BANCO DE MÉXICO

Quarterly Report

April – June 2016

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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 April – June 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 August 29, 2016. Figures are preliminary and subject to changes.

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1. Introduction

The primary goal of this Central Institute is to procure the stability of the general price level, which represents the best contribution Banco de México can make to promote economic growth. In recent years, the conduct of monetary policy under an inflation targeting regime, along with some important results of the structural reforms, have contributed to achieve an environment of low and stable inflation, to anchor inflation expectations at levels congruent with Banco de México's target, to lower risk premia, particularly the inflation risk premium and to reduce the pass-through of exchange rate fluctuations onto goods and services' prices, all of which have positively affected the economy as a whole. However, this progress cannot be taken for granted, especially given the complex international environment currently faced by Mexico and the expectations that this context could prevail in the future. Indeed, future external and/or domestic adverse events that could affect the economy and inflation cannot be ruled out, whereby it is crucial to underpin the strength of the macroeconomic framework of the country through appropriate monetary and fiscal policies.

Considering this, in the period covered by this Report, Banco de México responded with total flexibility and at the moment the conditions demanded so, in order to consolidate the efficient convergence of inflation to the 3 percent target, and, thus, contribute to maintain an adequate macroeconomic framework. Hence, even though in the monetary policy decision of May the Board of Governors maintained the target for the Overnight Interbank Interest Rate unchanged, in its decision of June it increased this rate by 50 basis points to 4.25 percent. This was fundamentally because the external conditions were deteriorating, leading to a considerable depreciation of the exchange rate that could jeopardize the anchoring of inflation expectations in Mexico and, eventually, negatively affect the inflation performance. Given that with the referred adjustment to the monetary policy stance, the balance of risks to inflation was deemed neutral, in its decision of August 2016 the Central Institute maintained the reference interest rate unchanged at 4.25 percent.

During the reported period, the Mexican economy continued coping with an adverse international environment, characterized by an additional decrease in the world economic growth projections and by diverse events that generated episodes of high financial volatility. The downward revision of world economic prospects resulted from the expected negative effect on the United Kingdom, which derived from its decision to leave the European Union, as well as from a lower than estimated growth of other advanced economies. The global economy is also facing structural challenges, such as: i) low growth of productivity and the labor force; ii) the contraction of international trade, which could intensify, given the risks of a broader implementation of protectionist measures in different countries, and further negatively affect global production chains, investment and productivity; and iii) insufficient levels of investment, in a context of greater global savings, chiefly in advanced economies, in response to demographic factors, among others.

Meanwhile, volatility in international financial markets spiked in late June, as an immediate consequence of the referendum outcome in the U.K. Nevertheless, financial stability was restored thanks to the prompt response of the Bank of England and other advanced economies' central banks that provided liquidity, the perception that the U.K. exit from the European Union would mainly affect that country, as well as the expectation of a gradual normalization process of the U.S.

monetary policy and the adoption of greater monetary stimuli by other advanced economies. Nonetheless, looking ahead, new volatility episodes cannot be ruled out, given the persisting risks related to different economic and geopolitical factors. The negative impact of the deterioration in the external environment on the Mexican financial markets not only was perceived on the exchange rate evolution, but also on the performance of government securities' interest rates, which increased for most terms. In view of the monetary policy adjustment carried out in the decision of June, a flattening of the yield curve was expected, as this measure would induce an increment in the cost of money in the short term, while maintaining inflation expectations well-anchored. This is exactly what happened.

In this environment, after the growth observed in the previous quarter, the Mexican economy contracted in the second quarter of the year. Indeed, different indicators suggest that private consumption decelerated, while the external demand and investment remained weak. This performance contributed to the fact that stagnation, which had already been perceived in the industrial sector since early 2015, was joined by a slower dynamism of the services. In this context, the output gap seemed to have remained negative. Nonetheless, in 2016 so far the current account deficit as a percentage of GDP increased with respect to 2014 and 2015.

The drop in the economic activity in the reported quarter, along with a more adverse external environment, call for a revision of the growth forecast intervals published in the previous Report. In particular, for 2016, GDP in Mexico is anticipated to grow between 1.7 and 2.5 percent, which compares to the expected growth of 2.0 to 3.0 percent published in the last Report. Likewise, the growth forecast interval expected for 2017 has been modified from 2.3 to 3.3 percent to 2.0 to 3.0 percent.

In the analyzed period, inflation remained at levels under the permanent 3 percent target, as of the first fortnight of August accumulating 15 consecutive months below that figure. This was due to the conduct of monetary policy, and the absence of aggregate demand-related pressures on prices. The good performance of both its core and non-core components contributed to the favorable evolution of inflation. Although the former, just as expected, exhibited a gradual upward trend, reflecting the effect of the exchange rate depreciation on the relative prices of merchandise with respect to services, as of the first fortnight of August it remained under 3 percent. So far, no second round effects on the price-setting process of the economy have been observed. In the same fortnight, non-core inflation lied at levels close to 2 percent, mainly consequent on the moderate growth of agricultural products' prices and lower prices of some energy products, which were registered at the beginning of the year, although in July and August gasoline prices went up.

Over the following months, annual headline inflation is estimated to gradually go up, locating very close to 3 percent at the end of 2016 and with an average below this figure for the year as a whole. This forecast contemplates the formula used by the Ministry of Finance to set maximum gasoline prices, as well as the evolution of this fuel's international references. The effect of the above will be partially offset by the favorable impact on inflation produced by the reduction in the L.P. gas prices announced by the same Ministry on August 14, 2016. Meanwhile, annual core inflation is expected to increase gradually throughout 2016, closing the year at levels near 3 percent. For 2017, both headline and core inflation are anticipated to lie around the permanent inflation target.

To address external risks, different economic policy measures have been implemented. In particular, this year there have been adjustments in the fiscal and

monetary policy stances seeking to bolster the macroeconomic framework of the country. To complement this, on May 27, 2016 the IMF Board approved the petition by the Foreign Exchange Commission to renew in advance the Flexible Credit Line for Mexico and on that date to increase it from USD 67 to 88 billion.[1] In addition to contingent resources it grants, this contributes to strengthen the macroeconomic stability, as it generates significant incentives to maintain sound fundamentals of the economy, which is required to preserve the access to the said credit line.

Nonetheless, in the future, challenges may arise calling for further strengthening the macroeconomic framework of the country. In particular, additional depreciations of the national currency cannot be rules out, in light of the uncertainty derived from the outcome of the U.S. presidential elections and its implications, the possibility of weak oil prices, a further deterioration of the current account deficit and the expected normalization of the Federal Reserve monetary stance. In view of these risks and the performance of the Public Sector Borrowing Requirements in recent years, additional measures of public finances' consolidation, such as achieving a primary surplus starting from 2017, as put forward by the Ministry of Finance, have become indispensable. This kind of steps would allow absorbing external shocks in a more efficient way and facilitate more adequate current account balances. Meanwhile, just as it has been the case until now, the Board of Governors will closely monitor 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. In this context, it will be watchful of the monetary position of Mexico relative to the U.S., without overlooking the evolution of the output gap. This will be done in order to be able to continue taking the necessary measures to consolidate the efficient convergence of inflation to the 3 percent target, with all flexibility, regarding the amount and the opportunity of adjustment, as conditions may demand.

[1] The Flexible Credit Line increased from SDR (Special Drawing Rights) 47.3 to 62.4 billion. See the Foreign Exchange Commission press release as of May 27, 2016.

2. Recent Development of Inflation

2.1. Inflation

The recent evolution of annual headline inflation has remained favorable. Indeed, between the first and the second quarters of 2016, the average annual change of the Consumer Price Index (CPI) went down from 2.69 to 2.56 percent. Subsequently, as of the first fortnight of August, this indicator's annual change marked 2.80 percent, thus accumulating over 15 consecutive months below the permanent 3 percent target. On the one hand, this performance is the result of the monetary policy conduct, which prevented the deterioration in the external environment, that influenced the national currency's value, from adversely affecting the anchoring of inflation expectations, and, thus, leading to higher and more widespread price adjustments. Similarly, during the reported period no aggregate demand-related pressures on prices were observed. On the other hand, this performance was also contributed to by the low level of international prices of most commodities, which resulted from the weak dynamism of their demand at the global level, the lower growth of agricultural products' prices in the second quarter of 2016, as well as lower prices of some energy products at the beginning of the year, which keeps favoring the level of the annual change of the non-core price index.

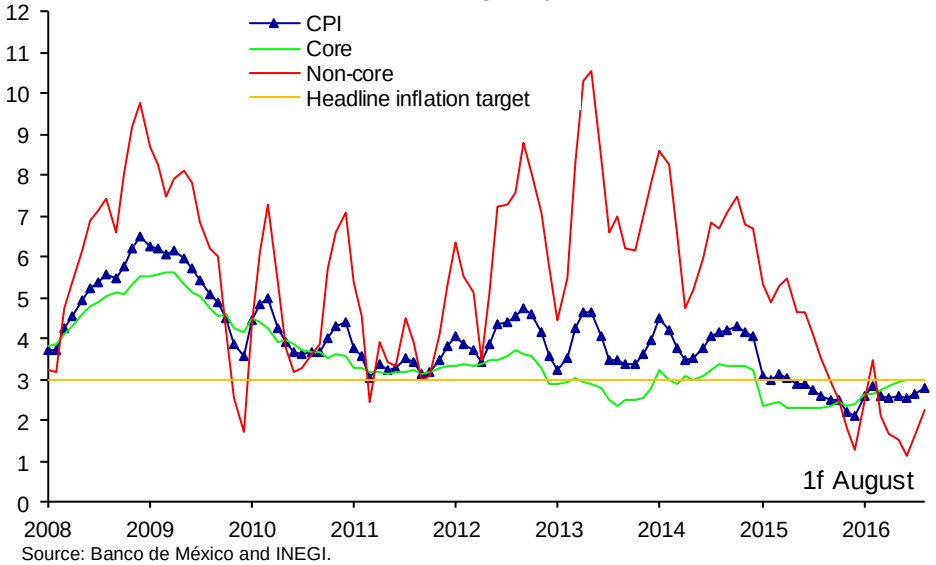
In particular, the low level of annual headline inflation resulted from the good performance of both the core and non-core subindices. Although, as anticipated, the annual core inflation presented a gradual upward trend, it is still located below 3 percent. Indeed, it shifted from an average annual change of 2.69 percent in the first quarter to 2.91 percent in the second one, registering 2.97 percent in the first fortnight of August. This performance was affected by the impact of the exchange rate depreciation onto the relative prices of merchandise in relation to services. Despite an acceleration of the annual growth of merchandise prices, the change rate of services' prices remained low and stable. It should be noted that, so far, no second round effects were observed on the price formation process of the economy. Meanwhile, annual non-core inflation lowered from an average annual change of 2.71 to 1.46 percent in the referred quarters. As mentioned above, this mainly resulted from the low growth rates in agricultural products' prices, combined with the decreases in some energy products' prices. Meanwhile, in the first fortnight of August, the annual change of the non-core component was 2.26 percent, which reflects the effect of gasoline price increments in July and August (Table 1 and Chart 1).

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

	2015				2016		
	I	II	III	IV	I	II	1f August
CPI	**3.07**	**2.94**	**2.61**	**2.27**	**2.69**	**2.56**	**2.80**
Core	**2.39**	**2.32**	**2.33**	**2.40**	**2.69**	**2.91**	**2.97**
Merchandise	**2.56**	**2.52**	**2.46**	**2.78**	**3.04**	**3.51**	**3.73**
Food, beverages and tobacco	3.15	2.56	2.20	2.55	2.88	3.69	3.73
Non-food merchandise	2.07	2.49	2.67	2.98	3.17	3.36	3.73
Services	**2.26**	**2.15**	**2.22**	**2.09**	**2.40**	**2.41**	**2.33**
Housing	2.10	2.09	2.06	2.00	2.11	2.21	2.31
Education (tuitions)	4.36	4.35	4.37	4.28	4.21	4.13	4.04
Other services	1.80	1.57	1.75	1.52	2.15	2.09	1.82
Non-core	**5.17**	**4.92**	**3.53**	**1.87**	**2.71**	**1.46**	**2.26**
Agriculture	**8.39**	**8.34**	**5.33**	**2.76**	**6.51**	**4.48**	**2.71**
Fruit and vegetables	-1.39	7.43	7.91	6.33	22.45	13.30	6.54
Livestock	14.15	8.81	4.00	0.84	-1.60	-0.01	0.69
Energy and government approved fares	**3.30**	**2.87**	**2.42**	**1.33**	**0.39**	**-0.45**	**1.97**
Energy	3.82	3.21	2.43	0.52	-1.10	-1.49	1.47
Government approved fares	2.32	2.26	2.39	2.86	3.23	1.41	2.85
Trimmed Mean Indicator [1/]							
CPI	3.08	2.84	2.61	2.45	2.45	2.60	2.83
Core	2.79	2.71	2.68	2.76	2.84	3.04	3.18

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

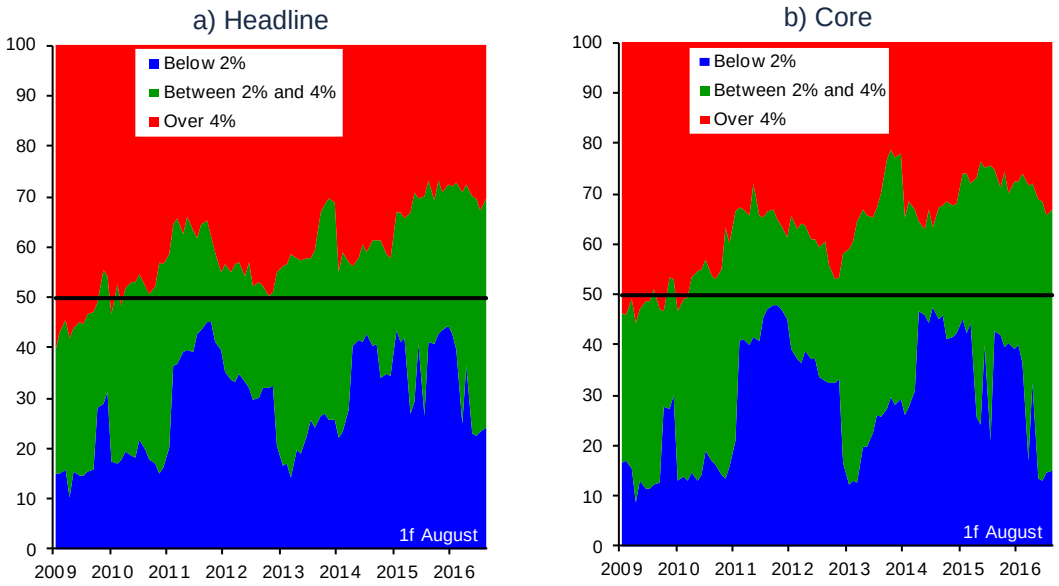


Source: Banco de México and INEGI.

To analyze both the performance at the margin and the recent development of the inflation process, first of all, the proportion of the CPI basket is estimated, which presents annual price changes at certain intervals. To do this, generic items of the headline and core index are grouped into three categories, depending on the annual growth rate of their price: i) items with an annual price change below 2 percent; ii) between 2 and 4 percent; and iii) over 4 percent. This analysis shows that a high

percentage of both baskets presents price increments of less than 4 percent, although at the margin this percentage has been decreasing (blue and green areas, Chart 2). Specifically, in the second quarter of 2016, the share of the CPI goods and services' basket with price increments below 4 percent was, on average, 71 percent for the headline index, while in the first quarter the share was 72 percent. In the case of core inflation, the proportion was 70 percent in the second quarter of 2016 and 73 percent in the first one.

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



Source: Banco de México and INEGI.

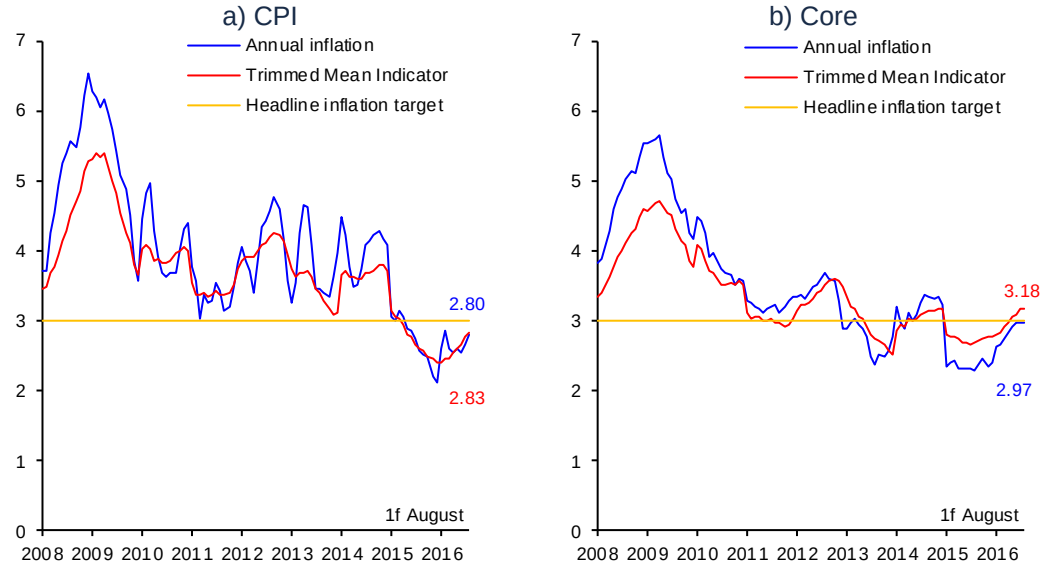
Secondly, the Trimmed Mean Indicator is illustrated, which lies for both headline and core inflation at levels around 3 percent. Indeed, the Trimmed Mean Indicator for headline inflation shifted from 2.45 to 2.60 percent between the first and the second quarters of 2016, reaching 2.83 percent in the first fortnight of August. The fact that the Trimmed Mean Indicator for headline inflation lied close to the level of the observed CPI growth suggests that, generally, the favorable performance of inflation resulted from the evolution of most generic items.

Meanwhile, the Trimmed Mean Indicator for core inflation went up from 2.84 to 3.04 percent between the first and the second quarters of 2016, and marked 3.18 percent in the first fortnight of August (Chart 3 and Table 1). This figure is slightly higher than the registered core inflation, which reflects the favorable effect generated fundamentally by the drops in some services' prices, especially cellular phone prices.

Thirdly, the evolution of annualized monthly (seasonally adjusted) inflation is analyzed (Chart 4). As can be appreciated, at the margin, once the comparison base effects are discounted, both headline and core inflation trends, as well as the levels of the latter remain congruent with the permanent 3 percent inflation target. It should be noted that the rebound in the annualized monthly (seasonally adjusted) inflation of the headline indicator largely reflects upward adjustments in gasoline

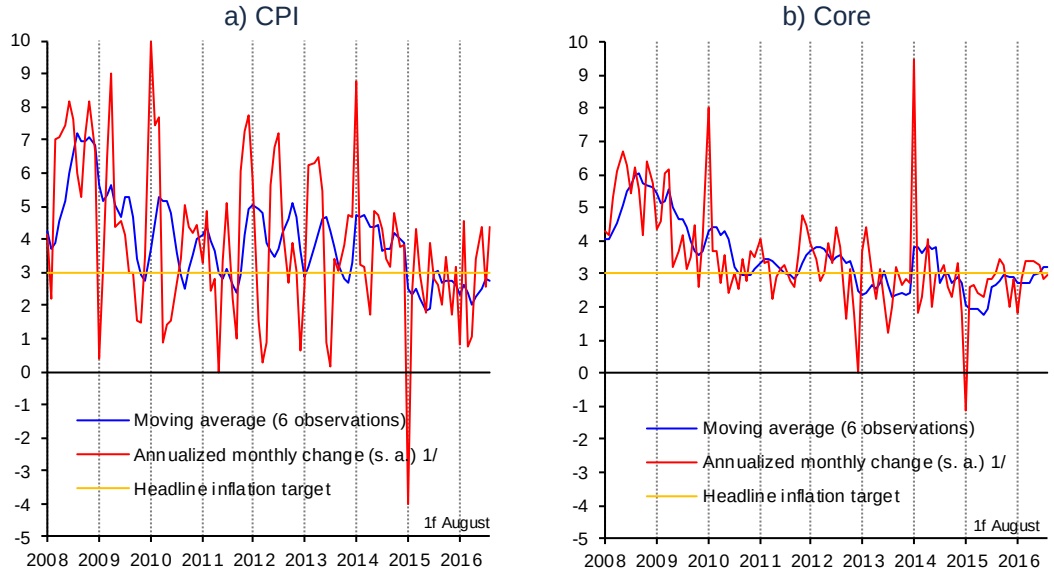
prices that took place in July and August, the effects of which will dissipate over the next months, given the forecast trajectory for gasoline prices.

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 and Trend
Percent



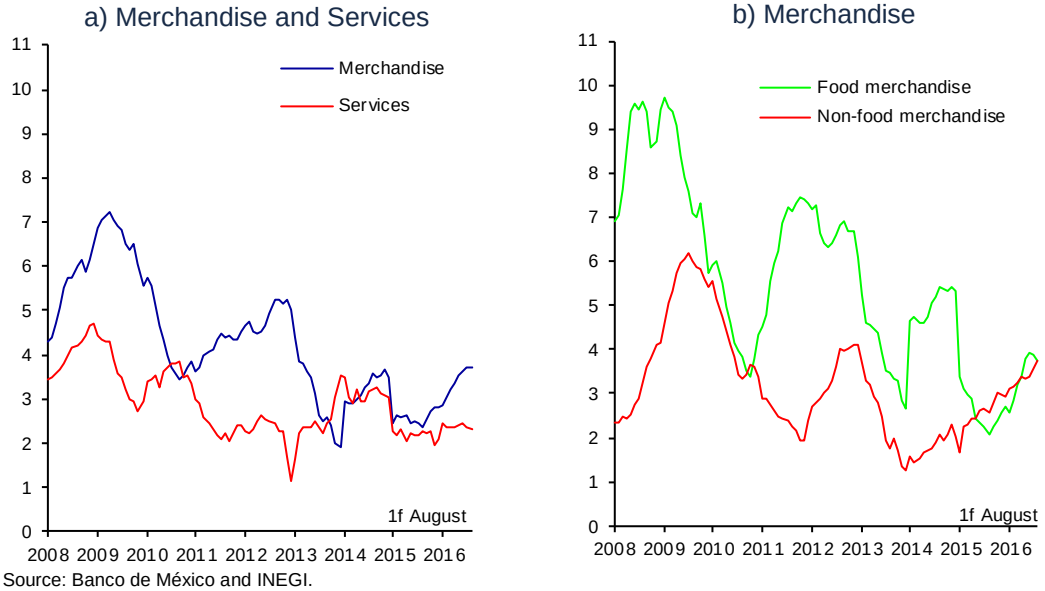
s. a. / Seasonally adjusted data.
1/ The annualized biweekly change is used for the last observation.
Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

Delving in the performance of core inflation, it was mainly consequent on the adjustment in the relative prices of merchandise in relation to services. In particular:

i. Between the first and the second quarters of 2016, the average annual change rate of the merchandise price subindex shifted from 3.04 to 3.51 percent, and reached 3.73 percent in the first fortnight of August (Chart 5a). Both components of this subindex registered increments in the annual change rates of their prices. Indeed, the average annual growth of non-food merchandise prices changed from 3.17 to 3.36 percent in the referred quarters, reaching 3.73 percent in the first quarter of August. On the other hand, the growth rate of food merchandise prices went up from an average annual change of 2.88 to 3.69 percent over the same quarters, marking 3.73 percent in the first fortnight of August (Chart 5b).

ii. In contrast, the average annual change of the services' index remained at low levels, specifically at 2.40 percent in the first quarter of 2016 and at 2.41 percent in the second one, dropping to 2.33 percent in the first fortnight of August. In particular, the annual change rate of the price subindex of services other than housing and education has been going down from 2.15 to 2.09 percent over the referred quarters, locating at 1.82 percent in the first fortnight of August. This indicator's evolution has been affected by drops in telecom services' prices, which resulted from the structural reform in the said sector, reason why its impact on inflation is expected to be lasting. The annual change of the subindex of the rest of services other than housing and education, excluding telecommunication services, increased from 4.11 to 4.34 percent between the first and the second quarters of 2016, and marked 4.32 percent in the first fortnight of August (Chart 5a).

Chart 5
Core Price Index
Annual change in percent



Source: Banco de México and INEGI.

The performance of the non-core component reflects a decrease in the growth rate of agricultural products' prices in the second quarter of 2016, while negative annual change rates of energy products (that had been registered since the previous quarter) accentuated, largely as a result of the reductions in gasoline prices and low consumption electricity tariffs at the beginning of the year (Table 1). Nonetheless, in July and August, based on the formula used by the Ministry of Finance to set maximum gasoline prices and based on the evolution of the international references of these energy products, there were increments in this fuel's domestic prices, just as anticipated. On the other hand, higher prices of some inputs required for electricity generation triggered upward adjustments in high consumption tariffs. Hence, within the non-core index, the following stands out:

i. In the second quarter of 2016, the average annual change of the agricultural products' subindex dropped to 4.48 percent, which compares to 6.51 percent in the previous quarter, and located at 2.71 percent in the first fortnight of August. In this respect, reductions in tomato prices, as well as lower growth rates of onion prices were noteworthy, as their supply conditions recovered after experiencing adverse weather conditions at the beginning of the year. Similarly, lower prices of chicken and egg were notable.

ii. During the second quarter of 2016, the subindex of energy prices and government approved fares presented negative annual growth rates. In particular, in the second quarter of 2016 the average annual change of the said subindex was -0.45 percent, while in the first quarter it was 0.39 percent. In the first fortnight of August, this subindex registered an annual growth of 1.97 percent, which mainly reflects increments in gasoline prices, as well as the conclusion of the period of free-of-charge public transport in Mexico City, which had been in force since April. Specifically, the average annual change of energy prices was -1.49 percent in the second quarter, while in the first one it marked -1.10 percent. In that regard, ordinary electricity tariffs went down 2 percent at the beginning of the year and have remained unchanged since then, while domestic tariffs of high consumption somewhat fluctuated. In July, when gasoline prices and high consumption electricity tariffs were adjusted upwards, the subindex of energy prices registered an annual change of -0.55 percent, while in the first fortnight of August it was 1.47 percent, mainly as a result of an additional increment in gasoline prices in this period. In particular:

   - The average annual change of low octane gasoline prices shifted from -1.78 percent in the first quarter 2016 to -3.16 percent in the second one, while that of high octane gasoline prices changed from -1.36 to -2.44 percent. As mentioned above, this performance reflects this fuel's price drops at the beginning of the year, as well as its relative stability during the first part of the year associated to the formula used by the Ministry of Finance to determine maximum gasoline prices, based on this fuel's international references. Congruent with this formula, in July domestic gasoline prices went up. In that month, the price of low octane gasoline increased by 24 cents, which was the first increment registered this year, while the price of high octane gasoline went up by 34 cents. In August, low

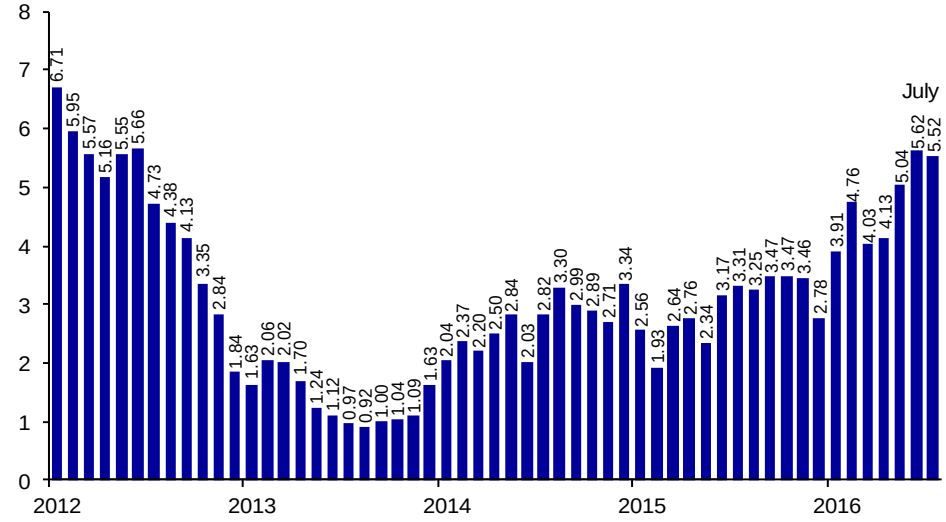
and high octane gasoline prices went up by 56 and 44 cents, respectively. Thus, the annual change of these fuels was 1.47 and 2.30 percent, respectively, in the first fortnight of August. It should be pointed out that, in accordance with the used methodology to determine domestic gasoline prices, the high octane gasoline price can no longer increase in the remainder of the year, while the low octane gasoline price will go up by 2 cents more in September, just as it was announced.

- The average annual change of electricity tariffs shifted from -2.61 to -1.58 percent between the first and the second quarters of 2016, and reached -1.27 percent in July and -0.79 percent in the first fortnight of August. This performance is largely due to the dynamics of high consumption electricity tariffs, which have adjusted upwards as a result of price increments of some inputs used for electricity generation.
- The average annual change of the L.P. gas price persisted at 2.74 percent in the first and in the second quarters of 2016, dropping to 2.07 percent in the first fortnight of August. Nonetheless, on August 14, 2016, the Ministry of Finance announced that starting from August 17 maximum L.P. gas prices would decrease, on average, by 10 percent. On the other hand, natural gas, whose price is affected by the dynamics of its international reference, registered average annual growth rates of 0.85 and 3.83 percent in the reference quarters, locating at 11.50 percent in the first fortnight of August.

2.2. Producer Price Index

In the first and the second quarters of 2016, the Producer Price Index of total production, excluding oil, registered average annual change rates of 4.23 and 4.93 percent, respectively, and subsequently located at 5.52 percent in July (Chart 6). The PPI subindex that presented higher annual growth rates is that of the prices of merchandise destined to exports, which includes goods quoted in USD (10.43 and 10.69 percent in the first and the second quarters of 2016, while in July it lied at 11.75 percent). In contrast, the price subindex of finished goods for domestic consumption presented more moderate change rates (3.75 and 5.18 percent in the first and the second quarters of 2016, while in July it reached 4.82 percent). This takes on special relevance as this last indicator is the subindex that is more closely related to the changes in the merchandise consumer prices (see Box 1).

Chart 6
Producer Price Index [1/]
Annual change in percent



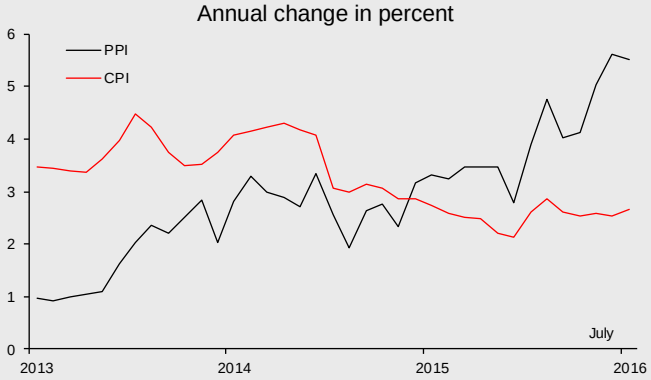
1/ Total Producer Price Index, excluding oil.
Source: Banco de México and INEGI.

Box 1
Can Inflationary Pressures be Identified when Measured with CPI by means of the Performance of PPI Merchandise Subindices?

1. Introduction

Since 2015, the annual change rate of the Producer Price Index of total production excluding oil (PPI) has accelerated, reaching levels above 5 percent in recent months.[1] In contrast, the annual change rate of the Consumer Price Index (CPI) has remained at low levels, accumulating 15 consecutive months below 3 percent (Chart 1). In light of this performance, it is relevant to evaluate if producer prices have certain predictive power on consumer prices, since the former are determined at an earlier stage of the productive chain. Likewise, it is important to identify if the recent performance of the PPI implies future inflationary pressures that may be reflected in the CPI.

Chart 1
CPI and PPI
Annual change in percent



Source: INEGI.

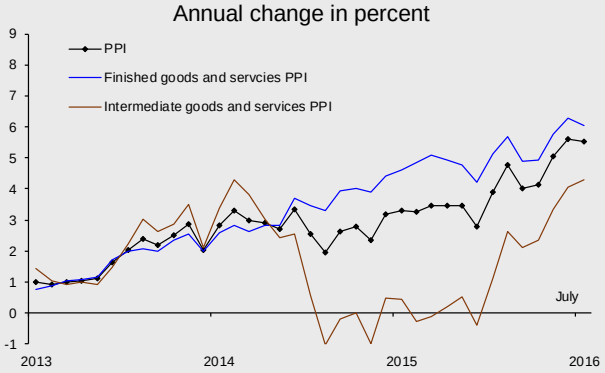
This Box analyzes the predictive power of the PPI merchandise prices on the corresponding prices of the core CPI, as well as the long-term equilibrium relation between these variables. The goal is to establish if the information contained in producer prices can be useful to anticipate inflationary pressures that would eventually be reflected in consumer prices.

The results point to the evidence of Granger causality between some PPI merchandise subinidices and the CPI core merchandise subindex, reason why, in principle, a shock to the PPI can induce a response from the CPI. However, it is shown that the producer price subindex that has a greater predictive power on the performance of the core prices of consumer mechandise is the subindex of finished goods for domestic use, which presented moderate annual change rates, more similar to those of the merchandise prices of the CPI core index. In contrast, the price subindices of the investment and exports merchandise presented higher growth rates and it is shown that they have a lower predictive power on the inflation of the core index merchandise. Furthermore, the results indicate that currently the prices of consumer merchandise are not very far from their long-term relation with producer prices, and that their low growth in relative terms of the PPI is congruent with a convergence of consumer prices to their long-term equilibrium relation. In this sense, empirical evidence suggests that currently there seem to be no inflationary pressures on consumer prices of the merchandise core index stemming from the evolution of producer prices.

2. Recent Evolution of PPI

The PPI of total production is composed of the price indices of finished goods and services, as well as of intermediate goods and services produced in the country. In this context, it is relevant to distinguish between the price index of finished goods and services and that of intermediate goods and services, as the CPI only includes finished goods and services. Moreover, as can be seen in Chart 2, despite an acceleration in recent months, the annual change rate of the PPI of intermediate goods and services has remained below that of finished goods and services. On the other hand, it should also be noted that the quotes of the services of the PPI of finished goods and services are equivalent to those of the CPI in most cases. In light of these two factors, in the analysis below only the PPI of finished goods is studied. That is, both price indices of intermediate goods and services and those of finished services are excluded from the analysis.

Chart 2
Price Dynamics: PPI [1/]
Annual change in percent

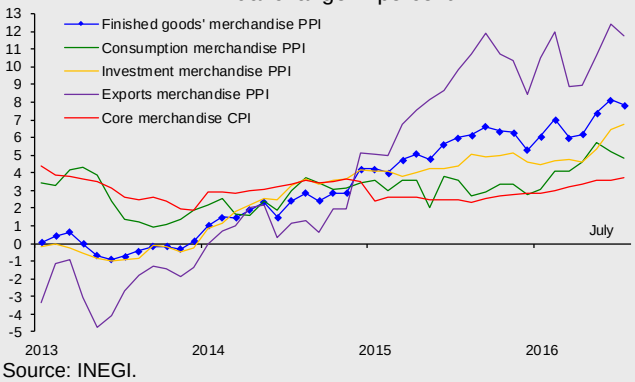


1/ It excludes oil.
Source: INEGI.

[1] It refers to the Producer Price Index (PPI) that considers goods and services, both finished and intermediate, excluding oil.

The PPI of finished merchandise is composed of the price subindices of merchandise for consumption, for investment and for exports (Chart 3). The item of the merchandise intended for exports presented the highest growth rates in its price, as it includes goods quotes in U.S. dolalrs.[2] The price subindex of investment goods also registered high growth rates in its prices, although to a lower extent. On the other hand, increments in the prices of the consumption item were more moderate, even though they were higher than those of the core merchandise CPI. Thus, by delimiting the analysis to the prices of comparable goods, a more similar dynamic between the PPI and the CPI is obtained.

Chart 3
Price Dynamics: Merchandise PPI and CPI
Annual change in percent

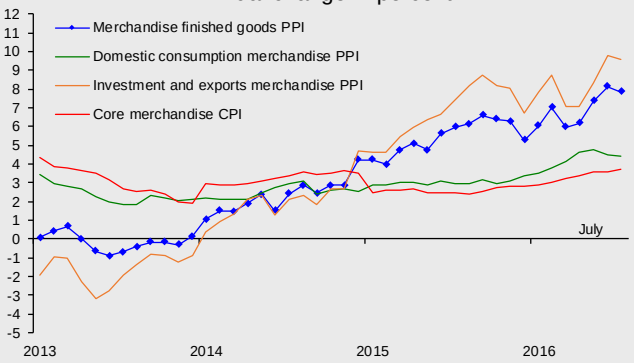


Source: INEGI.

3. Long-term Relation between PPI and CPI

This section analyses the joint dynamics and possible long-term equilibrium relations between the prices of consumer merchandise of the CPI core index and different subindices of the PPI, by means of an estimation of the autorregresive vector models with vectors of error correction (VEC). The subindices of the PPI finished merchandise that are included in the estimates are: i) the PPI of finished merchandise, ii) the PPI of domestic consumption and, iii) a weighted average of investment and exports subindices.[3,4] The recent dynamics of the mentioned price subindices are shown in Chart 4.

Chart 4
Price Dynamics: Merchandise PPI and CPI
Annual change in percent



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

The equations corresponding to VEC in each estimation are the next:

(1) $\pi_t^{CPI} = \mu_0 + \gamma_1(z_{t-1}) + \sum_{j=1}^{p} \alpha_j \pi_{t-j}^{CPI} + \sum_{j=1}^{q} \beta_j \pi_{t-j}^{PPI} + \eta_t$

(2) $\pi_t^{PPI} = \sigma_0 + \gamma_2(z_{t-1}) + \sum_{j=1}^{r} \lambda_j \pi_{t-j}^{CPI} + \sum_{j=1}^{s} \delta_j \pi_{t-j}^{PPI} + \zeta_t$

(3) $z_{t-1} = p_{t-1}^{CPI} - \varphi_0 - \varphi_1 p_{t-1}^{PPI}$

where η_t and ζ_t are white noise, $z_{t-1}$is the error correction term and φ_1 is the cointegration coefficient. The models also include dichotomous seasonal variables, considering the months of January 2010 and January 2014, to capture the impact of fiscal adjustments. The optimal number of lags was determined based on the Schwarz's Bayesian information criterion.

The main results of the VEC estimation for the period from January 2004 to July 2016 are exhibited in Table 1. It is found that cointegration coefficients (φ_1) in each model are statistically significant and slightly below 1, which implies that in the long term the pass-through of fluctuations in producer prices onto consumer prices is close to but below one.

The error correction term of the equation of the CPI merchandise (γ_1) is statistically significant in all models. However, the error correction term of the corresponding equation of the PPI merchandise (γ_2) is not statistically different from zero in the VEC for none of the subindices, suggesting that the variable that adjusts to different shocks is the CPI merchandise subindex to reestablish long-term relation.[5]

---

[2] Given the possible existence of the pricing to market elements, the increments in the prices of export goods do not necessarily translate in increases of the same proportion in the prices of equivalent goods sold in the domestic market.

[3] To construct the second series, the prices of goods for domestic consumption of the PPI are included, that are also quoted in the core CPI of merchandise, but that are located at an earlier stage of the distribution chain.

[4] The weights are obtained based on the relative importance of each subindex in the PPI of finished merchandise.

[5] In addition to the previous analysis, Granger short-term causality tests were carried out, yielding results that also indicate that causality moves in the direction from the PPI to the CPI and not in the opposite direction. Previous evidence of the same kind was presented in Sidaoui, J., C. Capistrán, D. Chiquiar and M. Ramos-Francia (2009).

Table 1
Selected Coefficients of the VEC

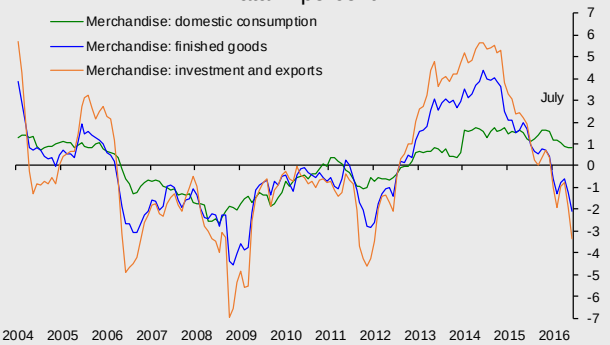
Coefficients	φ_1	γ_1	γ_2
Finished goods merchandise	0.9351 ** (0.0167)	-0.0342 ** (0.0052)	0.0124 (0.0222)
Domestic consumption merchandise	0.8990 ** (0.0126)	-0.0469 ** (0.0098)	-0.0342 (0.0192)
Investment and exports merchandise	0.9490 ** (0.0231)	-0.0251 ** (0.0037)	0.0353 (0.0250)

**/ Statistically significant at 5%.

Finally, Chart 5 presents each model's error correction terms; that is, the deviation of the consumer price index of core merchandise with respect to its long-term relation with each producer price subindex of the analyzed merchandise. In the case of the producer price subindices of finished merchandise and of investment and exports merchandise, in recent months the price subindex of CPI merchandise has located slightly below its long-term equilibrium relation. On the other hand, when the model with the producer price subindex of merchandise for domestic consumption is considered, it can be appreciated that during various periods the price index of consumer merchandise lied slightly above its long-term equilibrium relation, which implies that over the following months it will tend to present a lower change as compared to the PPI consumption merchandise to converge to its long-term relation.

Thus, the results suggest that the merchandise prices of the CPI core index will tend to gradually adjust over time to reestablish their long-term relation with the PPI merchandise prices. This convergence process will depend both on the current deviation and on the estimated adjustment speed parameter. The following section presents certain evidence of the possible direction in the adjustment of consumer prices of the core index of the merchandise based on the relative predictive power of different PPI subindices.

Chart 5
CPI Deviation with respect to its Long-term Relation with PPI
Data in percent



Source: Estimated by Banco de México with data from INEGI.

4. Predictive Power of PPI Merchandise Subindices

In this section, first we analyze which price subindex of the PPI finished merchandise is a better predictor of the future performance of the merchandise of the core CPI. In order to analyze the predictive power of each producer price index of the core merchandise CPI, a monthly change of the CPI merchandise prices is forecast for different time horizons. Specifically, an enhanced autoregressive model is estimated with information of each PPI subindex independently, which includes the current levels both of the price subindex of consumer merchandise and the respective PPI subindex, as well as their lagged monthly changes. In particular, the following equation for each forecast horizon is estimated:

$$(4)\quad \pi_{t+h}^{CPI,h} = \mu + \sum_{j=0}^{p} \phi_j \pi_{t-j}^{CPI} + \sum_{j=0}^{p} \gamma_j \pi_{t-j}^{PPI} + \lambda_1 p_t^{CPI} + \lambda_2 p_t^{PPI} + \xi_{t+h},$$

The models are estimated with ordinary least squares, using 6-year moving windows. The forecasts are generated for the period from January 2012 to July 2016. Subsequently, for horizons from 1 to 24 months the Root Mean Square Error of Prediction (RMSEP) is calculated for each model and forecast horizon. The results are presented in Tables 2a and 2b in terms of RMSEP for different estimated models. In order to compare the predictive power of the model that includes producer prices of the merchandise for domestic consumption with respect to the models that include other PPI subindices, Tables 2a and 2b also show the quotient of the RMSEP with a numeric value that corresponds to the model of merchandise for domestic consumption in the numerator, reason why a number lower than one suggests that this model would be better to forecast CPI merchandise prices. Additionally, p values of the Diebold-Mariano test statistic are included, in order to prove the statistical significance of the difference in the forecasts. In particular, consistent with the null hypothesis, there is no difference in the predictive capacity of each model.

Table 2a
Assessment of the Out-of-sample Forecast
Merchandise: finished goods

Forecast horizon (months)	1	6	12	18	24
RMSEP Merchandise for domestic consumption (A)	0.2112	0.0852	0.0614	0.0506	0.0441
RMSEP Merchandise: finished goods (B)	0.2114	0.0872	0.0628	0.0531	0.0454
RMSEP quotient (A/B)	0.9987	0.9769	0.9778	0.9534	0.9697
P-value Diebold-Mariano	0.2556	0.2716	0.3828	0.0057*	0.0033*

*/ Statistically significant.

Table 2b
Assessment of the Out-of-sample Forecast
Merchandise: investment and exports

Forecast horizon (months)	1	6	12	18	24
RMSEP Merchandise: for domestic consumption (A)	0.2112	0.0852	0.0614	0.0506	0.0441
RMSEP Merchandise: investment and exports (B)	0.2121	0.0872	0.0621	0.0520	0.0443
RMSEP quotient (A/B)	0.9956	0.9771	0.9895	0.9741	0.9941
P-value Diebold-Mariano	0.1992	0.7663	0.0065*	0.0043*	0.0031*

*/ Statistically significant.

The results show that the producer price subindex with greater predictive power on the prices of consumer merchandise of the core index if that of finished merchandise for domestic consumption, since it generates forecasts with the smallest RMSEP.

This difference is statistically significant starting from the forecast horizon of one year, when the comparison is with the price subindex of investment and exports, and starting from 18 months when the comparison is with that of finished merchandise. The above suggests that producer prices of finished merchandise for domestic consumption provide a better signal among different PPI subindices regarding the expected trajectory of consumer merchandise price changes. Therefore, this PPI subindex seems to be the most useful to anticipate possible inflation pressures on the merchandise prices of the CPI core index.[6]

In view of this, it seems to be that among the analyzed models, the long-term equilibrium deviation that is relevant is that of the core merchandise subindex of the CPI with respect to the merchandise subindex for domestic consumption of the PPI. In this context, the fact that the error correction term of this model remains positive is, in fact, what can explain lower change rates of the core merchandise prices of the CPI with respect to those of the PPI for domestic consumption, insofar as the former converges to its long-term relation with respect to the latter. Thus, the recent evolution of the merchandise subindex for domestic consumption of the PPI does not seem to indicate inflationary pressures on consumer prices in the future.[7]

5. Final Remarks

This Box analyzed the purchasing power of different merchandise subindices of the PPI with respect to the core merchandise subindex of the CPI, in order to evaluate the hypothesis that producer prices are useful for identifying possible inflationary pressures on the merchandise consumer prices.

The results of the estimations indicate that there is a long-term equilibrium relation between producer merchandise prices and the corresponding consumer prices, and that the latter adjust in response to different shocks that induce deviations in this relation. Additionally, it is shown that the producer price subindex that has a greater predictive power on the consumer price changes of core merchandise is that of finished merchandise for domestic consumption.

Finally, it was shown that the core price index of consumer merchandise has lied slightly above its long-term equilibrium relation with the subindex of domestic consumption of the PPI in recent months. This is congruent with the dynamics present in both indicators, in particular, with the fact that consumer prices observed lower growth rates as compared to producer prices, as they were converging to their long-term relation. This evidence seems to suggest that currently there are no inflationary pressures on consumer prices stemming from producer prices of merchandise.

References

Sidaoui, J., C. Capistrán, D. Chiquiar and M. Ramos-Francia, (2009). “A Note on the Predictive Content of PPI over CPI Inflation: The Case of Mexico”. Banco de México, Working Paper, No. 2009-14, pp. 1-19.

[6] Even though the prices of intermediate goods of the PPI were excluded from this analysis, it was established that they also have a lower predictive power on the prices of consumer merchandise of the core subindex as compared to the subindex of merchandise for domestic consumption of the PPI.

[7] It should be noted that even if it is assumed that other PPI subindices provide an adequate signal of the future trajectory of merchandise price changes of the CPI, its impact would be limited, based on the current reduced deviation with respect to its long-term relation. In particular, it is estimated that this correction would produce an approximate impact of only 5 basis points on the annual inflation of merchandise of the core CPI for 12 months.

3. Economic and Financial Environment

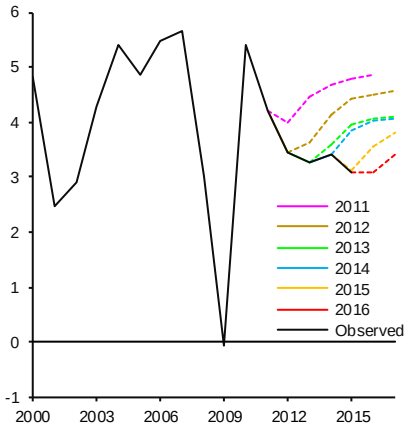
3.1. External Conditions

The global economy kept showing a weak expansion rate during the second quarter of the year, while its growth outlook continued adjusting downwards, partly reflecting the expected effect generated by the U.K. leaving the European Union, as well as a lower-than-estimated growth of other advanced economies, such as the U.S. and Japan (Chart 7a and Chart 7b). In this context, the world economy is also coping with structural challenges, among them, low productivity growth and the decrease in the labor force growth rate. Alongside this, there is the fact that the contraction of international trade could deepen in view of the risk of expansion of the policies that hamper trade and flows of productive investment (Chart 7c). This tendency would accentuate the weakening of economic activity, given the negative impact that it would have on global production chains, investment and total factor productivity. Low investment levels also contributed to low global growth, in a context of high savings' rates in a considerable number of advanced economies. Thus, the world growth outlook remains depressed, which, in turn, contributed to lower crude oil prices. Furthermore, other factors persist that could negatively affect financing terms and growth, among which are those related to geopolitical risks, possible consequences of the U.S. electoral process, the expected normalization of the Federal Reserve monetary stance, as well as higher vulnerability of the European banking system.

At first, the announcement of the result of the referendum in the U.K. caused a volatility spike in international financial markets, given the fear that some current vulnerabilities in the world economy may aggravate. Nonetheless, stability in financial markets was restored in view of the response of the Bank of England and other central banks that supplied more liquidity, the perception that the impact of the exit of the U.K. from the European Union will be constrained mainly to the said country and the expectation of a gradual normalization process of the U.S. monetary policy and of more accommodative monetary policies in other advanced economies.

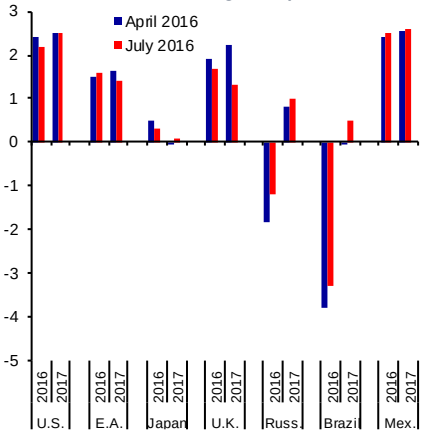
Chart 7
World Economic Activity

a) Global GDP Growth Forecast
Annual change in percent



Source: IMF, WEO 2012 to 2016.

b) Growth Forecast of Selected Economies
Annual change in percent



E. A. / Euro area.
U. K. / The United Kingdom.
Source: IMF, WEO April 2016 and July 2016.

c) World Trade Volume of Goods [1/]
Annual change in percent, s. a.

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

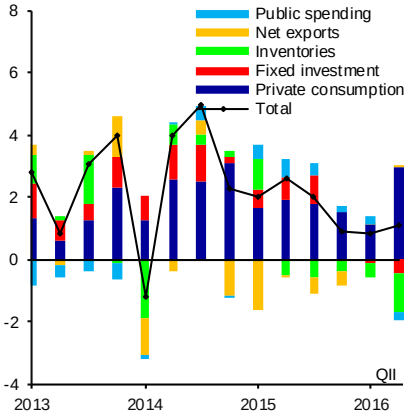
3.1.1. World Economic Activity

In the U.S., GDP grew less than expected during the second quarter, registering 1.1 percent at an annualized quarterly rate, which compares to an average growth of 0.9 percent over the two previous quarters. The slow activity growth is explained by a decline in private fixed investment, a significant downward adjustment in inventories accumulation and the contraction in public expenditure. In contrast, private consumption rebounded strongly, which was supported by the strength of its main determinants, while net exports had an incipient improvement, after various quarters over which they had been declining (Chart 8a).

In the second quarter, U.S. industrial production kept contracting, as a result of the weakness of the mining and manufacturing sectors. In particular, industrial activity fell by 0.8 percent at an annualized quarterly rate, after a drop of 1.7 percent in the previous quarter (Chart 8b). The persisting effects of low oil prices affected the mining sector, which plunged by 14.9 percent at an annualized quarterly rate. Moreover, the USD appreciation, high inventories and low external demand limited manufacturing production, which registered an annualized quarterly drop of 1.0 percent. This happened despite the strong growth in some sectors, such as those of high technology and the automotive and car parts (Chart 8c). In contrast, electricity and gas generation expanded by 13.9 percent at an annualized quarterly rate in the second quarter, after a fall of 2.1 percent in the first one, when a warmer-than-usual weather conditions were registered. It is noteworthy, however, that industrial production increased in July, reflecting an improvement in the manufacturing and mining activity, and a continuous expansion of electricity and gas generation.

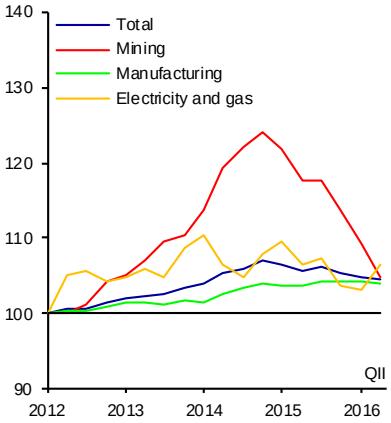
Chart 8
U.S. Economic Activity

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



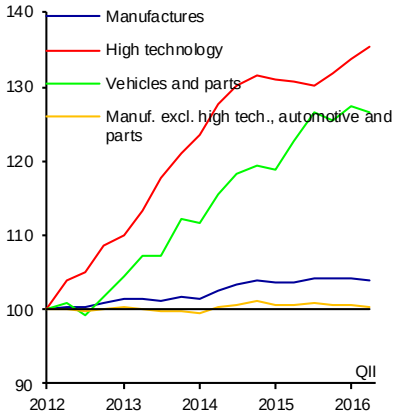
s. a. / Seasonally adjusted data.
Source: BEA.

b) Industrial Production and Components
Index 1Q-2012=100, s. a.



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

c) Manufacturing Production and Components
Index 1Q-2012=100, s. a.

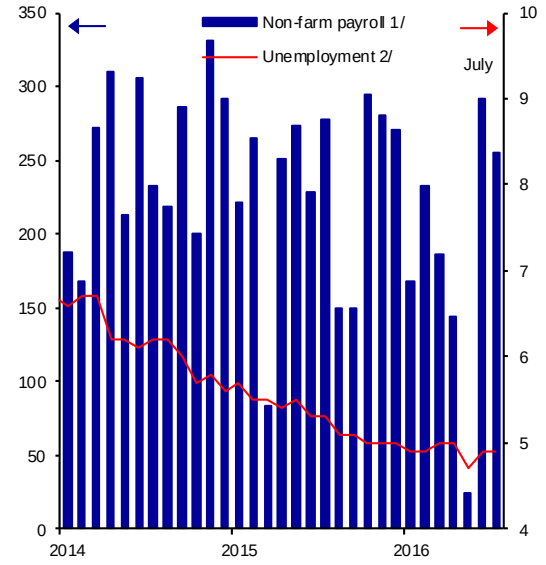


s. a. / Seasonally adjusted data.
Source: Federal Reserve.

Meanwhile concerns regarding the evolution of the labor market wore off. In particular, in June and July an average monthly increment of 274 thousand jobs in the non-farm payroll was observed, after only 24 thousand jobs were created in May (Chart 9a). The expansion of employment still stemmed from the services' sector, while the creation of job positions in the manufacturing, construction and mining sectors remained weak (Chart 9b). Even though the growth rate of the non-farm payroll moderated this year so far, it was sufficient for the unemployment rate to mark 4.9 percent, the level close to that considered by the Federal Reserve as its long-term equilibrium. This occurred despite the increment in the labor participation rate in the same time frame. Other indicators, such as the employment-to-population ratio of the working age population and the rate of vacancies' openings, also point to a favorable evolution of the labor market. In this context, salaries were gradually recovering in the economy.

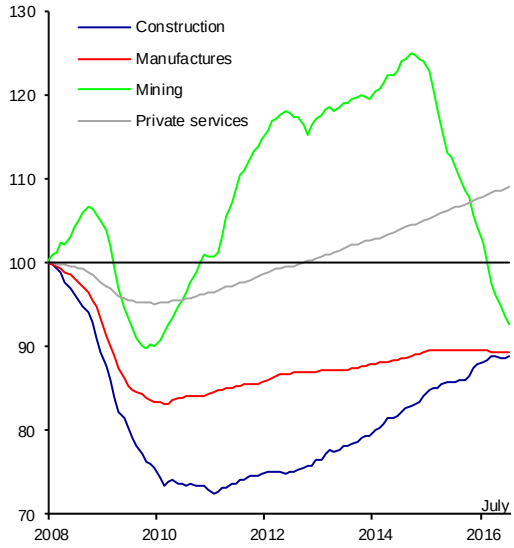
Chart 9
U.S. Labor Market

a) Non-farm Payroll and Unemployment Rate
Monthly change in thousands of jobs and in percent of labor force, s. a.



s. a. / Seasonally adjusted data.
1/ In thousands of jobs.
2/ In percent of labor force.
Source: BLS.

b) Components of Private Payroll
Index December 2007=100, s. a.



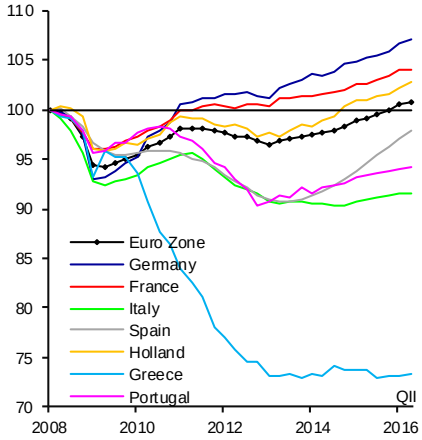
s. a. / Seasonally adjusted data.
Source: BLS.

In the Euro zone, the economy expanded 1.1 percent at an annualized quarterly rate during the second quarter, as compared to 2.2 percent in the first one, and its growth outlook deteriorated as a consequence of possible effects of the U.K. exit from the European Union, as well as of other geopolitical risks (Chart 10a). Despite this, so far the impact of this decision on the Euro zone has been moderate. Specifically, credit conditions remain eased and consumer confidence and business confidence indicators are still consistent with modest growth in the area (Chart 10b).[2] However, there is concern that, in view of this event, the vulnerabilities prevailing in the banking system of some countries of this region may aggravate. In particular, some banks are facing low profitability, a high level of delinquency in their portfolios and insufficient capital, which can negatively affect granting credit to the private sector (Chart 10c).

[2] The announcement and the subsequent implementation of long-term targeted financing operations (TLTRO II) and the purchase of non-bank corporate bonds contributed to the fact that credit terms and conditions kept easing and corporate margins decreased.

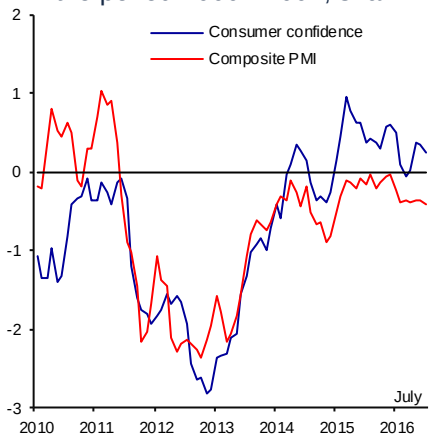
Chart 10
Economic Activity in the Euro Area

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



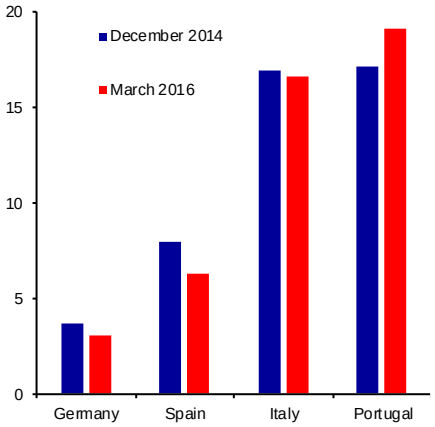
s. a. / Seasonally adjusted data.
Source: Eurostat.

b) Consumer Confidence and Purchasing Managers' Index (PMI)
Standardized data with respect to the period 2000 - 2007, s. a.



s. a. / Seasonally adjusted data.
Source: The European Commission and Markit.

c) Non-performing Portfolios of Bank Loans
In percent of bank loans



Source: European Banking Authority (EBA).

In the U.K., GDP expanded at an annualized quarterly rate of 2.4 percent in the second quarter, which was above the 1.8 percent observed in the first one. Still, following the decision to exit the European Union, the growth expectations significantly adjusted downwards. Indeed, the strong deterioration in the confidence indices of households and the services, manufacturing and construction sectors, along with the downward adjustment in investment plans are estimated to be reflected in a strong moderation of both consumption and investment, although the GBP depreciation could support exports, and, thus, partially offset the effect of the aforementioned hindrances on economic activity levels.

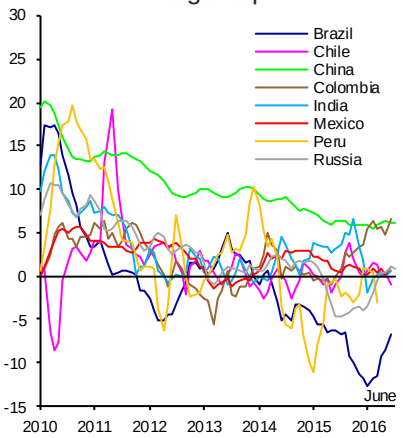
During the second quarter, the performance of economic activity in Japan was weaker than expected, with an annualized quarterly growth of 0.2 percent, which was lower than 2.0 percent registered in the previous quarter. This derived from the weakness of the external sector and from the lower growth of consumption, which partly reflected reduced wage increments. Non-residential investment continued contracting during the quarter, while residential investment rebounded. In response to uncertainty over the recovery of the economy and world trade, as well as the JPY appreciation, the Japanese authorities postponed the programmed raise in the consumption tax rate from April 2017 until October 2019, and announced new monetary stimulus measures, along with a fiscal stimuli package equivalent to 5.6 percent of GDP.

In emerging economies, economic activity persisted at relatively low levels during the period covered by this Report, although there were signs of improvement in some systemically important economies. On the one hand, in Brazil and Russia GDP contracted less than expected, while the rate of decline of other indicators, such as the industrial production and goods' exports, moderated (Chart 11a and Chart 11b). On the other hand, in China GDP growth remained at an annual rate of 6.7 percent, supported by a greater fiscal stimulus and credit expansion. However, some timely indicators point to a certain weakness at the beginning of the third quarter. Moreover, risks to the financial stability of that country increased, as a result

of the high level of business indebtedness. Furthermore, by virtue of some industries' excessive idle capacity, public support to boost investment in infrastructure has not been sufficient to halt the loss of momentum observed in fixed investment (Chart 11c). Finally, given an environment of low growth and greater uncertainty, emerging economies are especially vulnerable to sudden changes in international financial conditions.

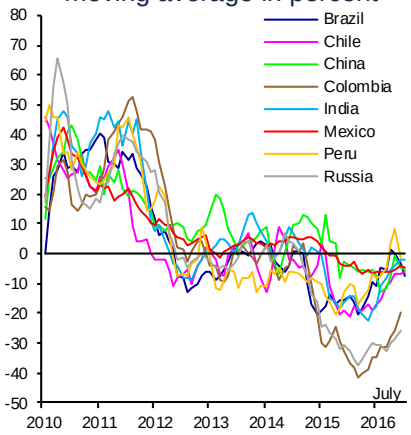
Chart 11
Economic Indicators of Emerging Economies

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



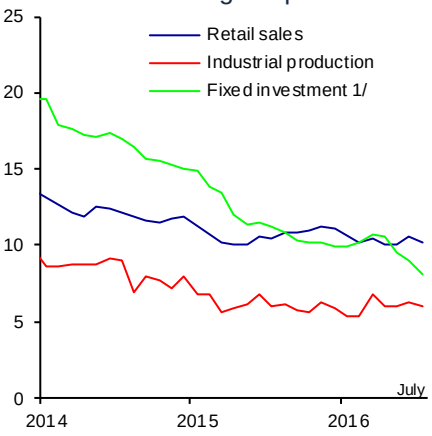
Source: Haver Analytics.

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



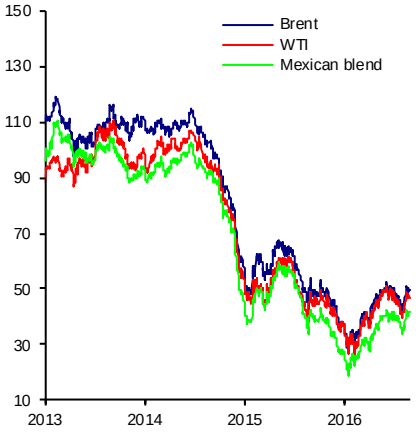
1/ It corresponds to the annual change accumulated in percent.
Source: Haver Analytics.

3.1.2. Commodity Prices

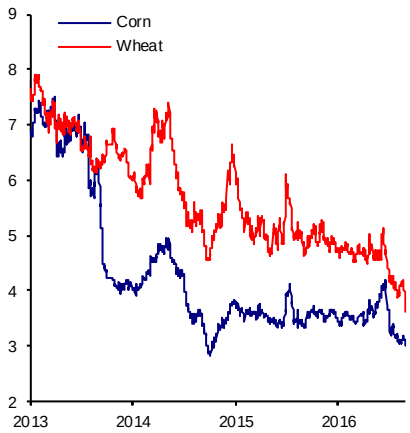
There was a change in the trend of international commodity prices in the second quarter of the year. In particular, oil prices went up during most of the period covered by this Report, in light of lower production levels in such countries as the U.S., Canada and Nigeria, and a moderate recovery of demand. Nonetheless, by the end of the quarter this trend reversed, as a result of the production recovery and a deterioration in the world growth outlook. This, along with the growing perception that oil stocks and their derivatives are still at high levels, drove prices down again (Chart 12a). Likewise, grain prices presented a similar evolution to that of energy prices (Chart 12b). On the other hand, even though metal prices remained low, they somewhat recovered, partly due to cuts in production and to an increment in demand in China (Chart 12c).

Chart 12
International Commodity Prices [1/]

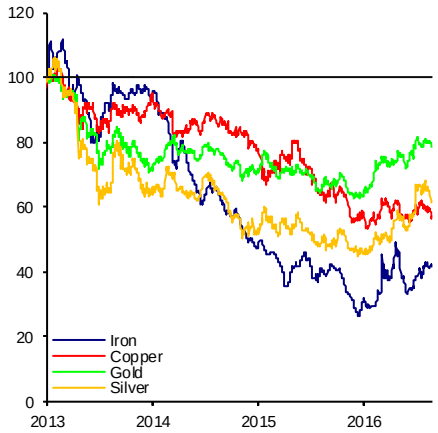
a) Crude Oil
USD/barrel



b) Corn and Wheat
USD/bushel



c) Metals
Index 01/01/2013=100



1/ Spot market.
Source: Bloomberg.

3.1.3. Inflation Trends Abroad

Inflation in most advanced economies remained below the respective targets of their central banks during the reported quarter. Furthermore, consistent with the lower growth outlook, inflation and its expectations could persist low for a longer period (Chart 13a and Chart 13b). In this sense, concerns regarding the deflation in Japan and the Euro zone continue.

In the U.S., inflation measured as the consumption deflator somewhat stabilized at still low levels during the second quarter. Headline inflation was close to 1.0 percent during the quarter and registered 0.8 percent in July, thus reflecting the impact of drops in energy prices and non-energy imports. Meanwhile, the core deflator persisted at 1.6 percent during most of the year, as higher inflation in the services sector was counteracted by a drop in goods' prices. The evolution of inflation of consumer prices was similar to that of the consumption deflator, marking 0.8 percent in July. However, core inflation was 2.2 percent in the same month.

Headline inflation in the Euro zone kept fluctuating at levels close to zero percent in the reported quarter, still reflecting the significant negative impact of the energy component. Core inflation remained below 1.0 percent (0.9 percent in July), as a slight increment in the services' inflation was offset by the stagnation in goods' prices. It is noteworthy that, in view of the U.K. decision to leave the European Union, the level of uncertainty over inflation and its expectations went up. On the other hand, in the U.K., inflation slightly increased to 0.6 percent in July and is expected to rebound promptly, principally as a consequence of the GBP depreciation that was observed following the announcement of the referendum results. In this way, the Bank of England estimates that inflation will shift from a figure of 1.3 percent (adjusted upwards in the fourth quarter of 2016) to 2.4 percent at the end of 2018, locating above its 2 percent inflation target.

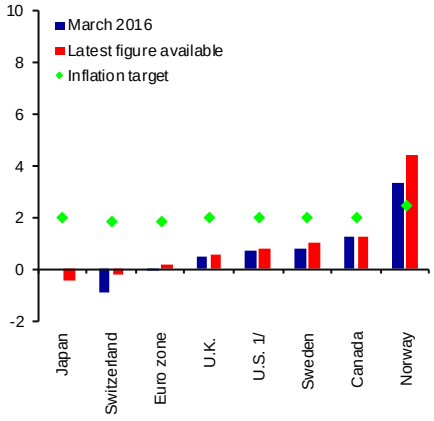
In Japan, inflation turned more negative, observing -0.4 percent in July. In the same vein, the growth rate of inflation excluding food, alcoholic beverages and energy products went down and located at 0.3 percent in the same month; and further

downward pressures stemming from the JPY appreciation are expected this year. Inflation expectations implicit in market instruments remained at very low levels and did not display any clear signs of a rebound.

The inflationary outlook in emerging economies in general improved in the analyzed period. Indeed, in some Latin American economies, such as Brazil, Chile and Peru, inflation pressures started to wear off, although in Colombia they kept growing. On the other hand, in some emerging economies of Asia and Europe, such as Korea, Thailand, Poland and Hungary, inflation remains low (Chart 13c).

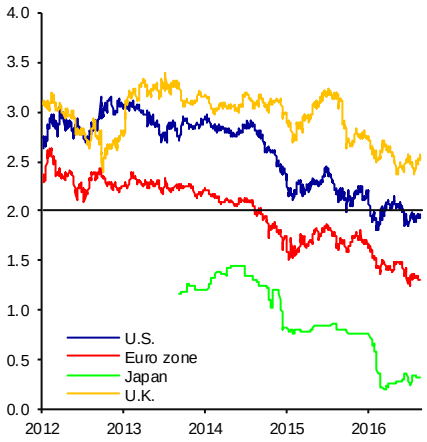
Chart 13
Annual Headline Inflation and Inflation Expectations in Advanced and Emerging Economies
Percent

a) Advanced Economies: Headline Inflation



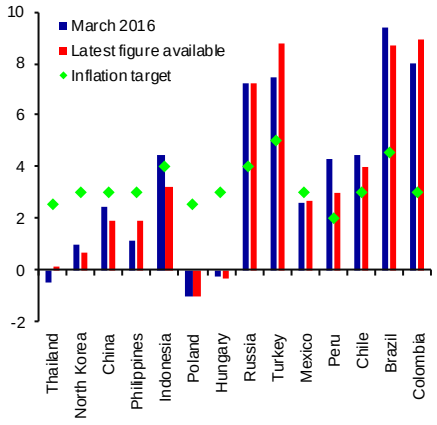
1/ It refers to consumption deflator. Seasonally adjusted data.
Source: Haver Analytics.

b) Advanced Economies: Long-term Inflation Expectations Derived from Financial Instruments 1/



1/ Inflation expectation in a 5-year period for the following 5 years. Expectations 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: Haver Analytics.

3.1.4. International Monetary Policy and Financial Markets

In this context of the lower growth outlook and low inflation, monetary policy in the main advanced economies is expected to remain highly accommodative for an extended time period. In particular, a gradual normalization of the U.S. monetary policy is anticipated and some central banks of other advanced economies are estimated to adopt an even more expansive monetary stance. In the U.K., this stance would derive from an expected decline in domestic demand, while in the Euro zone and Japan, from the deterioration in their inflation outlook.

In its meeting of July, the Federal Reserve maintained the target range of the federal funds rate of 0.25 to 0.5 percent unchanged. Nonetheless, this Institute expressed more optimism than in its meeting of June regarding labor market conditions, inflation expectations and short-term risks to the economic outlook. On the other hand, various members of the Open Market Committee expressed concern over the possibility that the neutral interest rate would lie below the estimate, partly due to the structural factors, such as a lower growth rate of labor force and of productivity. Consequently, a gradual upward adjustment in federal funds' rate is still foreseen for this year and the next one.

During the period covered by this Report, the European Central Bank (ECB) maintained its monetary policy rates unchanged 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. In its meeting of July, following the announcement of the U.K. referendum results, the ECB stressed the importance of the steps taken recently to contain the rising volatility and uncertainty. Furthermore, it pointed out that over the following months it will assess its monetary policy to determine if adjustments are required, in virtue of the new information available.

In its meeting of August, the Bank of England adopted a new monetary stimulus package consisting in 25-basis-point cuts in its reference rate to locate it at 0.25 percent, alongside the expansion of its government bond purchase program by GBP 60 billion, the introduction of a corporate bond purchase program of GBP 10 billion, and setting up a new scheme of funding for banks. At the same time, it pointed out that there is a margin to take additional stimulus measures and that most members expect an additional cut in the reference rate to the level close to zero in the remainder of the year. The Bank of England considers that, given the anticipated weakness of demand, it is appropriate to grant a greater monetary stimulus, despite a temporary increment in inflation above its 2 percent target.

In its meeting of July, the Bank of Japan announced an expansion of its purchase program of the exchange traded funds and of its special facility of financing in U.S. dollars, while it left unchanged the growth rate of the monetary base, the purchases of government bonds and other instruments, as well as the interest rate on bank reserves at -0.1 percent. Besides, this central institute indicated that it would carry out a comprehensive evaluation of its monetary stance in its next meeting in late September, stressing the growing uncertainty in the international environment and regarding the evolution of inflation, as well as its intention to reach the 2 percent target as soon as possible. In the same vein, it highlighted the synergies implied for the economy by the new fiscal package and the announced measures of the monetary stimulus. The minutes of the said meeting revealed that the majority of the members of the Monetary Policy Committee expressed great uncertainty over the achievement of the inflation target in the 2017 fiscal year. It is noteworthy that the measures announced at that moment did not meet the market's expectations, reason why they did not manage to revert the appreciation of the Japanese yen.

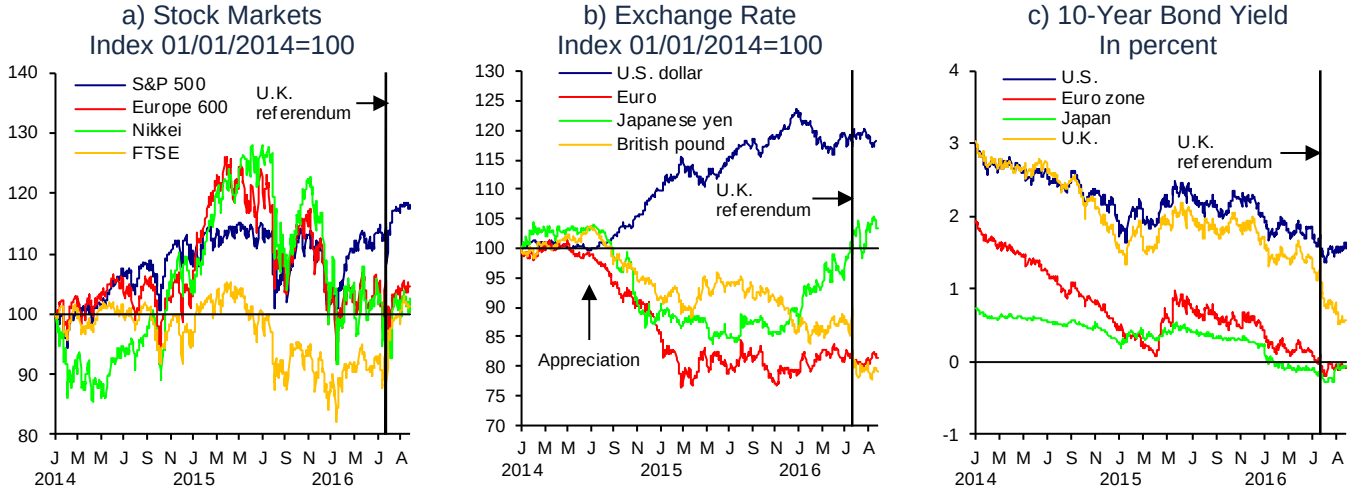
As regards emerging economies' central banks, in some countries of Asia and Europe the monetary policy has become more accommodative, as a response to low inflation levels and weak economic activity. In Latin America, while some central banks did not modify the reference interest rate, other increased it in an effort to prevent a spike in inflation and its expectations.

After a period of relative stability throughout the quarter, there was a surge in volatility in international financial markets at the end of June, in the aftermath of the U.K. decision to exit the European Union. The initial reaction to this event was considerable, characterized by strong fluctuations in capital flows, in exchange rates and significant drops in stock markets, particularly in the prices of bank shares in the Euro zone periphery (Chart 14a and Chart 15a). Flights to safety led to a strong depreciation of the pound sterling and of emerging economies' currencies, as well as an appreciation of the U.S. dollar and the Japanese yen (Chart 14b and Chart 15b). At the same time, a drop in long-term interest rates of sovereign bonds in advanced economies accentuated (Chart 14c).

As stated above, stability in the financial markets was swiftly restored. As a consequence, market indicators that measure sovereign credit risk in emerging economies proceeded with their downward trend, while capital flows to emerging economies strengthened, in light of the expected low interest rates in advanced economies for a more extended period (Chart 15c and Chart 15d). Moreover, it should be noted that long-term rates in the U.S., the Euro zone, Japan, the U.K. located below the levels registered at the beginning of the quarter and prior to the referendum. This contributed to a greater easing of financial conditions in these economies.

Despite this, further increments in volatility in international financial markets cannot be ruled out in the future, which would negatively affect the world economic growth outlook and the prices of different financial assets. Among possible causes of new spikes in volatility, the following should be mentioned: the worsening of geopolitical risks, a complex and prolonged negotiation of new economic and trade relations between the U.K. and the European Union, the expected normalization of the Federal Reserve monetary policy and an increment in economic and financial problems in China and other emerging economies.

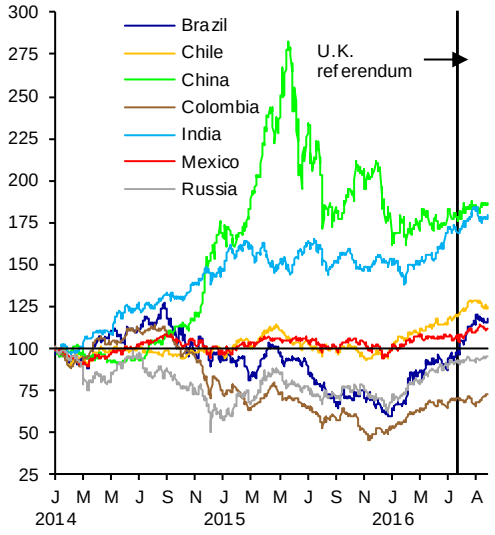
Chart 14
Financial Indicators of Selected Advanced Economies



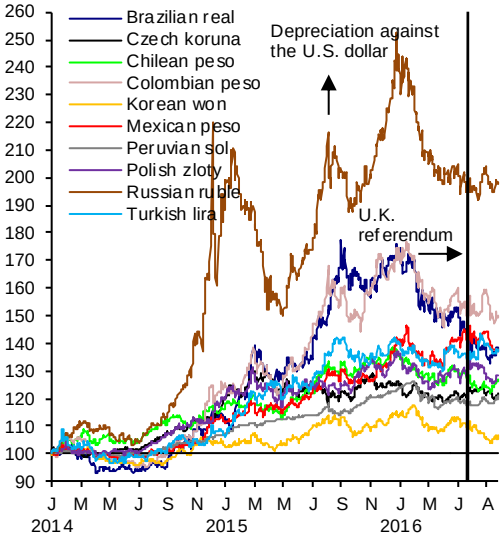
Source: Bloomberg.

Chart 15
Financial Indicators of Emerging Economies

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

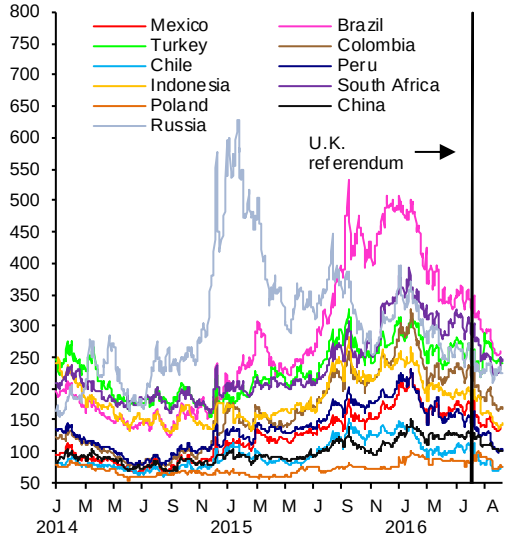


b) Exchange Rate
Index 01/01/2014=100



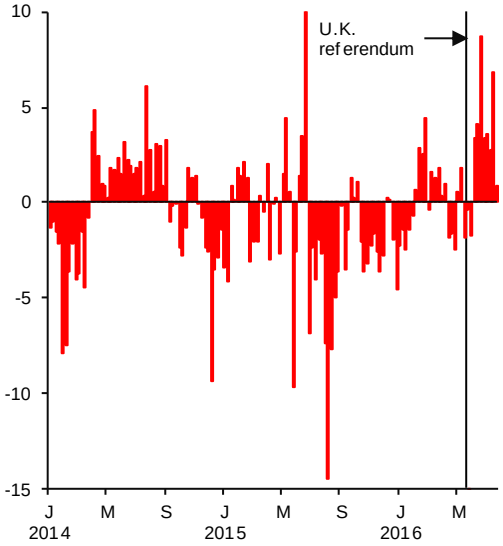
Source: Bloomberg.

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



Source: Bloomberg.

d) Weekly Capital Flows to Emerging Economies (Debt and Stock) 1/
In USD billion



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 second quarter of 2016, Mexico's GDP contracted, following the expansion registered in the previous quarter. This performance reflected weak external demand and investment, while consumption decelerated as compared to the dynamism it had been presenting over the previous quarters.

Indeed, in an environment of weak world trade, of stagnated U.S. manufacturing production and low global growth rates, in the reported quarter manufacturing exports both to the U.S. and to the rest of the world continued performing poorly, despite a certain recovery by the end of the quarter, which became more evident in July (Chart 16a).

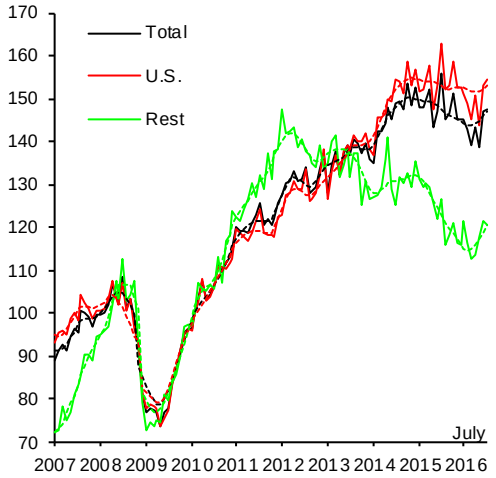
In particular, there is evidence that during the second quarter non-automotive exports to the U.S. continued to be affected by the sluggish export sector of that country, which, in turn, could be associated both to the appreciation of the U.S. dollar since mid-2014, and to the low global economic growth, that affected the external demand of the said country (see Chart 16b and Box 2). Similarly, automotive exports to the U.S. presented a decreasing trajectory in the period, partly as a result of temporary closures of some assembly plants and of the slowdown in light vehicles' sales in the U.S. market (Chart 16c). Nevertheless, based on data from July, exports to the U.S. somewhat improved, which could be associated to a gradual reversal of some factors that had been affecting them.

Meanwhile, manufacturing exports to the rest of the world increased, following a period of five consecutive quarters over which they had been going down (Chart 16a). This incipient improvement was observed both in the automotive exports and in the non-automotive exports, although both of these still persist at low levels.

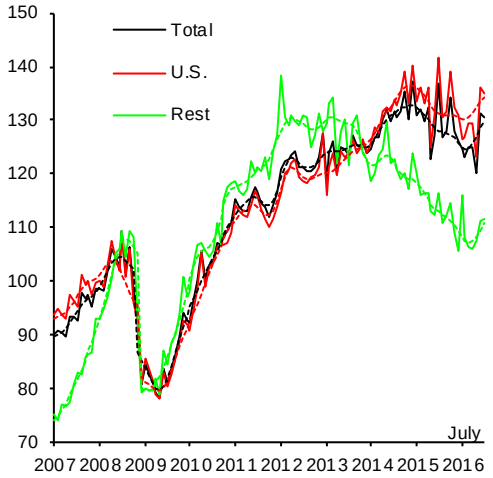
In the period of April – July 2016, oil exports slightly recovered, despite remaining at notably low levels. The improvement derived from an increment in the average price of the Mexican oil export mix with respect to the average price of the first quarter, once the crude exports platform remained stagnated (Chart 16d).

Chart 16
Exports in Mexico
Index 2008=100, s. a.

a) Total Manufacturing Exports

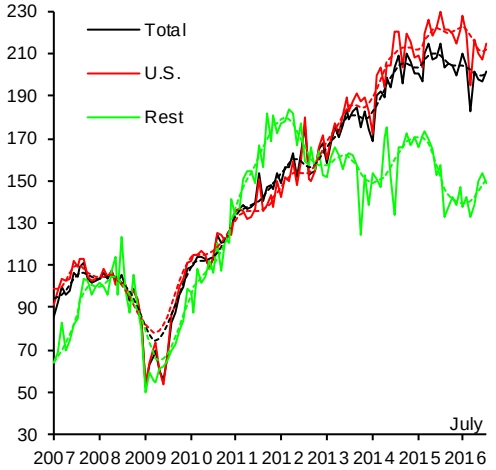


b) Non-Automotive Manufacturing Exports



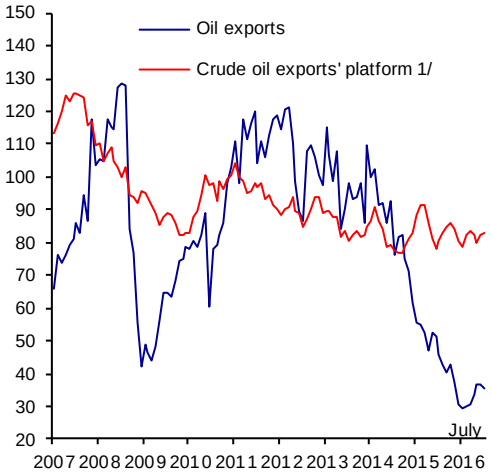
s. a. / Seasonally adjusted and trend data based on information in nominal dollars. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

c) 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.

Box 2
The Importance of the Performance of the U.S. Export Sector as a Determinant of Mexican Non-automotive Manufacturing Exports to the U.S.

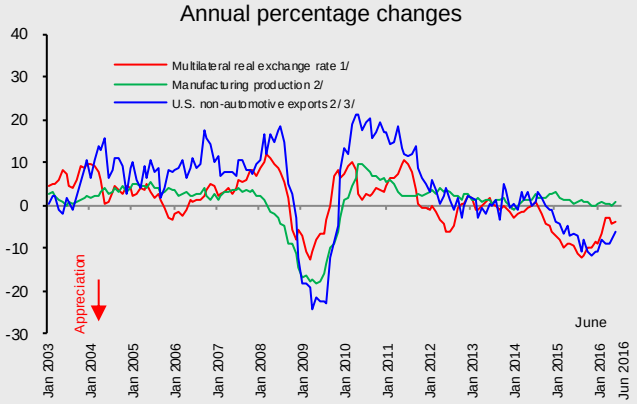
1. Introduction

Low world economic growth seems to be negatively affecting Mexican exports not only directly, as a result of a subdued demand from the U.S. and the rest of countries, but also indirectly, as a consequence of a lower U.S. demand for imports of Mexican inputs that are used by that country to export to the rest of the world. In previous Reports it has been argued that the weakness of the U.S. external demand seems to negatively affect the evolution of Mexican exports to that country. In particular, in Box 1 of the Quarterly Report October – December 2015 it was argued that a lower demand from abroad experienced by the U.S. export sector led to a drop in that country's demand for imported intermediate inputs, as a result of which Mexican exports to the U.S. of this type of goods also performed unfavorably.

In the outlined context, this Box presents econometric evidence indicating that, to explain the negative performance of the Mexican non-automotive manufacturing exports to the U.S. since early 2015, it is necessary to explicitly consider the evolution of the U.S. non-automotive exports, rather than solely that country's manufacturing production and the real exchange rate of Mexico relative to the U.S. Traditionally, the last two variables would have been sufficient to adequately model Mexican exports to the U.S., given that the dynamics of the U.S. non-automotive exports did not differ significantly from that country's manufacturing production. On the contrary, over the last 2 years a certain dissociation between these two variables has been observed (Chart 1), which could possibly derive from the fact that, while the U.S. domestic demand has maintained a relatively favorable growth rate, its external demand has been influenced both by a low world economic growth and by the strong appreciation of the U.S. dollar since mid-2014.

The analysis presented here suggests that the strong relationship between Mexican manufacturing production and the U.S. export sector production sharing schemes is intensifying the transmission of weak economic conditions in the rest of the world to the Mexican exports. This could negatively affect economic growth in Mexico in the medium run. In the same vein, it is possible that the real exchange rate of Mexico relative to that of the U.S. has tended to adjust more significantly than otherwise suggested by the direct channel of the weakness of the U.S. demand, because it has also had to adjust to a lower demand from the rest of the world, both directly and indirectly.

Chart 1
U.S.: Multilateral Real Exchange Rate, Manufacturing Production and Non-automotive Exports
Annual percentage changes



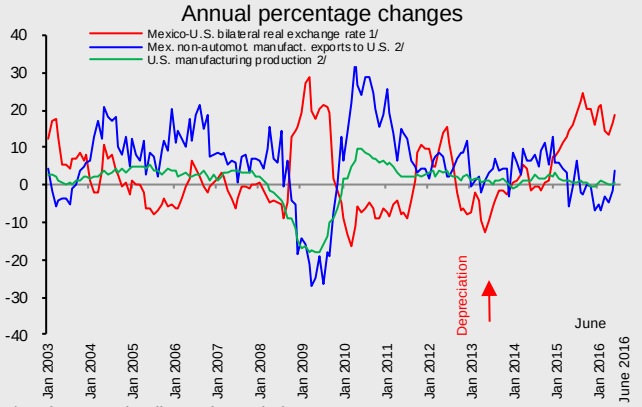
1/ A decrease implies an appreciation.
2/ Seasonally adjusted figures.
3/ Data in real terms.
Source: Banco de México with data from the Federal Reserve, the U.S. Census Bureau and BLS.

2. A Traditional Model to Explain the Performance of the Mexican Non-automotive Manufacturing Exports to the U.S.

To explain the performance of Mexico's non-automotive manufacturing exports to the U.S., a relatively parsimonious econometric model including U.S. manufacturing production and the real exchange rate between Mexico and the U.S. as independent variables would have to be traditionally used. The inclusion of these two variables used to be sufficient to obtain an adequate model, as the former variable used to capture the income effect (the dynamism of the demand from the U.S.), while the latter, the price effect (the relative "competitiveness" of Mexican exports to the U.S.).[1] Nevertheless, this model has lost its predictive power. Indeed, considering data since the beginning of 2015, the drop in the referred exports could not have been explained using as determinants only the U.S. manufacturing production, which has remained stagnant, and the bilateral real exchange rate, which has depreciated considerably (Chart 2).

[1] Given that Mexico and the U.S. have shared production chains for several years, particularly after the NAFTA implementation, it is natural to consider the U.S. manufacturing production as a fundamental variable to explain the external demand for Mexican exports to that country.

Chart 2
Mexico-U.S. Bilateral Real Exchange Rate, Mexican Non-automotive Manufacturing Exports to the U.S. and U.S. Manufacturing Production
Annual percentage changes



1/ An increase implies a depreciation.
2/ Seasonally adjusted data.
Source: Banco de México with data from the Federal Reserve, the U.S. Census Bureau, BLS and SAT, SE, Banco de México, INEGI Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

To formalize the argument that the econometric model that only includes the U.S. manufacturing production and the bilateral real exchange rate as independent variables cannot appropriately explain the most recent performance of Mexican non-automotive manufacturing exports to the U.S., error correction models were estimated. The corresponding identified long-term relationships look as follows:

$$X_t = \alpha\, Y_t^{U.S.} + \beta\, RER_t + EC_t \quad (1)$$

Where:

X = Mexican non-automotive manufacturing exports to the U.S., seasonally adjusted and deflated with U.S. consumer prices.

$Y^{U.S}$ = Seasonally adjusted index of the volume of U.S. manufacturing production.

RER = Bilateral real exchange rate computed using U.S. and Mexican consumer prices.

EC = Error Correction Term.

Long-term elasticities estimated for a sample that ends in the last quarter of 2014 and for a sample that finishes in the second quarter of 2016 are reported in Table 1.[2] It can be appreciated that both the coefficient corresponding to U.S. manufacturing production and that of the real exchange rate decrease in the latter sample as compared to the former. This result could initially be interpreted as suggesting a recent structural change, which implied that a reduction in the response of Mexican exports to changes in the U.S. manufacturing production and the real exchange rate. However, in light of what is explained below and in the following section, a better interpretation of the reduction in the coefficients would seem to be that the model based on the said variables no longer explains as accurately as it used to the performance of these Mexican exports, since it omits a variable, that has gained relevance and that differs from the included variables.

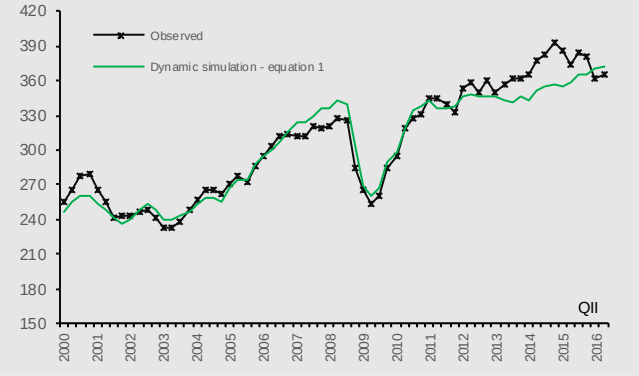
Indeed, Chart 3 shows the dynamic simulation of Mexican non-automotive manufacturing exports to the U.S., which is based on Model 1. It can be observed that from 1994 to 2012, this model adequately explains the evolution of these exports. However, from that moment onwards, these two variables seem to turn insufficient to explain the performance of the referred exports. In particular, the model would have predicted a moderate increasing trend, rather than a more notable increment, followed by a contraction in 2015.

Table 1
Long-term Elasticities Estimated with Model 1

End of sample*	Relative to:	
	$Y^{U.S.}$	RER
2014-IV	3.36	1.46
	(0.39)	(0.55)
2016-II	2.92	0.78
	(0.35)	(0.42)

*/ The beginning of the sample is 1994-I, which is the same in all cases.
Note: Standard error of the corresponding coefficient is shown in parenthesis.

Chart 3
Mexican Non-automotive Manufacturing Exports to the U.S.
Indices in real terms 1993-IV = 100 1/



1/ Seasonally adjusted data, deflated with the U.S. consumer price index.
Source: Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Information of National Interest.

[2] The models were estimated with seasonally adjusted quarterly data in logarithms for a sample starting in the first quarter of 1994. The Johansen's trace test suggests that the cointegration relationship between the variables is significant at conventional levels of significance. This applies both to the estimation with the short sample and with the complete sample. The equations that describe short-term dynamics comply with traditional specification and diagnostic tests at conventional levels of significance and include different lags of the explanatory variables.

3. Augmented Model to Explain the Performance of Mexican Non-automotive Manufacturing Exports to the U.S.

The model presented in the previous section was expanded to incorporate U.S. non-automotive exports as an explanatory variable of Mexican non-automotive manufacturing exports to the U.S. Thus, the estimated long-term relation is as follows:[3]

$$X_t = \alpha\, Y_t^{U.S.} + \beta\, X_t^{U.S.} + \gamma\, RER_t + EC_t \quad (2)$$

Where:

X = Mexican non-automotive manufacturing exports to the U.S., seasonally adjusted and deflated with U.S. consumer prices.

$Y^{U.S.}$ = Seasonally adjusted index of the volume of U.S. manufacturing production.

$X^{U.S.}$ = U.S. non-automotive exports, seasonally adjusted and deflated with U.S. consumer prices.

RER = Bilateral real exchange rate computed using U.S. and Mexican consumer prices.

EC = Error Correction Term.

As can be seen in Table 2, when comparing the estimates for the full sample and the sample ending in 2014, the long-term elasticities calculated with the augmented model are more stable than in the model of the previous section. This result indicates that, rather than a delinkage from the U.S. manufacturing production or a lower response to changes in the real exchange rate, Mexican non-automotive manufacturing exports to the U.S. are affected by the performance of the U.S. export sector, reason why explicitly excluding it from the econometric model generates an omitted-variable problem, and, therefore, leads to instability in the parameters.

The dynamic simulation based on the augmented equation is shown in Chart 4. As can be observed, adding the U.S. non-automotive manufacturing exports to the set of independent variables significantly improves the model's ability to explain the recent evolution of the analyzed Mexican exports. Even though Chart 4 is very illustrative, to formalize the argument the forecast's mean squared error (MSE) for each of the two models was calculated for the last six quarters of the sample. The calculation of the MSE reveals that Model 2 has a better predictive power than Model 1.

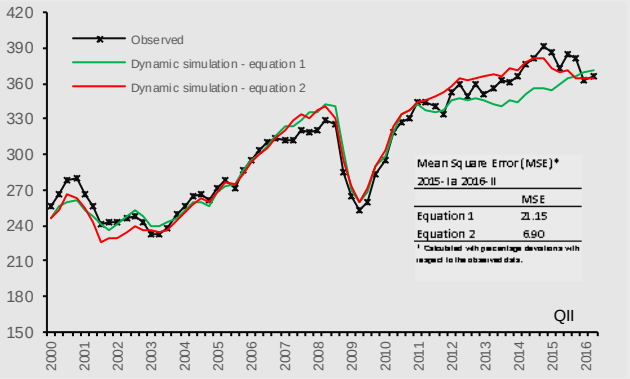
[3] The models were estimated with seasonally adjusted quarterly data in logarithms for a sample starting in the first quarter of 1994. The Johansen's trace test suggests that the cointegration relationship between the variables is significant at conventional levels of significance. This applies both to the estimation with the short sample and with the complete sample. The equations that describe short-term dynamics comply with traditional specification and diagnostic tests at conventional levels of significance and include different lags of explanatory variables.

Table 2
Long-term Elasticities Estimated with Model 2

End of sample*	Relative to:		
	$Y^{U.S.}$	$X^{U.S.}$	RER
2014-IV	1.72	0.70	0.73
	(0.32)	(0.13)	(0.36)
2016-II	1.62	0.72	0.54
	(0.33)	(0.13)	(0.33)

*/ The beginning of the sample is 1994-I, which is the same in all cases.
Note: Standard error of the corresponding coefficient is shown in parenthesis.

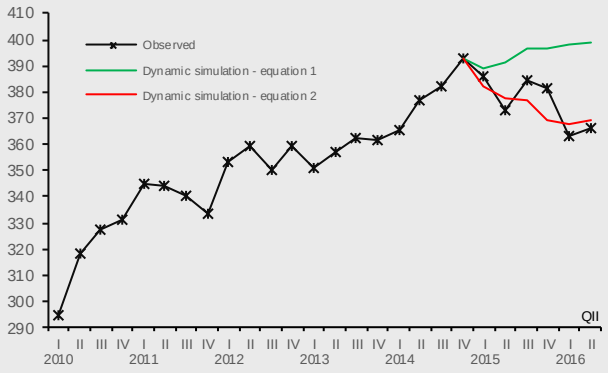
Chart 4
Mexican Non-automotive Manufacturing Exports to the U.S.
Indices in real terms 1993-IV = 100 1/



1/ Seasonally adjusted data, deflated with the U.S. consumer price index.
Source: Banco de México with data from SAT, SE, Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Information of National Interest.

For the purpose of stressing that the performance of the U.S. manufacturing production and that of the real exchange rate are not sufficient to explain the recent evolution of the Mexican non-automotive manufacturing exports to the U.S., and that therefore it is necessary to explicitly consider the U.S. external demand for this type of exports, an additional exercise was made. In particular, Chart 5 presents the dynamic simulation that results from both Model 1 and Model 2, for the period from the first quarter of 2015 to the second quarter of 2016. Consistent with Model 1, during the simulation period, the analyzed Mexican exports should have registered a positive trend, which contrasts with the observed negative trajectory. In contrast, Model 2, which considers the performance of U.S. non-automotive manufacturing exports, adequately captures the drop that the same type of exports has registered in Mexico since early 2015.

Chart 5
Mexican Non-automotive Manufacturing Exports to the U.S.
Indices in real terms 1993-IV = 100 1/



1/ Seasonally adjusted data, deflated with the U.S. consumer price index.
Source: Prepared by Banco de México based on data from BLS and SAT, SE, Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

4. Final Remarks

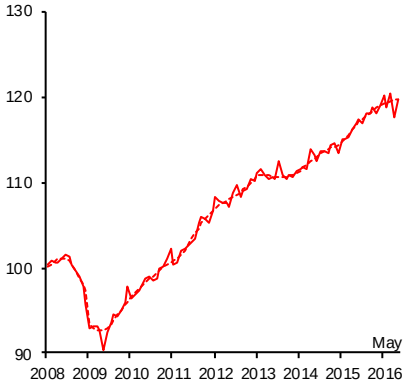
The analysis presented in this Box suggests that the weakness of the economic activity observed in countries other than the U.S. has negatively affected Mexico's export sector not just directly, but also indirectly, by means of its effect on U.S. exports and the purchase of intermediate goods by that country. An additional channel that has also negatively affected U.S. exports, and, thus, the performance of Mexican exports to that country is the U.S. dollar appreciation. In particular, on the one hand, the low growth in countries other than the U.S. translated in smaller Mexican exports to these economies. On the other hand, it has also implied a lower dynamism of the Mexican exports to the U.S., given the result presented in this Box regarding the importance of that economy's external demand as a determinant of the evolution of Mexican non-automotive manufacturing exports to the Northern neighbor country. In a related manner, it is possible that the fact that the weakness of the global economic activity transfers both directly and indirectly to the Mexican exports implied that the adjustment in the real exchange rate over the last two years to accommodate lower external demand had to be of greater magnitude as compared to a situation in which its impact would be limited solely to the direct effect stemming from a lower U.S. domestic demand.

After the dynamism registered by the private consumption in 2015 and in early 2016, different indicators suggest that its growth rate decreased in the reported period.

i. Indeed, both the monthly indicator of the domestic private consumption and that of the revenues from the retail supply of goods and services decelerated over the first months of the second quarter (Chart 17a and Chart 17b). This occurred despite the fact that some lower coverage indicators, such as light vehicles' sales and ANTAD sales, maintained a high growth rate (Chart 17b and Chart 17c).

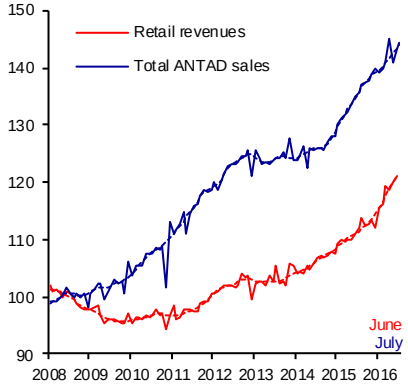
Chart 17
Consumption Indicators

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



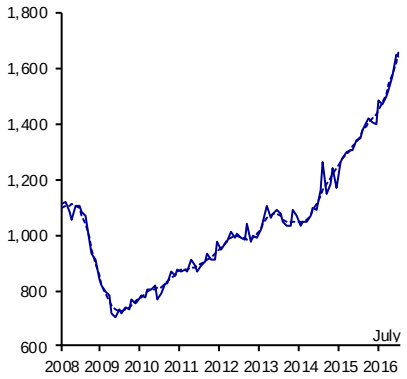
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: INEGI.

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

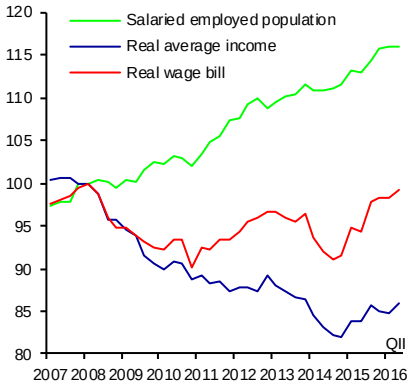


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Prepared by Banco de México with data from the Mexican Automotive Industry Association (AMIA).

ii. The slowdown of broader indicators of private consumption could be partly the result of a loss of dynamism of the total wage bill of the economy in 2016 (see Chart 18a and Section 3.2.2). Likewise, consumer confidence tended to deteriorate in this period. In particular, the consumer confidence index declined in the period analyzed in this Report, as it is accounted for by a more negative perception of the economic climate of the country, while the consumers' perception of the possibility to purchase durable goods increased (Chart 18b). On the contrary, the remittance flows remained particularly high in the second quarter, so that its trend even locates at levels similar to those observed prior to the 2009 global financial crisis (Chart 18c). On the other hand, growth rates of consumer credit remained high (see Section 3.2.3).

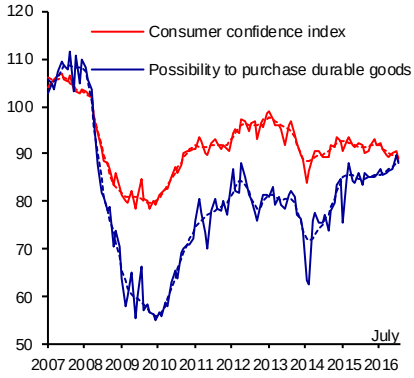
Chart 18
Consumption Determinants

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



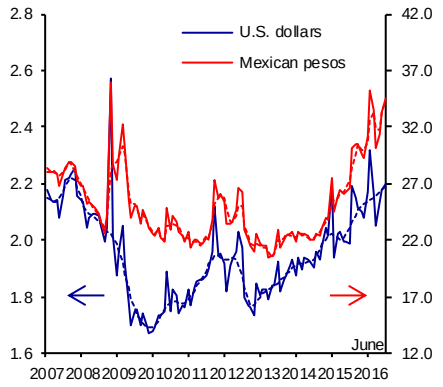
s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from the National Employment Survey (ENOE), INEGI.

b) 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.

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

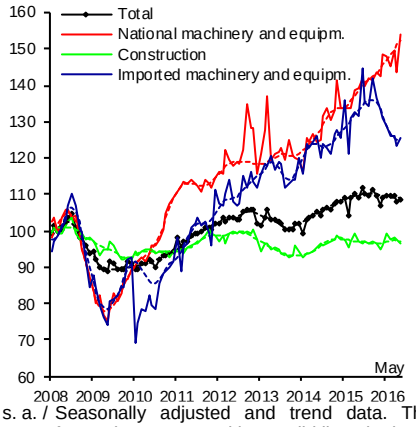


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Prices as of the second fortnight of December 2010.
Source: Banco de México.

At the beginning of the second quarter of 2016, gross fixed investment presented a certain decreasing trend (Chart 19a). This performance was a reflection of the persisting relative stagnation of the investment in construction, along with the negative evolution of the investment in machinery and equipment. The stagnation in the construction sector was caused by the fact that the growth observed in the residential component was offset by a negative trend in the non-residential one, which partly resulted from a lower performance of oil wells (Chart 19b). Even though the national component of the investment in machinery and equipment kept expanding, a decrease in its imported component was dominant, although it seems to exhibit a favorable change in its trend starting May, which can be confirmed with data from June and July, on capital goods' imports (Chart 19c).

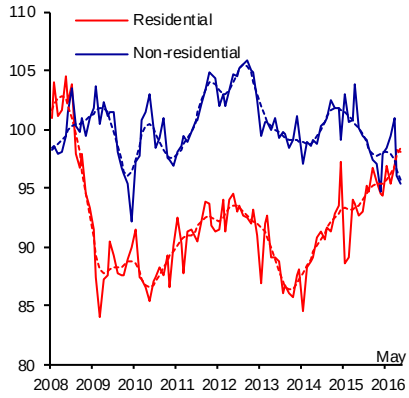
Chart 19
Investment Indicators
Index 2008=100, s. a.

a) Investment and its Components



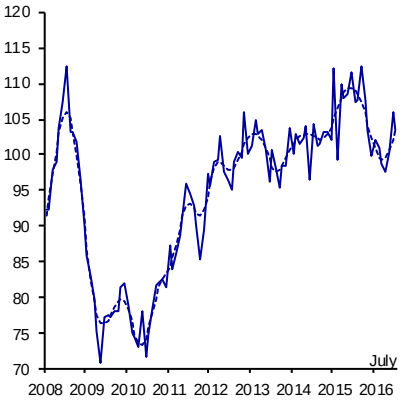
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's National Accounts System, INEGI.

b) 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.

c) 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.

As regards production, the deterioration on the productive activity during the second quarter of the year derives from the fact that, besides the stagnation observed in the secondary activities since mid-2014, services practically stopped expanding in the reported quarter (Chart 20a). This partly reflects the gradual transmission of the weakness in the international environment onto some services more closely related to the manufacturing activity, as well as the lower dynamism of the domestic expenditure and its consequences on certain activities more directed to supply the domestic market.

i. In the period April – June 2016, within the industrial activity, mining maintained a decreasing trend, in a context in which the crude oil production platform kept declining, alongside the mining-related services (Chart 20b and Chart 20c). In a like manner, manufacturing production contracted, which reflected weak external demand and the lower growth rate of domestic expenditure. Additionally, its transport equipment component was also affected by the temporary closure of some automotive plants, even though by the end of the quarter this indicator mildly improved, as a result of the reestablishment of operations in the said plants (Chart 21a). In this sense, it should be noted that in July car production recovered more notably, as a consequence of both the regularization of activities in the sector and the launch of activities in a new plant (Chart 21b).

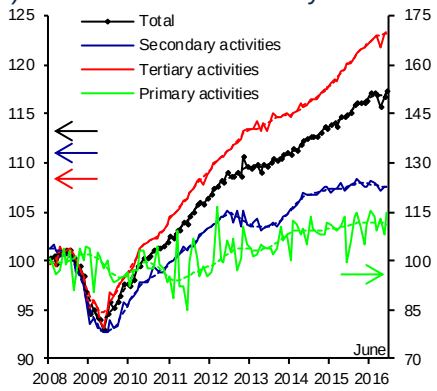
ii. On the contrary, the aggregate of the production in the construction industry –that, unlike that reported in the classification of investment in aggregate demand, excludes oil well drilling, which has been declining– somewhat improved with respect to the stagnation perceived in 2015. Similarly, the electricity sector recovered, following the loss of dynamism in late 2015 and in the first months of 2016 (Chart 20b).

iii. In this context, the weakness of the manufacturing sector, and more recently of the domestic expenditure led to a deceleration of most services. Indeed, both trade and transport services, which are highly correlated with manufacturing production, have reduced their rhythm of expansion as manufacturing has started to lose its dynamism (Chart 22a). In the same line, the evolution of the services more related to domestic demand also weakened, which is consistent with the slowdown in private consumption. This is the case of the temporary lodging services and food preparation services; financial services, real estate and leasing services; and mass media services, which possibly were also affected by the fading impulse derived from the analog switch-off (Chart 22b).

iv. In the second quarter of 2016, primary activities slightly fell, as a result of a smaller cultivated area in the spring – autumn cycle and of a lower production of some perennial crops.

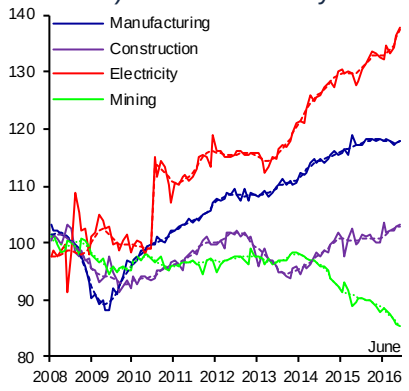
Chart 20
Production Indicators
Index 2008=100, s. a.

a) Global Economic Activity Indicator



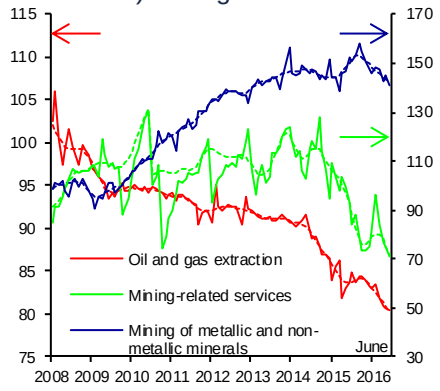
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Mexico's National Accounts System, INEGI.

b) 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.

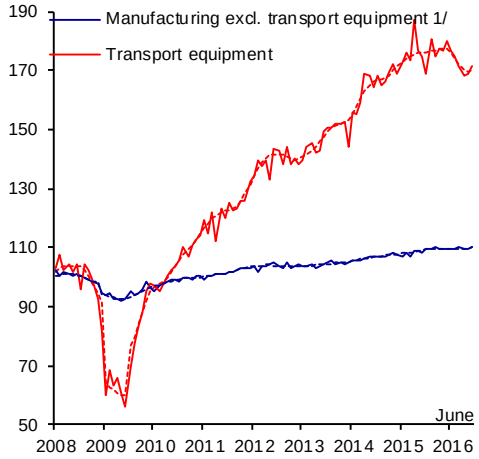
c) Mining Sector



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.

Chart 21
Manufacturing and Automotive Production

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



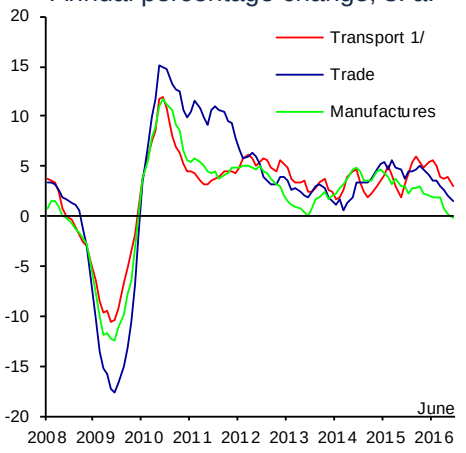
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Prepared and seasonally adjusted by Banco de México.
Source: Mexico's National Accounts System, INEGI.

b) Automotive Production
Thousands of units, 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 and seasonally adjusted by Banco de México with data from the Mexican Automotive Industry Association (AMIA).

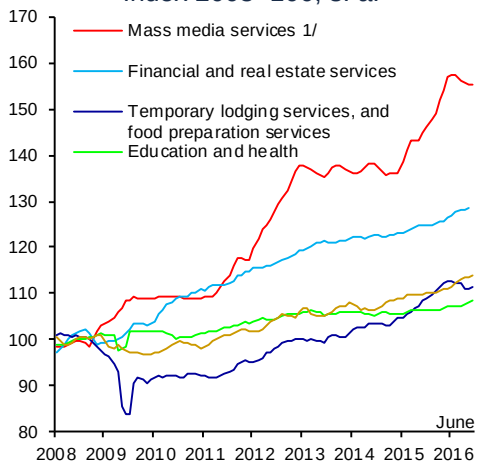
Chart 22
Global Economic Activity Indicator of Services and Manufacturing

a) Manufacturing and Services
Annual percentage change, s. a.



s. a. / 3-month moving average of the seasonally adjusted series.
1/ Prepared by Banco de México with data from SCNM.
Source: Mexico's National Accounts System, INEGI.

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

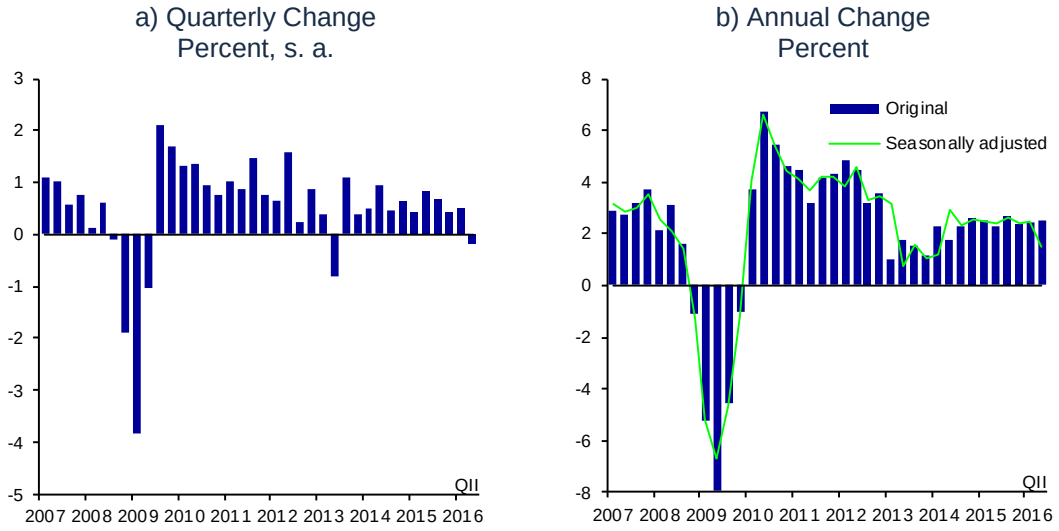


s. a. / 3-month moving average of the seasonally adjusted series.
1/ Estimated by Banco de México with data from SCNM.
2/ The rest includes government activities, professional and corporate services, business support services, recreational services and other services.
Source: Mexico's National Accounts System, INEGI.

Derived from the previously described dynamics, the Mexican economy registered a quarterly seasonally adjusted contraction of 0.2 percent in the second quarter of 2016, which compares to the 0.5 percent growth in the first one (Chart 23a). Based on seasonally adjusted data, in line with this estimation, economic activity expanded 1.5 percent in the period of April – June 2016, following a growth of 2.5 percent in the previous quarter. Based on data without seasonal adjustment, an annual GDP

growth of 2.5 percent was registered in the second quarter, a figure that was affected by the fact that the Holy Week took place in March in 2016, while in 2015 it was in April (Chart 23b).

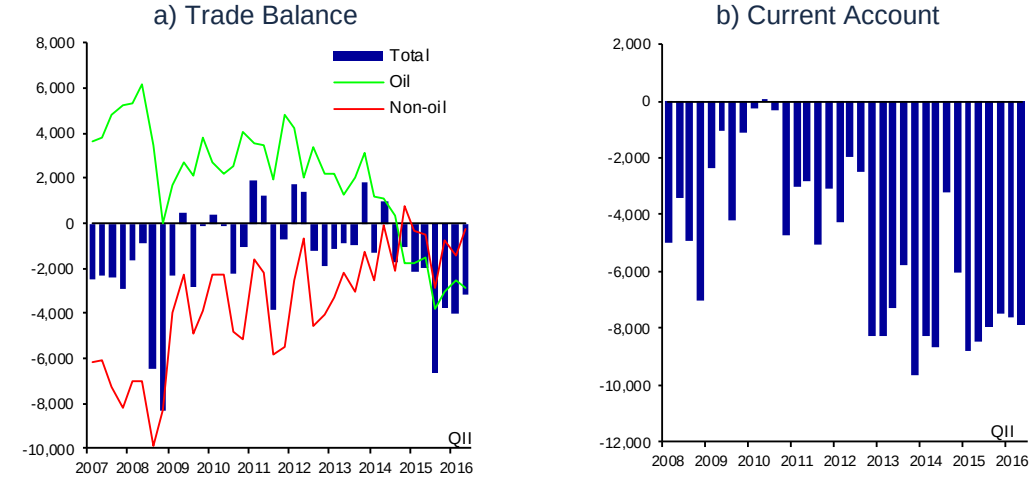
Chart 23
Gross Domestic Product



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

In the second quarter of 2016, the trade balance registered a deficit of USD 3,131 million, integrated both by an oil balance deficit of USD 2,850 million and of a non-oil balance deficit of USD 281 million (Chart 24a). In this context, in the reference period the current account presented a deficit of USD 7.9 billion (Chart 24b), a figure above that observed in the previous two quarters, although it is not outside the range of the registered deficits since late 2012. However, in terms of GDP, the current account deficit has been growing since 2013, so the one corresponding to the second quarter of 2016 was equal to 3.0 percent of GDP (see Box 3).

Chart 24
Trade Balance and Current Account
USD million



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

Source: Banco de México.

Box 3
Recent Evolution of the Current Account

1. Introduction

This Box presents some thoughts on the determination of the current account of the balance of payments. In particular, it gives a theoretical interpretation of what a current account deficit implies and describes the recent evolution of the Mexico's current account. It will be shown that in recent years the current account deficit in Mexico, measured in U.S. dollars, has remained relatively stable at levels similar to those observed in late 2012. However, as a proportion of GDP, this deficit has tended to grow since 2013, most notably between 2014 and 2015. From a point of view of the analysis of its components' evolution, this tendency can be fundamentally explained by a deterioration in the oil trade balance, given that, despite the prevailing negative external environment, in 2014 and 2015 the deficit corresponding to the other items of the current account (i.e., the current account excluding the oil trade balance) remained below the levels observed in previous years. In this context, it is argued that an adjustment in the macroeconomic policy that contributes to mitigate pressures on the current account deficit might be required; otherwise, the endogenous adjustment would occur entirely via a greater depreciation of the real exchange rate, which might jeopardize the evolution of prices in the economy. In particular, a more efficient policy response would be through a fiscal adjustment, since, on the one hand, the oil shock directly affects public revenues, and, on the other hand, a reduction in public expenditure has a greater direct effect on domestic absorption, compared to those derived from the potential impact of a monetary policy response. In this sense, it is favorable that during the first half of the year the public sector has already made an effort to reduce expenditures in order to tackle the current environment, alongside the intentions drafted by the Ministry of Finance in the 2017 Economic Package, which is to be released in September 2016.

2. The Current Account in the Framework of National Accounts

The current account keeps record of economic transactions –the exchange of goods and services, collection and payment of investment income and current transfers– among residents of a given country and residents of other countries, during a set period. The current account can be expressed as the sum of its components:

$$CC = (X - M) + S + R + Tr\,, \qquad (1)$$

where CC is the current account balance, *(X-M)* is the trade balance (the difference between exports and imports of goods), *S* is the balance on services, *R* is the balance on income (interests, dividends and any payment to production factors), and *Tr* is the balance on current transfers (net income from transfers, as for example, remittances and donations).

The identities of the national accounts provide a useful framework for the economic interpretation of the current account. In this framework, the natural starting point is the identity that expresses income as a function of its uses:

$$Y = C + I + G + (X - M) + S\,, \qquad (2)$$

where *Y* is the gross domestic product, *C* is private consumption, *I* is investment, both private and public, *G* is the government's current expenditure, *(X-M)* are net exports of goods and S are net exports of services.

Substituting (2) into (1), gives the following:

$$\underbrace{CC}_{\text{External financing}} = \underbrace{(Y+R+Tr)}_{\text{National income}} - \underbrace{(C+I+G)}_{\text{Absorption}} \qquad (3)$$

In this way, the current account can be expressed as the difference between national revenue –that is the revenue obtained after adding up all sources of income of the country and after subtracting all income payments that the country pays to the rest of the world– and absorption –defined as total domestic spending–. Thus, when national income is greater than absorption, the current account is in surplus and represents a net saving of the economy with respect to the rest of the world. On the contrary, when absorption is greater than national income, the current account is in deficit, which represents foreign indebtedness. Likewise, an increase in the current account deficit indicates that domestic spending is growing faster than national income. The difference is financed through a higher foreign indebtedness.

If *NI* represents the national income *(Y+R+Tr)*, the previous equation can also be expressed in the following way:

$$\underbrace{CC}_{\text{External financing}} = \underbrace{(NI-C-G)}_{\text{Domestic saving}} - \underbrace{I}_{\text{Investment}} \qquad (4)$$

This expression presents the current account as the difference between domestic saving and investment.

When domestic saving is higher than investment (a current account in surplus), the country has available resources to finance investment in the rest of the world. On the contrary, a current account in deficit signals that domestic saving is insufficient to finance domestic investment and that the difference is funded by means of the external savings of other countries.

By adding and subtracting the taxes levied by the government (*T)* from the previous expression, the current account can be rewritten so that external financing is a function of private savings, the public deficit and investment.

$$\underbrace{CC}_{\text{External financing}} = \underbrace{(NI–T–C)}_{\text{Private saving}} - \underbrace{(G–T)}_{\text{Public deficit}} - \underbrace{I}_{\text{Investment}} \quad (5)$$

From that point of view, the current account balance deteriorates when, everything else constant, private savings of the economy decrease, when the public deficit increases or when investment expands. Hence, to prevent a greater public deficit from causing a deterioration in the current account balance, domestic variables would have to adjust to finance it, either by means of greater private savings or though lower investment.

External indebtedness, which manifests itself as a deficit in the current account, allows to smooth the consumption and investment decisions of the economy in response to a temporary negative shock. That is, in the presence of a temporary reduction in national income, domestic expenditure does not need to fall in the same proportion as income, because the economy can use international financial markets to cushion the consequences of said shock on expenditure. Nevertheless, when the adverse shock is permanent, the adequate response is that the absorption of the economy would be reduced in the same proportion as income, since higher current account deficits over extended time periods would become unsustainable given the lower future income. Indeed, in the long run, the current account deficit is subject to the inter-temporal constraint, which indicates that the current value of absorption should be equal to the current value of the national income. This restriction is equivalent to the condition that the current value of the current account balance should de equal to zero, so that a current account deficit in the present should be covered by a future current account surplus. Thus, for current account deficits to be financed in the long run, they should be compatible with the economy's ability to generate sufficient future saving to repay them.

Furthermore, as can be appreciated in expression (5), a current account deficit makes it possible for investment to be greater than domestic savings. When domestic saving is insufficient to cover the needs of investment needed for greater economic development, external indebtedness can provide the necessary resources to finance these needs. Therefore, when external financing is devoted to investment, it is possible to generate future income above the amount necessary to pay the incurred debt. Thus, a current account deficit could be reflecting an increase in the country's productive capacity, as it moves to a higher level of development.

In this context, it should be stressed that for domestic spending to be higher than national income, international financial markets should be willing to finance the country's external indebtedness. If foreign investors perceived a deterioration of the country's economic fundamentals that would put in jeopardy its payment capacity, capital flows to the country could become insufficient to finance the current account deficit. Furthermore, tighter conditions in the world economy could lead to a lower availability of capital flows to finance the current account deficit. If pressures on the current account reflect a lower external willingness to finance domestic spending, it is necessary to lower the absorption of the economy by means of a lower private or public consumption, so that domestic spending is congruent with the country's income level and so that the country's capacity to meet its payment obligations are not put into doubt.

When the current account deficit increases and the sources for its funding are limited, the endogenous adjustment of the economy to reduce the deficit is by means of a depreciation of the real exchange rate, so that imports become expensive enough and exports cheaper enough to reach a new equilibrium. However, this depreciation could pressure prices in the economy, possibly affecting inflation expectations, and, ultimately, causing inflation. An alternative way to show that an endogenous adjustment of the economy would imply pressures onto prices is to use the fact that, under certain assumptions, the real exchange rate can be expressed as the ratio of the price of tradable goods to the price of non-tradable goods. Thus, to address the current account deficit, a rise in the price of tradable goods with respect to non-tradable goods is required. This would lead to a lower spending on tradable goods and a higher production of these goods. In the absence of a reduction in the absorption, which could release pressures on the prices of non-tradable goods, a more marked increment in the prices of tradable goods would be required, possibly leading to a higher general price index. In this context, it is of the utmost importance for the Central Bank to monitor

the evolution of the current account, as pressures on the deficit could pose risks to the fulfillment of its mandate.

In light of a possible excess of absorption relative to its sources of financing, it is important to adopt the necessary economic policy actions to achieve an orderly adjustment of the economy and, in this way, mitigate the effect of the depreciation of the real exchange rate on prices. In this sense, there could be a trade-off as to what economic policy –fiscal or monetary- is more adequate. This trade-off should be resolved based on the nature of the source of imbalances. Further below, in Section 4, we discuss the appropriateness of carrying out the macroeconomic adjustment via fiscal policy in the current case of Mexico.

3. Recent Evolution of the Current Account

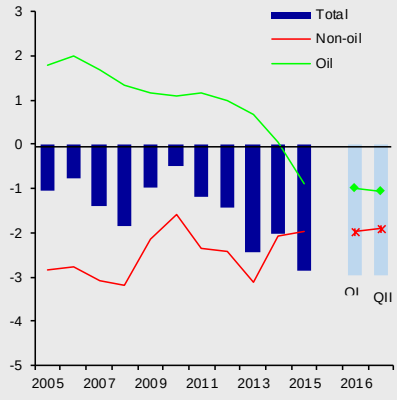
As can be seen in Chart 24 of the main body of this Report, the current account deficit measured in U.S. dollars has recently remained at levels similar to those observed since late 2012. However, when measured as a percentage of GDP, since 2013 the current account deficit has gradually expanded, most noticeably between 2014 and 2015. The measurement of the current account deficit in terms of GDP is particularly relevant because it scales the financing obtained from abroad in relation to the economy's income. In this respect, it should be noted that the Mexican GDP measured in U.S. dollars has been negatively affected by the depreciation of the exchange rate. This has partially contributed to the performance of the current account as a share of GDP.

Considering the evolution of its different components, the increment in this period mainly reflected the deterioration in the oil trade balance, while the rest of the current account components in the aggregate remained, in the aggregate, below the levels observed in previous years (Chart 1a). In particular, the increase in the current account deficit between 2014 and 2015 of 0.84 percentage points of GDP was the combined result of a deterioration in its oil component of 0.95 percentage points of GDP and a decrease in the rest of the components of 0.11 percentage points of GDP. As shown in Box 2 of the Quarterly Report October – December 2015, the oil trade balance shifted from a surplus to a substantial deficit, as a result of both an important deterioration in the oil terms of trade, and an increase in the volume of imported oil goods, in a context in which crude oil exports have been declining for several years (Chart 1b). The energy reform will contribute to solve the latter problem in the medium and long terms.

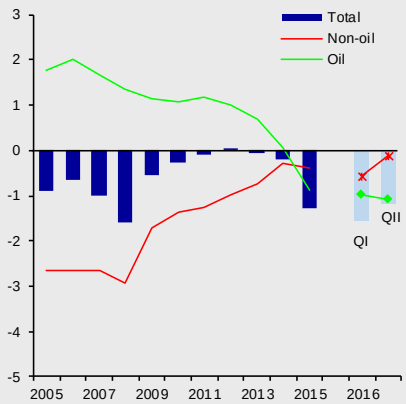
On the other hand, the slight improvement in the non-oil current account balance as a share of GDP between 2014 and 2015 reflected a decrease in the deficit of the balance on services (Chart 1c) and an increase in the surplus of the balance on current transfers –which consists fundamentally of remittances– (Chart 1e). This was partially offset by the increase in the deficit of the balance on income –which includes the payment of interest abroad– (Chart 1d) and a moderate rise in the deficit of the non-oil trade balance, which had been declining over previous years (Chart 1b).

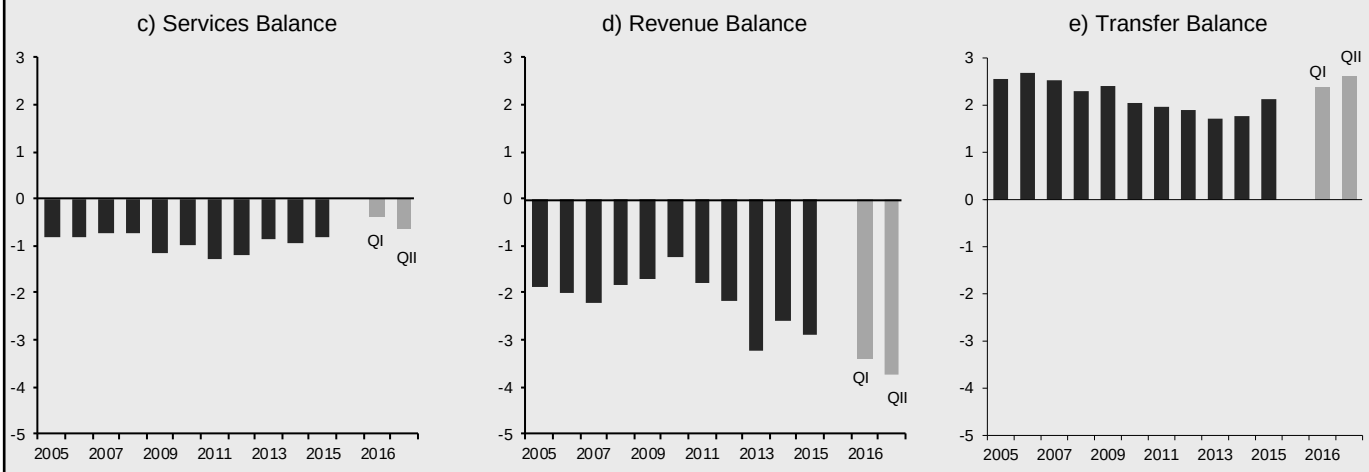
Chart 1
Components of the Current Account
Percent of GDP

a) Current Account 1/



b) Trade Balance 2/





1/ The oil current account refers to the oil trade balance, whereas the non-oil current account corresponds to the current account excluding the oil trade balance.
2/ It includes the balance of goods acquired in ports.
Source: Prepared by Banco de México with data from INEGI and own data.

4. Considerations on the Recent Increment in the Deficit of the Current Account

The increase in the current account deficit that has been described could generate certain concerns if the nature of the shocks affecting it and the prevailing domestic and external economic environment are taken into account. In the first place, the drop in the oil price, which led to a strong deterioration in the oil terms of trade faced by Mexico, does not appear to be transitory. Even though a certain recovery in oil prices is foreseen, they are not anticipated to regain the levels observed in mid-2014. Secondly, the composition of domestic absorption seems to be biased towards a greater spending on consumption relative to investment. Indeed, in an environment of low growth and stagnant investment, a strong dynamism of consumption has been observed, although it was lessened in the second quarter. Thirdly, external financing conditions have become tighter, and given the complex international environment, access to external financing is anticipated to remain difficult.

These considerations suggest that an adjustment in domestic absorption is necessary, even though this does not imply that the current account is currently at unsustainable levels. In this sense, there is a need to adopt macroeconomic adjustment measures, either fiscal or monetary, that would foster adequate balances of the current account. The context in which an increase in the current account deficit as a share of GDP has occurred suggests that fiscal policy would be more effective than monetary policy. Indeed, even though the recent adjustments in the target interest rate are expected to contribute to mitigate pressures on the current account, it would be costly for the economy for most of the adjustment to rely on the monetary policy. In that case, the imbalances would be corrected with a less efficient tool, as it would induce a reduction in domestic spending through changes in the interest rate, rather than doing it directly through lower public spending. The use of monetary policy, by reducing absorption in a context of tight external financing conditions, would imply both lower non-tradable and tradable goods' prices, so that to correct the external imbalances the required effect on the prices of non-tradable goods (and, therefore, on private spending) would have to be greater than what would be needed under fiscal policy, considering that the latter could directly release pressures on the prices of non-tradable goods relative to tradable goods. Additionally, from the point of view of its implementation, fiscal policy is also more efficient, as the decisions of the reduction in spending fall on only one agent, the public sector. This is opposed to what happens with private consumers, whose decisions are fragmented, and can therefore react in a less orderly manner in response to a monetary policy adjustment.

In other words, given the nature of the shocks that have caused the increase in the current account deficit and, in particular, considering the fact that the main reason for its recent deterioration is a decrease in public revenue, it would seem to be more efficient if the correction was made mainly by means of a fiscal adjustment. Furthermore, an adjustment in public spending would have a more direct effect on the absorption of resources than the impact that would be derived from a monetary policy action. Therefore, it can be concluded that fiscal policy constitutes a relatively more efficient tool to carry out the adjustment that seems desirable to foster adequate current account balances.

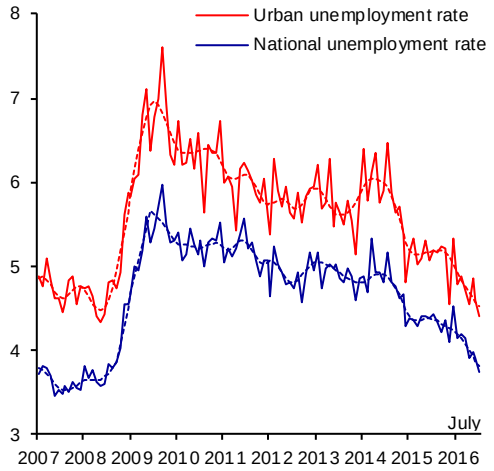
3.2.2. Labor Market

The main indicators of the labor market in the second quarter of 2016 display mixed signals regarding its evolution, even though, in general, the conditions in that market seemed to have continued improving gradually. Indeed, while unemployment and informality rates kept decreasing, a certain deceleration in employment and wage indicators was observed.

In particular, in the period of April – July, both national and urban unemployment rates continued decreasing (Chart 25a). Likewise, the employed population registered a moderate expansion in the period (Chart 25c), in a context in which the labor participation rate stopped decreasing (Chart 25b). In addition, most employments were created in the formal sector. Indeed, the number of IMSS-insured jobs maintained a positive trend (Chart 25c). In this way, the labor informality rate kept falling and lies at levels below those observed prior to the 2009 global financial crisis (Chart 25d).

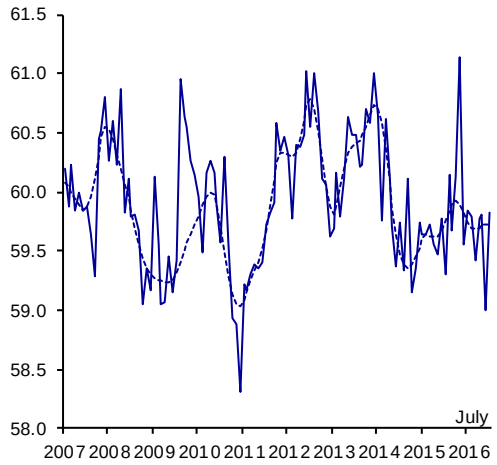
Chart 25
Labor Market Indicators

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



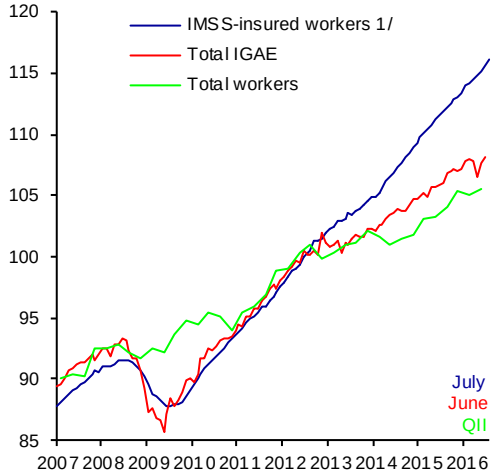
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

b) National Labor Participation Rate 1/
Percent, s. a.



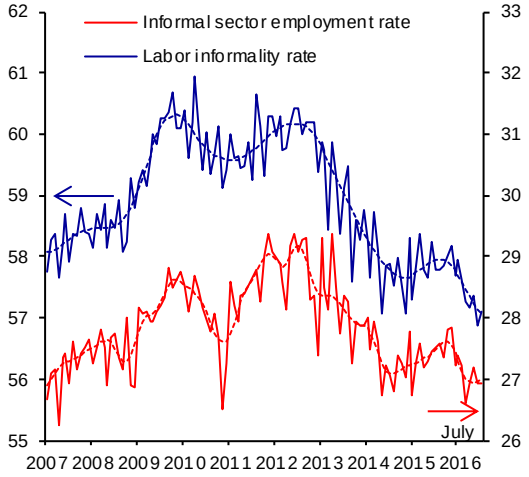
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
1/ Percentage of economically active population (EAP) with respect to the population of 15 years old and older.
Source: National Survey on Occupation and Employment (ENOE), INEGI.

c) 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).

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.

Wage indicators suggest that, in general, wage increments have moderated in 2016:

i. Indeed, in the period April – June, the growth rate of salaried workers' average was 3.7 percent, which was equal to that registered in the previous quarter (Chart 26a). In view of low inflation levels, these results continued to reflect yearly increases in real terms.

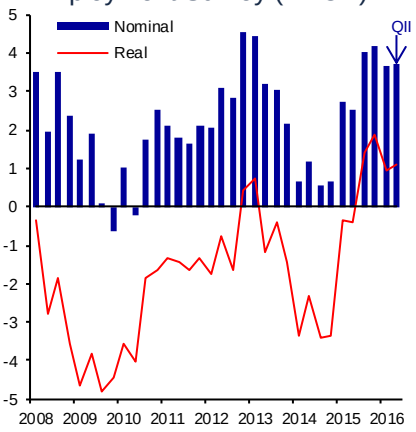
ii. Likewise, in the reported quarter the daily wage of IMSS-insured workers presented a yearly growth rate similar to that observed in the previous quarter, both in nominal and in real terms (Chart 26b), although in July these changes somewhat moderated.

iii. In the reference quarter, the growth rate of contractual wages negotiated by firms under federal jurisdiction was slightly above that in the same quarter of 2015 (Chart 26c). This increment is accounted for by a slightly higher average increase in wages negotiated by private firms as compared to last year, while increments negotiated by public firms led to a slightly lower rise in the growth rate as compared to the second quarter of 2015. In contrast, in July 2016, the growth rate of contractual wages negotiated by firms under federal jurisdiction was lower than that observed in the same month of 2015.

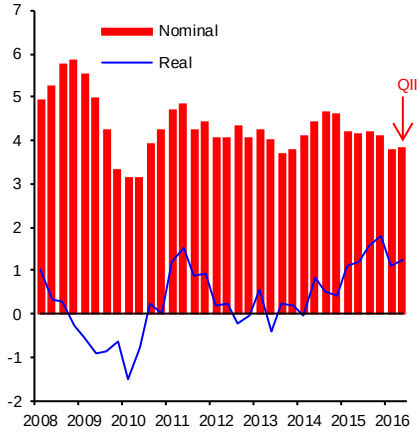
Finally, as mentioned above, the total wage bill of the economy has lost its dynamism in 2016. This performance was due to the fact that after observing a growing trend in most of 2015, both the employed salaried population and its average income displayed a certain stagnation in the first half of 2016.

Chart 26
Wage Indicators
Annual change in percent

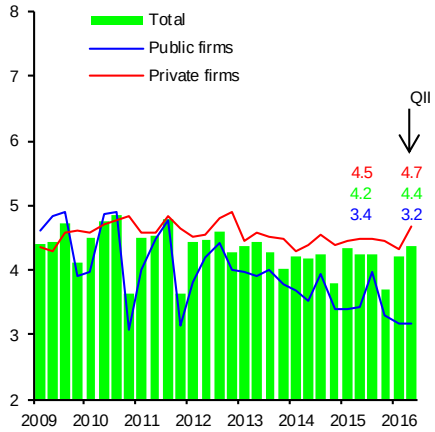
a) Average Wage of Salaried Workers according to National Employment Survey (ENOE) 1/



b) Daily Wage of IMSS-insured Workers 2/



c) Nominal Contractual Wage 3/



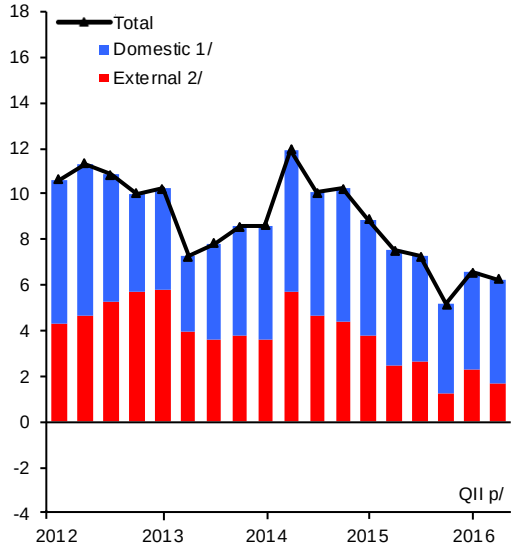
1/ To calculate average nominal wages, the lowest 1 percent and the highest 1 percent in the wage distribution were excluded. Individuals with zero income or those who did not report it are excluded.
2/ During the second quarter of 2016, on average 18.3 million workers were registered in IMSS.
3/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.
Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE).

3.2.3. Financial Saving and Financing in Mexico

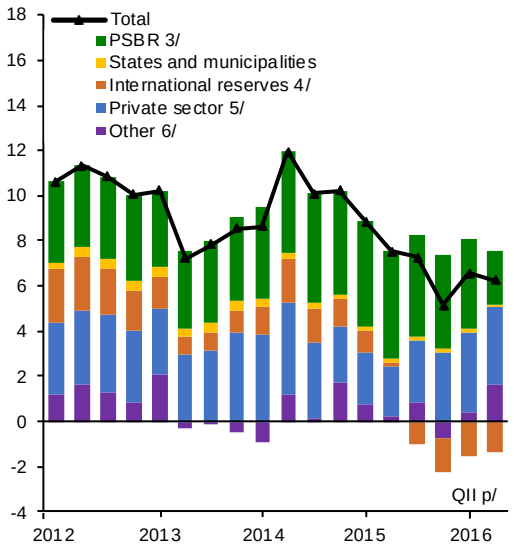
As a result of the environment prevailing in international financial markets, the sources of financial resources of the economy moderated their growth rate with respect to the first quarter of 2016. In particular, the lower growth of sources of financial resources derived from a deceleration in external sources of financing, while domestic ones presented a slightly higher growth rate as compared to the previous quarter. Despite the moderation in the availability of resources, financing to the private sector kept expanding at relatively high rates, which was partly due to a decrease in the public sector's use of resources. This evolution was also observed in the total flows corresponding to the last four quarters (Chart 27a and Chart 27b).

Chart 27
Total Funding of the Mexican Economy (Sources and Uses)
Accumulated flows of four quarters, in percent of GDP

a) Total Sources



b) Total Uses



Note: Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of the exchange rate fluctuations.
p/ Preliminary data.
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 external financing to the non-financial private sector.
3/ Public Sector Borrowing Requirements (PSBR), as reported by the Ministry of Finance.
4/ It is made up by currencies and gold reserves of Banco de México, free of any security rights and the availability of which is not subject to any type of restriction; the position in favor of Mexico with the IMF derived from contributions to the said entity; currency obtained from financing to realize foreign exchange regulation of the IMF and other entities of international financial cooperation or groups of centrals banks, of central banks and other foreign legal entities who act as financial authorities. Currencies pending to be received for sales transactions against the national currency are not considered, and Banco de México's liabilities in currency and gold are deducted, except for those that are for a term longer than 6 months at the moment of reserves' estimation, and those corresponding to financing obtained to carry out the above mentioned foreign exchange regulation. See Article 19 of Banco de México's Law.
5/ It includes the 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), the issuance of domestic debt and external financing. It includes restructuring programs.
6/ It includes external assets of commercial banks, 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 (IPAB), and the effect of the change in the valuation of public debt instruments, among other concepts.
Source: Banco de México.

Concerning the sources of financial resources, the deceleration in the external sources largely derived from the fact that the stock of non-resident financial saving kept contracting, as its real annual change was -8.4 percent at the end of the second quarter (Chart 28a).[3] This resulted from a lower foreign demand for assets in MXN, particularly Cetes, which in part could explain the depreciation of the national currency during the quarter (Chart 28b). It should be noted that positions of the external sector in Cetes are usually from investors who exploit temporary arbitrage opportunities in the markets to generate profits in the short term, while long-term positions –which have grown this year–, reflect foreign investors' confidence in the potential and stability of the Mexican economy in the long term.

In contrast, the stock of domestic financial saving expanded at a slightly higher rate than in the previous quarter, as its growth rate increased from 4.4 to 4.9 percent

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

between the first and the second quarters of 2016 (Chart 28a). This performance reflected a greater expansion of both the voluntary and compulsory components (Chart 28c). On the other hand, the monetary base maintained its average growth rate over the last three months with respect to the previous period –its real annual change shifted from 12.9 percent in the first quarter to 13.0 percent in the second quarter of the year-, even though it remains at relatively high levels.

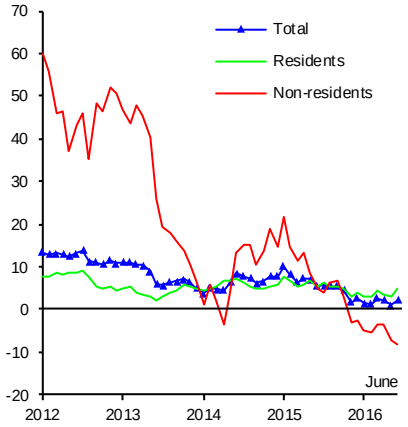
As regards the use of financial resources of the economy, financing to the public sector reduced as compared to the previous quarter, which derived from the fact that for the second consecutive quarter Public Sector Borrowing Requirements (PSBR) as a proportion of GDP decreased (Chart 27b). In particular, between the first and the second quarters of 2016, PSBR dropped from 3.9 to 2.5 percent of GDP in terms of their annual flows. This principally reflected the inflow of extraordinary income to the Federal Government stemming from the delivery of Banco de México's operational surplus of the 2015 fiscal year.[4] It was also contributed to by the increment in tax revenues and a lower public spending, consistent with the goals of fiscal consolidation and preemptive adjustments to the programmable expenditure announced by the Ministry of Finance. Congruent with this reduction in PSBR, on August 22, the Ministry of Finance announced that, based on the expected evolution of revenues and public spending, PSBR will close this year at 3.0 percent of GDP, which is below the estimate of 3.5 percent of GDP presented in General Criteria of Economic Policy 2016.[5] This will imply that in 2016 there will be a lower public sector's use of financial resources, with respect to the 4.1 percent of GDP registered in 2015. Meanwhile, international reserves reduced slightly, by USD 279 million in the second quarter of 2016, after an increment of USD 952 million registered in the previous quarter.

Total financing to the non-financial private sector continued expanding at a relatively high rate, even though it was more moderate than in the previous quarter. Indeed, adjusting for the exchange rate effect, its growth rate in real annual terms shifted from 6.8 to 6.0 percent between the first and the second quarters of the year (Chart 29a). This moderation derived from a deceleration of external financing –as a reflection of the negative environment faced by international financial markets in the reference quarter–, while domestic financing expanded at a greater rate than in the previous quarter.

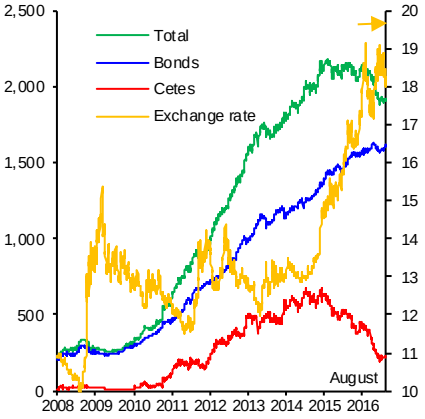
[4] See the Press Release of Banco de México as of April 11, 2016.
[5] See the Press Release of the Ministry of Finance as of August 22, 2016.

Chart 28
Financial Saving Indicators

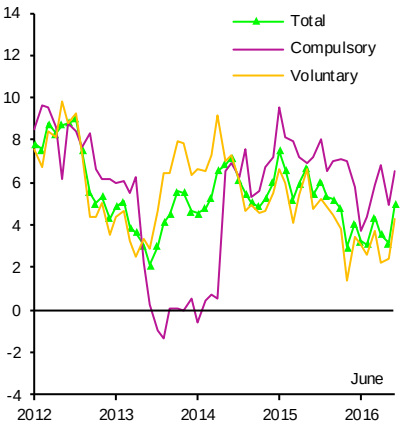
a) Total Financial Saving [1/]
Real annual change in percent



b) Government Securities' Holdings by Foreign Investors and Exchange Rate [2/]
MXN billion and MXN/USD



c) Resident Financial Saving
Real annual change in percent

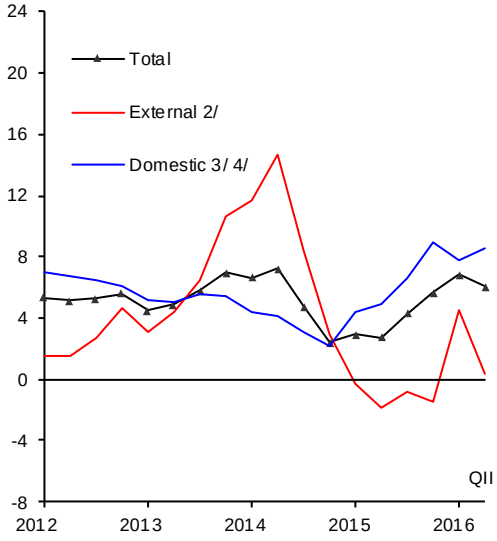


1/ It is defined as the monetary aggregate M4 minus the stock of currency held by the public.
2/ The total includes CETES, bonds, udibonos, bondes and bondes D.
Source: Banco de México.

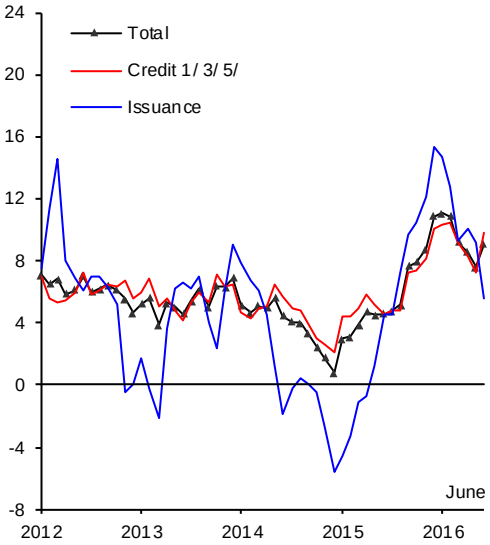
Domestic financing to non-financial firms presented a real annual growth, adjusted for the exchange rate effect, of 9.1 percent as of the end of the reported quarter, rebounding in June, after four months of deceleration. This derived from the expansion of the banking credit, given that the domestic debt market has shown low activity levels during the year (Chart 29b and Chart 30a). Indeed, at the end of the second quarter of the year, commercial and development banks' performing credit portfolios to non-financial private firms registered increments close to 10 percent in real annual terms and adjusting for the exchange rate effect (Chart 30b). Particularly for the case of commercial banks, even though these growth rates had not been observed since 2011, they are still significantly below those registered prior to the onset of the international financial crisis. In this context, although the interest rates of financing to firms tended to reflect increments in the banks' funding rate, they are still close to historical minimum levels (Chart 31a and Chart 31b). Likewise, the respective delinquency rates also generally remained at relatively low levels, despite the fact that the quality of development banks' credit portfolio somewhat deteriorated in the reference quarter (Chart 31c).

Chart 29
Financing to the Non-financial Private Sector
Real annual change in percent

a) Total Financing to the Non-financial Private Sector 1/



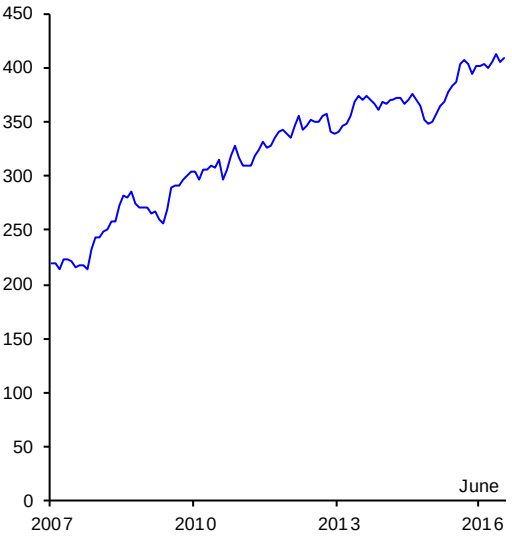
b) Domestic Financing to Non-financial Private Firms



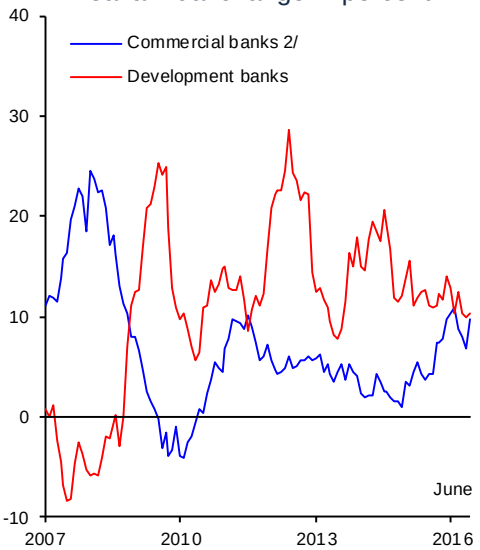
1/ Data adjusted for exchange rate effects.
2/ Data of foreign financing for the second quarter of 2016 are preliminary.
3/ These data can be affected by the disappearance of some non-bank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
4/ These figures are adjusted due to the withdrawal from and incorporation of some financial intermediaries to the credit statistics.
5/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as other non-bank financial intermediaries.
Source: Banco de México.

Chart 30
Domestic Financing to Non-financial Private Firms

a) Securities in Circulation
Stocks in MXN billion as of June 2016



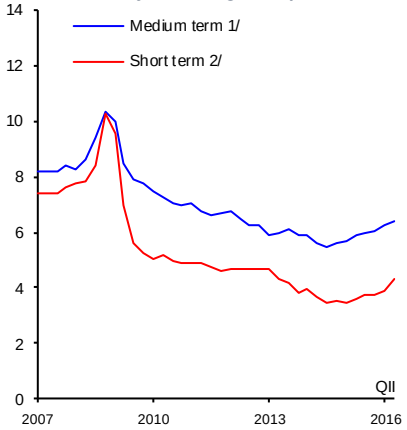
b) Performing Credit 1/
Real annual change in percent



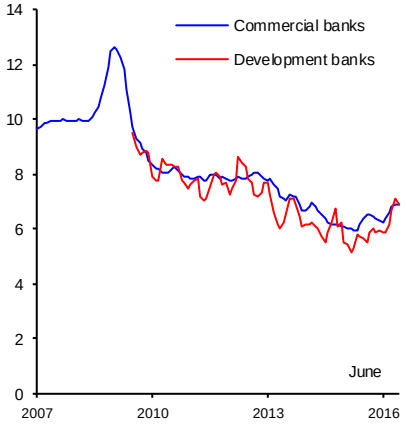
1/ Data adjusted for exchange rate effects.
2/ It includes the Sofomes ER subsidiaries of bank institutions and financial groups. Data are adjusted so as not to be affected by the transfer of bridge loans.
Source: Banco de México.

Chart 31
Annual Interest Rates and Delinquency Rates of Non-financial Private Firms

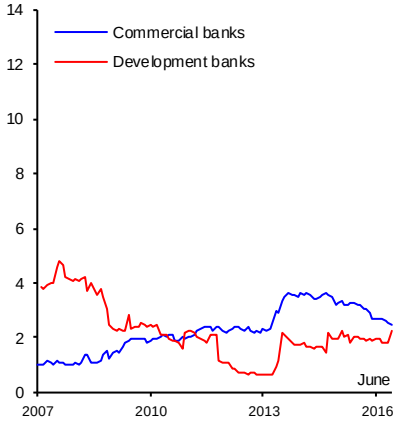
a) Annual Interest Rates of Private Securities
Quarterly average in percent



b) Annual Interest Rates of New Credits 3/
Annual percent



c) Delinquency Rates 4/
Percent



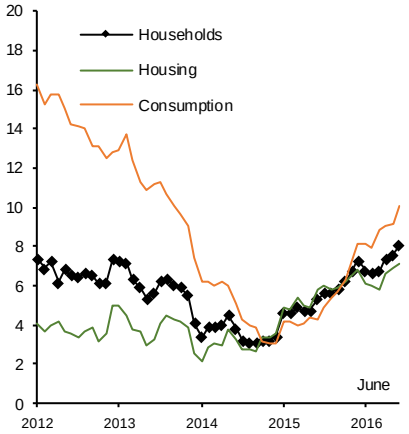
1/ Average weighted yield to maturity of emissions in circulation, with a term over 1 year, at the end of the month.
2/ Average weighted rate of private debt placements, at a rate of up to 1 year, expressed in a 28-day curve. It only includes stock exchange certificates.
3/ It refers to the interest 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. It is presented as a 3-month moving average.
4/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
Source: Banco de México.

Credit to households, both mortgage loans and consumer credit, kept expanding, its real annual growth rate shifting from 6.7 to 8.0 percent between the first and the second quarters of 2016 (Chart 32a). The expansion rate of the housing credit increased from 5.8 to 7.1 percent, which reflected a greater granting of credit both by the National Housing Fund (Infonavit) and by commercial banks (Chart 32a and Chart 32b).[6] The interest rates persisted at historically low levels and the delinquency rate of mortgage loans granted by commercial banks remained low and stable. However, the quality of the Infonavit credit portfolio slightly deteriorated, reason why it is important to continue monitoring the evolution of delinquency in this segment over the following quarters (Chart 32c).

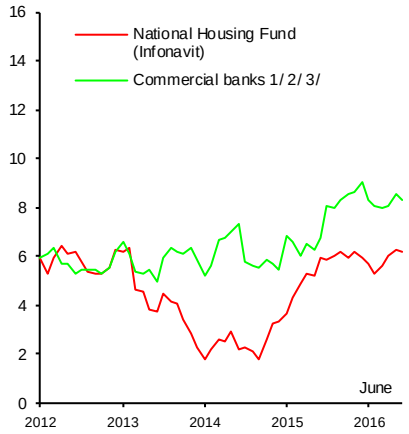
[6] Commercial banks' housing credit includes that for acquisition of new and used housing, remodeling, payment of mortgage liabilities, credit for liquidity, acquisition of land and construction of own housing.

Chart 32
Credit to Households

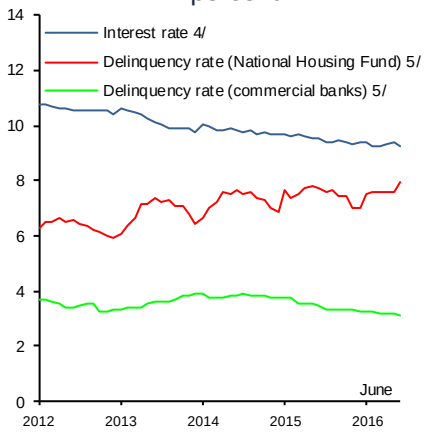
a) Total Credit 1/
Real annual change
in percent



b) Performing Housing Credit
Real annual change
in percent



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

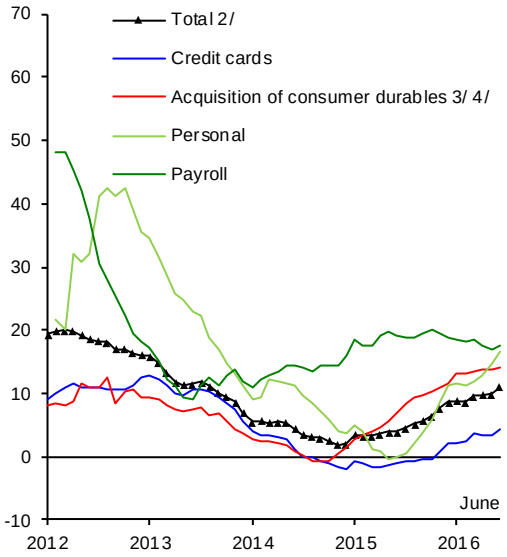


1/ These data are adjusted due to the withdrawal from and the incorporation of some financial intermediaries to the credit statistics.
2/ It includes the Sofomes ER subsidiaries of bank institutions and financial groups.
3/ Figures are adjusted in order to avoid distortions by the transfer and the reclassification 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.

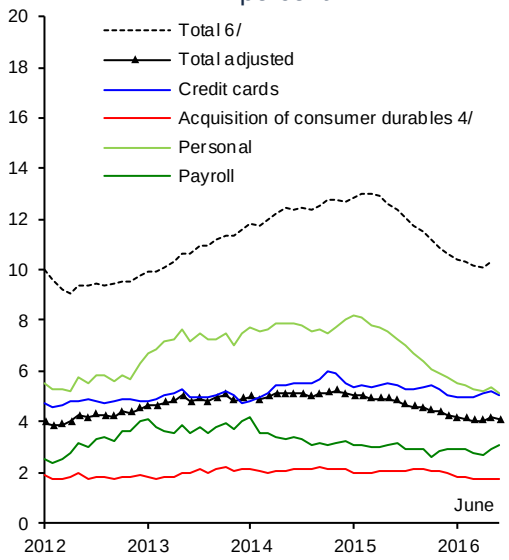
On the other hand, consumer credit continued expanding. In particular, the performing credit portfolio of commercial banks for consumption expanded practically in all its segments, its growth rate shifting from 9.7 to 11.0 percent between the first and the second quarters (Chart 33a). In this context, interest rates and respective delinquency rates generally did not observe any relevant changes, with the exception of the delinquency rate of the payroll credit portfolio, which slightly increased in the reference quarter, while still persisting at relatively low levels (Chart 33b).

Chart 33
Commercial Banks' Consumer Credit

a) Performing Credit 1/
Real annual change 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 auto loans and credit for acquisition of other movable properties.
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 May 2016.
Source: Banco de México.

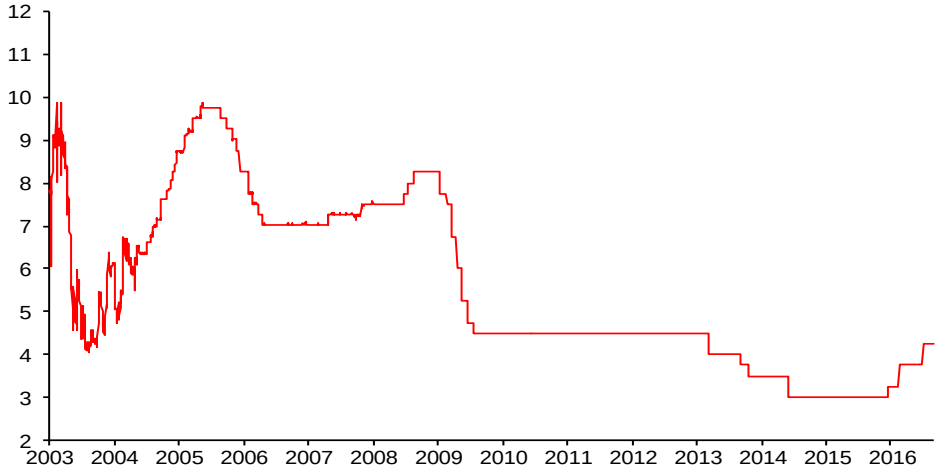
In total, despite lower sources of financial resources of the economy, financing to the private sector continued expanding, which was contributed to by the reduction in the public sector's use of resources. In the context described in this Report, and in view of the slack global growth and high uncertainty that is expected to prevail abroad, it is fundamental to continue with the fiscal consolidation process, in a way that would allow the economy to develop in an efficient and orderly manner in an external environment characterized by less favorable conditions. Likewise, Banco de México will continue monitoring that the allocation of financial resources to different sectors of the economy continues at a rate congruent with the preservation of an environment of macroeconomic stability, and, in particular, of expenditure levels compatible with the productive capacity of the economy.

4. Monetary Policy and Inflation Determinants

During the second quarter of 2016, the conduct of monetary policy continued facing a complex environment. Although the available information suggested a central scenario for inflation for the short and medium terms congruent with the permanent 3 percent target, and no aggregate demand-related pressures onto prices were perceived, throughout the reference period external conditions deteriorated importantly. In light of its consequences for the exchange rate dynamics, this situation could eventually lead to deanchoring of inflation expectations and, hence, to higher inflation.

Consistent with the above, in its monetary policy meeting of May 5, the Board of Governors decided to maintain unchanged the target level for the Overnight Interbank Interest Rate at 3.75 percent. Nonetheless, it was stressed that it would continue to closely monitor 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. Subsequently, in view of higher volatility in international financial markets and the deterioration of the external environment, the quote of the national currency depreciated significantly, its volatility increased, and domestic interest rates went up for most terms, as well as their spreads with respect to U.S. interest rates. This environment threatened the anchoring of inflation expectations, and, therefore, could have led to an unfavorable inflation dynamics. Thus, considering the lag with which monetary policy affects inflation through different transmission channels, on June 30, the Board of Governors decided to increase by 50 basis points the target for the Overnight Interbank Interest Rate to 4.25 percent. On the other hand, on August 11, the Board of Governors decided to keep the reference interest rate unchanged (Chart 34). This is in accordance with the fact that, given the adjustment carried out in June, the central scenario for inflation for the short and medium term was considered to remain congruent with the permanent 3 percent target and the balance of risks was deemed neutral.

Chart 34
Overnight Interbank Interest Rate Target [1/]
Annual percent



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

Among the elements considered to justify the monetary policy decisions made in the period analyzed in this Report, the following stood out:

i. Even though annual inflation remained below the permanent 3 percent target, annual core inflation continued to show a gradual upward trend. This evolution mainly derives from the effect of the exchange rate depreciation on the relative prices of merchandise with respect to services.

ii. In this sense, although during April the exchange rate remained relatively stable at an average level of MXN/USD 17.50, it depreciated by 8.6 percent between May and late June. Subsequently, from that date to the beginning of August, it fluctuated at levels close to MXN/USD 18.60, despite high volatility, to later experience a moderate appreciation to levels close to MXN/USD 18.40 during the last week (Chart 35a and Chart 35b). It is noteworthy that the dynamics of the national currency were even more affected than other emerging economies' currencies. This was contributed to by: a) a drop in the crude oil price and its effect on the real exchange rate, as a consequence of the deterioration in the terms of trade it implied; b) an increment in the current account deficit, given tighter external financing conditions in an environment in which there has been an increase in the historical balance of Public Sector Borrowing Requirements; and c) volatility in financial markets in light of different geopolitical events and risks, the consequences of which on the exchange market have been aggravated by the use of Mexican peso derivatives in risks hedging strategies and by other emerging economies' currencies denominated assets in the portfolios of international investors.

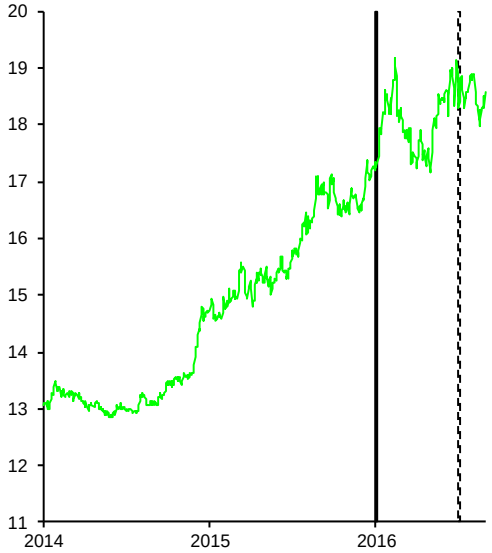
iii. In this context, even though inflation expectations derived from surveys and from market instruments remained anchored, and although no second round effects on the price formation in the economy were registered, as a result of the impact of the exchange rate fluctuation on the prices of tradable goods, there was a risk that, in light of the described exchange rate dynamics, eventually a deanchoring of inflation expectations could occur.

iv. Short-term and medium-term interest rates increased gradually during the period covered by this Report, while the market began to anticipate future increments in the reference interest rate. Meanwhile, despite certain volatility, longer-term interest rates remained relatively stable during the analyzed period, even recording some decreases in their longest terms.

It should be stressed that the fact that the last two adjustments in the monetary policy stance were 50-basis-point increments does not establish a behavior pattern. In particular, this Central Institute has made it clear that it will act with flexibility and opportunity, both in terms of magnitude and frequency of future adjustments, as conditions require.

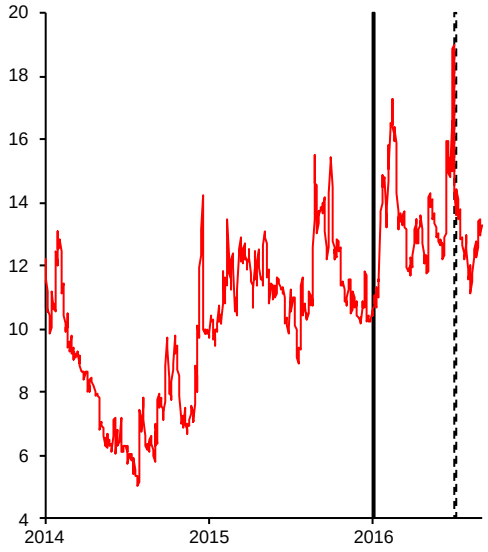
Chart 35
Exchange Rate and Implied Volatility

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 June 30, 2016.
Source: Banco de México.

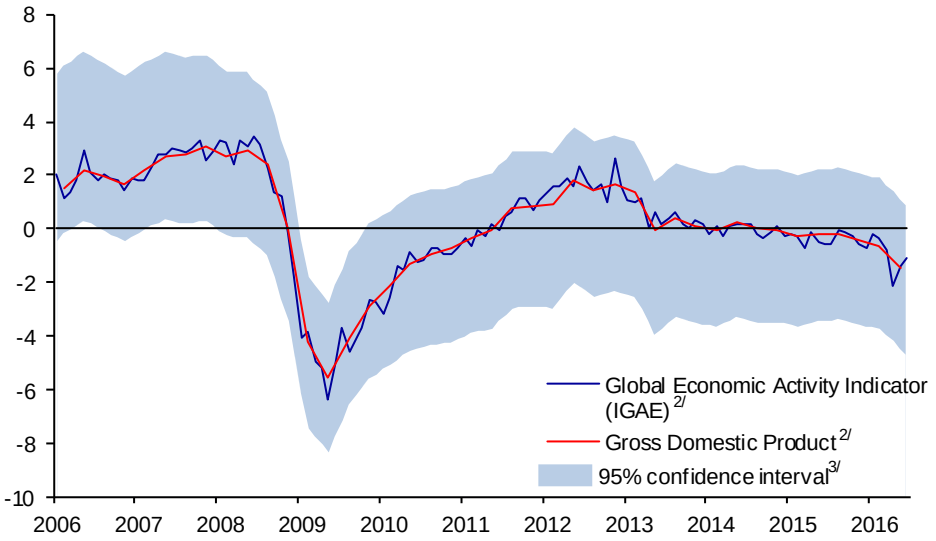
b) Current Option Implied Volatility [1/]
Percent



1/ Currency option implied volatility refers to one-month options. The black vertical line indicates January 1, 2016 and the dotted line indicates June 30, 2016.
Source: Bloomberg.

Delving in the elements considered by the monetary authority in its decisions, it stands out that in the second quarter of 2016 the output gap would seem to have remained negative (Chart 36). The labor market, on the other hand, presented mixed signals regarding its evolution, as it has been previously discussed. In particular, unemployment and labor informality rates went down in the reported quarter. However, the growth rate of the wage bill notably moderated, while, with the information as of the first quarter of the year, given the moderate growth rate in wages and the behavior of labor productivity, unit labor costs for the economy, as a whole, remained at low levels (Chart 37a). Still, in the manufacturing sector, in particular, they presented a growing trend, although they continue at low levels (Chart 37b).

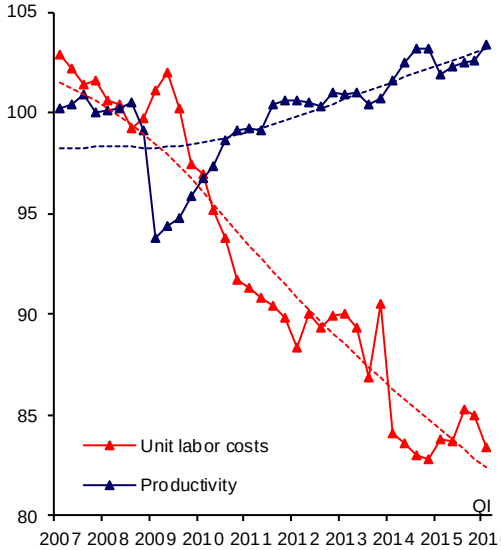
Chart 36
Output Gap Estimate [1/]
Percentage of potential output, s. a.



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

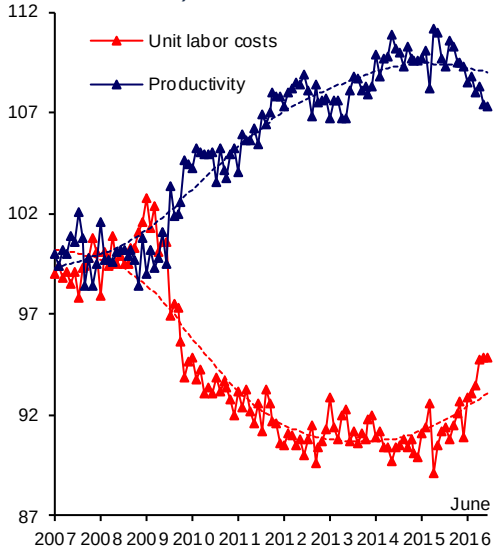
Chart 37
Productivity and Unit Labor Cost
Index 2008=100, s. a.

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

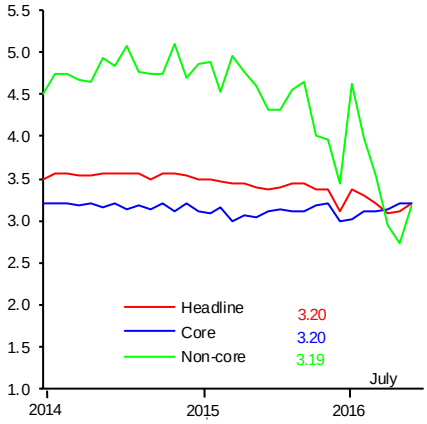


s. a. / Seasonally adjusted and trend series. The former is represented with a solid line, the latter, with a dotted line.
Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the Indicator of Industrial Activity of the Mexico's System of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

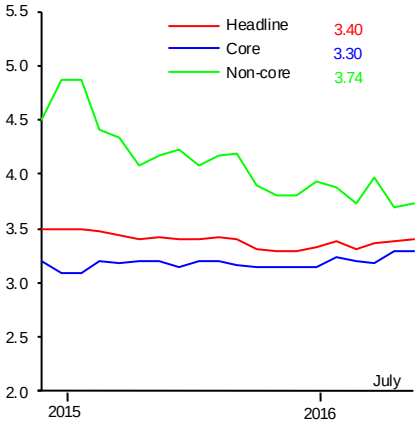
As to the performance of inflation expectations based on Banco de México's survey among private sector specialists, it is noteworthy that the median corresponding to the end of 2016 decreased, shifting from 3.3 to 3.2 percent, between the surveys of March and July 2016.[7] In particular, the median of core inflation expectations went up from 3.1 to 3.2 percent and that corresponding to implicit expectations in the non-core component adjusted from 4.0 to 3.2 percent between these two surveys (Chart 38a). Meanwhile, the median of inflation expectations for the end of 2017 remained at 3.4 percent during the same period. Specifically, the median of expectations of the core component went up from 3.2 to 3.3 percent, while implicit expectations in the non-core component adjusted from 3.9 to 3.7 percent between the referred surveys (Chart 38b).[8] Finally, longer-term inflation expectations remained at 3.3 percent in 2016 (Chart 38c).[9]

Chart 38
Inflation Expectations
Percent

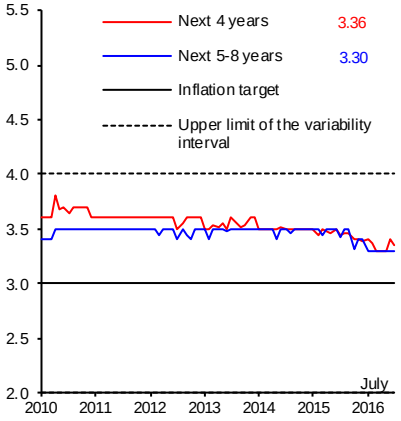
a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2016



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



c) Medians of Headline Inflation Expectations for Different Terms



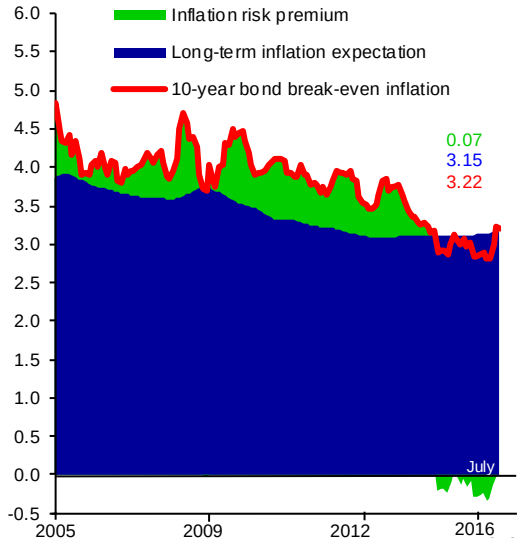
Source: Banco de México's Survey.

Inflation expectations implicit in 10-year market instruments remain stable around 3.0 percent, while the inflation risk premium slightly increased and lies around zero, after being at negative levels for a long period (Chart 39a).[10] Thus, the break-even inflation (the difference between long-term nominal and real interest rates) increased, but remains at levels close to historic lows (Chart 39b). The evolution of these indicators shows that holders of nominal interest rate instruments currently keep demanding a relatively low break-even inflation and inflation risk in Mexican government bonds.

[7] 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 surveys of March 18 and August 22, 2016.
[8] The median of headline inflation expectation for the end of 2017, based on the Banamex survey, went up from 3.3 to 3.4 percent between the surveys of March 18 and August 22, 2016.
[9] The median of long-term inflation expectations, based on the Banamex survey (for the next 3 to 8 years) remained at 3.3 percent between the surveys of March 18 and August 22, 2016.
[10] For a description of the estimation of long-term inflation expectations, see the Box "Decomposition of the 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.

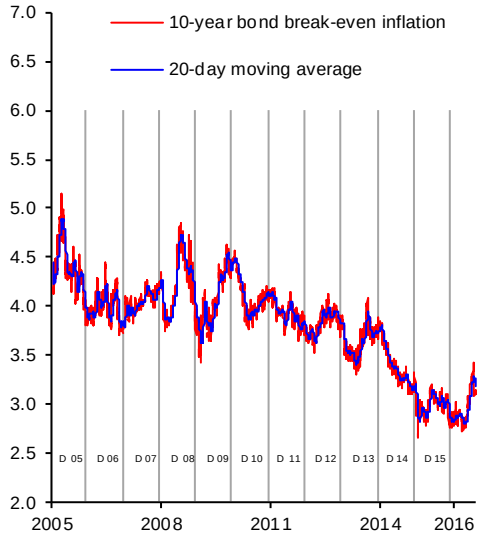
Chart 39
Inflation Expectations
Percent

a) Decomposition of Break-even Inflation and Inflation Risk



Source: Estimated by Banco de México.

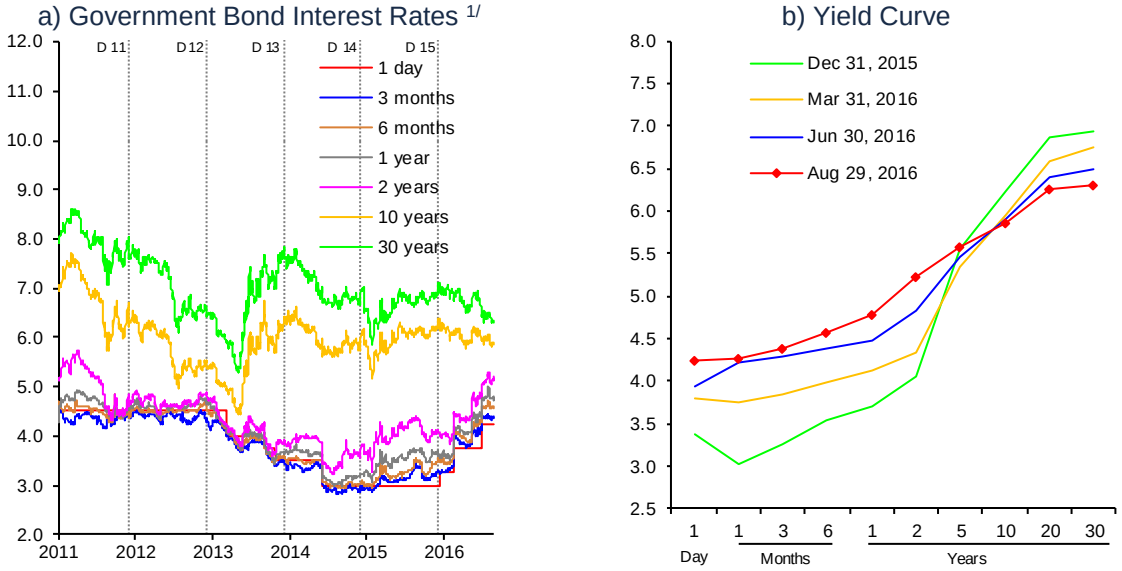
b) 10-year Bond Break-even Inflation



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

The evolution of the domestic financial markets was largely affected by the changes in volatility in international markets and by the economic policy actions taken in Mexico. In this way, the slope of the yield curve decreased considerably in the first quarter of the year, as a response to the monetary policy adjustment agreed on in an extraordinary meeting in February. Later on, as mentioned above, during May and June volatility increased in financial markets, the exchange rate depreciated and short- and medium-term interest rates increased. In this context, there was a monetary policy adjustment in June, which also led to a notable flattening of the yield curve, thus producing the desired effect. In particular, from April to mid-August, 3-month and 2-year sovereign bond rates increased by 50 and 90 basis points, from 3.9 to 4.4 percent and from 4.3 to 5.2 percent, respectively. In contrast, 10-year bond rate decreased by 10 basis points, from 6.0 to 5.9 percent, over the same period (Chart 40a). Thus, the slope of the yield curve (approximated by the difference between 10-year and 3-month rates) lowered notably, from 210 to 150 basis points in the referred period (Chart 40b). In this respect, it should be mentioned that the flattening of the yield curve can be interpreted as evidence that, despite an increment in the cost of money in the short term, inflation expectations remained well-anchored, which, as a consequence, contributes to play down the potential negative effect of the reference interest rate increase on investments in long-term financial instruments.

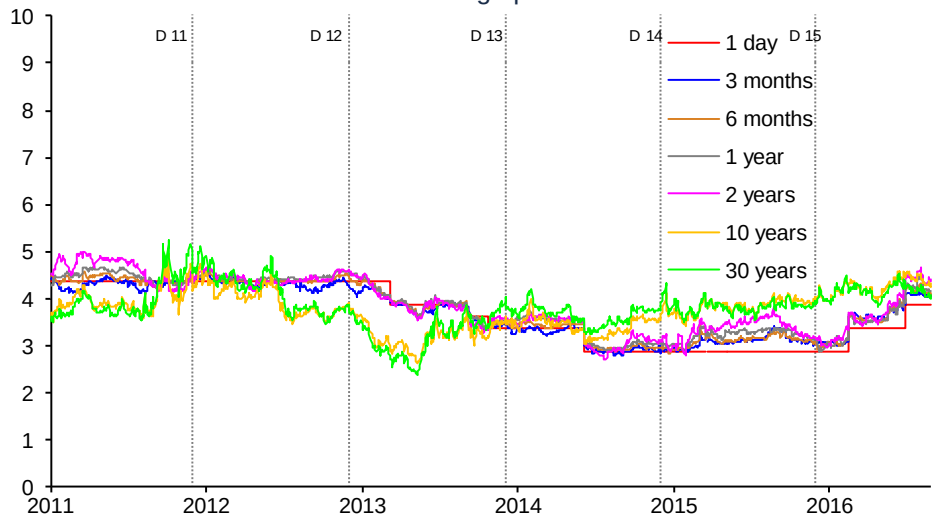
Chart 40
Interest Rates in Mexico
Percent



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, given that U.S. interest rates registered widespread decreases, the spreads between Mexican and U.S. interest rates slightly increased. Thus, the 10-year interest rate spread went up from 420 to 430 basis points from April to mid-August (Chart 41).

Chart 41
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.

Given a possibility that volatility in international financial markets may exacerbate, in view of the persisting geopolitical risks, the risk of facing low oil prices given the prevailing weak global growth and the consequences of the normalization process

of the Federal Reserve monetary stance, it is crucial to continue maintaining sound macroeconomic fundamentals in Mexico. This has been significantly contributed to by adjustments in the fiscal and monetary policies implemented throughout the year, as well as the anticipated renewal and an increment in the FCL for Mexico granted by the IMF. This, not only due to the available contingent financing that this credit line implies (USD 88 billion on the day of the renewal), but also due to the incentive generated to maintain a sound macroeconomic framework.[11] In any case, given the external uncertainty and the performance of the Public Sector Borrowing Requirements in recent years, additional consolidation measures of public finances, such as reaching a primary surplus starting from 2017, as proposed by the Ministry of Finance, have become indispensable to be able to absorb shocks from abroad in a more efficient manner and to encourage adequate balances of the current account. On the other hand, if future circumstances so require, this Central Institute will adjust its monetary policy stance with opportunity, flexibility and with the magnitude needed, with the aim to maintain inflation and its expectations well-anchored, which, in turn, will lead to greater financial stability.

[11] The Flexible Credit Line increased from SDR 47.3 to 62.4 billion. See the press release of the Foreign Exchange Commission as of May 27, 2016.

5. Inflation Forecasts and Balance of Risks

GDP Growth Rate: The Mexican economy has continued facing a complex external environment, which, in fact, has tended to become more adverse over time. Indeed, in addition to a continued stagnation of world trade and the weakness of the U.S. industrial sector, various geopolitical developments have accentuated uncertainty regarding the world economic outlook. In this context, although the recovery of the U.S. industrial production is still expected to foster Mexican exports over the next quarters, this boost is projected to be lower than the estimate presented in the previous Report.[12]

Additionally, although an economic slowdown in the second quarter of the year was already anticipated in the previous Report, it apparently turned out to be more pronounced than previously estimated. In this way, the intervals of the economic activity growth forecasts for 2016 and 2017 should be revised downwards, given the persistence of the adverse external environment and the effects of the GDP drop in the second quarter on the average level that this aggregate will register during the year. Thus, the Mexican GDP is forecast to grow between 1.7 and 2.5 percent in 2016. This interval compares to that of 2.0 and 3.0 percent published in the previous Report and is narrower, given that more information is available. Likewise, the forecast interval for 2017 is revised from a growth of 2.3 to 3.3 percent published in the previous Report to that of 2.0 to 3.0 percent (Chart 42a). In this respect, it should be noted that the structural reforms are expected to contribute to the recovery of the private domestic expenditure and to gradually generate a more favorable environment for expansion that would lead to higher growth rates of consumption and investment.

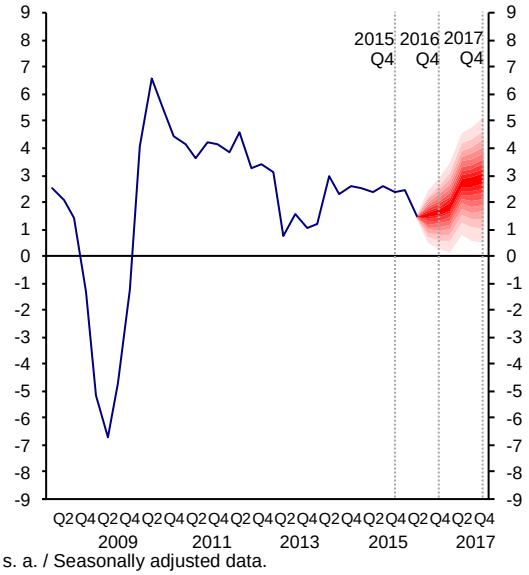
Employment: Despite the downward revision of the GDP growth forecasts for 2016, the strong dynamism observed in the number of IMSS-affiliated jobs in recent months implies that there will be no adjustment of this indicator's forecast interval for that year with respect to the last Report. Thus, for 2016 an increment between 590 and 690 thousand IMSS-affiliated employments is still anticipated. Still, a lower economic growth foreseen for 2017 does imply a downward revision in growth expectations for the number of IMSS-insured jobs for that year. In particular, for 2017, the forecast interval is revised from 630 to 730 thousand jobs to 610 to 710 thousand employments, relative to the estimate in the previous Report.

Considering the described growth expectations, the output gap is still estimated to remain negative in the forecast horizon, and, in this context, no aggregate demand-related pressures on prices are expected (Chart 42b).

[12] Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in August 2016. For 2016, U.S. industrial production is expected to decline by 0.9 percent, which is lower than the annual percentage change of -0.4 percent estimated in the last Quarterly Report. For 2017, growth of 2.0 percent is foreseen, with respect to 2.3 percent announced in the previous Quarterly Report.

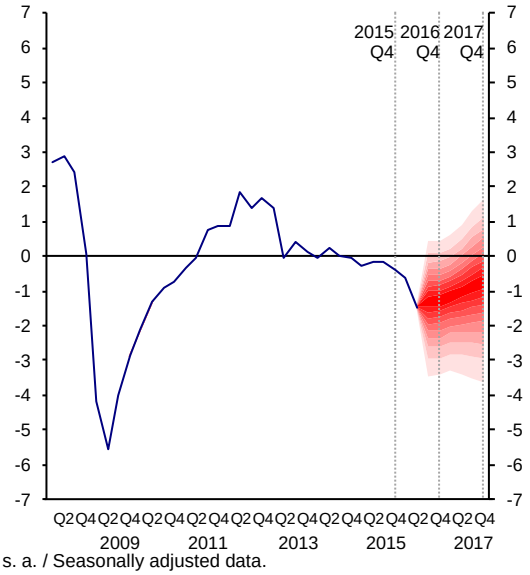
Chart 42
Fan Charts: GDP Growth and Output Gap

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.

Current Account: The expected current account balance for 2016 and 2017 implies a greater deficit as a percentage of GDP, as compared to those observed in 2014 and 2015 of 2.0 and 2.9 percent, respectively. In particular, for 2016, deficits in the trade balance and the current account of USD 16.0 and 32.4 billion are anticipated, respectively (1.5 and 3.1 percent of GDP, in the same order). For 2017, deficits in the trade balance and the current account are estimated to be USD 16.0 and 35.6 billion, respectively (1.4 and 3.2 percent of GDP, in the same order).

Among downward risks associated to the growth forecast, the following stand out:

i. The possibility that the weak performance of the Mexican exports may persist. They could be affected by a smaller than expected economic growth both of the global economy and of the U.S. In the particular case of the U.S., the impact can be generated, among other factors, by the uncertainty related to the electoral process and its implications. Besides, Mexican exports may go down due to lower crude oil prices and/or a further reduction in the oil production platform.

ii. The political and economic landscape prevailing in the U.S. could also affect the growth of the Mexican economy, by reducing investment in our country.

Among upward risks to growth, the next should be listed:

i. The possibility that the structural reforms may affect economic growth favorably and faster than anticipated.

ii. That consumption will register a more pronounced and lasting sustained reactivation, which could be contributed to, among other factors, by a more notable improvement in the labor market, by a persisting dynamism of workers' remittances and the reestablishment of higher consumer confidence levels.

Inflation: Over the following months, annual headline inflation is estimated to gradually go up, locating very close to 3 percent at the end of 2016 and with an average below this figure, for the year as a whole. This forecast contemplates the formula used by the Ministry of Finance to set maximum gasoline prices, as well as the evolution of this fuel's international references. The effect of the above is partially offset by the favorable impact on inflation by the reduction in the L.P. gas prices announced by the same Ministry on August 14, 2016. Meanwhile, annual core inflation is expected to increase gradually throughout 2016, closing the year at levels near 3 percent. For 2017, both headline and core inflation are anticipated to lie around the permanent inflation target (Chart 43 and Chart 44).

Among upward risks to inflation, the following should be pointed out:

i. That derived from uncertainty related to the outcome of the U.S. electoral process and its implications, the possibility of weaker oil prices, a deterioration of the current account deficit, and the resumption of the normalization of the Federal Reserve monetary stance, the national currency may further depreciate, which, in turn, could impact inflation expectations and its performance.

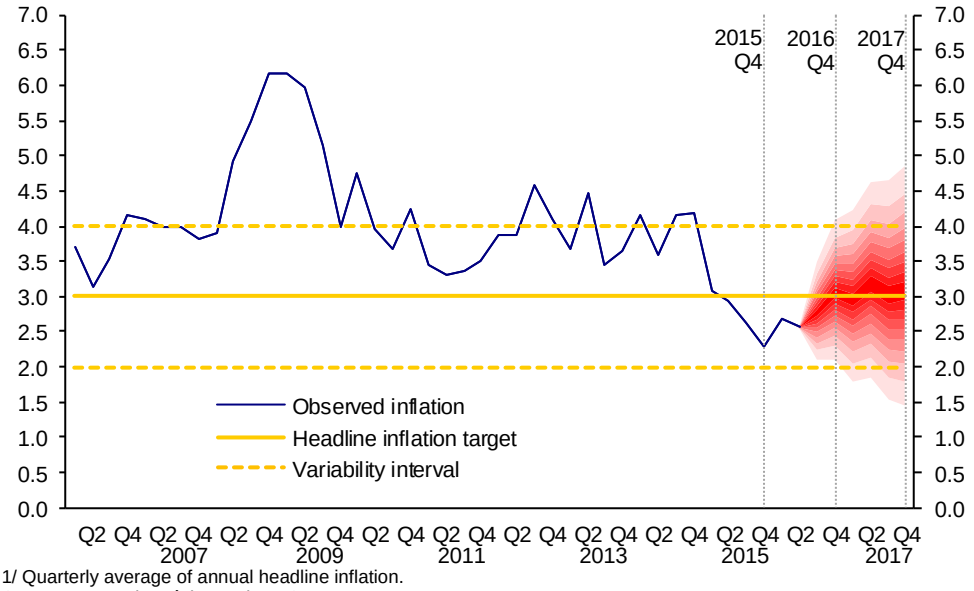
ii. Increments in agricultural products' prices, even though their impact on inflation would tend to be transitory.

Among downward risks, the next should be listed:

i. Further reductions in prices of some widely used inputs, such as telecommunication services, as a consequence of the structural reforms.

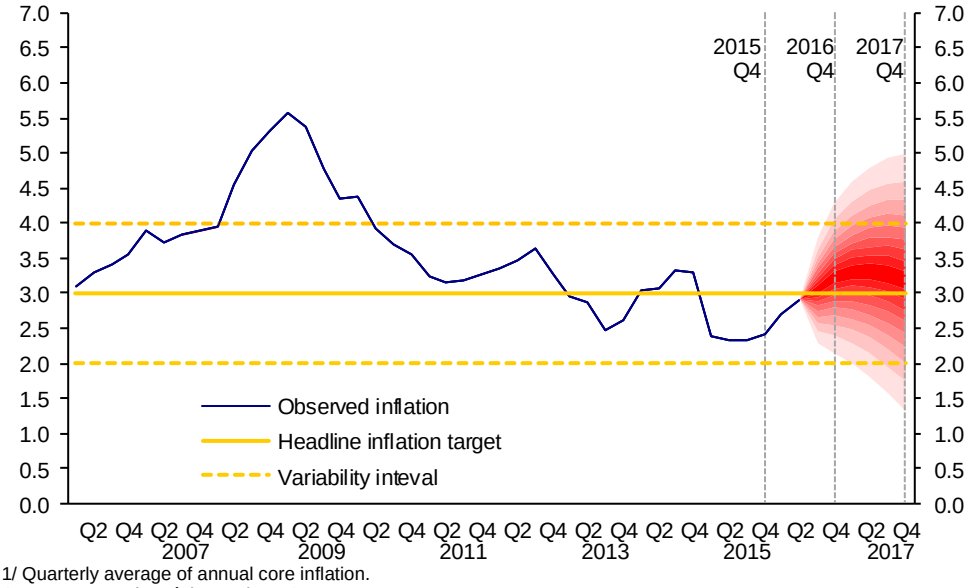
ii. That in the future the dynamism of the national economy will remain lower than anticipated, which would lower the possibility of aggregate demand-related pressures on inflation.

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



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

Chart 44
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 information presented in this Report, in the future the Board of Governors will closely monitor 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. Likewise, it will be watchful of the monetary position of Mexico relative to the U.S., without overlooking the evolution of the output gap. This will be done in order to be able to continue

taking the necessary measures to consolidate the efficient convergence of inflation to the 3 percent target, with all flexibility, and whenever and to the extent that conditions may demand so.

In view of the complex international environment, in which some risks have already materialized, the world economic activity could further deteriorate, due to the consequences of these adverse events or due to new geopolitical developments, among which the possible outcome of the U.S. electoral process stands out. In this context, measures to strengthen and to make macroeconomic fundamentals sounder should continue to be taken. Thus, the steps announced by the Federal Government regarding the public finances are imperative, as their comprehensive implementation would not only allow having sound public finances, but would also mitigate pressures on the external accounts. Likewise, even though the adoption of measures that in the medium and long terms would strengthen the domestic sources of growth is a permanent obligation in order to improve the welfare of the population, encouraging them is indispensable given the challenges from abroad faced by Mexico. In this sense, it is crucial to continue correctly implementing the structural reforms, as they would foster greater productivity and competitiveness of the country.

Furthermore, as stated in previous Reports, it is also fundamental to have a solid rule of law and to guarantee legal certainty. Modifying the institutional framework in this direction will not only promote an environment of greater certainty that should encourage more investment in Mexico and allow the structural reforms to achieve their full potential, but will also align the incentives economic agents face so as to reduce rent-seeking behavior and boost value-creating activities.

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