04**	**3.21**	**3.08**	**2.26**	**2.03**
Housing	2.23	2.19	2.24	2.20	2.11	2.14	2.10	2.12
Education (tuitions)	4.46	4.42	4.36	4.42	4.29	4.30	4.36	4.40
Other services	1.87	3.52	3.73	3.54	4.06	3.72	1.80	1.23
Non-core	**6.60**	**7.02**	**7.79**	**5.29**	**6.89**	**6.99**	**5.17**	**5.46**
Agriculture	**3.90**	**4.62**	**4.33**	**0.94**	**6.53**	**8.04**	**8.39**	**9.86**
Fruit and vegetables	-2.14	8.77	4.54	-6.86	1.48	-0.73	-1.39	4.74
Livestock	7.53	2.13	4.12	5.49	9.33	13.43	14.15	12.64
Energy and government approved fares	**8.32**	**8.57**	**9.99**	**8.09**	**7.11**	**6.35**	**3.30**	**2.89**
Energy	8.43	8.69	9.87	8.92	7.92	7.12	3.82	3.12
Government approved fares	7.75	8.27	10.23	6.64	5.71	4.93	2.32	2.48
Trimmed Mean Indicator [1/]								
CPI	3.41	3.17	3.67	3.64	3.72	3.78	3.07	2.92
Core	2.76	2.60	2.92	3.05	3.13	3.18	2.81	2.78

1/ Prepared by Banco de México with data from INEGI.
Source: Banco de México and INEGI.

[1] See Box 1 "Relative Price Changes and Inflation Convergence towards the 3 Percent Target", Inflation Report April – June 2013. Also see Box 3 "Anchoring of Medium- and Long-term Inflation Expectations in light of Adverse Supply Shocks", Inflation Report January – March 2013.

Chart 1
Consumer Price Index
Annual change in percent



Source: Banco de México and INEGI.

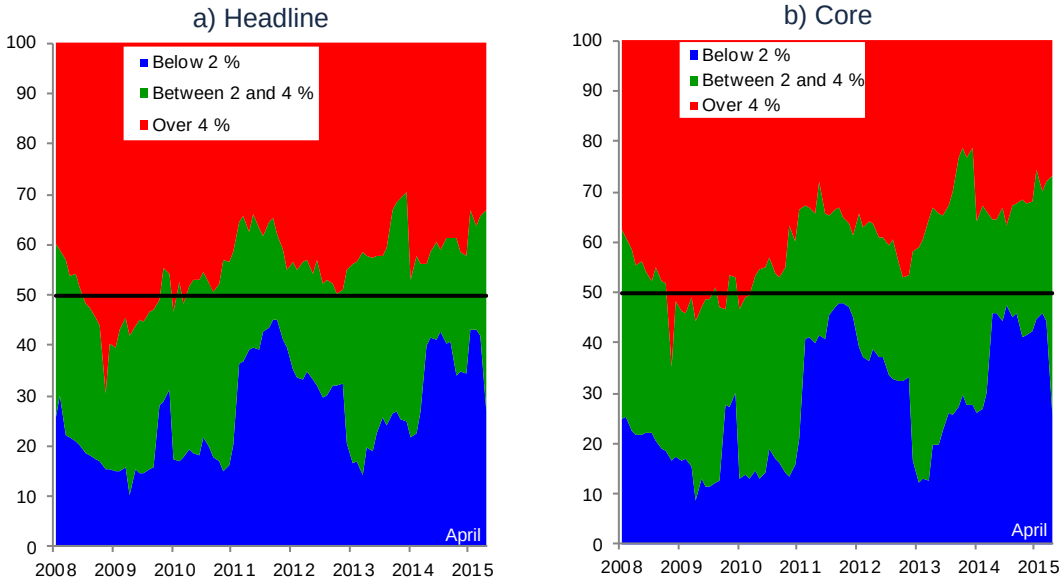
To illustrate that the decrease in headline and core inflation in the reference quarter was a widespread phenomenon and that it reflects the continuation of the process of inflation convergence to its permanent 3 percent target, the evolution of some indicators, which provide further information in that regard, is analyzed below. In particular, the share of the Consumer Price Index (CPI) basket, which presents annual changes within certain intervals, the Trimmed Mean Indicator and the evolution of (seasonally adjusted) monthly inflation are shown.

The first of these indicators is the share of the CPI basket that presents annual adjustments at certain intervals. This indicator is prepared, both for the headline and core index, by grouping on a monthly basis the generic items of each price index into three categories, depending on the annual growth rate of their price. The three categories are the following: the items with an annual price change below 2 percent, between 2 and 4 percent, and over 4 percent. Subsequently, the share of the CPI basket, which lies in each of these categories, is calculated. Thus, it is established that a high percentage of the CPI basket registered price increments lower than 4 percent (blue and green areas, Chart 2a). While in the first quarter of 2014 an average of 45 percent of the referred basket presented price increments higher than 4 percent, in the first quarter of 2015 only 35 percent observed annual changes above this level (red area, Chart 2a). This result can also be found in the evolution of core inflation, in which the share of this basket, whose prices presented annual changes over 4 percent were also decreasing gradually and currently lie below 30 percent (Chart 2b).

A lower growth rate of headline and core inflation was also reflected in the dynamics of their medium-term trend indicators. These indicators are usually less affected by the changes in relative prices, reason for which they represent a good guide regarding the consolidation of the inflation trend at low levels. In particular, one of these trend measures is the Trimmed Mean Indicator, which is obtained if the generic items, whose prices presented extreme variations (both highest and lowest) are excluded from the calculation of headline inflation. Thus, when the contribution

of these variations is excluded, the changes in relative prices of some goods or services, which tend to have transitory effects on inflation, are prevented from affecting its trend indicator. Hence, the evolution of this indicator is mainly due to generalized price changes (see Box 1). Indeed, the Trimmed Mean Indicators for headline and core inflation show that lower inflation observed in recent months has resulted from a generalized reduction in the price growth rate. In this way, the Trimmed Mean Indicator for headline inflation prevailed at 3 percent in the first months of 2015, while that of core inflation lied close to 2.80 percent (Chart 3 and Table 1). Thus, in accordance with these indicators, the fact that inflation practically lies at 3 percent currently is not due to the evolution of a few prices, but rather of a great majority of goods and services in the economy.

Chart 2
Percentage of the CPI Basket according to Intervals of Annual Increments
Percent



Source: Banco de México and INEGI.

To complement the analysis of inflation trend indicators with the data that would allow to timely identify changes in the inflation dynamics, the evolution of annualized monthly inflation (seasonally adjusted) is analyzed. This indicator, based on the monthly change of the price index, is not affected by the arithmetic effect of the comparison base that contains the annual inflation indicator, and, therefore, it presents data regarding the dynamics of inflation on the margin. For example, in early 2014, the referred indicators, both for headline and core inflation, which are already adjusted for any seasonal effect, considerably increased due to the relative price changes associated to the fiscal modifications in force since that year. However, during the subsequent months they resumed the levels similar to those before the referred change in relative prices and later presented a lateral trend, suggesting that after the price adjustment at the beginning of the year no second round effects, which could affect the price determination process in the economy, were observed. During the second half of 2014 and in 2015 so far a downward trend was registered in these two indicators to levels of around 3 percent (Chart 4).

Box 1
Trimmed Mean as a Measure of Inflation Trend

1. Introduction

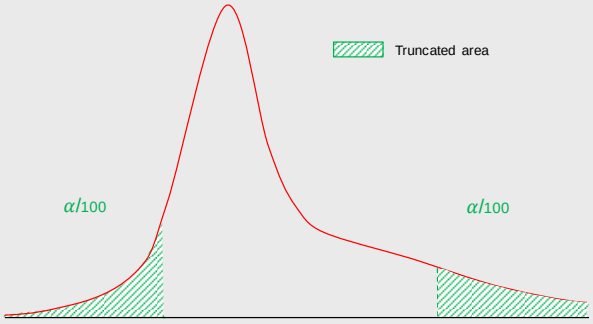
This Box describes the concept of the trimmed mean of inflation, which is one of the indicators repeatedly used by central banks to analyze the trajectory of this variable in the medium term. This indicator focuses the attention of the inflation dynamics on the elements that affect its evolution at the low frequency, discarding the veil generally imposed by the high volatility of some specific components of the CPI basket. Therefore, it grants a more exact reading of the inflationary process. In particular, the aim of these measures is to differentiate what Blinder (1997) describes as the "signal" of the inflationary process from its "noise". That is, it seeks to distinguish between the component that will persist in the inflation trend and a purely temporary one. As a result, this indicator is useful to the monetary authorities during the decision-making process, given the horizon in which the monetary policy affects inflation.

2. Trimmed Mean Indicator

The Trimmed Mean Indicator, generally known from the study of Bryan and Cecchetti (1994), is a way to estimate the medium-term inflation trend of the goods and services' basket. This indicator consists in discarding extreme variations that occur in each period in the prices of the considered goods and services. In this way, and unlike the fixed exclusion measures, for example core inflation, which in the case of Mexico in each period excludes the subindices of agricultural prices, energy prices and government approved fares, the set of elements excluded from the Trimmed Mean Indicator changes each period.

This indicator estimates the medium-term trend of inflation, as the distribution of price adjustments in the products of the CPI basket naturally presents a certain bias. This is due to extreme variations, either upward or downward, that are observed in some prices of goods and services that make up the referred basket, which tend to result from supply shocks to specific sectors of the economy (for example, excessive rainfall in some regions of the country). Thus, by eliminating or *trimming* the extreme values of the referred distribution, a distribution is obtained whose measure is more representative of the persisting component of inflation as compared to that obtained without previously trimming the tails (Chart 1). In other words, the mean of the trimmed distribution is less sensitive to extreme changes in the relative prices of some goods and services, which only tend to temporarily affect inflation.

Chart 1
Simulated Density of Price Changes with a Bias



Source: Prepared by Banco de México.

One of the main advantages of this indicator is that it eliminates the restriction that a product should be excluded only because it belongs to a group that historically has been characterized by high volatility in its prices. Thus, only if its monthly change lies in the outliers of the distribution at a set point of time, this element is excluded.

3. Methodology of Calculating the Trimmed Mean

The estimation of this indicator is carried out by means of the following algorithm:

1. *Calculation and order of the monthly price change:* the percentage change (π_t^i) of the price index (seasonally adjusted) of each item N of the basket in the period t (I_t^i) is calculated with respect to the period $t-1$. Then, these percentage changes are arranged from the smallest to the highest value.

2. *Weights' accumulation:* when the order in the monthly changes has been established and the seasonal adjustment of inflation has been done ($\pi_t^1 < \cdots <$ π_t^i<…<π_t^N), their respective weights p_t^i are accumulated, which represent the share of each generic item in the CPI basket. Thus, the $i-th$ component will be assigned an accumulated weight $\sum_{j=1}^{i} p_t^j$.

3. *Trimming of generic items:* to trim the items that presented extreme price variations, one should determine the percentage α of the basket that one is prepared to discard from each distribution tail (Chart 1). In this way, by means of the accumulated sum of p_t^i, the generic items, that lie before this sum exceeds α percent and those lying after it accumulates $1-\alpha$ percent, are excluded. Thus, a set C of components

that represent approximately $1-2\alpha$ percent of the basket and that lie in the center of the distribution are obtained. [1]

4. *Calculating the weights related to the monthly changes of generic items:* based on the weights p_i that are used for the aggregation of the price index, the weights (ω_t^i) of the variations π_t^i are constructed.[2] In particular, given that the price index is the weighted average of the generic items' indices, the next is obtained:

$$I_t = \sum_{i=1}^{N} p_i I_t^i$$

Thus, inflation can be expressed as:

$$1+\pi_t = \frac{I_t}{I_{t-1}} = \frac{\sum_{i=1}^{N} p_i I_t^i}{I_{t-1}},$$

so that, by regrouping the terms, the following is obtained:

$$1+\pi_t = \sum_{i=1}^{N} \omega_t^i \left(1+\pi_t^i\right)$$

where:

$$\omega_t^i \equiv \frac{p_i I_{t-1}^i}{I_{t-1}}$$

5. *Calculating the Trimmed Mean Indicator:* using the components contained in C and their respective weights ω_t^i, the weighted average of the changes, represented by the trimmed mean (π_t^T) is estimated in the period *t* :

$$\pi_t^T = \frac{\sum_{i\epsilon C} \omega_t^i \pi_t^i}{\sum_{i\epsilon C} \omega_t^i}$$

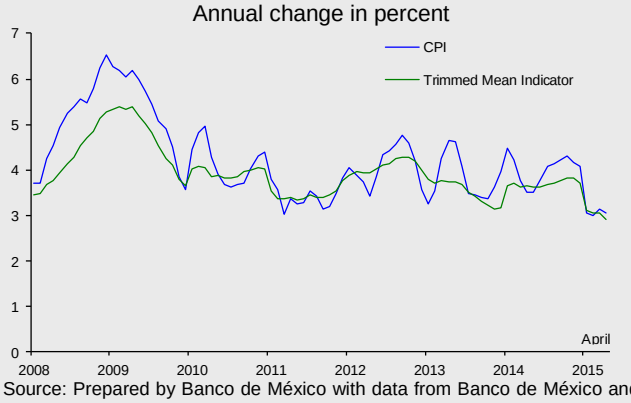
6. *Calculating the annual change of the Trimmed Mean Indicator*: the previous procedure is repeated for each point in time and the index is calculated based on the Trimmed Mean Indicators of the monthly inflation (π_t^T). Finally, based on this index the referred annual change is calculated.

[1] This Quarterly Report presents a trimmed mean, in which 10 percent of each distribution tail is truncated.

[2] For an interpretation of these weights, see Bryan, M., S. Cecchetti and R. Wiggins II (1997).

To illustrate the use of this indicator, Chart 2 presents the evolution of headline inflation, as well as the Trimmed Mean Indicator at 10 percent of each distribution tail. The referred indicator is observed to have registered levels close to 3 percent over various recent periods. Largely, this indicates that the realizations of headline inflation above that level were partly due to the changes in relative prices that affected inflation only in a transitory manner. This is evidence of the convergence of the inflationary process in Mexico to the permanent inflation target.

Chart 2
CPI and Trimmed Mean Indicator
Annual change in percent



Source: Prepared by Banco de México with data from Banco de México and INEGI.

4. Final Remarks

This Box presented the Trimmed Mean Indicator, which tends to be a good estimation of the medium-term inflation trend. Given the importance of the analysis of the inflationary dynamics to central banks in the horizon in which the monetary policy actions have effect, this type of statistics represent a useful tool to study its performance, thus differentiating transitory effects from those that can generate a lasting impact on inflation.

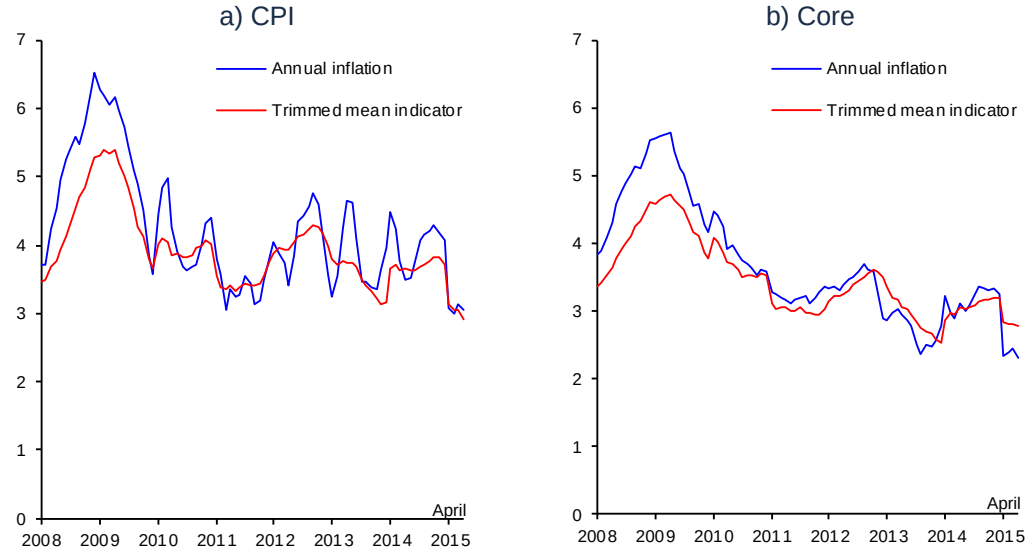
References

Blinder, A., (1997). "Commentary", Federal Reserve Bank of St. Louis Review, No.79, pp.157-160.

Bryan, M. and S. Cecchetti, (1994). "Measuring core inflation", in N. Gregory Mankiw, ed., Monetary Policy, University of Chicago Press.

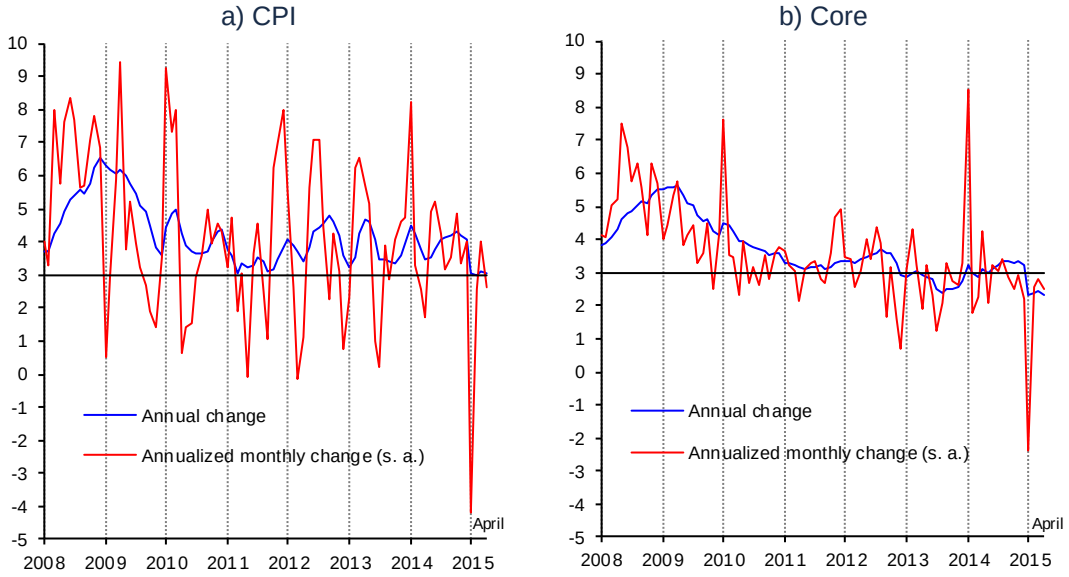
Bryan, M., S. Cecchetti and R. Wiggins II, (1997). "Efficient Inflation Estimation", NBER Working Paper No. w6183.

Chart 3
Price Indices and Trimmed Mean Indicators 1/
Annual change in percent



1/ The Trimmed Mean Indicator excludes the contribution of extreme variations in the prices of some generic items from the inflation of a price index. To eliminate the effect of these changes, the following is done: i) the monthly seasonally adjusted changes of the generic items of the price index are arranged from the smallest to the largest value; ii) generic items with the biggest and the smallest variation are excluded, considering in each distribution tail up to 10 percent of the price index basket, respectively; and iii) using the remaining generic items, which by construction lie in the center of the distribution, the Trimmed Mean Indicator is calculated.
Source: Prepared by Banco de México with own data and data from INEGI.

Chart 4
Annual Change and Annualized Seasonally Adjusted Monthly Change
Percent



s. a. / Seasonally adjusted data.
Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

The analysis of the referred indicators indicates that inflation has been converging to the 3 percent target in recent years and that it is consequent on a favorable

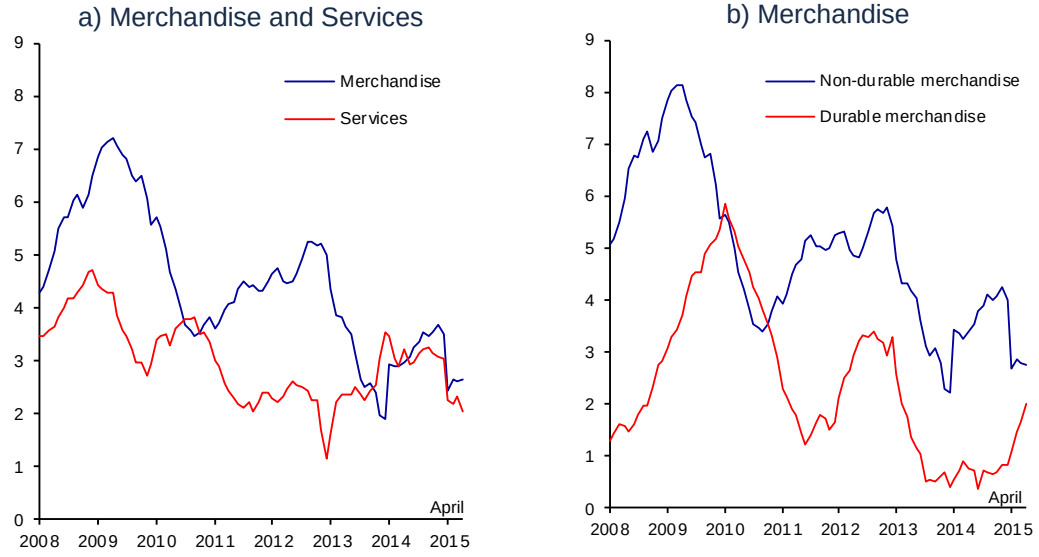
evolution of prices of a great majority of goods and services in a context in which slack conditions prevailed in the economy.

The annual changes of core inflation components (merchandise and services indices) decreased in the period covered by this Report.[2] In particular:

- The merchandise price subindex reduced its average annual change rate from 3.57 to 2.56 percent between the last quarter of 2014 and the first one of 2015. Subsequently, in April it registered an annual change rate of 2.65 percent (Chart 5a). Despite the depreciation of the national currency, the exchange rate pass-through onto prices was mainly manifested in those of durable merchandise, just as estimated, and no second round effects on the price formation process in the economy were generated (Chart 5b).
- On the other hand, the average annual change of the services' price subindex went down between the fourth quarter of 2014 and the first one of 2015 from 3.08 to 2.26 percent, and located at 2.03 percent in April (Chart 5a). In this regard, it should be noted that this performance was affected by lower prices in the telecommunications sector and slack conditions of the economy, as a result of which increments in most services' prices were smaller than last year.

Another indicator that allows to set in a context the evolution of different price subindices is obtained by calculating the incidence of each subindex on annual headline inflation. Thus, it is observed that the contributions of merchandise and services' core subindices, following an increase in 2014 due to the relative price changes derived from fiscal adjustments, resumed the levels similar or even lower than those of 2013 (Chart 6).

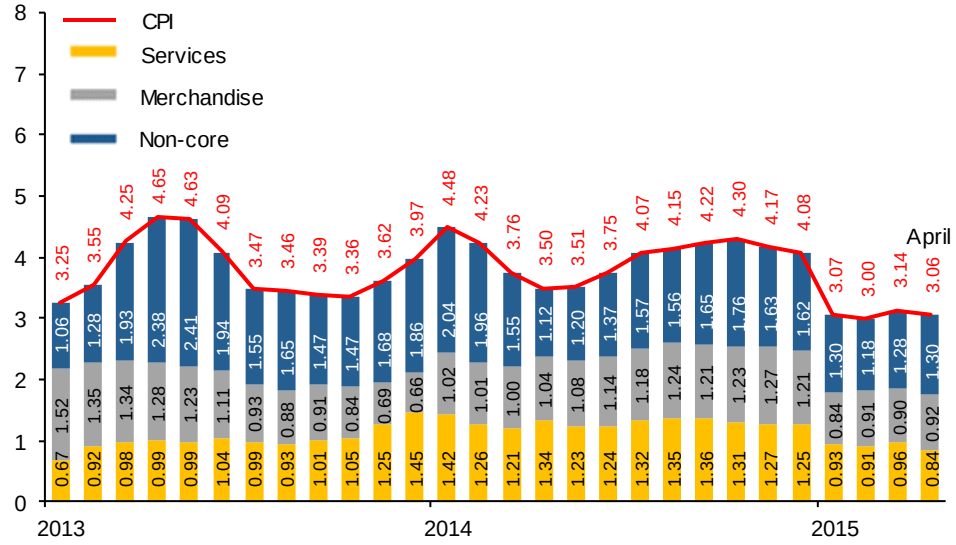
Chart 5
Core Price Index
Annual change in percent



Source: Banco de México and INEGI.

[2] Annex 1 includes charts with a greater disaggregation of price subindices within the CPI, similar to those published in previous Reports.

Chart 6
Consumer Price Index
Annual occurrence in percentage points 1/



1/ In some cases, the sum of respective components can differ due to rounding.
Source: Prepared by Banco de México with data from INEGI.

On the other hand, the contribution of non-core inflation to headline inflation also decreased in recent months (Chart 6). Indeed, this indicator shifted from an average annual change of 6.99 to 5.17 percent between the fourth quarter of 2014 and the first one of 2015, locating at 5.46 percent in April (Table 1). In this respect, a lower contribution of energy prices to headline inflation stands out, as they registered lower average annual change rates, plunging from 7.12 percent in the last quarter of 2014 to 3.82 percent in the first one of 2015. In this sense, it is noteworthy that:

- The average annual change rates of residential electricity prices were reduced due to the 2 percent decrease in regular rates in January 2015 and to lower rates of high consumption tariffs, which, in turn, were a consequence of the dynamics in fuel prices used for their production, in particular, fuel oil and natural gas. Thus, average annual change rates of residential electricity costs shifted from 4.08 to 0.07 percent between the last quarter of 2014 and the first one of 2015. It should be noted that energy price decreases not only favorably affected inflation directly, but also indirectly, via lower costs for businesses. Thus, in the first quarter of 2015, the average annual change rate of electricity rates for industrial use was -8.68 percent, while in the previous quarter it was 2.67 percent. The fall in high tension rates, which in the reference quarter observed an average annual decrease of 11.56 percent, stood out in the referred reduction.

- The average gasoline price went down as a result of reductions in this fuel prices in the cities of the Northern border, as well as due to lower increments with respect to last year in the cities not located at the Northern border, as this price has remained stable since January 1, 2015. Thus, the average annual growth rate of the gasoline price decreased

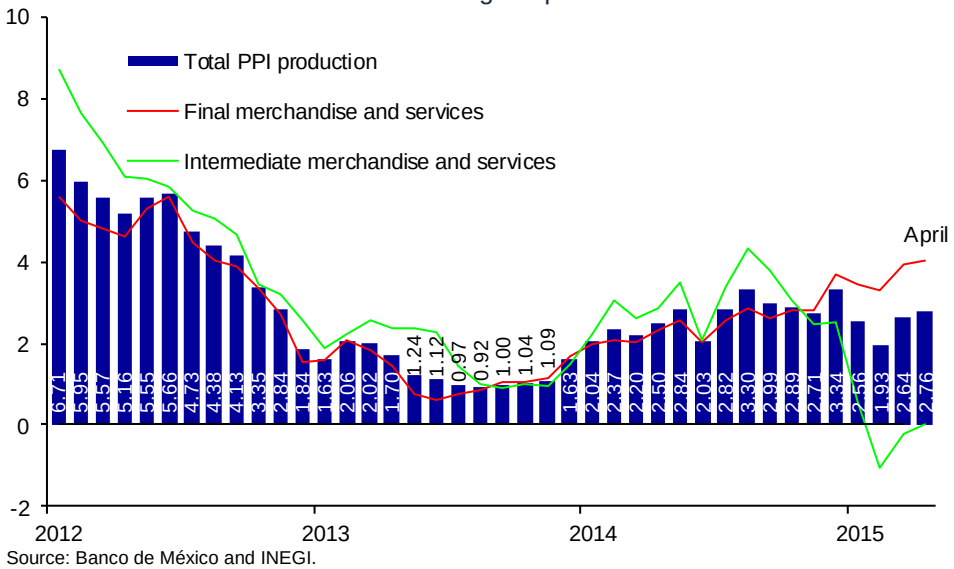
from 8.18 to 5.23 percent between the fourth quarter of 2014 and the first quarter of 2015.

- The average annual change of natural gas for domestic use reduced, as a result of its lower price at the international level, changing from an average annual change of 3.80 to -12.65 percent between the last quarter of 2014 and the first one of 2015. In this period, the average annual change of the price of the LP gas for domestic use went down from 9.00 to 8.13 percent, while its price registered a sole increase of 1.92 percent in January 2015.

2.2. Producer Price Index

In March 2015, the Producer Price Index (PPI) of total production, excluding crude oil, presented an annual growth of 2.64 percent, while in December 2014 it was 3.34 percent (Chart 7). This performance is mainly accounted for by lower prices of some goods and services of intermediate consumption, among which industrial electricity rates, natural gas, oil-based products, chemical industry and telephone services stand out. These reductions offset higher prices of final merchandise and services of this index, which increased as a result of the evolution of prices in Mexican pesos of some export goods, such as transport and computer equipment. Subsequently, in April total PPI, excluding crude oil, observed an annual change rate of 2.76 percent.

Chart 7
Producer Price Index
Annual change in percent



Source: Banco de México and INEGI.

3. Economic and Financial Environment

3.1. International Environment

During the period covered by this Report, economic activity remained weak in practically all regions of the world, and inflation levels continued being low. In this context, different central banks of both emerging and advanced economies adopted more accommodative monetary policies. Despite the support to the world economy stemming from lower crude oil prices, differences in the economic prospects persist across countries. In the U.S., the expectation that the economy will resume its recovery rate suggests that at some point of this year the process of the monetary policy normalization might begin. On the contrary, in the Euro zone and Japan, among other economies, lax monetary policies are expected to continue for a prolonged period of time, given the weakness still presented by their activity. In this environment, volatility in international financial markets remained high, above all given the uncertainty regarding the beginning and the subsequent rate of the monetary policy normalization in the U.S.

3.1.1. World Economic Activity

In the first quarter of 2015, growth in the U.S. decelerated more than anticipated by economic analysts, from an annualized quarterly rate of 2.2 percent in the previous quarter to that of barely 0.2 percent, in part, due to transitory factors, such as adverse weather conditions and labor disputes in U.S. ports on the western coast. On the other hand, the U.S. dollar appreciation and the fall in mining also affected negatively the economic activity. These factors were reflected in a greater than expected weakness of the main components of aggregate demand and manufacturing production. In particular, private consumption slowed down considerably, despite the fact that improvement in the labor market and lower energy prices increased the disposable personal income during the quarter (Chart 8a). The contraction in net exports also diminished the dynamism of the economic activity expansion in this period, in part, as a result of the U.S. dollar appreciation. Furthermore, low crude oil prices contributed to the moderated expansion of expenditure on equipment and to a severe contraction in infrastructure investment, particularly that related to exploration and drilling of oil and gas, while the recovery of residential investment weakened.

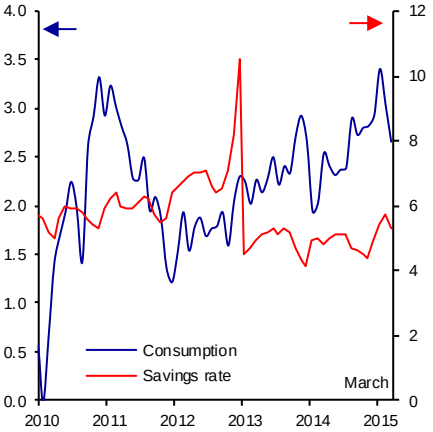
In the reported period, industrial production contracted at an annualized quarterly rate of 0.7 percent (Chart 8b), following a robust growth of 4.6 percent in the last quarter of 2014. This was contributed to by the fall of 1.0 percent in manufacturing production and of 4.5 percent in mining, affected by a slowdown in the oil sector activity. In April, industrial production kept contracting in light of a continuous weakness of manufacturing, a further decrease in mining and a reduction in the services related to changes in weather conditions.

In line with the evolution of economic activity, employment growth moderated with respect to the end of 2014. In particular, in the first quarter of 2015, an average of 184 thousand non-farm jobs were generated a month, which is lower than 324 thousand jobs registered on average during the last quarter of 2014. In April, the number of employments slightly recovered, increasing to 223 thousand. The unemployment rate went down insignificantly from 5.6 to 5.4 percent between

December and April. However, some indicators, such as the number of part-time jobs and the labor participation rate, still suggest certain slackness in the labor market, which was reflected in a still moderate increase of the wage indicators' growth rate (Chart 8c).

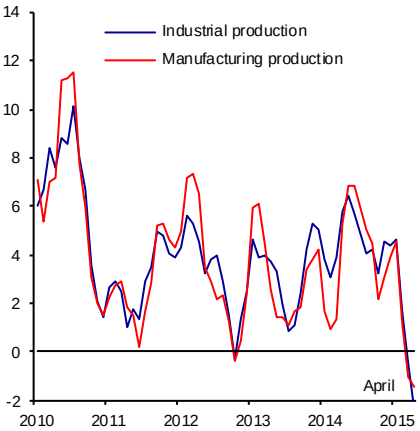
Chart 8
U.S. Economic Activity

a) Private Consumption and Savings Rate
Annual change in percent, s. a., and in percent of personal disposable income



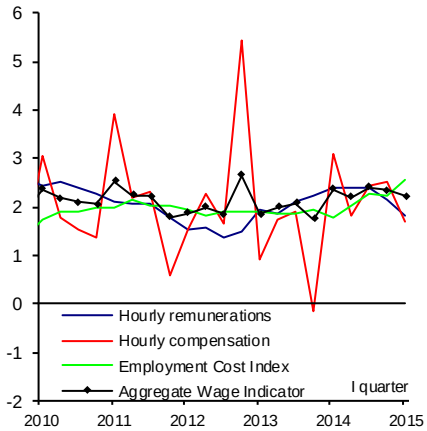
s. a. / Seasonally adjusted data.
Source: BEA.

b) Industrial and Manufacturing Production
Quarterly change of 3-month moving average annualized in percent, s. a.



s. a. / Seasonally adjusted data.
Source: Federal Reserve.

c) Wage Indicators
Annual change in percent

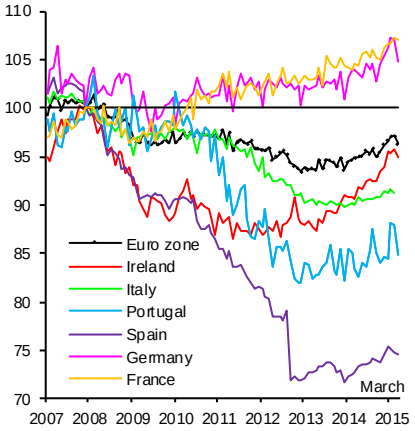


Note: The aggregate wage indicator is calculated based on the first main component of the other three wage indicators.
Source: Prepared by Banco de México with data from BLS, Haver Analytics and Goldman Sachs.

Economic activity in the Euro zone improved slightly, even though from low levels, with a GDP growth of 1.6 percent at an annualized quarterly rate, as compared to 1.3 percent in the previous period. This evolution was contributed to by lower energy prices and the euro depreciation, in a context of an extremely accommodative monetary policy and less tight financial conditions. Specifically, consumption measured by means of retail sales registered a moderate but generalized growth in the first months of the year (Chart 9a). The monetary easing expansion was reflected in lower interest rates of credit to non-financial corporations, in greater demand for credit and in a recovery of consumers' and businesses' confidence (Chart 9b and Chart 9c). On the other hand, the Euro depreciation is still granting greater competitiveness to exports in the region, while investment keeps indicating weakness. Although the Euro zone economic prospects improved given the implementation of a new monetary stimulus, there is a high degree of slackness in the economy and the risk of a deterioration in financial markets still persists, given the complex situation of Greece.

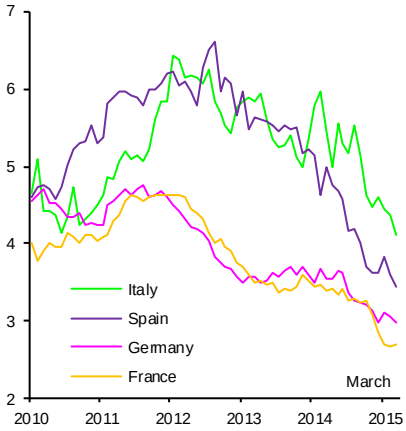
Chart 9
Euro Zone Economic Activity

a) Retail Sales 1/
Index December 2007=100, s. a.



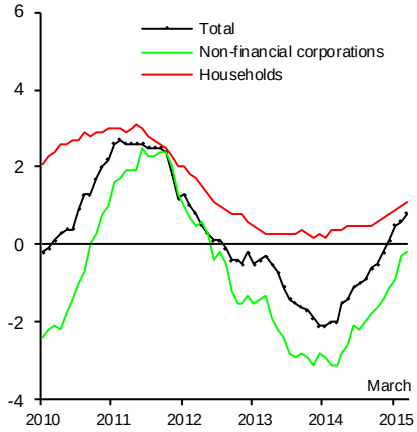
s. a. / Seasonally adjusted figures.
1/ Car sales excluded.
Source: Eurostat.

b) Interest Rates of Bank Credit to Non-financial Corporations
Percent



Note: Loan ratio over EUR 1 million and with a 1 to 5-year term.
Source: ECB.

c) Credit to Private Sector 1/
Annual change in percent



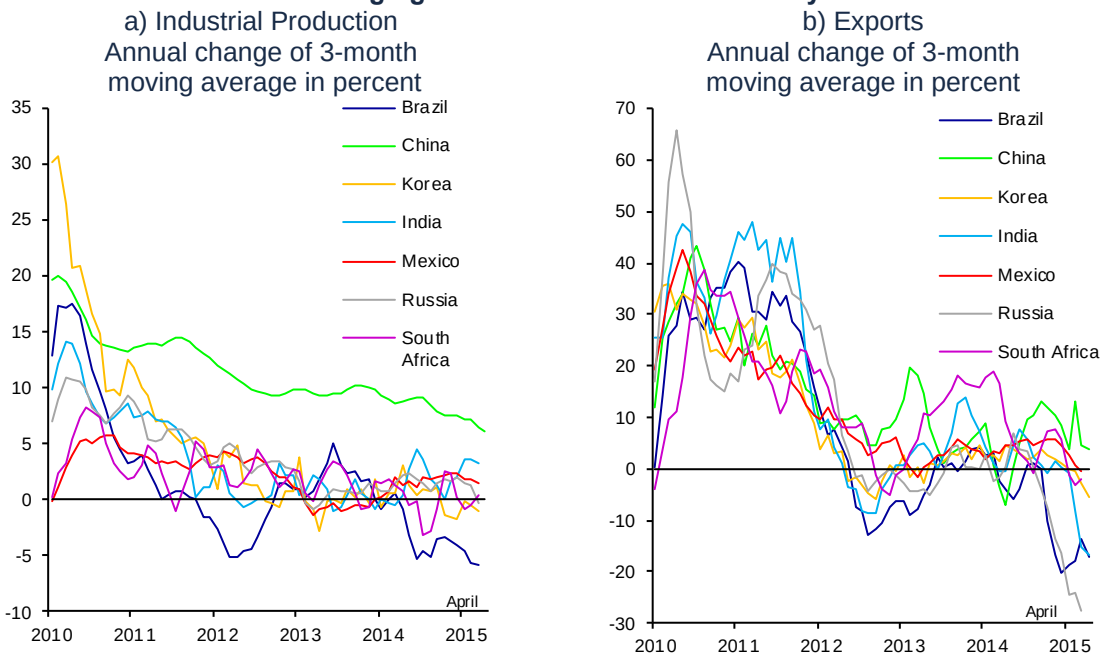
1/ Data adjusted by sales and the securitization of portfolio.
Source: ECB.

According to preliminary data, the economic activity expansion in the U.K. moderated at an annualized quarterly rate to 1.2 percent during the first quarter of 2015, from a rate of 2.5 percent in the last quarter of 2014. This lower dynamism was attributed to both a fall in industrial production and in construction, and a lower contribution of the services' sector. As regards demand, the timely indicators show a continuous growth of private consumption, which is, in turn, boosted by lower crude oil prices and their impact on real income, earnings in employment and improved consumer confidence. Still, weakness observed in residential investment accentuated at the beginning of the year, while there are signs indicating that the GBP appreciation is affecting exports.

The economy of Japan continued to grow slowly in the first quarter of the year. The expansion of consumption remained anemic, despite greater profits derived from low energy prices and an improvement in employment. However, lower crude oil prices, combined with the weakness of the Yen contributed to increased corporate profits, reason for which the outlook for investment in businesses is favorable. In turn, the Yen depreciation still represents a positive factor due to the expansion of exports, although there is concern regarding the repercussions for trade, as a result of the economic slowdown in China.

In most emerging economies, growth continued weak, reflecting the slowdown of their domestic demand, lower commodity prices, the fall in the growth rates of exports and unfavorable financing conditions (Chart 10). The economic outlook for this group of countries, including China, Russia and Brazil, among others, has adjusted downwards. This slowdown, as well as the deteriorated terms of trade, increased external and fiscal vulnerabilities of some of these economies. Furthermore, the expectation of an increase in the U.S. reference rate and the resulting generalized appreciation of the USD deteriorated the access conditions to international financial markets, which could imply a risk to some of these countries' corporations, which increased their foreign financing in recent years.

Chart 10
Emerging Economies' Economic Activity

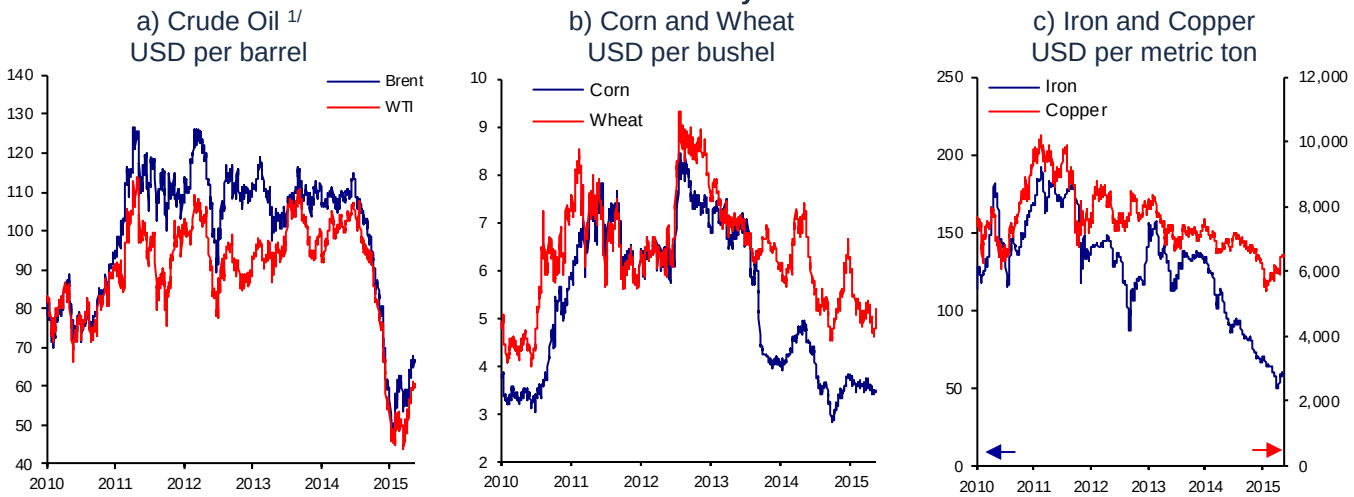


Source: Haver Analytics.

3.1.2. Commodity Prices

Commodity prices remained at low levels during the first quarter of the year, following major falls over the previous two quarters. Crude oil prices recovered starting from mid-first quarter, as a result of higher demand for oil refined products in the U.S. and Canada, a lower supply, propitiated by smaller exports from Iraq, Libya, Mexico and Russia, as well as by increased geopolitical risks in the Middle East (Chart 11a). However, there are downward risks to crude oil prices, related to the possibility that it in the end it will exceed the storage capacity, given a strong inventory accumulation, and to a possible increase in supply by OPEC member states. On the other hand, grain prices, in particular wheat prices, kept falling in light of a greater world supply and a favorable outlook for its production (Chart 11b). Finally, industrial metal prices remain depressed, reaching in the first quarter of 2015 their minimum level in over 5 years, given the weakness of demand, attributed to the moderation of the manufacturing activity in some of the major economies, such as China (Chart 11c).

Chart 11
International Commodity Prices [1/]



1/ Mercado Spot.
Source: Bloomberg.

3.1.3. Inflation Trends Abroad

During the first quarter of the year, global inflation kept decreasing to very low levels, which mainly reflected the reduction in crude oil prices, as well as the still persisting slackness in the majority of the main economies (Chart 12). Over the following months, inflation is expected to remain at low levels, there is even a possibility that some advanced countries may observe slightly negative readings. Long-term inflation expectations implicit in market instruments for advanced economies, in general, stopped the downward trend, although they remain below their respective targets. Thus, risks that depressed and/or negative inflations may affect the anchoring of inflation expectations still cannot be ruled out.

Annual inflation in the U.S. was negative in the first quarter of the year for the first time since 2009, presenting -0.1 percent in March. Likewise, the annual change of the personal consumption expenditure deflator also went down to 0.3 percent, as compared to 0.8 percent in late 2014. This evolution was contributed to by the still low energy prices, the effect of the USD appreciation on imports' prices and absence of labor cost-related pressures. On the other hand, core inflation indicators increased slightly with respect to the end of last quarter, even though they remain below the 2.0 percent target of the Federal Reserve. Thus, the annual change of core consumer prices located at 1.8 percent in March, as compared to 1.6 percent in last December. Annual inflation of the core consumption expenditure deflator has remained at 1.3 percent since the end of 2014. On the other hand, long-term inflation expectations implicit in market instruments stabilized during the quarter at a level of 1.9 percent, after a downward trend registered from mid-2014.

As regards the Euro zone, the change in consumer prices stopped being negative, even when risks of deflation cannot be ruled out. After reaching a minimum of -0.6 percent in January, annual headline inflation lied at 0 percent in April, given a smaller annual fall in energy prices and a greater growth of food prices. Nonetheless, inflation excluding food and beverages kept going down form 0.8 percent at the end of 2014 to 0.6 percent in April. The evolution of prices remains a source of concern in the region, as inflation and its expectations are much below

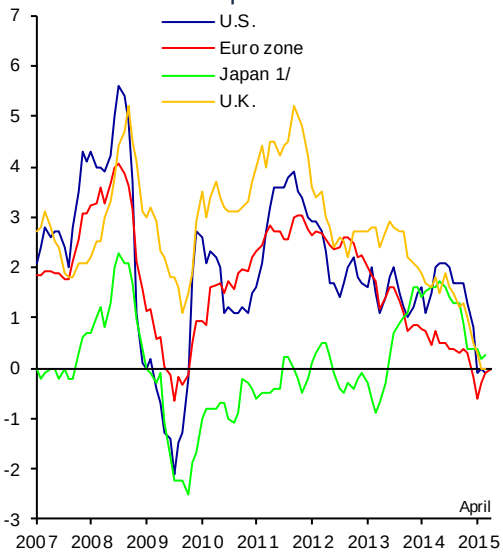
the European Central Bank (ECB) target, that is a figure close but below 2.0 percent. This institute expects a rebound in headline inflation starting from the end of 2015, as a result of a greater monetary easing, the Euro depreciation and an expectation of a moderate recovery of crude oil prices.

In the U.K., annual headline inflation dropped during the quarter and located at 0 percent in March, while core inflation lied at 1.0 percent, the lowest figure since 2006. Just as the rest of advanced economies, the inflation decrease in this country keeps reflecting the fall in crude oil prices, as well as lower food prices, given the GBP appreciation. In Japan, headline inflation, excluding the upward effect in the consumption tax, also maintained its downward trend and located at 0.3 percent in March, as compared to 0.4 percent in last December.

In most emerging economies, the net impact of the fall in commodity prices translated in lower inflation. However, in other economies, the depreciation of their currencies against the USD, the macroeconomic imbalances and changes in the policy of administered prices have more than offset the previous effect, generating increments in inflation.

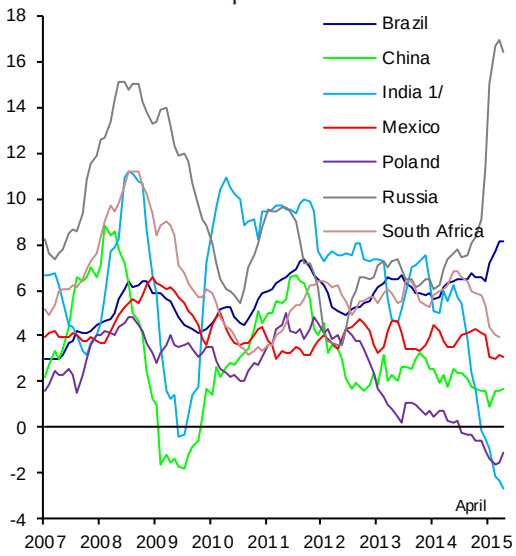
Chart 12
Annual Headline Inflation in Advanced and Emerging Economies

a) Advanced Economies
In percent



1/ It excludes the direct effect of the increment in the consumption tax.
Source: BLS, Eurostat and Statistics Bureaus of Japan.

b) Emerging Economies
In percent

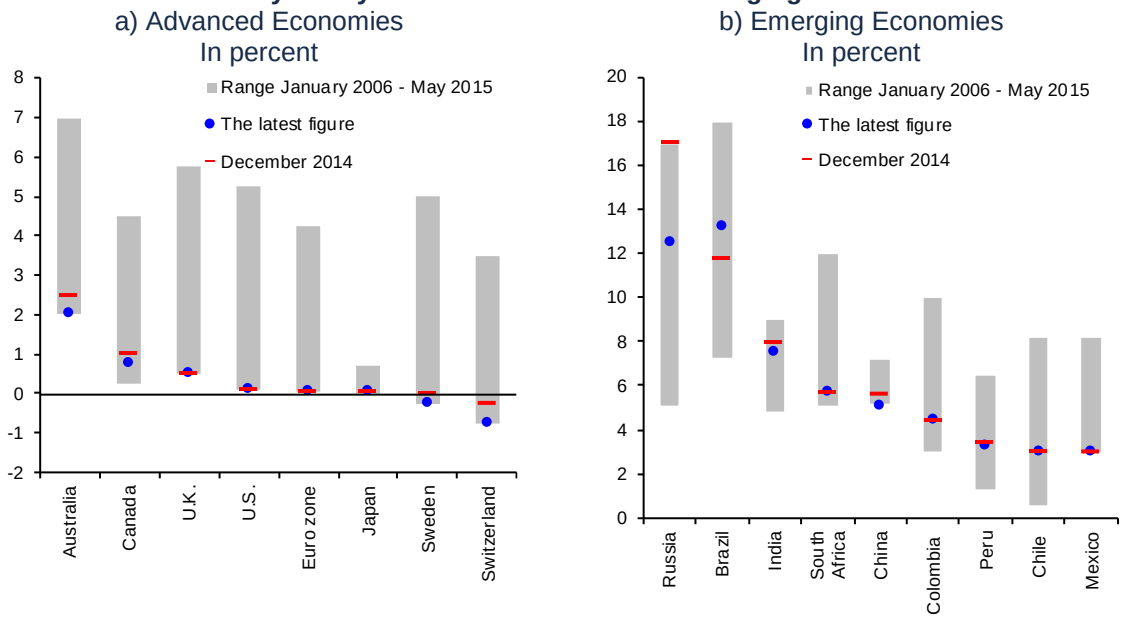


1/ It refers to inflation of wholesale prices.
Source: National Statistics Bureaus and Central Banks.

3.1.4. Monetary Policy and International Financial Markets

During the period covered by this Report, the monetary policy of the main economies remained accommodative and in some cases additional monetary easing measures were taken, which took the market by surprise (Chart 13). In contrast, the expectation that the Federal Reserve will start the normalization process of its monetary policy at some point of the year prevails. This divergence in monetary policy stances contributed to high volatility in financial markets and generated concerns regarding the possible risks to growth and world financial stability.

Chart 13
Monetary Policy Rates in Advanced and Emerging Economies



Source: Haver Analytics.

In its March meeting, the Federal Reserve changed its forward guidance, indicating that it will increase the target range of the federal fund rate once further progress in the labor market is observed and once it is reasonably sure that inflation will resume its 2 percent target in the medium term. Furthermore, it pointed out that this change does not imply that it has been decided when the first increment in its interest rate target range will occur, and reiterated that its future monetary policy actions will depend on the performance of the economic activity, the labor market and inflation. In this context, various members of the Federal Open Market Committee expressed their expectation that the said rate of increments in the policy rate will be gradual, given the recent evolution of economic activity in that country. This Committee also adjusted downwards its growth outlook, inflation and unemployment rate for the next years. Subsequently, in its April meeting, this Institute maintained unchanged its trajectory of the monetary policy trend, but modified its evaluation of economic activity, employment and inflation. In particular, the moderation in the expansion of the main aggregate demand components in the first quarter of the year, the moderate progress in bringing down the degree of slack in the labor market and the persistence of inflation at levels below its target were noteworthy. Besides, the drop in exports, which were affected by the generalized USD appreciation, stood out. This strengthened the perception that the initial increment in federal funds' rate will be postponed with respect to the previous estimate.

In the Euro zone, the ECB kept unchanged the reference rates and in March it began the purchase of Euro-denominated investment grade securities of the public sector in the secondary market, as part of the expansion of its monetary easing program. This has positively affected European financial markets, their financing costs and inflation expectations, particularly short-term ones. In its April reunion, the ECB discarded for the moment adjustments in its asset purchase program, mentioning that it seeks a sustained adjustment in its inflation trend, and it will require it to continue until September 2016 or even longer, if necessary.

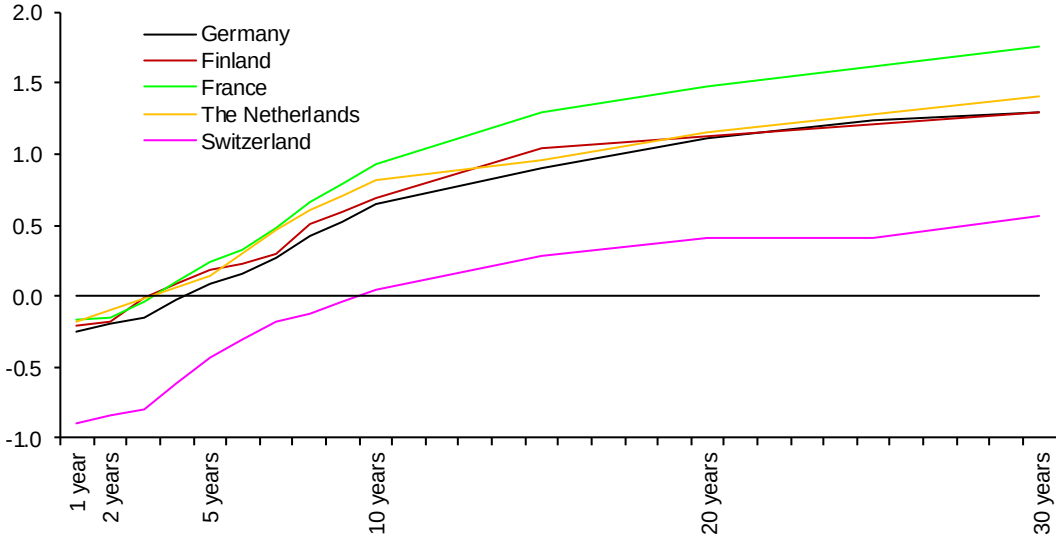
The Bank of England maintained its reference rate at 0.5 percent and kept unchanged the forward guidance for its reference rate during the period covered by this Report. Furthermore, it did not modify the stock of its asset purchase program, leaving it at GBP 375 billion. In its Inflation Report of May 2015, this Institute lowered the forecast for growth for the following three years, partly due to the low dynamism of productivity, while it maintained its expectation that inflation will lie at 2 percent in the next 2 years. However, it stressed that the period of low inflation that will prevail in 2015 may imply downward risks.

In its April meeting, the Bank of Japan ratified its monetary easing program to achieve its 2 percent inflation target announced last October. Thus, it maintained its goal to increase the monetary base at an annual rate of JPY 80 trillion, as well as its decision to keep buying government bonds and other instruments. Furthermore, it noted that medium- and long-term inflation expectations, affected by the performance of wage negotiations, recovered.

In the above described context for the monetary policy of advanced economies, it should be noted that the ECB's program of bond purchase propitiated the reduction of yields of sovereign bonds in some European countries to historic lows, while in early May they partially reverted. Thus, different countries in the Euro zone observed negative yields in terms of up to seven years, as is the case of Germany (Chart 14). Other countries outside the Euro zone, such as Switzerland and Denmark, also showed negative yields over most of their yield curve, largely as a response to the measures adopted by their central banks so as to face strong capital inflows and pressures of their currencies' appreciation, following the expansion of the ECB's program of asset purchase.

In this regard, although this decrease in long-term interest rates to negative levels supports the recovery of economic activity, uncertainty prevails regarding the possible implications for financial markets, economic activity and fiscal sustainability in the Euro zone in the medium term. Specifically, these negative rates are starting to affect the intermediation margins, while banks still did not pass them through completely onto depositors. Thus, lower spreads could affect banking institutions' willingness to grant new financing or could cause them to increase their costs, which would reduce the effectiveness of the monetary stimulus. On the other hand, these institutions have been adjusting their balances towards assets with higher yields, including the USD-denominated ones, which implies a greater exposure to changes in interest rates and exchange rates. Furthermore, negative interest rates also adversely affected other financial institutions, in particular, pension funds, when they lowered the profitability of their investments in the medium and long term. Finally, the temporary relief given by low interest rates reduced the incentives for the governments to continue with the process of fiscal consolidation in the Euro zone, which implied risks to the sustainability of debt in the medium and long term.

Chart 14
Yield Curve of Government Securities in Advanced Economies
Percent



Note: Data as of May 18, 2015.
Source: Bloomberg.

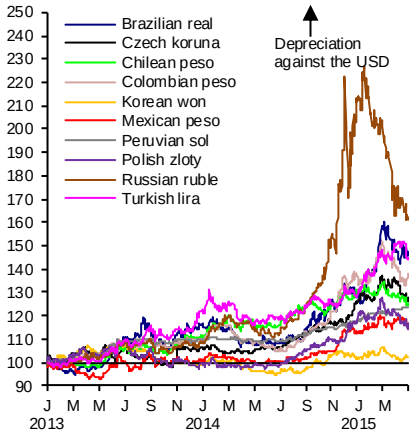
Strong shifts in exchange rates, combined with growing spreads in the interest rates of the main advanced economies with respect to those of the U.S., also could have implications for financial and macroeconomic stability worldwide. This is derived from the search for yield, implied by an excessive risk-taking, which could aggravate the recent trends in exchange markets. The above said generated fears that, given abrupt changes in investment portfolios at the international level, considerable capital outflows in emerging economies and greater financing costs will be observed, due to the high indebtedness in the USD in some of these economies.

In emerging economies differences in the conduction of the monetary policy were still observed. On the one hand, the decrease in inflation, accentuated in some cases due to lower energy prices and weakness of the economic activity, have allowed the central banks of such countries as China and Korea to implement a greater easing in their monetary policies. On the other hand, in countries such as Brazil, despite the weakness of the economy, interest rates increased during the period in order to reduce its inflation propitiated by the depreciation in their exchange rates.

During the period covered by this Report, volatility in financial markets remained high, especially in the exchange markets. This volatility was significantly contributed to by the divergence in the outlook for the monetary policy stances of the main economies mentioned above. Furthermore, the continuous uncertainty regarding the beginning and the subsequent rate of the U.S. monetary policy normalization was reflected in greater sensitivity in the financial markets, in light of the release of new data, possibly due to the greater emphasis the Federal Reserve made on the fact that its future actions will depend on the economic performance. The differences in the monetary policy stances, in turn, generated a continuous appreciation of the USD with respect to most currencies during a great part of the first quarter, as a result of which various emerging economies intervened in the exchange market (Chart 15).

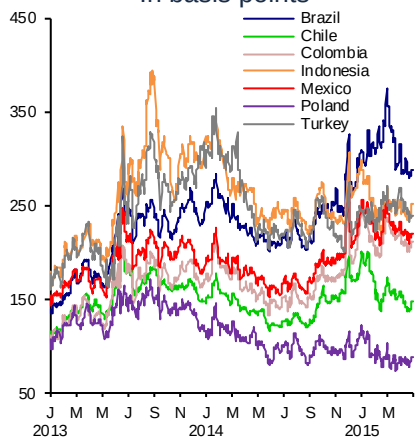
Chart 15
Financial Indicators of Emerging Economies

a) Exchange Rate
Index 01/01/2013=100



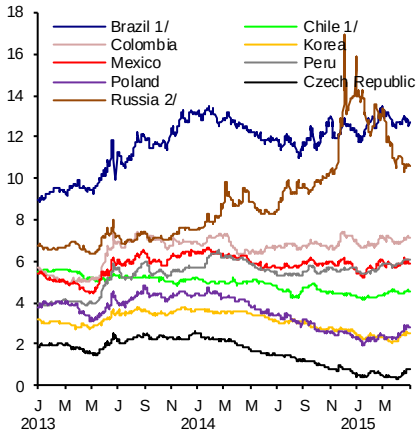
Source: Bloomberg.

b) Sovereign Spreads
In basis points



Source: Bloomberg.

c) 10-year Bond Yields
Percent



1/ It refers to 9-year bond.
2/ It refers to 8-year bond.
Source: Bloomberg.

3.2. Evolution of the Mexican Economy

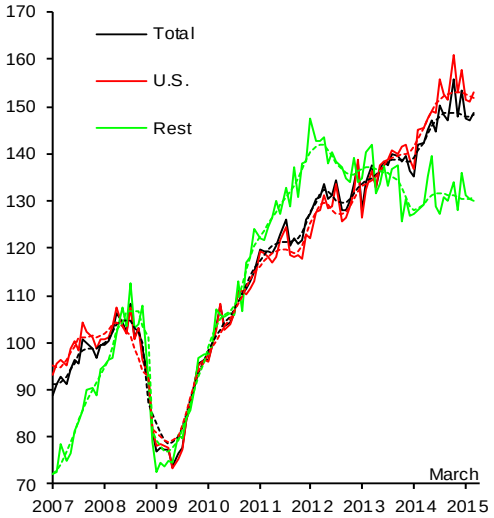
3.2.1. Economic Activity

Timely indicators suggest that in the first quarter of 2015 the Mexican economy kept registering a moderate growth rate. In particular, during that period exports registered a weak performance, while some components of domestic demand recovered to a certain extent.

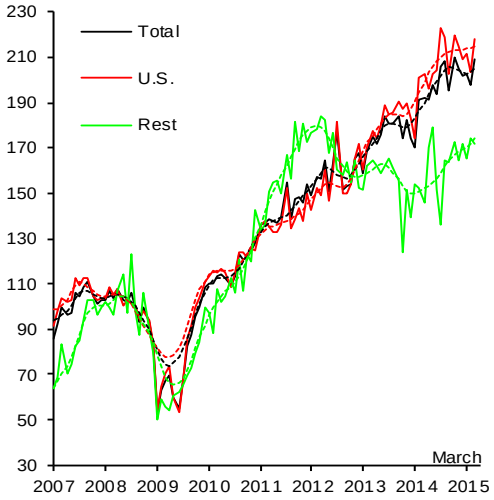
In the period of January – March 2015, manufacturing exports lost dynamism (Chart 16a). Indeed, both automobile exports and the rest of manufacturing exports presented a quarterly fall (Chart 16b and Chart 16c), possibly as a consequence of the temporary factors that affected the U.S. economic activity in that period. In this regard, although real depreciation of the Mexican peso favored Mexican exports, this effect was offset by lower demand in the U.S. In fact, given the fading out of the effect generated by these factors, manufacturing exports improved slightly in March. On the other hand, oil exports kept presenting a downward trend, derived from lower crude oil prices, given that, although the level of oil production platform decreased in the quarter, that of exports went up (Chart 16d).

Chart 16
Indicators of Exports
Index 2008=100, s. a.

a) Total Manufacturing Exports

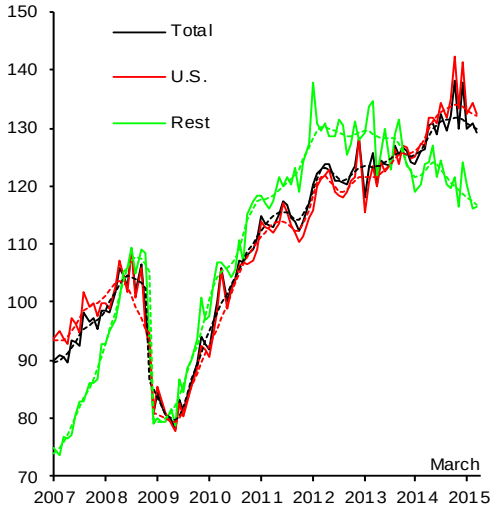


b) Automobile Manufacturing Exports



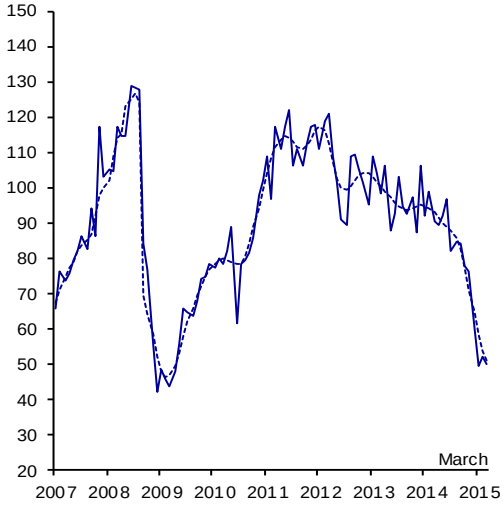
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from Working Group on Foreign Trade Statistics.

c) Non-automobile Manufacturing Exports



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from Working Group on Foreign Trade Statistics.

d) Oil Exports



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Working Group on Foreign Trade Statistics.

Some indicators of domestic demand suggest that in the first quarter of the year private consumption recovered moderately, with respect to the performance in late 2014. In particular:

i. The monthly indicator of private consumption in the domestic market performed favorably in the period of January – February (Chart 17a). Likewise, over the first months of 2015, both revenues of commercial

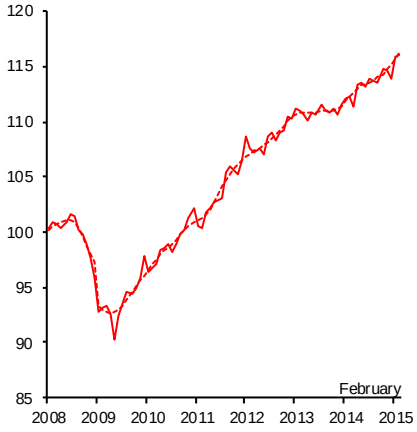
retail establishments and ANTAD sales increased their dynamism (Chart 17b and Chart 17c).

ii. In this context, some consumption determinants performed favorably. Specifically, over the first three months of 2015, workers' remittances showed a positive trend, although characterized by certain volatility (Chart 18a). Likewise, as will be seen further on in this Report, data as of the first quarter of 2015 suggest a slight rebound in the growth rate of consumer credit, as compared to late 2014 (see Section 3.2.3).

iii. Despite the above, some consumption determinants still have not clearly improved, reason for which a risk that the recent recovery of consumption could lose its dynamism still prevails. In particular, the real wage bill of workers in the economy remained at low levels, even though in the reported quarter it increased with respect to the previous one (Chart 18b). Likewise, although the consumer confidence index showed progress at the beginning of the year, in March and April it weakened again (Chart 18c).

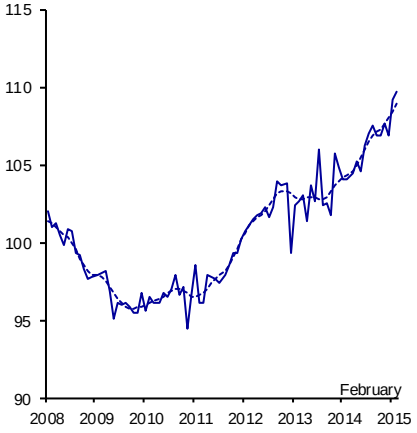
Chart 17
Consumption Indicators

a) Monthly Indicator of Private Consumption in the Internal Market
Index 2008=100, s. a.



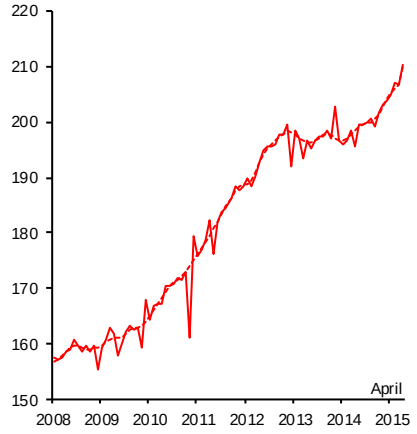
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: INEGI.

b) Revenues of Commercial Retail Businesses
Index 2008=100, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Monthly Survey of Commercial Businesses, EMEC, INEGI.

c) Total ANTAD Sales
Index 2003=100, s. a.



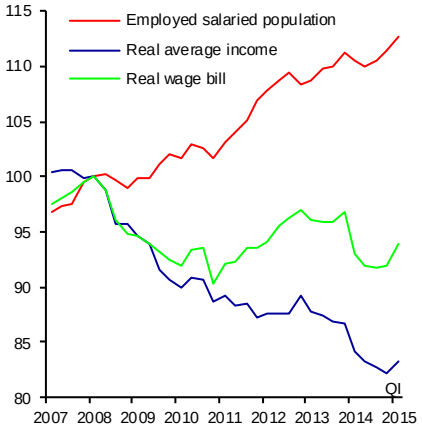
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Prepared by Banco de México with ANTAD data.

Chart 18
Consumption Determinants

a) Workers' Remittances
USD million, s. a.

s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México.

b) Real Total Wage Bill
Index I-2008=100, s. a.



s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from the National Survey on Occupation and Employment (ENOE), INEGI.

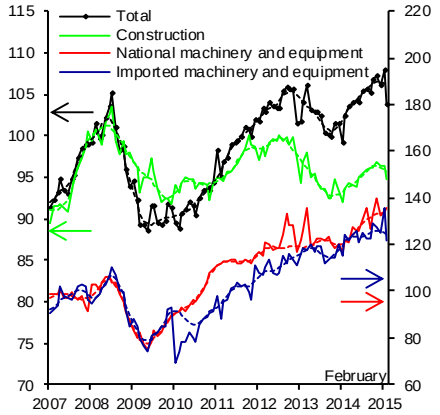
c) Consumer Confidence Index
Index Jan 2003=100, s. a.

s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: National Consumer Confidence Survey (ENCO), INEGI and Banco de México.

In the first months of 2015, gross fixed investment lost dynamism with respect to the recovery that had been observed since the second quarter of 2014. Among its components, investment in machinery and equipment evolved favorably (Chart 19a). In particular, in the first quarter of the year imports of capital goods recovered, after a contraction in the previous quarter (Chart 19b). Nonetheless, investment in construction fell in the first two months of 2015, which mainly derived from contracted investment in residential construction, while non-residential investment remained stagnated (Chart 19c).

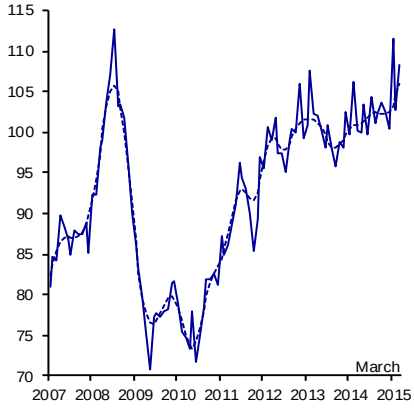
Chart 19
Investment Indicators

a) Investment and its Components
Index 2008=100, s. a.



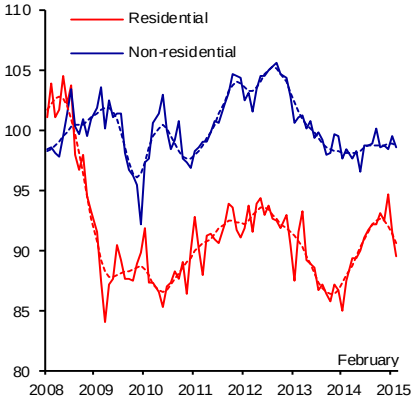
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's System of National Accounts, INEGI.

b) Imports of Capital Goods
Index 2008=100, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Working Group on Foreign Trade Statistics.

c) Investment in Residential and Non-residential Construction
Index 2008=100, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's System of National Accounts, INEGI.

In line with the indicated above, it is not surprising that productive activity expanded moderately in the first months of the year. In particular, industrial production stagnated, while the services' sector kept growing modestly (Chart 20a).

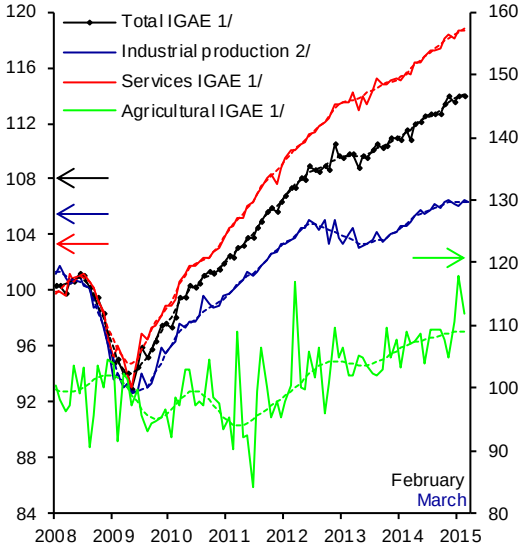
i. Within industrial activity, manufacturing production presented a weak growth trajectory (Chart 20b). Mining observed a negative trend, as a reflection of the decrease in the level of oil production in the first months of 2015, as well as a lower activity in the services related to this sector (Chart 20c). Furthermore, construction halted the recovery presented in the previous quarters. Lastly, the electric power industry registered a growing trajectory.

ii. The moderate growth of the services' sector in the first months of 2015 derived from an increase in those services related to domestic demand, while, in line with the decrease in the dynamism of external demand, the services related to foreign trade presented a weak performance (Chart 20d).

iii. The monthly seasonally adjusted growth of agricultural activities over the first two months of 2015, with respect to the average reached in the fourth quarter of 2014, largely derived from a larger cultivated area in the autumn-winter cycle, as a result of adequate levels of water storage in the main dams in the North of the country and greater production of the main perennial crops.

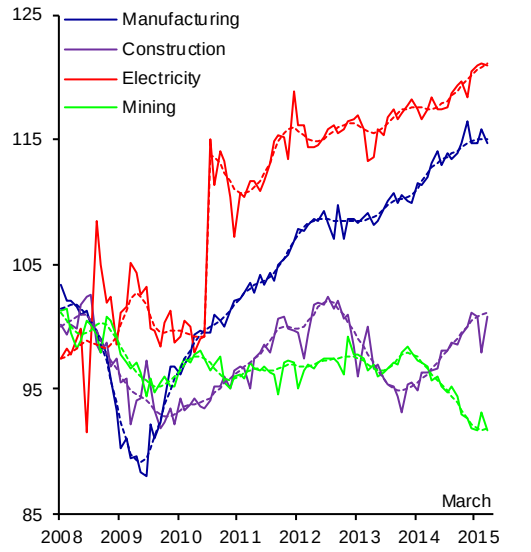
Chart 20
Indicators of Production

a) Economic Activity Indicators
Index 2008=100, s. a.



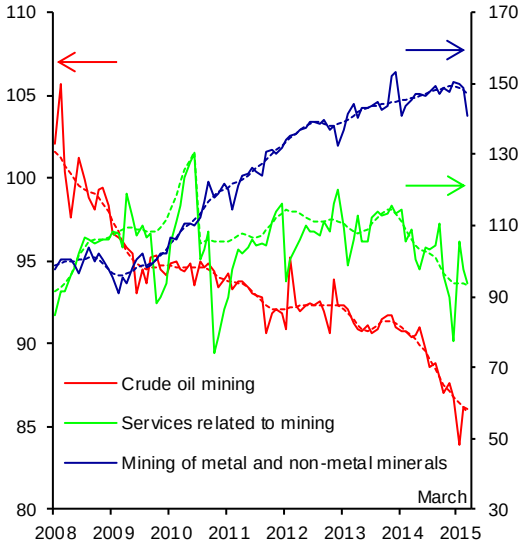
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Data as of February 2015.
2/ Data as of March 2015 with information of the Monthly Indicator of Industrial Activity.
Source: Mexico's System of National Accounts, INEGI.

b) Industrial Activity
Index 2008=100, s. a.



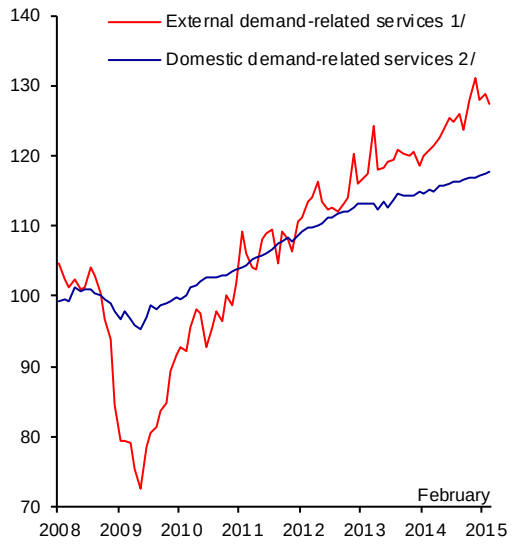
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Monthly Indicator of Industrial Activity, Mexico's System of National Accounts, INEGI.

c) The Mining Sector
Index 2008=100, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Monthly Indicator of Industrial Activity, Mexico's System of National Accounts, INEGI.

d) IGAE of the Services Sector
Index 2008=100, s. a.

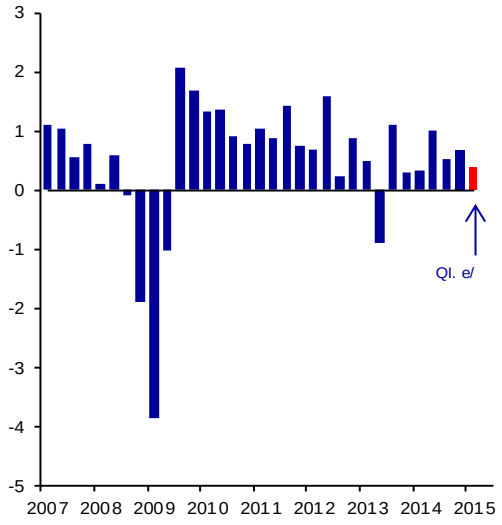


s. a. / Seasonally adjusted data.
1/ It includes commerce and transport sectors more related to external demand.
2/ It includes the remaining sectors of tertiary activities.
Source: Prepared by Banco de México with data from Mexico's System of National Accounts, INEGI.

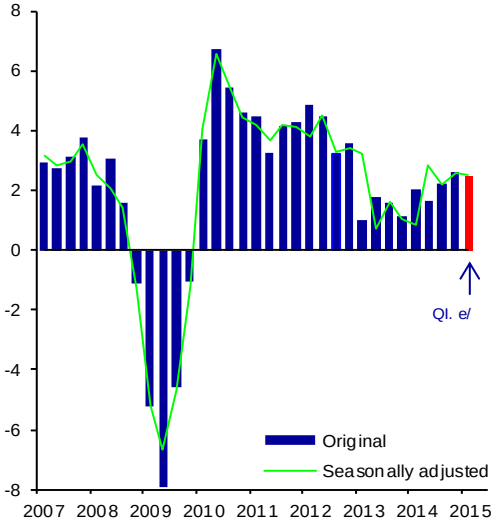
As a result of the abovesaid, for the first quarter of 2015, GDP is estimated to have increased at a quarterly seasonally adjusted rate of around 0.4 percent, which compares to the growth rates of 0.34, 1.03, 0.53 and 0.68 percent in the previous four quarters, respectively (Chart 21a). In annual seasonally adjusted terms, GDP growth is estimated to be around 2.5 percent for the first quarter of 2015, which contrasts with the increments of 0.9, 2.8, 2.2 and 2.6 percent in the previous four quarters. Based on data without seasonal adjustment, the annual change of GDP is estimated at 2.5 percent in the period of January – March 2015, as compared to 2.0, 1.6, 2.2 and 2.6 percent in the four previous quarters (Chart 21b).

Chart 21
Gross Domestic Product

a) Quarterly Change
Percent, s. a.



b) Annual Change
Percent

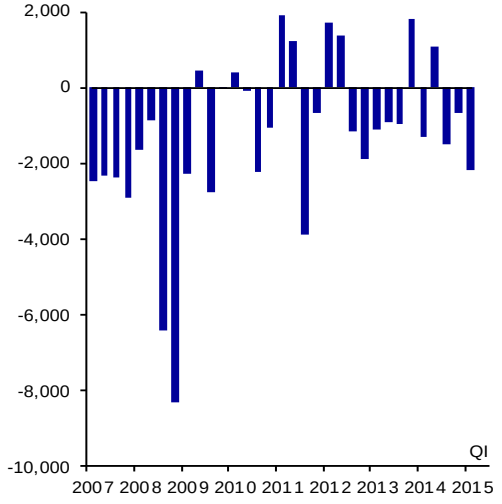


s. a. / Seasonally adjusted data.
e/ Estimated by Banco de México.
Source: Mexico's System of National Accounts, INEGI. Seasonal adjustment of the first quarter of 2015 was prepared by Banco de México.

Finally, in the first quarter of 2015, the trade balance registered a deficit of USD 2,183 million (Chart 22a). In turn, the most timely data suggest that in the same period the current account presented a moderate deficit and the country continued receiving capital inflows via the financial account sufficient to allow an easy financing of this deficit (Chart 22b).

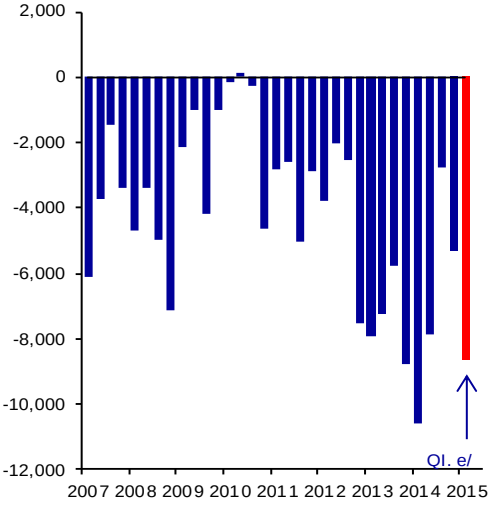
Chart 22
Trade Balance and Current Account
USD million

a) Trade Balance



Source: Working Group on Foreign Trade Statistics.

b) Current Account



e/ Estimated by Banco de México.
Source: Banco de México.

3.2.2. Labor Market

The latest data suggest that in the first months of 2015 a moderate improvement in the labor market continued to be observed. However, in line with the evolution of economic activity, slack conditions prevail in this market, reason for which upward pressures on the wage growth were not observed.

In particular, it stands out that:

i. The number of work-post affiliates to the IMSS kept presenting a growing trajectory (Chart 23a).[3] In this respect, it is possible that, in part, it may be a reflection of a greater entry of informal workers to the formal sector. In this context, total employment of the economy, despite an expansion in the first quarter, still does not present a clear recovery.

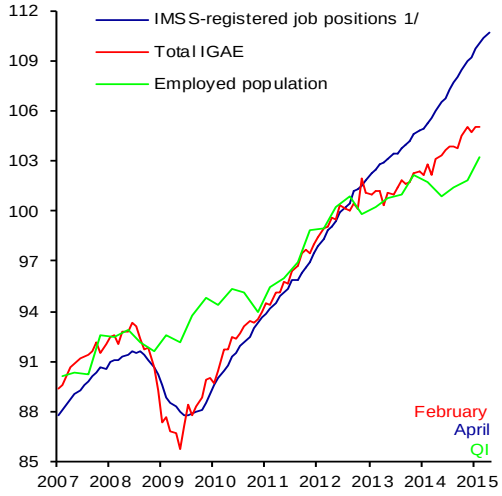
ii. In the first quarter of 2015, both national and urban unemployment rates continued with a downward trend, although they are still above the pre-crisis levels (Chart 23b).

iii. The reduction in unemployment rates occurred at the same time as the labor participation rate tended to increase in recent months (Chart 23c). Thus, in the first quarter of 2015 the (seasonally adjusted) national unemployment rate showed an average level of 4.3 percent, which was lower than the 4.5 percent observed in the last quarter of 2014.

iv. The indicators of employment in the informal sector and labor informality, which had been on a downward trend, stopped decreasing (Chart 23d).

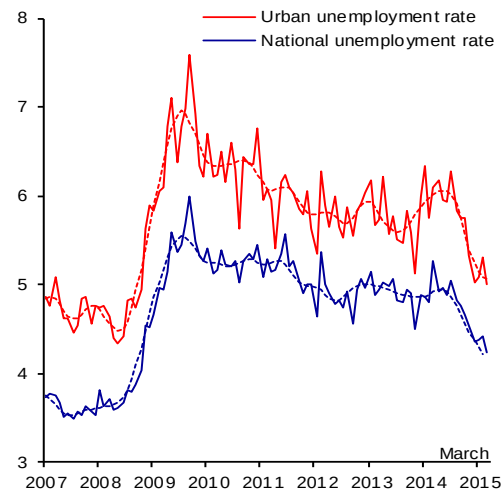
Chart 23
Labor Market Indicators

a) Work-post Affiliates to IMSS, Employed Population and Total IGAE
Index 2012=100, s. a.



s. a. / Seasonally adjusted data.
1/ Permanent and temporary jobs in urban areas. Seasonal adjustment by Banco de México.
Source: Prepared by Banco de México with data from IMSS and INEGI (SCNM and ENOE).

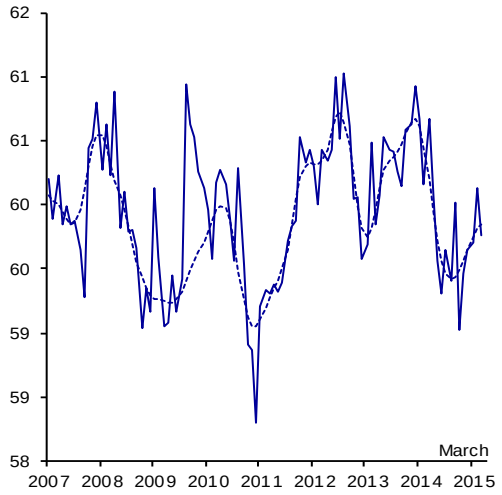
b) National and Urban Unemployment Rates
Percent, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

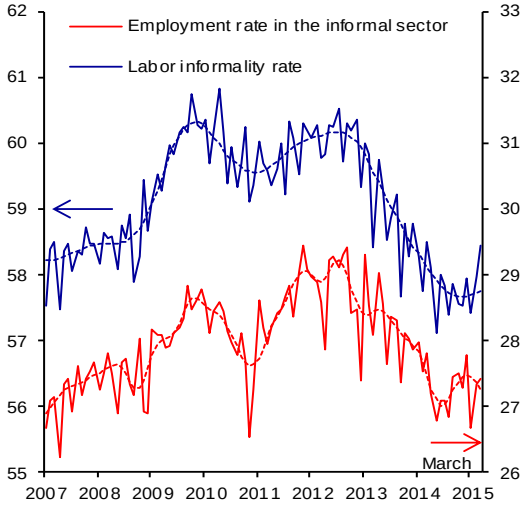
[3] The employment statistics reported by IMSS make a reference to the number of employments registered in this institute. In particular, according to its glossary of terms, as the worker can be affiliated to IMSS by means of several jobs, its indicator of job positions registers these insured workers as many times as the number of jobs they have.

c) National Labor Participation Rate [1/]
Percent, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Percentage of economically active population (EAP) with respect of the population of 15 years old and older.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

d) Employment in the Informal Sector [1/] and Labor Informality [2/]
Percent, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ It refers to individuals working in non-agricultural economic units, operating with no accounting records and that function by means of households' resources.
2/ It includes workers who, besides being employed in the informal sector, work with no social security protection and whose services are used by registered economic units, and workers self-employed in subsistence agriculture.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

The dynamics of the main wage indicators suggests that in the first months of 2015, firms generally did not face major problems in covering their labor needs. Indeed, wage increases remained at moderate levels. In particular:

i. During the first quarter of 2015, the growth rate of the average wage of total employed workers in the economy persisted at low levels (Chart 24a).

ii. In the period covered by this Report, the announced increment of the IMSS reference wage of work-posts affiliated in this institute (4.3 percent) was lower than that in the previous quarter (4.7 percent in the fourth one of 2014, Chart 24b).

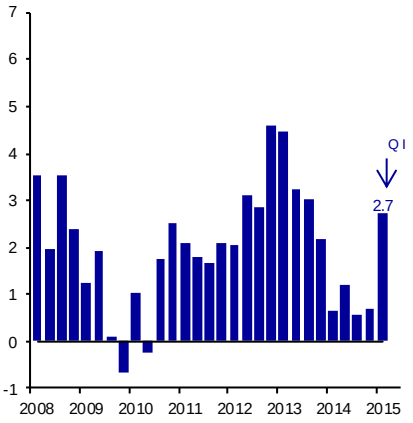
iii. In the first quarter of 2015, contractual wages negotiated by firms under federal jurisdiction presented a growth rate similar to that observed in the same quarter of the previous year (4.4 percent in the first one of 2015, with respect to 4.2 percent in the first one of 2014, Chart 24c). This performance resulted from the fact that, on the one hand, the negotiations by public firms in the first three months of 2015 resulted in an average increment lower than that in the same period of last year (3.4 percent in the first quarter of 2015, with respect to 3.7 percent in the same period of 2014), while, on the contrary, the negotiations of private firms led to an average of wage increments higher than those in the first quarter of 2014 (4.5 percent in the period of January – March 2015, with respect to 4.3 percent in the first quarter of 2014). A similar result persists with the data of April 2015, according to which contractual wages registered an annual

change similar to that of the same month in 2014 (4.1 percent in April 2015, with respect to 4.0 percent in April 2014).[4]

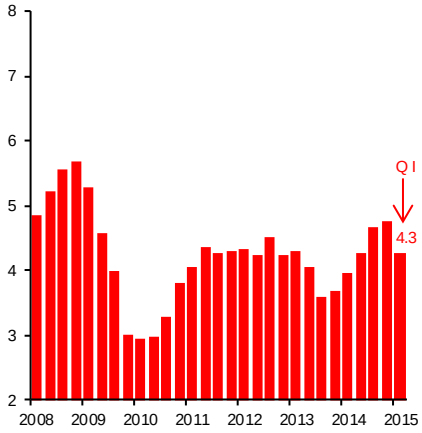
iv. Regarding the data on wages, it is also noteworthy that as of April 1, 2015 the National Minimum Wage Commission (CONASAMI) determined an average increment to the minimum wage in the geographical area "B" of 2.8 percent, which translated to a rise of 1.4 percent in the general minimum wage. The above was done in order to narrow the gap separating general minimum wages and professional minimum wages in the geographical area "B" from those in the geographical area "A".

Chart 24
Wage Indicators
Annual change in percent

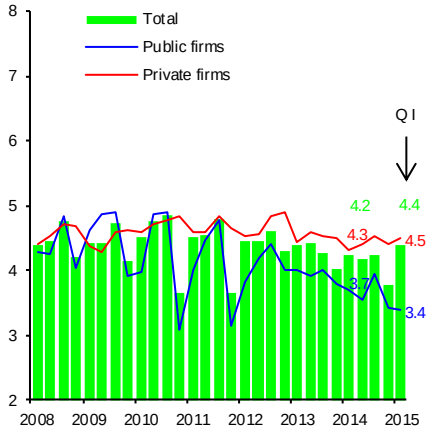
a) Average Wage of Salaried Workers according to the ENOE 1/



b) IMSS Reference Wage



c) Contractual Wage 2/



1/ To calculate the average monthly nominal wages, the lowest 1 percent and the highest 1 percent in the wage distribution were excluded. Individuals with zero income or those who did not report are excluded.
2/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.
Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE).

3.2.3. Financial Saving and Financing in Mexico

In the first quarter of 2015, the sources of financial resources of the economy increased at a rate similar to that registered in the previous quarter. This performance was accounted for by a higher expansion rate of domestic sources and a moderation in the dynamism of external ones.

With respect to domestic sources, the stock of domestic financial saving –defined as the monetary aggregate M4 held by residents minus the stock of currency held by the public– showed a growth rate greater than that registered in the previous quarter (Chart 25a). The above mainly derived from a greater dynamism of the compulsory savings' component, while the voluntary savings' component presented an expansion rate slightly higher than in the previous quarter (Chart 25b).

[4] In the fourth month of 2015, wages negotiated by private firms on average presented increments of 4.6 percent, while in the same month of last year they were 4.3 percent. In turn, wages negotiated by public firms increased on average by 3.4 percent in April 2015, while in the same month of 2014 they went up by 3.5 percent.

The annual growth rate of the monetary base increased as compared to the previous quarter, affected by the temporary impact of the intensification of election campaigns, as well as by higher demand for money by the public, due to the Easter vacation period.[5] Furthermore, the high growth rate of the monetary base in recent quarters also seems to have been affected by adjustments in the regulatory and fiscal framework in 2014, which could have led some economic agents to use cash instead of other means of payment (see Box 2).

[5] The monetary base is defined as the sum of currency in circulation plus current account bank deposits in Banco de México.

Box 2
Recent Evolution of the Monetary Base and Means of Payment

1. Introduction

In 2014, the monetary base increased its growth rate in an environment in which the growth rate of economic activity recovered moderately, inflation went up to levels slightly above 4 percent and interest rates reached historical lows. Given the role of Banco de México as an issuer of currency used in the economy and the importance of preventing an excess of monetary supply to achieve the inflation target, it is fundamental to understand the factors accounting for the recent evolution of the monetary base. Although the referred changes in the macroeconomic environment partially contribute to explaining the increase in money demand in 2014, they are not sufficient to capture the change in the monetary base dynamics.

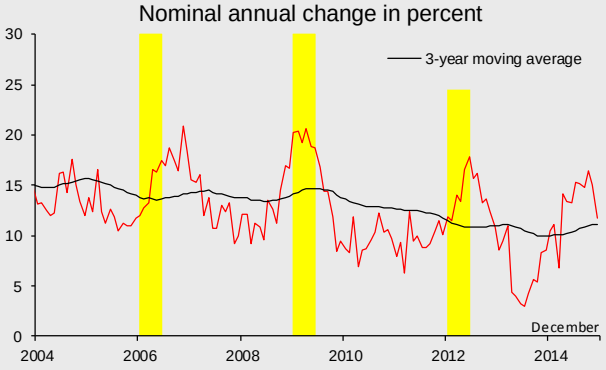
The purpose of this Box is to show that as a result of the fiscal changes and the regulation related to different means of payment –measures that took effect on January 1, 2014– individuals increased their use of cash and resorted less to other means of payment. To this end, we first describe the recent evolution of the monetary base. Next, we outline the main adjustments to the fiscal and regulatory framework, that were implemented in 2014 and which could have affected the dynamics of the monetary base, as well as that regarding the electronic means of payment and checks. Finally, we show evidence of changes in the dynamics of banknotes ATM withdrawals, as well as in the pattern of use of those means of payment different from cash, particularly credit card transactions. Furthermore, we show that higher demand for money was relatively greater in locations in the border states, which were proportionally more affected by the Tax Reform in 2014. It should be pointed out that banknotes and coins in circulation represent practically 100 percent of the monetary base.

The main results of this analysis indicate that in 2014 the growth rate of the monetary base was especially high as compared to that registered in previous years. Indeed, in line with the adjustments to the fiscal and regulatory framework that took effect in 2014 and that may have driven individuals to use more cash as compared to other means of payment, it is shown that during the year: i) banknotes ATM withdrawals increased; ii) the amount of transactions carried out with other means of payments went down, particularly those related to credit cards; and, iii) border states increased their demand for cash proportionally more than other Mexican states 2014.

2. Recent Evolution of the Monetary Base

The evolution of the monetary base in 2014 was characterized by a growth rate above its trend, something that has been typically observed only in election years (Chart 1).[1] Thus, the acceleration in the monetary base growth rate in 2014, which was a non-election year, occurred gradually and for reasons apparently unconnected to the evolution of economic activity, inflation and interest rates.

Chart 1
Monetary Base
Nominal annual change in percent



Source: Banco de México.
Note: The shaded areas refer to the six-month period prior to the month in which elections were held in 2006, 2009 and 2012.

3. Changes in Legislation with Possible Impacts on the Use of Cash

A greater growth of the monetary base could be explained by the changes in the fiscal and regulatory framework that took place in 2014, which could have created incentives to increase the demand for money. In particular:

i. **Changes in authorized deductions from the Income Tax (*Impuesto sobre la Renta*, ISR).** The introduction of a maximum amount for individual taxpayers' personal deductions from their Income Tax may have generated incentives to increase the use of cash. On the one hand, it reduces the incentives to use electronic payments and to request fiscal invoices, and, on the other hand, it increases the benefit of the service provider, when the price is negotiated and the payment is received in cash in order to avoid the payment of taxes.

[1] See Box 3 of the Inflation Report, October - December 2006.

ii. **Perception of greater supervision.** The greater auditing attributions set forth in the Tax Reform may have led some individuals to use banknotes and coins instead of electronic means of payment to ensure, for example, that their expenses paid by credit cards are congruent with their declared fiscal income.

iii. **Increase of VAT in the border region.** The equalization of the VAT in the border region from 11 to 16 percent could have generated incentives to increase the use of cash to avoid paying the corresponding tax. This modification of the fiscal framework could have derived from a rise in demand for cash that was proportionally greater in cities that are close to the border, since they face this adjustment in addition to the rest of the measures contemplated in the Tax Reform.

iv. **Reduction in the maximum amount allowed for bearer checks (from 20 to 5 thousand).** As a result of this measure, an individual receiving a payment of over 5 thousand pesos may have been driven to request payment in cash, in order to avoid obtaining a check made out to her name that would be subject to a tax audit.

In sum, adjustments to the fiscal and regulatory framework may have favored a greater use of banknotes and coins, which would have generated an increase in ATM withdrawals and a more limited use of means of payment different from cash.

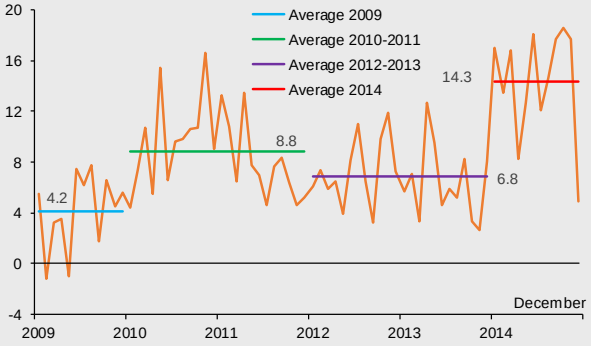
4. Recent Evolution of the Means of Payment

To identify if the referred regulatory changes may have prompted a substitution away from banknotes and coins in favor of means of payment different from cash, we analyze the behavior of: (1) ATM withdrawals; (2) transactions at a point-of-sale terminal with credit cards; (3) Interbank Electronic Payment System (*Sistema de Pagos Electrónicos Interbancarios*, SPEI) transfers of small value; and (4) check transactions.

In order to investigate if there is statistical evidence that the use of the referred means of payment different from cash displayed a different behavior in 2014 relative to their recent past, we carry out a counterfactual exercise that allows us to compare the observed trajectory of each series with that expected in accordance with a standard forecast model that considers an autoregressive term, as well as a proxy for economic activity and seasonal variables. In these exercises, each year's forecast was estimated using data up to December of the previous year.[2]

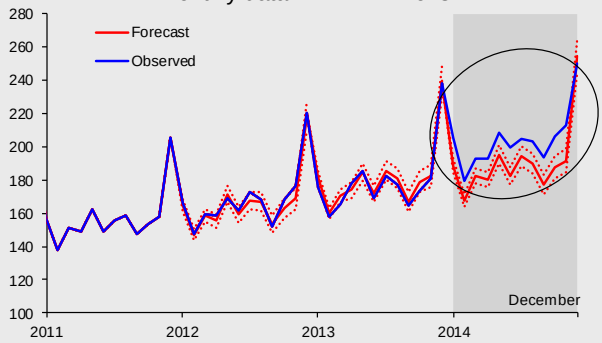
In 2014, the growth rate of ATM withdrawals showed a significant increase; in fact the annual change of this series was the highest since 2008 (Chart 2a). ATM withdrawals during the referred year were above one standard deviation with respect to the forecast, while in previous years the model had a good statistical fit (Chart 2b).

Chart 2a
ATM Withdrawals
Annual change in percent



Source: Association of Banks of Mexico.

Chart 2b
ATM Withdrawals*/
Monthly data in MXN millions



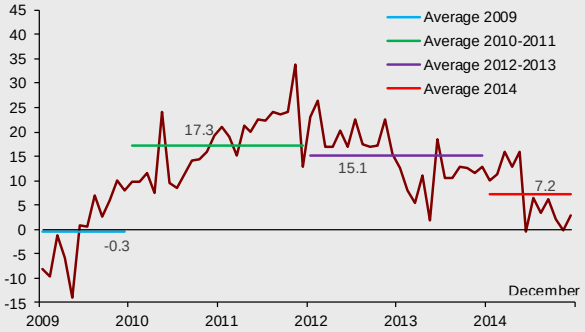
Source: Banco de México.

*/ The model used for the forecast includes two autoregressive lags, IGAE and seasonal terms. The dotted lines indicate the confidence interval of a standard deviation with respect to the central forecast.

[2] This general model attempts to capture the most important aspects of the dynamics of the various evaluated series. As it is shown, prior to 2014, the statistical fit of the model is good in general, even when a narrow confidence interval is used. Thus, the observed data are considered to be statistically different from the estimated series, if they lie outside the confidence interval of one standard deviation from the series point forecast.

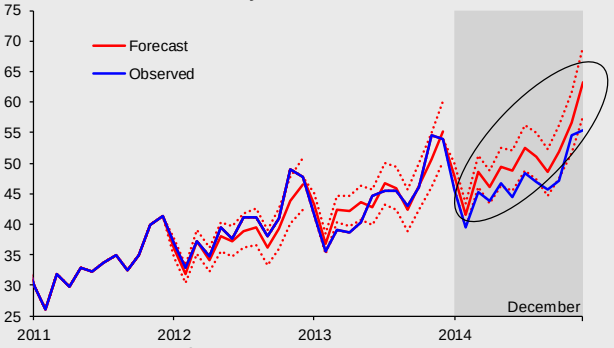
Even though credit card payments have moderated their growth rate in recent years, starting from late 2013 a lower dynamism is observed, in contrast to what would be expected, given the rebound in economic activity in 2014 (Chart 3a). In particular, in that year the observed values of credit cards' billing were below the forecast (Chart 3b).

Chart 3a
Transactions at Point-of-Sale Terminals with Credit Cards
Annual change in percent



Source: Banco de México.

Chart 3b
Credit Cards' Billing*/
Monthly data in MXN billion

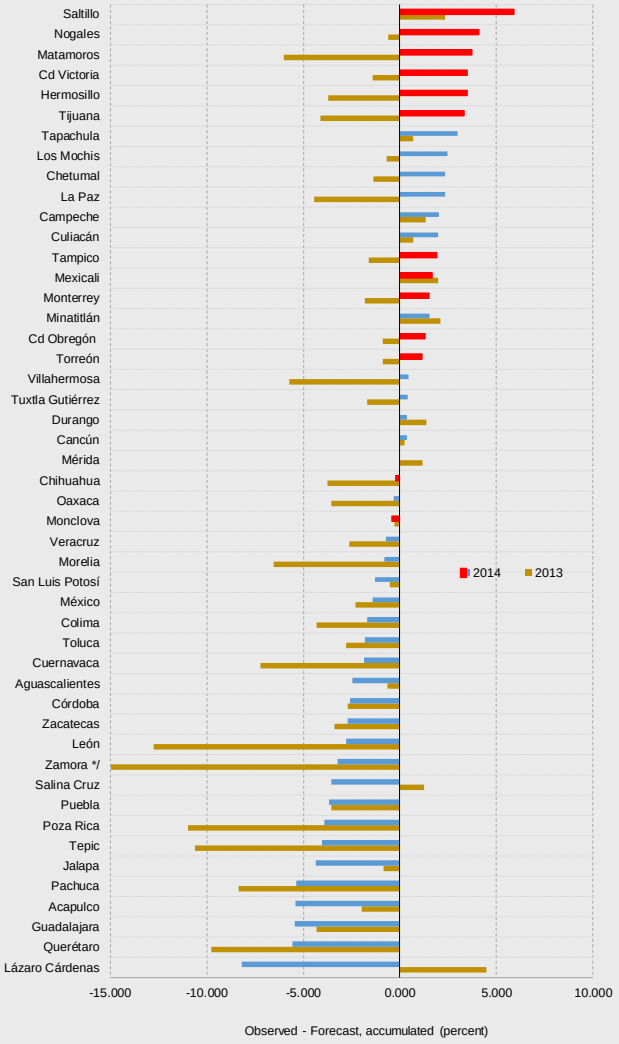


Source: Banco de México.

*/ The model used for the forecast includes two autoregressive lags, IGAE and seasonal terms. The dotted lines indicate the confidence interval of a standard deviation with respect to the central forecast.

Furthermore, the evidence also suggests that in 2014 reductions were observed with respect to previous years in transactions with other means of payment, particularly in the growth rate of payments to third parties under MXN 50 thousand carried out via SPEI – which would be more susceptible to being replaced by cash– and the average amount by check. The trajectories of these indicators observed in 2014 were below their corresponding forecast, especially during the first half of the year.[3]

Chart 4
Observed – Forecast of the Cash Flow by Location
Percent



Note : In 2014, red bars refer to cities in the Northern border states, while blue bars correspond to the rest of cities in the sample. Brown bars refer to 2013.

*/ For 2013, the figure is -29.3 percent.

[3] For the sake of brevity, charts similar to 2a, 2b, and 3a, 3b are not shown.

5. Use of Cash at the Regional Level

Although higher demand for cash, as a result of the Tax Reform, should be observed across the country, this effect may have been more accentuated in the border states, especially in the North, as a consequence of the VAT equalization in the border region. To identify possible differences in the net flow of banknotes by location, the expected behavior of banknotes' net flows during 2013 and 2014 was estimated. According to the results, the difference between the estimation and the observed data was greater for locations in the North of Mexico in 2014, a pattern that was not observed in 2013 (Chart 4).[4] This suggests that in 2014 there were additional factors that boosted demand for cash in the Northern region, which, given the previous evidence, could be attributed to changes in the regulatory framework.

[4] The forecasts were calculated with a dynamic panel model estimated with the Generalized Method of Moments with seasonal controls. The states in the North have the highest indices of labor formality; therefore adjustments in the regulatory framework implemented in 2014 may have driven formal employees to avoid leaving records of their payments, which would increase the use of cash.

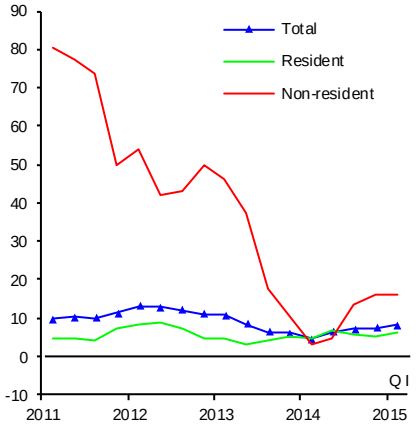
6. Final Remarks

The results presented in this Box indicate that the monetary base increased its growth rate in 2014. Such increase did not seem to derive exclusively from changes in the macroeconomic framework, but also most likely from the abovementioned fiscal and regulatory changes, particularly the Tax Reform and the regulation regarding the maximum amount allowed for bearer checks. Besides boosting demand for cash, these measures may have led to a downward adjustment in the use of means of payment different from cash, as a result of a possible substitution of the use of these means of payment by banknotes and coins.

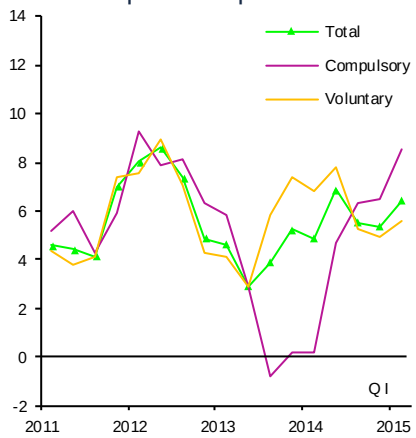
The external sources of financial resources presented a lower dynamism in the referenced quarter, which was mainly due to a smaller flow of resources from abroad channeled to finance non-financial private firms. As regards non-resident financial saving, even though government securities' holdings remained stable with respect to the previous quarter, there were changes in their composition (Chart 25c). In particular, while the portfolio of medium- and long-term government securities kept increasing –reflecting investors' confidence in the strength of the macroeconomic fundamentals of the Mexican economy–, the holdings of Cetes decreased marginally.

Chart 25
Financial Saving Indicator

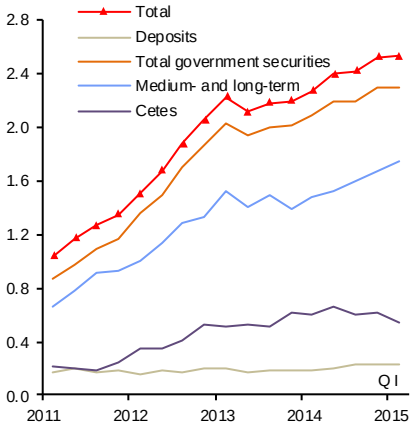
a) Total Financial Saving [1/]
Real average annual change of the quarter in percent



b) Resident Financial Saving
Real average annual change of the quarter in percent



c) Non-resident Financial Saving
MXN trillion as of March of 2015

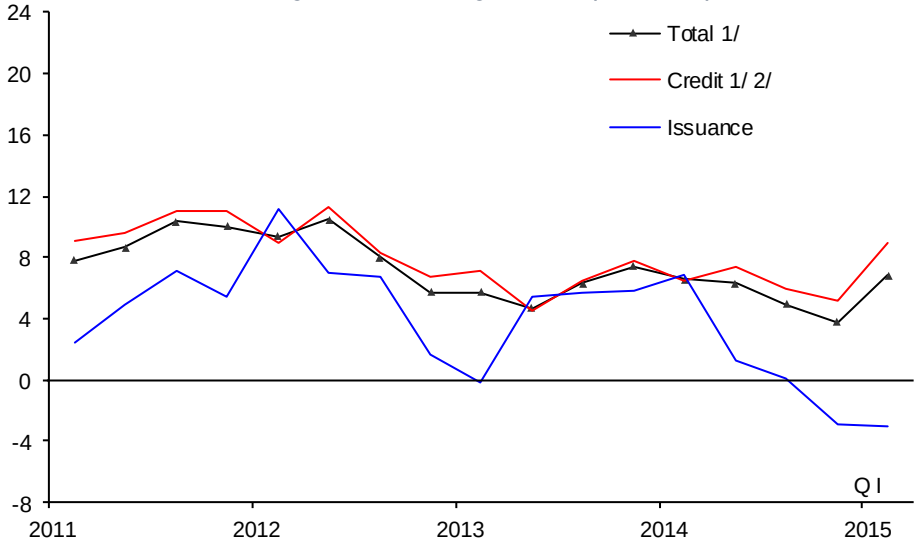


1/ Defined as the monetary aggregate M4 minus the stock of currency held by the public.
Source: Banco de México.

As regards the use of financial resources in the economy, in the first quarter of 2015 both Public Sector Borrowing Requirements (PSBR) and financing to states and municipalities were similar to those observed in the previous quarter. The accumulation of international reserves was lower than in the period of October – December 2014. This derived from lower sales of dollars by Pemex to Banco de México, as well as from the auctions of dollars to the market, which have been implemented by this Central Institute according to the guidelines established by the Foreign Exchange Commission.

The growth rates of financing to the non-financial private sector increased during the reported quarter. With respect to financing to non-financial private firms, it registered a growth rate greater than the one observed during the period October – December 2014, mainly due to a recovery of domestic financing (Chart 26). In particular, commercial banks' credit presented an increase in its real average annual growth rate, locating at 7.4 percent in the first quarter of 2015, which was higher than 3.4 percent observed in the last quarter of 2014. Likewise, direct credit from development banks grew at higher rates as compared to the previous quarter (Chart 27a). In this environment, interest rates and delinquency rates related to credit to firms remained at low and stable levels (Chart 27b and Chart 27c).

Chart 26
Domestic Financing to Non-financial Private Firms
Real average annual change of the quarter in percent



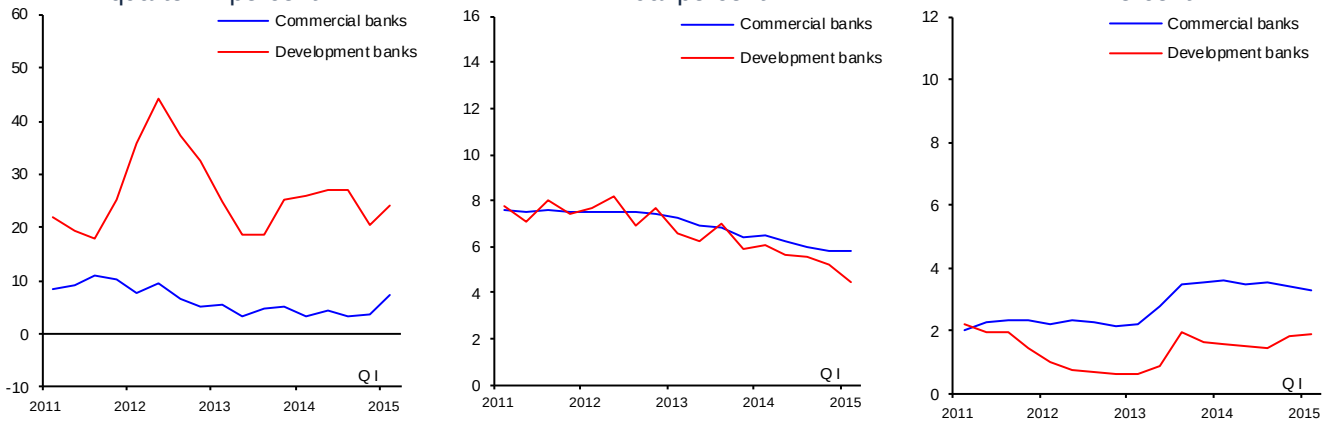
1/ These data can be affected by the disappearance of some nonbank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
2/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as other nonbank financial intermediaries.
Source: Banco de México.

Chart 27
Bank Credit to Non-financial Private Firms

a) Performing Credit to Non-financial Private Firms
Real average annual change of the quarter in percent

b) Average Interest Rates of the Quarter of New Credits to Non-financial Private Firms 1/
Annual percent

c) Average Delinquency Rates of the Quarter of Credit to Non-financial Private firms 2/
Percent



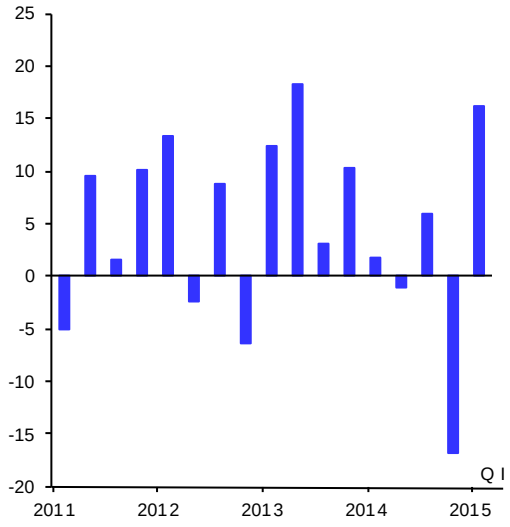
1/ It refers to the interest rate of new bank credits to non-financial private firms, weighted by the associated stock of the performing credit and for all credit terms requested.
2/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
Source: Banco de México.

Although firms' financing through issuance of domestic debt registered a real annual growth rate similar to that of the previous quarter, in the margin it increased significantly, particularly due to a larger issuance of medium and long-term debt. The total amount issued in the period of January – March 2015, net of amortizations, amounted to MXN 16.1 billion, while in the period of October – December of 2014

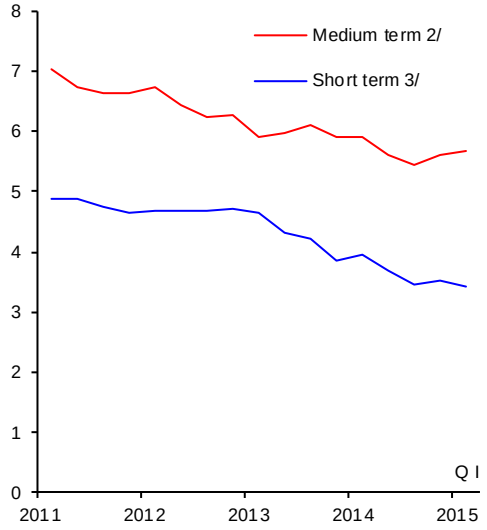
the figure was negative, at MXN -16.7 billion (Chart 28a). In gross terms, the issuance of medium- and long-term debt instruments amounted to MXN 25.4 billion in the first three months of 2015, which was the highest registered for a first quarter, even exceeding the one observed in the same period of 2012 (MXN 19.0 billion). This occurred in an environment in which the interest rates of private debt securities remained, in general, without significant changes at the margin, suggesting that astringency conditions were not observed in this market (Chart 28b).

Chart 28
Securities of Non-financial Private Firms in the Domestic Market

a) Net Placement of Medium-term Securities by Non-financial Private Firms 1/
MXN billion



b) Average Interest Rates of the Quarter of Securities Issued by Non-financial Private Firms
Annual percent

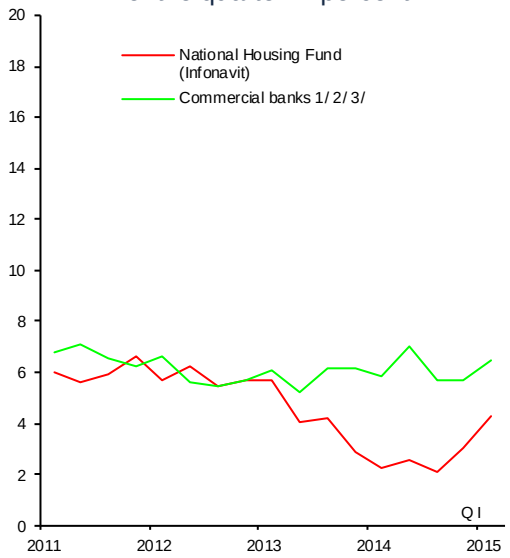


1/ Placements excluding amortizations in the quarter (maturities and prepayments).
2/ Placements of more than one year.
3/ Placements of up to one year.
Source: Banco de México, with data from Valmer and Indeval.

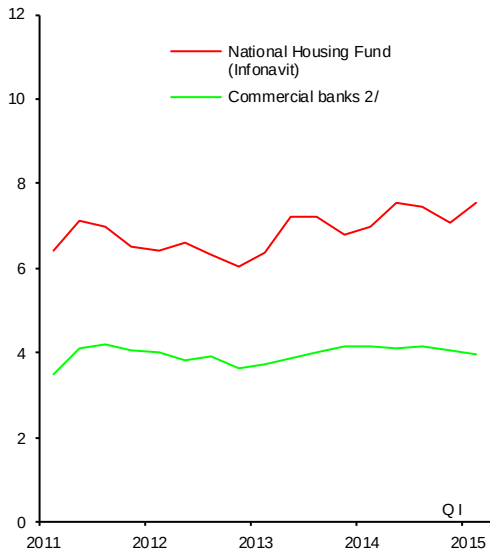
Credit to households expanded at relatively higher rates as compared to those registered in October – December 2014. In particular, the growth rate of credit granted by the National Housing Fund rebounded, locating at 4.3 percent in real annual terms, higher than the 3.0 percent observed in the previous quarter. The mortgage loan portfolio of commercial banks and their multiple purpose financial corporations (sofomes) also presented a greater dynamism, expanding at a real average annual rate of 6.5 percent in the reported period, which is above 5.7 percent registered in the previous quarter (Chart 29a). This took place in an environment of relative stability of interest rates and delinquency rates (Chart 29b).

Chart 29
Housing Credit

a) Performing Housing Credit
Real average annual change
of the quarter in percent



b) Average Delinquency Rates
of the Quarter of Housing Credit 4/
Percent

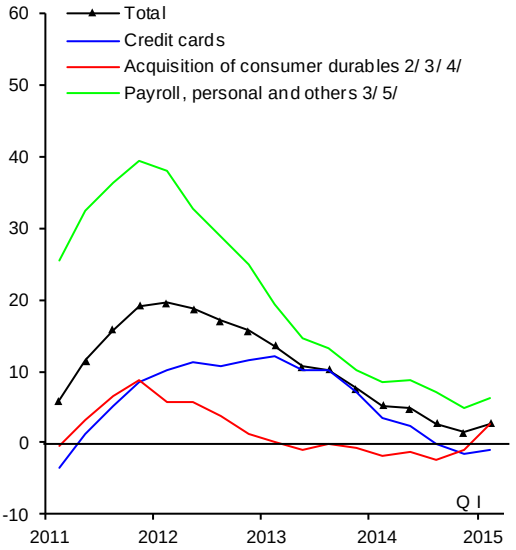


1/ Figures are adjusted in order to avoid distortions by the transfer from the UDIS trust portfolio to the commercial banks' balance sheet and by the reclassification of direct credit portfolio to ADES program.
2/ It includes sofomes owned by commercial banks.
3/ Figures are adjusted to avoid distortions due to the inclusion of some regulated sofomes to the bank credit statistics.
4/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
Source: Banco de México.

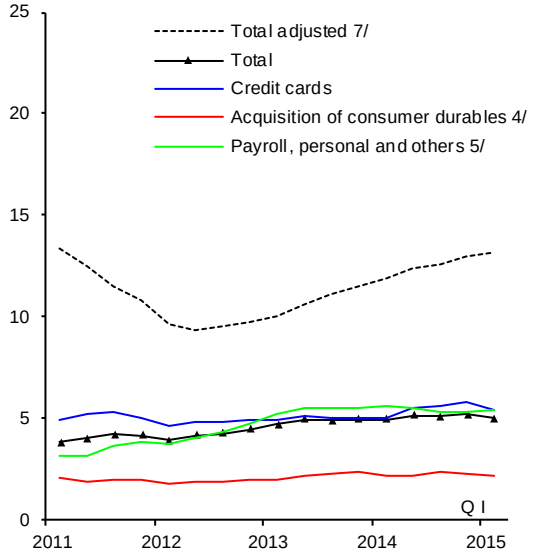
The growth rate of consumer credit rebounded during the first quarter of 2015. Commercial banks' performing consumer credit portfolios expanded at a real average annual rate of 2.6 percent, above the 1.4 percent observed in the fourth quarter of 2014 (Chart 30a). This was largely due to a greater dynamism of payroll loans. In this environment, interest rates and delinquency rates remained practically unchanged. However, the adjusted delinquency rate –which considers bad debt write-offs accumulated in the last twelve months– is still deteriorating (Chart 30b). Going forward, it will be important to monitor that this indicator stabilizes.

Chart 30
Commercial Banks' Consumer Credit

a) Commercial Banks' Performing Credit [1/]
Real average annual change of the quarter in percent



b) Average Delinquency Rates of the Quarter of Commercial Banks' Consumer Credit [1/ 6/]
Percent



1/ It includes loans by credit card-regulated sofomes: Tarjetas Banamex, Santander Consumo, Banorte-Ixe Tarjetas and Sociedad Financiera Inbursa.
2/ Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of one banking institution's automobile loan portfolio.
3/ From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from acquisition of durable goods (ABCD) to other consumer credits by one banking institution.
4/ It includes credit for movable property acquisition and auto loans.
5/ "Others" refers to credit for payable leasing operations and other consumer credits.
6/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
7/ It is defined as non-performing portfolio plus debt write-offs accumulated over the last 12 months divided by the total portfolio plus debt write-offs accumulated over the last 12 months.
Source: Banco de México.

In light of the macroeconomic environment described in this Report, which considers tighter external financial conditions and lower crude oil prices as compared to previous years, the evolution of sources and uses of financial resources in the economy should be considered. Table 2 presents the annual closure for 2014 and a prospective exercise for 2015. In particular, the exercise in the previous Report is updated and incorporates new data regarding two relevant aspects. First, the fiscal objectives presented by the Ministry of Finance (SHCP) in March in the document on the compliance with the provisions in Article 42, Section I, of the Federal Budget and Fiscal Responsibility Law (*Pre-Criterios*). Second, the decision of the Foreign Exchange Commission to lower the rate of accumulation of international reserves between March and June by means of dollars' sales to the market by Banco de México via daily auctions without a minimum price.[6] As indicated in previous Reports, this exercise of sources and uses of financial resources of the economy allows to show the significance of maintaining the effort regarding the fiscal consolidation process in Mexico, as it would result in a greater availability of resources for the private sector. In particular:

i. For the end of 2014, the annual flow of sources of financial resources went up to 10.3 percent of GDP, as compared to 8.5 percent in 2013

[6] See the press release of the Foreign Exchange Commission of March 11, 2015.

(Table 2). This resulted from an increase in both domestic and external sources of financial resources, relative to the previous year.

As regards the use of the referred resources, despite the increase in their sources, the flow of financing to the private sector was 2.4 percent of GDP, lower than the 3.9 percent rate in 2013. This took place in a context in which the resources channeled to the public sector –the sum of PSBR and financing to states and municipalities– went up from 3.4 percent of GDP in 2013 to 4.2 percent in 2014, as well as the increment in the resources to finance the accumulation of international reserves from 1.0 to 1.3 percent of GDP.

ii. For the end of 2015, the annual flow of sources of financial resources is expected to lie at 8.2 percent of GDP as compared to 10.3 percent in 2014 (Table 2). This decline would reflect a reduced availability of financial resources from abroad –which would go down from 4.4 to 2.2 percent of GDP– in light of tighter financial conditions in international markets, given the expectation of higher interest rates in the U.S. On the contrary, a modest growth is anticipated in the domestic sources of financial resources from 5.9 to 6.0 percent of GDP, in a context of a higher growth of economic activity.

The expected decrease in the sources of financing is expected to lead to a reduced availability of resources to finance the private sector in 2015. In the *Pre-Criterios*, the Ministry of Finance estimates that the PSBR will locate at 4 percent of GDP in 2015. So, the use of resources by the public sector –including the PSBR and financing to states and municipalities– would shift from 4.2 percent of GDP in 2014 to 4.3 percent in 2015. The decrease in the accumulation of international reserves –due to lower dollar sales by Pemex to Banco de México and the introduction of dollar auctions without a minimum price– which is estimated to change from 1.3 percent of GDP in 2014 to 0.8 percent in 2015, will allow to partially offset the effect of the reductions in the sources of resources on the available financing to the private sector.[7] Still, it is estimated to decrease from 2.4 percent of GDP in 2014 to 2.2 percent in 2015.

In this regard, it is noteworthy that this decrease will occur in an environment of recovery of economic activity, which would presumably lead to a higher demand for credit by the private sector, which could lead to upward pressures in interest rates in the credit market.

[7] In this prospective exercise of sources and uses of financial resources of the economy, the mechanism of daily auctions of dollars without a minimum price is supposed to remain in force from March 11 to June 8, 2015, just as established by the Foreign Exchange Commission (see the press release of March 11, 2015).

Table 2
Total Funding of the Mexican Economy (Sources and Uses)
Percentage of GDP

	Annual flows					
	2010	**2011**	**2012**	**2013**	**2014**	**2015 e/**
Total sources	**9.4**	**10.1**	**9.9**	**8.5**	**10.3**	**8.2**
Domestic sources	4.1	5.7	4.4	4.7	5.9	6.0
Voluntary M4	2.6	4.2	3.0	4.1	4.2	4.7
Compulsory M4	1.5	1.5	1.4	0.7	1.7	1.3
Foreign sources	5.3	4.4	5.5	3.7	4.4	2.2
Non-resident M4	2.9	3.0	4.5	1.3	2.3	0.5
Securities and foreign credit 1/	2.5	1.4	1.0	2.4	2.1	1.7
Total uses	**9.4**	**10.1**	**9.9**	**8.5**	**10.3**	**8.2**
International reserves 2/	2.2	2.4	1.8	1.0	1.3	0.8
Public sector financing	3.8	2.9	3.7	3.4	4.2	4.3
Public Sector Borrowing Requirements (PSBR) 3/	3.4	2.7	3.2	3.0	4.0	4.0
States and municipalities	0.4	0.3	0.5	0.4	0.2	0.3
Private sector financing	2.7	3.6	3.0	3.9	2.4	2.2
Foreign	0.7	0.9	0.7	1.5	0.7	0.4
Domestic 4/	2.0	2.8	2.4	2.4	1.7	1.8
Other 5/	0.8	1.1	1.4	0.2	2.4	0.9

Note: Figures may not add up due to rounding. Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of exchange rate fluctuations.
e/ Estimated data, expressed in percent of nominal average annual GDP estimated by Banco de México.
1/ It includes foreign financing for the federal government, public institutions and entities, and foreign financed investment projects (PIDIREGAS), commercial banks' foreign liabilities and financing to the non-financial private sector.
2/ As defined by Banco de México's Law.
3/ From 2010 to 2014, Public Sector Borrowing Requirements (*Requerimientos Financieros del Sector Público*, RFSP or PSBR, for its acronym in English) correspond to data reported by the Ministry of Finance (SHCP). The data of 2015 correspond to those released in the document regarding the compliance with the provisions in Article 42, Section I, of the Federal Law on Budget and Fiscal Responsibility.
4/ Total portfolio of financial intermediaries, of the National Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit), and of the ISSSTE Housing Fund (*Fondo de la Vivienda del ISSSTE*, Fovissste), as well as the domestic debt issuance.
5/ It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and INFONAVIT, non-monetary liabilities from the Institute for the Protection of Bank Savings (*Instituto de Protección del Ahorro Bancario*, IPAB), the effect of the change in the valuation of public debt instruments, as well as non-recurring revenues of the public sector derived from the net acquisition of financial assets and liabilities, among other concepts.
Source: Banco de México.

The exercise mentioned above highlights the importance of decreasing Public Sector Borrowing Requirements over the next years in order to free the resources that would allow a greater financing of the private sector. This, together with the change in the above described international environment, stresses the importance of the announced fiscal adjustment by means of public spending cuts for 2015 and its restructuring based on the 2016 budget exercise. In particular, the proposed fiscal adjustment is expected to:

- Contribute to an orderly transition of the economy to a new environment, in which oil revenues are anticipated to remain low for a long period of time.
- Contribute to the fact that the real exchange rate depreciation as a result of the negative shock to the terms of trade due to the lower crude oil price will be carried out in an efficient manner and at lower costs to society in terms of economic activity.
- Favor expenditure on public investment by eliminating non-essential spending and possible duplication in the future, which would promote medium- and long-term economic growth.

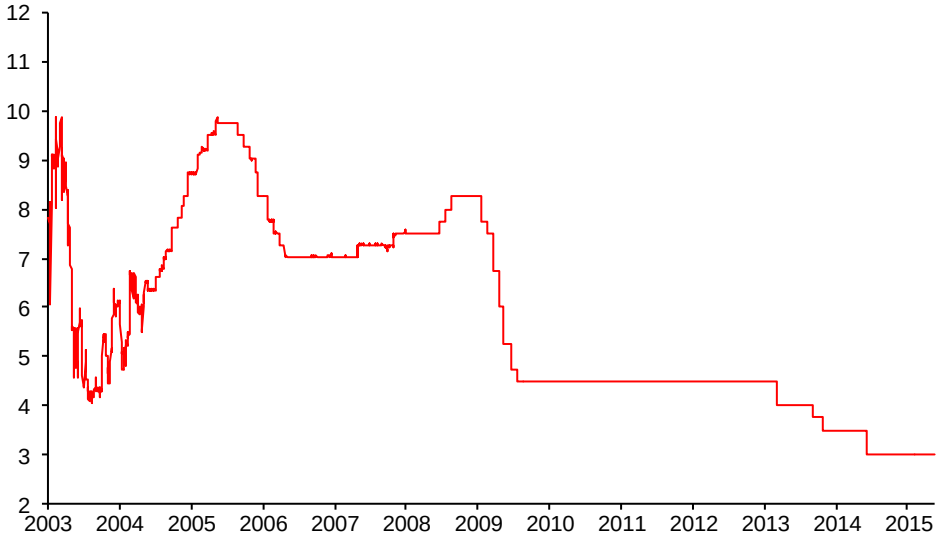
- Represent progress to stabilize the public debt to GDP ratio, by strengthening confidence regarding the sustainability of the fiscal stance in the medium term. However, it should be stressed that the trajectory of this ratio depends on the evolution of economic activity. That is the reason why there is still a risk the possibility that a lower than anticipated economic growth would be observed, which, if it takes place, would require a greater effort in terms of fiscal consolidation.

In sum, the fiscal consolidation process supports the strengthening of the macroeconomic framework, which is even more relevant in the uncertain international environment faced by the Mexican economy. Furthermore, in a medium-term horizon, this fiscal consolidation process, besides guaranteeing the sustainability of the public debt, would allow channeling larger financial resources to the private sector and would mitigate possible pressures in the credit market, in particular on interest rates, and would result in a greater growth rate and job creation rate.

4. Monetary Policy and Inflation Determinants

The monetary policy implemented by Banco de México has been conducive to achieving an environment of low and stable inflation in Mexico. As a result, inflation practically reached the 3 percent target during the period covered by this Report. The the fading out of the impact on prices generated by the fiscal adjustments in the previous year and the effects (both direct and indirect) of the reductions in telecommunication services' prices and some energy prices, as well as the absence of aggregate demand-related pressures on inflation also contributed to the decrease in headline inflation. The abovesaid has occurred in a context in which the evolution of inflation has not been affected more than anticipated by the depreciation of the national currency, its expectations have not been contaminated and, therefore, no second round effects have been generated on the price formation process in the economy. Nonetheless, the external environment, characterized by a prospect of the normalization of the U.S. monetary policy, uncertainty related to this process and low crude oil prices, has the potential to affect the exchange rate, inflation expectations and, eventually, its evolution, reason for which it represents a risk that cannot be ignored. Considering all of the above, the Board of Governors decided to maintain unchanged at 3 percent the target for the Overnight Interbank Interest Rate by virtue of the fact that it deemed that the monetary policy has been conducive to securing the convergence of inflation to the permanent 3 percent target (Chart 31).

Chart 31
Overnight Interbank Interest Rate [1/]
Annual percent



1/ The Overnight Interbank Interest Rate is shown until January 20, 2008.
Source: Banco de México.

Among the elements considered to justify the above referred monetary policy decisions, the following stand out:

a) The observation that, given the weak performance of economic activity, slack conditions prevailed in the labor market and in the economy in general, and no generalized aggregate demand-related pressures on prices were anticipated.

b) The fact that the evolution of inflation expectations implicit in market instruments' interest rates and survey-derived inflation expectations remained well-anchored.

c) The evidence that the pass-through of exchange rate adjustments onto prices would be limited.

d) The favorable evolution of inflation and the anticipation that it will persist close to 3 percent over the following months and would close the year slightly below that level.

The monetary policy stance implemented by Banco de México is part of a comprehensive strategy for macroeconomic policy conducive to attenuating the impact of the complex international outlook on the national economy, which has mainly been reflected in the performance of the exchange rate and medium- and long-term interest rates. The following stand out as pillars of the said strategy:

- First, a monetary policy focused on price stability. As part of it, the Central Institute has remained vigilant so that no second round effects on prices are presented derived from a possible contamination of inflation expectations in light of the depreciation of the national currency.
- Second, the Foreign Exchange Commission has implemented two mechanisms of intervention in the exchange market aimed at lowering volatility and preserving an orderly functioning of this market. The former of these mechanisms, in force since December 9, 2014, offers USD 200 million on a daily basis to the market by means of auctions at a minimum exchange rate that is 1.5 percent above the previous day's exchange rate (FIX). The latter, in force since March 11 and tentatively until June 8, 2015, offers a daily auction of USD 52 million without a minimum price. This mechanism, besides complementing the former in its objective to reduce the exchange rate volatility, led to a lower pressure on domestic interest rates, given that by reducing the rate of international reserves' accumulation, it implies a smaller need to realize sterilization operations.
- Finally, the third element corresponds to the above mentioned process of fiscal consolidation announced by the Federal Government. This consolidation makes it easier for the depreciation of the real exchange rate to be carried out efficiently. Moreover, it contributes directly and indirectly to the sustainability of public finances, given that it will allow a lower pressure on interest rates, which will contribute to strengthening the confidence in the Mexican economy.

Following up on inflation determinants, the moderate growth rate of economic activity in recent months induced the persistence of slack conditions in the economy. For this reason, no generalized aggregate demand-related pressures onto prices in the main input markets or the external accounts were observed. In particular:

a) The output gap remains negative. However, it is expected to continue closing gradually (Chart 32).[8]

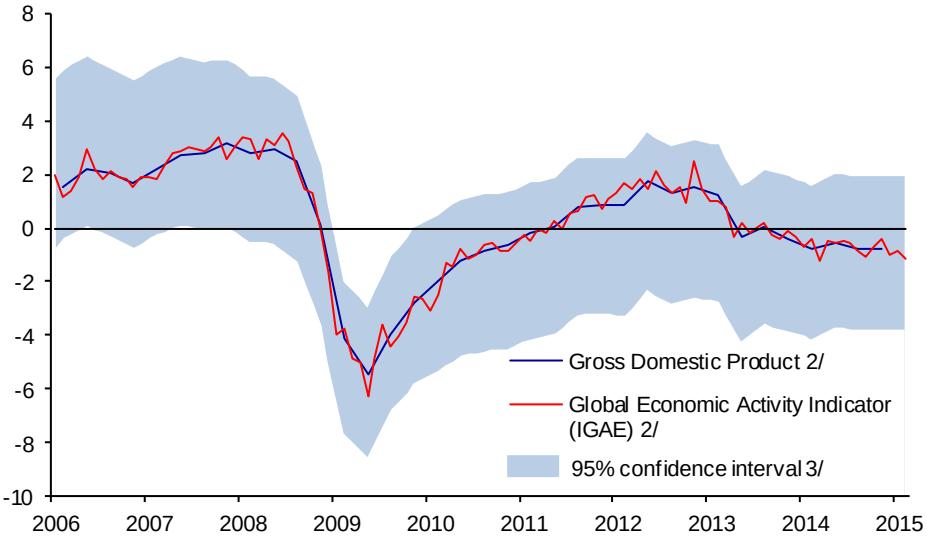
[8] Considering that this indicator's estimation is subject to a certain degree of uncertainty, it should be carefully interpreted, given that, from a statistical point of view, it does not register levels significantly different from zero.

b) Slack conditions prevail in the labor market.

c) As a result of the negative trend observed in the real average income of the employed population, along with the growing trend of labor productivity, unit labor costs for the economy as a whole remain at low levels (Chart 33a).

d) The increment in labor productivity of the economy and the negative trend of the unit labor costs principally derived from the performance in the services' sector, given that productivity in the secondary economic activities has not expanded in the most recent quarters (Chart 33b and Chart 33c). However, within the industrial production, the manufacturing sector productivity registered a positive trend, while unit labor costs remain at low levels (Chart 33d).

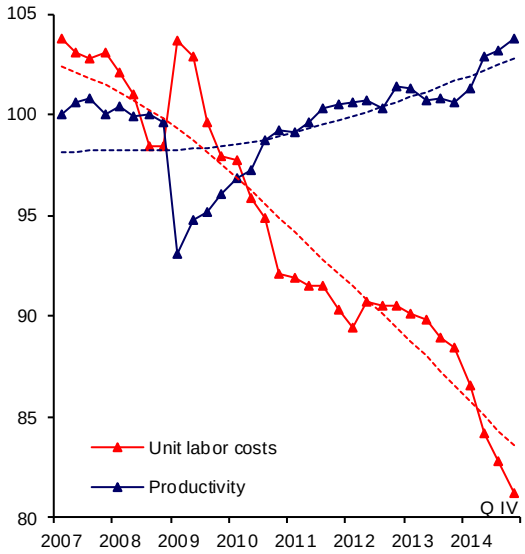
Chart 32
Output Gap Estimation [1/]
Percentage of potential output, s. a.



s. a. / Prepared with seasonally adjusted data.
1/ Estimated using the Hodrick-Prescott (HP) filter with tail correction; see Banco de México Inflation Report, April – June 2009, p. 69.
2/ GDP figures as of the fourth quarter of 2014, IGAE figures as of February 2015.
3/ Confidence interval of the output gap calculated with an unobserved components' method.
Source: Prepared by Banco de México with data from INEGI.

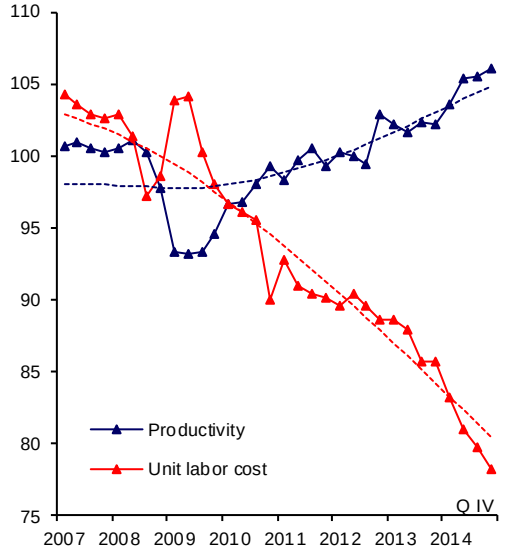
Chart 33
Productivity and Unit Labor Cost

a) Total of the Economy
Index 2008=100, s. a.



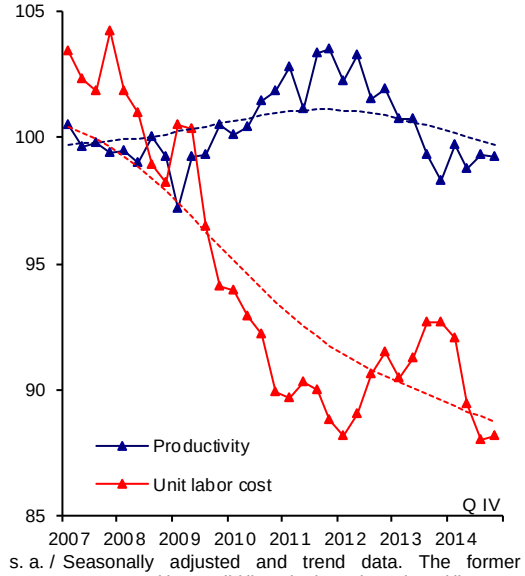
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.
Source: Unit cost prepared by Banco de México with data from INEGI. The Global Index of Labor Productivity in the Economy (IGPLE), as released by INEGI.

b) Services
Index 2008=100, s. a.



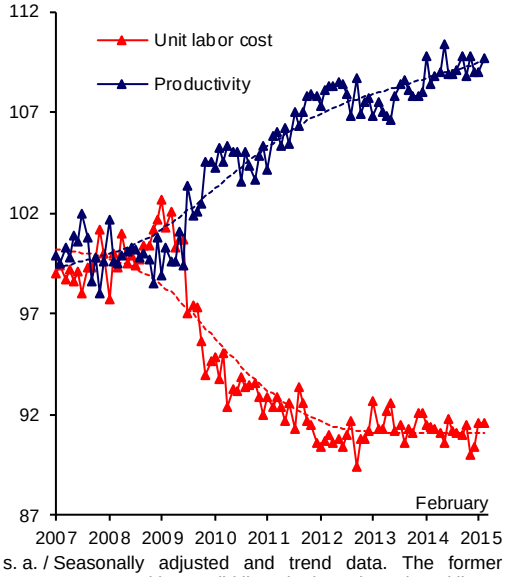
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.
Source: Unit cost prepared by Banco de México with data from INEGI. The Labor Productivity Index released by INEGI.

c) Industrial Activity
Index 2008=100, s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.
Source: Unit cost prepared by Banco de México with data from INEGI. The Labor Productivity Index released by INEGI.

d) Manufacturing
Index 2008=100, s. a.



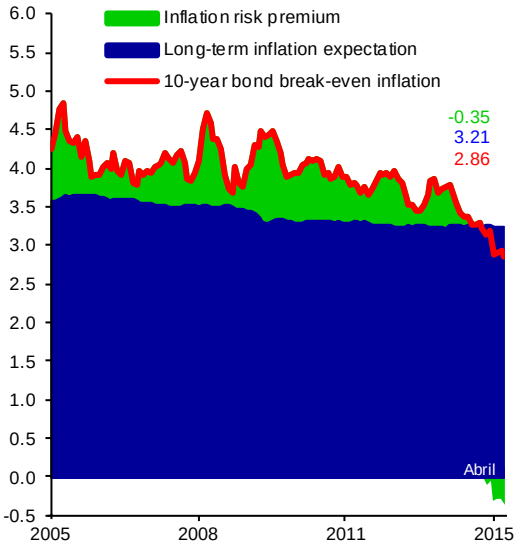
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line.
Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the monthly indicator of Mexico's System of National Accounts, INEGI.

Inflation expectations implicit in 10-year market instruments remained stable at around 3.2 percent between December 2014 and April 2015, while the associated

inflation risk premium decreased in the same period (Chart 34a). Thus, break-even inflation (the difference between long-term nominal and real interest rates) kept showing historic lows, shifting from an average level of 3.21 to 2.86 percent during the reference period (Chart 34b). This drop seems to be related to a reduced appetite for holdings of inflation-indexed instruments, which, in turn, could be increasing the liquidity premium demanded by investors to maintain the said instruments. This implies that the inflation risk premium, which reduced from approximately -5 basis points to -35 basis points during the reference period, could also be affected by the said liquidity premium.[9] Additionally, in an environment in which financial markets register low risk-adjusted returns in their assets, risk premia demanded by investors may reduce or even become negative, due to the diversification benefits offered to their portfolios. In sum, the evolution of this indicator reflects that holders of nominal rate-indexed instruments have been demanding less coverage for future inflation in Mexican government bonds during last year.

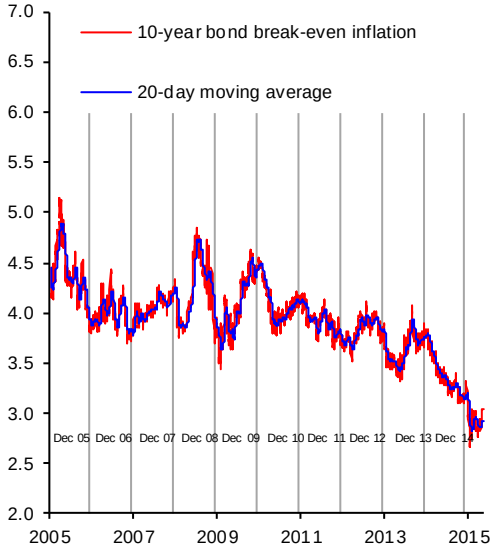
Chart 34
Inflation Expectations

a) Decomposition of Break-even Inflation and Inflation Risk
Percent



Source: Estimated by Banco de México.

b) 10-year Bond Break-even Inflation
Percent



Source: Estimated by Banco de México with data from Valmer and Bloomberg.

Regarding inflation expectations obtained through Banco de México's survey among private sector specialists, the median for the end of 2015 decreased from 3.50 to 3.04 percent between the surveys of December 2014 and April 2015.[10] In line with the abovesaid, the median of expectations for core inflation for the end of the same year reduced from 3.17 to 2.80 percent between the referred surveys,

[9] For a description of the estimation of long-term inflation expectations, see the Box "Decomposition of Break-even Inflation" in the Quarterly Report, October-December 2013.

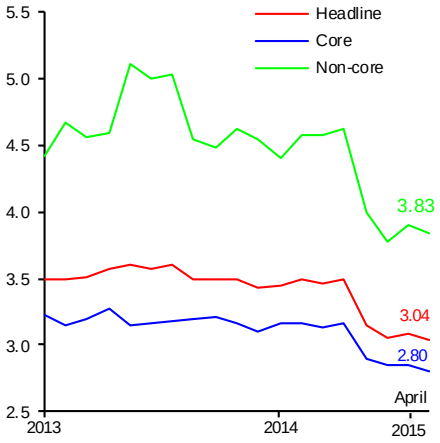
[10] According to Banamex Survey of Financial Market Analysts' Expectations, the median of headline inflation expectation for the end of 2015 registered a similar behavior, decreasing from 3.4 percent in the survey of December 16, 2014 to 3.1 percent in the survey of May 5, 2015.

while non-core inflation expectations, implicit in the referred medians decreased from 4.62 to 3.83 percent (Chart 35a).

On the other hand, the median of headline inflation expectations for the end of 2016 remained stable around 3.5 percent between the surveys of December 2014 and April 2015.[11] In particular, the median of core inflation expectations changed from 3.20 to 3.00 percent, while the implicit non-core inflation expectations increased from 4.70 to 4.96 percent in the referred period (Chart 35b). Finally, longer-term inflation expectations remained stable around 3.5 percent (Chart 35c).[12]

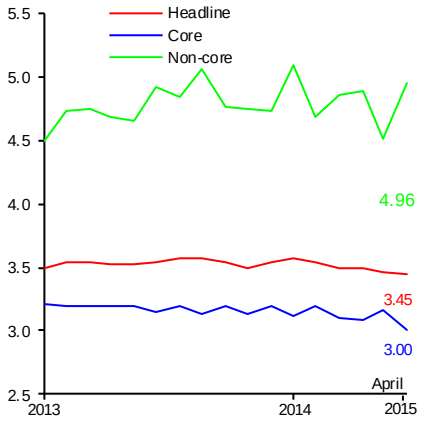
Chart 35
Inflation Expectations

a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2015
Percent



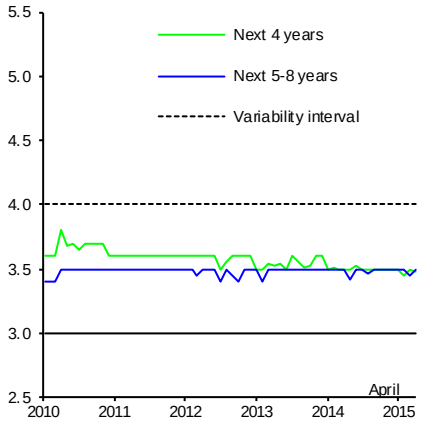
Source: Banco de México's survey.

b) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2016
Percent



Source: Banco de México's survey.

c) Medians of Headline Inflation Expectations of Different Terms
Percent



Source: Banco de México's survey.

During the period covered by this Report, an environment of high volatility prevailed in international financial markets due to the uncertainty regarding the beginning and the subsequent pace of the U.S. monetary policy normalization, due to the fact that the crude oil price has remained at low levels and the situation in Greece. The referred context affected the performance of domestic financial markets.

Thus, due to external factors and just as other currencies of advanced and emerging economies, the Mexican peso kept observing high volatility and registered a depreciation against a U.S. dollar, shifting from an average level of MXN/USD 14.73 to 15.16 between late December 2014 and the beginning of May (Chart 36a). It is noteworthy that, as a consequence of the occurrence of real shocks, such as the fall in crude oil production and low international crude oil prices, the nominal depreciation of the Mexican peso against the U.S. dollar has translated in a depreciation of the real exchange rate. In a context of a low pass-through of exchange rate adjustments onto domestic prices and in presence of the above described shocks, the real depreciation allows to absorb part of the referred shocks,

[11] Similarly, the median of headline inflation expectation for the end of 2016, based on the Banamex survey, remained at 3.5 percent between the survey of January 7 and that of May 5, 2015.
[12] The median of long-term inflation expectations in the Banamex survey (corresponding to the period 2016-2020 in the surveys of 2014 and to the period 2017-2012 in those of 2015) also remained on average around 3.5 percent between the surveys of December 16, 2014 and May 5, 2015.

and, consequently, mitigates its negative impact on the domestic economy. This is due to the fact that a more depreciated exchange rate, ceteris paribus, should stimulate non-oil exports and moderate imports' growth rate. Likewise, the exchange rate flexibility allows the volatility arising from uncertainty in the international environment to reflect in the adjustments both of the exchange rate and domestic interest rates. Therefore, the variability of the latter was possibly lower than the one that would have resulted from an environment in which the free floating of the exchange rate would not be allowed.

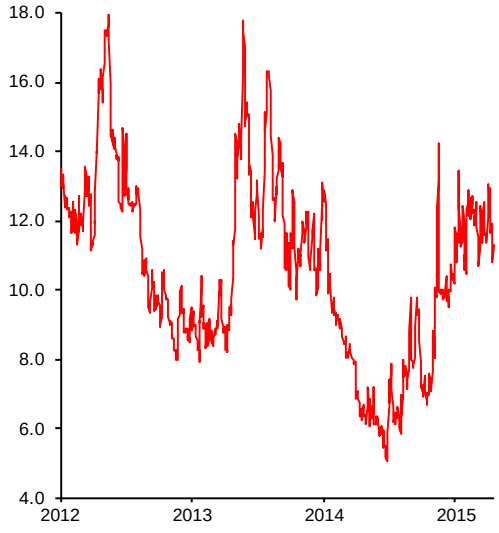
In response to an environment of greater volatility of the national currency's exchange rate, the Foreign Exchange Commission has implemented measures to provide liquidity to the Mexican exchange market, in order to procure its appropriate functioning. These measures indeed contributed to maintaining an orderly functioning of the referred market. The depreciation of approximately 2.9 percent of the Mexican peso against the U.S. dollar between the end of December 2014 and the beginning of May was in line with the average depreciation of around 2.7 percent, that a broad range of emerging economies' currencies registered during the same period.[13] In turn, the Mexican peso volatility stopped increasing during the referred period (Chart 36b).

Chart 36
Exchange Rate and Currency Option Implied Volatility

a) Nominal Exchange Rate and Exchange Rate Expectations for End of 2015 and 2016 1/
MXN/USD

1/ The observed exchange rate is the daily quote of the FIX exchange rate. The latest quote of the observed exchange rate corresponds to May 18, 2015.
Source: Banco de México and Banco de México's survey.

b) Currency Option Implied Volatility 2/
Percent

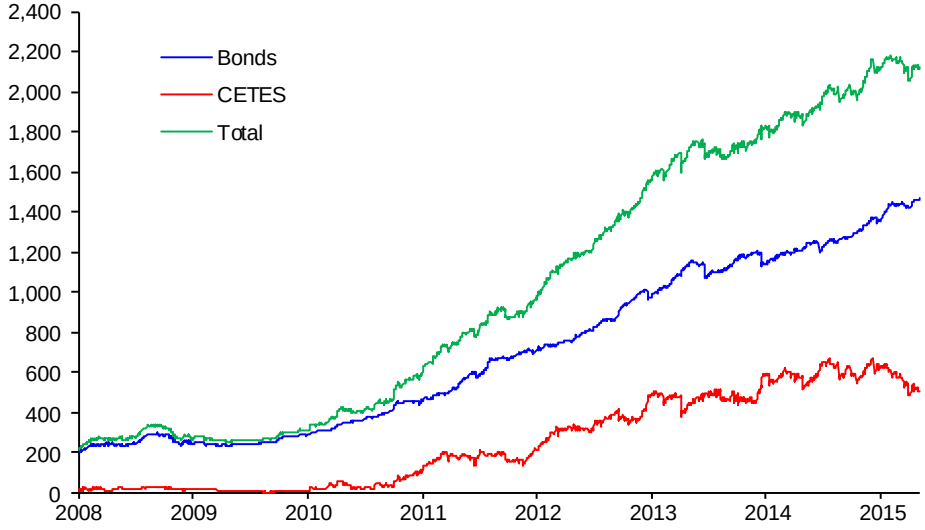


2/ Currency option implied volatility refers to one-month options.
Source: Bloomberg.

Despite volatility in financial markets, foreign investors' holdings government bonds remained stable, but with changes in their composition. In particular, investors' holdings of short-term instruments reduced marginally during the period covered by this Report, while holdings of medium- and long-term ones continued increasing (Chart 37).

[13] The depreciation of other emerging economies' currencies considers the average performance of the exchange rate of the currencies of Brazil, Chile, Colombia, Czech Republic, India, Peru, Russia, Thailand and Turkey against the U.S. dollar and is calculated with data from Bloomberg.

Chart 37
Government Securities' Holdings by Foreign Investors
MXN billion

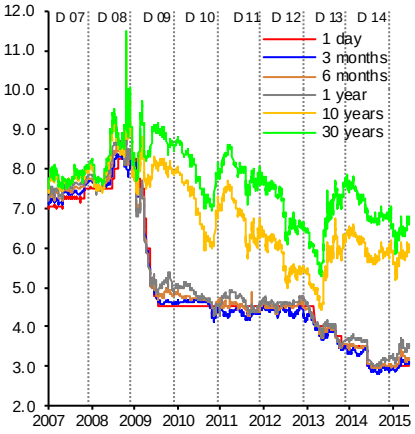


Source: Banco de México.

Long-term interest rates in Mexico went up during the period covered by this Report. Moreover, the average volatility registered in its evolution between the fourth quarter of 2014 and the first one of 2015 increased, although at a lower magnitude than in the case of that of the exchange rate (Chart 38b). In particular, the 10-year government bond interest rate went up from around 5.9 percent in late December 2014 to 6.0 percent in early May 2015. Likewise, shorter-term interest rates registered upward adjustments in the same period. The 2-year interest rate shifted from 3.6 to 4.1 percent, while the 3-month interest rate went up from 2.9 to 3.1 percent (Chart 38a). Accordingly, the slope of the yield curve (the difference between 10-year and 3-month rate) decreased from approximately 300 to 290 basis points from late December 2014 to early May 2015 (Chart 38c).

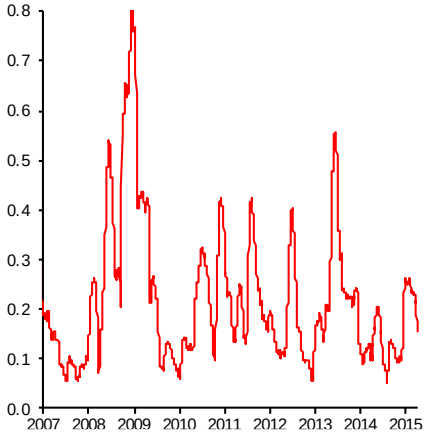
Chart 38
Interest Rates in Mexico

a) Government Securities' Interest Rates [1/]
Percent



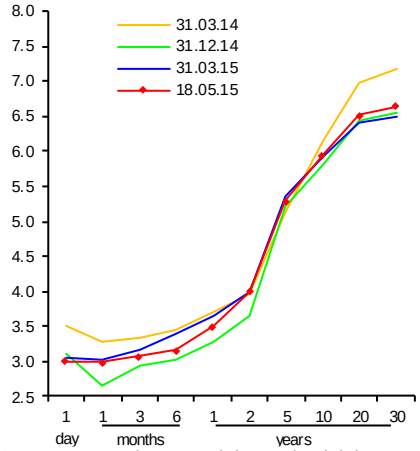
1/ Since January 21, 2008, the one-day (overnight) interest rate corresponds to the target for the Overnight Interbank Interest Rate.
Source: *Proveedor Integral de Precios* (PiP).

b) Moving Standard Deviation of 10-year Interest Rates [1/]
No unit



1/ The time window is three months.
Source: *Proveedor Integral de Precios* (PiP).

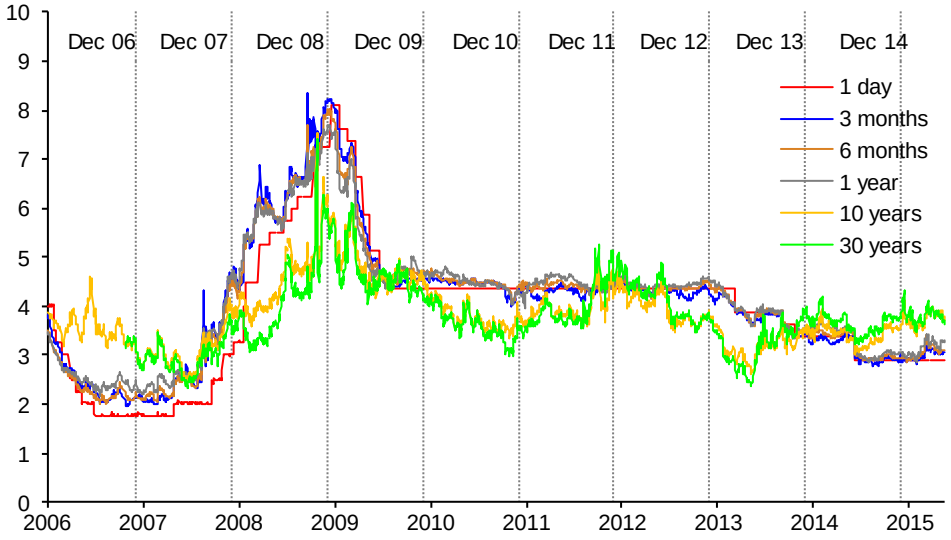
c) Yield Curve
Percent



Source: *Proveedor Integral de Precios* (PiP).

As a result of the increment in long-term interest rates in Mexico, as well as the lateral performance of their U.S. counterparts, the interest rate spreads between these two economies increased during the analyzed period. In particular, the 10-year interest rate spread went up from around 370 to 380 basis points (Chart 39).

Chart 39
Interest Rate Spreads between Mexico and the U.S. [1/]
Percentage points



1/ For the U.S. target rate, an average interval by the Federal Reserve is considered.
Source: *Proveedor Integral de Precios* (PiP) and U.S. Department of the Treasury.

To further examine the evolution of longer-term interest rates in Mexico, as on other occasions, the performance of their components should be analyzed: the short-term interest rate (the reference rate); the short-term interest rates implicit in the yield

curve, which considers medium- and long-term inflation expectations; and, the risk premia. In this regard, the following stands out during the analyzed period:

a) The target for the Overnight Interbank Interest Rate remained at 3.0 percent during the period covered by this Report.

b) Short-term interest rates expected for the end of the year remained unchanged during the same period. In particular, according to Banco de México's survey among private sector specialists, the median of expectations for the interbank interest rate at the end of 2015 remained around 3.5 percent between the surveys of December 2014 and April 2015. A similar level is inferred from the expectations implicit in market instruments' interest rates.

c) The performance of different risk premia was differentiated:

   i. Market indicators that measure sovereign credit risk increased by approximately 20 basis points from late December 2014 to early May 2015.[14]

   ii. Inflation risk premium continued its downward trend, reducing by around 30 basis points from December to date (Chart 34a).

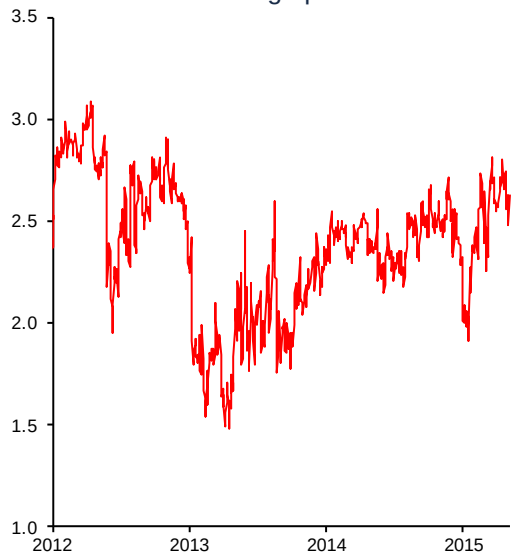
   iii. The exchange risk premium, which is estimated by means of the spread between the interest rate of the 10-year government bond issued in MXN and that of the same term issued in USD, increased slightly between late December and May in an environment of high volatility (Chart 40a).

   iv. Finally, an indicator of the term premium (estimated as the difference between the 10-year and 2-year interest rates) decreased, shifting from levels of around 230 to 190 basis points from the end of December to May (Chart 40b).

[14] It refers to 5-year Credit Default Swap.

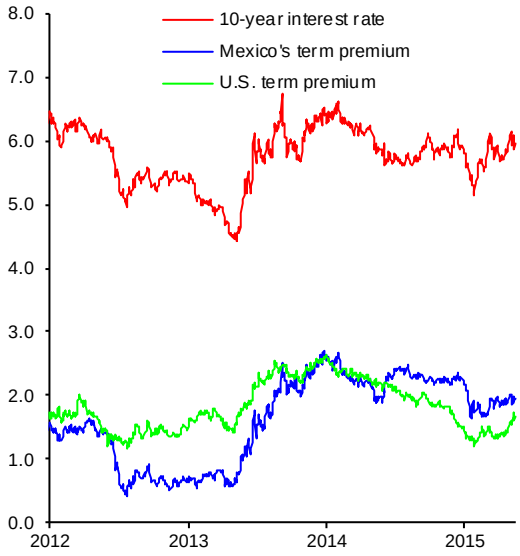
Chart 40
Risk Premia

a) Spread between MXN- and USD-indexed 10-year Bond Rate
Percentage points



Source: Bloomberg, *Proveedor Integral de Precios* (PiP) and Valmer.

b) Mexico's 10-year Government Bond Interest Rate and the Term Premium 1/
Percentage points, percent



1/ The term premium refers to the difference between the 10-year and the 2-year interest rate.
Source: Banco de México, *Proveedor Integral de Precios* (PiP) and Bloomberg.

Although by the end of the period covered by this Report a slight improvement in international financial markets was observed, given the risks prevailing in the external environment, a new increment in volatility, which could further affect the Mexican peso exchange rate and, thus, inflation expectations in the country, cannot be ruled out. Thus, it will be of great importance that Banco de México should carefully monitor the performance of inflation expectations, in order not to validate the pressures that may lead to the national currency's depreciation. Furthermore, strengthening the public finances would also add to anchoring the performance of the national currency's exchange rate in international financial markets.

5. Inflation Forecast and Balance of Risks

The Mexican economy continues facing a complex international environment. On the one hand, lower international crude oil prices, combined with a downward trend in oil production in Mexico reduced the degrees of freedom for the fiscal policy. On the other hand, as a result of the expectation of the monetary policy normalization in the U.S., there is uncertainty in financial markets, which was reflected in the generalized depreciation of currencies against the U.S. dollar, and, in general, in tighter financial conditions in international markets. Given these circumstances, it is important to continue promoting domestic sources of growth, by means of a proper implementation of structural reforms, as well as the consolidation of the strengthening of the macroeconomic framework of the country.

In this context, the forecast for the U.S. economic growth, that represents the basis for the macroeconomic scenario for Mexico, has been adjusted downwards.[15] In particular:

a) U.S. GDP is expected to grow 2.5 percent in 2015, with respect to the 3.2 percent anticipated in the previous Report. For 2016, the forecast is slightly adjusted from 2.9 to 2.8 percent.

b) Industrial production in the U.S. in 2015 is anticipated to increase 2.5 percent, which represents a significant reduction of growth expectations of 3.9 percent considered in the previous Report. For 2016, an increment of 3.1 percent is expected in this indicator, which is below 3.3 percent announced in the previous Report.

GDP Growth Rate: Some of the downward risks to the economic growth in Mexico, indicated in the last Quarterly Report, have been materializing. In particular, oil production kept decreasing and there is great uncertainty regarding its future evolution. Likewise, U.S. economic activity was adversely affected in the first quarter of the year, partly by transitory factors. Furthermore, in a context of USD appreciation, the U.S. economic growth forecast was revised downwards for the year as a whole. As a consequence, Mexico's external demand lost dynamism, while growth in the first quarter is expected to be lower than previously anticipated. Additionally, even though domestic expenditure in Mexico kept recovering gradually, there are still no clear signs that it could present a greater dynamism in the future.

Considering the factors described above, the forecast for Mexico's economic growth in 2015 and 2016 is adjusted downwards. For 2015, the forecast interval for GDP growth was lowered from a range of 2.5 to 3.5 percent to 2.0 to 3.0 percent. For 2016, the forecast interval for the GDP growth is modified from a range of 2.9 to 3.9 percent to a range of 2.5 to 3.5 percent (Chart 41a).

Employment: In line with the adjustment in the economic growth outlook, the forecast for growth in the number of IMSS-affiliated jobs is also revised downwards. In particular, for 2015, an increase of 580 to 680 thousand IMSS-insured jobs is

[15] Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in May 2015.

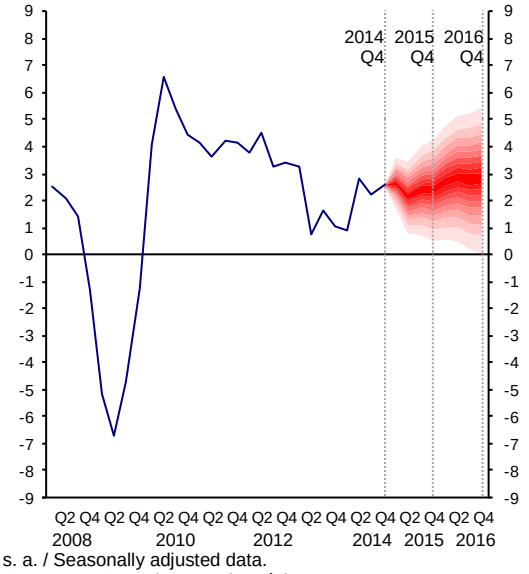
estimated, compared to the expectation of an increment of 600 to 700 thousand jobs in the previous Report. For 2016, the growth interval is adjusted from 620 to 720 thousand jobs in the last Report to an interval of 600 to 700 thousand jobs.

Current Account: For 2015, respective trade balance and current account deficits of 5.2 and 27.7 billion USD are anticipated (0.4 and 2.3 percent of GDP, in the same order). For 2016, deficits in the trade balance and the current account of 6.9 and 29.7 billion USD are estimated, respectively (0.5 and 2.3 percent of GDP, correspondingly).

Given the described forecasts, no aggregate demand-related pressures are expected on either inflation or the external accounts. In particular, the output gap is estimated to remain negative, although it would gradually close in the forecast horizon (Chart 41b).

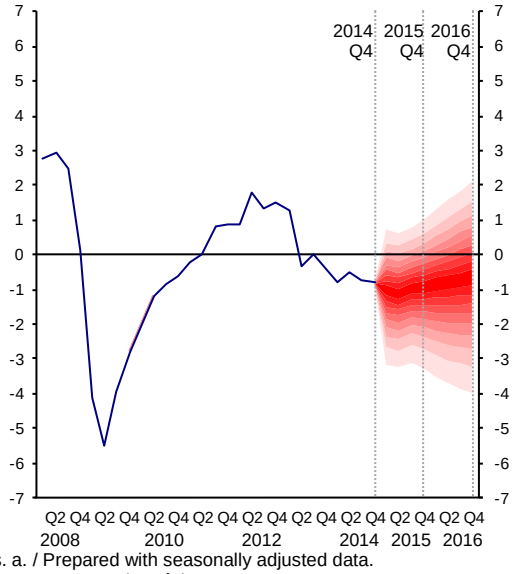
Chart 41
Fan Charts: GDP Growth Rate and Output Gap

a) GDP Growth Rate, s. a.
Annual percent



s. a. / Seasonally adjusted data.
Source: INEGI and Banco de México.

b) Output Gap Estimate, s. a.
Percentage of potential output



s. a. / Prepared with seasonally adjusted data.
Source: Banco de México.

The GDP growth outlook is subject to diverse risks. Among downward ones, the following can be noted:

i. A further weakening of U.S. economic activity.

ii. New volatility episodes in international financial markets.

iii. A further decrease in oil production that would affect external accounts and public finances.

iv. That weakness in consumers' and businesses' confidence indicators, among other reasons related to public safety conditions, would limit the recovery of expenditure in the country.

Among upward risks to growth, these are noteworthy:

i. A greater dynamism of the U.S. economy given low energy costs.

ii. An improvement in investors' prospects given a favorable result in the first stages of the implementation of the energy reform.

Inflation: The forecast for annual inflation remains unchanged with respect to that presented in the previous Report. Thus, for 2015, annual headline inflation is estimated to persist close to 3 percent over the following months and in the second half of the year it is expected to lie slightly below that level (Chart 42). Core inflation is anticipated to remain below 3 percent all year long (Chart 43). For 2016, both headline and core inflation are estimated to prevail at levels close to 3 percent.

The inflation forecast trajectory could be affected by some risks. Among upward risks, the following stand out:

i. The exchange rate of the national currency against the USD could continue with a depreciation trend.

ii. Considering the expected gradual reduction of slack conditions in the economy during the forecast horizon, new changes in relative prices could contaminate inflation expectations.

Among downward risks, the next should be mentioned:

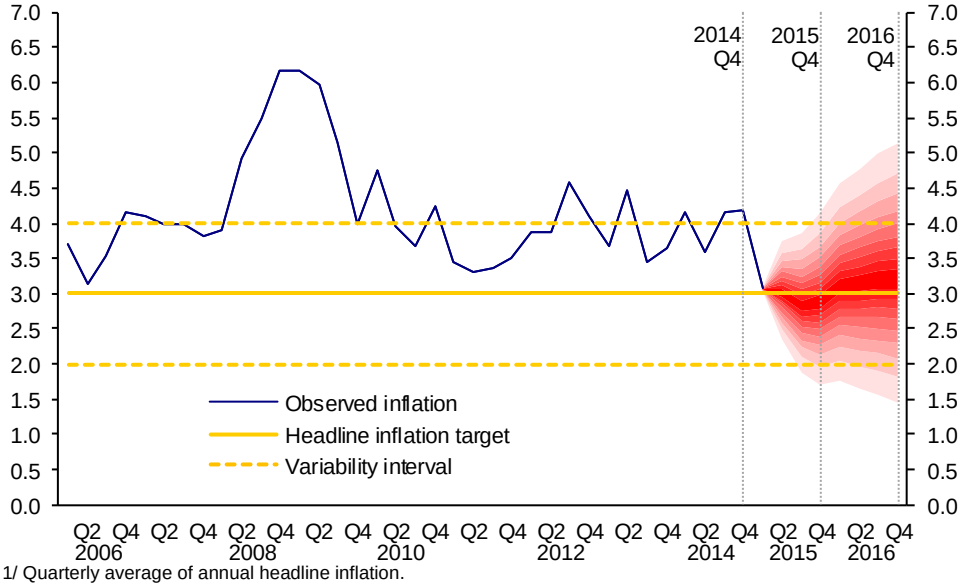
i. Further reductions in telecommunication services' prices.

ii. That the reduction in energy costs could contribute to generally lower than expected increments in prices.

iii. A lower than estimated dynamism of economic activity.

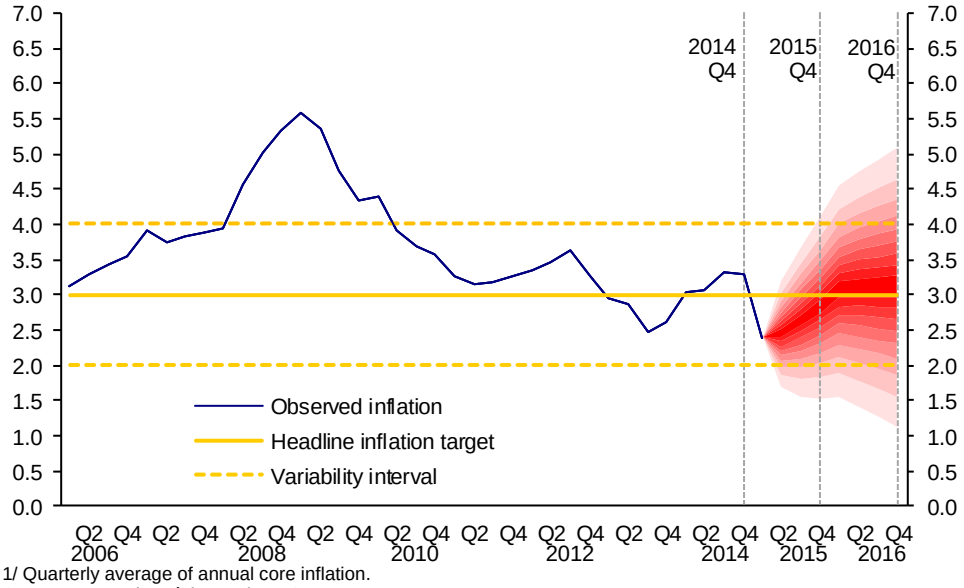
iv. An appreciation of the national currency against the USD due to the recovery in the crude oil price and a more favorable than expected response of international financial markets to the onset of the U.S. monetary policy normalization process, given that asset prices will probably have already partially discounted the adjustment.

Chart 42
Fan Chart: Annual Headline Inflation [1/]
Percent



1/ Quarterly average of annual headline inflation.
Source: Banco de México and INEGI.

Chart 43
Fan Chart: Annual Core Inflation [1/]
Percent



1/ Quarterly average of annual core inflation.
Source: Banco de México and INEGI.

Currently, economic recovery is weak, headline inflation practically lies at its target, core inflation (both merchandise and services subindices) is below 3 percent and inflation expectations remain anchored. On the other hand, since the Mexican economy is highly integrated to the global one, in particular to the U.S., U.S. monetary policy actions could affect the exchange rate, inflation expectations, and, through these, price dynamics in Mexico. Accordingly, the Board of Governors of this Central Institute will remain alert to the evolution of all inflation determinants

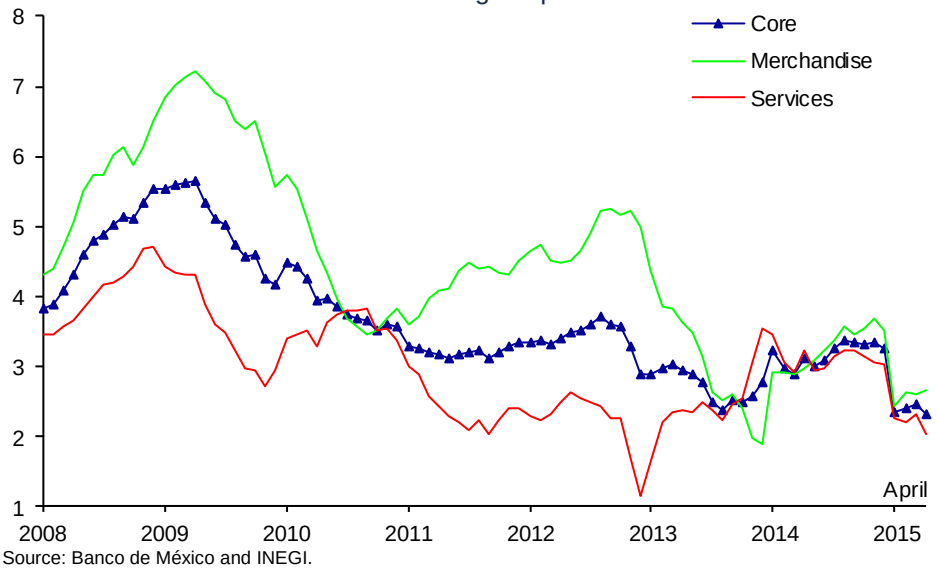
and its medium and long-term expectations: particularly, it will monitor the monetary policy stance of Mexico relative to the U.S., as well as the behavior of the exchange rate. Besides, it will also be watchful of the evolution of the degree of slackness in the economy. All of the above will be done in order to take the necessary measures to ensure the convergence of inflation to the 3 percent target in 2015 and to consolidate it.

In light of a complex international environment, it is of great importance that Mexico boosts its domestic sources of growth and maintains solid macroeconomic fundamentals. As mentioned in previous reports, the approval of structural reforms aimed at raising the productivity of the country is an important step for Mexico to achieve greater sustainable growth rates. In this sense, it should be recalled that the correct and timely implementation of these reforms is a necessary condition for them to reach their potential. Additionally, improving the rule of law and security, including legal security, is indispensable to generate a favorable environment for growth.

Finally, it is important to reiterate that sound public finances are required in order to continue ensuring a solid macroeconomic framework, and, in particular, the public debt to GDP ratio needs to stabilize and resume a downward trend. Although the Federal Government is taking action to this end, not only is the achievement of the current objectives necessary, but also a permanent monitoring of the fiscal stance, particularly in an uncertain environment, which will likely be characterized by tighter financing conditions. Therefore, the importance of the effort aimed at fiscal consolidation should be reiterated. In this regard, due to its implications for long-term economic growth, the relevance of the comprehensive revision of the public expenditure structure for the fiscal year 2016, aimed to depart from a “zero base”, stands out (see Box “Fiscal Responsibility Measures” in the Quarterly Report October – December 2014). Even when this revision of expenditure is required to eliminate duplication, to improve efficiency and to facilitate the fiscal consolidation process mentioned above, it is fundamental that this exercise should favor expenditure on investment and on programs with high social returns, in order to help boost sustained economic growth of the country, maintain an environment of low inflation and, as an overall goal, ensure greater welfare for society.

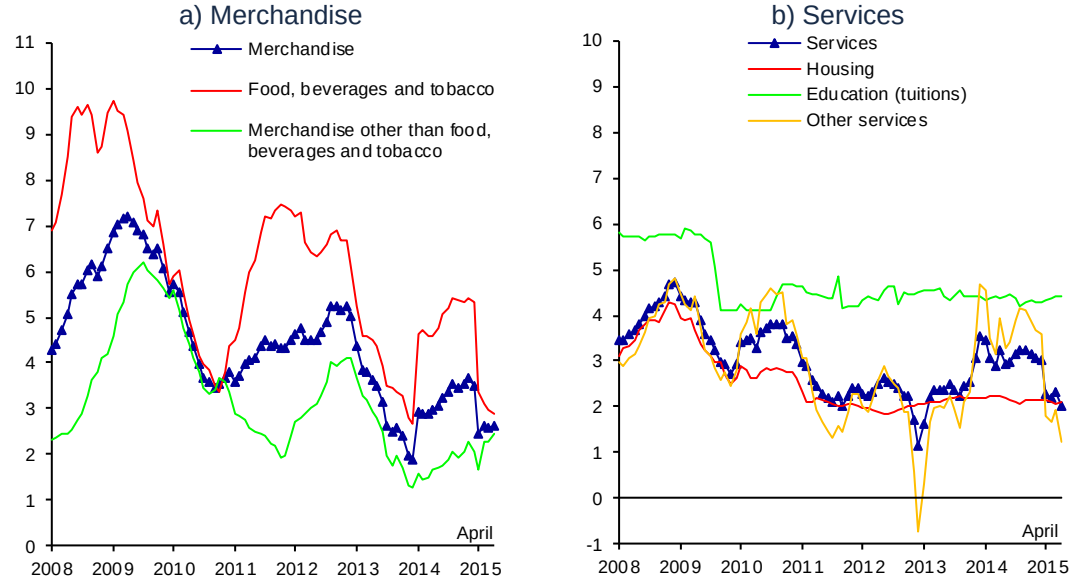
Annex 1: Complementary Charts of the Recent Development of Inflation

Chart A1
Core Price Index
Annual change in percent



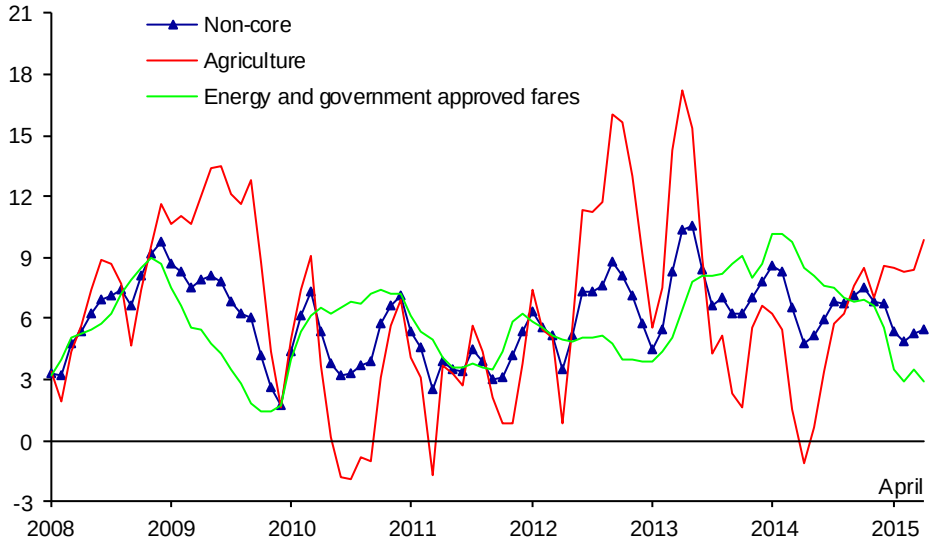
Source: Banco de México and INEGI.

Chart A2
Core Price Index: Merchandise and Services
Annual change in percent



Source: Banco de México and INEGI.

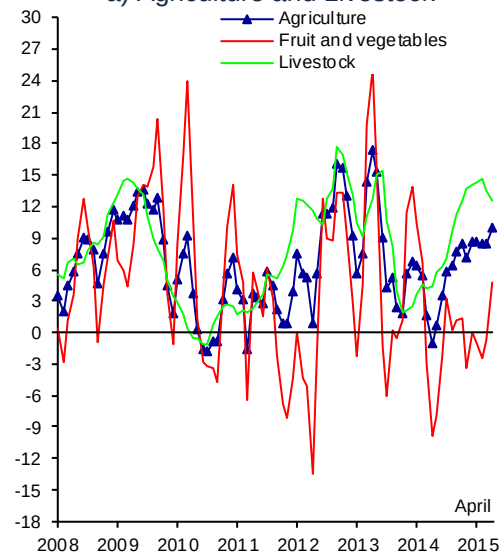
Chart A3
Non-core Price Index
Annual change in percent



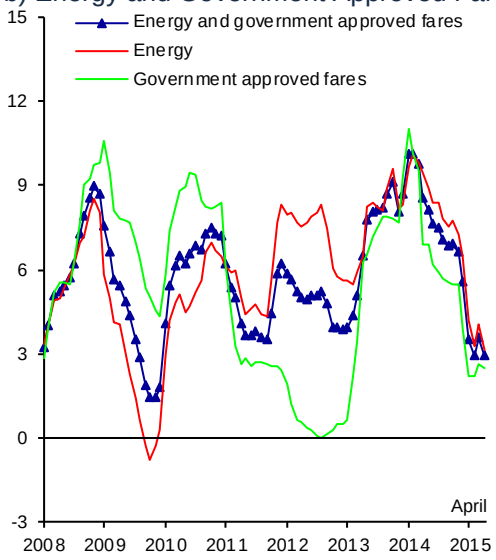
Source: Banco de México and INEGI.

Chart A4
Non-core Price Index
Annual change in percent

a) Agriculture and Livestock

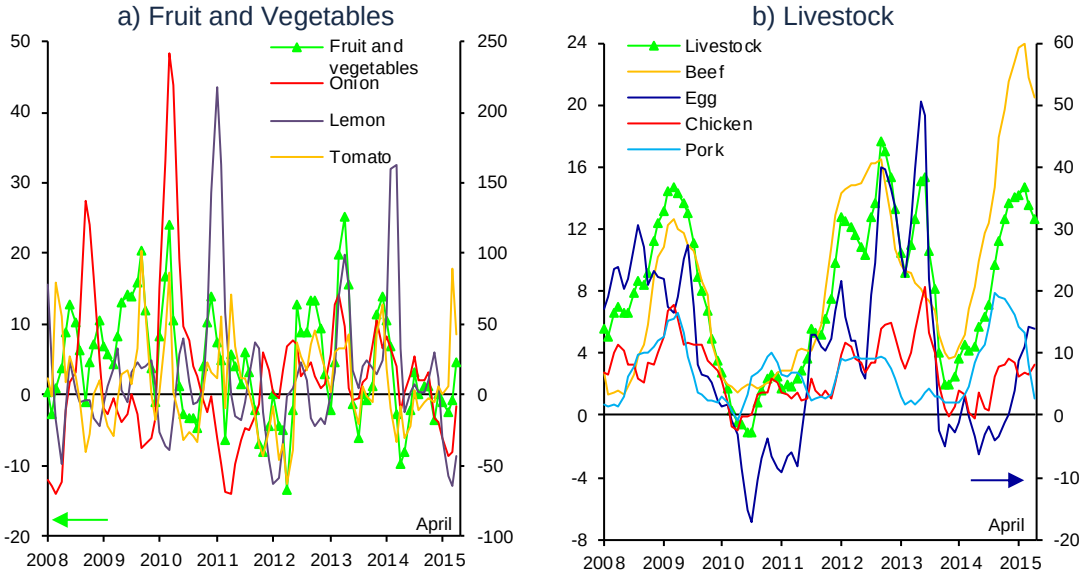


b) Energy and Government Approved Fares



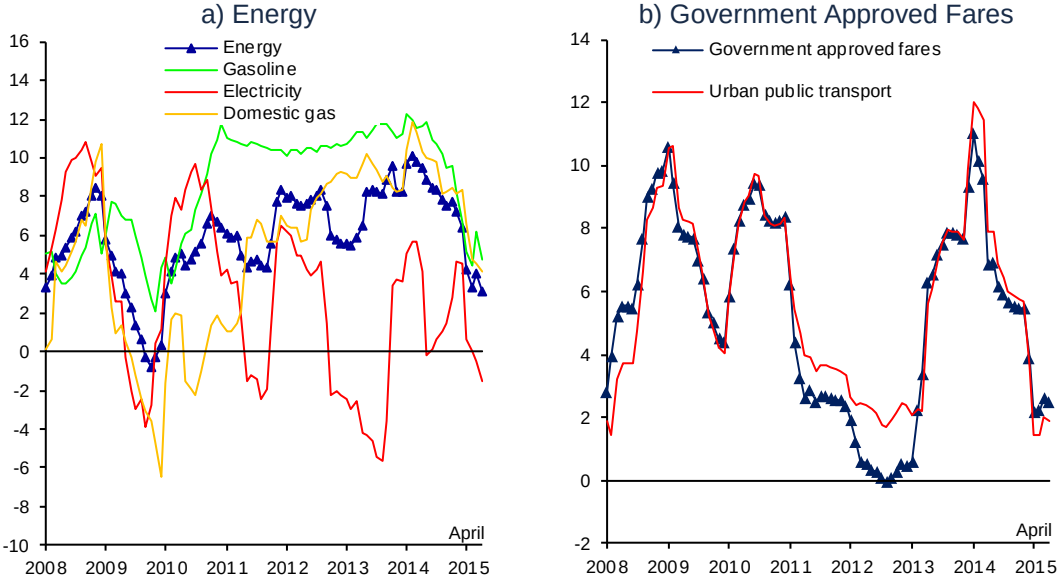
Source: Banco de México and INEGI.

Chart A5
Agricultural Price Index
Annual change in percent



Source: Banco de México and INEGI.

Chart A6
Non-core Price Index
Annual change in percent



Source: Banco de México and INEGI.

BANCO DE MÉXICO

May 2015

www.banxico.org.mx