BANCO DE MÉXICO

Quarterly Report

January – March 2016

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 recent developments in economic activity, inflation and different economic indicators of Mexico, as well as the monetary policy implementation in the quarter January – March 2016, 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 readers' 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 24, 2016. Figures are preliminary and subject to changes.

CONTENTS

BOXES

1. Introduction

The monetary policy conduction of Banco de México has focused on procuring the stability of the national currency's purchasing power, so that it is achieved at the lowest cost to society in terms of economic activity. Through the inflation targeting regime, this Central Institute has set out to reach the annual inflation rate of 3 percent, with a variability interval of plus/minus one percentage point. Efforts undertaken in the field of monetary policy have yielded an important result: the consolidation of an environment of low and stable inflation in Mexico. Among the outcomes achieved through the above referred regime, the following stand out: i) a permanent reduction in the inflation levels, its volatility and persistence; ii) a decrease in risk premia, particularly inflation risk premium; iii) a solid anchoring of inflation expectations at levels close to the permanent target, as well as their smaller dispersion; and iv) a reduction in the pass-through of changes in relative prices and, particularly, of exchange rate fluctuations, to the prices of goods and services. These achievements have become evident in the current juncture. Indeed, recent exchange rate fluctuations have not affected the price formation process of the economy, while inflation has persisted below the permanent target for the last 12 months, and inflation expectations in the medium and long term remain well-anchored. Thus, the exchange rate has functioned as a shock absorber for the Mexican economy in light of a highly complex external environment, without generating disproportionate pressures on inflation. The consolidation of an environment of low and stable inflation has allowed, along with other factors, a recovery of the purchasing power of wages.

This favorable performance of inflation has taken place in an especially challenging environment, which compelled Banco de México to carefully weigh the possible effects of both domestic and external factors on the evolution of inflation and its expectations, in order to define the most appropriate monetary policy stance at each point of time. Indeed, on the one hand, in the period analyzed in this Report, domestic economic environment was characterized by moderate growth, no aggregate demand-related pressures on prices and a solid anchoring of inflation expectations. On the other hand, low growth in global economic activity and world trade were observed along with different episodes of financial volatility, which notably pressured the value of the national currency. Thus, in its decision on February 4, 2016, considering that the central scenario of the inflation evolution for the short and medium term at the time was congruent with the consolidation of its convergence to the permanent 3 percent target, the Board of Governors decided to maintain the level of the target for the Overnight Interbank Interest Rate unchanged at 3.25 percent. Despite this, a warning was issued about the risk to inflation and its expectations, arising from the possibility that the depreciation of the national currency may further persist or become more pronounced. In this context, following the surge of volatility in international financial markets, the deterioration of the external environment and strong exchange rate fluctuations that occurred in the weeks following the referred decision, the Board of Governors deemed it appropriate to hold an extraordinary session and on February 17, 2016 announced a 50-basis-point increment in the target for the Overnight Interbank Interest Rate, to 3.75 percent. In this regard, the Board of Governors clarified that the said increment would not initiate a cycle of monetary contraction.

It should be noted that this decision was part of a coordinated set of actions taken along with other authorities. In particular, together with the described monetary

policy measure, the Ministry of Finance announced a preemptive adjustment to the expenditure of the Federal Public Administration for 2016, and the Foreign Exchange Commission decided to suspend the auction of dollars' mechanisms, leaving open the possibility to discretionally intervene in the exchange market, should exceptional circumstances occur.

The implemented measures produced the expected result. Indeed, at the moment of the announcement the national currency appreciated considerably, a tendency that persisted for several weeks. Likewise, short-term interest rates went up in line with the increase in the reference interest rate, while those corresponding to longer terms went down, resulting in a significant flattening of the yield curve, just as it was intended. These results, together with the fact that the balance of risks to inflation was considered neutral, and, in particular, that the central scenario of its performance was congruent with the 3 percent permanent target, taking into account the adjustment realized on February 17, 2016, led to the Board of Governors deciding to maintain unchanged the target for the Overnight Interbank Interest Rate at the monetary policy meetings of March 18 and May 5.

Delving into the factors that motivated the above mentioned decisions, the international environment faced by the Mexican economy in the period covered by this Report remained adverse. In particular, the global growth expectations continued their downward revision and world trade stagnated, in a context in which the expansion of most advanced and some large emerging economies was slower than anticipated. Likewise, in the first half of the analyzed quarter, volatility in international financial markets increased considerably, largely driven by growing doubts regarding global economic recovery and uncertainty regarding the policy course of the main advanced and emerging economies, in particular China. Subsequently, in the second half of the quarter, financial markets observed lower volatility and a certain recovery in some emerging economies' asset prices, driven by the monetary policy actions of some central banks, the expectation of a more gradual normalization process of the U.S. monetary policy, an improvement in the economic activity indicators of China, and a certain increase in commodity prices. Nonetheless, the accommodative monetary policy implemented by the main central banks of advanced economies seems to be increasingly less effective in supporting the economic recovery, while generating significant risks to the stability of the international financial system. Thus, the balance of risks to the growth of the world economy and international financial markets remains downward, mainly as a reflection of lower investment and productivity levels in the main advanced economies, high vulnerabilities of the sovereign and corporate debt of some emerging economies, potentially negative effects generated by the extended monetary stimulus on the stability of financial markets, uncertainty persisting in relation to the speed of the normalization process of the U.S. monetary policy and its possible consequences, and the existence of diverse geopolitical risks in different regions.

At the domestic level, Mexico's economic activity grew more in the first quarter of 2016 than in the previous quarter. This growth was based on the dynamism of consumption, which was favored by improvements in the labor market, low inflation, credit expansion and more favorable conditions the structural reforms generated for the domestic demand's expansion. Conversely, external demand performed unfavorably and gross fixed investment remained weak. Indeed, the sluggish performance in the U.S. industrial sector persisted, partly as a consequence of the slowdown in world trade, USD appreciation and low crude oil prices, which

translated into a lower export level of and lower investment in machinery and equipment in Mexico. In this context, slackness prevails in the economy and in the labor market, although different indicators of the latter suggest that the referred slack conditions are gradually decreasing. Thus, no aggregate demand-related pressures on prices have been registered.

Hence, despite the weak international environment, the Mexican economy has managed to continue growing moderately. In this sense, the resilience that persisted in the economy in light of the adverse international environment, which resulted into a higher than expected GDP increase in the first quarter, suggests modestly better prospects for growth in 2016, although they still do not warrant any revision of the forecasts published in the previous Report. In particular, for 2016 GDP is expected to grow between 2.0 and 3.0 percent. For 2017, given the adverse international environment, in light of the decrease in growth expectations of the U.S. industrial production, the forecast interval of GDP growth is moderately adjusted from 2.5 to 3.5 percent in the previous Report to 2.3 to 3.3 percent in the current one. These forecasts consider the expectation that the structural reforms' implementation will gradually induce a greater impulse to domestic expenditure.

Inflationary conditions in the economy remain favorable. Annual headline inflation persisted below the permanent 3 percent target for 12 consecutive months. This arose from the credibility of the adopted monetary policy actions, the absence of pressures onto prices generated by the expansion of aggregate demand, direct and indirect effects of lower prices of some generalized-use inputs, such as energy and telecommunication services on inflation, which largely resulted from the implementation of structural reforms, and from low international commodity prices. A low pass-through of the exchange rate depreciation observed since late 2014 onto inflation in 2015 and in 2016 should be noted, which, in part, has also resulted from the above mentioned factors, but which, above all, reflects a structural change over the past years, regarding a more effective anchoring of inflation expectations. Thus, despite a transitory, largely expected, rebound, in the first quarter of 2016, headline inflation remained at low levels in the period analyzed in this Report. In particular, in the first weeks of May it located at 2.53 percent, while core inflation kept a moderate upward trend, reflecting the 2.92 percent change in the relative prices of merchandise with respect to services, in the same quarter.

In the described juncture, inflationary conditions are anticipated to remain favorable, with inflation still fluctuating around the permanent target, and medium and long-term inflation expectations locating at levels congruent with the said target. In particular, headline inflation is estimated to persist below 3 percent during the following months. Although at the end of the year it may moderately exceed this figure, as a consequence of some temporary factors, it is estimated to lie on average at 3 percent for the year as a whole. Annual core inflation is forecast to increase gradually, concluding 2016 at levels close to 3 percent. For 2017, both headline and core inflation are anticipated to lie around the permanent target.

Despite an improvement in international financial conditions starting from the second half of the first quarter, new episodes of volatility cannot be ruled out, mainly in view of the prevailing uncertainty over the global economic growth outlook and a possible impact on the global financial stability generated by the divergent monetary policies among the main advanced economies. Furthermore, there is a possibility of a disorderly process of term premia decompression in financial markets, in light of the expected normalization of the U.S. monetary policy. In this sense, it is

especially crucial to continue strengthening both the macroeconomic framework and domestic sources of growth in the country, in order to contribute to a differentiation of Mexico from other emerging economies.

Considering the above factors, in the future the Board of Governors will continue to closely monitor the evolution of all inflation determinants and its medium- and long-term expectations, particularly the exchange rate and its potential pass-through onto consumer prices. Moreover, it will monitor the monetary policy stance of Mexico relative to that of the U.S., without overlooking the evolution of the output gap. All this, in order to be able to take the necessary measures in a flexible manner and whenever conditions demand it, so as to consolidate the efficient convergence of inflation to its 3 percent target.

2. Recent Development of Inflation

2.1. Inflation

The adequate and timely monetary policy stance adopted by this Central Institute, together with the environment of a certain slack in the economy, both direct and indirect effects on inflation generated by lower prices of some generalized-use inputs, largely derived from the implementation of structural reforms, and an environment of low international prices in most commodities, have been crucial in achieving a favorable result in terms of inflation, despite a complex world environment faced by the economy. This result has been evident through the following: i) that inflation remained below the referred inflation target for 12 consecutive months; ii) that exchange rate fluctuations had a low pass-through onto prices, which allowed the exchange rate to function as an efficient shock-absorber of external shocks faced by the Mexican economy, without affecting its price formation process; and iii) that inflation expectations, especially medium- and long-term ones, presented a solid anchoring at levels close to the permanent inflation target set by this Central Bank.

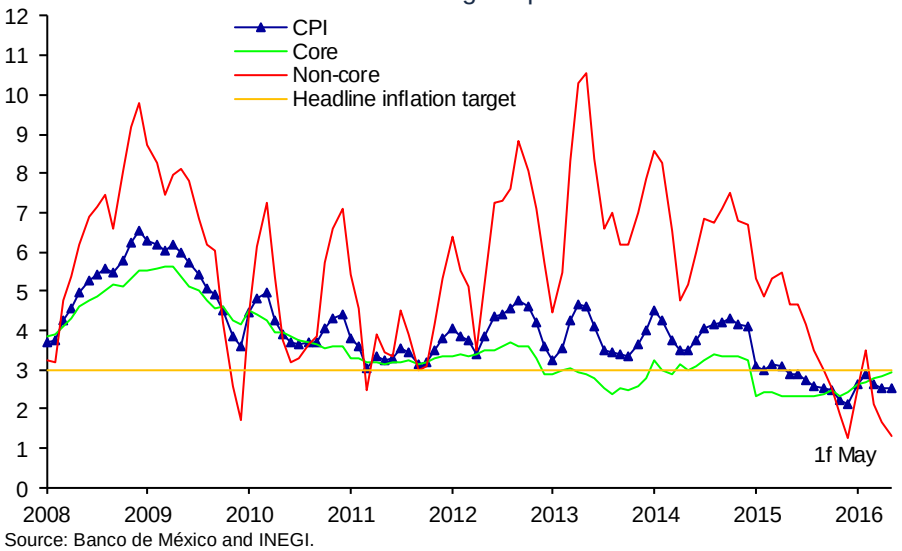
In this context, after annual headline inflation dropped to a historic low in the last month of 2015, inflationary conditions of the economy remained favorable in the reported period. Indeed, although in the first quarter of 2016 annual headline inflation increased slightly, derived from some factors that temporarily pushed it upwards and that, in several cases, had been anticipated, it remained below the permanent target. Thus, average annual headline inflation went up from 2.27 percent in the fourth quarter of 2015 to 2.69 percent in the first one of 2016. In January an arithmetic effect was registered, which was generated by lower prices of fixed telephone services in January 2015, which did not occur this year. Moreover, in January and February, some vegetables' prices increased considerably, brought about by weather factors. Core inflation maintained a moderate upward trend, derived from the adjustments in the relative prices of merchandise, with respect to services. In accordance with the adopted monetary policy, no second round effects on the price formation process of the economy were observed. Therefore, as a result of the combination of these factors, annual headline inflation went down to 2.53 percent in the first fortnight of May (Table 1 and Chart 1).

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

	2014	2015				2016	
	IV	I	II	III	IV	I	1f May
CPI	**4.18**	**3.07**	**2.94**	**2.61**	**2.27**	**2.69**	**2.53**
Core	**3.30**	**2.39**	**2.32**	**2.33**	**2.40**	**2.69**	**2.92**
Merchandise	**3.57**	**2.56**	**2.52**	**2.46**	**2.78**	**3.04**	**3.53**
Food, beverages and tobacco	5.35	3.15	2.56	2.20	2.55	2.88	3.72
Non-food merchandise	2.13	2.07	2.49	2.67	2.98	3.17	3.37
Services	**3.08**	**2.26**	**2.15**	**2.22**	**2.09**	**2.40**	**2.40**
Housing	2.14	2.10	2.09	2.06	2.00	2.11	2.22
Education (tuitions)	4.30	4.36	4.35	4.37	4.28	4.21	4.11
Other services	3.72	1.80	1.57	1.75	1.52	2.15	2.07
Non-core	**6.99**	**5.17**	**4.92**	**3.53**	**1.87**	**2.71**	**1.32**
Agriculture	**8.04**	**8.39**	**8.34**	**5.33**	**2.76**	**6.51**	**4.54**
Fruit and vegetables	-0.73	-1.39	7.43	7.91	6.33	22.45	12.26
Livestock	13.43	14.15	8.81	4.00	0.84	-1.60	0.62
Energy and government approved fares	**6.35**	**3.30**	**2.87**	**2.42**	**1.33**	**0.39**	**-0.73**
Energy	7.12	3.82	3.21	2.43	0.52	-1.10	-1.84
Government approved fares	4.93	2.32	2.26	2.39	2.86	3.23	1.20
Trimmed Mean Indicator [1/]							
CPI	3.78	3.08	2.84	2.64	2.48	2.47	2.59
Core	3.16	2.78	2.71	2.69	2.76	2.85	3.03

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

Chart 1
Consumer Price Index
Annual change in percent

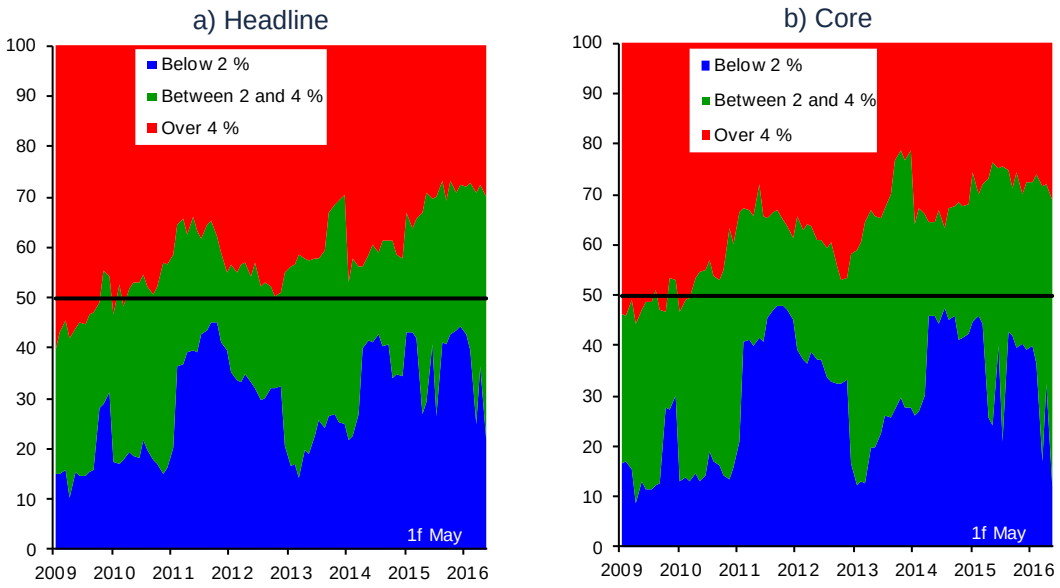


Source: Banco de México and INEGI.

The dynamics of headline and core inflation are reflected in greater detail in the analysis of some indicators that in some cases illustrate their tendency and in others their performance at the margin. In the first place, the share of the CPI basket that presents annual price changes in three groups is analyzed: i) items with an annual price change below 2 percent; ii) between 2 and 4 percent; and iii) over 4 percent. This indicates that a high percentage of the basket, both of headline and core inflation, observes price changes lower than 4 percent (blue and green areas, Chart

2). Furthermore, it is notable that the share of the CPI goods and services' basket with price increments below 4 percent increased from 65 to 72 percent between the first quarter of 2015 and the first quarter of 2016. In the case of core inflation this proportion remained stable, shifting from 72 to 73 percent in the same time period (Chart 2).

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

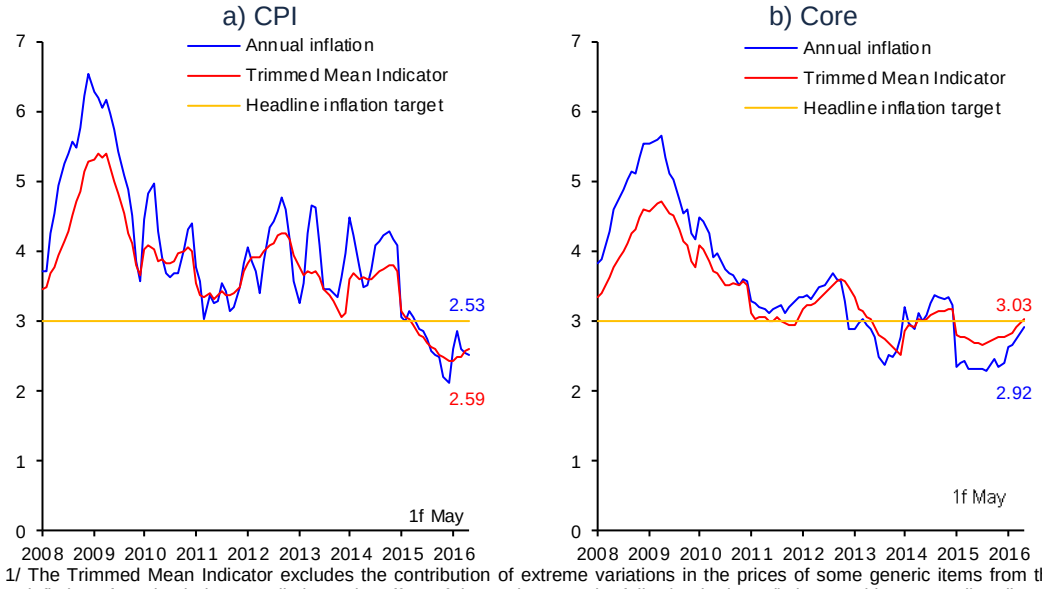


Source: Banco de México and INEGI.

The medium-term inflation trend, represented by the Trimmed Mean Indicator, shows that the inflation rebound in the reference quarter resulted from a greater growth rate of some goods' prices, rather than from a generalized performance of prices. Specifically, the Trimmed Mean Indicator for headline inflation remained stable around 2.50 percent between the fourth quarter of 2015 and the first quarter of 2016, and it reached 2.59 percent in the first fortnight of May. Core inflation presented a gradual and pauseful increment in the growth rate, shifting from 2.76 to 2.85 percent in the referred quarters, to finally locate at 3.03 percent in the first fortnight of May (Chart 3 and Table 1).

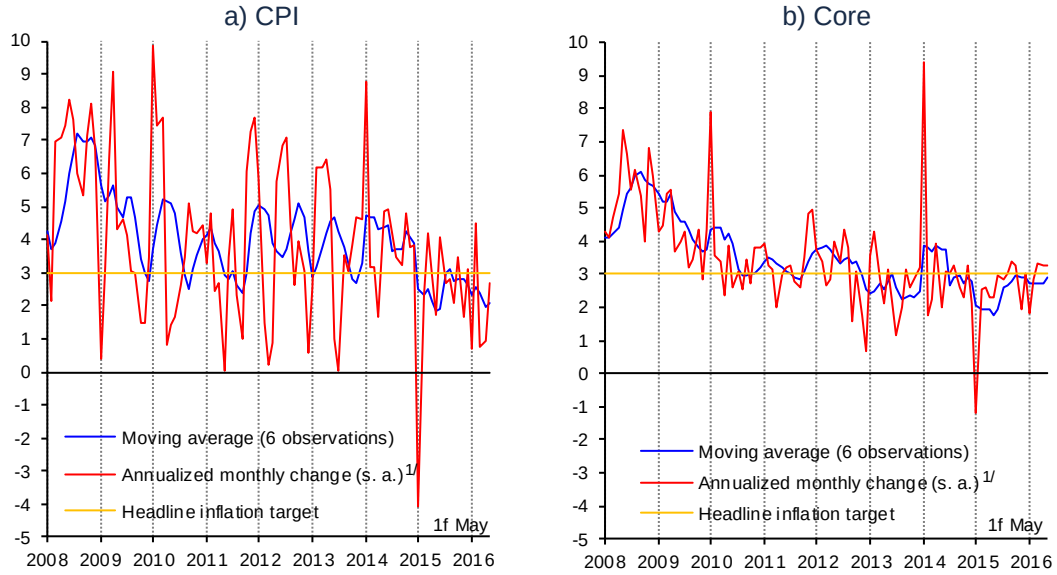
On the other hand, the evolution of the annualized monthly (seasonally adjusted) inflation indicates that, at the margin, both headline and core inflation maintain levels congruent with the 3 percent inflation target, once the arithmetic effects and the comparison base effects are discounted. Furthermore, the moving average of the former indicator's six observations presents a decrease in its tendency in 2016 so far, while that corresponding to the latter practically shows a horizontal behavior in the same period (Chart 4).

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
Annualized Seasonally Adjusted Monthly Change
Percent



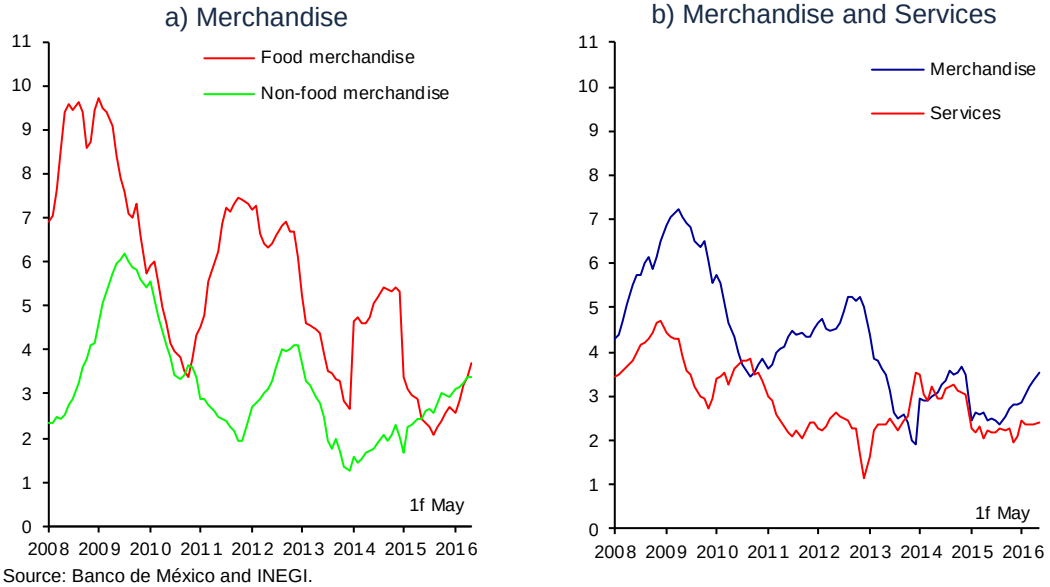
s. a. / Seasonally adjusted data.
1/ The annualized biweekly change is used for the last observation.
Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

The following should be mentioned with respect to core inflation, whose average annual change shifted from 2.40 to 2.69 percent between the fourth quarter of 2015 and the first one of 2016, and subsequently went up to 2.92 percent in the first fortnight of May:

i. The annual change rate of the merchandise price subindex continued reflecting the adjustment in its price relative to that of services, derived from the depreciation of the real exchange rate since late 2014. In particular, between the fourth quarter of 2015 and the first one of 2016, the average annual change of this subindex adjusted from 2.78 to 3.04 percent. Inside this index, the annual change rate of non-food merchandise' prices went up from 2.98 to 3.17 percent in the referred quarters, while the average annual change rate of the food merchandise' prices shifted from 2.55 to 2.88 percent between the fourth quarter of 2015 and the first one of 2016 (Chart 5a).

ii. As a reflection of the degree of slackness prevailing in the economy and the effect of the structural reform on telecommunication services, relatively low growth rates of the services' prices persisted. Thus, its average annual change rate moved from 2.09 percent in the fourth quarter of 2015 to 2.40 percent in the first one of 2016 (Chart 5b).

Chart 5
Core Price Index
Annual change in percent



Source: Banco de México and INEGI.

The average annual growth rate of the non-core price index increased from 1.87 to 2.71 percent between the fourth quarter of 2015 and the first one of 2016. This result was largely associated to the increment in some vegetables' prices during January and February. It was partially offset by lower annual growth rates of energy prices. It should be noted that the more favorable evolution observed since 2015 continued reducing the contribution of non-core inflation to headline inflation (Chart 6 and Table 1). Delving in the abovementioned factors, the following should be pointed out:

i. The average annual growth rate of agricultural products' prices went up from 2.76 to 6.51 percent between the last quarter of 2015 and the first one of 2016. Inside this subindex, greater changes in the prices of fruit and vegetables stood out, to a large extent, as a reflection of higher prices of some vegetables that were affected by weather conditions at the beginning of the year. Despite this, from March onwards the prices of several of the said vegetables dropped significantly, once their supply conditions normalized.

ii. During the first quarter of 2016, the annual change rate of the subindex of energy prices and government approved fares diminished. Thus, the average annual change of this subindex shifted from 1.33 to 0.39 percent between the last quarter of 2015 and the first one of 2016. This was consequent on the negative annual change rates, that were observed in the group of energy prices during the first three months of 2016, moving from 0.52 percent in the last quarter of 2015 to -1.10 percent in the first one of 2016. In this respect, reductions in low consumption electricity tariffs and in gasoline prices in Mexico (excluding the Northern border region) were noteworthy, which decreased 2 and 3 percent at the beginning of the year, respectively, as a result of these fuels' price setting policies, derived from which domestic prices, particularly gasoline prices, will increasingly more often reflect the prices of their international counterparts.

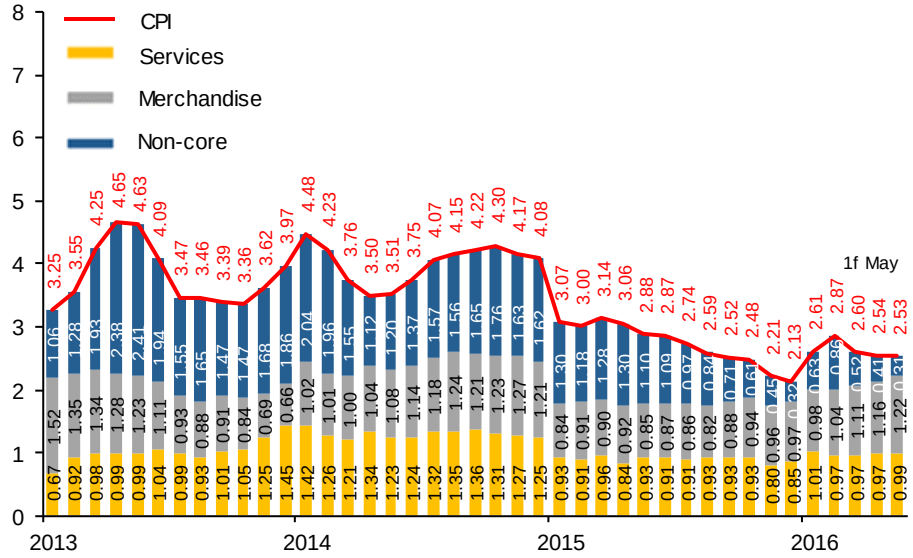
- In particular, between the last quarter of 2015 and the first one of 2016, the average annual change of low octane gasoline prices decreased from 1.85 to -1.78 percent, while high octane gasoline prices went down from 2.71 to -1.36 percent. As a result of the dynamics of gasoline prices in the Northern border cities, on average in the country lower gasoline price reductions were observed, relative to the reductions in the prices that exclude the referred localities. It should be noted that on April 29, 2016 the Ministry of Finance (SHCP) published in Mexico's Official Gazette (*Diario Oficial de la Federación*) that from May 2016 onwards the methodology used to establish maximum gasoline prices will be modified.[1] In particular, the formula to estimate domestic prices was updated to be based on this fuel's international counterparts. Therefore, the maximum price of low octane gasoline remained in May at the same level as in April, while high octane gasoline price reduced by 2 cents. This change in the methodology to calculate maximum gasoline prices tries to partially offset the effect generated by volatility in international gasoline prices on this fuel's domestic prices.

[1] As mentioned in the Quarterly Report October – December 2015, and published in the Official Gazette on December 24, 2015, the gasoline price setting mechanism established by the Ministry of Finance for Mexico (with the exception of the Northern border region) consists in defining a range of values for 2016, specifying a maximum price for each gasoline type, which would be set on a monthly basis, and that considers a variation of up to plus/minus 3 percent in relation to these fuels' prices in late 2015. It is important to emphasize that the variation of the maximum price in the referred interval seeks to reflect, in a smoother way, the changes in international prices of gasoline (once they have been expressed in the national currency) in the domestic prices of gasoline in the country.

- The average annual change of electricity tariffs changed from -3.08 to -2.61 percent between the fourth quarter of 2015 and the first one of 2016. This resulted from the dynamics of high electricity consumption tariffs.

- The average annual change of L.P. gas price shifted from 2.68 to 2.74 percent, while that of the natural gas price changed from -8.15 to 0.85 percent. It should be noted that the L.P. gas price has remained constant since January, while that of the natural gas has been affected by the dynamics of its international reference.

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

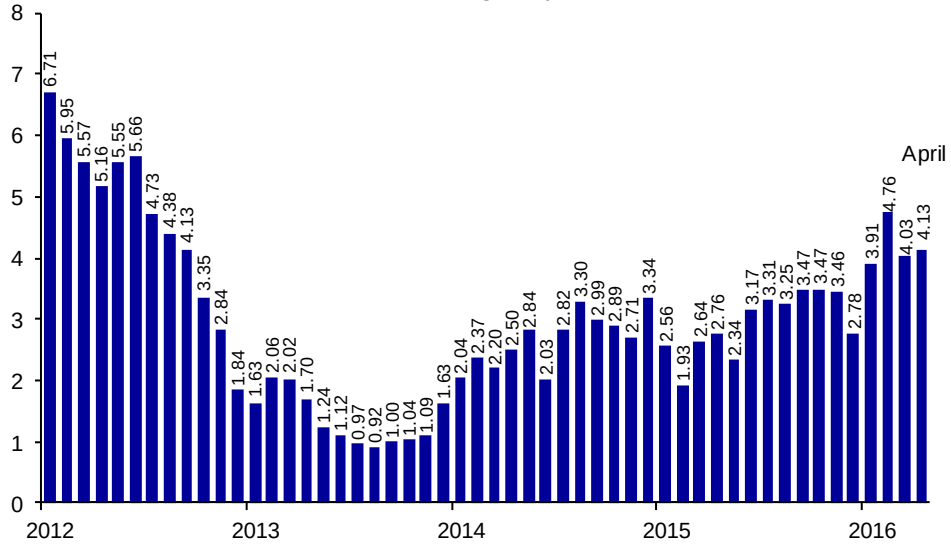


1/ In some cases, the sum of respective components can differ due to rounding.
Source: Prepared by Banco de México with data from INEGI.

2.2. Producer Price Index

In the fourth quarter of 2015, the Producer Price Index (PPI) of total production, excluding oil, registered an average annual change rate of 3.23 percent, while in the first quarter of 2016 its annual change was 4.23 percent, and later in April it was 4.13 percent (Chart 7). It should be highlighted that the PPI subindex that presented the highest annual change rates is that of the prices of merchandise destined to exports, which includes goods quoted in USD, a factor that distinguishes this index from the CPI.

Chart 7
Producer Price Index [1/]
Annual change in percent



1/ Total Producer Price Index, excluding oil.
Source: Banco de México and INEGI.

3. Economic and Financial Environment

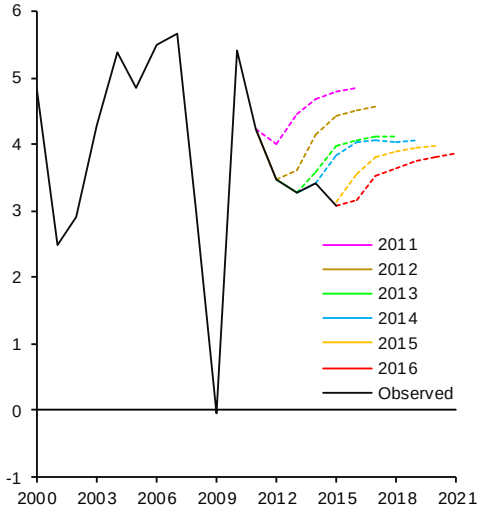
3.1. External Conditions

Global economic growth expectations continued adjusting downwards and the stagnation of the world trade persisted during the first quarter of 2016, which indicates that most advanced and some emerging economies are recovering less than anticipated (Chart 8a and Chart 8b). Moreover, there are still important risks to the activity in both groups of economies. In advanced economies, they refer to the possibility that in the medium term an environment of low expansion, investment and productivity will prevail, as well as very low inflation levels and that deflationary processes may even be observed. In emerging ones, vulnerability to the volatility of capital flows and lower commodity prices persists, which could lead to a further deterioration of macroeconomic fundamentals and their currencies' value, aggravating sovereign and corporate risks of some of these economies.

On the other hand, in the first weeks of the first quarter volatility in international financial markets spiked, and, starting from mid-first quarter, it went down. This was partially caused by the expectation of a more gradual normalization process of the U.S. monetary policy by the Federal Reserve and by additional easing measures in the Euro zone and Japan, as well as by signs of improvement in the economic activity of China and the recovery of commodity prices. Nevertheless, the monetary policy implemented by some central banks seems to be having lower effectiveness in supporting the recovery of their respective economies and could be generating important risks to stability of the international financial system. Besides, the scenario of global recovery and financial stability is facing diverse geopolitical risks in different regions, such as a possible U.K. exit from the European Union, economic and political instability in some emerging countries, the refugee crisis in Europe and the growing protectionist rhetoric in some advanced economies.

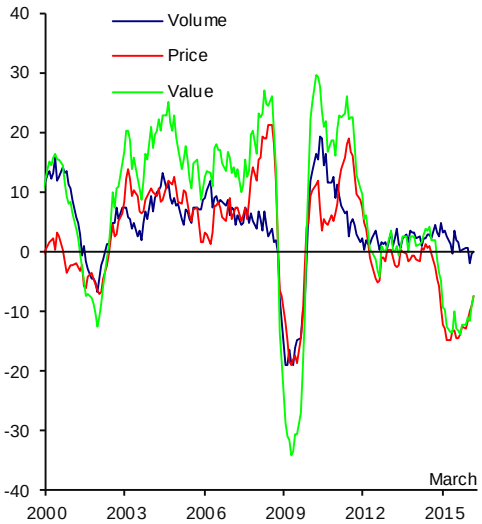
Chart 8
World Economic Activity

a) Global GDP Growth Forecast
Annual change in percent



Source: IMF, WEO spring 2011 to 2016.

b) World Trade of Goods 1/
Annual change in percent, s. a.



s. a. / Seasonally adjusted data.
1/ It refers to the sum of exports and imports.
Source: CPB Netherlands.

3.1.1. World Economic Activity

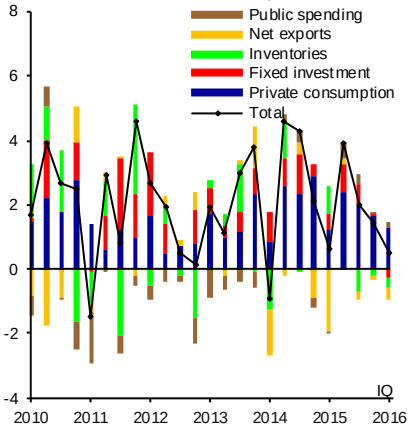
In the U.S., GDP growth decelerated significantly during the first quarter of 2016, expanding only 0.5 percent at an annualized quarterly rate, which was lower than expected, and below the 1.4 percent observed in the fourth quarter of 2015. Private consumption grew more moderately as compared to the previous quarter, despite favorable credit conditions, high confidence levels and strong employment. Investment in equipment and infrastructure continued contracting, reflecting the weakness in orders and shipments of capital goods and lower activity of oil and gas extraction. Besides, net exports kept diminishing, as a consequence of lagged effects of the U.S. dollar appreciation and the slow expansion of external demand (Chart 9a).

U.S. industrial activity contracted 1.6 percent at an annualized quarterly rate. This evolution is partly explained by the decrease in mining (-18.3 percent), mainly reflecting the persistent decline in exploration and extraction of oil and gas (-65.5 percent), by a further contraction of the electricity and gas sector (-0.7 percent) and by the stagnation observed in the manufacturing production, excluding vehicles and spare car parts (0.1 percent). In April, industrial production grew 0.7 percent at a monthly rate. This, to a large extent, resulted from the rebound in the electricity and gas sector, given a greater demand for heating after unusually warm weather conditions prevailing over the previous months. It should be clarified that the recent historical revision of data revealed that the performance of industrial production was considerably weaker than previously estimated, especially from 2014 onwards. Hence, the volume of production, based on the new data, remains below its maximum level prior to the crisis (Chart 9b).

Labor conditions continued improving in the period covered by this Report. Non-farm payroll expanded on average by 203 thousand jobs a month during the first quarter of 2016, although its growth moderated and shifted to 160 thousand jobs in April. Meanwhile, the labor participation rate went up from 62.6 to 62.8 percent between December 2015 and April 2016, and the employment-to-population ratio increased from 59.5 to 59.7 percent over the same period. In this context, the unemployment rate persisted around 5.0 percent, a figure close to the median of Federal Reserve long-term forecasts (4.8 percent; Chart 9c). Nonetheless, wage growth is still moderate, which suggests the presence of certain slack conditions in the labor market.

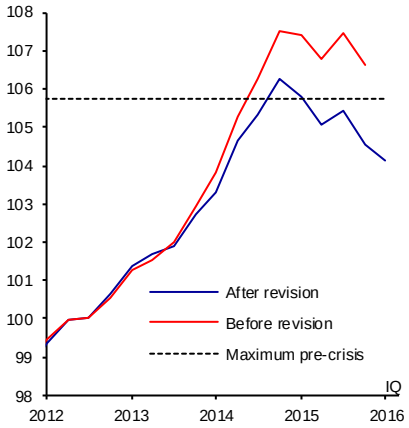
Chart 9
U.S. Economic Activity

a) Real GDP and Components
Annualized quarterly change in percent and percentage point contributions, s. a.



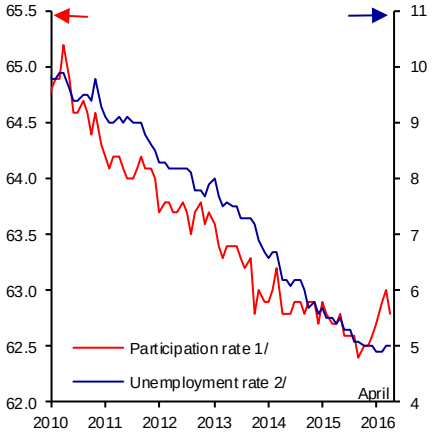
s. a. / Seasonally adjusted data.
Source: BEA.

b) Industrial Production
Index 2012=100, s. a.



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

c) Unemployment Rate and Work Force Participation Rate
Percent, s. a.



s. a. / Seasonally adjusted data.
1/ In percent of civilian population aged 16 years and older.
2/ In percent of work force.
Source: BLS.

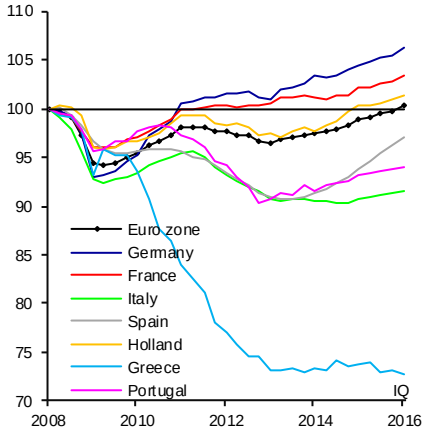
In the Euro zone, economic recovery remained moderate during the first quarter of 2016, despite an unfavorable international environment. GDP expanded at an annualized quarterly rate of 2.1 percent, as compared to 1.3 percent in the fourth quarter of 2015. Domestic demand remained supported by the greater monetary stimulus and the corresponding easing in credit conditions, a slightly expansionary fiscal stance, a lower demand in the labor market and low energy prices (Chart 10a). However, the recovery is still weak, and risks related to domestic imbalances, the precarious fiscal situation in Greece and the refugee crisis in the region persist.

As a result of turbulence in international financial markets and greater concern over the soundness of banks in the Euro zone in early 2016, equity and bond prices of European banks dropped. Despite this, credit conditions continued easing in the region, housing credit and credit to firms kept recovering and interest rates of consumer credits and credits to firms resumed their downward trend, following a slight rebound in January (Chart 10b). Even though the additional stimulus seems to be having a favorable effect on credit volumes, most banks reported a negative impact on their net revenue from interests and credit spreads due to the implementation of the negative interest rate in the deposit facility of the European Central Bank (ECB; Chart 10c).[2]

[2] As of June 2014, the European Central Bank remunerates with a negative interest rate the bank reserves that are maintained in its deposit facility, and that exceed the amount required by the central bank.

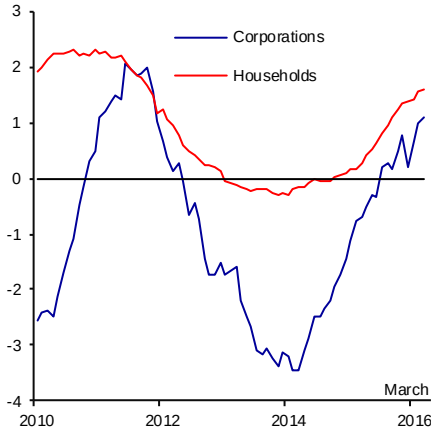
Chart 10
Economic Activity in the Euro Zone

a) Gross Domestic Product
Index 1Q-2008=100, s. a.



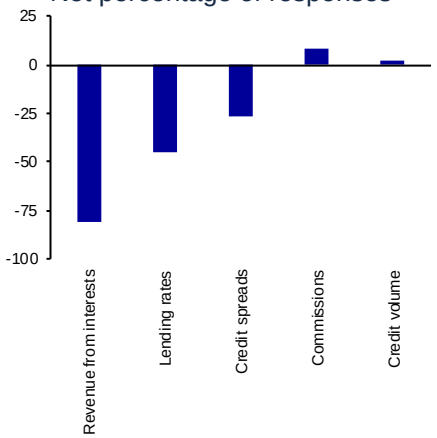
s. a. / Seasonally adjusted data.
Source: Eurostat.

b) Bank Loans to Non-financial Private Sector [1/]
Annual change in percent, s. a.



1/ Adjusted by sales and securitization.
s. a. / Seasonally adjusted data.
Source: ECB.

c) Impact of the Negative Interest Rate in the Deposit Facility on the Margin and Credit of Banks
Net percentage of responses



Source: ECB.

Economic activity in Japan expanded 1.7 percent at an annualized quarterly rate in the first quarter, following a contraction of 1.7 percent in the fourth quarter of 2015. During the first three months of 2016, domestic demand remained weak, in light of a contraction of private investment and the fact that consumption only recovered after the drop in late 2015. In this context, the expansion observed in the reference quarter was supported by government expenditure and net exports. Besides the possible effects of the Kumamoto earthquakes onto economic activity in the second quarter, the economy of Japan keeps registering downward risks stemming from the continuous JPY appreciation and a weak demand from emerging economies.

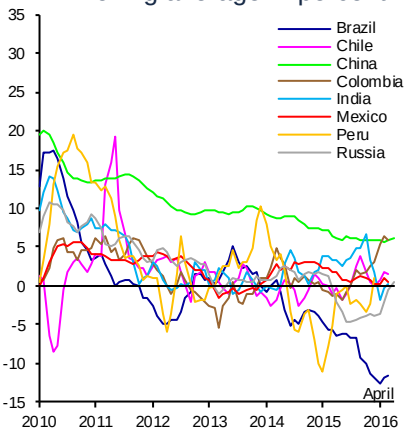
There are differences in the economic evolution of different emerging economies, although in general the outlook has been adjusted downwards, above all due to the performance of some large economies, such as Brazil and Russia, which are still going through recession. Although industrial production in some of these economies somewhat improved during the quarter, in most of them it is practically stagnated (Chart 11a). On the other hand, even though commodity prices slightly recovered, exports continued decreasing in a generalized manner (Chart 11b). GDP in Latin America is anticipated to contract again this year, principally as a consequence of the expected especially unfavorable performance of the economy of Brazil. Additionally, there is the announcement of the fiscal cuts in different countries to adjust to lower revenues due to lower commodity prices and the limited margin of maneuver for the monetary policy, given that inflation lies above the respective targets in most economies of the region.

In China, economic growth stabilized in the first quarter of the year, as GDP expanded 6.7 percent at an annual rate, as compared to 6.8 percent in the fourth quarter of 2015. The indicators of economic activity at the end of the first quarter suggest a gradual improvement, as a consequence of the monetary and fiscal stimulus implemented in this country, which was reflected in a greater participation of state-owned companies in investment projects and in an increase in credit.

However, at the beginning of the second quarter some of these indicators moderated more than it was expected, even though the real estate sector maintained high growth rates (Chart 11c). Furthermore, there are doubts regarding the sustainability of the recovery, since a greater indebtedness could intensify the deterioration in the indicators of banks' portfolio quality.

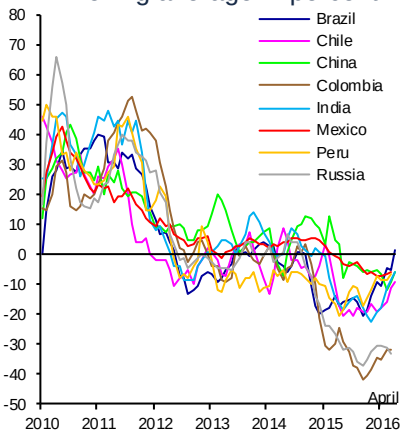
Chart 11
Economic Indicators of Emerging Economies

a) Industrial Production
Annual change of the 3-month moving average in percent



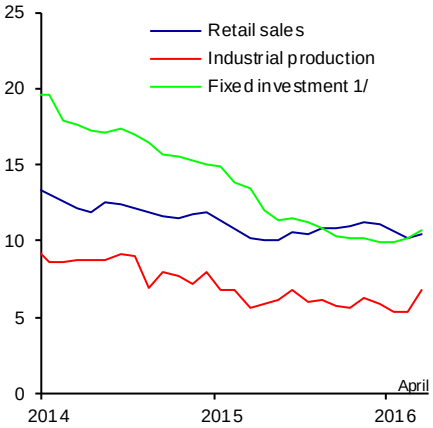
Source: Haver Analytics.

b) Exports
Annual change of the 3-month moving average in percent



Source: Bloomberg and INEGI.

c) China: Indicators of Economic Activity
Annual change in percent



1/ Corresponds to the annual change accumulated in percent.
Source: Haver Analytics.

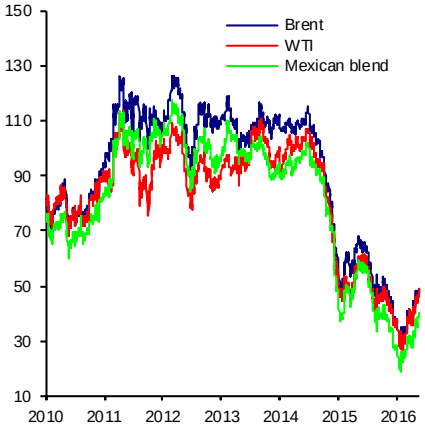
3.1.2. Commodity Prices

Following the drop in the first weeks of the first quarter of 2016, commodity prices recovered slightly, although they still remain at low levels. In the case of oil prices, progress was due to an improved outlook of the supply – demand balance, fundamentally derived from lower levels of production in different countries, in particular in the U.S., and from a slower than expected return of Iran to oil markets, in a context in which the growth of demand for crude oil remained weak.[3] Furthermore, expectations of a possible agreement to cut down crude oil production among OPEC member and non-member states also contributed to the recovery of prices. However, as this agreement did not take place, prices declined slightly (Chart 12a). On the other hand, metal prices recovered, after reaching minimum levels in seven years, due to the strengthening of the manufacturing and construction sectors in China, as well as a widespread depreciation of the U.S. dollar (Chart 12b). Finally, grain prices did not change significantly throughout the quarter, as the expectations of inventories accumulation for this year persisted (Chart 12c).

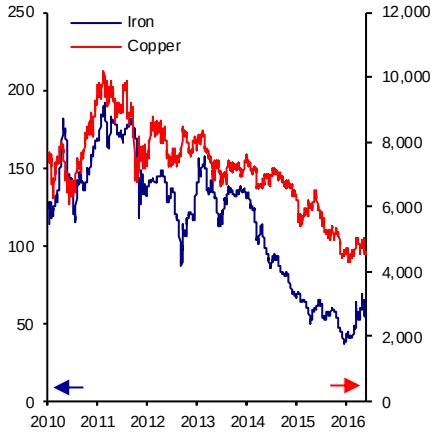
[3] The greater growth in demand for oil from the countries such as India was offset by a drop in demand in such countries as China, U.S. and Japan.

Chart 12
International Commodity Prices [1/]

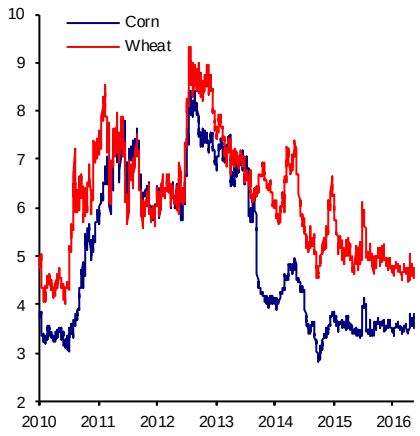
a) Crude Oil
USD/barrel



b) Iron and Copper
USD/metric ton



c) Corn and Wheat
USD/bushel



1/ Spot market.
Source: Bloomberg.

3.1.3. Inflation Trends Abroad

Inflation and its expectations in the main advanced economies remained low during the period covered by this Report, despite a certain recovery in commodity prices (Chart 13a and Chart 13b). Although inflation is expected to converge to the targets of the respective central banks in the medium term, there is still concern regarding a possible deflation in some of these economies.

In the U.S., headline and core inflation slightly increased during the quarter, partly induced by transitory factors that led to a temporary increment in the prices of a reduced group of goods. However, inflation measured as the consumption deflator remains below the 2 percent target and is still affected by the previous drops in energy prices and non-energy imports. This is despite the recent depreciation of the U.S. dollar and higher crude oil prices. In particular, the annual change of the consumption deflator went up from 0.7 percent in December 2015 to 0.8 percent in March 2016, while inflation excluding food and energy shifted from 1.4 to 1.6 percent in the same time frame. On the other hand, inflation measured by the consumer price index increased from 0.7 percent in late 2015 to 1.1 percent in April, while the annual change of core inflation persisted at 2.1 percent. Even though different measures of inflation expectations have modestly increased since mid-February, they are still at low levels.

Headline inflation in the Euro zone continued fluctuating at levels close to 0 percent in the period analyzed by this Report, in view of a considerable contraction of energy prices. Weak domestic pressures on inflation in the Euro zone are attributed to the modest growth of economic activity and wages, which prevented core inflation from rebounding. In April, annual inflation was -0.2 percent, while inflation excluding food and energy lied at 0.7 percent. Long-term inflation expectations, derived from the market instruments' prices, stabilized at low levels, considerably below the survey-derived expectations.

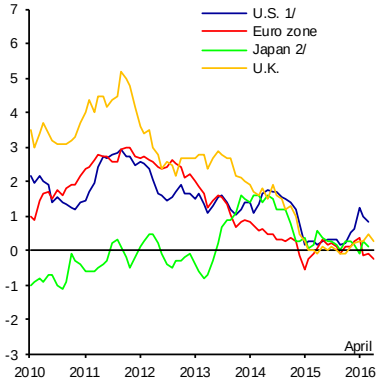
In Japan, inflation and its expectations continued decreasing during the first quarter of 2016, thus aggravating the fear of deflation in this country. Annual inflation

concluded the first quarter at -0.1 percent, which compares to 0.2 percent in December 2015. Along the same lines, inflation excluding fresh food went down from 0.1 percent at the end of last year to -0.3 percent in March. In response to a decline in the outlook of GDP and the evolution of wages, the Bank of Japan decreased its inflation forecasts.

In turn, a differentiated inflation outlook was observed in emerging economies in the first quarter. In some countries, principally of Asia and Europe, inflation remains low and deflation concerns persist, consequent on a weak domestic demand and low commodity prices. On the contrary, in one part of Latin America, as well as other countries, such as Russia and Turkey, inflation persisted above the central banks' targets, partly as a consequence of the depreciations of these countries' currencies. It should be noted that among emerging economies, Mexico presented one of the lowest inflation rates in the reported period (Chart 13c).

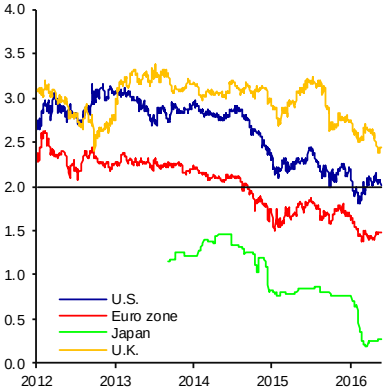
Chart 13
Annual Headline Inflation and Inflation Expectations in Advanced and Emerging Economies
In percent

a) Advanced Economies: Headline Inflation, s. a.



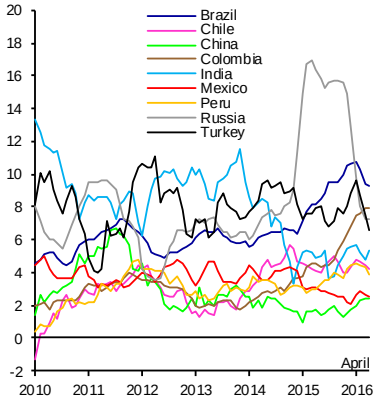
s. a. / Seasonally adjusted figures.
1/ It refers to consumption deflator.
2/ It excludes the direct effect of the increment in the consumption tax.
Source: BEA, Eurostat and Statistics Bureau of Japan.

b) Advanced Economies: Inflation Expectations Derived from Financial Instruments for Next 5 to 10 Years 1/



1/ Obtained from swap contracts in which one counterparty agrees to pay a fixed rate in exchange for receiving a referenced payment at an inflation rate over a specified period.
Source: JP Morgan.

c) Emerging Economies: Headline Inflation



Source: National Statistics Bureaus and Central Banks.

3.1.4. International Monetary Policy and Financial Markets

During the reported quarter, monetary policy in the main advanced economies registered a trend towards a greater easing, mainly due to the poor economic growth and very low inflation in these countries, a situation that in some cases could lead to deflation. It needs to be stressed that although the monetary stimuli have been an important factor in supporting an incipient recovery, their effectiveness seems to be declining, thus enhancing the need to complement them with fiscal policies and structural reforms.

Following the 25-basis-point increment in the target range of the federal funds rate in December, the Federal Reserve refrained from further increments in its meetings of January, March and April, maintaining the said target range of 0.25 to 0.50 percent. This is derived from the perception of risks stemming from the volatility in global financial conditions and, in particular, from the risk that the deterioration in the outlook for the global economy would imply to the U.S. economy. Thus, in March, the Federal Reserve adopted a more cautious stance on the expected increment in the monetary policy target rate, as the median of the forecasts of the Federal Open Market Committee members was adjusted downwards, over the federal funds rate for the next years. In its press release of April, the Committee replaced the reference to the risks generated by global economic and financial events to the U.S. economy by an affirmation that it will continue monitoring the global environment. The Federal Reserve highlighted a further improvement in labor market conditions, and also emphasized that the economic activity kept moderating. Finally, it noted that inflation remains under its 2 percent target, although it is expected to converge to it. Similarly, it reiterated that inflation expectations remain low.

In its meeting of March, the European Central Bank (ECB) decided to expand the easing of the monetary policy stance in light of a deterioration in the growth outlook

and inflation, which is attributed to a greater deceleration of world demand and a further drop in commodity prices. The announced measures include a reduction in all monetary policy rates, particularly in the interest rates of credit spreads (from -0.3 to -0.4 percent); an expansion of the asset purchase program; and the expansion of the set of instruments eligible for investment-grade Euro-denominated corporate bonds; and starting from June 2016, a new series of four long-term targeted financing operations (TLTRO II), with a four-year maturity and an interest rate that can be as low as the deposit rate. In April, the ECB maintained unchanged its monetary policy stance and confirmed its orientation regarding the possible forward guidance, emphasizing that it expects interest rates to remain at current or lower levels for an extended time period. This institution highlighted that the announcements of the measures in March supported an improvement in funding conditions and a rebound in lending growth, and that for the moment it will focus on its implementation.

After lowering the deposit interest rate that applies to a part of the reserves banks kept in the central bank, the Bank of Japan refrained from providing further easing in its meetings of March and April. This was done despite the fact that, in the latter meeting, it significantly adjusted downwards its outlook for economic growth and inflation, while recognizing a reduction in inflation expectations, and it extended the possible period to achieve its 2 percent target from approximately the first half of the fiscal year 2017 (April to September 2017) to the fiscal year 2017 (from April 2017 to March 2018). Thus, this Institute maintained unchanged its deposit rate at -0.1 percent, the goal to increase the monetary base at an annual rate of around JPY 80 trillion and the purchase of government bonds and other instruments. At the same time, it reiterated that, if it is deemed necessary, additional easing measures will be implemented to achieve the 2 percent inflation target, including reductions in the reserve deposit rate.

The monetary policy stance and its outlook remained differentiated across emerging economies. Thus, in most emerging European and Asian countries, the policy rates remained unchanged and in some cases even diminished, in an effort to boost growth and decrease downward pressures on inflation. In particular, China kept easing its monetary policy by means of additional cuts in commercial banks' reserve requirements. In contrast, some Latin American countries increased their reference interest rates during the period analyzed by this Report, in response to the effects of their currencies' depreciation and the consequent raise in inflation and its expectations.

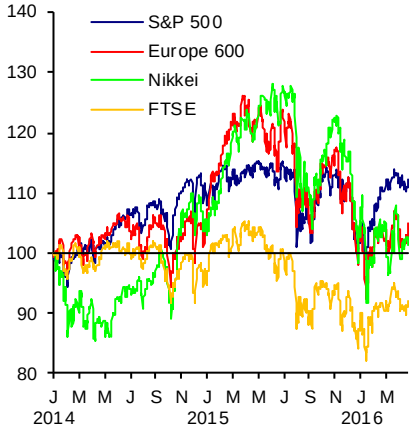
International financial markets presented strong movements in the period analyzed in this Report. In early 2016, higher risk asset prices plunged, at the same time as emerging markets witnessed strong capital outflows, due to the higher risk aversion, to fear regarding the European banks' solvency, to the worsening of the outlook for corporate sector profits and to doubts over the effectiveness of the monetary policy implemented in the main advanced economies to support economic recovery. Thus, stock markets exhibited strong falls and observed an increment in the credit risk assessment, once increases in the margins of high-yield corporate bonds were registered (Chart 14a and Chart 14b). This situation was particularly noticeable for the Euro zone financial institutions.

Nonetheless, markets started to exhibit greater stability and financial conditions began improving starting from mid-February, following China's efforts to boost growth and to stabilize its exchange rate, and the above mentioned responses of

the main central banks. Consequently, long-term government bond rates of the main advanced economies declined, supporting other assets' prices, such as securities, and the reduction of the credit margins to the corporate sector (Chart 14c). Furthermore, the downward trajectory in the future trend of the federal funds rate implicit in curve of the OIS futures market in the U.S. contributed to the U.S. dollar depreciation. In emerging economies, the improvement of financial conditions starting from the second half of the first quarter was reflected in a decrease of credit and sovereign risk margins and in greater capital inflows in different countries (Chart 15).

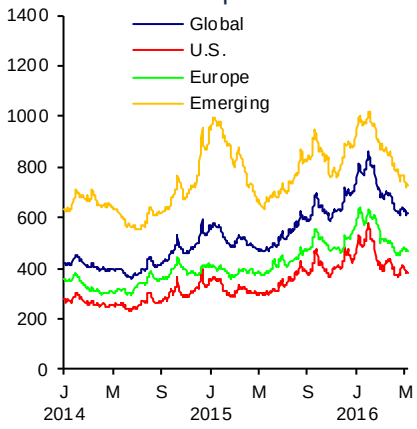
Chart 14
Financial Indicators of Selected Advanced Economies

a) Stock Markets
Index 01/01/2014=100



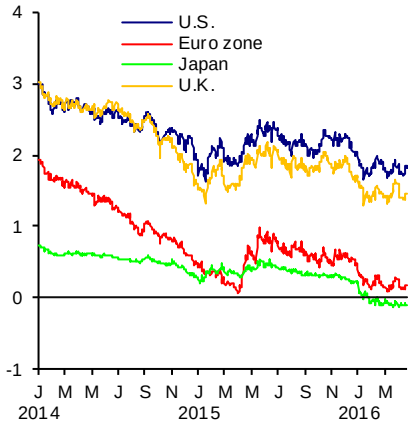
Source: Bloomberg.

b) Margins of the High-yield Corporate Credit
Basis points



Source: BofA Merrill Lynch.

c) 10-year Sovereign Bond Yield
In percent

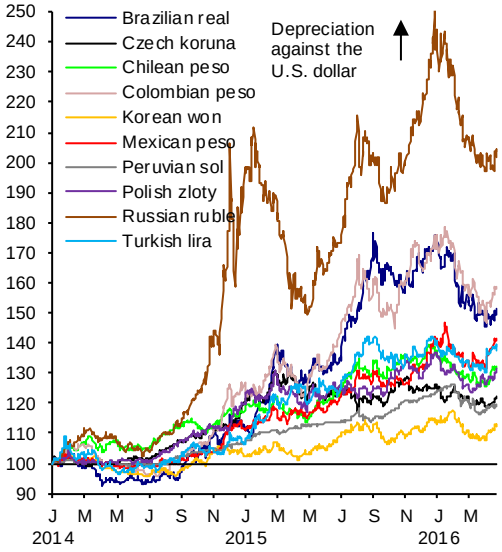


Source: Bloomberg.

In mid-May, volatility in international financial markets increased, and in the future new episodes of volatility caused by different factors cannot be ruled out. In the first place, uncertainty regarding the world economic growth outlook persists, as a result of the moderation of the economic activity in advanced economies, and the fact that the apparent improvement in the economic activity of China could end up unsustainable. Similarly, a risk of an abrupt increment in long-term interest rates remains, given an unexpected increase in the normalization rate of the U.S. monetary policy. Finally, there are still doubts over the undesirable effects that a greater monetary stimulus of advanced economies could generate on the soundness of the banking system and on financial stability, in particular on the distortions that negative interest rates observed in various advanced economies could have on the profitability of financial institutions, as well as on the incentives for savings and investment.

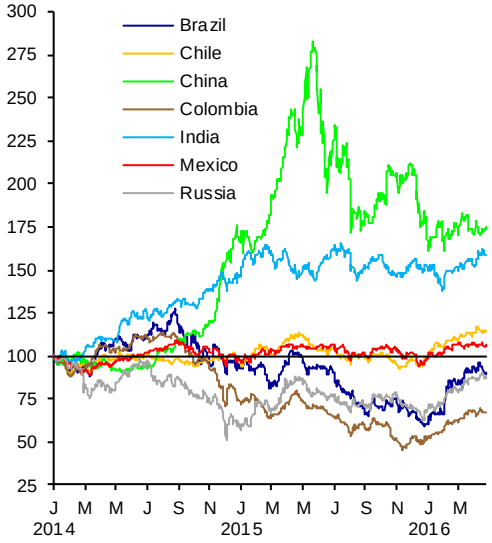
Chart 15
Financial Indicators of Emerging Economies

a) Exchange Rate
Index 01/01/2014=100

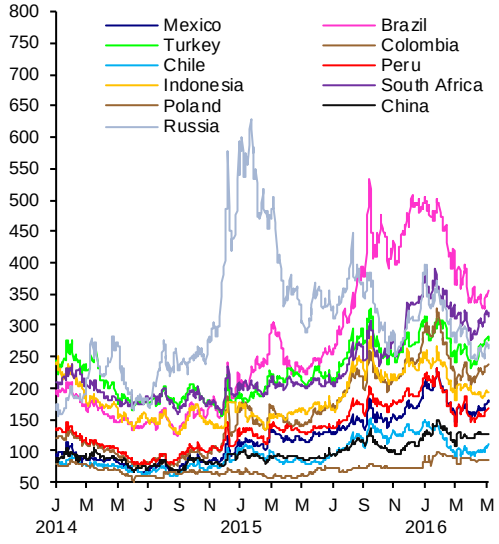


Source: Bloomberg.

b) Stock Markets
Index 01/01/2014=100

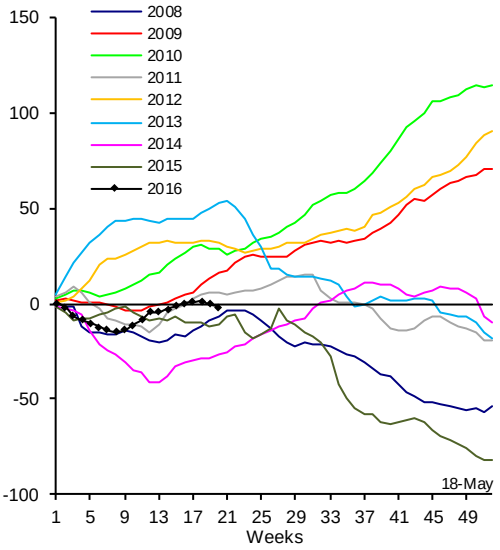


c) Sovereign Credit Risk Market Indicators (CDS)
In basis points



Source: Bloomberg.

d) Total Capital Flows to Emerging Economies (Debt and Stock) [1/]



1/ The sample includes funds used for emerging economies' stock and bond transactions, registered in advanced economies. The flows exclude the performance of the portfolio and exchange rate movements.
Source: Emerging Portfolio Fund Research.

3.2. Evolution of the Mexican Economy

3.2.1. Economic Activity

In the first quarter of 2016, the Mexican economy expanded more than in the previous quarter. This was mainly the result of the consumption's dynamism, while

investment remained stagnated and the external demand continued registering an unfavorable behavior.

Indeed, in the first three months of 2016 manufacturing exports maintained a negative trend, in a context of a world trade slowdown (Chart 16a). In particular, both automotive and non-automotive exports presented a decreasing trajectory (Chart 16b and Chart 16c). Although the decline was more apparent in the latter case, the former strongly contracted in March, partly as a consequence of the temporary closure of some assembly plants in Mexico, which were adjusting their production lines. According to their classification by intended destination, manufacturing exports to the U.S. as well as to the rest of the world performed unfavorably. In this sense, the positive impact that the real exchange rate depreciation could have on manufacturing exports has been offset by the weakness of the U.S. industrial production and the global demand.

Regarding oil exports, the average price of the Mexican blend during the first quarter remained below its observed price in the previous quarter, despite a slight recovery in March. In addition, the exporting platform of crude oil has remained at low levels. Both factors have contributed to the decline in the oil exports' trend (Chart 16d). In this context, it should be noted that the terms of oil trade in Mexico remained at low levels.[4] Thus, although the terms of trade of non-oil goods somewhat improved, the terms of total trade of goods in Mexico have slightly deteriorated (see Box 1).

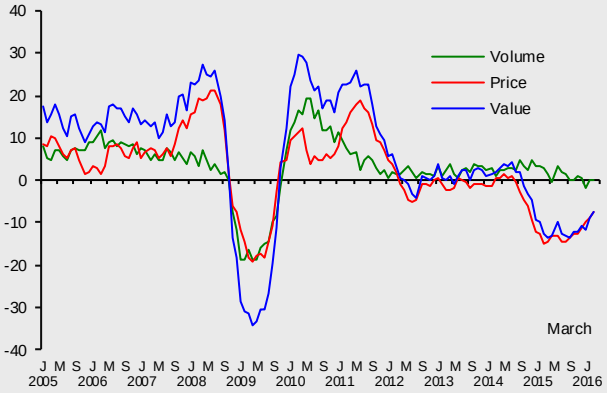
[4] See Box 2 of the Quarterly Report October – December 2015 "Recent Performance of the Global Oil Market and its Effects on the Oil Trade Balance of Mexico".

Box 1
Recent Evolution of the Terms of Trade in Mexico

1. Introduction

Following a certain recovery after the initial impact of the 2009 global crisis, world trade weakened again between 2012 and 2014, and even more recently has contracted. This decline is partly due to the low levels of economic growth worldwide. In this context, the lower global demand seems to have induced a stagnation in trade volumes and a decrease in the prices of goods traded internationally (Chart 1).

Chart 1
World Trade in Goods [1/]
Annual change in percent, s. a.



1/ It refers to total imports and exports.
s. a. / Seasonally adjusted data.
Source: CPB Netherlands.

In this environment, this Box shows that the prices of Mexican non-oil imports (that are mostly intermediate goods) have declined notoriously. In contrast, the prices of Mexican non-oil exports have remained relatively stable. This performance seems to reflect that the demand for final goods in the U.S. has been relatively more dynamic than the demand for intermediate goods, so the relative price of intermediate goods with respect to final goods has declined.

The structure of Mexico's non-oil foreign trade, where a high degree of intermediate goods is imported in order to export final goods, has induced an improvement in this country's non-oil terms of trade. However, has been offset by a pronounced fall in the oil terms of trade, as a result of the plunge in oil prices since the end of 2014, as it was indicated in Box 2 of the previous Quarterly Report.[1]

Hence, despite the improvement in the non-oil terms of trade, the terms of trade of total trade in Mexico have somewhat deteriorated.

2. Unit Values of Non-oil Exports and Imports

Box 2 in the previous Quarterly Report described the behavior of the unit values of Mexican oil exports and imports and stated that the oil terms of trade in Mexico have significantly deteriorated since the end of 2014. Following the methodology described in that Box, based on Anitori et al. (2008), this Box estimates the unit values of Mexican non-oil exports and imports.[2]

As it can be observed in Chart 2, the estimated unit values for Mexican non-oil exports have shown an incipient positive trend, while estimated unit values for the non-oil imports have strongly contracted.

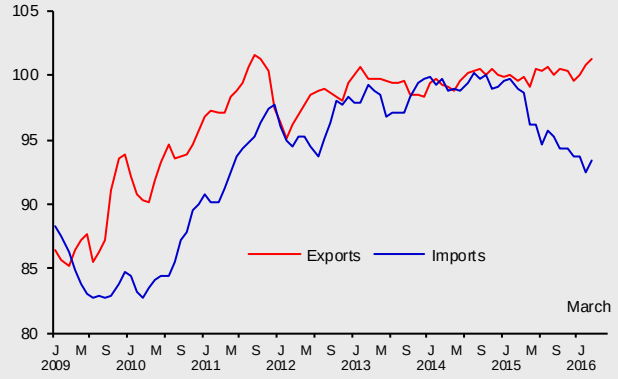
The performance of the unit values of Mexico's non-oil exports possibly responds to the dynamism of the U.S. domestic demand, which is the principal destination of Mexican exports. Indeed, as stated in Box 1 of the previous Quarterly Report, U.S. imports of final goods have continued growing.[3] In contrast, the intermediate goods' imports have shown a significant fall, which could be associated to the downward trend of the U.S. exports, due to the weak global demand and its currency appreciation. In line with this performance, while U.S. imports' prices of final goods have recently registered a moderate setback, the prices of materials and supplies' imports have dropped considerably (Chart 3). In this context, the contraction of the unit values of Mexican non-oil imports is in line with the fact that a big portion of Mexican imports is intermediate goods. This type of goods is the one that has recently registered a great decrease in international prices, taking as a reference the performance of U.S. imports' prices.

[1] "Recent Performance of the Global Oil Market and its Effects on the Oil Trade Balance of Mexico", Box 2 of the Quarterly Report October – December 2015.

[2] Anitori, Paola and Maria Serena Causo (2008), "Outlier Detection and Treatment: Quality Improvements in the Italian Unit Value Indexes", ISTAT – National Institute of Statistics, Italy. The methodology consists in using a statistical algorithm that, based on the assumption of the distributions of the unit values by product by month with observations at the level of transaction, eliminates atypical observations in the unit values. 2005 was used as a basis year for estimations.

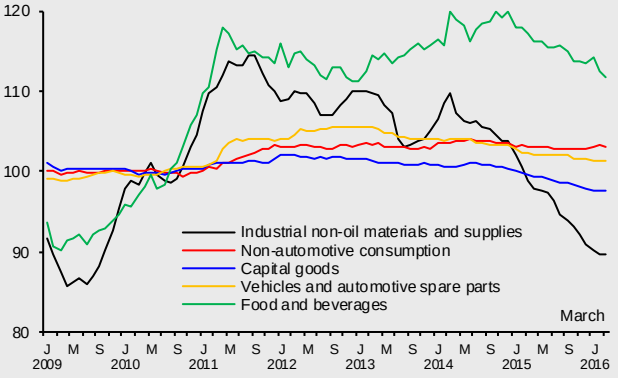
[3] "Analysis of the Recent Evolution of Mexican Manufacturing Exports to the U.S.", Box 1 of the Quarterly Report October - December 2015.

Chart 2
Indices of the Unit Value of Non-oil Exports and Imports
3-month moving average
Index 10/2014=100



Source: Prepared by Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Chart 3
Indices of U.S. Imports' Prices
Index 2010=100

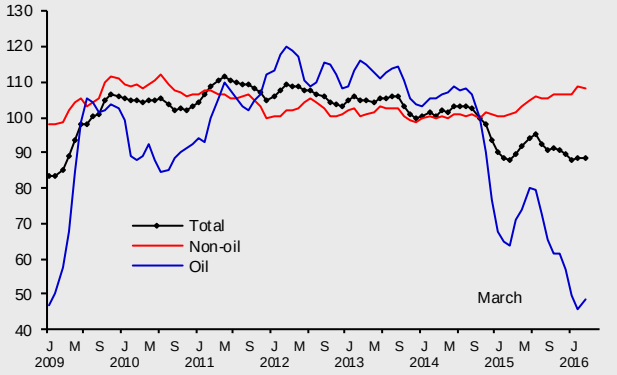


Source: Prepared by Banco de México with data from the U.S. Bureau of Labor Statistics.

3. Estimation of the Terms of Trade

The estimation of the unit values of Mexico's non-oil exports and imports suggests that the non-oil terms of trade of the country, defined as the ratio of the former to the latter, slightly improved since late 2014. However, as shown in Box 2 of the previous Report, the oil terms of trade indeed decreased noticeably. When both results are added, it can be observed that the country's terms of trade have deteriorated, as a result of the drop in crude oil prices by the end of 2014 (Chart 4).

Chart 4
Terms of Trade
3-month moving average
Index 10/2014=100



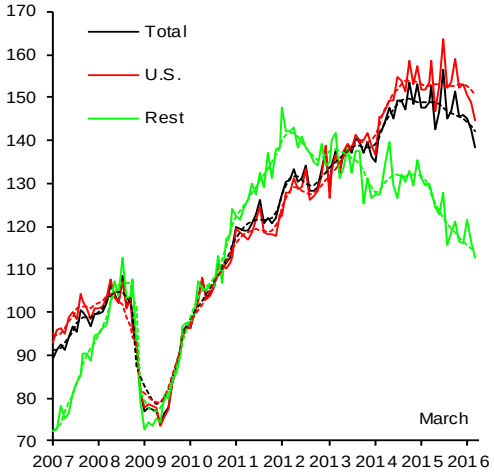
Source: Prepared by Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

4. Final Remarks

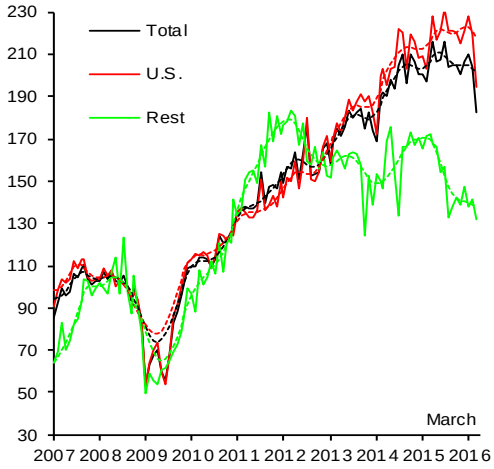
The global demand's sluggishness keeps presenting risks to the Mexican external sector. Nonetheless, imported final goods by the U.S. seem to have maintained a relative dynamism, reason for which their prices have not dropped considerably. In this context, it is important for Mexico to continue reallocating its resources, as it has already been done, to the production sectors that have been more demanded by the U.S. The structural reforms could contribute to this more efficient allocation and also to boost productivity. Moreover, their implementation will also help generating domestic sources of growth, which is becoming more relevant in light of the prevailing adverse international environment.

Chart 16
Export Indicators
Index 2008=100, s. a.

a) Total Manufacturing Exports

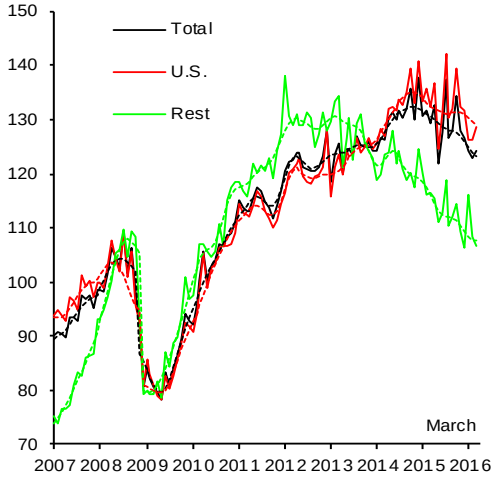


b) Automotive Manufacturing Exports



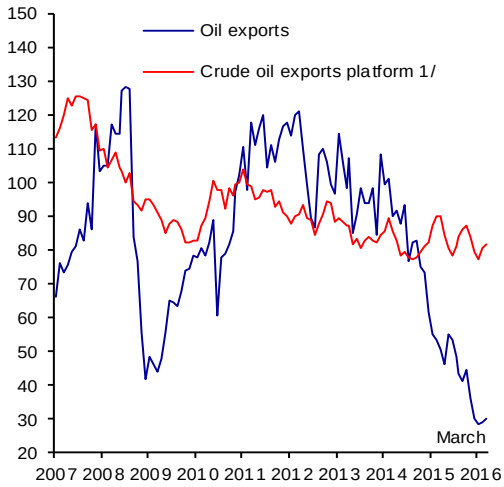
s. a. / Seasonally adjusted and trend data based on information in nominal dollars. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

c) Non-automotive Manufacturing Exports



s. a. / Seasonally adjusted and trend data based on information in nominal dollars. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

d) Oil Exports and Crude Oil Export Platform



s. a. / Seasonally adjusted data based on information in nominal dollars.
1/ 3-month moving average of daily barrels of the seasonally adjusted series.
Source: SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest, and Banco de México with data from *PMI Comercio Internacional*, S.A. de C.V.

As regards the domestic demand, most private consumption indicators suggest that it continued exhibiting a favorable trend in the first quarter of 2016.

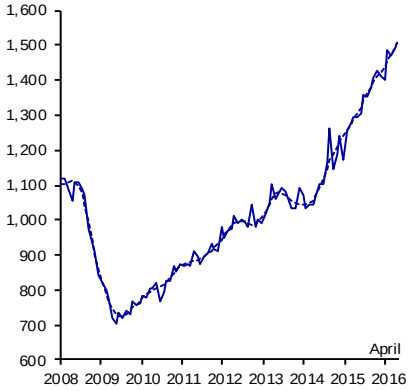
i. Indeed, in the first months of the year light vehicles' sales maintained a strong dynamism (Chart 17a), while revenues from the retail supply of goods and services and ANTAD's sales continued expanding (Chart 17b).

Likewise, in the period from January to February 2016, the monthly indicator of domestic private consumption, which is a broader measure of private consumption, maintained a growing trend (Chart 17c).

ii. Different factors have contributed to the favorable performance of consumption. In particular, the real wage bill has remained at higher levels than those observed in late 2014 (Chart 18a), due to the improvement in the labor market and to low inflation levels. In this sense, private consumption has also benefitted from the implementation of structural reforms, as they have induced decreases in the prices of different goods and services, such as energy and telecommunications, which, besides the direct effect on these products, could also have freed up resources for households' spending on other types of goods and services. Similarly, figures on consumer credit indicate that in the first months of 2016 it continued the recovery it had exhibited at the end of 2015 (see Section 3.2.2). Furthermore, income from family remittances kept expanding and registered levels close to those observed before the 2008 crisis (Chart 18b). In contrast, the consumer confidence indicator slightly deteriorated at the margin. This reflects the negative trend registered by some components related with the perception of the current and future juncture of the country, while other components, such as the one associated to the current possibility of acquiring durable goods, remain at relatively high levels (Chart 18c).

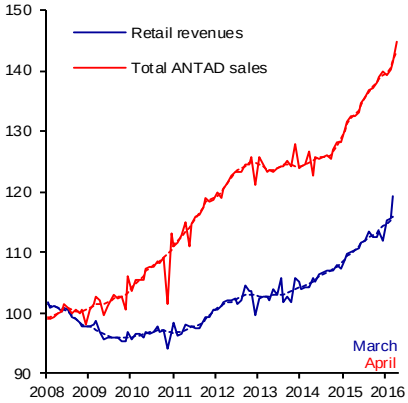
Chart 17
Consumption Indicators

a) Domestic Light Vehicle Retail Sales
Thousands of units, annualized, s. a.



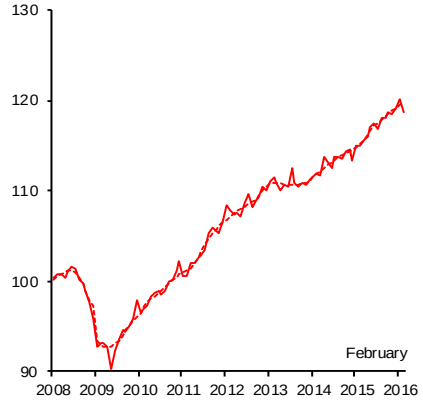
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Prepared by Banco de México with data from the Mexican Automotive Industry Association (AMIA).

b) Commercial Retail Business Revenues and Total ANTAD Sales
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 Business Survey, INEGI; prepared by Banco de México with ANTAD data.

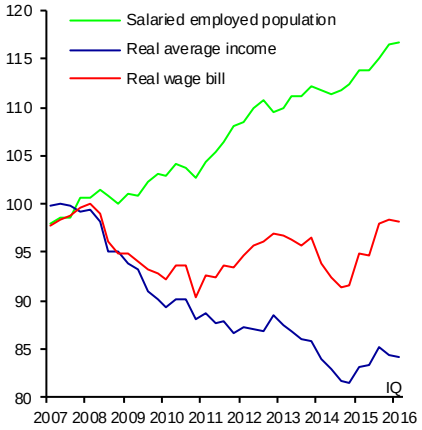
c) Monthly Indicator of Domestic Private Consumption
Index 2008=100, s. a.



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

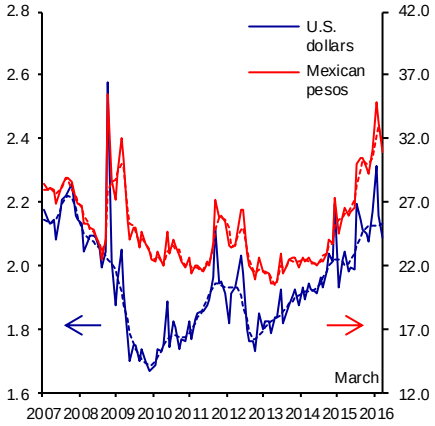
Chart 18
Consumption Determinants

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



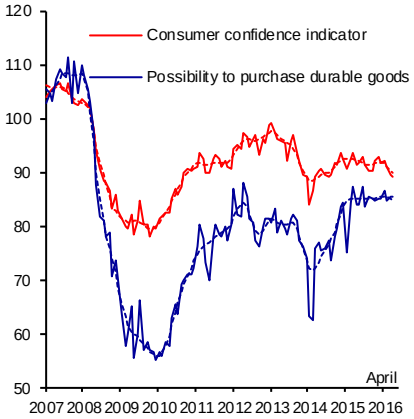
s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from the National Employment Survey (ENOE), INEGI.

b) Workers' Remittances
Billion, constant USD and MXN,[1/]
s. a.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Prices as of the second fortnight of December 2010.
Source: Banco de México.

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

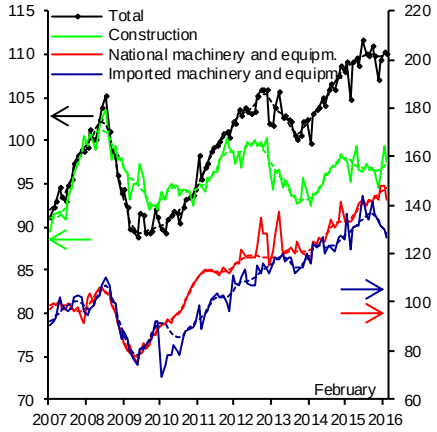


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: National Consumer Confidence Survey (ENCO), INEGI and Banco de México.

The performance of gross fixed investment remained weak in the reported quarter (Chart 19a). In line with the deterioration of the global growth outlook and a lower dynamism of the external demand, investment in machinery and equipment maintained a negative trend, as a reflection of a strong decline in imports (Chart 19b). Still, the dynamism prevailing in Mexico's domestic demand could boost a greater expenditure on investment in the future. In fact, despite being incipient, this momentum can already be seen in the positive figures registered by the investment in construction during the quarter (Chart 19c).

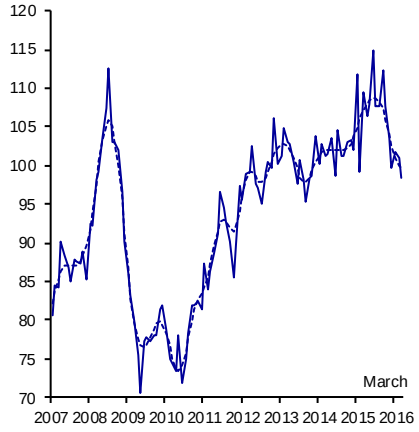
Chart 19
Investment Indicators
Index 2008=100, s. a.

a) Investment and its Components



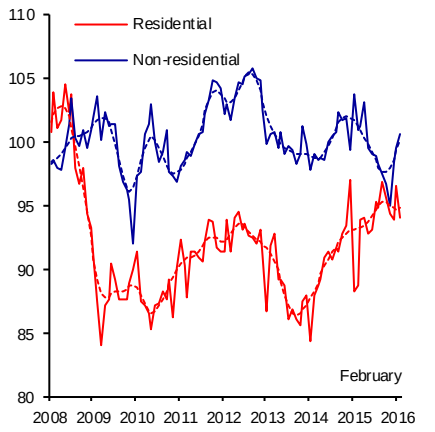
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's National Accounts System, INEGI.

b) Capital Goods' Imports



s. a. / Seasonally adjusted and trend data based on information in nominal dollars. The former is represented by a solid line, the latter by a dotted line.
Source: SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

c) Investment in Residential and Non-residential Construction



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

As regards production, in early 2016 a relatively high growth of services persisted, while industrial production remained stagnated (Chart 20a).

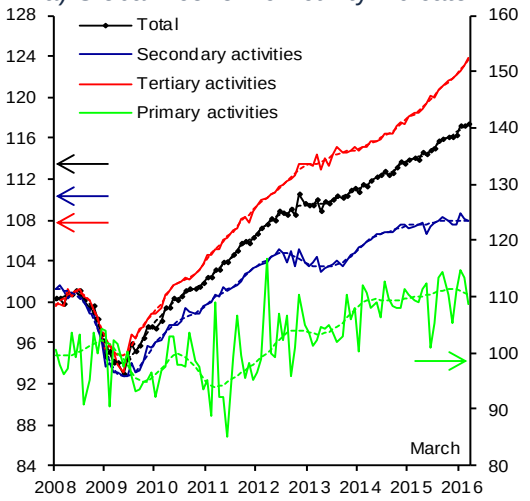
i. Within the industrial activity, in the first quarter of the current year manufacturing production maintained a low expansion rate, as a result of an unfavorable performance of manufacturing exports, although this effect was partially offset by the dynamism of domestic demand for manufacturing (Chart 20b). The electricity sector stagnated, while mining continued presenting a negative trend, in a context in which the oil production platform kept deteriorating (Chart 20c). On the other hand, as mentioned above, the construction sector somewhat improved with respect to the weak performance reported in the second half of 2015.

ii. Tertiary activities continued expanding in the first three months of 2016. In particular, the growth of financial services, real estate and leasing services, and professional and firm management services is noteworthy. Likewise, it should be noted that transportation and mass media information services remained at high levels, possibly as a consequence of the impact generated by the telecommunication reform on these services' consumption. In contrast, services related to government activities, trade and temporary lodging services, and food and beverage-related services decelerated (Chart 20d).

iii. In the first quarter of 2016, primary activities expanded, derived from the growth of harvests of different crops of the spring-summer cycle and of some perennial crops, as well as a greater livestock production.

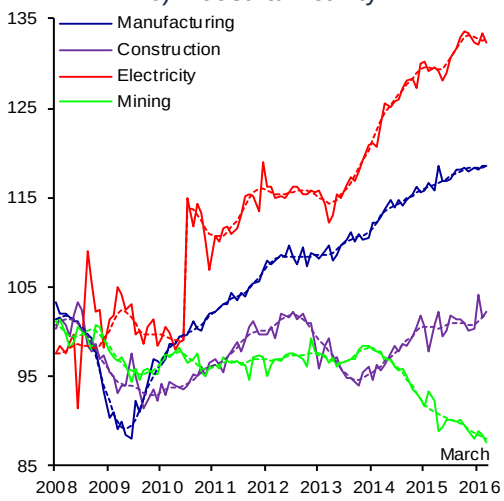
Chart 20
Production Indicators
Index 2008=100, s. a.

a) Global Economic Activity Indicator



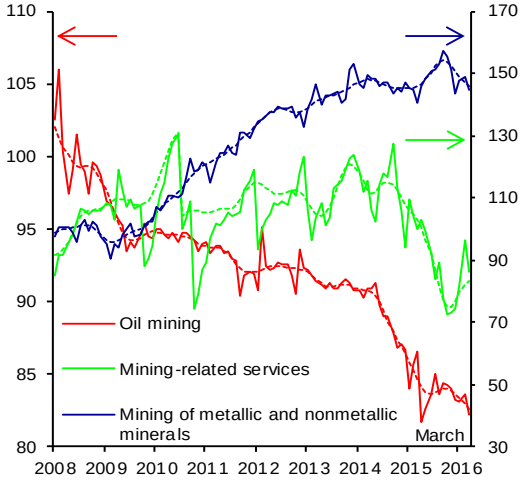
s. e. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's National Accounts System, INEGI.

b) Industrial Activity



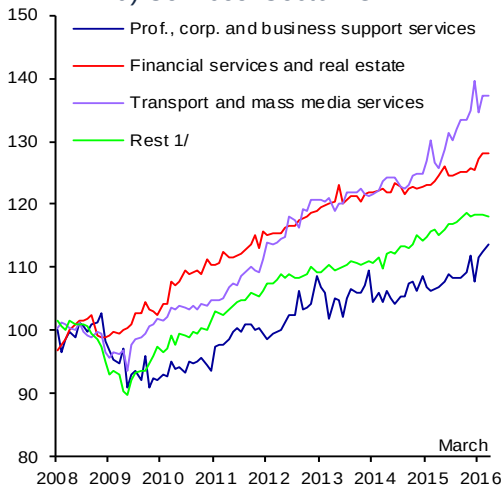
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Monthly Industrial Activity Indicator, Mexico's National Accounts System, INEGI.

c) Mining Sector



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

d) Services' Sector IGAE

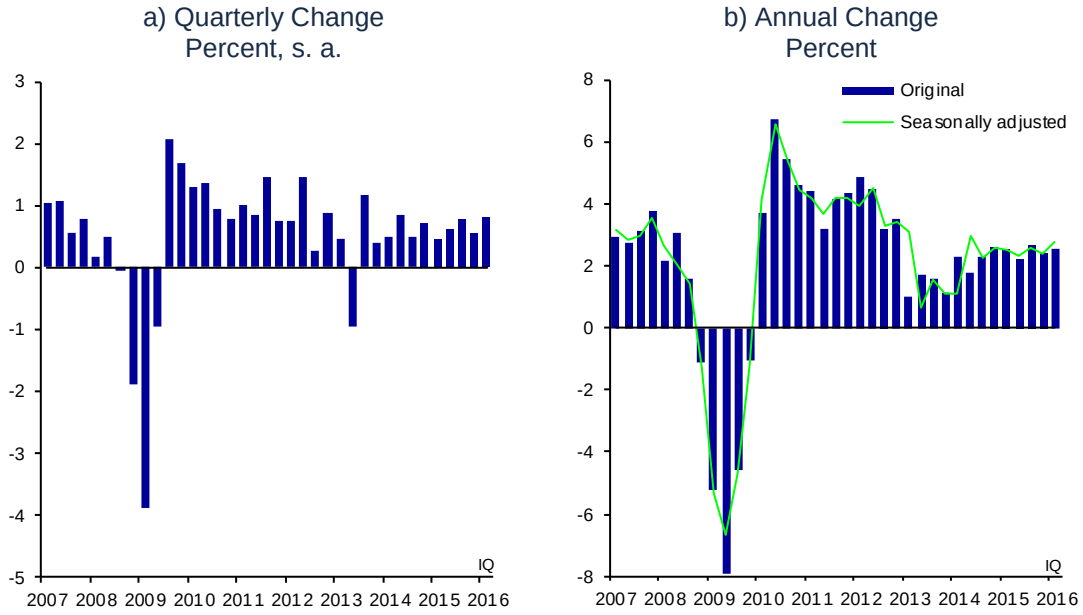


s. a. / Seasonally adjusted data.
1/ Includes the rest of the services' sectors.
Source: Prepared by Banco de México with data from Mexico's National Accounts System, INEGI.

Derived from the previously described dynamics, the GDP registered a quarterly seasonally adjusted growth of 0.8 percent in the first quarter of 2016, a figure above the 0.5 percent observed in the previous quarter (Chart 21a). Based on seasonally adjusted data, economic activity presented an annual growth of 2.8 percent in this quarter, following a change of 2.4 percent in the previous one. Based on data without seasonal adjustment, an annual GDP growth of 2.6 percent was registered in the first quarter, a figure that was adjusted downwards by the fact that the Holy Week took place in March in 2016, while in 2015 it was in April (Chart 21b). A greater dynamism of GDP in the first quarter of 2016 suggests a certain

improvement in the growth outlook of this year, although it is still not significant enough to imply a revision of the forecast interval of the GDP growth rate that was announced in the previous Quarter.

Chart 21
Gross Domestic Product

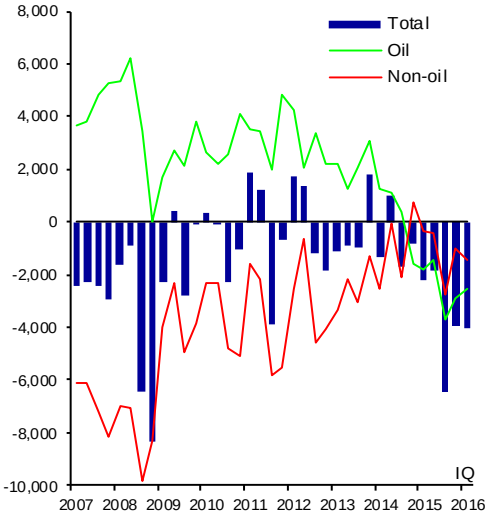


s. a. / Seasonally adjusted data.
Source: Mexico's National Accounts System, INEGI.

In the first quarter of 2016, the trade balance registered a deficit of USD 4,011 million (Chart 22a), as compared to USD 2,201 million observed in the same period of 2015. This change reflected both the increments in the oil balance deficit and in the non-oil balance deficit. In particular, the oil balance changed from being a negative balance of USD 1,841 million in the first three months of 2015 to one of USD 2,541 million in the first quarter of 2016. On the other hand, the non-oil balance increased from a deficit of USD 360 million to a balance of USD 1,469 million, in the same comparison. In this context, in the first quarter of 2016, the current account is estimated to have registered a deficit of approximately USD 7 billion (2.7 percent of GDP; Chart 22b), which is compared to that of USD 7.7 billion in the previous quarter.

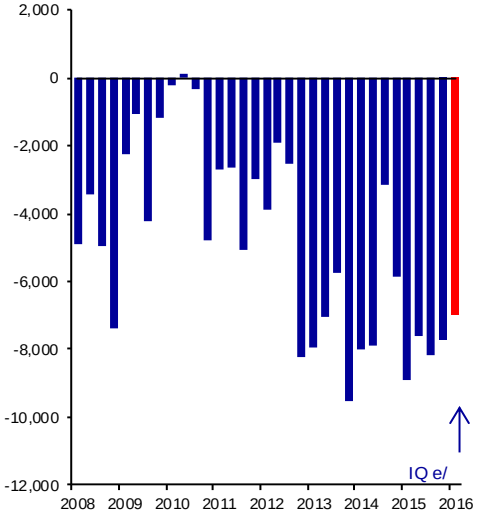
Chart 22
Trade Balance and Current Account
USD million

a) Trade Balance



Source: SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

b) Current Account



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

3.2.2. Labor Market

Even though most indicators in the labor market improved, certain slack conditions still prevail.

i. In the first quarter of 2016, national and urban unemployment rates continued to decrease gradually, although they still lie above the observed pre-crisis levels (Chart 23a).

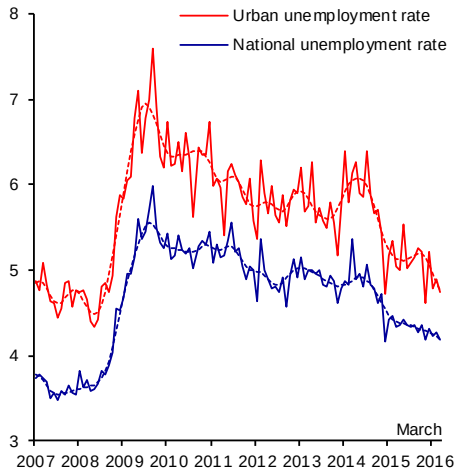
ii. Similarly, the number of IMSS-insured employments kept going up, despite the slowdown in its growth rate (Chart 23b).

iii. Nonetheless, unlike in the previous quarter, in the first three months of 2016 the labor participation rate decreased and located at levels close to those registered in early 2015 (Chart 23c).

iv. As to the labor informality indicators, in the first quarter of 2016 both the labor informality rate and the informal sector employment rate decreased with respect to the average rates achieved in the period of October – December 2015 (Chart 23d).

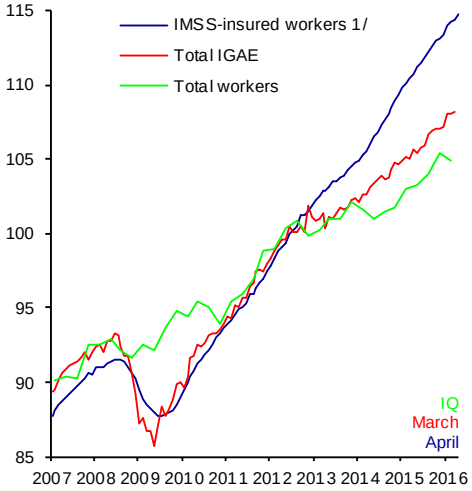
Chart 23
Labor Market Indicators

a) National and Urban Unemployment Rate
Percent, s. a.



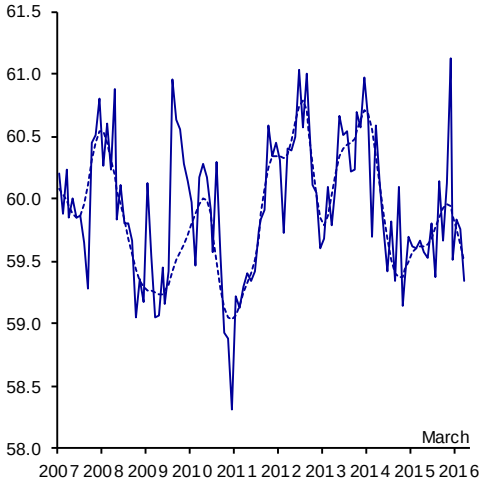
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

b) IMSS-insured Workers, Total IGAE and Working Population
Index 2012=100, s. a.



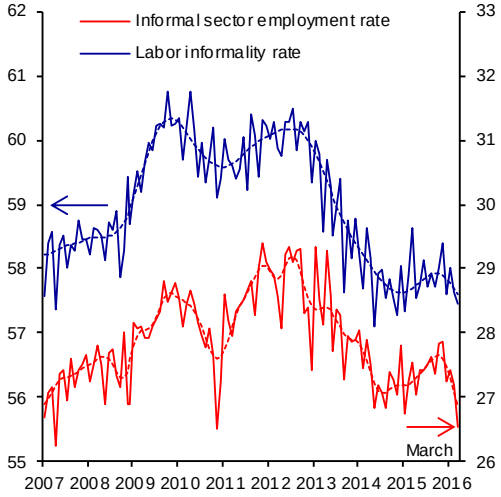
s. a. / Seasonally adjusted data.
1/ Permanent and temporary jobs in urban areas. Seasonal adjustment by Banco de México.
Source: Prepared by Banco de México with data from IMSS and INEGI (SCNM and ENOE).

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 to the population of 15 years old and older.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

d) Informal Sector Employment [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 with households' resources.
2/ It includes workers who, besides being employed in the informal sector, work without 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.

In this context, in the first months of 2016, moderate wage increases persisted, which, given the low inflation level, implied a gradual recovery of the purchasing power of wages.

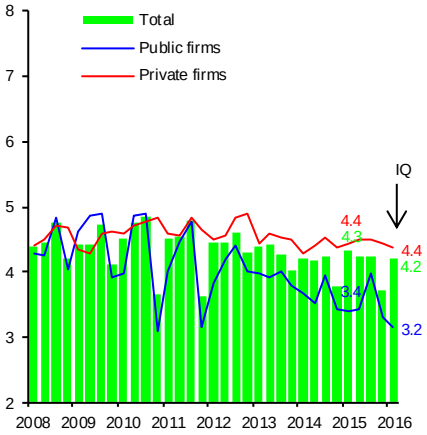
i. In the first quarter of 2016, the growth rate of contractual wages negotiated by firms under federal jurisdiction moderately decreased, with respect to that reported in the same quarter of 2015 (Chart 24a). This resulted from public firms' negotiations that, on average, led to slightly smaller increments in the first quarter of 2016, as compared to 2015, given that private firms exhibited the same average in the referred periods. In April 2016, the growth rate of wages negotiated by firms under federal jurisdiction was higher than that in the same month of 2015, which derived from a greater average growth in the private sector, even though it was concentrated in a small number of firms, while the average increases in public firms was smaller.

ii. The wage of IMSS-insured workers reduced its annual growth rate in the first three months of 2016, with respect to that registered in the fourth quarter of 2015, both in nominal and real terms (Chart 24b).

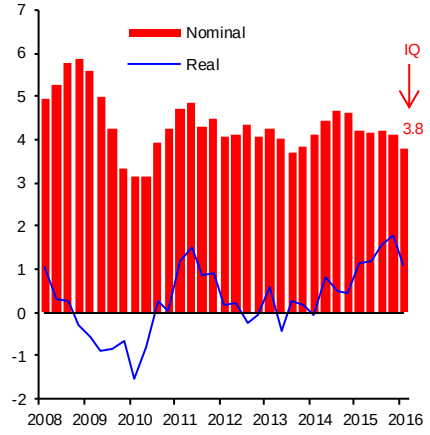
iii. In the first quarter of 2016, the growth rate of the average wage of total salaried workers in the economy (3.7 percent) located slightly below that reported in the fourth quarter of 2015 (4.2 percent; Chart 24c). As a result of low inflation levels, as of the third quarter of 2015, these wages have increased in real terms, relative to the levels observed in the same quarters of 2015.

Chart 24
Wage Indicators
Annual change in percent

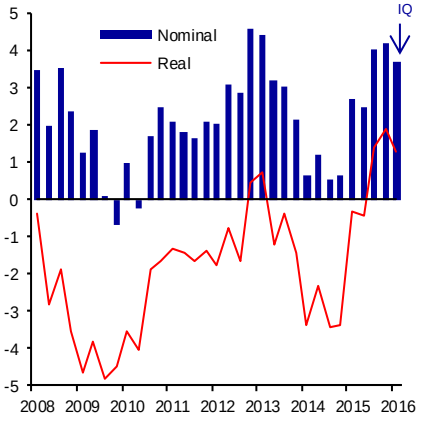
a) Nominal Contractual Wage 1/



b) Daily Wage of IMSS-insured Workers 2/



c) Average Wage of Salaried Workers according to National Employment Survey (ENOE) 3/

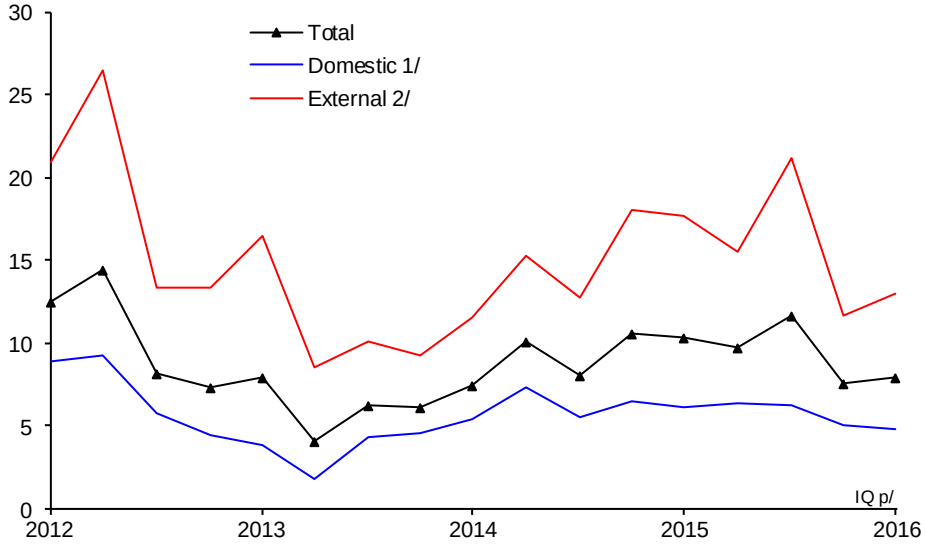


1/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.
2/ During the first quarter of 2016, on average 18.1 million workers registered in IMSS.
3/ To calculate average 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 it are excluded.
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 2016, the sources of financial resources of the economy increased at a greater rate as compared to the previous quarter, their annual real change shifting from 7.5 to 8.0 percent. This revealed an increase in external sources of financing, partly as a reflection of improved financial conditions in international markets in the second half of the first quarter, while domestic sources maintained a similar growth rate to that observed at the end of the previous quarter (Chart 25). As a result of this, as well as a lower use of resources by the public sector, financing to the private sector continued expanding at a high rate. This result stands out in a context of the increment in the monetary policy reference rate that took place during the reported quarter. Indeed, even though this increase induced higher costs of short-term financing, they remained low, while long-term financing costs were not significantly affected. Thus, despite this monetary policy action, financing conditions of the private sector remained favorable.

Chart 25
Sources of Financial Resources of the Economy
Real annual change in percent



p/ Preliminary figures.
1/ It includes the monetary aggregate M4 held by residents.
2/ It includes the monetary aggregate M4 held by non-residents, foreign financing for the federal government, public institutions and enterprises, commercial banks' foreign liabilities and financing to the non-financial private sector.
Source: Banco de México.

The external sources of financial resources increased in the analyzed quarter, as a result of the reactivation in March of the issuance of debt securities by some private firms in international markets. In contrast, the stock of non-resident financial saving contracted for the second consecutive quarter (its real annual change shifted from -2.6 to -3.7 percent), which resulted from the reduction of the stock of short-term public securities held by foreigners (Chart 26a and Chart 26b).[5] Despite this, foreigners' holdings of medium- and long-term securities kept increasing, even though at a slower rate than observed in the fourth quarter of 2015.

[5] The stock of financial saving is defined as the monetary aggregate M4 minus the stock of currency held by the public.

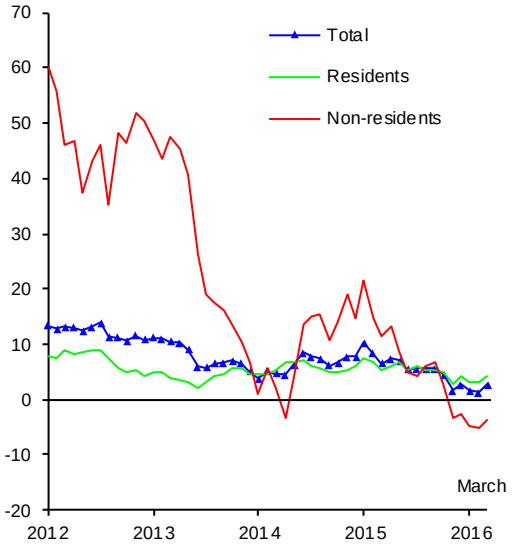
The dynamism of domestic sources of financing was similar to that exhibited at the previous quarter, following a slowdown in 2015. In this sense, the stock of domestic financial saving presented a similar growth rate to that observed at the end of the previous quarter –its real annual change shifted from 4.1 to 4.3 percent-, both in the voluntary and compulsory component (Chart 26a and Chart 26c). In contrast, the monetary base registered a smaller average growth in the reference quarter, its annual growth in real terms decreasing from 16.6 to 14.3 percent between the last quarter of 2015 and the first one of 2016, which reflects a gradual fading of the Tax Reform impact on money demand (Chart 26d).

As regards the use of financial resources of the economy, financing to the public sector –Public Sector Borrowing Requirements (PSBR) and financing to states and municipalities– decreased in terms of annual flows as a percentage of GDP, sliding from 4.3 to 4.1 percent between the fourth quarter of 2015 and the reference quarter. The accumulation of international reserves increased by USD 952 million in the first quarter of 2016, which contrasts with the drops observed in each one of the three previous quarters (USD -2.6 billion, USD -12.1 billion and USD -3.7 billion, respectively). It should be noted that the increase in international reserves was partly due to the sales of U.S. dollars by the Federal Government and Pemex to Banco de México, as well as the suspension of the daily auction of dollars' mechanism to the market, which was determined by the Foreign Exchange Commission on February 17.[6] Thus, despite a slight increment in international reserves in the quarter, greater sources of resources and the decrease in PSBR with respect to the previous quarter facilitated the channeling of the resources to the private sector financing.

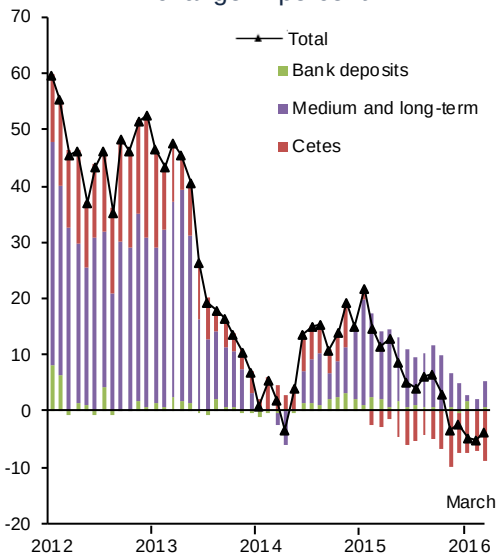
[6] See the Press Release of the Foreign Exchange Commission of February 17, 2016.

Chart 26
Financial Saving and Monetary Base Indicators

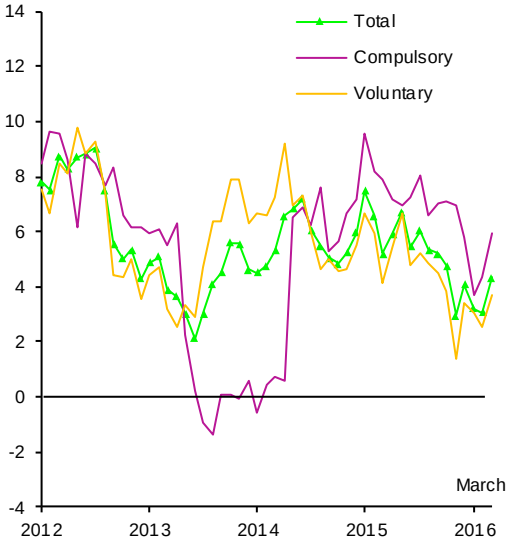
a) Total Financial Saving [1/]
Real annual change in percent



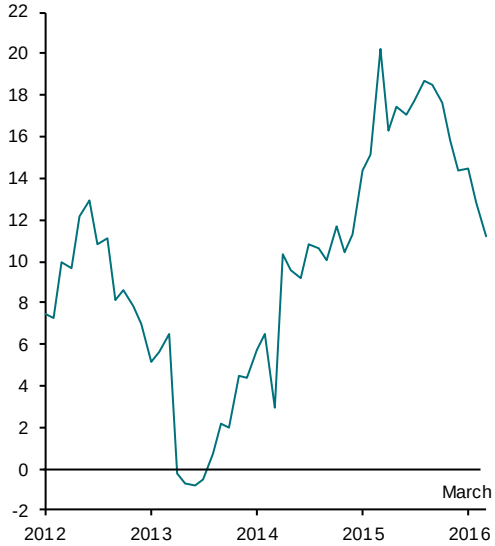
b) Non-resident Financial Saving
Contribution to the real annual change in percent



c) Resident Financial Saving
Real annual change in percent



d) Monetary Base
Real annual change in percent



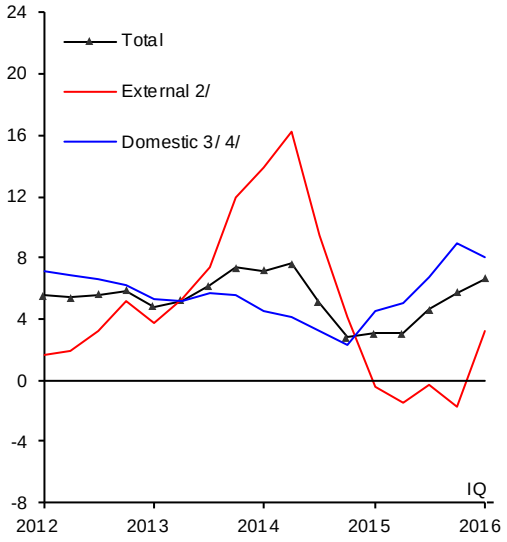
1/ It is defined as the monetary aggregate M4 minus the stock of currency held by the public.
Source: Banco de México.

Delving in the evolution of the financing to the non-financial private sector, in the first quarter of 2016 it kept expanding at high rates, even presenting a certain acceleration in its real annual change with respect to the previous quarter (Chart 27a). As it was previously mentioned, it resulted from the reactivation in the issuance of external private debt, in a context of lower volatility and an improvement in international financial markets during the second half of the first quarter. This

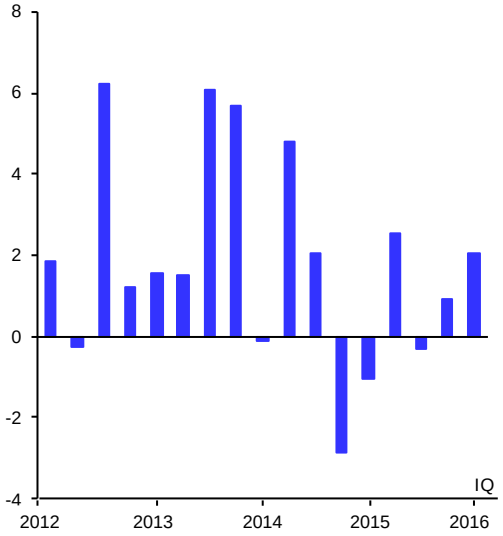
reactivation took place after a period of a year and a half in which foreign financing to the private sector observed a practically uninterrupted shrinking trajectory in real annual terms and adjusting for the exchange rate effect. Thus, at the end of the first quarter of 2016, a net amount of placements of USD 2.0 billion was registered, which resulted from the issuance of USD 4.0 billion (the highest number for a first quarter since 2010) and amortizations for USD 2.0 billion (Chart 27b). The resources obtained by firms issuing debt abroad were used to pay part of their internal liabilities, which contributed to the moderation of the domestic financing growth rate during the quarter.

Chart 27
Financing to the Non-financial Private Sector

a) Total Financing to the Non-financial Private Sector 1/
Real annual change in percent



b) Net Placements of Securities in the External Market 5/
USD billion



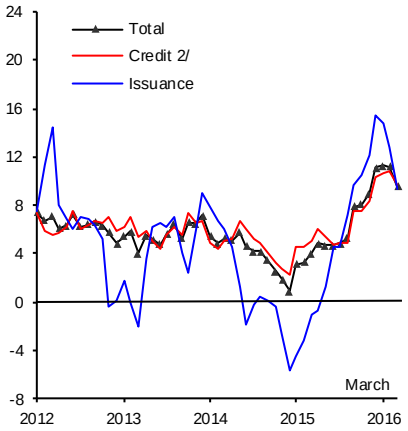
1/ Data adjusted for exchange rate effects.
2/ Data of foreign financing for the first quarter of 2016 are preliminary.
3/ These data can be affected by the disappearance of some non-bank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
4/ These figures are adjusted due to the withdrawal from and incorporation of some financial intermediaries to the credit statistics.
5/ It refers to gross placements minus scheduled redemptions, amortizations and reopenings.
Source: Banco de México.

With respect to the latter, following a significant recovery of domestic financing to firms throughout 2015 –reaching its highest annual growth rate of that year in December-, during subsequent months its growth rate moderated (Chart 28a). Indeed, between the fourth quarter of 2015 and the first quarter of 2016, the expansion of domestic financing to firms shifted from 11.1 to 9.6 percent in real annual terms and adjusting for the exchange rate effect. This moderation was a reflection of both a lower dynamism in the domestic debt market, and of a deceleration in the expansion rate of bank credit. In this context, in line with the recent increments in the banks' funding rate, the interest rates of financing to firms increased in the reference quarter, although they persist at low levels (Chart 28b). This increment, to a large extent, derives from the fact that a significant share of the bank credit portfolio and of the stock of private securities in circulation is referenced to short-term domestic interest rates (58 and 36 percent, respectively). In the case of the latter, the rise in financing costs was particularly reflected for shorter-term

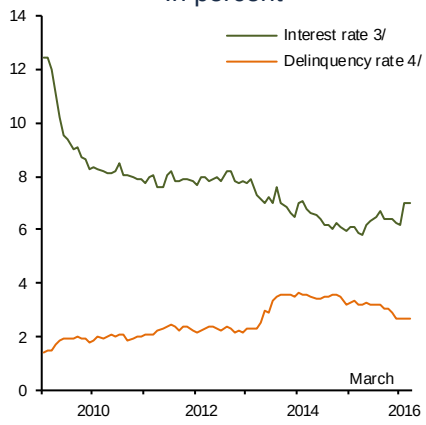
securities, while the yields of long-term debt instruments did not change significantly. As a result, a flattening of the corporate securities' yield curve was observed, in congruence with the recent performance of government securities' yield curve (see Section 4 and Chart 28c). In turn, the delinquency rates of the bank credit portfolio remained at low levels (Chart 28b).

Chart 28
Domestic Financing to Non-financial Private Firms

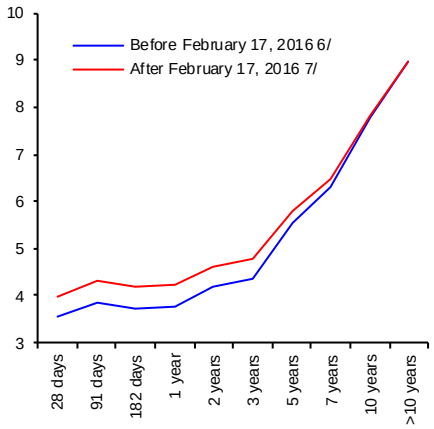
a) Domestic Financing to Non-financial Private Firms 1/
Real annual change in percent



b) Annual Interest Rate of New Credits and Commercial Banks' Delinquency Rate
In percent



c) Yield Curve of Medium-term Private Securities 5/
Annual percent



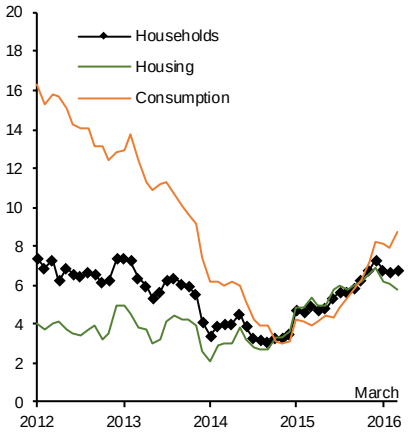
1/ Data adjusted for exchange rate effects.
2/ These data are adjusted due to the withdrawal from and the incorporation of some financial intermediaries to the credit statistics.
3/ It refers to the interest rate of new bank credits to non-financial private firms, weighted by the associated stock of the performing credit and for all credit terms requested.
4/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
5/ It includes bonds placed by non-financial private firms in MXN and with an AAA rating.
6/ A simple average of data observed on February 15 and 16, 2016.
7/ A simple average of data observed on February 17 and 18, 2016.
Source: Banco de México and Indeval.

On the other hand, in line with the dynamism of private consumption and the improvement observed in some labor market indicators, credit to households also continued growing at high rates, even though they were more moderate than in the previous quarter. In particular, between the last quarter of 2015 and the first one of 2016, the real annual change rate of the credit to households went from 7.3 to 6.7 percent (Chart 29a). This moderation reflected the slowdown of the housing credit –both from the National Housing Fund (Infonavit) and from commercial banks-, the expansion of which in real annual terms slid from 6.8 to 5.8 percent between the fourth quarter of 2015 and the first one of 2016 (Chart 29b).[7] In this environment, the interest rates and delinquency rates of mortgage loans remained without relevant changes with respect to the previous quarter (Chart 29c).

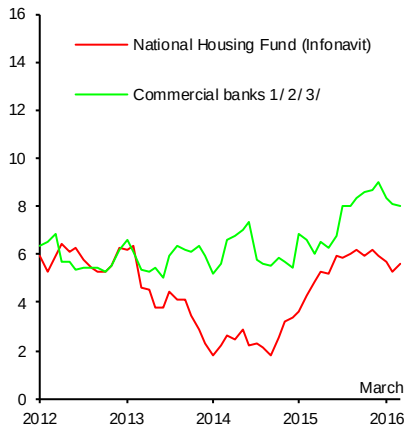
[7] Commercial banks' housing credit includes that for acquisition of new and used housing, remodeling, payment of mortgage liabilities, credit for liquidity, acquisition of land and construction of own housing.

Chart 29
Credit to Households

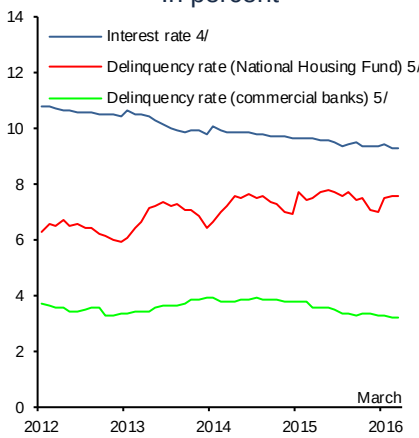
a) Total Credit [1/]
Real annual change in percent



b) Performing Credit to Housing
Real annual change in percent



c) Annual Interest Rate of New Credits and Delinquency Rate of the Housing Credit
In percent



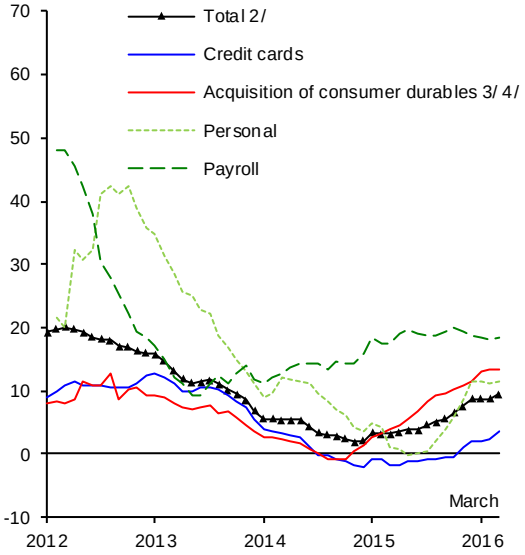
1/ These data are adjusted due to the withdrawal from and the incorporation of some financial intermediaries to the credit statistics.
2/ It includes the Sofomes ER subsidiaries of bank institutions and financial groups.
3/ Figures are adjusted in order to avoid distortions by the transfer and the reclassification of direct credit portfolio, 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.
4/ The interest rate of new housing credits from commercial banks, weighted by stock associated to the performing credit. It includes credit for acquisition of new and used housing.
5/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
Source: Banco de México.

In turn, consumer credit accelerated in the reference period, its real annual change shifting from 8.2 to 8.8 percent. The rebound in the growth of the credit cards' segment stood out, following a period of two years of practically zero growth (Chart 30a). It should be pointed out that during the reported quarter, the interest rates for consumer credit did not observe relevant changes, while delinquency rates kept going down, especially in the personal loans' segment (Chart 30b).

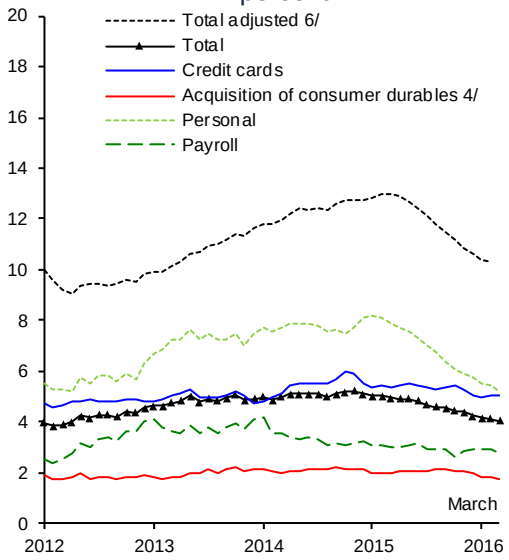
In sum, despite the environment of volatility and the persisting tight conditions in international financial markets –particularly during the first half of the first quarter of 2016-, financing to the private sector in Mexico kept expanding, thus supporting productive activity. Furthermore, although in some segments of financing to the private sector interest rates went up –especially, short-term ones-, they are still at levels close to historic lows. At the same time, credit quality remained adequate and did not present signs of deterioration, which suggests the absence of demand-related pressures on the loanable funds' market. However, given that slackness in the global growth and increased uncertainty in the financial markets are expected to persist, there are still risks that in the future the sources of financial resources will be relatively limited.

Chart 30
Commercial Banks' Consumer Credit

a) Performing Credit 1/
Real annual growth rates in percent



b) Delinquency Rates 1/ 5/
In percent



1/ It includes the Sofomes ER subsidiaries of bank institutions and financial groups.
2/ It includes credit for payable leasing operations and other consumer credits.
3/ From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from acquisition of consumer durables to other consumer credits by one banking institution.
4/ It includes credit for movable property acquisition and auto loans.
5/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
6/ The adjusted delinquency rate is defined as the 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. For this Report, the data are up to February 2016.
Source: Banco de México.

In this context, and in light of the recent announcements affecting the PSBR outlook in 2016, it is advisable to update the prospective exercise of sources and uses of financial resources of the economy presented in the Quarterly Report, October – December 2015, illustrating their possible impact on the evolution of financing to the private sector. In particular, in April 2016 the Ministry of Finance (SHCP) released the document on the compliance with the provision in Article 42, Section I, of the Federal Budget and Fiscal Responsibility Law (*Pre-Criterios*), which estimates that the PSBR will locate at 3.5 percent of GDP at the end of 2016. Furthermore, following the said announcement, Banco de México determined the operational surplus of the 2015 fiscal year that, in accordance with Article 55 of Banco de México's Law was delivered to the Federal Government and that, in accordance with the Federal Budget and Fiscal Responsibility Law, will have to be destined to lowering debt levels and to improving its financial position.

With respect to the sources of financial resources, the outlook for 2016 foreseen in the previous Report remains. In particular, given the persistence of the macroeconomic environment characterized by tighter external financial conditions and lower oil prices as compared to previous years, the annual flow of sources of financial resources is expected to be 6.9 percent of GDP, which, just like in 2015, will be lower than the average of 9.7 percent observed between 2010 and 2014 (Table 2). This would fundamentally reflect the limited availability of sources of foreign financing, given the possible increments in U.S. interest rates, greater risk aversion that is anticipated to persist in international financial markets and, in

general, the prospect that capital flows to emerging economies would be limited. However, in 2016 the sources of financial resources of the economy are estimated to be higher than in 2015. Regarding external sources, this would reflect the aforesaid reactivation of the private debt issuance in international markets. With respect to domestic sources, the private sector is expected to channel more resources to the accumulation of domestic financial instruments. This reflects the forecast that, unlike in 2015, this year the private sector will face a lower need to settle internal instruments to acquire foreign currency, as it has lower programmed payments abroad, and also that part of the demand will be settled by a greater than anticipated external financing to the private sector.

As to the use of financial resources, PSBR are expected to go down from 4.1 to 3.0 percent of GDP in 2016. This expected decrease in public sector's financing requirements of 1.1 percent of GDP can be divided into three parts:

i. As mentioned above, a reduction in PSBR as a percentage of output from 4.1 percent in 2015 to 3.5 percent in 2016, in line with the fiscal consolidation target set in General Criteria of Economic Policy 2016 and ratified in the Income Law for 2016.

ii. A further adjustment of 0.9 percent of GDP in PSBR, as a result of the application, in line with the Federal Budget and Fiscal Responsibility Law, of the resources stemming from Banco de México's operation surplus. With that, PSBR in 2016 will shift from 3.5 to 2.6 percent of GDP. Indeed, Banco de México's operation surplus of the 2015 fiscal year delivered to the Federal Government in April amounted to MXN 239.1 billion (1.2 percent of GDP). Based on the Article 19a of the Federal Budget and Fiscal Responsibility Law, the Federal Government announced that it would destine 70 percent of the referred surplus to decrease the amount of placements programmed for 2016 and to carry out repurchases of government securities. Both operations imply lower net indebtedness or public sector financing requirements corresponding to the said amount. The remaining 30 percent will be destined to capital expenditures, as stipulated in the same Article of the Federal Budget and Fiscal Responsibility Law.

iii. A possible upward adjustment in public sector financing requirements amounts to 0.4 percent of GDP, as a result of the Federal Government support of MXN 73.5 billion, that will be given to PEMEX in 2016. Indeed, as PEMEX will spend these resources to diminish its current liabilities, in the absence of the surplus income from other sources to cover the Federal Government transfer to the Productive State Company, a greater financing to the public sector would be provoked. Thus, PSBR will go up from 2.6 to 3.0 percent of GDP.

Hence, by adding up public sector financial requirements of 3.0 percent of GDP estimated for 2016 and the expected flow of financing to states and municipalities of 0.2 percent of GDP, the use of resources by the public sector in 2016 is estimated to amount to 3.2 percent of GDP. On the other hand, given the environment of tight conditions in the financial markets and low crude oil prices, no accumulation of international reserves is estimated for 2016. Given that, the flow of financial resources destined to the private sector is expected to be 2.9 percent of GDP during the year, which is lower than 3.1 percent registered in 2015.

For 2017, the Ministry of Finance has reaffirmed its commitment to continuing with the fiscal consolidation process, while announcing its intention to cut down the programmable expenditures by MXN 175 billion. Thus, it is expected that expenditure containment measures in 2016 and 2017, as well as the Federal Government's use of resources stemming from Banco de México's operational surplus, in line with the Federal Budget and Fiscal Responsibility Law, will lead to the stabilization of the public debt to GDP ratio, thus strengthening the macroeconomic framework. This is especially relevant, given the complex external environment where the possibility persists that the sources of resources will be limited, reason for which the lower absorption of resources by the public sector alleviates possible pressures on the loanable funds markets in Mexico. Besides guaranteeing the public debt sustainability, this would facilitate that in the future the channeling of resources to the private sector will persist and that credit markets – especially interest rates- will not be pressured.

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

	Annual flows						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016 e/**
Total sources	**9.4**	**10.1**	**10.0**	**8.6**	**10.2**	**5.2**	**6.9**
Domestic sources	4.1	5.7	4.4	4.7	5.8	3.9	5.3
Voluntary M4	2.6	4.2	3.0	4.1	4.1	2.6	3.9
Compulsory M4	1.5	1.5	1.4	0.7	1.7	1.3	1.4
Foreign sources	5.3	4.4	5.7	3.8	4.4	1.3	1.6
Non-resident M4	2.9	3.0	4.5	1.3	2.3	-0.2	0.0
Securities and foreign credit 1/	2.5	1.4	1.2	2.5	2.2	1.5	1.6
Total uses	**9.4**	**10.1**	**10.0**	**8.6**	**10.2**	**5.2**	**6.9**
International reserves 2/	2.2	2.4	1.8	1.0	1.3	-1.5	0.0
Public sector financing	4.3	3.6	4.2	4.1	4.8	4.3	2.8
Public Sector Borrowing Requirements (PSBR) 3/	3.9	3.4	3.8	3.7	4.6	4.1	2.6
States and municipalities	0.4	0.3	0.5	0.4	0.2	0.2	0.2
Private sector financing	2.7	3.7	3.1	3.9	2.4	3.1	3.3
Foreign	0.7	0.9	0.8	1.6	0.8	0.1	0.3
Domestic 4/	2.0	2.8	2.3	2.3	1.6	2.9	3.0
Other 5/	0.3	0.4	0.9	-0.5	1.8	-0.7	0.8

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 the exchange rate fluctuation.
e/ Estimated data, expressed in percent of nominal average annual GDP estimated by Banco de México.
1/ It includes the external debt of the federal government, public entities and firms, and external PIDIREGAS, external liabilities from commercial banks and financing to the non-financial private sector
2/ As defined by Banco de México's Law.
3/ From 2010 to 2015, Public Sector Borrowing Requirements (PSBR) correspond to the data published by the Ministry of Finance (SHCP). The data of 2016 correspond to those published in GCEP 2016 and consider the impact of the use of Banco de México's operational surplus, as well as the Federal Government support to Pemex.
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 issuance of domestic debt.
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), as well as the effect of the change in the valuation of public debt instruments, among other concepts.
Source: Banco de México.

4. Monetary Policy and Inflation Determinants

In order to define its monetary policy stance, Banco de México at all times evaluates the possible impact of domestic and external factors on the performance of inflation and its expectations, in order to comply with the constitutional mandate of maintaining low and stable inflation. Monetary policy actions aim at preserving and enhancing the advances in terms of inflation that have been made over the last years, among which the following stand out: i) a reduction in the levels, volatility and persistence of inflation; ii) a decrease in risk premia, particularly, in inflation risk premium; iii) the solid anchoring of inflation expectations at levels congruent with the inflation permanent target; and iv) a reduction in the pass-through of changes in relative prices, in particular, of exchange rate fluctuations onto consumer prices.

The achievements made have led, among other things, to a better functioning of national financial markets. In particular, the reduction in the inflationary risk premium has contributed to the downward trend in interest rates. Likewise, the certainty related to price stability has allowed an extension of the time horizon of the yield curve and of the average maturity of government bonds. In total, in a context of low and stable inflation, the financial sector deepened, which, in turn, contributed to reactivating the levels of credit granted to different economic agents, and the purchasing power of wages increased.

This progress resulted from the continuous effort by the monetary authority to provide a nominal anchor to the economy, reaffirming the public's perception that the Central Bank will act at all times adjusting its monetary policy if it is required, to achieve the set inflation target. The timeliness in monetary policy decisions has also helped the exchange rate to become an efficient adjustment variable of shocks from abroad, while its adjustments did not negatively affect the price determination process of the economy.

It should be noted that the process by which the monetary policy actions affect inflation is neither direct nor immediate, but rather it takes place through various transmission channels and with certain lags. In fact, this transmission mechanism has been evolving throughout the years, reflecting the above mentioned achievements in inflation dynamics and in financial and credit markets, as well as a greater credibility of the Central Bank's commitment to the attainment of the permanent inflation target. All of these provided a greater degree of maneuver to the conduction of monetary policy (see Box 2).

Box 2
Recent Changes in the Transmission Mechanism of Monetary Policy in Mexico

1. Introduction

In the conduction of monetary policy, the central bank considers that its actions affect the price formation process via different channels and with certain lags. These channels, as a whole, constitute the transmission mechanism of monetary policy (TMMP) and their relative importance can vary across time. Therefore, studying them on a regular basis is of vital importance, in order to detect possible changes that may arise in their functioning. This is especially relevant in the case of Mexico, in light of a positive feedback among the monetary policy conduction, the environment of low and stable inflation, and the anchoring of inflation expectations registered in recent years.

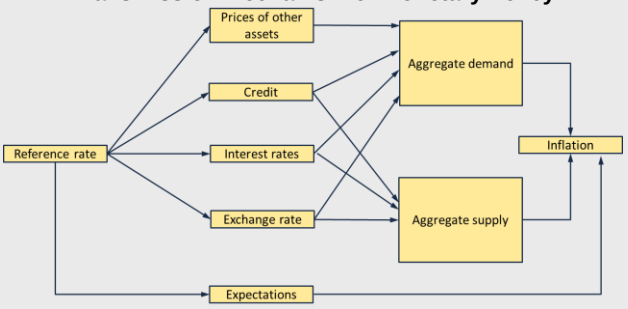
Thus, this Box briefly describes the TMMP channels and documents evidence suggesting that their relative importance has recently changed. To do so, the results of a small scale macroeconomic model estimated for the Mexican economy for the samples of 2001-2006 and 2001-2015 were compared.[1] Specifically, the results of the estimations of the two samples are contrasted and the changes in the dynamics of the model's variables, such as inflation, the output gap, the exchange rate and the interest rate between both samples given: i) an expansive shock of aggregate demand, and ii) a shock that depreciates the nominal exchange rate are illustrated. It is shown that, in general, macroeconomic variables have lower persistence than in the past. In particular, inflation shows lower inertia, reason for which it returns to its initial condition faster, and there is a lower pass-through of exchange rate changes to prices, so, in principle, a less aggressive monetary policy response is required if an adjustment is needed to offset deviations of inflation from its target. Based on this, it can be concluded that the TMMP in Mexico may have presented changes that led to a higher effectiveness of monetary policy actions onto inflation, mainly due to the strengthening of the expectations' channel.

[1] The first sample is chosen based on Sidaoui and Ramos-Francia (2008). This sample begins in 2001, reflecting the empirical evidence indicating that from that year onwards there was a structural change in inflation dynamics in Mexico, which was possibly associated with the adoption of the inflation targeting regime by Banco de México (see Chiquiar, Noriega and Ramos-Francia (2010)). This sample finishes prior to the onset of the global financial crisis. The second sample covers the full period from 2001 to 2015, instead of exclusively comprising the span from 2007 to 2015. This is due to the fact that, although there are no qualitative changes in the results, including only the second part of the sample leads to a certain lack of precision and to instability in the estimates, as a result of the fact that the data associated to the crisis tend to dominate the results. It should be noted that the results of a third sample (that only spans from 2010 to 2015, and therefore eliminates a significant part of the crisis) are similar to those reported herein, although they are also affected by the small size of the sample.

2. Channels of the Transmission Mechanism of Monetary Policy

Banco de México, like many monetary authorities, uses a target for the overnight interbank interest rate as its main monetary policy instrument. Thus, the Central Institute modifies the conditions under which it provides liquidity to the money market, so as the interest rate in the interbank market lies at its targeted level. This affects aggregate demand and supply, and, at the same time, inflation through different channels (see Diagram 1):[2, 3]

Diagram 1
Transmission Mechanism of Monetary Policy



Source: Banco de México.

Interest Rate Channel: Short-term interest rates tend to vary in the same direction in which the Central Bank modifies the reference rate. Similarly, albeit to a lesser extent, medium- and long-term rates also tend to be affected. Thus, changes in the monetary policy stance can generate an impact throughout the full length of the yield curve. Given that different segments of aggregate expenditure depend on expected real interest rates, insofar as the changes in nominal interest rates affected by monetary policy actions are reflected in changes in real interest rates, the intertemporal allocation of expenditure on consumption and investment will be affected, influencing the observed levels of the said expenditure at each point of time. In particular, the said changes will modify the opportunity cost of consumption and the cost of capital to finance new projects, and, therefore, will affect economic agents' expenditure incentives. All this affects aggregate demand and eventually inflation. With respect to this channel, it should be mentioned that its effect is small in Mexico, although it has been gaining strength recently.

[2] It should be noted that, for simplicity, the analysis that is presented hereby does not explicitly incorporate the different mechanisms through which the financial system interacts with the real sector (i.e. the credit channel and the asset price channel).

[3] For further detail, see the Monetary Program 2013.

Credit Channel: Monetary policy can contribute to modifying credit growth in the economy by affecting the availability and the terms at which credits are granted, which amplifies the effects of the interest rate channel. In particular, in an environment of higher interest rates, banks can decide to restrict the granting of financing insofar as a greater degree of risk related to investment projects is perceived. Likewise, the financial position of firms can be affected, reducing their ability to cope with financial commitments, and consequently increasing their risk. This channel also reflects the effect of changes in interest rates on the households' willingness to substitute current consumption for future consumption.

Asset Price Channel: Changes in interest rates, in turn, modify the price of different assets, such as public and private debt securities, stocks and real estate, as they directly affect the net present value of their future expected yields. This impacts households and firms' expenditures, due to the wealth effect that is derived from changes in the assets' valuation. To the extent that the economy has more developed financial markets, this channel is more important.

Exchange Rate Channel: In line with the uncovered interest rate parity, the increment in domestic interest rates with respect to external ones makes domestic financial assets relatively more attractive.[4] This, in a context of a small open economy, characterized by free capital mobility, will tend to appreciate the exchange rate, due to the relative increase in the demand for financial assets denominated in Mexican pesos relative to those denominated in foreign currency. In turn, these exchange rate adjustments have at least two effects: on the one hand, they affect aggregate demand via a price effect on net exports and, on the other hand, they affect aggregate supply by means of their impact on the cost of imported inputs used in the production of national goods (exchange rate pass-through). The above, ultimately, moderates inflation pressures.

Expectations Channel: An increment in the reference interest rate can be interpreted as an action that reinforces the Central Bank's commitment to achieving a goal of low and stable inflation, reason for which it can contribute to the moderation of inflation expectations.

Thus, lower expectations of future inflation can affect current inflation, as the adjustments in prices and wages carried out by economic agents depend, to a large extent, on the inflation that they expect will prevail in the future. It should be noted that the effectiveness of this channel primarily depends on the credibility of the monetary authority regarding its commitment to price stability.

[4] While maintaining everything else constant and, in particular, assuming that risk premia incorporated in domestic interest rates are fixed.

3. Recent Performance of Some Macroeconomic Variables

In recent years, Banco de México has documented different stylized facts with respect to the performance of some macroeconomic variables that could imply the presence of changes in the relative importance of the afore mentioned transmission channels of monetary policy. Among them, the structural changes in the dynamics of inflation and its expectations, and in the price formation process are noteworthy:

a) A significant and permanent reduction in the level, volatility and persistence of inflation, based on the adoption of the inflation targeting regime and given the perception of the absence of fiscal dominance in the economy.[5]

b) A lower coefficient of the pass-through of shocks to the nominal exchange rate onto inflation, which consolidated the exchange rate as an efficient adjustment variable upon external shocks to the economy.[6]

c) Presence of temporary effects on inflation, given the adjustments in certain goods' relative prices (e.g., agricultural products).[7]

d) A reduction in the dispersion of inflation expectations and evidence that the effect of inflation deviations from its target on the latter has declined over time.[8]

e) A gradual decrease in inflation expectations implicit in the long-term price quotes of market instruments and in the associated inflation risk premium.[9]

f) Evidence of an inflationary process determined to a greater degree by prospective effects, as compared to retrospective ones.[10]

[5] See the Technical Chapter "Change in the Nominal System of the Mexican Economy in the Early 2000s" in the Inflation Report October - December 2010, based on Chiquiar, Noriega and Ramos-Francia (2010).

[6] See Box "Estimating the Effect of the Exchange Rate Adjustment onto Inflation" in the Inflation Report July – September 2012 and the references cited therein, based on Cortés (2013), as well as Box "Pass-through of Exchange Rate Movements onto Prices in Latin American Economies" in the Quarterly Report July - September 2015, for a comparison among Mexico and other economies of the region.

[7] See Box "Relative Price Changes and Inflation Convergence towards the 3 Percent Target" in the Inflation Report April - June 2013.

[8] See Box "Anchoring of Medium- and Long-term Inflation Expectations in light of Adverse Supply Shocks" in the Inflation Report January – March 2013, based on Aguilar-Argaez, et. al. (2014).

[9] Estimates are carried out based on zero coupon rates. See Box "Decomposition of the Break-even Inflation" in the Quarterly Report October - December 2013 based on Aguilar-Argaez, Elizondo and Roldán-Peña (2016).

[10] To identify this type of channel, the theoretical framework of the model estimated in this section is a New Phillips Curve microfounded in a Calvo price-setting mechanism; see Ramírez and Torres (2016) and references cited therein.

4. A Small Scale Macroeconomic Model for the Mexican Economy

The implications of the above mentioned facts on the dynamics of the economy, and, in particular, on the conduction of the monetary policy can be analyzed within a macroeconomic model for a small open economy, like Mexico.[11] In this way, it is possible to characterize the economic performance within a general equilibrium framework, in which the interaction among the main macroeconomic variables can be studied in response to different types of shocks.

An advantage of this type of models is that each of its variables is affected, among other things, by agents' expectations regarding the future performance of the said variables. The above, together with the assumption that agents' expectations are rational, allows the model's outlook regarding the future performance of macroeconomic variables to be congruent with the equilibrium dynamics of the model (that is, expectations are endogenous to the model). In that way, the expectations channel of monetary policy can be taken into account.

However, these models are not without limitations. One of them is that their structure tends to include a reduced number of variables, so they are a simplified representation of how the economy operates. Moreover, given that they describe the performance of the economy through linear approximations of agents' optimal behavior around a stationary state, to the extent that the shocks faced by the economy are of important magnitude, the model's representation becomes less accurate.[12] Still, these models' results tend to be similar to those derived from time series models, such as autoregressive vectors, which impose fewer restrictions on the performance of macroeconomic variables across time.

The structure of the model is characterized by the following equations:

a) Phillips Curve. It describes the performance of core inflation, π^{core}, in terms of its leads and lags, as well as inflationary pressures generated by economic activity (represented by the output gap, x) and the price of imported inputs (determined by the changes in the nominal exchange rate, ΔNER, and external inflation, $\pi^{U.S.}$):

$$\pi_t^{core} = a_1 E_t \pi_{t+1}^{core} + a_2 \pi_{t-1}^{core} + a_3 x_{t-1} + a_4 [\Delta NER_{t-1} + \pi_{t-1}^{U.S.}] + \varepsilon_{1t}$$

b) IS Curve. It describes the performance of the output gap, x, in terms of its lags and leads, of the effects generated by monetary policy actions that, in turn, affect the real interest rate, r, as well as of the effects of changes in external demand, measured by means of the U.S. output gap, $x^{U.S.}$, and in the real exchange rate, q:[13]

$$x_t = b_1 E_t x_{t+1} + b_2 x_{t-1} + b_3 r_{t-1} + b_4 x_t^{U.S.} + b_5 q_t + \varepsilon_{2t}$$

c) Uncovered Real Interest Rates Parity. It describes the performance of the real exchange rate. Besides, it includes its lag, which induces gradual adjustments in its variations:

$$q_t = c_1 (E_t q_{t+1} + [r_t^{U.S.} - r_t]) + c_2 q_{t-1} + \varepsilon_{3t}$$

d) Nominal Exchange Rate. It is defined based on the real exchange rate and the inflation spread between the U.S. and Mexico:

$$\Delta NER_t = \Delta q_t + (\pi_t - \pi_t^{U.S.})$$

e) Monetary Policy Rule. It is defined based on a standard Taylor rule (where π^* stands for the inflation target):

$$i_t = (1 - d_3)\{d_1(\pi_t^{head} - \pi^*) + d_2 x_t\} + d_3 i_{t-1} + \varepsilon_{4t}$$

f) Headline Inflation, π^{head}:

$$\pi_t^{head} = w^s \pi_t^{core} + w^{non-core} \pi_t^{non-core}$$

g) Non-core Inflation, π^{ns}:

$$\pi_t^{non-core} = \Phi_1 \pi_{t-1}^{non-core} + \varepsilon_{5t}$$

with error terms associated to each equation, given by ε_{it} for i=1,…,5.[14]

In order to capture possible changes in the TMMP in Mexico over the last years, the coefficients of the above described model are estimated for the periods 2001-2006 and 2001-2015.[15,16] When comparing the set of coefficients that result from estimating the model for the above defined samples (see Table 1), the following stands out:

a) The prospective components of the Phillips Curve, the IS Curve and the equation describing the performance of the real exchange rate (a_1, b_1 and c_1) in general have become more relevant with respect to their retrospective counterparts (a_2, b_2 y c_2), which implies that when determining these variables, economic

[11] For further detail, see Sidaoui and Ramos-Francia (2008) and Aguilar-Argaez, Roldán-Peña and Torres (2016).

[12] This limitation is particularly relevant following the non-linearities observed during the global financial crisis. In particular, the fact that in this model the effect of shocks is additive prevents us from analyzing such phenomena as panic sales.

[13] $r_t = i_t - E_t \pi_{t+1}$, where i_t stands for the reference rate and $E_t \pi_{t+1}$ the expectation of future inflation.

[14] U.S. variables are modeled independently, via an Autorregressive Vectors model.

[15] See footnote 1.

[16] The model's equations are estimated individually via the Generalized Method of Moments (GMM) at a quarterly frequency. In each case, each sample is used as lagged instruments of explanatory variables.

agents' decision are currently more affected by the expectation of their future performance than by their historic behavior, as compared to what occurred at the beginning of the analysis period.[17] This change in the model's coefficients is crucial, given that it suggests that the expectations channel of the TMMP has strengthened and that the inertia of the variables incorporated in it has reduced.

b) The coefficient that measures the pass-through of the exchange rate on the Phillips Curve (a_4) decreased both in magnitude and in statistical significance. Thus, exchange rate variations now affect inflation to a lesser extent.

c) The effect of the interest rate onto the output gap (b_3) increased, which implies a greater ability of monetary policy to affect the performance of aggregate demand.

Thus, the above described changes suggest a relative strengthening of the expectations and interest rate channels of the TMMP in Mexico, as well as a lower pass-through from variations in the exchange rate onto inflation.

To illustrate these changes and their implications to the conduction of the monetary policy, below we analyze the dynamics of the economy given: *i*) an expansionary shock to aggregate demand, and *ii*) a shock that depreciates the exchange rate.

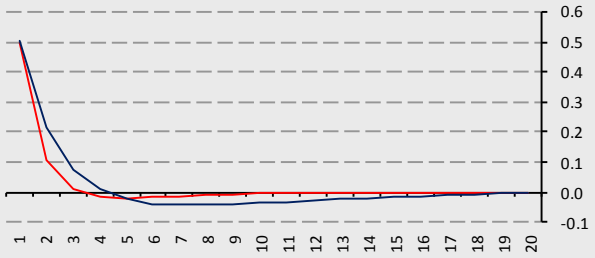
Expansionary Shock to Aggregate Demand. It causes the output gap to become positive, which, in turn, generates upward aggregate demand-related pressures on inflation. That is, when aggregate expenditure increases and rises above the potential of the economy (positive output gap), excess aggregate demand is generated, causing an upward adjustment in the growth rate of prices for a broad group of goods and services. The monetary policy response to these reactions is an upward adjustment in the reference rate, which also pushes up the real interest rate. This leads to an appreciation of the exchange rate (through the interest rate spread against the U.S.) which, together with the increment in the interest rate, reverts the initial increase in the output gap. As a result of this, and the exchange rate appreciation, inflationary pressures go down. Thus, due to the monetary policy response, macroeconomic variables go back to their initial pre-shock levels.

Chart 1 compares the above described dynamics for each sample. When including the most recent years (red lines), it can be noted that a shock of the same magnitude to aggregate demand (Chart 1a) generates lower and less-lasting inflationary pressures, due to the decrease in the persistence of both headline (continuous line) and core inflation (dotted line; Chart 1b). As a result, the reference rate (continuous line) reacts in less magnitude and for a shorter time period, which translates into a similar reaction of the real interest rate (dotted line; Chart 1c). Given this, the output gap returns to its equilibrium level slightly faster, given the greater relative importance of the prospective element in its determination, and inflation is less affected. This also implies that the rest of the macroeconomic variables are less affected by the initial shock.

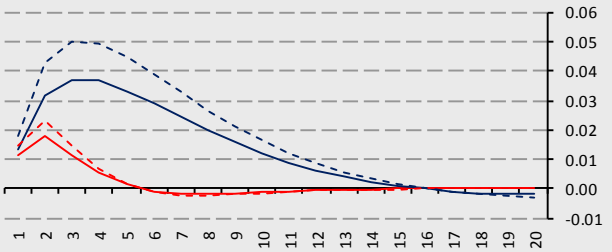
Shock that Depreciates the Exchange Rate. As a result of the increment in the nominal exchange rate, prices of internationally traded goods go up, generating inflationary pressures. Thus, the monetary policy response to this shock consists in increasing the reference interest rate so as to push up the real interest rate to prevent these shocks from generating second round effects on non-traded goods. Once the TMMP operates and provided there are no additional shocks, the macroeconomic variables tend to return to their equilibrium levels after a certain lapse of time.

Chart 1
Impulse-Response Charts
Dev. in percentage points with respect to steady state

a) Output Gap



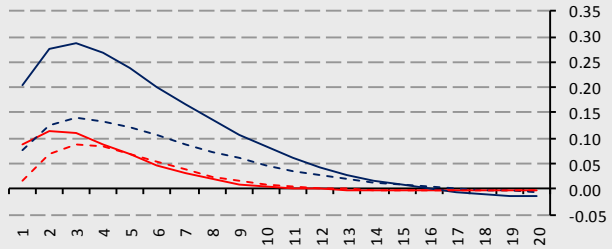
b) Quarterly Inflation [1/]



1/ The dotted line corresponds to core inflation.

[17] Note that despite the decrease in the coefficients of the prospective and retrospective terms of the IS Curve (b_1 and b_2, respectively) for the estimates corresponding to the 2001-2015 sample, the decline in the retrospective component (in absolute terms) is greater than that of the prospective one.

c) Interest Rate [1/]



1/ The dotted line corresponds to the real rate.

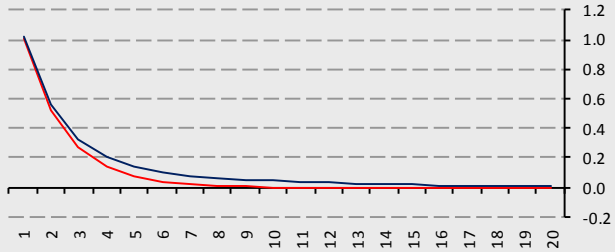
2001-2015 2001-2006

Source: Banco de México.

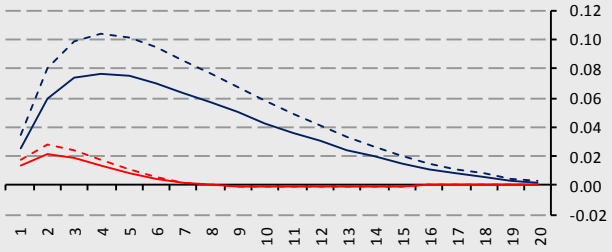
Chart 2 illustrates that the response of macroeconomic variables in both samples is in the same direction. However, when analyzing the sample that considers the most recent years (red lines), it can be observed that given an exchange rate shock of the same magnitude (Chart 2a), on the one hand, both headline inflation (continuous line) and core inflation (dotted line) are affected to a lesser extent from the beginning (Chart 2b), showing a lower pass-through of exchange rate changes onto inflation. On the other hand, their dynamics are swifter (lower persistence and volatility), reason for which they return to their initial levels faster. The fact that inflationary dynamics are less affected and stabilize faster requires the monetary policy reaction (continuous line), and, therefore, adjustments in the real interest rate (dotted line) to be lower in the exercise with the more recent sample than in the exercise with the previous sample (Chart 2c).

Chart 2
Impulse-Response Charts
Dev. in percentage points with respect to the steady state

a) Nominal Exchange Rate

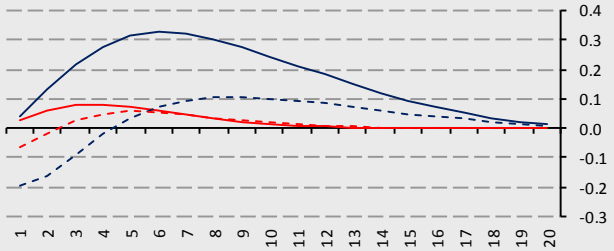


b) Quarterly Inflation [1/]



1/ The dotted line corresponds to core inflation.

c) Interest Rate [1/]



1/ The dotted line corresponds to the real rate.

2001-2015 2001-2006

Source: Banco de México.

In sum, the results yielded by the two exercises presented show that the dynamics of macroeconomic variables have become faster, which emphasizes the strenghthening of the expectations channel. The fact that agents are better at anticipating monetary policy responses, through expectations, calls for less intense and long-lasting monetary policy responses.

5. Final Remarks

Based on the above, it can be concluded that the transmission channels, by means of which the monetary policy operates, could have presented adjustments that led to a higher effectiveness of the monetary policy actions onto inflation and the economic activity. This implies that the dynamics of macroeconomic variables have become faster over the last years, as a result of which the economy converges to its equilibrium level in a shorter time period, given the shocks it is subject to. This would suggest that, in light of shocks of the same magnitude, the monetary policy stance should respond in a less aggressive way than in the past to mitigate the effects of the said shocks, possibly due to the strengthening of the expectations channel and the credibility that the Central Bank has been gaining.

In this context, a strong anchoring of inflation expectations has played a crucial role. In this respect, it should be highlighted that, as shown in the results presented above, this anchoring has been strengthening across the years. Accordingly, Banco de México has reiterated that it will remain alert, so that any shock affecting inflation would be properly identified and timely offset with a monetary policy response, as required.

References

Aguilar-Argaez, A., G. Cuadra, C. Ramírez and D. Sámano (2014). "Anclaje de las Expectativas ante Choques de Oferta Adversos", Working Paper No. 2014-20, Banco de México.

Aguilar-Argaez, A., R. Elizondo and J. Roldán-Peña (2016). "Descomposición de la Compensación por

Inflación Esperada and Riesgo Inflacionario", Manuscript, Banco de México.

Ramírez, C., and A. Torres (2016). "New Evidence of the Dynamics of Inflation in Mexico", Manuscript, Banco de México.

Aguilar-Argaez, A., J. Roldán-Peña and A. Torres (2016). "Cambios Recientes en el Mecanismo de Transmisión de la Política Monetaria en México", Manuscript, Banco de México.

Chiquiar, D., A. Noriega and M. Ramos-Francia (2007). "A Time Series Approach to Test a Change in Inflation Persistence: the Mexican Experience", Working Paper No. 2007-01, Banco de México.

Cortés, J. (2013). "Una Estimación del Traspaso de las Variaciones en el Tipo de Cambio a los Precios en México", Working Paper No. 2013-02, Banco de México.

García-Verdú, S. (2011). "Algunas Consideraciones sobre la Estructura Temporal de Tasas de Interés del Gobierno en México", Working Paper No. 2011-18, Banco de México.

Sidaoui J. and M. Ramos-Francia (2008). "The Monetary Transmission Mechanism in Mexico: Recent Developments", BIS Papers No. 35, pp. 363-394.

Table 1
Coefficients of the Model

	Phillips curve				IS curve					Real exchange rate	
	a_1	a_2	a_3	a_4	b_1	b_2	b_3	b_4	b_5	c_1	c_2
2001-2006	**0.420*****	**0.559*****	**0.023*****	**0.019*****	**0.453*****	**0.372*****	**-0.016****	**0.137*****	**1.232***	**0.529*****	**0.464*****
	(0.038)	(0.066)	(0.007)	(0.007)	(0.027)	(0.018)	(0.007)	(0.035)	(0.704)	(0.090)	(0.092)
2001-2015	**0.621*****	**0.373*****	**0.017****	**0.006***	**0.316*****	**0.217*****	**-0.090***	**0.294*****	**2.573*****	**0.677*****	**0.305*****
	(0.083)	(0.073)	(0.007)	(0.004)	(0.069)	(0.058)	(0.048)	(0.061)	(0.890)	(0.036)	(0.035)

***,**,* correspond to 1, 5 and 10% significance level, respectively.

4.1. Monetary Policy Decisions

During the first quarter of 2016, the conduction of the monetary policy was carried out in a complex environment. Although, in general, domestic conditions were congruent with the environment of low inflation, external factors represented considerable challenges. Thus, among the elements considered to justify the monetary policy decisions in the period analyzed in the Report, the following were noteworthy:

i. Annual inflation remained below the permanent 3 percent target, even considering its temporary rebound, as compared to its level in late 2015.

ii. Slack conditions prevailed in the economy and in the labor market, and no aggregate demand-related pressures onto prices were observed.

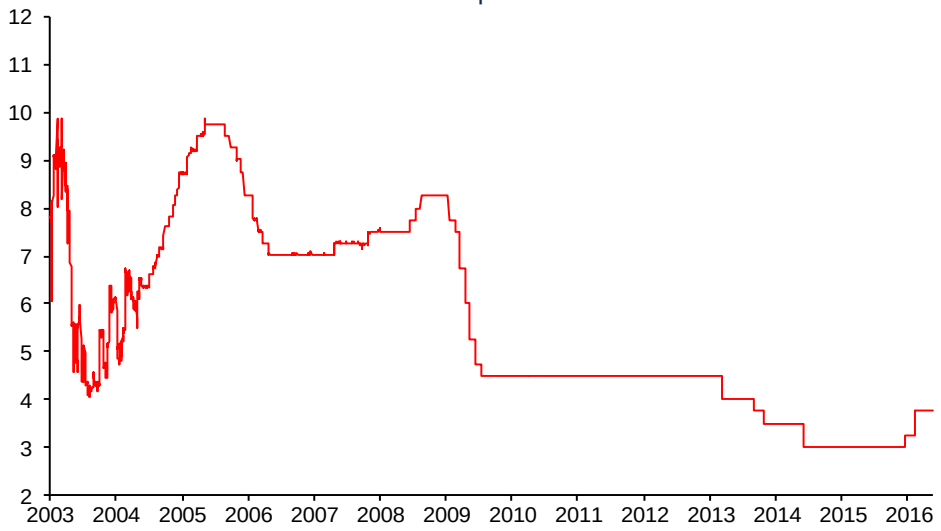
iii. Inflation expectations for different horizons remained well-anchored.

iv. As indicated in Section 3, various factors of the external environment led to high financial volatility in the first half of the quarter January – March 2016, as a result of which the value of the Mexican currency strongly depreciated. Subsequently, in the second half of the quarter, international financial volatility went down considerably. This, together with the economic policy measures adopted internally led to an appreciation of the Mexican peso.

v. Nonetheless, there has been a reduced pass-through of exchange rate adjustments onto inflation and no second round effects on the price setting of the economy have been observed.

In this context, in its decision of February 4, 2016 the Board of Governors decided to maintain unchanged the target level for the Overnight Interbank Interest Rate at 3.25 percent (Chart 31). This, considering that at the moment the central scenario regarding the evolution of inflation for the short and medium term was still congruent with the consolidation of its convergence to the permanent 3 percent target. Despite this, the Board warned that the additional depreciation of the exchange rate registered in early 2016 and the possibility that it would persist or accelerate, possibly contaminating inflation expectations, had become the main risks to inflation.

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



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

After volatility in international financial markets and the deterioration in the external environment indeed became worse in the first two weeks of February, the Mexican peso further depreciated in a disorderly manner. Thus, in order to prevent the probability of inflation destabilization from increasing, on February 17, 2016 the Board of Governors announced that, at an extraordinary session it was considered appropriate to increase the target for the Overnight Interbank Interest Rate by 50 basis points to a level of 3.75 percent (Chart 31). In this regard, it was specified that the said increment did not initiate a cycle of monetary contraction.

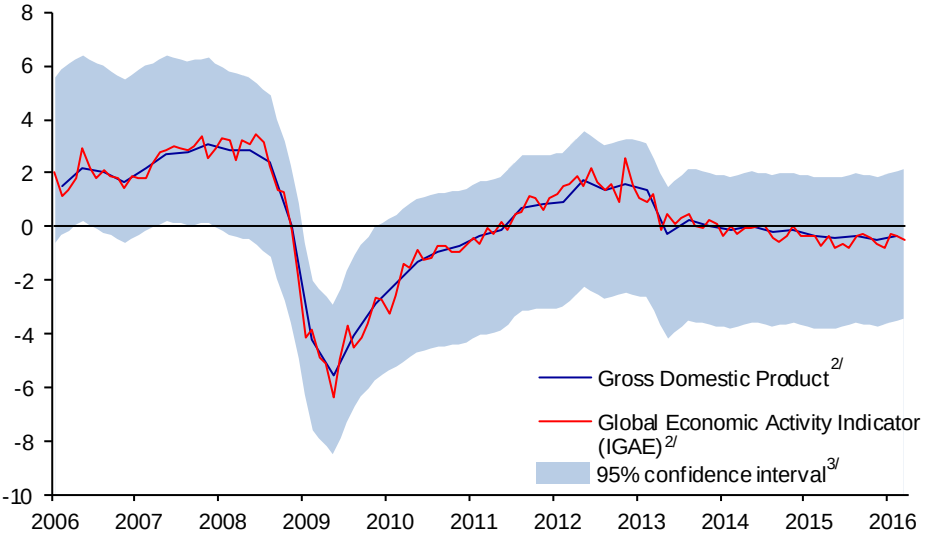
It should be stressed that this decision was part of a coordinated set of measures taken by the Ministry of Finance (*Secretaria de Hacienda y Crédito Público*), that announced a preemptive adjustment to expenditure of 2016, fundamentally given the deterioration of the outlook of oil revenues; and the Foreign Exchange Commission, that declared the suspension of U.S. dollars sales' mechanisms based on rules. With respect to this announcement, the Foreign Exchange Commission pointed out that it would leave open the possibility to intervene discretionally in the exchange market in exceptional cases, ratifying that the key to procure the anchoring of the national currency would be the preservation of healthy

macroeconomic fundamentals. These actions, as well as the reduction in international financial volatility, broke the negative trend in the quote of the national currency.

Subsequently, in view of the effects of the measures adopted on the financial markets –described below-, and given that the balance of risks to inflation was considered neutral, considering the adjustment carried out on February 17, 2016, in its monetary policy meetings of March 18 and May 5 the Board of Governors decided to maintain unchanged the target for the Overnight Interbank Interest Rate (Chart 31). When making this decision, it was also considered that the Federal Reserve left its reference interest rate unchanged, as it had been expected, in its monetary policy decisions of March and April.

Delving in the elements the monetary authority considered for its decisions, it should be noted that during 2016 slack conditions in the economy and in the labor market have prevailed, although they have been decreasing. Therefore, no aggregate demand-related pressures onto prices have been observed. The output gap remains slightly negative (Chart 32) and the main wage indicators still register moderate increments and, in particular, unit labor costs for the economy as a whole remain at low levels (Chart 33).

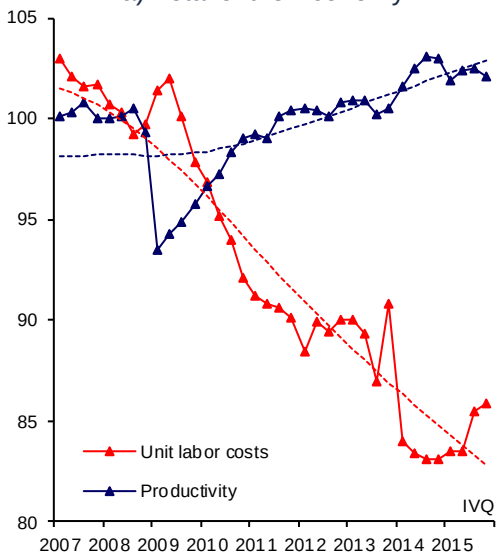
Chart 32
Output Gap Estimate [1/]
Percentage of potential output, s. a.



s. a. / Estimated 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 first quarter of 2016. IGAE figures as of March 2016.
3/ Confidence interval of the output gap calculated with an unobserved components' method.
Source: Estimated by Banco de México with data from INEGI.

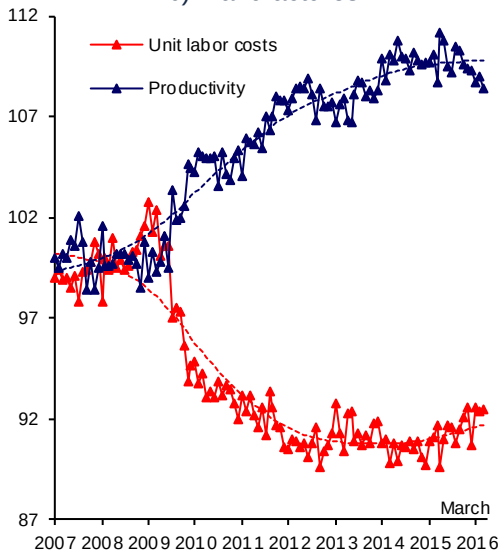
Chart 33
Productivity and Unit Labor Cost
Index 2008=100, s. a.

a) Total of the Economy



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

b) Manufactures



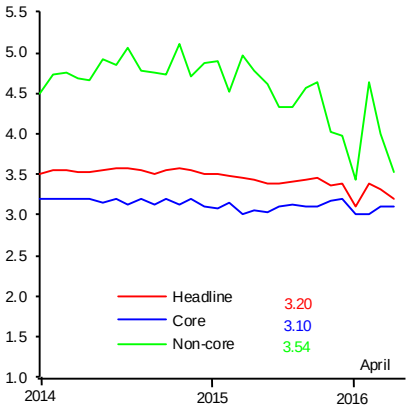
s. a. / Seasonally adjusted and trend series. The former is represented with a solid line, the latter, with a dotted line.
Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the Indicator of Industrial Activity of the Mexico's System of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

As to the performance of the median of inflation expectations based on Banco de México's survey among private sector specialists, it is noteworthy that the one corresponding to the end of 2016 decreased from 3.4 percent in the December survey to 3.2 percent in the April survey.[8] In particular, the median of core inflation expectations went down from 3.2 to 3.1 percent in the same time period, while the expectations implicit in the non-core component adjusted from 4.0 to 3.5 percent (Chart 34a). Meanwhile, the median of inflation expectations at the end of 2017 remained at 3.3 percent between December 2015 and April 2016, just like the expectations of the core and non-core components, which persisted at 3.2 and 3.7 percent, respectively (Chart 34b).[9] Finally, longer-term inflation expectations kept lying at 3.3 percent in 2016 so far (Chart 34c).[10]

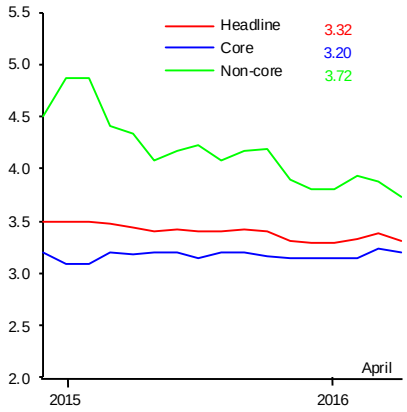
[8] The median of headline inflation expectation for the end of 2016, based on the Banamex survey, slid from 3.3 to 3.2 percent between the survey of December 16, 2015 and that of May 20, 2016.
[9] The median of headline inflation expectation for the end of 2017, based on the Banamex survey, shifted from 3.2 to 3.3 percent between the surveys of January 7, 2016 and that of May 20, 2016.
[10] The median of long-term inflation expectations, based on the Banamex survey (for the next 3 to 8 years), decreased from 3.4 to 3.3 percent between the surveys of December 16, 2015 and that of May 20, 2016.

Chart 34
Inflation Expectations
Percent

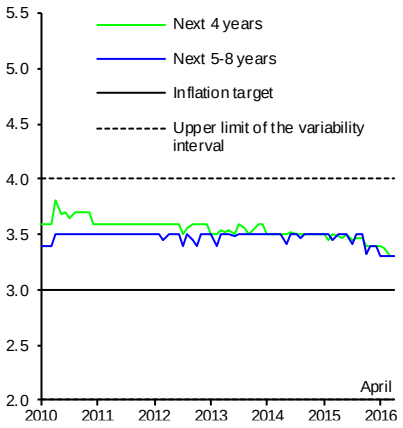
a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2016



b) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2017



c) Medians of Headline Inflation Expectations for Different Terms



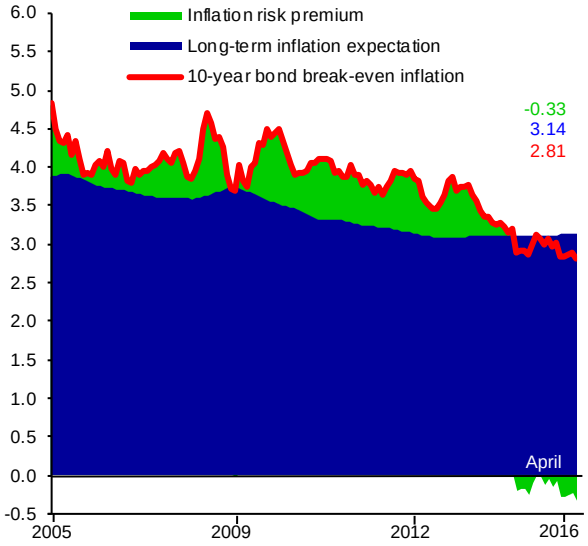
Source: Banco de México's Survey.

Inflation expectations implicit in 10-year market instruments remain stable around 3.0 percent, while the inflationary risk premium persists at negative levels (Chart 35a).[11] In this way, the break-even inflation (the difference between long-term nominal and real interest rates) remains close to historic lows (Chart 35b). This performance is congruent with the environment in which, given that financial markets present low risk-adjusted returns in their assets, risk premia have decreased, and in some cases even reached negative levels, due to the diversification benefits that they offer in their portfolios. Moreover, it seems to be reflecting greater credibility regarding the Central Bank's commitment to the attainment of the permanent inflation target, which decreases the premium the agents would demand in case of a risk of unexpected changes in the inflationary outlook of the country, that are currently perceived as unlikely given the said commitment. In sum, the evolution of this indicator is still showing that the holders of nominal interest rate instruments keep demanding a relatively low break-even inflation and inflation risk in Mexican government bonds.

[11] 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. For the current Report, the estimate was updated by including data as of December 2015.

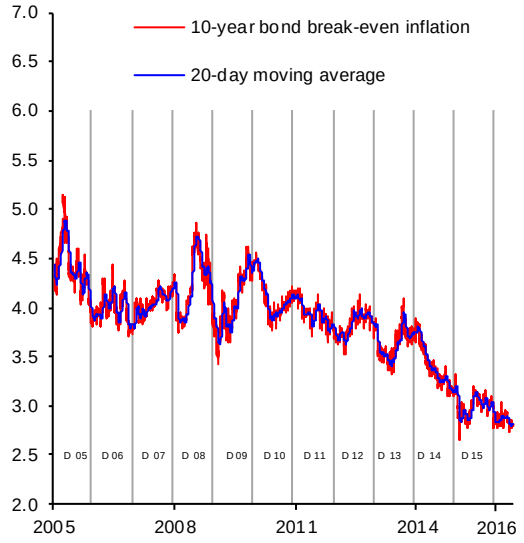
Chart 35
Inflation Expectations
Percent

a) Decomposition of Break-even Inflation and Inflation Risk



Source: Estimated by Banco de México.

b) 10-year Bond Break-even Inflation



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

4.2. Domestic Financial Markets

During the reference period, the evolution of domestic financial markets was affected by economic policy actions and by the changes in volatility in international financial markets. In this context, it stands out that the foreign exchange market remained the main shock-absorber of external shocks, while fixed income market indicators remained relatively stable.

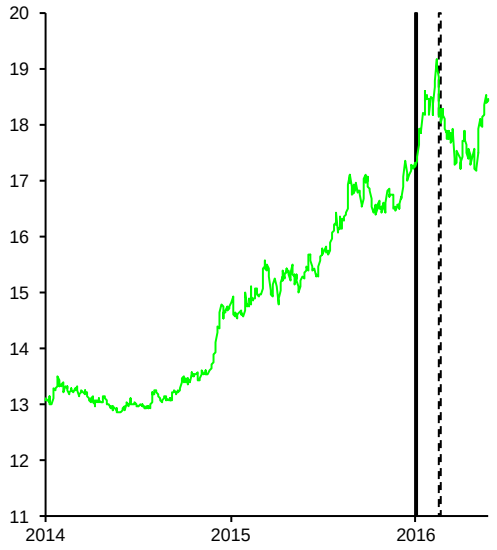
Delving in the above, in January and up to February 16, the behavior of the exchange rate was affected by both real and financial factors. The former comprise the deterioration in the terms of trade derived from the lower crude oil price and the stagnation of demand for exports, as a result of the low volume of global trade and, in particular, from the deceleration of industrial activity in the U.S. and China. Among financial factors, the following should be mentioned: the use of Mexican peso hedges in the adjustment strategies in other currencies' risk exposure within national and international investment portfolios; greater risk aversion among these; some agents' use of high frequency automatic trading models in the exchange market that benefitted from exchange rate volatility to obtain profits, which, in turn, affected its level, fed back on its volatility and reduced market's liquidity, as well as the economic and geopolitical uncertainty worldwide since the beginning of 2016.

Subsequently, as mentioned above, starting from the second half of February until now, international financial volatility reduced, even though it occurred in an environment of nervousness. This and the set of measures announced by the monetary authorities on February 17 helped the exchange rate to break its depreciation trend, shifting from levels close to MXN/USD 19.42 to levels below MXN/USD 18 in the weeks following the adoption of the referred measures, the

appreciation that persisted in the subsequent weeks, to finally locate on average at MXN/USD 17.49 in April, even though in May it rebounded to levels above MXN/USD 18 (Chart 36a and Chart 36b).

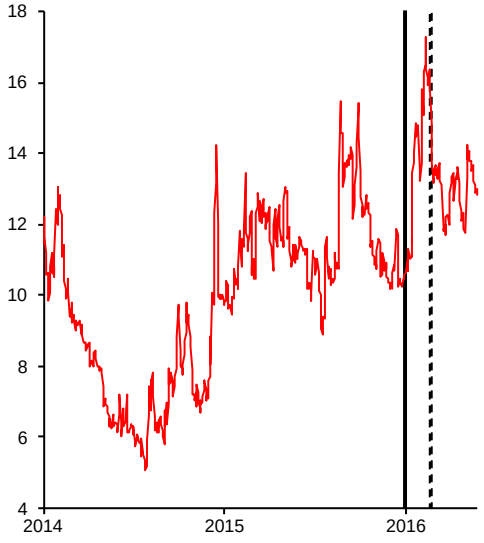
Chart 36
Exchange Rate and Implied Volatility

a) Nominal Exchange Rate 1/
MXN/USD



1/ The observed exchange rate is the daily quote of the FIX exchange rate. The black vertical line indicates January 1, 2016 and the dotted line indicates February 17, 2016.
Source: Banco de México.

b) Currency Option Implied Volatility 1/
Percent



1/ Currency option implied volatility refers to one-month options. The black vertical line indicates January 1, 2016 and the dotted line indicates February 17, 2016.
Source: Bloomberg.

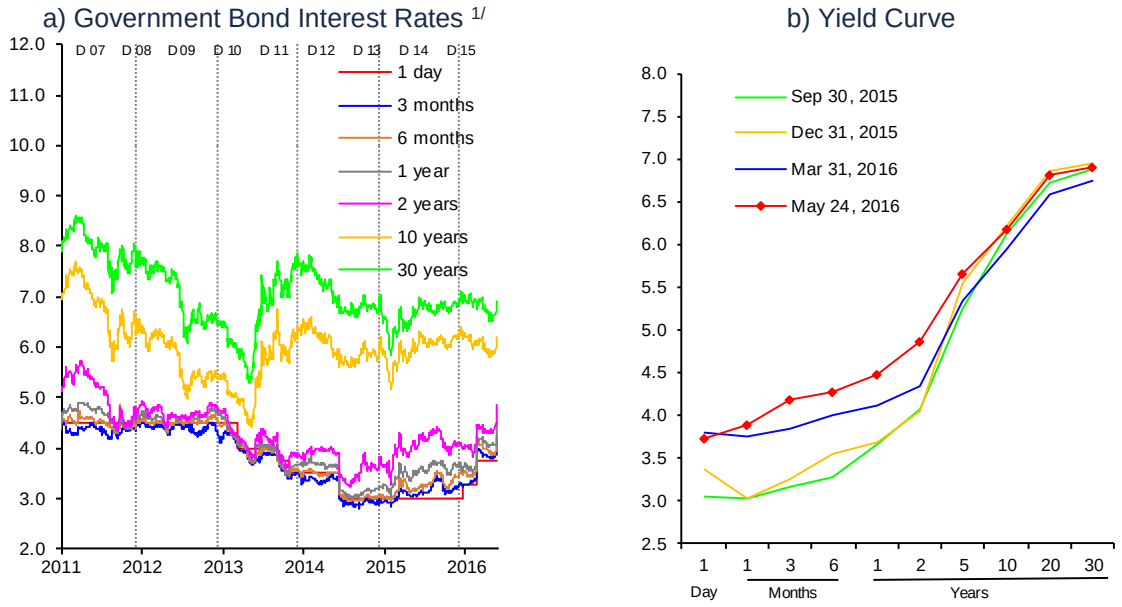
In the period covered by this Report, the Foreign Exchange Commission announced modifications to the intervention mechanisms in the foreign exchange market that had been in force during 2015. Prior to this announcement, from January 1, 2016 to February 16, 2016 the mechanism of ordinary dollar auctions with a minimum price was activated 10 times, while the mechanism of supplementary dollar auctions with a minimum price was activated 8 times, the total amount allocated by means of different implemented intervention mechanisms being USD 3,556 million. Subsequently, on February 17, the Foreign Exchange Commission decided to suspend the referred daily auctions of dollars, on that day discretionally selling USD 2 billion, to strengthen the impact produced by the said economic policy measures on the quote of the national currency, given its degree of misalignment. The suspension decreed by the Foreign Exchange Commission of the intervention mechanisms by means of the predictable auctions was a response to the fact that they were losing their stabilizing power, when they were incorporated to the algorithms of some market participants that tried to benefit from them. In this context, this Commission stressed that it would only intervene discretionally in the market in exceptional circumstances of low liquidity in the market or other type of disruptions. Besides, it emphasized that the anchoring of the national currency's value will be procured fundamentally by preserving solid economic fundamentals.

As regards the performance of the fixed income market, short-term interest rates in Mexico reflected increments in the reference interest rate derived from the monetary

policy actions during the reference period. In contrast, long-term interest rates reduced, although at the margin they slightly improved. In this way, the slope of the yield curve decreased considerably. In particular, from January to late May, 3-month and 2-year sovereign bond rates increased from 3.3 to 4.0 percent and from 4.0 to 4.7 percent, respectively. In contrast, 10-year bond interest rate slid from 6.2 to 5.9 percent between January and April 2016, to later go up to 6.1 percent in late May (Chart 37a). Hence, the slope of the yield curve (the difference between 10-year and 3-month rates) lowered from 290 to 210 basis points in 2016 so far (Chart 37b).

The flattening of the yield curve can be interpreted as evidence of well-anchored inflation expectations, minimizing the potential negative upward effect in the reference interest rate in the investments in long-term financial instruments.

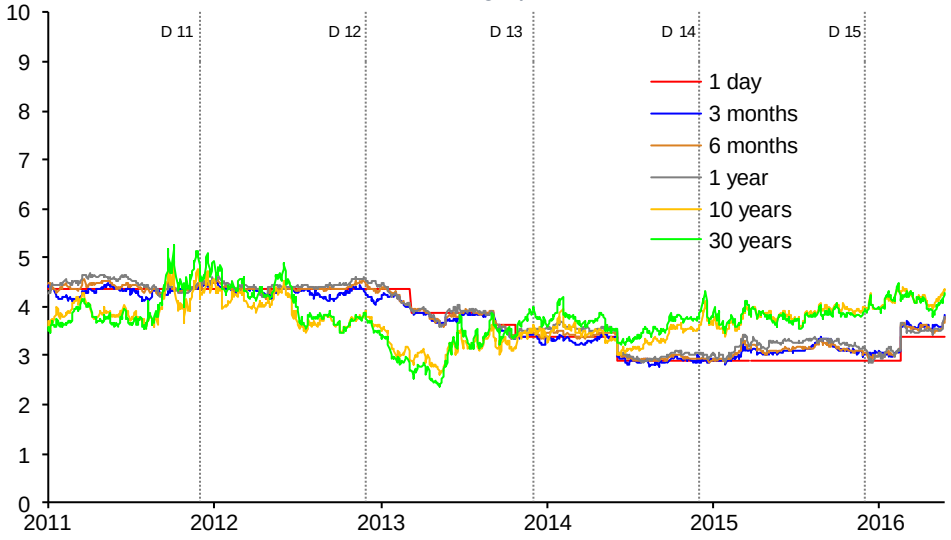
Chart 37
Interest Rates in Mexico
Percent



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).

Meanwhile, even though the spreads between Mexican and U.S. long-term interest rates registered a certain increment between January 1 and February 16, 2016, starting from February 17 they gradually went down to their level at the beginning of the year. Thus, the 10-year interest rate spread went up from 400 to 440 basis points in the first period mentioned above, to later go down to 430 basis points in late May (Chart 38).

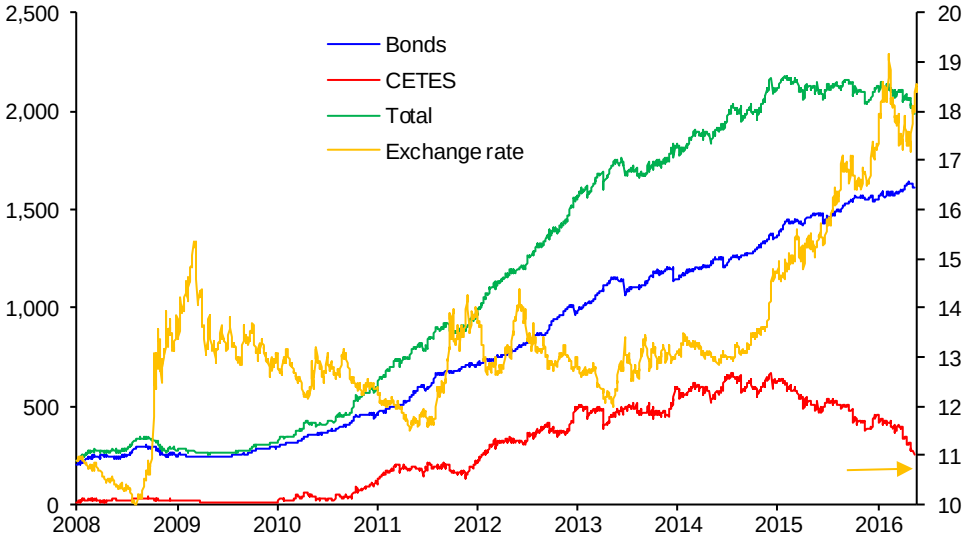
Chart 38
Spreads between Mexican and U.S. Interest Rates [1/]
Percentage points



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

Foreign investors' holdings of government bonds slightly reduced between January and the end of May 2016. As regards their composition, it should be noted that investors' holdings of short-term instruments reduced considerably. However, this decrease was partially offset by the increment in medium- and long-term instruments holdings (Chart 39).

Chart 39
Government Securities' Holdings by Foreign Investors and Exchange Rate [1/]
MXN billion and MXN/USD



1/ The total includes CETES, bonds, udibonos, bondes and bondes D.
Source: Banco de México.

More recently, international financial volatility began increasing again, which was reflected in the currency depreciation. In particular, even though crude oil prices

recovered, there is still a possibility of a disorderly decompression of term premia in international financial markets, given the expected normalization of the U.S. monetary policy. Furthermore, different sources of risks to the stability of international financial markets persist. Among them, the next can be noted: difficulties to stimulate growth and inflation in the Euro zone and Japan, the rising concern over the financial stability of China, as well as other geopolitical phenomena. Therefore, it is still relevant for the authorities to remain on alert regarding the macroeconomic fundamentals of the country.

In this sense, the announcement of April 1, 2016 by the Ministry of Finance (*Secretaría de Haienda y Crédito Público*) regarding the consolidation measures to be carried out in 2017, additional to those already announced for 2016, is especially pertinent. In particular, a reduction in the programmable expenditure for 2017 with respect to that of 2016 was suggested, apart from the commitment to the adjustment that was estimated for that year. In turn, on April 11, 2016 Banco de México stated that it would hand over the 2015 fiscal year operational surplus to the Federal Government, which amounts to MXN 239.1 billion. In line with the Federal Law on Budget and Fiscal Responsibility, establishing that at least 70 percent of the said amount should be destined to the amortization of the Federal Government's public debt or to the reduction of the amount of funding required to cover the approved deficit, on April 11, the Ministry of Finance announced that, from the referred resources, it would allocate at least MXN 64 billion to reduce the program of government securities' auctions and up to MXN 103 billion to repurchase public debt. Indeed, up until now, the amount of MXN 17.4 billion was already channeled to decrease the amount of government securities' placements corresponding to the second quarter of 2016. Likewise, on May 4, the Ministry of Finance allocated almost MXN 98 billion to repurchase fixed rate bonds and Udibonos with maturities between 2016 and 2018, pointing out that with this transaction the program of repurchases of government securities is concluded. As a total, these measures strengthen the fiscal position of the Federal Government and the macroeconomic framework of the country.

5. Inflation Forecasts and Balance of Risks

GDP Growth: As forecast in the previous Quarterly Report, the complex external environment faced by the Mexican economy has persisted. Indeed, given the weak global economic activity, volatility in international financial markets and the reduction in global trade, industrial activity in the U.S. has not yet recovered.[12] Hence, Mexican external demand is still expected to register a relatively low dynamism for the following years, although it is anticipated to gradually resume a greater expansion rate.

Despite the slack in global demand, Mexico's domestic demand continued to expand at a considerable rate and, in this context, it can be anticipated to continue supporting economic activity over the next quarters. The low inflation rate leading to a recovery in the real wage bill, the improvement in the labor market and the implementation of structural reforms are promoting an environment more conducive to growth in domestic expenditure. In particular, structural reforms are anticipated to continue gradually boosting economic growth by generating favorable conditions for a sustainable increase in the consumption of different goods and services, along with promoting investment projects.

Thus, the domestic demand dynamism has managed to partially offset the aforementioned weakness of the external sector (and is expected to keep doing so), so that a moderate growth rate is still expected in the country. Similarly, a greater dynamism in economic activity during the first quarter of 2016 implies a certain improvement in the growth outlook for this year, although an adjustment of the forecast interval remains unjustified. Thus, GDP in Mexico is still estimated to grow between 2.0 and 3.0 percent in 2016. For 2017, due to the adverse international environment, and in particular to the downward revision of the growth expectations for the U.S. industrial production, the interval for GDP growth has been slightly adjusted from 2.5 to 3.5 percent in the last Report to 2.3 to 3.3 percent in the current one (Chart 40a).

Employment: Even though the number of IMSS-insured jobs maintained a positive trend, recently it has somewhat decelerated. Therefore, the outlook for this indicator's growth is slightly adjusted downwards. Thus, for 2016 an increment of 590 to 690 thousand jobs is expected, as compared to 610 to 710 thousand employments published in the previous Report. For 2017, an increase of 630 to 730 thousand jobs is expected, which is smaller than the anticipated 650 to 750 thousand employments announced in the previous Report.

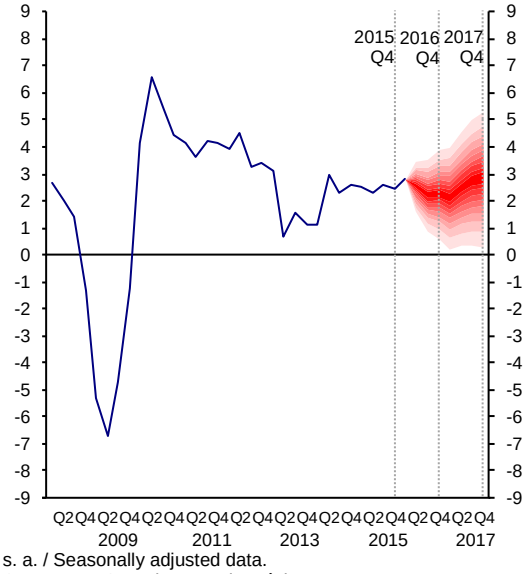
[12] In particular, based on the consensus of analysts surveyed by Blue Chip in May 2016, for this year U.S. industrial production is expected to shrink 0.4 percent, as compared to the expansion rate of 0.8 percent expected in the previous Report. For 2017, the forecast is adjusted from 2.4 percent in the previous Report to 2.3 percent in the current one. Despite a considerable modification in these expectations, the adjustment for 2016 is largely due to the fact that in the first quarter of the year the performance was a lot more unfavorable than estimated by analysts surveyed by Blue Chip, although the growth outlook for the following quarters of 2016 and 2017 was also modified. Furthermore, the decrease in the U.S. industrial activity in the first quarter of this year reflects the adverse performance of mining, while manufacturing presented a more favorable evolution than in the previous quarter. Thus, the revision of the outlook for the U.S. economic growth does not imply such high modifications for those corresponding to the Mexican economy in 2016. In turn, the revision of expectations regarding the U.S. industrial production growth trend in the forecast horizon has a negative effect on the Mexican GDP growth outlook for 2017, which is manifested in the revision of the forecast interval for this growth in that year.

Current Account: For 2016, a trade balance deficit and a current account deficit of USD 15.4 and 34.4 billion are anticipated, respectively (1.4 and 3.1 percent of GDP, in the same order). For 2017, deficits in the trade balance and the current account are expected to amount to USD 15.1 and 36.7 billion, respectively (1.3 and 3.1 percent of GDP, in the same order).

The economic growth outlook does not indicate the presence of any aggregate demand-related pressures on either inflation or external accounts. In particular, the output gap is anticipated to remain negative in the forecast horizon (Chart 40b).

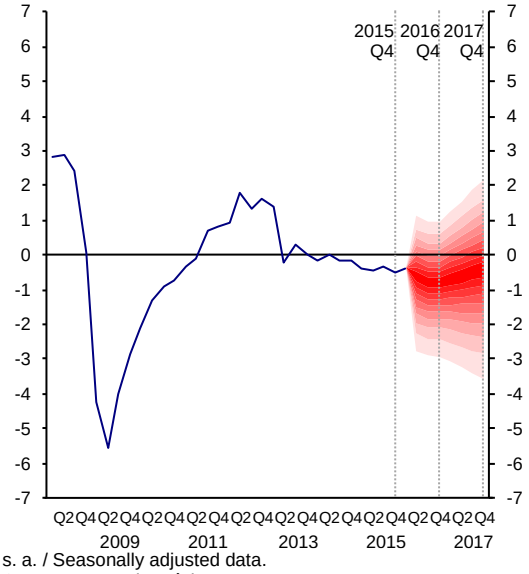
Chart 40
Fan Charts: GDP Growth and Output Gap

a) GDP Growth, 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. / Seasonally adjusted data.
Source: Banco de México.

The downward risks to the economic growth in Mexico, associated with the described scenario, are the following:

i. The possibility of a more pronounced slowdown of the world economic growth and, in particular, of the U.S. industrial activity.

ii. That, in light of a more complex international environment, financing conditions in the economy might become tighter, negatively affecting investment plans and, consequently, economic growth.

Among the upward risks, the next should be listed:

i. That the improvement in the labor market and credit expansion, as well as greater access of households to credit could lead to an even greater dynamism of private consumption over the next quarters.

ii. That the implementation of the structural reforms could produce more favorable and faster effects than anticipated. In particular, that a greater

impulse to investment in the energy sector could be observed, above all in view of the recent announcements on gasoline and gas imports, or that the dynamism generated by Mexico's Telecom reform could persist.

Inflation: Inflationary conditions in the economy are anticipated to remain favorable, so that inflation keeps fluctuating around its permanent target and medium- and long-term inflation expectations remaining anchored to the said target over the rest of 2016 and in 2017. In particular, annual headline inflation is expected to persist under 3 percent over the next months, although in the last months of the year it is anticipated to temporarily exceed this figure. In any event, for the year as a whole, average annual inflation is forecast to be practically at 3 percent. This trajectory is primarily a consequence of the recent update in the formula used by the Ministry of Finance to set maximum gasoline prices and of the expected evolution of this fuel's international counterparts. This update intends to smooth the effect of volatility in international gasoline prices on the national prices of this fuel, which, in turn, alters its seasonality. Core inflation is anticipated to gradually increase in annual terms, concluding 2016 at levels close to 3 percent. For 2017 both headline and core inflation are estimated to persist around the permanent inflation target (Chart 41 and Chart 42).

The indicated forecast of the inflation trajectory is not risk-free. Among its upward risks, the following should be mentioned:

i. That a deterioration in the international environment would generate a disorderly depreciation of the exchange rate, possibly affecting, to a greater degree, headline inflation.

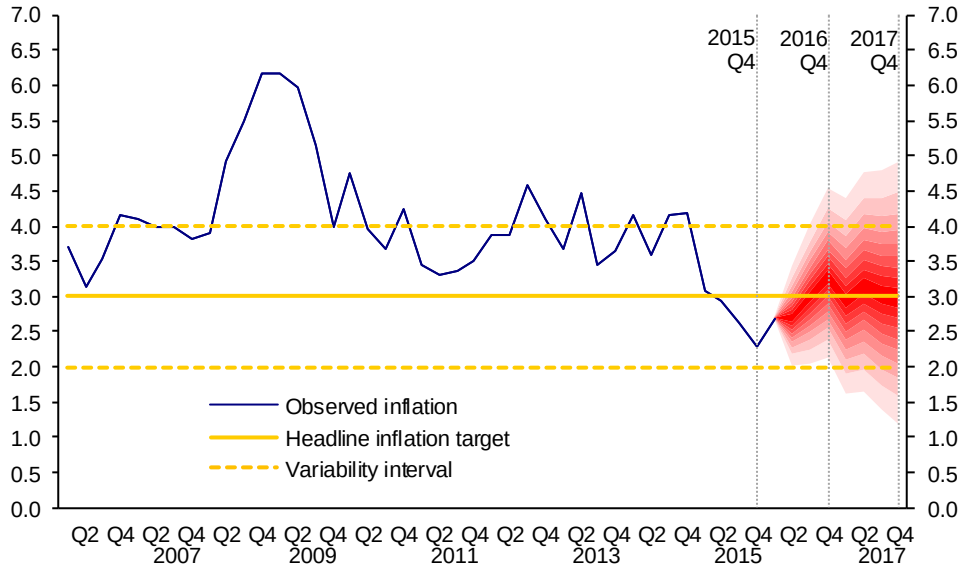
ii. Additionally, increments in the agricultural products' prices cannot be ruled out, although their impact on inflation would tend to be transitory.

As to downward risks, the next should be listed:

i. That as a result of structural reforms, prices of some generalized-use inputs would continue decreasing, such as telecommunication services and energy prices.

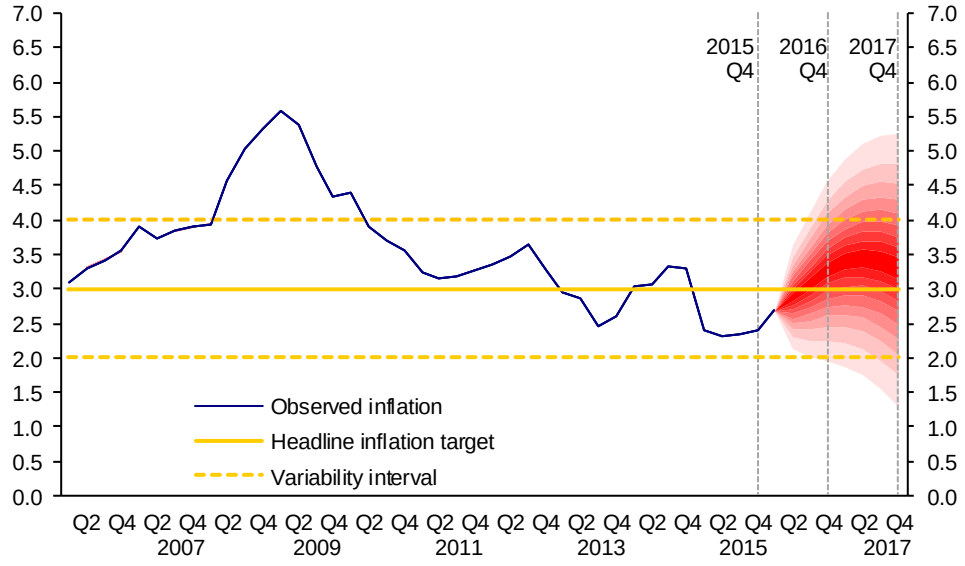
ii. That Mexican and global economic activity may have a lower than expected dynamism, which would defer aggregate demand-related pressures on inflation.

Chart 41
Fan Chart: Annual Headline Inflation 1/
Percent



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

Chart 42
Fan Chart: Annual Core Inflation 1/
Percent



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

In this context, and considering the data presented in this Report, in the future the Board of Governors will continue closely monitoring the evolution of all inflation determinants and its medium- and long-term expectations, especially the exchange rate and its possible pass-through onto consumer prices. Moreover, it will monitor the monetary policy stance of Mexico relative to that of the U.S., without overlooking the evolution of the output gap. All this, in order to be able to take the necessary

measures in a flexible manner and whenever conditions should demand it, so as to consolidate the efficient convergence of inflation to the 3 percent target.

Finally, it should be kept in mind that the Mexican economy is still facing an adverse international environment. In this context, it should be noted that the Mexican authorities in a timely manner implemented a set of measures aimed at strengthening macroeconomic fundamentals. These actions contributed to guaranteeing the macroeconomic stability of the country and to generating an environment more conducive to growth. In particular, the adjustment of public expenditure, along with Banco de México's operational surplus to improve the Federal Government financial position and to decrease public indebtedness, by means of repurchasing the existing Federal Government debt and reducing the amount of placements in 2016, will contribute to sound public finances in the country. Nonetheless, it is necessary to continue encouraging domestic sources of growth, so that both the slack in global demand is offset, and higher economic growth rates are achieved in a sustained manner. On the one hand, it is necessary to proceed with the appropriate and prompt implementation of structural reforms, as they will contribute to boost productivity and generate greater economic competition, with a consequent favorable effect on the welfare of the population. On the other hand, the rule of law should be strengthened and legal certainty should be guaranteed. As stated in previous Reports, this would allow achieving greater economic growth, while broadening the scope of structural reforms and attracting greater investment to the country.

BANCO DE MÉXICO

May 2016

www.banxico.org.mx