

### **PRESENTATION**

This document is a compilation of four Quarterly Reports of 2015, released in line with Article 51 of Banco de México's Law and in accordance with the calendar published in advance by this Central Institute.

These Quarterly Reports address inflation, the evolution of economic activity and the performance of other economic indicators of Mexico over the referred period. Likewise, the monetary policy conduction in the reference year, as well as other activities of Banco de México in each respective period are discussed.

In addition, this document includes a statistical appendix with relevant annual data of the Mexican economy and an annex reporting the relation between Mexico and some international bodies and forums.

We trust that this compilation will provide the public with an easier access to the relative data of the reference year, by bringing this information together in a single document.

### **FOREWARNING**

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

Figures are preliminary and subject to changes. Although data are consistent within each section, figures from different sections may vary because they have been estimated according to different sources and methodologies.

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### Section I: Quarterly Report January - March 2015

### 1. Introduction

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

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

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

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

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

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

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

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

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

### 2. Recent Development of Inflation

### 2.1. Inflation

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

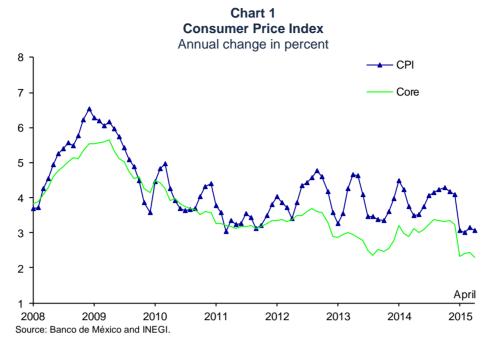
Table 1
Consumer Price Index, Main Components and Trimmed Mean Indicators

	Annual change in percent							
		013	•		014		2015	
	III	IV		II	III	IV	I	April
CPI	3.44	3.65	4.16	3.59	4.15	4.18	3.07	3.06
Core	2.46	2.61	3.03	3.07	3.32	3.30	2.39	2.31
Merchandise	2.58	2.09	2.91	3.10	3.46	3.57	2.56	2.65
Food, beverages and tobacco	3.44	2.92	4.65	4.81	5.32	5.35	3.15	2.89
Non-food merchandise	1.90	1.43	1.51	1.72	1.96	2.13	2.07	2.45
Services	2.36	3.04	3.14	3.04	3.21	3.08	2.26	2.03
Housing	2.23	2.19	2.24	2.20	2.11	2.14	2.10	2.12
Education (tuitions)	4.46	4.42	4.36	4.42	4.29	4.30	4.36	4.40
Other services	1.87	3.52	3.73	3.54	4.06	3.72	1.80	1.23
Non-core	6.60	7.02	7.79	5.29	6.89	6.99	5.17	5.46
Agriculture	3.90	4.62	4.33	0.94	6.53	8.04	8.39	9.86
Fruit and vegetables	-2.14	8.77	4.54	-6.86	1.48	-0.73	-1.39	4.74
Livestock	7.53	2.13	4.12	5.49	9.33	13.43	14.15	12.64
Energy and government approved fares	8.32	8.57	9.99	8.09	7.11	6.35	3.30	2.89
Energy	8.43	8.69	9.87	8.92	7.92	7.12	3.82	3.12
Government approved fares	7.75	8.27	10.23	6.64	5.71	4.93	2.32	2.48
Trimmed Mean Indicator 1/								
CPI	3.41	3.17	3.67	3.64	3.72	3.78	3.07	2.92
Core	2.76	2.60	2.92	3.05	3.13	3.18	2.81	2.78

<sup>1/</sup> Prepared by Banco de México with data from INEGI.

Source: Banco de México and INEGI.

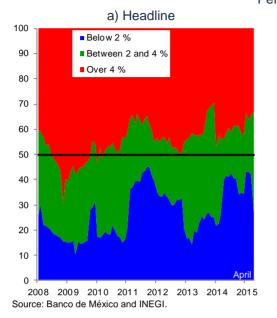
See Box 1 "Relative Price Changes and Inflation Convergence towards the 3 Percent Target", Inflation Report April – June 2013. Also see Box 3 "Anchoring of Medium- and Long-term Inflation Expectations in light of Adverse Supply Shocks", Inflation Report January – March 2013.

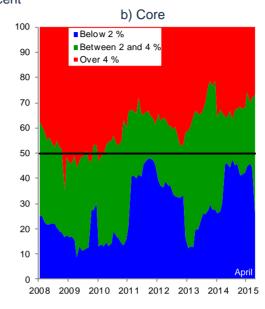


To illustrate that the decrease in headline and core inflation in the reference quarter was a widespread phenomenon and that it reflects the continuation of the process of inflation convergence to its permanent 3 percent target, the evolution of some indicators, which provide further information in that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

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

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





A lower growth rate of headline and core inflation was also reflected in the dynamics of their medium-term trend indicators. These indicators are usually less affected by the changes in relative prices, reason for which they represent a good guide regarding the consolidation of the inflation trend at low levels. In particular, one of these trend measures is the Trimmed Mean Indicator, which is obtained if the generic items, whose prices presented extreme variations (both highest and lowest) are excluded from the calculation of headline inflation. Thus, when the contribution of these variations is excluded, the changes in relative prices of some goods or services, which tend to have transitory effects on inflation, are prevented from affecting its trend indicator. Hence, the evolution of this indicator is mainly due to generalized price changes (see Box 1). Indeed, the Trimmed Mean Indicators for headline and core inflation show that lower inflation observed in recent months has resulted from a generalized reduction in the price growth rate. In this way, the Trimmed Mean Indicator for headline inflation prevailed at 3 percent in the first months of 2015, while that of core inflation lied close to 2.80 percent (Chart 3 and Table 1). Thus, in accordance with these indicators, the fact that inflation practically lies at 3 percent currently is not due to the evolution of a few prices, but rather of a great majority of goods and services in the economy.

To complement the analysis of inflation trend indicators with the data that would allow to timely identify changes in the inflation dynamics, the evolution of annualized monthly inflation (seasonally adjusted) is analyzed. This indicator, based on the monthly change of the price index, is not affected by the arithmetic effect of the comparison base that contains the annual inflation indicator, and, therefore, it presents data regarding the dynamics of inflation on the margin. For example, in early 2014, the referred indicators, both for headline and core inflation, which are already adjusted for any seasonal effect, considerably increased due to the relative price changes associated to the fiscal modifications in force since that year.

However, during the subsequent months they resumed the levels similar to those before the referred change in relative prices and later presented a lateral trend, suggesting that after the price adjustment at the beginning of the year no second round effects, which could affect the price determination process in the economy, were observed. During the second half of 2014 and in 2015 so far a downward trend was registered in these two indicators to levels of around 3 percent (Chart 4).

# Box 1 Trimmed Mean as a Measure of Inflation Trend

### 1. Introduction

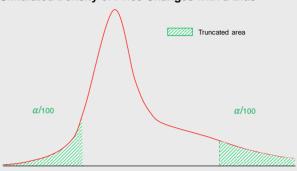
This Box describes the concept of the trimmed mean of inflation, which is one of the indicators repeatedly used by central banks to analyze the trajectory of this variable in the medium term. This indicator focuses the attention of the inflation dynamics on the elements that affect its evolution at the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

### 2. Trimmed Mean Indicator

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

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

# Chart 1 Simulated Density of Price Changes with a Bias



Source: Prepared by Banco de México.

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

### 3. Methodology of Calculating the Trimmed Mean

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

- 1. Calculation and order of the monthly price change: the percentage change  $(\pi_t^i)$  of the price index (seasonally adjusted) of each item N of the basket in the period t  $(l_t^i)$  is calculated with respect to the period t-1. Then, these percentage changes are arranged from the smallest to the highest value.
- 2. Weights' accumulation: when the order in the monthly changes has been established and the seasonal adjustment of inflation has been done  $(\pi_t^1 < \cdots < \pi_t^i < \ldots < \pi_t^N)$ , their respective weights  $p_t^i$  are accumulated, which represent the share of each generic item in the CPI basket. Thus, the i-th component will be assigned an accumulated weight  $\sum_{i=1}^i p_t^i$ .
- 3. Trimming of generic items: to trim the items that presented extreme price variations, one should determine the percentage α of the basket that one is prepared to discard from each distribution tail (Chart 1). In this way, by means of the accumulated sum of p\_t^i, the generic items, that lie before this sum exceeds α percent and those lying after it accumulates 1-α percent, are excluded. Thus, a set C of components that represent approximately 1-2α

percent of the basket and that lie in the center of the distribution are obtained. 1

4. Calculating the weights related to the monthly changes of generic items: based on the weights  $p_i$  that are used for the aggregation of the price index, the weights  $(\omega_t^i)$  of the variations  $\pi_t^i$  are constructed .<sup>2</sup> In particular, given that the price index is the weighted average of the generic items' indices, the next is obtained:

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

Thus, inflation can be expressed as:

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

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

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

where:

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

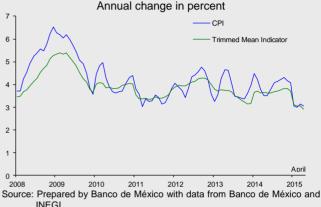
5. Calculating the Trimmed Mean Indicator: using the components contained in  $\mathcal{C}$  and their respective weights  $\omega_t^i$ , the weighted average of the changes, represented by the trimmed mean  $(\pi_t^T)$  is estimated in the period t.

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

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

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





### 4. Final Remarks

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

### References

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

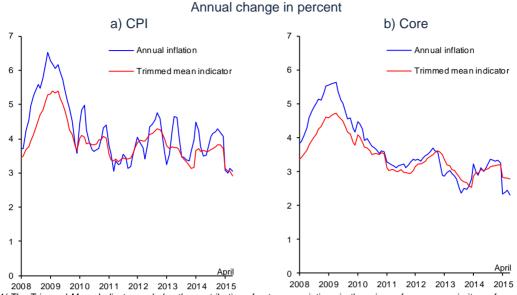
Bryan, M. and S. Cecchetti, (1994). "Measuring core inflation", in N. Gregory Mankiw, ed., Monetary Policy, University of Chicago Press.

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

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

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

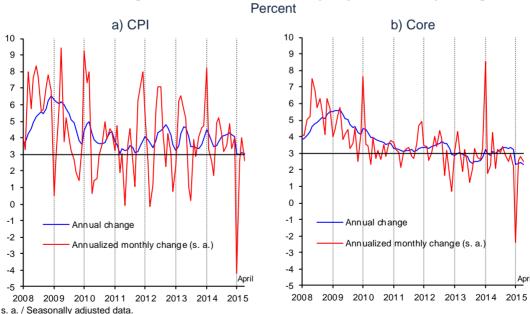
Chart 3
Price Indices and Trimmed Mean Indicators 1/



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

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

Chart 4
Annual Change and Annualized Seasonally Adjusted Monthly Change



Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

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

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

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

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

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

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

Chart 5
Core Price Index

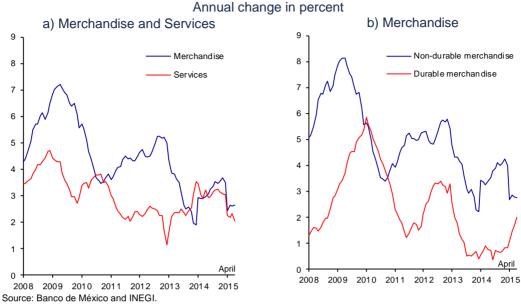
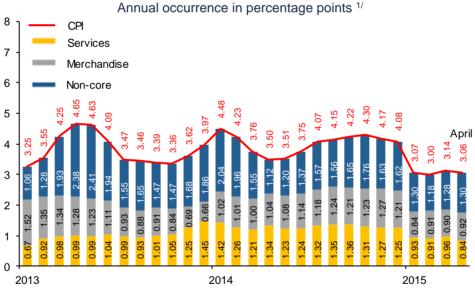


Chart 6 Consumer Price Index



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

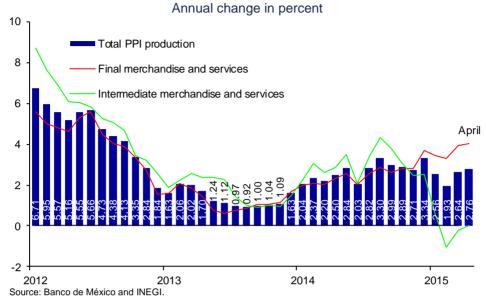
On the other hand, the contribution of non-core inflation to headline inflation also decreased in recent months (Chart 6). Indeed, this indicator shifted from an average annual change of 6.99 to 5.17 percent between the fourth quarter of 2014 and the first one of 2015, locating at 5.46 percent in April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

- The average annual change rates of residential electricity prices were reduced due to the 2 percent decrease in regular rates in January 2015 and to lower rates of high consumption tariffs, which, in turn, were a consequence of the dynamics in fuel prices used for their production, in particular, fuel oil and natural gas. Thus, average annual change rates of residential electricity costs shifted from 4.08 to 0.07 percent between the last quarter of 2014 and the first one of 2015. It should be noted that energy price decreases not only favorably affected inflation directly, but also indirectly, via lower costs for businesses. Thus, in the first quarter of 2015, the average annual change rate of electricity rates for industrial use was -8.68 percent, while in the previous quarter it was 2.67 percent. The fall in high tension rates, which in the reference quarter observed an average annual decrease of 11.56 percent, stood out in the referred reduction.
- The average gasoline price went down as a result of reductions in this
  fuel prices in the cities of the Northern border, as well as due to lower
  increments with respect to last year in the cities not located at the
  Northern border, as this price has remained stable since January 1, 2015.
  Thus, the average annual growth rate of the gasoline price decreased
  from 8.18 to 5.23 percent between the fourth quarter of 2014 and the first
  quarter of 2015
- The average annual change of natural gas for domestic use reduced, as a result of its lower price at the international level, changing from an average annual change of 3.80 to -12.65 percent between the last quarter of 2014 and the first one of 2015. In this period, the average annual change of the price of the LP gas for domestic use went down from 9.00 to 8.13 percent, while its price registered a sole increase of 1.92 percent in January 2015.

### 2.2. Producer Price Index

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

# Chart 7 Producer Price Index



### 3. Economic and Financial Environment

### 3.1. International Environment

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

### 3.1.1. World Economic Activity

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

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

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

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

a) Private Consumption and
 Savings Rate

Annual change in percent, s. a., and in percent of personal disposable income

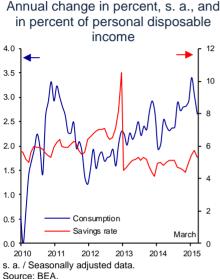
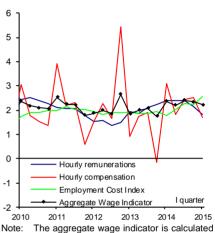


Chart 8
U.S. Economic Activity
b) Industrial and Manufacturing
Production

Quarterly change of 3-month moving average annualized in percent, s. a.



c) Wage Indicators Annual change in percent



based on the first main component of the other three wage indicators.

Source: Prepared by Banco de México with data from BLS, Haver Analytics and Goldman

Sachs

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

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

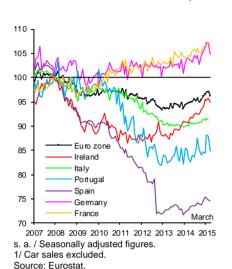
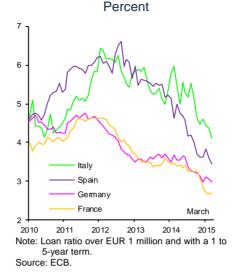
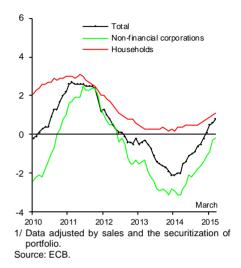


Chart 9
Euro Zone Economic Activity
b) Interest Rates of Bank Credit to
Non-financial Corporations



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



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

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

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

**Emerging Economies' Economic Activity** a) Industrial Production b) Exports Annual change of 3-month Annual change of 3-month moving average in percent moving average in percent 35 Brazil 70 Brazil China China 60 30 Korea Korea 50 25 India India Mexico 40 20 Mexico Russia 30 Russia 15 South South Africa Africa 20 10 10 5 0 0 -10 -5 -20 -10 -30 2010 2011 2012 2013 2014 2015 2010 2011 2012 2013 2014 2015 Source: Haver Analytics.

Chart 10

### 3.1.2. Commodity Prices

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



### 3.1.3. Inflation Trends Abroad

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

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

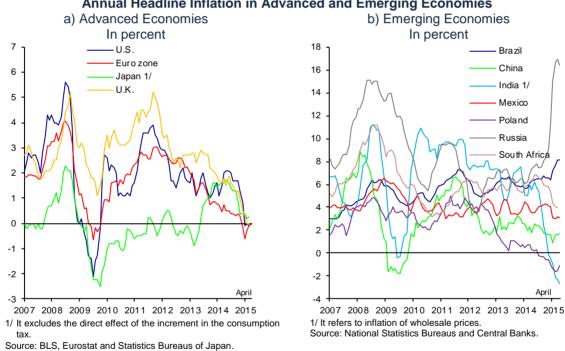
As regards the Euro zone, the change in consumer prices stopped being negative, even when risks of deflation cannot be ruled out. After reaching a minimum of -0.6 percent in January, annual headline inflation lied at 0 percent in April, given a smaller annual fall in energy prices and a greater growth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

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

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

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

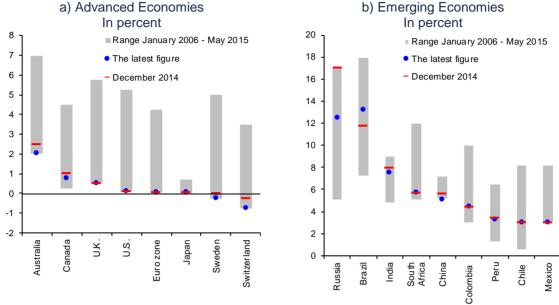
Chart 12
Annual Headline Inflation in Advanced and Emerging Economies



### 3.1.4. Monetary Policy and International Financial Markets

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

Chart 13
Monetary Policy Rates in Advanced and Emerging Economies



Source: Haver Analytics

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

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

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

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

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

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

Yield Curve of Government Securities in Advanced Economies Percent 2.0 Germany Finland 1.5 France The Netherlands Switzerland 1.0 0.5 0.0 -0.5 -1.0 30 years years 10 years 20 years years year

Chart 14

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

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

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

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

Chart 15 **Financial Indicators of Emerging Economies** a) Exchange Rate b) Sovereign Spreads c) 10-year Bond Yields Index 01/01/2013=100 In basis points Percent 250 18 450 Brazilian real Brazil 1/ Chile 1/ Chile 240 Czech koruna Depreciation Colombia Colombia Korea 16 230 Chilean peso against the USD Peru Indonesia 220 Colombian peso Poland Republic Mexico 14 Korean won Poland Russia 2 210 350 Mexican peso 200 12 Peruvian sol 190 Polish zloty 180 10 Russian ruble Turkish lira 170 250 8 160 150 6 140 130 120 110 100 0 90 50 J M M S N М 2013 2015 2013 2014 2015 Source: Bloomberg. Source: Bloomberg 1/ It refers to 9-year bond. 2/ It refers to 8-year bond. Source: Bloomberg.

### 3.2. Evolution of the Mexican Economy

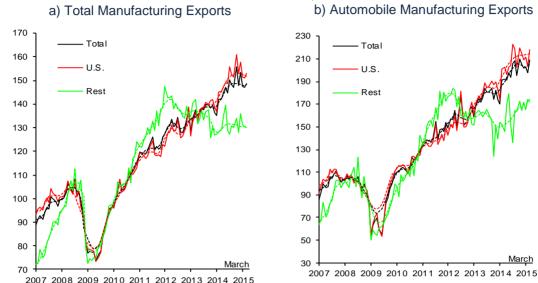
### 3.2.1. Economic Activity

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

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

Chart 16 Indicators of Exports

Index 2008=100, s. a.



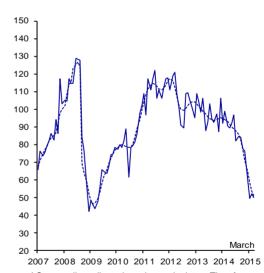
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line. Source: Banco de México with data from Working Group on Foreign Trade Statistics.

### c) Non-automobile Manufacturing Exports

# Total 140 U.S. Rest 120 100 90 80 70 2007 2008 2009 2010 2011 2012 2013 2014 2015

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

### d) Oil Exports



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

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

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

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

- ii. In this context, some consumption determinants performed favorably. Specifically, over the first three months of 2015, workers' remittances showed a positive trend, although characterized by certain volatility (Chart 18a). Likewise, as will be seen further on in this Report, data as of the first quarter of 2015 suggest a slight rebound in the growth rate of consumer credit, as compared to late 2014 (see Section 3.2.3).
- iii. Despite the above, some consumption determinants still have not clearly improved, reason for which a risk that the recent recovery of consumption could lose its dynamism still prevails. In particular, the real wage bill of workers in the economy remained at low levels, even though in the reported quarter it increased with respect to the previous one (Chart 18b). Likewise, although the consumer confidence index showed progress at the beginning of the year, in March and April it weakened again (Chart 18c).

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

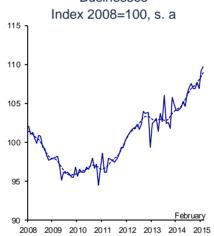


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: INEGI.

# Chart 17 Consumption Indicators

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



2008 2009 2010 2011 2012 2013 2014 2015 s.a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: Monthly Survey of Commercial Businesses, EMEC, INEGI. c) Total ANTAD Sales Index 2003=100, s. a.



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

Source: Prepared by Banco de México with ANTAD

a) Workers' Remittances

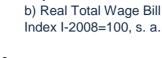
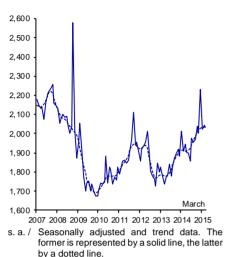


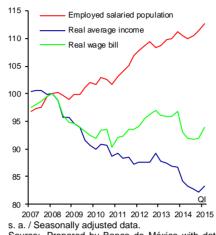
Chart 18 **Consumption Determinants** 

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



Source: Banco de México

USD million, s. a.





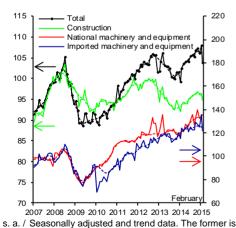
Source: Prepared by Banco de México with data from the National Survey on Occupation and Employment (ENOE), INEGI.

Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: National Consumer Confidence Survey (ENCO), INEGI and Banco de México.

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

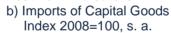
a) Investment and its Components Index 2008=100, s. a.

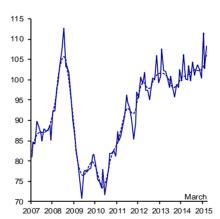


represented by a solid line, the latter by a dotted

Source: Mexico's System of National Accounts, INEGI.

### Chart 19 **Investment Indicators**





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

Source: Working Group on Foreign Trade Statistics.

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

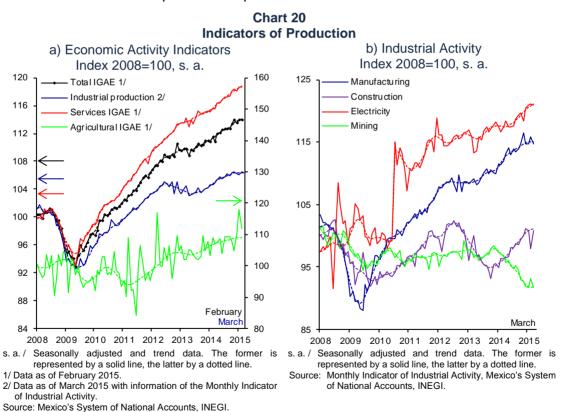


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

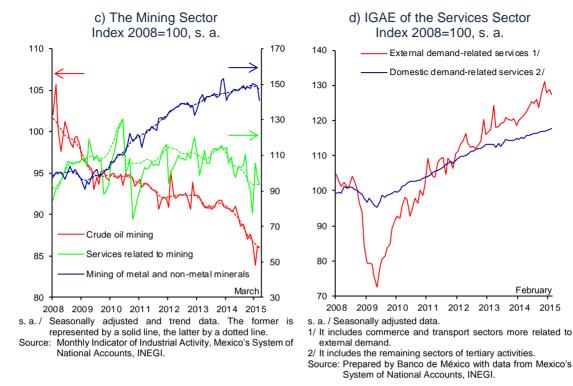
Source: Mexico's System of National Accounts, INEGI.

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

- i. Within industrial activity, manufacturing production presented a weak growth trajectory (Chart 20b). Mining observed a negative trend, as a reflection of the decrease in the level of oil production in the first months of 2015, as well as a lower activity in the services related to this sector (Chart 20c). Furthermore, construction halted the recovery presented in the previous quarters. Lastly, the electric power industry registered a growing trajectory.
- ii. The moderate growth of the services' sector in the first months of 2015 derived from an increase in those services related to domestic demand, while, in line with the decrease in the dynamism of external demand, the services related to foreign trade presented a weak performance (Chart 20d).
- iii. The monthly seasonally adjusted growth of agricultural activities over the first two months of 2015, with respect to the average reached in the fourth quarter of 2014, largely derived from a larger cultivated area in the autumn-winter cycle, as a result of adequate levels of water storage in the main dams in the North of the country and greater production of the main perennial crops.



2015



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

s. a. / Seasonally adjusted data.

Chart 21 **Gross Domestic Product** a) Quarterly Change b) Annual Change Percent, s. a. Percent 3 6 2 -2 -2 -3 -4 -6 Original Season ally adjusted -5 2007 2008 2009 2010 2011 2012 2013 2014 2015 2007 2008 2009 2010 2011 2012 2013 2014 2015

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

Chart 22

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

**Trade Balance and Current Account USD** million a) Trade Balance b) Current Account 2,000 2,000 -2.000 -2,000 -4,000 -4,000 -6,000 -6,000 -8.000 -8,000 -10,000 -10.000 -12,000 2007 2008 2009 2010 2011 2012 2013 2014 2015 2007 2008 2009 2010 2011 2012 2013 2014 2015 Source: Working Group on Foreign Trade Statistics. e/ Estimated by Banco de México. Source: Banco de México.

# 3.2.2. Labor Market

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

In particular, it stands out that:

- i. The number of work-post affiliates to the IMSS kept presenting a growing trajectory (Chart 23a).<sup>3</sup> In this respect, it is possible that, in part, it may be a reflection of a greater entry of informal workers to the formal sector. In this context, total employment of the economy, despite an expansion in the first quarter, still does not present a clear recovery.
- ii. In the first quarter of 2015, both national and urban unemployment rates continued with a downward trend, although they are still above the precrisis levels (Chart 23b).
- iii. The reduction in unemployment rates occurred at the same time as the labor participation rate tended to increase in recent months (Chart 23c). Thus, in the first quarter of 2015 the (seasonally adjusted) national unemployment rate showed an average level of 4.3 percent, which was lower than the 4.5 percent observed in the last quarter of 2014.
- iv. The indicators of employment in the informal sector and labor informality, which had been on a downward trend, stopped decreasing (Chart 23d).

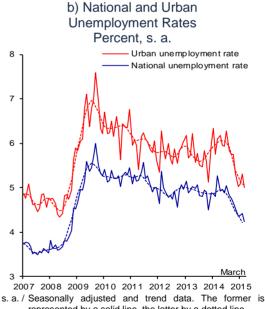
Chart 23
Labor Market Indicators

# a) Work-post Affiliates to IMSS, Employed Population and Total IGAE Index 2012=100, s. a. IMSS-registered job positions 1/ Total IGAE Employed population Total IGAE 100 97 94 91

2007 2008 2009 2010 2011 2012 2013 2014 2015 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).



s. a./ Seasonary adjusted and iterio data. The former is represented by a solid line, the latter by a dotted line.

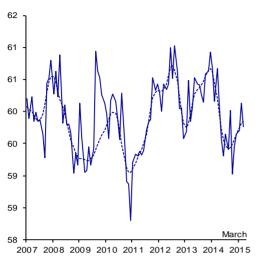
Source: National Survey on Occupation and Employment (ENOE), INEGI.

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



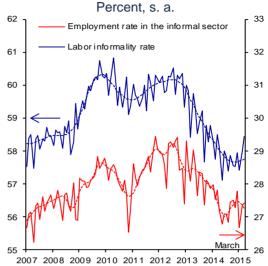


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

1/ Percentage of economically active population (EAP) with respect of the population of 15 years old and older.

Source: National Survey on Occupation and Employment (ENOE), INEG.

# d) Employment in the Informal Sector <sup>1/</sup> and Labor Informality <sup>2/</sup>



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

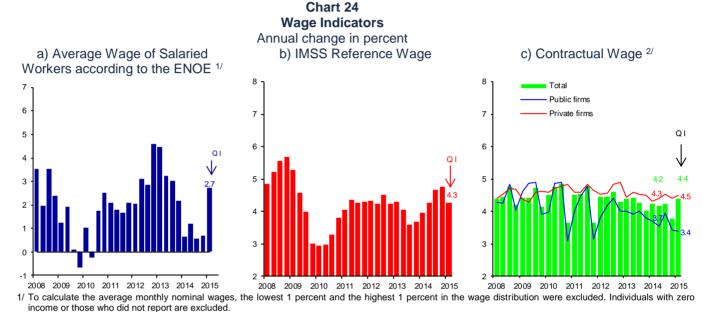
Source: National Survey on Occupation and Employment (ENOE). INEGL.

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

- i. During the first quarter of 2015, the growth rate of the average wage of total employed workers in the economy persisted at low levels (Chart 24a).
- ii. In the period covered by this Report, the announced increment of the IMSS reference wage of work-posts affiliated in this institute (4.3 percent) was lower than that in the previous quarter (4.7 percent in the fourth one of 2014, Chart 24b).
- iii. In the first quarter of 2015, contractual wages negotiated by firms under federal jurisdiction presented a growth rate similar to that observed in the same quarter of the previous year (4.4 percent in the first one of 2015, with respect to 4.2 percent in the first one of 2014, Chart 24c). This performance resulted from the fact that, on the one hand, the negotiations by public firms in the first three months of 2015 resulted in an average increment lower than that in the same period of last year (3.4 percent in the first quarter of 2015, with respect to 3.7 percent in the same period of 2014), while, on the contrary, the negotiations of private firms led to an average of wage increments higher than those in the first quarter of 2014 (4.5 percent in the period of January March 2015, with respect to 4.3 percent in the first quarter of 2014). A similar result persists with the data of April 2015, according to which contractual wages registered an annual

change similar to that of the same month in 2014 (4.1 percent in April 2015, with respect to 4.0 percent in April 2014).<sup>4</sup>

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



2/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.
Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE)

# 3.2.3. Financial Saving and Financing in Mexico

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

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

The annual growth rate of the monetary base increased as compared to the previous quarter, affected by the temporary impact of the intensification of election

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

campaigns, as well as by higher demand for money by the public, due to the Easter vacation period.<sup>5</sup> Furthermore, the high growth rate of the monetary base in recent quarters also seems to have been affected by adjustments in the regulatory and fiscal framework in 2014, which could have led some economic agents to use cash instead of other means of payment (see Box 2).

<sup>5</sup> The monetary base is defined as the sum of currency in circulation plus current account bank deposits in Banco de México.

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

### 1. Introduction

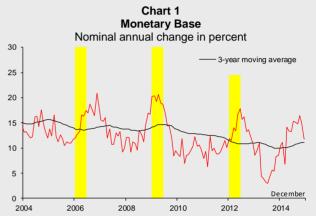
In 2014, the monetary base increased its growth rate in an environment in which the growth rate of economic activity recovered moderately, inflation went up to levels slightly above 4 percent and interest rates reached historical lows. Given the role of Banco de México as an issuer of currency used in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

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

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

# 2. Recent Evolution of the Monetary Base

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



Source: Banco de México.

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

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

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

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

<sup>&</sup>lt;sup>1</sup> See Box 3 of the Inflation Report, October - December 2006.

- ii. Perception of greater supervision. The greater auditing attributions set forth in the Tax Reform may have led some individuals to use banknotes and coins instead of electronic means of payment to ensure, for example, that their expenses paid by credit cards are congruent with their declared fiscal income.
- iii. Increase of VAT in the border region. The equalization of the VAT in the border region from 11 to 16 percent could have generated incentives to increase the use of cash to avoid paying the corresponding tax. This modification of the fiscal framework could have derived from a rise in demand for cash that was proportionally greater in cities that are close to the border, since they face this adjustment in addition to the rest of the measures contemplated in the Tax Reform.
- iv. Reduction in the maximum amount allowed for bearer checks (from 20 to 5 thousand). As a result of this measure, an individual receiving a payment of over 5 thousand pesos may have been driven to request payment in cash, in order to avoid obtaining a check made out to her name that would be subject to a tax audit.

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

# 4. Recent Evolution of the Means of Payment

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

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

up to December of the previous year.2

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

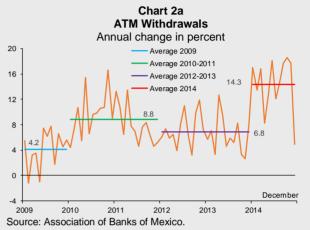
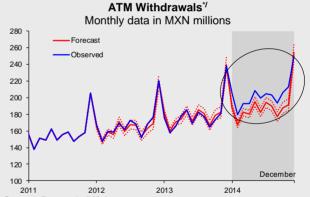


Chart 2b



Source: Banco de México.

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

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

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

# Chart 3a Transactions at Point-of-Sale Terminals with Credit Cards

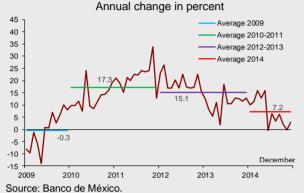
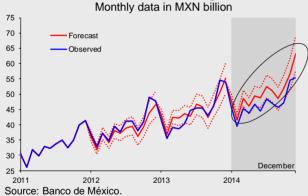


Chart 3b
Credit Cards' Billing\*/
Monthly data in MXN billion

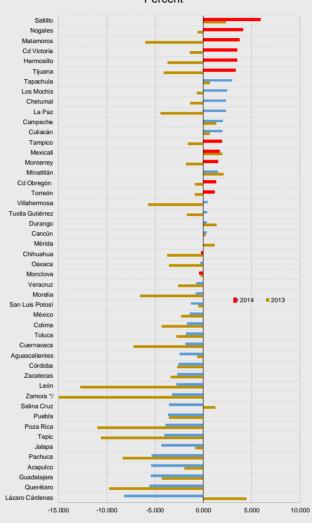


\*/ The model used for the forecast includes two autoregressive lags, IGAE and seasonal terms. The dotted lines indicate the confidence interval of a standard deviation with respect to the central forecast.

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

during the first half of the year.3

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



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

Observed - Forecast, accumulated (percent)

Brown bars refer to 2013. \*/ For 2013, the figure is -29.3 percent.

<sup>&</sup>lt;sup>3</sup> For the sake of brevity, charts similar to 2a, 2b, and 3a, 3b are not shown.

# 5. Use of Cash at the Regional Level

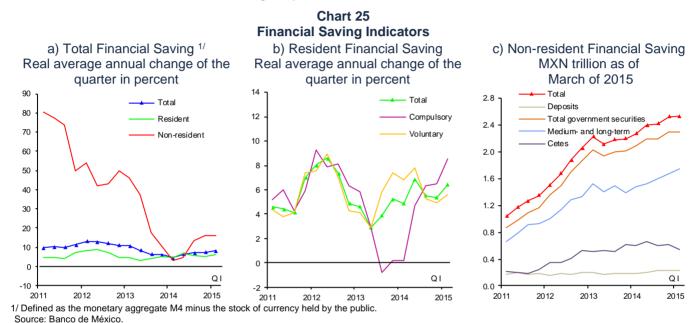
Although higher demand for cash, as a result of the Tax Reform, should be observed across the country, this effect may have been more accentuated in the border states, especially in the North, as a consequence of the VAT equalization in the border region. To identify possible differences in the net flow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

## 6. Final Remarks

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

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

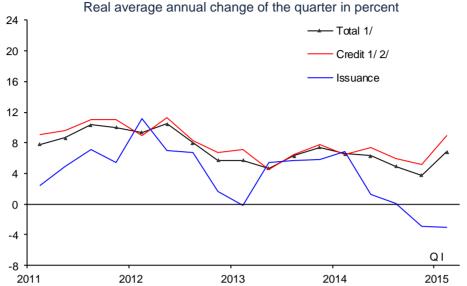
The external sources of financial resources presented a lower dynamism in the referenced quarter, which was mainly due to a smaller flow of resources from abroad channeled to finance non-financial private firms. As regards non-resident financial saving, even though government securities' holdings remained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



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

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

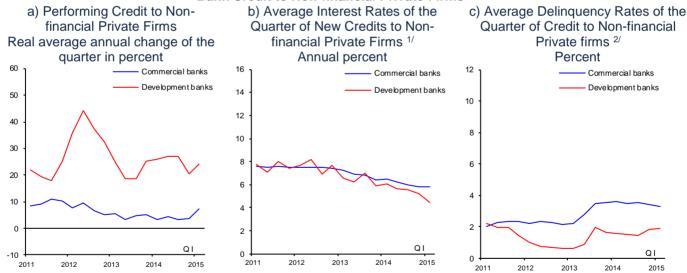
Chart 26
Domestic Financing to Non-financial Private Firms



1/ These data can be affected by the disappearance of some nonbank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).

2/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as other nonbank financial intermediaries.
Source: Banco de México.

Chart 27
Bank Credit to Non-financial Private Firms



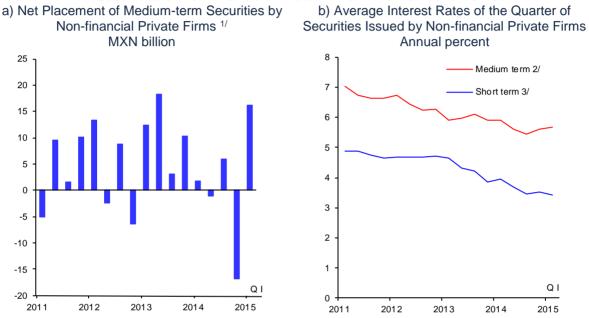
1/It refers to the interest rate of new bank credits to non-financial private firms, weighted by the associated stock of the performing credit and for all credit terms requested.

2/The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans. Source: Banco de México.

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

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

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



- 1/ Placements excluding amortizations in the quarter (maturities and prepayments).
- 2/ Placements of more than one year.
- 3/ Placements of up to one year.

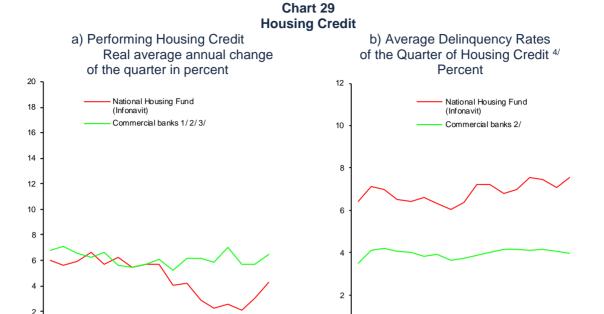
Source: Banco de México, with data from Valmer and Indeval.

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

QΙ

2015

2014



1/Figures are adjusted in order to avoid distortions by the transfer from the UDIS trust portfolio to the commercial banks' balance sheet and by the reclassification of direct credit portfolio to ADES program.

2011

2/ It includes sofomes owned by commercial banks.

2013

3/Figures are adjusted to avoid distortions due to the inclusion of some regulated sofomes to the bank credit statistics.

2015

4/The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

2014

Source: Banco de México.

2012

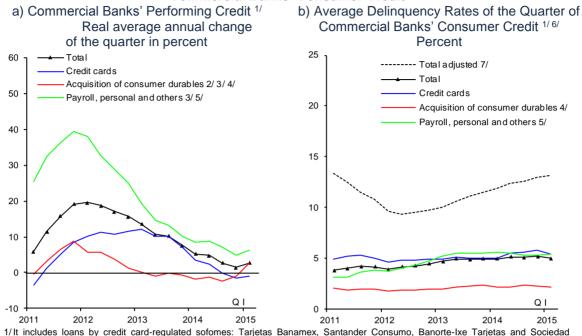
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The growth rate of consumer credit rebounded during the first quarter of 2015. Commercial banks' performing consumer credit portfolios expanded at a real average annual rate of 2.6 percent, above the 1.4 percent observed in the fourth quarter of 2014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

2012

2013

Chart 30
Commercial Banks' Consumer Credit



- Financiera Inbursa.

  2/Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of one banking institution's
- automobile loan portfolio.

  3/From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from acquisition of durable goods
- 3/ From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from acquisition of durable goods (ABCD) to other consumer credits by one banking institution.
- 4/ It includes credit for movable property acquisition and auto loans.
- 5/ "Others" refers to credit for payable leasing operations and other consumer credits.
- 6/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
- 7/It is defined as non-performing portfolio plus debt write-offs accumulated over the last 12 months divided by the total portfolio plus debt write-offs accumulated over the last 12 months.

Source: Banco de México.

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

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

<sup>&</sup>lt;sup>6</sup> See the press release of the Foreign Exchange Commission of March 11, 2015.

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

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

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

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

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

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

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

Percentage of GDP

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

Note: Figures may not add up due to rounding. Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of exchange rate fluctuations.

Source: Banco de México.

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

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

e/Estimated data, expressed in percent of nominal average annual GDP estimated by Banco de México.

<sup>1/</sup>It includes foreign financing for the federal government, public institutions and entities, and foreign financed investment projects (PIDIREGAS), commercial banks' foreign liabilities and financing to the non-financial private sector.

<sup>2/</sup> As defined by Banco de México's Law.

<sup>3/</sup>From 2010 to 2014, Public Sector Borrowing Requirements (*Requerimientos Financieros del Sector Público*, RFSP or PSBR, for its acronym in English) correspond to data reported by the Ministry of Finance (SHCP). The data of 2015 correspond to those released in the document regarding the compliance with the provisions in Article 42, Section I, of the Federal Law on Budget and Fiscal Responsibility.

<sup>4/</sup>Total portfolio of financial intermediaries, of the National Housing Fund (Instituto del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit), and of the ISSSTE Housing Fund (Fondo de la Vivienda del ISSSTE, Fovissste), as well as the domestic debt issuance.

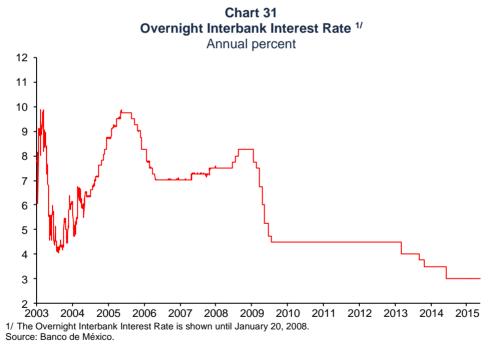
<sup>5/</sup>It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and INFONAVIT, non-monetary liabilities from the Institute for the Protection of Bank Savings (*Instituto de Protección del Ahorro Bancario*, IPAB), the effect of the change in the valuation of public debt instruments, as well as non-recurring revenues of the public sector derived from the net acquisition of financial assets and liabilities, among other concepts.

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

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

# 4. Monetary Policy and Inflation Determinants

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



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

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

- b) The fact that the evolution of inflation expectations implicit in market instruments' interest rates and survey-derived inflation expectations remained well-anchored.
- c) The evidence that the pass-through of exchange rate adjustments onto prices would be limited.
- d) The favorable evolution of inflation and the anticipation that it will persist close to 3 percent over the following months and would close the year slightly below that level.

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

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

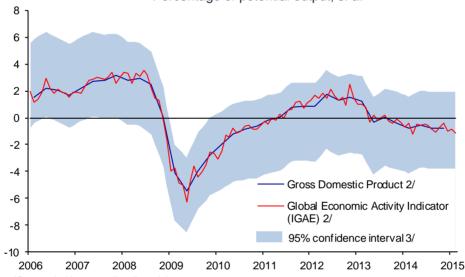
Following up on inflation determinants, the moderate growth rate of economic activity in recent months induced the persistence of slack conditions in the economy. For this reason, no generalized aggregate demand-related pressures onto prices in the main input markets or the external accounts were observed.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

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

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

- b) Slack conditions prevail in the labor market.
- c) As a result of the negative trend observed in the real average income of the employed population, along with the growing trend of labor productivity, unit labor costs for the economy as a whole remain at low levels (Chart 33a).
- d) The increment in labor productivity of the economy and the negative trend of the unit labor costs principally derived from the performance in the services' sector, given that productivity in the secondary economic activities has not expanded in the most recent quarters (Chart 33b and Chart 33c). However, within the industrial production, the manufacturing sector productivity registered a positive trend, while unit labor costs remain at low levels (Chart 33d).

Chart 32
Output Gap Estimation <sup>1/</sup>
Percentage of potential output, s. a.



s. a. / Prepared with seasonally adjusted data.

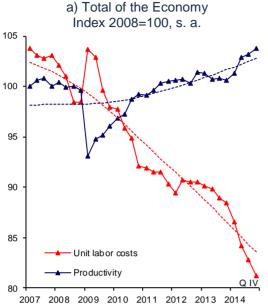
Source: Prepared by Banco de México with data from INEGI.

<sup>1/</sup>Estimated using the Hodrick-Prescott (HP) filter with tail correction; see Banco de México Inflation Report, April – June 2009, p. 69.

<sup>2/</sup>GDP figures as of the fourth quarter of 2014, IGAE figures as of February 2015.

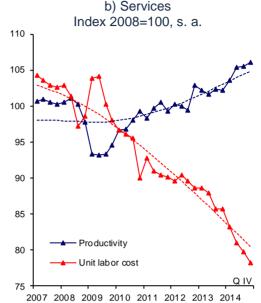
<sup>3/</sup> Confidence interval of the output gap calculated with an unobserved components' method.





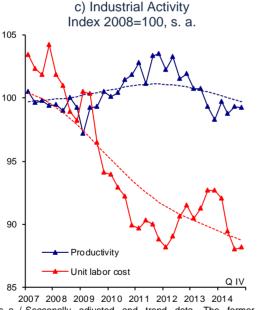
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.

Source: Unit cost prepared by Banco de México with data from INEGI. The Global Index of Labor Productivity in the Economy (IGPLE), as released by INEGI.



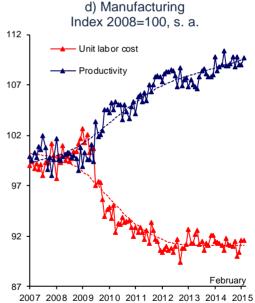
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.

Source: Unit cost prepared by Banco de México with data from INEGI. The Labor Productivity Index released by INEGI.



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.

Source: Unit cost prepared by Banco de México with data from INEGI. The Labor Productivity Index released by INEGI.

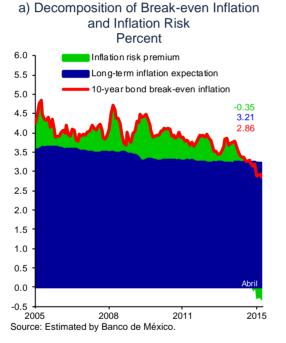


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the monthly indicator of Mexico's System of National Accounts, INEGI.

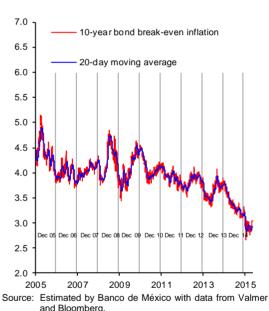
Inflation expectations implicit in 10-year market instruments remained stable at around 3.2 percent between December 2014 and April 2015, while the associated

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

# Chart 34 Inflation Expectations



# b) 10-year Bond Break-even Inflation Percent



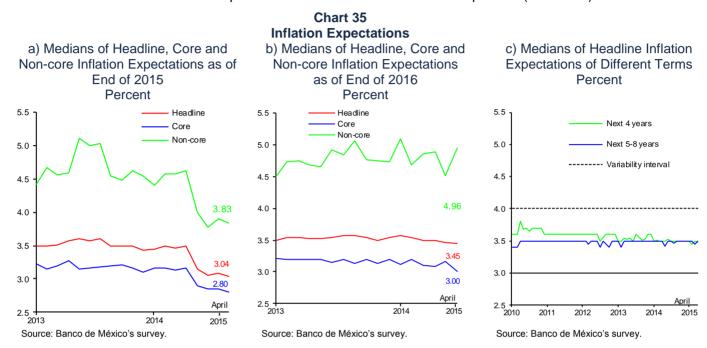
Regarding inflation expectations obtained through Banco de México's survey among private sector specialists, the median for the end of 2015 decreased from 3.50 to 3.04 percent between the surveys of December 2014 and April 2015. In line with the abovesaid, the median of expectations for core inflation for the end of the same year reduced from 3.17 to 2.80 percent between the referred surveys, while non-core inflation expectations, implicit in the referred medians decreased from 4.62 to 3.83 percent (Chart 35a).

Compilation of Quarterly Reports Released in 2015

<sup>9</sup> For a description of the estimation of long-term inflation expectations, see the Box "Decomposition of Breakeven Inflation" in the Quarterly Report, October-December 2013.

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

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



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

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

Similarly, the median of headline inflation expectation for the end of 2016, based on the Banamex survey, remained at 3.5 percent between the survey of January 7 and that of May 5, 2015.

The median of long-term inflation expectations in the Banamex survey (corresponding to the period 2016-2020 in the surveys of 2014 and to the period 2017-2012 in those of 2015) also remained on average around 3.5 percent between the surveys of December 16, 2014 and May 5, 2015.

stimulate non-oil exports and moderate imports' growth rate. Likewise, the exchange rate flexibility allows the volatility arising from uncertainty in the international environment to reflect in the adjustments both of the exchange rate and domestic interest rates. Therefore, the variability of the latter was possibly lower than the one that would have resulted from an environment in which the free floating of the exchange rate would not be allowed.

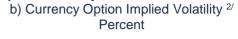
In response to an environment of greater volatility of the national currency's exchange rate, the Foreign Exchange Commission has implemented measures to provide liquidity to the Mexican exchange market, in order to procure its appropriate functioning. These measures indeed contributed to maintaining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

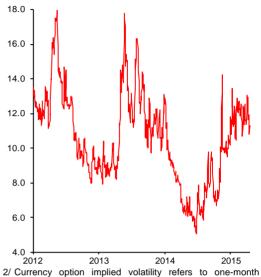
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<sup>&</sup>lt;sup>13</sup> The depreciation of other emerging economies' currencies considers the average performance of the exchange rate of the currencies of Brazil, Chile, Colombia, Czech Republic, India, Peru, Russia, Thailand and Turkey against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

Chart 36 Exchange Rate and Currency Option Implied Volatility







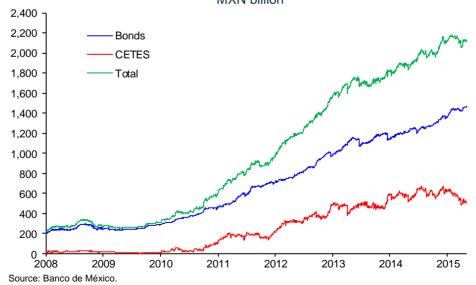
1/ The observed exchange rate is the daily quote of the FIX exchange rate. The latest quote of the observed exchange rate corresponds to May 18, 2015.

Source: Banco de México and Banco de México's survey.

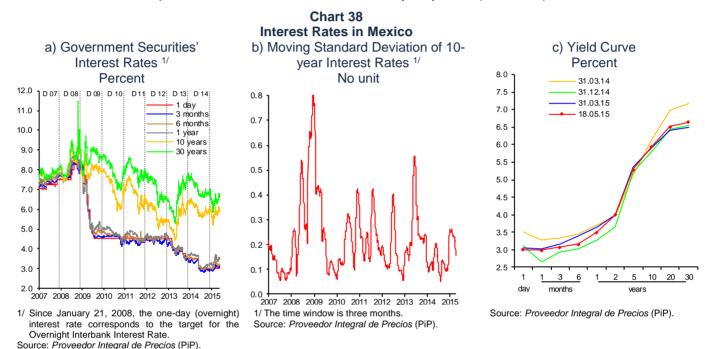
2/ Currency option implied volatility refers to one-month options.
Source: Bloomberg.

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

Chart 37
Government Securities' Holdings by Foreign Investors
MXN billion



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



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

Percentage points 10 Dec 09 Dec 06 Dec 07 Dec 08 Dec 10 Dec 11 Dec 12 Dec 13 Dec 14 9 1 day 8 3 months 6 months 7 1 year 6 10 years 30 years 5 4 3 2 1 0 <del>|</del> 2006 2008 2009 2010 2011 2012 2013 2014 2015

 $$\operatorname{Chart}$  39 Interest Rate Spreads between Mexico and the U.S.  $^{1/}$ 

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

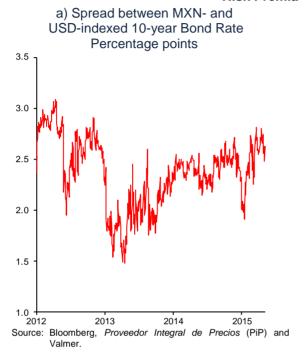
To further examine the evolution of longer-term interest rates in Mexico, as on other occasions, the performance of their components should be analyzed: the short-term interest rate (the reference rate); the short-term interest rates implicit in the yield curve, which considers medium- and long-term inflation expectations; and, the risk premia. In this regard, the following stands out during the analyzed period:

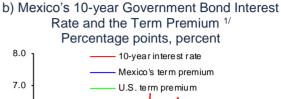
- a) The target for the Overnight Interbank Interest Rate remained at 3.0 percent during the period covered by this Report.
- b) Short-term interest rates expected for the end of the year remained unchanged during the same period. In particular, according to Banco de México's survey among private sector specialists, the median of expectations for the interbank interest rate at the end of 2015 remained around 3.5 percent between the surveys of December 2014 and April 2015. A similar level is inferred from the expectations implicit in market instruments' interest rates.
- c) The performance of different risk premia was differentiated:
  - Market indicators that measure sovereign credit risk increased by approximately 20 basis points from late December 2014 to early May 2015.<sup>14</sup>
  - ii. Inflation risk premium continued its downward trend, reducing by around 30 basis points from December to date (Chart 34a).
  - iii. The exchange risk premium, which is estimated by means of the spread between the interest rate of the 10-year government bond issued in MXN and that of the same term issued in USD, increased slightly between late December and May in an environment of high volatility (Chart 40a).

<sup>&</sup>lt;sup>14</sup> It refers to 5-year Credit Default Swap.

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

Chart 40 Risk Premia







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

and Bloomberg.

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

# 5. Inflation Forecast and Balance of Risks

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

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

- a) U.S. GDP is expected to grow 2.5 percent in 2015, with respect to the 3.2 percent anticipated in the previous Report. For 2016, the forecast is slightly adjusted from 2.9 to 2.8 percent.
- b) Industrial production in the U.S. in 2015 is anticipated to increase 2.5 percent, which represents a significant reduction of growth expectations of 3.9 percent considered in the previous Report. For 2016, an increment of 3.1 percent is expected in this indicator, which is below 3.3 percent announced in the previous Report.

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

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

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

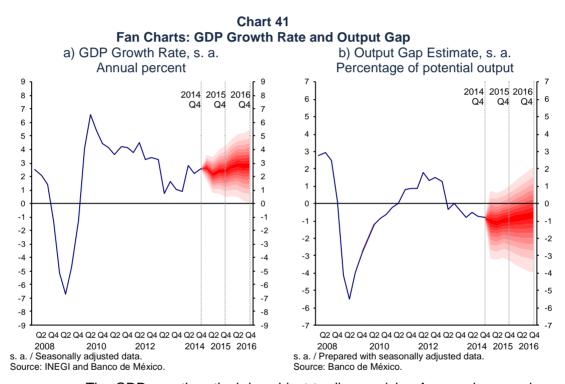
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<sup>&</sup>lt;sup>15</sup> Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in May 2015

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

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

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



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

- i. A further weakening of U.S. economic activity.
- ii. New volatility episodes in international financial markets.
- iii. A further decrease in oil production that would affect external accounts and public finances.
- iv. That weakness in consumers' and businesses' confidence indicators, among other reasons related to public safety conditions, would limit the recovery of expenditure in the country.

Among upward risks to growth, these are noteworthy:

- i. A greater dynamism of the U.S. economy given low energy costs.
- ii. An improvement in investors' prospects given a favorable result in the first stages of the implementation of the energy reform.

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

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

- i. The exchange rate of the national currency against the USD could continue with a depreciation trend.
- ii. Considering the expected gradual reduction of slack conditions in the economy during the forecast horizon, new changes in relative prices could contaminate inflation expectations.

Among downward risks, the next should be mentioned:

- i. Further reductions in telecommunication services' prices.
- ii. That the reduction in energy costs could contribute to generally lower than expected increments in prices.
- iii. A lower than estimated dynamism of economic activity.
- iv. An appreciation of the national currency against the USD due to the recovery in the crude oil price and a more favorable than expected response of international financial markets to the onset of the U.S. monetary policy normalization process, given that asset prices will probably have already partially discounted the adjustment.

Fan Chart: Annual Headline Inflation 1/ Percent 7.0 2014 2015 2016 6.5 Ω4  $\Omega$ 4 6.0 6.0 5.5 5.5 5.0 5.0 4.5 4.5 4.0 4.0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 Observed inflation Headline inflation target 1.0 1.0 Variability interval 0.5 0.5 0.0 0.0 Q2 Q4 2010 2006 2008 2012 2014 2015 1/ Quarterly average of annual headline inflation. Source: Banco de México and INEGI.

Chart 42

Chart 43 Fan Chart: Annual Core Inflation 1/ Percent 7.0 7.0 6.5 2014 2015 2016 6.5 Q4 Q4 Ω4 6.0 6.0 5.5 5.5 5.0 5.0 4.5 4.5 4.0 4.0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 Observed inflation 1.0 1.0 Headline inflation target 0.5 0.5 Variability interval 0.0 0.0 Q2 Q4 2006 1/ Quarterly average of annual core inflation. Source: Banco de México and INEGI.

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

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

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

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

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

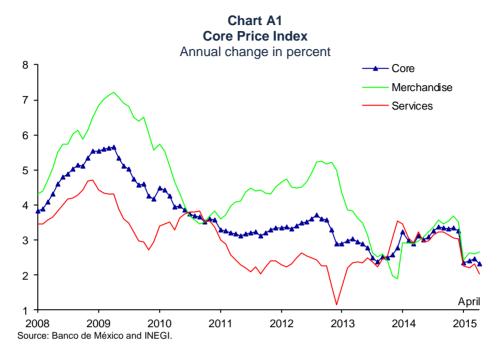


Chart A2
Core Price Index: Merchandise and Services

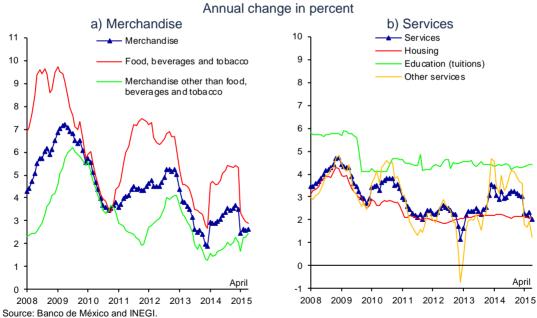


Chart A3 Non-core Price Index

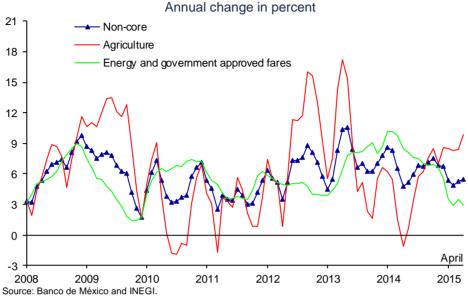
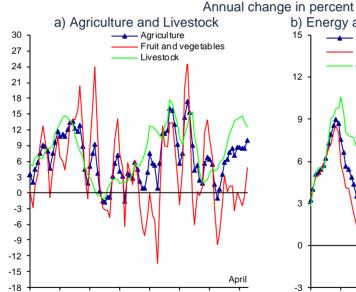


Chart A4 Non-core Price Index



2008 2009 2010 2011 2012 2013 2014 2015

Source: Banco de México and INEGI.

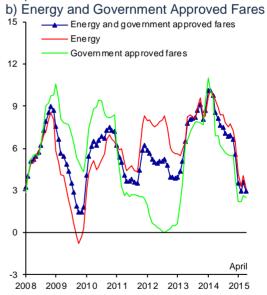
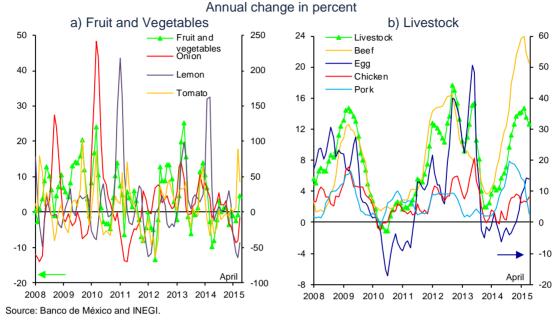
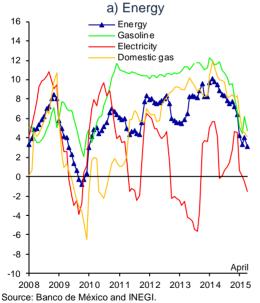


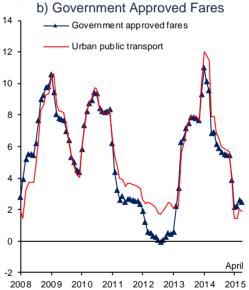
Chart A5
Agricultural Price Index



### Chart A6 Non-core Price Index

Annual change in percent





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### Section II: Quarterly Report April - June 2015

#### 1. Introduction

In line with its constitutional mandate, the monetary policy conducted by Banco de México focuses on procuring the stability of the national currency's purchasing power, while observing at all times that this happens at the lowest possible cost to society in terms of economic activity. As a result of the Central Institute's effort during the last years to curb inflation, during the present year convergence of inflation to its permanent 3 percent target has been achieved. In the quarter subject of this Report, inflation even reached historical minimum levels and it remains below the referred target, where it is expected to remain during the rest of the year.

The outcomes in terms of inflation control have been achieved in a particularly complex environment, given the juncture the Central Institute has been facing with respect to the conduct of monetary policy in Mexico. On the one hand, in the domestic environment, given the low growth rate of economic activity, conditions of slack prevail in the economy. Thus, no widespread demand-driven inflation pressures on prices have been observed. In this environment, inflation has shown a favorable evolution, to which reductions in prices of widely used inputs, such as energy, commodities and telecommunication services have also contributed, both directly and indirectly. On the other hand, in the external environment, although an increase in the federal funds rate as a response to the improved economic outlook in the U.S. will tend to favor the world economy and Mexico in particular, uncertainty regarding the imminent beginning of the normalization of U.S. monetary policy, together with the economic situation in Greece, the problems in Chinese financial markets and the commodity price decline, especially crude oil, contributed to increased volatility in international financial markets. This, coupled with reduced oil production in Mexico, led the Mexican peso to depreciate considerably against the U.S. dollar. Still, the pass-through of the currency depreciation to prices has been limited, mainly affecting durable goods' prices, without generating second round effects. In light of this, the Central Institute has remained alert in order to prevent that the adjustment in relative prices associated with this depreciation does not contaminate inflation expectations. Indeed, long-term inflation expectations have remained well-anchored, while those for the end of 2015 and for 2016 have decreased. Taking into account all these elements, in the period covered by the present Report, the Board of Governors maintained the Overnight Interbank Interest Rate target at 3 percent by virtue of the fact that it estimated this monetary policy stance to be conducive to support the convergence of inflation to its permanent 3 percent target.

In the second quarter of 2015, economic activity in Mexico kept showing a low growth pace. In particular, external demand maintained a weak performance, while some domestic demand indicators registered moderate growth trends. In this context, conditions of slack persist in the economy, thus no pressures on prices in main input markets or external accounts are anticipated.

The global economy experienced in the quarter subject of this Report a moderate recovery with respect to the weakness observed in the previous quarter. This was due to the strengthening of advanced economies' domestic demand, supported by

the ongoing highly accommodative monetary policies. In the particular case of the U.S., the recovery of economic activity was favored by an improvement in consumption. However, as in the first quarter, industrial production kept showing signs of weakness. Meanwhile, world inflation and inflation expectations remained below most central banks' targets.

International financial markets experienced high volatility due to the outlook that the Federal Reserve will start to increase its policy rate this year, the situation in Greece, the problems in Chinese financial markets, as well as lower commodity prices, which led to a deterioration of the terms of trade of several emerging economies. All this contributed to the appreciation of the U.S. dollar against basically all currencies, both of advanced and emerging economies, to less capital inflows to the latter ones and to less favorable financial conditions. From here on, the process of monetary policy normalization in the U.S. in response to a better U.S. economic outlook is expected to favor the dynamism of global economic activity, including that of emerging economies and that of Mexico in particular due to its trade linkages with the U.S. economy. However, given the uncertainty regarding the possible effects of the beginning of the referred normalization process on the reallocation of international portfolios and the outlook of commodity prices remaining at low levels, emerging economies are expected to face less favorable financing conditions.

Thus, the persistence of elevated volatility levels in external financial markets was reflected in domestic markets. Although no net capital outflows were observed, investors' portfolio adjustment to risk exposure increased the demand for foreign exchange risk hedges in derivative markets, contributing to a depreciation of the Mexican peso against the U.S. dollar. In this regard, it should be mentioned that the nominal exchange rate depreciation, in a context of well-anchored inflation expectations and a low pass-through of exchange rate movements to prices, has caused the real exchange rate depreciation, associated among other factors with expected higher interest rates in the U.S and with last year's oil price and oil production reductions, to take place efficiently, thereby illustrating the strength of Mexico's macroeconomic framework. This was also evidenced in the debt market, where interest rates of Mexican government bonds maintained a positive correlation with U.S. bonds, leading only to a slight increase in medium- and long-term interest rates.

Considering the possibility of persisting or even increasing volatility in external financial markets, it is fundamental to strengthen Mexico's macroeconomic framework. Therefore, it would be necessary to consolidate recent efforts in the fiscal position and to adjust the monetary policy stance in a timely manner. This would contribute to maintaining confidence in the Mexican economy and, consequently, to hold the risk premia of interest rates at low levels, which would be crucial given an external environment in which financial conditions will be more stringent.

Given the lower growth perspectives for the U.S. economy with respect to those foreseen in the last Report, the reduction in the oil production platform and the moderate dynamism of domestic demand, the forecast for Mexico's GDP growth for 2015 is revised from an interval of between 2.0 and 3.0 percent in the previous Report to one between 1.7 and 2.5 percent in the present Report. For 2016,

considering the expectation of a more solid recovery of the U.S. industrial sector, together with the perspective of progress in the implementation of structural reforms in Mexico, GDP growth is expected to be between 2.5 and 3.5 percent, the same interval as in the previous Report.

Taking into consideration the lack of aggregate demand-driven inflationary pressures on prices, as well as the recent evolution of inflation, it is expected that the monetary policy stance will contribute to a favorable evolution of inflation during the rest of the year and during 2016. In particular, it is anticipated that annual headline and core inflation will remain below 3 percent during the rest of 2015. For 2016, headline as well as core inflation are estimated to remain at levels close to 3 percent.

Looking ahead, the Board of Governors will continue to monitor the performance of all inflation determinants and its medium- and long-term expectations, in particular, the exchange rate performance, the monetary policy stance of Mexico relative to the U.S., as well as the evolution of the degree of slackness in the economy. All this in order to be able to take the necessary decisions in a flexible manner and whenever conditions demand it in order to consolidate the convergence of inflation to the 3 percent target.

### 2. Recent Development of Inflation

### 2.1. Inflation

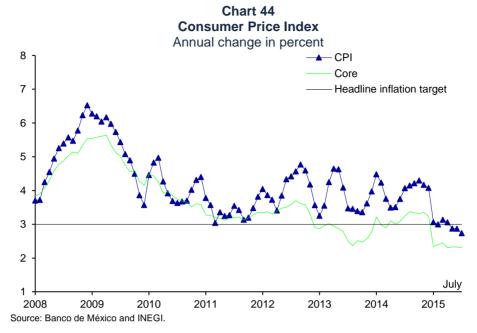
In an environment of absence of aggregate demand-driven pressures on prices, the monetary policy stance has contributed to the fact that headline inflation converged to the permanent 3 percent target and that it even located below that target since May, reaching historic minimum levels. This result stands out, considering the significant exchange rate depreciation, whose pass-through onto prices has been limited so far, mainly affecting durable goods' prices, as expected, and without generating second round effects in the economy's price formation process. Meanwhile, reductions in input prices, such as energy, commodity and telecommunication services' prices have also contributed, both directly and indirectly, to the favorable evolution of inflation this year. Thus, annual headline inflation registered an average of 3.07 percent in the first quarter of 2015, reduced to 2.94 percent in the reference quarter and reached 2.74 percent in July. Average annual core inflation was 2.39 percent in the first quarter of the year, 2.32 percent in the second quarter and 2.31 percent in July (Table 3 and Chart 44).

Table 3
Consumer Price Index, Main Components and Trimmed Mean Indicators

	2013	2014			2015			
	IV		II	III	IV	- 1	II	July
CPI	3.65	4.16	3.59	4.15	4.18	3.07	2.94	2.74
Core	2.61	3.03	3.07	3.32	3.30	2.39	2.32	2.31
Merchandise	2.09	2.91	3.10	3.46	3.57	2.56	2.52	2.47
Food, beverages and tobacco	2.92	4.65	4.81	5.32	5.35	3.15	2.56	2.27
Non-food merchandise	1.43	1.51	1.72	1.96	2.13	2.07	2.49	2.64
Services	3.04	3.14	3.04	3.21	3.08	2.26	2.15	2.18
Housing	2.19	2.24	2.20	2.11	2.14	2.10	2.09	2.08
Education (tuitions)	4.42	4.36	4.42	4.29	4.30	4.36	4.35	4.36
Other services	3.52	3.73	3.54	4.06	3.72	1.80	1.57	1.64
Non-core	7.02	7.79	5.29	6.89	6.99	5.17	4.92	4.12
Agriculture	4.62	4.33	0.94	6.53	8.04	8.39	8.34	6.94
Fruit and vegetables	8.77	4.54	-6.86	1.48	-0.73	-1.39	7.43	8.93
Livestock	2.13	4.12	5.49	9.33	13.43	14.15	8.81	5.92
Energy and government approved fares	8.57	9.99	8.09	7.11	6.35	3.30	2.87	2.42
Energy	8.69	9.87	8.92	7.92	7.12	3.82	3.21	2.61
Government approved fares	8.27	10.23	6.64	5.71	4.93	2.32	2.26	2.08
Trimmed Mean Indicator 1/								
CPI	3.17	3.66	3.65	3.75	3.81	3.10	2.84	2.68
Core	2.60	2.93	3.05	3.14	3.19	2.81	2.74	2.70

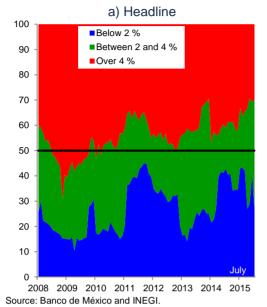
<sup>1/</sup> Prepared by Banco de México with data from INEGI.

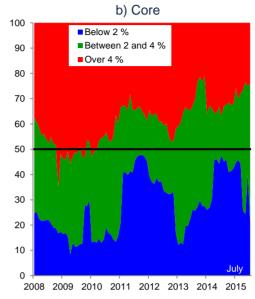
Source: Banco de México and INEGI.



Different indicators keep showing that the observed dynamics of headline and core inflation are due to a favorable evolution of most goods and services' prices. The first indicator is obtained by calculating the share of the Consumer Price Index (CPI) basket that presents annual prices changes within certain intervals. In order to do so, each month the generic items, which compose the basket of the headline and core index, are grouped into three categories according to their annual price change: the items with an annual price change below 2 percent, between 2 and 4 percent, and over 4 percent. By calculating the percentage of the CPI basket, which lies in each of these categories, turns out that a high percentage presents price increments of less than 4 percent (blue and green areas, Chart 45In fact, In fact, in both cases, the CPI as well as the core inflation index, the share of the goods and services basket with annual price increases lower than 4 percent has been showing an upward trend. In particular, in the first quarter of 2015, 65 percent of the basket of the headline index registered price increases of less than 4 percent, while in the second quarter this share increased to 69 percent (Chart 45a). With regard to the core component, the referred share went from 72 percent to 75 percent in the same period (Chart 45b).

Chart 45
Percentage of the CPI Basket according to Intervals of Annual Increments
Percent





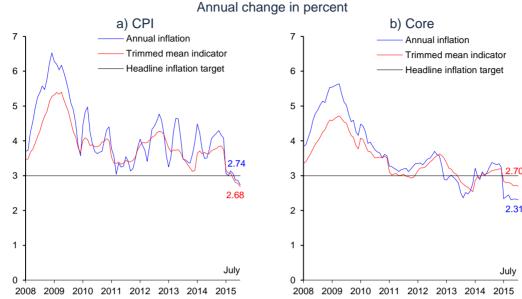
The evolution of the medium term trend indicator of both, headline and core inflation also suggests that low levels of inflation are the result of the favorable dynamics of the majority of goods' and services' prices in the economy. One of the measures frequently used to analyze the medium term inflation trend is the Trimmed Mean Indicator. This indicator analyzes the evolution of headline and core inflation in the low frequency, excluding extreme (high and low) price changes in each period. Thus, this indicator is usually not affected by relative price changes of a few goods and services, which have only transitory effects on inflation. The Trimmed Mean Indicator for headline inflation shows that lower inflation observed in the reference quarter has been the result of a generalized reduction in the price growth rate. Specifically, for headline inflation, this indicator located below 3 percent in this quarter, while that of core inflation was 2.70 percent (Chart 46 and Table 3).

Another useful indicator to analyze inflation dynamics, is the annualized monthly (seasonally adjusted) inflation. This indicator shows that, although excluding the downward effects due to the comparison base of annual inflation indicators, at the margin, both headline and core inflation located at levels in line with the 3 percent inflation target in the period covered by this Report (Chart 47).

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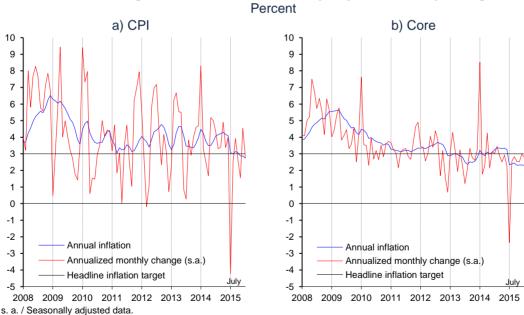
<sup>&</sup>lt;sup>16</sup> For a detailed explanation of the construction of the Trimmed Mean Indicator of Inflation, see Box 1 "Trimmed Mean as a Measure of Inflation Trend", Quarterly Report, January-March 2015.

Chart 46 Price Indices and Trimmed Mean Indicators 1/



<sup>1/</sup> 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 47 **Annual Change and Annualized Seasonally Adjusted Monthly Change** 



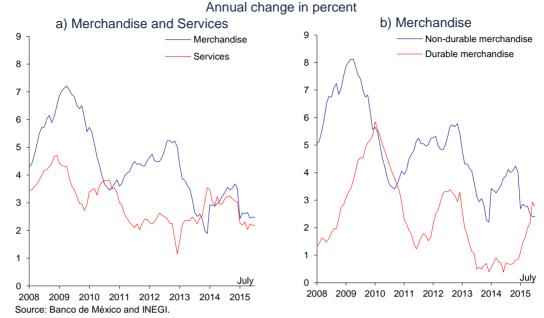
Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

In this way, the previous indicators show that the recent trajectory of inflation is explained by a favorable evolution of most of the goods' and services' prices in the economy, rather than a few. This means that during 2015 inflation has converged to the permanent 3 percent target.

The favorable behavior of core inflation has been registered both in the merchandise and service price subindex. Indeed, the annual change of both subindices was below 3 percent, reflecting that the increase in the relative price of merchandise in relation to services has been moderate until now, in comparison with that, which would have been expected in light of the real exchange rate depreciation. In particular:

- The average annual change of the merchandise price subindex was 2.56 percent in the first quarter of 2015, while in the second quarter it was 2.52 percent and 2.47 percent in July. In the case of non-food merchandise, the average annual change rate increased from 2.07 to 2.49 percent during the referred quarters and to 2.64 percent in July. This is a reflection of the currency depreciation, whose effect has been mainly affecting durable merchandise prices, which went from an average annual change rate of 1.40 percent in the first quarter of 2015 to 2.36 percent in the second one, and to 2.78 percent in July. On the other hand, the food merchandise subindex observed a decrease in its annual change rate, which is mainly explained by a lower price growth rate of food commodities. Therefore, the average annual change rate of this subindex dropped from 3.15 percent in the first quarter to 2.56 percent in the second quarter and to 2.27 percent in July (Chart 48).
- The average annual change rate of the service price subindex decreased from 2.26 percent to 2.15 percent between the first and second quarter of 2015. In July it located at 2.18 percent (Chart 48a). To a great extent, this decline is related to the behavior of the group of services other than education and housing, whose annual change went from 1.80 percent to 1.64 percent between the first quarter and July. To this result contributed the price reductions observed in the telecommunication sector, as well as the increases in travel service prices, which were below those in the previous year.

Chart 48 Core Price Index

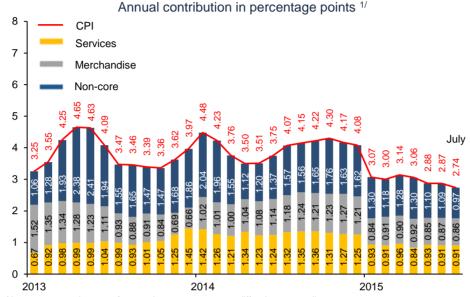


The non-core component reduced its average annual growth rate from 5.17 percent in the first quarter of 2015 to 4.92 percent in the reported quarter and to 4.12 percent in July. Consequently, the average contributions of this component to headline inflation also presented decreases during the referred quarters (Chart 49 and Table 3).

- With regard to this, the average annual change rates of the subindex of energy prices and government approved fares stand out, which showed a decline between the first and the second quarter of 2015, passing from 3.30 percent to 2.87 percent and to 2.42 percent in July. Of particular relevance for this result has been the evolution of energy prices, whose average annual change rate dropped from 3.82 percent in the first quarter to 3.21 percent in the second quarter and to 2.61 percent in July. In particular, the average annual change rates of residential electricity fares went from 0.07 to -2.09 percent in the referred quarters. On the other hand, the average annual increase in gasoline prices in the mentioned quarters reduced from 5.23 to 5.09 percent, while domestic gas, from 5.28 to 3.51 percent.
- The average annual change rate of the subindex of agriculture product prices remained relatively stable, passing from 8.39 percent to 8.34 percent between the first and the second quarter of 2015 and to 6.94 percent in July. It is noteworthy that this groups' components behaved differently, because, while the average annual change rate of fruit and vegetable prices increased, the subindex of livestock products declined. In particular, that of the first subindex mentioned went from -1.39 to 7.43 percent during the reported quarters and located at 8.93 percent in July. On the other hand, the figures corresponding to the subindex of livestock

product prices were 14.15, 8.81 and 5.92 percent respectively during the same period.

Chart 49
Consumer Price Index



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

#### 2.2. Producer Price Index

With respect to the Producer Price Index (PPI) of total production, excluding oil, in the first quarter of 2015 it registered an average annual change rate of 2.38 percent, while in the second quarter it was 2.76 percent and 3.31 percent in July (Chart 50). The referred increase was mainly due to the increment in the Mexican pesodenominated prices of some export goods, such as electronic appliances, computers and cars, which was reflected in the final merchandise and services' index. Meanwhile, goods and services for the intermediate use kept showing lower annual price growth rates than those registered for final merchandise and services, with industrial electricity fares and oil product prices standing out.

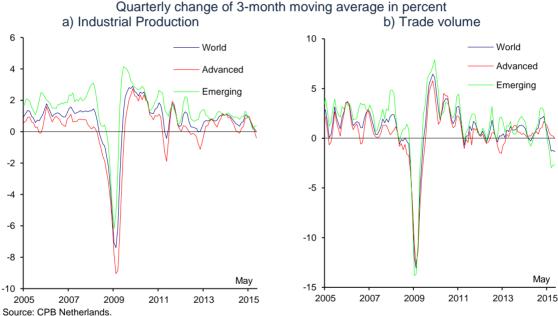
1/Total Producer Price Index, excluding crude oil. Source: Banco de México and INEGI.

### 3. Economic and Financial Environment

#### 3.1. International Environment

Global economic activity registered a moderate recovery during the second quarter, after the weak growth in the first quarter. The higher growth pace was mainly due to the rebound in private consumption in advanced economies, in light of accommodative monetary policy stances. In contrast, a decrease in trade volume and less dynamic global industrial production was observed (Chart 51). In this context, volatility in international financial markets remained elevated in face of the uncertainty regarding the monetary policy normalization process in the U.S. To this also contributed the situation in Greece, the problems in Chinese financial markets, and the commodity price decline, which implies an unfavorable effect on economic activity, the trade balance and public finances in many emerging economies.

Chart 51
World Economic Activity and World Trade



### 3.1.1. World Economic Activity

In the U.S., economic activity recovered in the second quarter, growing at an annualized quarterly rate of 2.3 percent, compared to 0.6 percent in the previous quarter, due to the fading of some of the transitory factors that affected growth at the beginning of the year. The most dynamic aggregate demand components stand out private consumption and residential investment (Chart 52a). However, investment in non-residential infrastructure and in equipment contracted further, to a great extent, due to the still weak activity of exploration of oil reservoirs.

On the other hand, the U.S. dollar appreciation, low oil prices and weak growth of external demand continued having a negative effect on U.S. industrial production

<sup>&</sup>lt;sup>17</sup> According to the GDP Second Quarter Advance Estimate of the Bureau of Economic Analysis (BEA).

and net exports. In particular, industrial production weakened further, contracting 1.7 percent at an annualized quarterly rate in the second quarter, compared to a decline of 0.2 percent in the first quarter (Chart 52b). To this contributed the strong reduction in mining activity (12.7 percent), associated to a great extent to less exploration and drilling of oil and gas fields. In contrast, manufacturing production registered a moderate recovery (1.5 percent), after a 0.7 percent drop in the first quarter, supported by increased vehicle and parts production.

Nonetheless, labor market conditions kept improving with respect to the first quarter, without generating upward pressures on wage inflation so far (Chart 52c). During the second quarter, an average of 226 thousand non-farm jobs were generated each month, compared to 195 thousand jobs in the first quarter. In July, non-farm payroll continued expanding by 215 thousand jobs. In the case of unemployment rate, it slightly decreased from 5.5 percent in March to 5.3 percent in June, remaining unchanged in July. However, the labor participation rate maintained low levels (from 62.7 percent of working age population in March to 62.6 percent in July), still pointing to the existence of certain slackness in the labor market.

a) Real Consumption Expenditure Quarterly annualized change in percent, s. a.

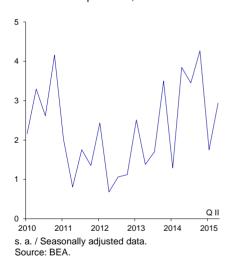


Chart 52 U.S. Economic Activity

b) Industrial and Manufacturing Production Quarterly annualized change in percent, s. a.

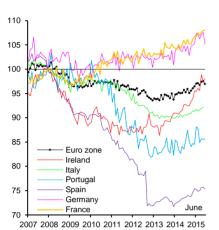


c) Wage Indicators Annual change in percent



During the second quarter, economic activity in the Euro zone kept recovering at a moderate pace, particularly as a reflection of the dynamism of consumption and an incipient recovery of investment (Chart 53a). This recovery was supported by additional monetary easing and the recent euro depreciation. However, the growth rate is still affected by the high unemployment level, the still low credit growth and persistent structural deficiencies (Chart 53b). The generalized loosening of monetary conditions also contributed to the important reduction in interest rates for the non-financial private sector, which has been reflected in an improvement in consumers' and firms' confidence (Chart 53c).

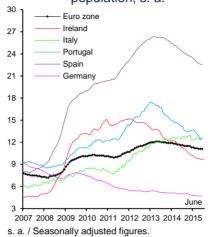
a) Retail Sales 1/ Index December 2007=100, s. a.



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

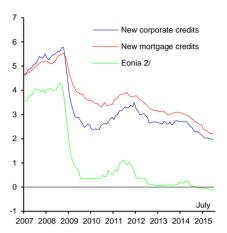
Chart 53 **Euro Zone Economic Activity** 

b) Unemployment Rate Percent of economically active population, s. a.



Source: FCB

### c) Interest Rates of Bank Credit In percent



2/ Eonia (Euro OverNight Index Average) is the Overnight Interbank Interest Rate of the Euro

The possible exit of Greece from the Euro zone represented a recurrent risk for the region in the last years. Since 2009, this country had been implementing an economic adjustment program, monitored by the European authorities and the International Monetary Fund (IMF). This effort, which was supported by a considerable financing and restructuring of public debt, had achieved a substantial reduction of the high public deficits and the current account. However, in the last year, serious drawbacks in the implementation of that program were registered, which was reflected in increased weakening of the economy and increasing levels of indebtedness. In this environment, a new government, elected at the beginning of the year under a base contrary to the implementation of the adjustment measures, did not reach an agreement with its creditors to modify the financial support program. This led to a default in the payment obligations to the IMF in June (regularized in July) and a strong additional deterioration of the economic and financial situation, which provoked a temporary shutdown of its financial markets and imposition of capital controls. In light of a higher risk of this country's exit from the Euro zone, in mid-July Greek authorities felt obliged to accept the immediate approval of a package of severe measures in order to reinitiate negotiations with the creditors about a new multiannual financial support program. The tentative agreement, which was reached, reduced uncertainty international financial markets, stemming from the Greek crisis. Nonetheless, the implementation of the new program will face important challenges, particularly due to the high levels of indebtedness and the magnitude of fiscal adjustment needed to ensure the sustainability of debt in the medium term, Consequently, the evolution of the economic situation in Greece continues being a risk factor for Europe and international financial markets.

So far, the impact of the crisis in Greece on economic activity and financial stability in the Euro zone has been limited. This is, among other factors, due to the reduced participation of this country in the trade of other countries in the region, the low exposure of the rest of the Euro zone's private sector to Greek assets and the

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commitment of the European Central Bank (ECB) to use the instruments at its disposal to safeguard the stability of the Euro zone.

On the other hand, after a favorable performance in the previous quarter, the growth pace of Japan's economy seems to have slowed down significantly in the second quarter. This was the reflection of a shrinkage of industrial production and exports. Additionally, consumption expansion weakened, despite the increase in salaries and the improvement in labor markets, partially due to adverse climate conditions. Moreover, business confidence surveys, as well as capital goods' transactions give mixed signals about the evolution of business investments in the quarter, given the high corporate profits.

Emerging economies' activity kept weakening in the second quarter. Although the downturn seems to have been concentrated in countries like Russia and Brazil, the slowdown in growth has spread to other economies, including emerging countries in Asia, other than India.<sup>18</sup> In particular, these economies have registered lower growth rates and, in several cases, reductions in industrial production and exports (Chart 54).

In the case of China, there were signs suggesting that the downward trend of growth rates could be stabilizing, supported by the monetary stimulus measures adopted by the central bank. Nevertheless, there is a risk that this apparent improvement might be temporary, given the strong falls in the country's stock markets and considering that the lower growth in the rest of the Asian emerging economies could be reflecting a persistent weakness of the Chinese economy, still not shown by the data.

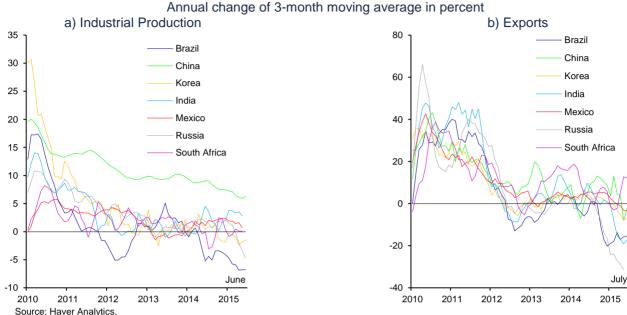
In face of the observed adjustment in Chinese stock markets at the end of the second quarter and at the beginning of July, after the impulse received, among other factors, by the high leveraging of investors' stock purchases, doubts aroused regarding this country's financial market liberalization process and the capacity to ensure financial stability in the medium term, given the high credit growth during the last years. Additionally, China's central bank announced on August 11 the devaluation of 1.9 percent of the CNY/USD exchange rate fixed parity in order to better reflect the FX market conditions. Furthermore, they announced that from this day on, they will seek the daily exchange rate parity quote to reflect the conditions prevailing in the market at the end of the previous day.

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<sup>&</sup>lt;sup>18</sup> This group includes: China, Korea, Indonesia, Thailand, Malaysia, Philippines, Bangladesh and Vietnam.

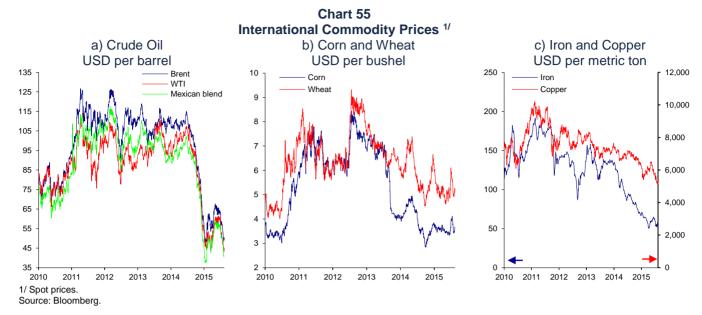
<sup>&</sup>lt;sup>19</sup> Among the measures taken by Chinese authorities to face the problems in the stock market are: channeling of Central Bank's financing to stock purchase, imposition of temporary restrictions to stock sales, prohibition of short sales, suspension of IPOs, temporary suspension of securities trading, and the less strict requirements for stock purchases.

Chart 54
Emerging Economies' Activity



### 3.1.2. Commodity Prices

Commodity prices showed high volatility during the period covered by this Report, although they remained at low levels. In particular, oil prices increased during most of the second quarter, in light of signs of increased demand and a reduction in stock levels. However, these increments reverted later due to, among other factors, the incipient recovery in the number of oil rigs operating in the U.S., the possibility of increased exports from Iran after having reached a preliminary agreement that could remove the economic sanctions imposed on the country, and a strong recovery of stock levels. Therefore, the prices of WTI oil and the Mexican blend reduced from 50 and 45 USD/barrel in late March to 43 and 40 USD/barrel in early August, after having reached levels close to 60 and 58 USD/barrel in June, respectively (Chart 55a). Meanwhile, grain prices maintained low levels, although they increased moderately during the last weeks because the expectation of a reduction in wheat and corn harvest caused by the adverse climate conditions in the U.S., Canada and Europe (Chart 55b). In contrast, metal prices continue falling as a consequence of weak global demand and the generalized appreciation of the U.S. dollar (Chart 55c).



### 3.1.3. Inflation Trends Abroad

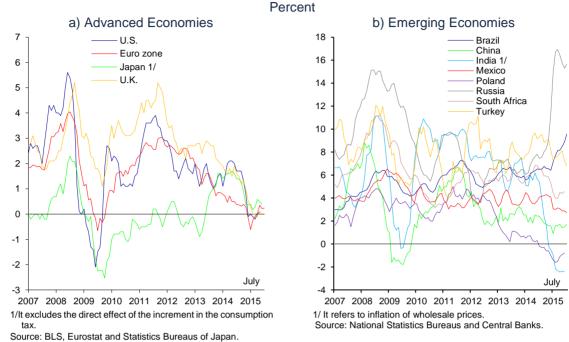
During the second quarter of the year, inflation at the global level stopped its downward trend and showed a gradual recovery. In the main advanced economies, inflation expectations, based on financial instruments, slightly increased, reflecting a decline in the deflation risk and the second round effects associated with the drop in oil prices observed in the previous months (Chart 56a). However, inflation is anticipated to maintain levels below the central banks' targets during the rest of the year.

In the U.S., the annual change of the consumption deflator continued at low levels, registering an increase of 0.3 percent in March and June. In the case of core inflation, it also remained stable with an annual change of 1.3 percent in June, same as in March. Inflation is expected to increase gradually to levels close to 2 percent, as effects of the elevated base of comparison of energy prices observed last year are fading away. However, this may not happen, if the downward trend of oil prices observed during the last days consolidates.

In the Euro zone, inflation reached a turning point in January and from there on, increased (from -0.1 percent in March to 0.2 percent in June), mainly due to a less negative contribution of energy prices. The impact of the euro depreciation on inflation is expected to be more visible in the next months, particularly on core inflation, which went from 0.6 percent in March to 0.8 percent in June. According to the ECB, the pass-through of the exchange rate depreciation, together with the recovery of domestic demand, will translate into a rebound of inflation at the end of the year, with a gradual upward trend in the next years. However, although medium-term inflation expectations showed a slight improvement during the second quarter, they remain around 1.0 percent below the ECB target (inflation close but below 2.0 percent).

The inflation outlook in emerging economies has been more differentiated. In particular, most countries showed low inflation in an environment of weak domestic demand, while in others, like Brazil and Russia, inflation showed an upward trend due to idiosyncratic factors and imbalances in their economies (Chart 56b).

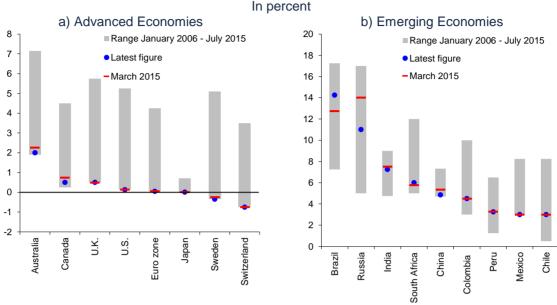
Chart 56
Annual Headline Inflation in Advanced and Emerging Economies



### 3.1.4. Monetary Policy and International Financial Markets

In the described environment, during the period covered by this Report accommodative monetary policy stances prevailed in both advanced and emerging economies. In the future, the Federal Reserve will initiate the process of normalization of their monetary policy before the end of the year, while the ECB and the Bank of Japan are expected to maintain their highly accommodative stances for a certain time (Chart 57).

Chart 57
Monetary Policy Rates in Advanced and Emerging Economies



Source: Haver Analytics.

The Federal Reserve, in its June meeting, maintained the reference rate and its forward guidance unchanged, indicating that it will increase the target rate of the federal funds rate once the labor market shows progress and if there's reasonable certainty about inflation returning to its 2 percent target in the medium term. This institution pointed out that economic activity kept expanding at a moderate pace in the last months. However, it stated that the labor market further improved, showing a sound increase in employment, a lower unemployment rate and that the degree of slackness in this market decreased since the beginning of the year. Regarding inflation, it was reiterated that inflation remains below the target. Additionally, several central bank analysts mentioned that, based on recent forecasts, they estimate that the first increase of the reference rate will take place in 2015 and that the subsequent increases will be gradual.

In the Euro zone, the ECB maintained the reference rates unchanged during the period covered by this Report. On the other hand, during its July meeting, the ECB stated that volatility in financial markets, partially due to uncertainty about the permanence of Greece in the Euro zone, has not changed the outlook regarding the economic recovery of the region and regarding a gradual increase of inflation during the next years. Nonetheless, it warned that if monetary conditions tighten without reason, or if the forecast for price stability changes significantly, then it would respond by using all measures available within their mandate.

In its August meeting, the Bank of Japan ratified that it will continue its monetary easing program announced last October with the aim of reaching its inflation target of 2 percent, considering that implemented quantitative and qualitative stimulus measures having the expected effects. In this way, it maintained the objective of increasing the monetary base by an annual rate of close to JPY 80 trillion, and its decision to continue purchasing government bonds and other instruments. Moreover, it pointed out that long-term inflation expectations continued recovering,

but annual inflation will most likely remain at low levels for a certain time, due to the effects of the energy price drop.

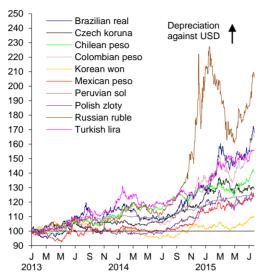
Volatility in international financial markets continued during the period subject of this Report, in face of the uncertainty prevailing regarding the start and subsequent pace of the normalization of U.S. monetary policy. To this vulnerability also contributed the described situation in Greece, the problems in Chinese stock markets, as well as the decrease in commodity prices, mainly crude oil.

Given this, the foreign exchange markets continued showing high volatility, where emerging economies' currencies, which also had been affected by lower commodity prices, recorded a considerable depreciation in a context of less capital flows (Chart 58). Additionally, the elevated level of corporate indebtedness in some emerging countries had a negative effect on the risk perceptions towards them. All the aforementioned, led to a more restrictive access to financing in international markets for this country group. In the future, given the outlook that commodity prices will remain at low levels and that an upward trajectory of the U.S. federal funds rate will be observed, these economies' financing conditions are expected to be less favorable. However, the decision of the Federal Reserve to initiate the monetary policy normalization process will take place in a scenario of a sustained recovery of U.S. growth. The expected increase in U.S. activity should have positive effects on the world economy, in particular on its main trade partners, like Mexico and Canada.

Final point to mention is that, during the period covered in this Report, there was also greater volatility in stock and debt markets (Chart 59). Thus, long-term interest rates of main advanced economies increased, mainly due to the beginning of a correction process of term premia, which were at historic low levels, and due to a reduction in the deflation risk in this country group. This was the reflection of a general improvement of the economic outlook, as well as the imminent onset of the normalization process of the U.S. monetary policy. However, during the last weeks, the long-term interest rates showed a tendency to stabilize as a result of greater risk aversion, driven by an environment of volatility in face of uncertainty generated by the drop in stock market indices in China and the situation in Greece. In turn, stock markets in the main advanced economies also registered higher volatility, partly reflecting an adjustment to the environment of higher interest rates.

Chart 58
Financial Indicators of Emerging Economies

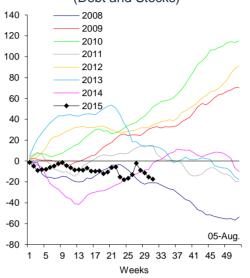
### a) Exchange Rate Index 01/01/2013=100



Source: Bloomberg.

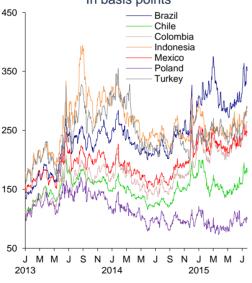
# Economies (Debt and Stocks) 1/

b) Total Flows of Funds Dedicated to Emerging



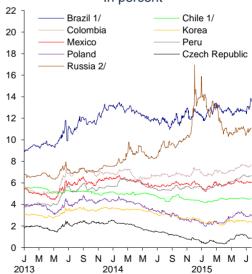
1/ The sample includes funds used for emerging economies' stock and bonds transactions, registered in advanced economies. The flows exclude the performance of the portfolio and exchange rate movements.Source: Emerging Portfolio Fund Research.

### c) Sovereign Spreads (EMBI) In basis points



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

### d) 10-year Bond Rates In percent



Source: Bloomberg

Chart 59 Financial Indicators of Selected Advanced Economies a) 10-vear Bond Yield b) Stock Markets Percent Index January 2013=100 4 210 S&P 500 U.S. Euro zone Europe 600 200 Japan Nikkei FTSF 190 3 180 170 160 2 150 140 130 120 110 100 S Ν J. M M S Ν J M М М M S M 2013 2014 2015 2013 2014 2015

### 3.2. Evolution of the Mexican Economy

### 3.2.1. Economic Activity

The most recent information suggests that during the second quarter of 2015 the Mexican economy exhibited moderate growth rate, which was lower than expected in the previous Report. In particular, low dynamism of external demand prevailed, while some domestic demand components presented a moderate expansion.

In the period April - June 2015, manufacturing exports kept registering a weak performance (Chart 60a). Despite the fact that automobile exports maintained a positive trend, the rest of the manufacturing exports continued showing an unfavorable behavior (Chart 60 and Chart 60c). In this context, the weakness of non-automotive manufacturing exports mainly responded to the low dynamism of U.S. industrial production (see Box 3) in the first half of the year and also to idiosyncratic factors, among them low productivity, which also negatively affected the evolution of this sector.<sup>20</sup> Despite this, it is foreseen that in the short run the depreciation of the real exchange rate will support the recovery of exports in the following quarters and that in the medium term progress in the instrumentation of structural reforms will contribute to increase competitiveness of the economy, including the non-automotive sector.

Regarding oil exports, in the last years they have presented a downward trend, which intensified in 2014. From here on, it is expected that as progress in the

<sup>&</sup>lt;sup>20</sup> In some subsectors, the absence of productivity gains in the last years was reflected in the loss of some products' share in the U.S. market.

implementation of the energy reform is achieved and crude oil prices stabilize, the dynamism of these exports could gradually benefit (Chart 60d).

In relation to domestic demand components, private consumption continued showing a moderate recovery. As for gross fixed investment, it lost dynamism with respect to the recovery registered in 2014. In particular:

- i. As regards private consumption, the upward trajectory of domestic light vehicle sales and ANTAD sales stand out (Chart 61a). Meanwhile commercial firms' retail sales and the monthly indicator of private consumption in the domestic market, although also continued growing, showed certain loss of dynamism in the period of this Report (Chart 61b and Chart 61c).
- ii. With respect to the consumption determinants, it is observed that, in general, they still do not show clear signs of recovery. In specific, although workers' wage bill improved recently, it is still at low levels (Chart 62a). Consumer confidence kept stagnated (Chart 62b), while in the quarter April June 2015 remittances registered a weakening in foreign currency, although not in Mexican pesos (Chart 62c). Consumer credit continued supporting the moderate recovery of private consumption, showing similar growth rates than those reported in the previous quarter (see Section 3.2.3.).
- iii. Referring to gross fixed investment, at the beginning of the second quarter of 2015, it registered less dynamism as compared to previous quarters (Chart 63a). In particular, investment in residential construction reduced its growth pace, while non-residential one stagnated (Chart 63b). In contrast, capital goods' imports followed the upward trajectory observed since the beginning of the year, mostly as a result of the expansion of productive capacity in the automotive sector (Chart 63c).

### Box 3 Synchronization of Mexican and U.S. Manufacturing Production

#### 1. Introduction

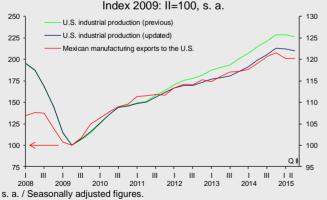
In the Quarterly Report January – March 2014, an analysis about the synchronization of manufacturing sectors in the Mexican and U.S. economy was presented. The reported results showed that, although it would seem to have been observed growth of the Mexican economy below that the one that would have been anticipated considering the behavior of the U.S. economy, this apparent temporary decoupling was not due to a structural change in the relation between these two countries' manufacturing sectors.

Derived from the change in the base year to 2012 of the U.S. industrial production index, published by the Federal Reserve on July 21, 2015, in this Box the previously published results are updated. As in the previous occasion, evidence is found that the synchronization between both economies is maintained and that the correlations between the Mexican manufacturing exports to the U.S. and manufacturing production of that country are high. With the new information, correlation is found to be even higher.

### 2. Recent Evolution of the Relation between the Mexican and U.S. Economy

With the change in the base year of U.S. industrial production, the decoupling that would seem to have been presented between both economies since 2012 is even less evident. Indeed, both Mexican manufacturing exports to the U.S. and Mexican manufacturing production are more related to the revised U.S. series than to the previous series (Chart 1 and Chart 2).

Chart 1
U.S. Industrial Production and Mexican Manufacturing
Exports to the U.S.



Source: U.S. Federal Reserve Board and Banco de México with data from the Working Group on Foreign Trade Statistics.

Chart 2
U.S. and Mexican Manufacturing Production



Source: U.S. Federal Reserve Board and INEGL

Thus, the slowdown recently presented by manufacturing exports turns out to be more in line with the weak performance of U.S. industrial production exhibited by the revised series than with the previously published series. Another proof of this is found by analyzing the correlations between Mexican manufacturing exports to the U.S. and the U.S. manufacturing production. Table 1 reports that with the new information, the correlation between both countries referred activities is still high.

Table 1
Correlation between Mexican Manufacturing Exports to the U.S. and U.S. Manufacturing Production \*

Subsector	Percentage of total manufacturing exports in 2014	From 2008:I to 2015:I	
Total manufacturing	100.00	0.83	
Motor vehicles and their components	32.07	0.95	
Manufacturing excl. motor vehicles and their comp.	67.93	0.72	
Communications, computer and other equip.	23.78	0.75	
Accesories and electric power generation equip.	9.09	0.62	
Machinery and equipment	8.45	0.68	
Food, beverage and tobacco industries	3.67	0.32	
Fabricated metal products	3.30	0.91	
Primarly metal industry	3.22	0.67	
Other manufacturing industries	2.73	0.53	
Transportation and aerospace equipment	2.61	0.39	
Plastic and rubber industry	2.12	0.81	
Chemicals	2.01	0.84	
Apparel	1.93	0.71	
Oil and coal derived products	1.81	0.11	
Non-metallic mineral products	1.08	0.65	
Textile inputs manufacturing	0.70	0.80	
Furniture and related products	0.65	0.53	
Paper	0.53	0.77	
Printing and related industries	0.14	0.64	
Wood products	0.13	0.68	

\* Correlations between the annual change rate of seasonally adjusted quarterly series of manufacturing exports to the U.S. and that corresponding to U.S. manufacturing production are reported. In particular, the tests presented in Box 1 of the Quarterly Report January – March 2014 are updated. Thus, the methodology suggested by Vahid and Engle (1993) is applied again. With that methodology, first the existence of a long-term relationship (cointegration) between the Mexican manufacturing GDP and the U.S. manufacturing production is analyzed (Table 2). Later, a test is again applied to determine if there is a "common cycle" between both variables (Table 3).

Table 2
Analysis of Cointegration between Mexican Manufacturing
GDP and U.S. Manufacturing Production

1996-I to 2015-I						
Null-hypthesis of the number of cointegrating vectors	Trace statistic	Critical value at 5% <sup>1/</sup>				
None	18.09*	15.49				
At most 1	0.41	3.84				
	У1	У2				
Cointegrating vector	1	-0.96				

<sup>\*</sup> Null-hypothesis rejected at 5 percent significance level. where:

- y<sub>1</sub> is the logarithm of Mexican manufacturing GDP, seasonally adjusted figures.
- y<sub>2</sub> is the logarithm of the U.S. manufacturing production index, seasonally adjusted figures.
- 1/ Critical values, as in MacKinnon et al. (1999).

Table 3

Analysis of the Common Cycle between Mexican
Manufacturing GDP and U.S. Industrial Production<sup>1/</sup>

Null-hypthesis of the number of common cycles	Common cycle test statistic	Critical value at 5% 2/
More than 0	7.59	9.49
More than 1	99.96*	18.31
	$\Delta(y_1)$	$\Delta(y_2)$
Common cycle vector	1	-0.93

- \* Null-hypothesis rejected at 5 percent significance level.
- Where:
  - $\boldsymbol{\Delta}$  is the change with respect to the previous quarter of the variable in brackets.
  - $y_1$  is the logarithm of Mexican manufacturing GDP, seasonally adjusted figures.
  - y<sub>2</sub> is the logarithm of U.S. manufacturing production index, seasonally adjusted figures.
- 1/ Suggested by Vahid and Engle (1993).
- 2/ Critical values obtained from  $\chi^2$  distribution with degrees of freedom determined according to Vahid and Engle (1993)..

The results considering the new available information suggest: i) that there is a long-term relation between the Mexican and U.S. manufacturing production in the analyzed period (Table 2) and, ii) the presence of a common cycle between the Mexican and U.S. manufacturing production (Table 3).

Additionally, the test of Andrews and Kim (2006) is used to again formally evaluate the hypothesis of a possible decoupling in the last periods of the sample between the U.S. manufacturing production and the Mexican manufacturing exports to the U.S. This test is implemented both for the total of both sectors and for each of their

subsectors. As shown in Table 4, no evidence of a breakdown of cointregation is found in the last six months for total manufacturing, with or without automobile sector. Likewise, the results suggest that for the subsectors which represent around 91 percent of manufacturing exports from Mexico to the U.S., no evidence of a structural change in the long-term relation with the U.S. manufacturing production is found.<sup>1</sup>

Table 4
Tests for Cointegration Breakdown at the End of the
Sample between Mexican Manufacturing Exports and U.S.
Manufacturing Production

-	p-val	lue *	Percentage of total	
Subsector			manufacturing	
	Pc	Rc	exports in 2014	
Total manufacturing	46.15	46.15	100.00	
Motor vehicles and their components	39.56	40.66	32.07	
Manufacturing excl. motor vehicles and their comp.	36.26	40.66	67.93	
Communications, computer and other equip.	61.54	54.95	23.78	
Accesories and electric power generation equip.	21.98	21.98	9.09	
Machinery and equipment	47.25	47.25	8.45	
Food, beverage and tobacco industries	24.18	24.18	3.67	
Fabricated metal products	6.59	6.59	3.30	
Primarly metal industry	62.64	65.93	3.22	
Other manufacturing industries	9.89	6.59	2.73	
Transportation and aerospace equipment	72.53	79.12	2.61	
Plastic and rubber industry	62.64	60.44	2.12	
Chemicals	24.18	26.37	2.01	
Apparel	63.74	51.65	1.93	
Oil and coal derived products	0.00	0.00	1.81	
Non-metallic mineral products	20.88	21.98	1.08	
Textile inputs manufacturing	26.37	23.08	0.70	
Furniture and related products	10.99	8.79	0.65	
Paper	15.38	13.19	0.53	
Printing and related industries	83.52	73.63	0.14	
Wood products	7.69	8.79	0.13	

<sup>\*</sup>p-value reported in percent for test Pc and Rc. See Andrews and Kim (2006). For p-values over 10 the null-hypothesis of the cointegration relation being the same for the whole sample (January 2007 to June 2015) is not rejected).

#### 3. Final Considerations

The results reported in this Box show that the long-term relation between the Mexican productive activity and the U.S. industrial sector is still in place, and that the economic cycles of both countries tend to be synchronized. Thus, it is foreseen that greater growth of the U.S. economic activity will be reflected in an increased dynamism of the Mexican manufacturing sector.

#### References

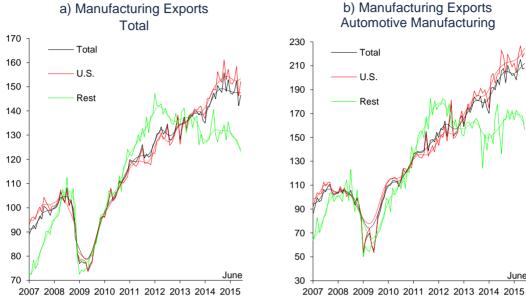
Andrews, D. and J. Kim, (2006), "Tests for cointegration breakdown over a short time period," *Journal of Business and Economic Statistics* 24(4): 379-394.

Vahid, F. and R. Engle, (1993), "Common Trends and Common Cycles," *Journal of Applied Econometrics* 8: 341-360.

The subsectors in Table 4 for which evidence of a possible change in their long-term relation in the last six months of the simple is found, are: Metal product production; Other manufacturing industries; Oil and coal derived products; Production of furniture and related products; and Wood products.

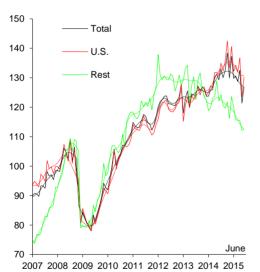
## Chart 60 Export Indicators

Index 2008=100, s. a.



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

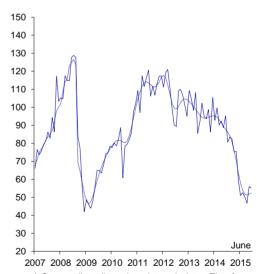
### c) Non-automotive Manufacturing Exports



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

Source: Banco de México with data from Working Group on Foreign Trade Statistics.

### d) Oil Exports



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

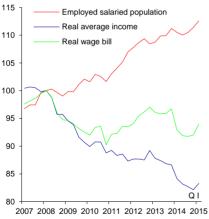
### a) Total ANTAD Sales Index 2003=100, s. a.



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

Source: Prepared by Banco de México with ANTAD data.

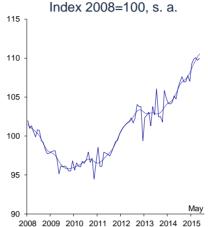
### a) Real Total Wage Bill Index I-2008=100, s. a.



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

### Chart 61 Consumption Indicators

b) Revenues of Commercial Retail Business



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

Source: Monthly Survey of Commercial Businesses, EMEC, INEGI.

### Chart 62 Consumption Determinants

b) Consumer Confidence Index 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.

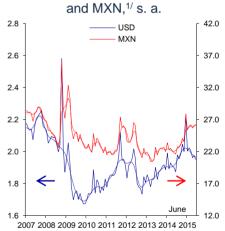
### c) Monthly Indicator of Private Consumption in the Domestic Market Index 2008=100, s. a.



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

Source: INEGI

### c) Workers' Remittances Billion, constant USD



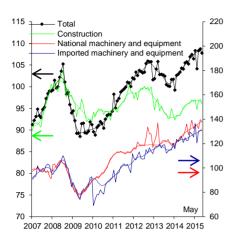
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

1/ At prices of the second fortnight of December 2010

Source: Banco de México.

Chart 63 **Investment Indicators** 

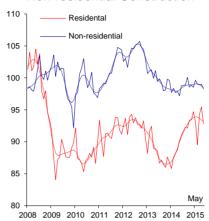
#### a) Investment and its Components



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

Source: Mexico's System of National Accounts, INEGI.

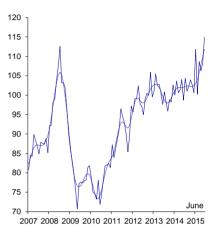
Index 2008=100, s. a. b) Investment in Residential and Non-residential Construction



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

Source: Mexico's System of National Accounts, INEGI.

c) Imports of Capital Goods



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

Source: Working Group on Foreign Trade Statistics.

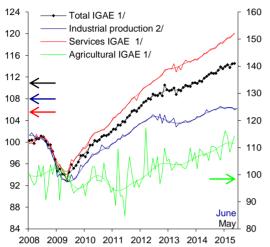
In line with the evolution of the aggregate demand components, productive activity continued showing a low growth rate in the second quarter of the year. In particular, industrial production registered a contraction, while in the first two months of this quarter services kept showing a slight upward trend (Chart 64a). Specifically:

- i. As regards industrial activity, in the second quarter manufacturing production maintained a positive trajectory, although lost dynamism (Chart 64b). On the other hand, mining further decreased, mainly as a reflection of the drop in oil production caused by the accident in the Abkatun A-Permanente platform in April (Chart 64c), With respect to this. it should be mentioned that this effect was important, but only transitory, given that in July production returned to the levels scheduled for this month since the beginning of the year. Finally, the construction sector started showing a further weakening, after having recovered since the second half of last year.
- ii. In April and May of 2015, services showed a positive evolution, mainly derived from the growth of those more related to domestic demand, such as financial and real estate services, domestic trade and temporary accommodation services and food preparation. On the other hand, in line with the weakening of the export sector, although those services more related with external demand, such as trade and transport of the external sector, also increased, they registered a lower dynamism than those more related to domestic demand (Chart 64d).
- iii. In the first two months of the second quarter 2015, agricultural activities registered a trend of stagnation, although with the volatility usually presented by this sector. This performance derived from the combination of a reduced area planted in the spring-summer cycle, a better harvest in the autumn-winter cycle and an increase in the production of some perennial crops and some livestock products.

Chart 64 Production Indicators

Index 2008=100, s. a.

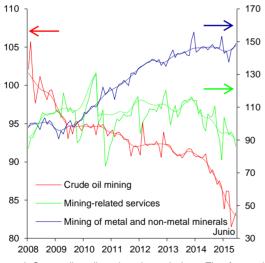
### a) Economic Activity Indicators



- s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
   1/ Data as of May 2015.
- 2/ Data as of June 2015 with information of the Monthly Indicator of Industrial Activity.

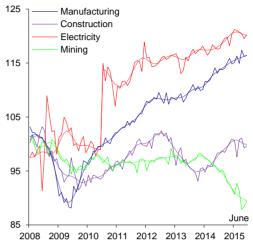
Source: Mexico's System of National Accounts, INEGI.

### c) Mining Sector



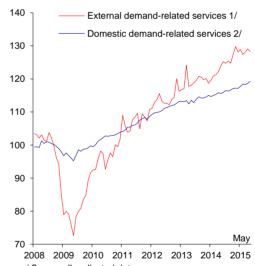
 s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
 Source: Monthly Indicator of Industrial Activity, Mexico's System of National Accounts, INEGI.

### 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 Indicator of Industrial Activity, Mexico's System of National Accounts, INEGI.

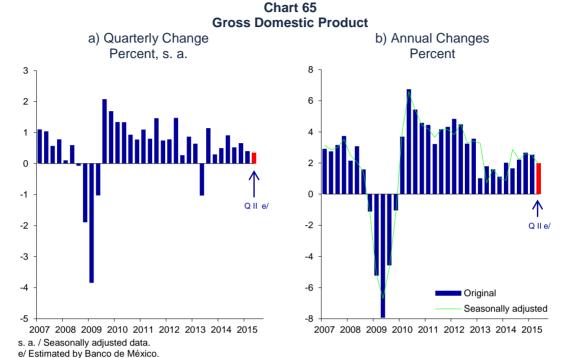
### d) Service Sector IGAE



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

For the second quarter of 2015, a quarterly GDP growth of around 0.3 percent (seasonally adjusted) is calculated, compared with the 0.4 percent increase observed in the previous quarter (Chart 65a). At an annual rate, both with seasonally adjusted and original data, a GDP growth of around 2.0 percent is

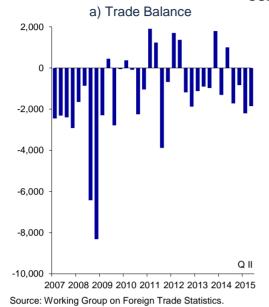
estimated for the period April – June 2015, compared with 2.5 percent registered in the previous quarter, also with seasonally adjusted and original data (Chart 65b).

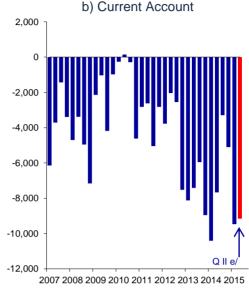


Source: Mexico's System of National Accounts, INEGI. Seasonal adjustment of the second quarter of 2015 was prepared by Banco de México.

In the second quarter of 2015, the trade balance deficit was USD 1,852 million (Chart 66a). On the other hand, latest data suggests that the current account presented a moderate deficit in the same period and that capital inflows received through the financial account allowed the financing of that deficit (Chart 66b).

Chart 66
Trade Balance and Current Account
USD Million





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

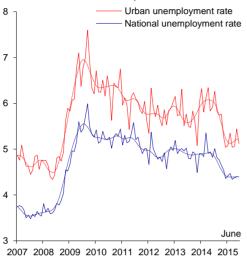
### 3.2.2. Labor Market

In the second quarter of 2015, slack conditions persisted in the labor market, in a context where some indicators stopped showing the improvement they were exhibiting since 2014. In particular:

- i. National and urban unemployment rates stopped the downward trajectory observed since the beginning of 2014, in addition to still being above precrisis levels (Chart 67a). Indeed, in the second quarter the national unemployment rate showed a seasonally adjusted average level of 4.39 percent, figure similar to the one presented last quarter of 4.41 percent.
- ii. This behavior of the unemployment rates took place while the labor participation rate remained relatively stable around 59.6 percent (Chart 67b).
- iii. With respect to the evolution of employment, the number of IMSS-insured workers continued showing an upward trend. At the same time, the total number of economy's workers also increased (Chart 67c), although less than the number of IMSS-insured workers.
- iv. In the period April June, the informal sector employment rate remained at levels close to those registered in the previous quarter. In turn, the labor informality rate stopped showing the clear downward trend observed until the end of 2014 (Chart 67d).

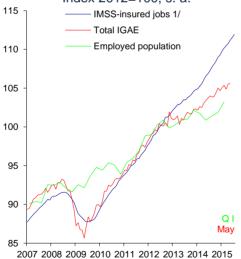
### Chart 67 **Labor Market Indicators**

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



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

### c) IMSS-insured Workers, Employed Population and Total IGAE Index 2012=100, s. a.

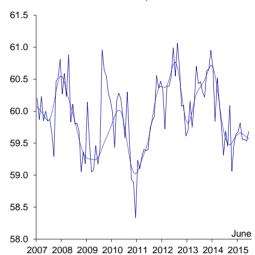


s. a. / Seasonally adjusted data.

1/ Permanent and temporary jobs in urban areas. Seasonal adjustment by Banco de México.

Source: Prepared by Banco de México with data from IMSS and INEGI (SCNM and ENOE).

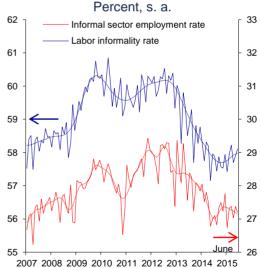
### b) National Labor Participation Rate 1/ Percent, s. a.



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

(ENOE), INEGI.

### d) Employment in the Informal Sector 1/ and Labor Informality 2/



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

It refers to individuals working in non-agricultural economic units, operating with no accounting records and that function by means of households' resources.

It includes workers who, besides being employed in the informal sector, work without social security protection and whose services are used by registered economic workers self-employed in subsistence agriculture.

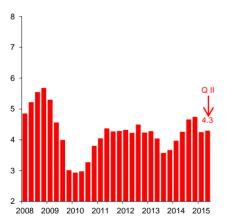
Source: National Survey on Occupation and Employment (ENOE), INEGI.

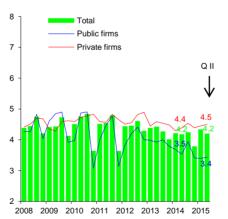
In light of slack conditions in the labor market, during the second quarter of 2015 growth rates of the main wage indicators did not register significant changes as compared to the previous quarter. In particular:

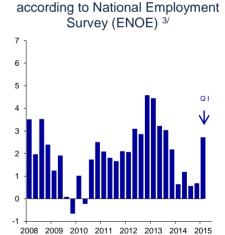
- i. The IMSS reference wage of IMSS-insured jobs increased 4.3 percent annually during the second quarter of 2015, same figure as reported last quarter (Chart 68a).
- ii. As regards the contractual wages negotiated by firms under federal jurisdiction in the second quarter of 2015, they presented the same growth rate as in the same quarter last year (4.2 percent, Chart 68b). This result was derived from the fact that both private firms' and public firms' wage negotiations turned out on average similar to those observed in the same quarter last year (4.5 percent in the second quarter of 2015 and 4.4. in the same quarter of 2014 in the case of private firms; and 3.4 and 3.5 percent in the period April June 2015 and 2014, respectively, in the case of public firms). In July 2015, the average contractual wage increase of firms under federal jurisdiction was 4.8 percent. It should be mentioned that in that month there were no negotiations by public firms' workers, while private firms' workers negotiated on average the same raise as last year.
- iii. Available information shows that in the first quarter of 2015, the growth rate of average wage of the total of employed workers of the economy was still below levels registered in 2012 (Chart 68c).

# Chart 68 Wage Indicators

Annual change in percent
a) IMSS Reference Wage <sup>1/</sup>
b) Contractual Wage <sup>2/</sup>







c) Average Wage of Salaried

- 1/ During the second quarter of 2015, on average 17.7 million workers registered at IMSS.
- 2/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.
- 3/ To calculate the average monthly nominal wages, the lowest 1 percent and the highest 1 percent in the wage distribution were excluded. Individuals with zero income or those who did not report are excluded.

Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE).

#### 3.2.3. Financial Saving and Financing in Mexico

In the second quarter of 2015, the sources of financial resources in the economy increased at a lower rate than that observed in the previous quarter, which was

reflected in a moderation of annual flows during the period (Table 4). This performance was explained by less dynamism of external sources —in an environment characterized by volatility in international financial markets and lower capital flows to emerging economies in general—, since domestic sources expanded at a rate similar to that of last quarter.

Table 4
Total Funding of the Mexican Economy (Sources and Uses)
Percentage of GDP

	Annual flows						Stock 2015 II e/	
	2014 I	2014 II	2014 III	2014 IV	2015 I	2015 II e/	% GDP	Est. %
Total sources	8.4	11.7	9.9	10.2	9.1	7.8	100.8	100.0
Domestic sources 1/	5.1	6.2	5.5	5.8	5.1	5.1	62.5	62.1
Foreign sources <sup>2/</sup>	3.3	5.5	4.5	4.3	4.0	2.7	38.2	37.9
Total uses	8.4	11.7	9.9	10.2	9.1	7.8	100.8	100.0
Public sector financing	3.9	4.2	4.5	4.2	4.3	4.5	48.7	48.3
Public Sector Borrowing Requirements (PSBR) 3/	3.6	3.9	4.3	4.0	4.1	4.3	45.7	45.3
States and municipalities	0.3	0.3	0.3	0.2	0.2	0.1	3.0	3.0
International reserves 4/	1.3	1.9	1.4	1.3	1.0	0.2	17.2	17.1
Non-financial private sector	3.6	3.8	3.2	2.4	2.6	2.7	38.4	38.1
Households	1.2	1.1	1.1	1.1	1.2	1.2	15.2	15.1
Consumption	0.4	0.4	0.4	0.3	0.3	0.3	4.8	4.8
Housing <sup>5/</sup>	0.7	0.7	0.7	0.7	0.8	0.8	10.4	10.3
Firms	2.4	2.7	2.1	1.3	1.5	1.5	23.2	23.0
Domestic <sup>6/</sup>	1.1	1.0	1.0	0.6	1.0	1.2	12.9	12.8
Foreign	1.4	1.7	1.2	0.7	0.5	0.3	10.3	10.2
Commercial banks' foreign assets 7/	-0.1	0.2	0.2	0.1	0.0	0.1	1.5	1.5
Other 8/	-0.3	1.6	0.6	2.2	1.3	0.4	-5.1	-5.0

Note: Figures may not add up due to rounding. Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of exchange rate fluctuations.

e/Estimated figures based on timely data available for the second quarter 2015.

1/Includes the monetary aggregate M4 hold by residents.

Source: Banco de México.

With respect to the domestic sources of financial resources, the stock of domestic financial saving –defined as the monetary aggregate M4 held by residents minus the stock of currency held by the public– registered a lower real annual change than that observed in the previous quarter (Chart 69a). The above mainly derived from a lower dynamism of the compulsory savings' component, while the voluntary savings' component maintained its expansion rate (Chart 69b). The monetary base increased at a higher rate as compared to the previous quarter. This was mainly the result of the temporary increase in money demand due to the elections that took place in Mexico, whose impact on the annual rates of growth should fade out in the following months.

In what concerns the external sources of financial resources, the stock of non-resident financial saving lowered its growth rate compared to the previous quarter.

<sup>2/</sup>Includes the monetary aggregate M4 hold by non-residents, foreign financing for the federal government, public institutions and entities, commercial banks' foreign liabilities and financing to the non-financial private sector.

<sup>3/</sup> Public Sector Borrowing Requirements (Requerimientos Financieros del Sector Público, RFSP or PSBR, for its acronym in English) and historic stock, reported by the Ministry of Finance (SHCP)

<sup>4/</sup> As defined by Banco de México's Law.

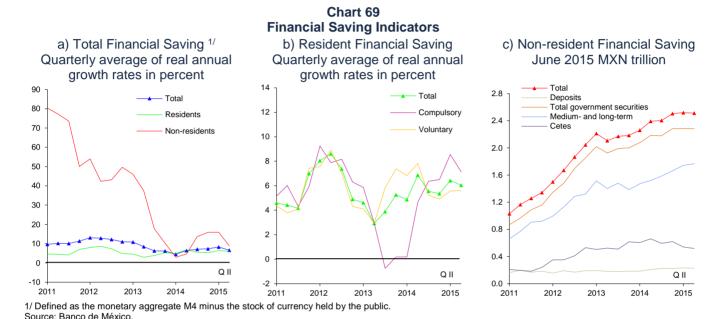
<sup>5/</sup>Total portfolio of financial intermediaries, of the National Housing Fund (Instituto del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit), and of the ISSSTE Housing Fund (Fondo de la Vivienda del ISSSTE, Fovissste). Includes restructuring programs.

<sup>6/</sup>Portfolio of financial intermediaries. Includes restructuring programs.

<sup>7/</sup> Includes foreign assets and foreign financing.

<sup>8/</sup> It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and INFONAVIT, non-monetary liabilities from the Institute for the Protection of Bank Savings (*Instituto de Protección del Ahorro Bancario*, IPAB), the effect of the change in the valuation of public debt instruments, as well as non-recurring revenues of the public sector derived from the net acquisition of financial assets and liabilities, among other concepts.

It is worth noting that, although foreign investors reduced their holdings of short-term government securities, they continued to increase their holdings of medium-and long-term bonds (Chart 69c), even in spite of the programmed biannual expiration of M Bonds that occurred on June 18, which implied a temporary reduction of the holdings of these instruments by non-residents. On the other hand, the growth rate of financial resources from foreign sources channeled to the financing of the private sector also slowed down in the reference quarter.

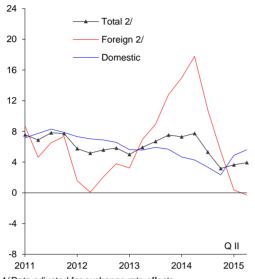


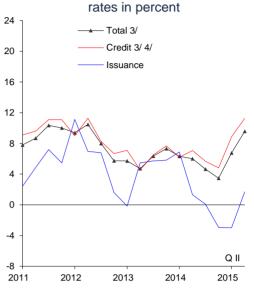
In line with the above, the use of financial resources in the economy registered a moderation in their annual flows during the second quarter as compared to the first quarter (Table 4). This was mainly a reflection of the decrease in international reserves that took place during the quarter. This in turn derived from the USD auctions that Banco de México implemented under the guidelines set forth by the Foreign Exchange Commission to provide adequate liquidity in the foreign exchange market (see Section 4), as well as from the reduced USD sales from Pemex to the Central Institute. In contrast, financing to the public sector registered a slight increase compared to the previous one, due to the rise in Public Sector Borrowing Requirements (PSBR). Meanwhile, financing to the non-financial private sector was slightly higher in the period April - June 2015 than in the previous quarter.

Regarding this last point, domestic financing to non-financial private firms in the second quarter of 2015 grew at a higher rate than in the previous quarter (Chart 70). This was the result of a greater dynamism of bank credit and debt placement in the domestic market, in contrast to the slowdown experienced by these segments at the end of 2014. In particular, commercial bank credit to non-financial private firms registered an average real annual growth rate of 9.3 percent in the second quarter of 2015, which is above the 7.5 percent average recorded last quarter (Chart 71a). Likewise, direct credit from development banks increased its expansion rate. This happened in an environment where interest rates and delinquency rates remained at low and stable levels (Chart 71b and Chart 71c).

Chart 70
Financing to the Non-financial Private Sector

- a) Total Financing to the Non-financial Private Sector <sup>1/</sup> Real annual growth rate in percent
- b) Domestic Financing to Non-financial Private Firms Quarterly average of real annual growth





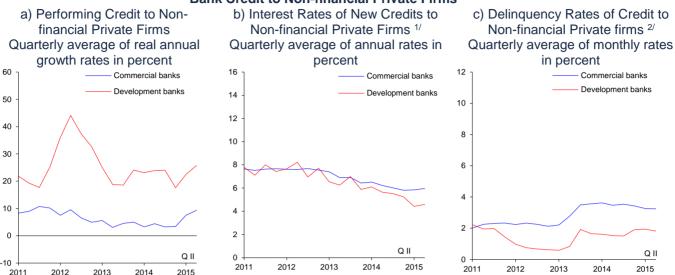
- 1/Data adjusted for exchange rate effects.
- 2/ Data of foreign financing for the second quarter of 2015 are preliminary.
- 3/ These data can be affected by the disappearance of some nonbank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
- 4/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as other nonbank financial intermediaries.

Source: Banco de México.

In the debt market, placements of domestic corporate securities in the second quarter continued to display a similar dynamism with respect to the previous quarter, after having registered low activity throughout 2014. In particular, in April – June 2015, gross placements of medium-term domestic debt instruments were MXN 19.9 billion, while gross amortizations –scheduled redemptions and prepayments– were MXN 4.6 billion. Thus, the net placement of corporate securities was MXN 15.3 billion, in a context where interest rates in general remained relatively stable (Chart 72a and Chart 72b). In contrast, private debt placements in international markets grew at a slow rate, reflected in lower growth rates of foreign financing compared to the previous quarter.

Chart 71

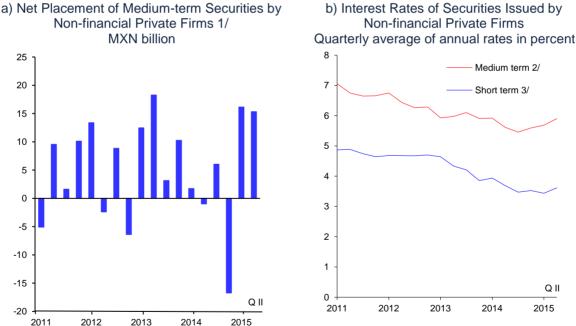
Bank Credit to Non-financial Private Firms



<sup>1/</sup> 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. The data of June for the development bank is preliminary.

2/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans. Source: Banco de México.

# Chart 72 Securities of Non-financial Private Firms in the Domestic Market

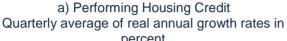


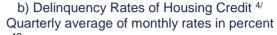
- 1/ Placements excluding amortizations in the quarter (maturities and prepayments).
- 2/ Placements of more than one year.
- 3/ Placements of up to one year.

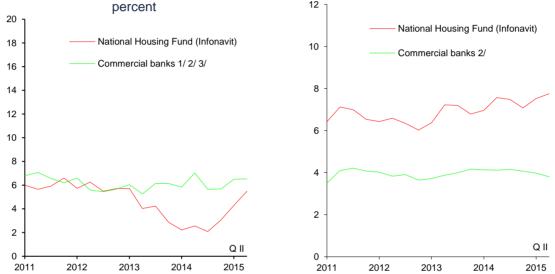
Source: Banco de México, with data from Valmer and Indeval.

With respect to credit to households, its growth rates were modestly higher than in the previous quarter. This was mainly explained by the expansion of mortgage credit granted by Infonavit, which grew 5.5 percent on average during the second quarter of the year, above the 4.3 percent registered in the period January – March 2015. The mortgage credit portfolio of commercial banks and their sofomes maintained last period's dynamism, expanding at a real average annual rate of 6.5 percent (Chart 73a). In this environment, the interest rates and delinquency rates of commercial bank mortgage loans did not present significant changes during the reported quarter. However, the delinquency rate of the Infonavit portfolio has shown a gradual deterioration (Chart 73b).

# Chart 73 Housing Credit







<sup>1/</sup> Figures are adjusted in order to avoid distortions by the transfer from the UDIS trust portfolio to the commercial banks' balance sheet and by the reclassification of direct credit portfolio to ADES program.

Source: Banco de México.

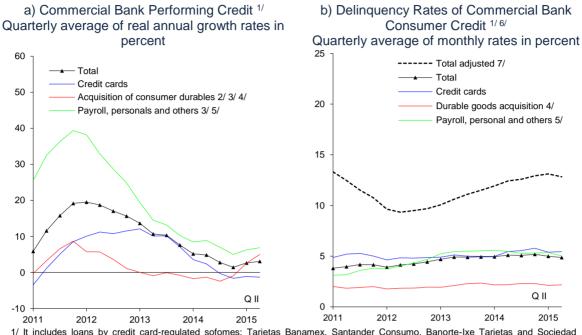
With regards to consumer credit, although it expanded at rates similar to those observed in the previous quarter –3.1 percent during the second quarter of 2015–, its different segments showed a mixed performance. In particular, while payroll loans kept growing at double digit rates, personal and credit card loans continued without showing clear signs of recovery (Chart 74a). Interest rates and delinquency rates of these segments practically remained unchanged, although the adjusted delinquency rate –which considers bad debt write-offs accumulated in the last twelve months– remains at high levels (Chart 74b).

<sup>2/</sup> It includes sofomes owned by commercial banks.

<sup>3/</sup> Figures are adjusted to avoid distortions due to the inclusion of some regulated sofomes to the bank credit statistics.

<sup>4/</sup> The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

Chart 74
Commercial Banks' Consumer Credit



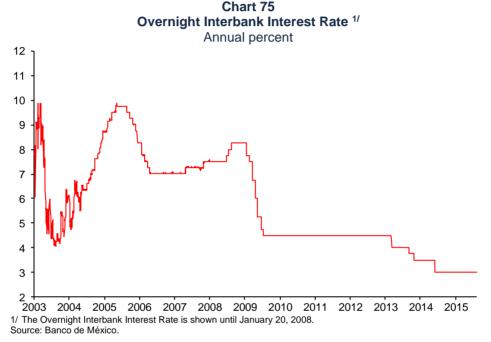
- 1/ It includes loans by credit card-regulated sofomes: Tarjetas Banamex, Santander Consumo, Banorte-Ixe Tarjetas and Sociedad Financiera Inbursa.
- 2/ Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of one banking institution's automobile loan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

Source: Banco de México.

In sum, despite less favorable financial conditions in international financial markets, the evolution of financing in Mexico continued supporting productive activity. All of this, in an environment of stable interest rates and delinquency levels, indicating that there are no pressures affecting the markets for loanable funds.

# 4. Monetary Policy and Inflation Determinants

During the period covered by this Report, the Board of Governors maintained the target for the Overnight Interbank Interest Rate at 3 percent by virtue of the fact that it deemed this monetary policy stance to be conducive to the consolidation of the convergence of inflation to its permanent 3 percent target (Chart 75). Regarding this, it is noteworthy that the conduct of monetary policy in Mexico continued facing a complicated environment that required the Central Institute to weigh both internal and external factors in order to define the appropriate monetary policy stance.



Among the factors considered in order to make the mentioned monetary policy decisions, the following stand out. With respect to the internal factors:

- a) Inflation did not only reach the permanent 3 percent target, it even located at levels below the referred target, marking historic minimum levels. Additionally, it is anticipated to remain below 3 percent during the rest of this year and close to that level next year.
- b) To the favorable behavior of inflation contributed the absence of aggregate demand-related pressures on prices given that, in face of the weak dynamism of economic activity, conditions of slackness prevail in the economy.
- c) Given the Mexican peso depreciation, the pass-through onto prices has been limited, mainly affecting some durable goods' prices and without generating second round effects.
- d) Reductions in input prices, such as energy, commodity and telecommunication service prices contributed, both directly and indirectly, to the decrease in inflation.

e) Inflation expectations remained well-anchored, even those for short and medium-term horizons declined.

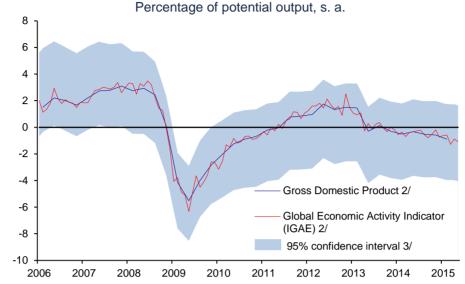
With respect to the external factors:

f) The Mexican peso, as well as other currencies of emerging economies, has registered an additional depreciation, in face of the increasingly imminent rise in interest rates by the U.S. Federal Reserve before the year ends. Although so far this adjustment of the quote of the national currency has not been reflected in a generalized price increase, this cannot be ruled out and inflation expectations might be affected. On the other hand, as mentioned before, the appreciation of the U.S. dollar has practically been a generalized phenomenon with respect to the rest of the currencies. Trying to stop by means of monetary policy actions the real depreciation of the Mexican currency, as long as this is taking place in an orderly manner and under appropriate liquidity conditions in the national markets, can also imply considerable costs.

Going into the details of inflation determinants, the moderate growth pace of economic activity has led to slack conditions in the economy, so that no aggregate demand-driven pressures on prices in the main input markets or external accounts were present. In particular:

- i. The output gap has continued registering negative levels (Chart 76). However, once economic activity shows greater dynamism, the output gap will be gradually closing.
- ii. In the labor market, sluggish conditions persists.
- iii. Moderate increases in the main wage indicators, together with the positive trend shown by labor productivity, led to the fact that unit labor costs for the total economy persisted at low levels (Chart 77).

Chart 77 Output Gap Estimate 1/



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

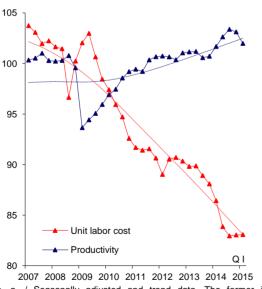
Source: Prepared by Banco de México with data from INEGI.

# Chart 77 **Productivity and Unit Labor Cost**

Index 2008=100, s. a.

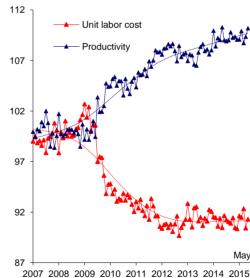
# a) Total of the Economy

# b) Manufacturing



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.

Source: Unit cost prepared by Banco de México with data from INEGI. The Global Index of Labor Productivity in the Economy (IGPLE), as released by INEGI.



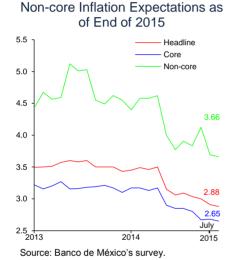
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the monthly indicator of Mexico's System of National Accounts, INEGI

Regarding the recent evolution of inflation expectations, it is worth noting that in those derived from Banco de México's survey to private sector specialists, the median at the end of 2015 decreased from 3.1 to 2.9 percent between the March and July 2015 surveys.<sup>21</sup> In particular, both the median corresponding to core inflation expectations and non-core inflation expectation implicit in these medians for the end of the referred year decreased from 2.9 to 2.7 percent and from 3.9 to 3.7 percent, respectively, between the referred surveys (Chart 78a). In turn, the median of headline inflation expectations for the end of 2016 dropped from 3.5 to 3.4 percent between the same surveys.<sup>22</sup> In particular, the median of those for the core component declined from 3.2 to 3.1 percent, while non-core implicit expectations fell from 4.5 to 4.3 percent (Chart 78b). Last, longer-term inflation expectations remained stable around 3.5 percent (Chart 78c).<sup>23</sup>

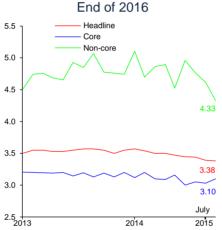
# Chart 78 Inflation Expectations Percent

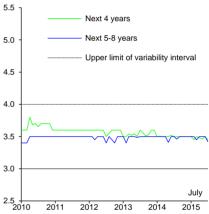
b) Medians of Headline, Core and Non-core Inflation Expectations as of

c) Medians of Headline Inflation Expectations of Different Terms



a) Medians of Headline, Core and





With reference to the evolution of inflation expectations implicit in 10-year market instruments, they remained stable around 3.2 percent between March and July 2015, while the inflationary risk premium adjusted from around -30 to -15 basis points, although it remained at negative levels (Chart 79a).<sup>24</sup> In this way, although break-even inflation (the difference between long-term nominal and real interest rates) increased from approximately 2.85 to 3.00 percent during the reference period, it still persists close to historic minimum levels (Chart 79b), reflecting that the holders of nominal interest rate-indexed instruments keep on demanding a

<sup>&</sup>lt;sup>21</sup> According to Banamex Survey of Financial Market Analysts' Expectations, the median of headline inflation expectation for the end of 2015 registered a similar behavior, decreasing from 3.1 percent in the survey of March 20, 2015 to 2.9 percent in the survey of August 5, 2015.

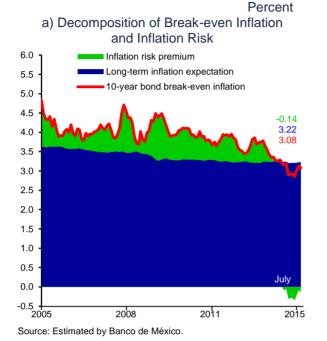
<sup>&</sup>lt;sup>22</sup> The median of headline inflation expectation for the end of 2016, based on the Banamex survey, remained around 3.5 percent between the survey of March 20, 2015 and that of August 5, 2015.

<sup>&</sup>lt;sup>23</sup> The median of long-term inflation expectations in the Banamex survey (corresponding to the period 2017-2021) has also remained on average around 3.5 percent between the surveys of March 20, 2015 and that of August 5, 2015.

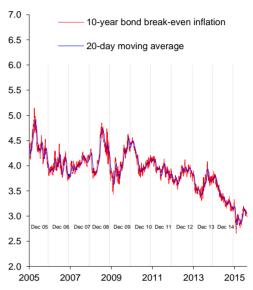
<sup>&</sup>lt;sup>24</sup> For a description of the estimation of long-term inflation expectations, see the Box "Decomposition of Breakeven Inflation" in the Quarterly Report, October-December 2013.

relatively low compensation for inflation and inflationary risk related to Mexican government bonds.

Chart 79
Inflation Expectations



### b) 10-year Bond Break-even Inflation



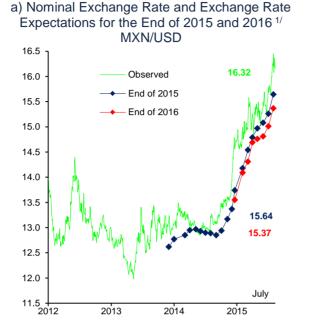
Source: Estimated by Banco de México with data from Valmer and Bloomberg.

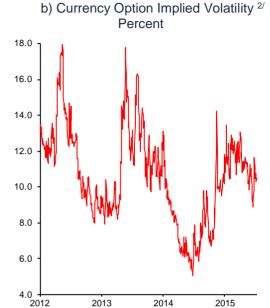
In the environment of high volatility in international financial markets described in the previous sections of this Report, national financial markets were also affected. Thus, the Mexican peso registered a significant depreciation against the U.S. dollar, passing from levels around 15.1 to 16.3 MXN/USD between late March and early August 2015 (Chart 80a and Chart 80b).

Although the most important factor that contributed to the depreciation of the Mexican peso was the expectation of an increase of the Federal Reserve interest rate, other real factors, such as the adverse shock to the terms of trade that represented the drop in oil prices and downward revisions of the oil production platform, with the consequent impact on public finances and the oil trade balance, also influenced the quote of the Mexican currency.

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Chart 80 Exchange Rate and Implied Volatility





1/ The observed exchange rate is the daily quote of the FIX exchange rate. The latest quote of the observed exchange rate corresponds to August 11, 2015.
Source: Banco de México and Banco de México's survey.

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

Despite the volatility registered in financial markets, no net capital outflows have been observed. Non-residents' government bond holdings remained stable, although with certain changes of its composition. In particular, investors' holdings of short-term instruments decreased, while holdings of medium- and long-term bonds continued increasing (Chart 81). However, the adjustment of risk exposure of investors' portfolio has implied a stronger demand for currency hedges, which contributed to the depreciation of the national currency

In this context, to reduce the probability of potential pressures affecting the adequate (i.e. with appropriate liquidity conditions) functioning of the national exchange market, the Foreign Exchange Commission took several measures during the reference period. First, it determined to extend from June 9 to September 29, 2015 the mechanism through which Banco de México daily auctioned USD 52 million without minimum price, in place since March 11, as well as to maintain the mechanism of daily auctions of USD 200 million with minimum price (at an exchange rate 1.5 percent higher than the FIX exchange rate determined the previous day), introduced on December 8, 2014. Later, in face of an increase in the volatility of international financial markets, it decided to reinforce the mentioned mechanisms. Specifically, from July 31 to September 30, it increased the amount of the auction without minimum price from USD 52 million to USD 200 million and reduced the minimum price of the daily auction of USD 200 million to the equivalent of the FIX exchange rate determined the previous working day plus 1 percent. It is noteworthy that, since its introduction this auction mechanism has been activated in five occasions, resulting in a total of USD 973 million sold. The Foreign Exchange Commission stated that at the end of this period, it will continue evaluating the convenience of carrying out additional actions if necessary.

Source: Banco de México.

Government Securities Holdings by Foreign Investors and Exchange Rate MXN billion and MXN/USD 2,500 17 **Bonds CETES** 16 2,000 Total Exchange rate 15 1.500 14 13 1.000 12 500 11 10 2010 2013 2009 2011 2012 2014 2015 2008

Chart 81

The adjustment in real terms of the Mexican exchange rate facilitates that the economy adapts to the new international environment. In this sense, the nominal exchange rate depreciation, in a context of well-anchored inflation expectations, and consequently of a low pass-through of exchange rate movements onto prices, as well as the efforts in the area of fiscal consolidation, contributes to the fact that the real exchange rate depreciation takes place more efficiently. This has implied changes in the structure of production and the aggregate demand, mitigating in this way their falls, as well as that of employment. Looking forward, and with a longerterm perspective, it should be pointed out that, even though the uncertainty regarding the normalization process of the U.S. monetary policy has led to an environment of high volatility in international financial markets, it is to be expected that, to the extent that the Federal Reserve increases its reference rate in response to a more dynamic economic activity in the U.S., the outlook for both Mexican

Meanwhile, the Mexican interest rates registered increases during the reference period. This was the reflection of an adjustment process of U.S. interest rates and given the positive correlation both rates hold. In particular, the interest rate of the 10-year government bond increased around 20 basis points from late March to early August, passing from 5.9 to 6.1 percent, while the 2-year bond rate increased approximately 40 basis point, shifting from 4.0 to 4.4 percent. Likewise, 3-month government bonds' rate increased by approximately 10 basis points from 3.2 to 3.3 percent (Chart 82a). Accordingly, the slope of the yield curve (the difference between 10-year and 3-month rate) registered an upward shift of approximately 10 basis points, moving from 270 to 280 basis points in the same period (Chart 82b).

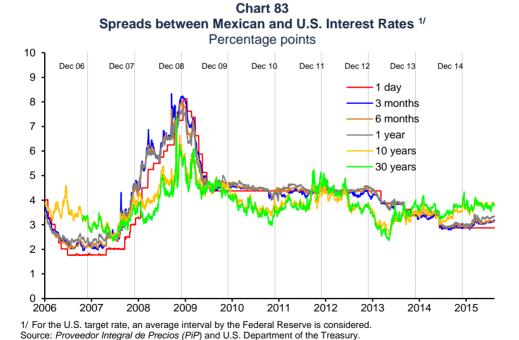
exports and the Mexican peso will be more favorable.

**Mexican Interest Rates** Percent b) Yield Curve a) Government Bond Interest Rates 1/ 12.0 D 10 D 11 D 12 8.0 1 day 11.0 30-Jun-14 3 months 7.5 6 months 31-Dec-14 10.0 1 year 7.0 31-Mar-15 10 years 9.0 30 years 6.5 30-Jun-15 6.0 8.0 11-Aug-15 5.5 7.0 5.0 6.0 4.5 5.0 4.0 3.5 4.0 3.0 3.0 2.5 2.0 2007 2008 2009 2010 2011 2012 2013 2014 2015 10 20 5 dav months vears

Chart 82

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)*.

As a result of the evolution of the interest rates described before, and given that the respective U.S. interest rates increased to a greater extent, the long-term interest rate spreads between both economies showed slight declines. In particular, the 10-year bond rate spread marginally went down from about 390 to 385 basis points in the period covered by this Report (Chart 83).

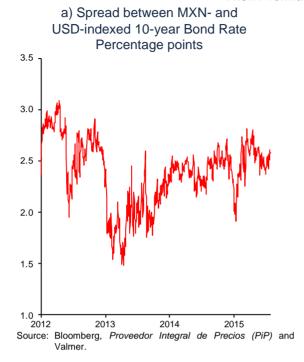


To further examine the evolution of longer-term interest rates in Mexico, as in other occasions, the performance of their components should be analyzed: the short-term

interest rate (the reference rate); the expected short-term interest rates; and the risk premia. In this regard, it stands out that during the period covered by this Report:

- a) The target for the Overnight Interbank Interest Rate remained at 3.0 percent.
- b) Expected short-term interest rates decreased. In particular, according to Banco de México's survey to private sector specialists, the median of expectations for the bank funding' rate at the end of 2015 went from around 3.5 to 3.3 percent between the surveys of March and July 2015. A similar behavior for the end of 2015 is inferred from the expectations implicit in market instruments' interest rates. Meanwhile, for the end of 2016, the median of the expectations resulting from the referred surveys went from 4.5 to 4.0 percent. This performance was similar for the expectations corresponding to the U.S. interest rates.
- c) The behavior of the diverse risk prima was mixed, although in general they remained at low levels:
  - Market indicators that measure the sovereign credit risk increased.
     In particular, the 5-year Credit Default Swap raised approximately 10 basis points.
  - ii. Inflation risk premium has been correcting the negative levels, presented since November last year, and currently locates around 15 basis points (Chart 79a).
  - iii. The exchange rate risk premium, approximated by the interest rate spread of the MXN-indexed 10-year government bond and that corresponding to the same term issued in USD, showed a slight reduction (Chart 84a).
  - iv. Lastly, an indicator of the term premium (indicated by the difference between the 10-year and 2-year interest rate spread) declined slightly, shifting from 190 to 180 basis points (Chart 84b).

Chart 84 Risk Premia



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



1/ The term premium refers to the difference between the 10year and the 2-year interest rate.

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

To sum up, in light of the complex external environment, the importance of strengthening Mexico's macroeconomic framework should be emphasized. Thus, it will be necessary to timely adjust the monetary policy and to consolidate efforts in the fiscal area. This would contribute to maintain confidence in the Mexican economy and, consequently, the risk premia of interest rates to remain at low levels, which will be crucial to propitiate a favorable evolution of the country's interest rates in light of a future outlook of more astringent global financial conditions.

#### 5. Inflation Forecast and Balance of Risks

Considering the outlook described in this Report for the external environment and the recent evolution of the different domestic demand components, the macroeconomic scenario foreseen for the Mexican economy is presented below.

**GDP Growth:** For 2015, the forecast for Mexico's GDP growth is revised from an interval of between 2.0 and 3.0 percent in the previous Report to one from 1.7 to 2.5 percent. For 2016, GDP growth is expected to be between 2.5 and 3.5 percent, the same interval as in the previous Report (Chart 85a).

This forecast is based on several elements. On the one hand, the growth pace of economic activity in Mexico in the first semester of 2015 was lower than expected. In particular, industrial production registered a weak performance, reflecting the fact that the crude oil mining sector continued presenting a negative trend and the construction sector paused the recovery it had been showing. Additionally, manufacturing production exhibited low dynamism as a reflection of the contraction in manufacturing exports, associated in turn with the drop in U.S. industrial production. In this context, domestic demand components registered moderate growth.

From here on, Mexico's economic activity is expected to improve in the second half of the year, although at a lower rate than that anticipated in the previous Report. Domestic demand growth is expected to remain moderate, so the recovery would be mainly associated with higher manufacturing production in Mexico, reflecting increased exports of this sector due to an improvement of U.S. industrial activity and the real depreciation of the Mexican peso against the U.S. dollar. It is noteworthy that, although expectations for U.S. industrial production for 2015 recently adjusted downwards, a recovery is still expected in the second quarter.<sup>25</sup>

For 2016, the implementation of structural reforms is anticipated to gradually be reflected in a greater dynamism of investment, which would complement the moderate recovery presented so far by consumption. Additionally, U.S. industrial activity and, as a consequence, Mexican exports are expected to further recover.

**Employment:** In line with the adjustment of the economic growth outlook for 2015, the forecast of the increase in the number of IMSS-insured jobs is also revised downwards for this year. So, for 2015, an increase of between 560 and 660 thousand IMSS-insured jobs is expected, as compared to the expectation of an increase of between 580 and 680 thousand in the previous Report. For 2016, an increase of between 600 and 700 thousand IMSS-insured jobs is expected, the same interval as in the previous Report.

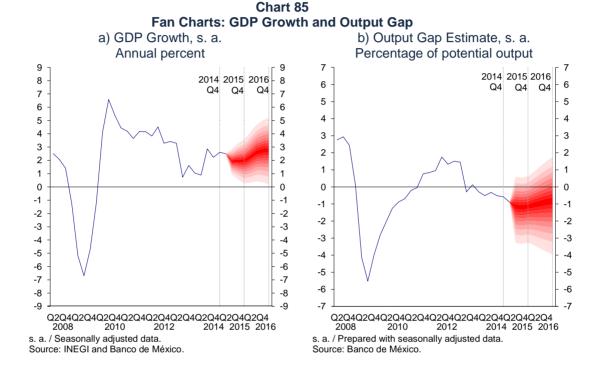
**Current Account:** For 2015, trade balance and current account deficits of USD 6.0 billion and USD 30.6 billion are expected, respectively (0.5 and 2.6 percent of GDP,

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<sup>&</sup>lt;sup>25</sup> Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in August 2015. For industrial production in 2015, these are adjusted from an annual growth of 2.5 percent in the previous Report to 1.9 percent in the present Report. For 2016, the growth of this indicator is revised from 3.1 percent reported in the previous Report to 2.7 percent in the present Report.

in that same order). For 2016, the expected deficits are USD 6.3 billion and USD 31.8 billion, respectively (0.5 and 2.5 percent of GDP, in that order).

Although certain recovery of economic activity in Mexico in the second half of the year and in 2016 is foreseen, no aggregate demand-related pressures on inflation or external accounts are expected. In particular, the GDP gap is anticipated to remain negative in the forecast horizon, although trending towards gradually closing (Chart 85b).



The GDP growth scenario for Mexico is subject to diverse risks. Among the downward risks are the following:

- i. That manufacturing exports continue to register a low dynamism if the U.S. industrial sector keeps showing a weak performance.
- ii. A deterioration in investors' outlook due to the lack of favorable results with regard to the implementation of the energy reform and/or in face of an additional weakening of the perception of the rule of law.
- iii. That Mexican oil production recovery is delayed, affecting the dynamism of the country's industrial sector.
- iv. An additional increase in international financial markets' volatility that deteriorates access conditions to external financing for the Mexican economy.

On the other hand, among the upward risks for the foreseen GDP growth scenario the following stand out:

- i. Greater dynamism of the export sector in case of a greater than expected recovery of external demand.
- ii. Better progress in the implementation of structural reforms and/or in the strengthening of the rule of law.

**Inflation:** Taking into consideration the lack of aggregate demand-driven inflationary pressures on prices, as well as its latest unfolding, inflation is foreseen to further show a favorable evolution during the rest of the year and during 2016. It is anticipated that both headline and core inflation will remain below 3 percent during the rest of 2015, according to a moderate change in both merchandise and service prices. For 2016, headline as well as core inflation are estimated to remain at levels close to 3 percent. This forecast considers a recovery of economic activity and a further gradual adjustment of the price of merchandise relative to services in line with the depreciation of the real exchange rate, as the Mexican economy transits to the new external environment (Chart 86 and Chart 87).

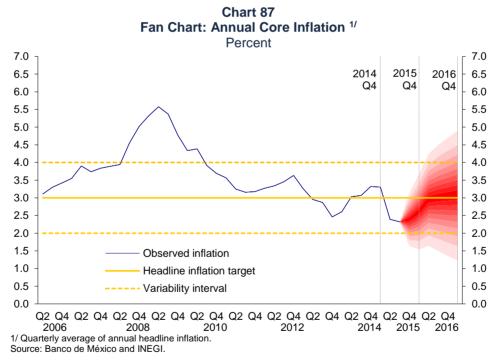
The forecast for the inflation trajectory could be affected by some risks, among which stand out the following. Upward risks:

i. That the depreciation of the Mexican peso continues to a greater extent and that it passes through onto non-tradable goods prices, which could contaminate inflation expectations.

#### Downward risks:

- i. A still lower than expected dynamism of economic activity.
- ii. Additional decreases of energy and/or telecommunication services prices.

Chart 86 Fan Chart: Annual Headline Inflation 1/ Percent 7.0 7.0 2014 2015 2016 6.5 6.5 Q4 Q4  $\Omega$ 4 6.0 6.0 5.5 5.5 5.0 5.0 4.5 4.5 4.0 4.0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 Observed inflation Headline inflation target 1.0 1.0 Variability interval 0.5 0.5 0.0 0.0 Q2 Q4 2006 2008 2010 2012 2014 2015 1/ Quarterly average of annual headline inflation. Source: Banco de México and INEGI.



Considering the facts presented in this Report, in the future Banco de México's Board of Governors will continue to monitor the performance of all inflation determinants and its medium- and long-term expectations, in particular, the exchange rate performance, the monetary policy stance of Mexico relative to the U.S., as well as the evolution of the degree of slackness in the economy. All this in order to be able to take the necessary decisions in a flexible manner and whenever

conditions demand it in order to consolidate the convergence of inflation to the 3 percent target.

In the face of the complex international environment and the expectations that it will persist in the future, it is fundamental to strengthen the macroeconomic framework, which will contribute to maintain confidence in the Mexican economy. Therefore, in addition to the timely adjustment of the monetary policy stance, the structural strengthening of public finances is required, gaining more relevance in light of the important decrease of oil prices and oil production. Particularly, it is necessary that the public debt to GDP ratio stabilizes at levels which are sustainable in the medium and long run. Thus, it is fundamental to meet the fiscal consolidation targets announced by the Federal Government, as well as to back ongoing efforts to maintain sound public finances.

On the other hand, confidence in the Mexican economy should also be strengthened by means of higher growth rates in a sustainable manner. Hence, the country's productivity should expand at a greater rate, which in turn requires reaching clear progress in the implementation of structural reforms. Indeed, the correct implementation of educational, economic competition, telecommunication, energy and financial reforms is expected to lead to an incentive scheme which leads to productivity gains that are reflected in greater welfare for society in general. For instance, the competition policy, whose application to specific markets could generate lower prices and have an important effect on households' welfare, in particular, on low-income persons and/or those living in conditions of poverty (see Box 4).

Finally, international evidence and in particular the recent development of the political and economic crisis in Greece and the Euro zone have made clear that the strength of institutions is crucial in order to support the proper functioning of the economy. Thus, Mexico must make additional efforts aimed at strengthening institutions and the rule of law, since, for example, the lack of public security has negative effects on confidence, inhibits an efficient allocation of resources in the economy and hinders the growth of economic activity. To the extent that Mexico moves in this direction, it will be possible to trigger the potential of the Mexican economy to achieve faster economic growth in an environment of low inflation and financial stability.

# Box 4 Price, Welfare and Poverty Dynamics

#### 1. Introduction

A common finding about price dynamics of a numerous goods in Mexico is that, reductions in producer prices – which is the wholesale price of the good and whose transactions typically imply high volumes- are not necessarily reflected in consumer prices. In contrast, it seems to be the case that increments in producer prices typically lead to increases in the respective consumer prices. In this Box, this phenomenon will be called "upward asymmetry in the pass-through onto consumer prices".

Over time, this pattern creates higher levels of consumer prices, which, in turn, imply higher inflation and affect households' purchasing power. When this phenomenon is present in food items of basic consumption, it has important repercussions in the well-being of low income households, since they spend a greater share of their income on these goods. Thus, eliminating these upward asymmetries implies lower price levels, less inflation and higher welfare for society through increases in consumers' purchasing power, as well as less people in food poverty.<sup>1</sup>

This Box documents the presence of upward asymmetries in the pass-through onto consumer prices for a considerable number of goods of the Consumer Price Index (CPI) basket, particularly food items. Based on this analysis, households' welfare gains, that could have been obtained if these positive asymmetries were not present during the period of 2006 - 2014, are explored. The results show that if during the referred period no upward asymmetries were observed in the pass-through to consumer prices: i) the price level of a large group of food items would have been lower, and thus, the annual CPI inflation would on average been 13 basis points lower each year; ii) the purchasing power of personal disposable income for urban households of the first income quintile would have been approximately 686 MXN higher in 2014; and iii) lower prices levels in food products would have meant a reduction of 5.1 percent in the cost of CONEVAL's urban food basket, what would have implied approximately 1.7 million people less living in food poverty in urban areas in 2014 (11 percent of the urban population observed in that condition in the same year).

#### 2. Upward Asymmetries in the Price Pass-through

By concept, upward asymmetries for a hypothetic good are shown in Chart 1. The example shows the passthrough onto consumer prices, given a 1 percent change in producer prices.

Percentage points 1.0 0.8 0.6 0.4 0.4 0.2 0.0 -0.2 -0.2 -0.4 -0.6 -0.8 -10 Positive pass-through Negative pass-through Upward asymmetry Change in producer price

Chart 1
Upward Asymmetries in the Price Pass-through

**Positive Pass-through:** A 1 percent increase in producer price leads to a 0.6 percent increase in consumer prices (green bar).

**Negative Pass-through:** A 1 percent decrease in producer price leads to a 0.2 percent decline in consumer prices (yellow bar).

**Upward asymmetry:** Difference between positive and negative pass-through, 0.4 percentage points (red bar).

This pattern in prices imposes an upward bias in the price level over time, what eventually leads to higher inflation and, as shown below, negatively affects population's well-being.

The analysis consists of three parts. First, the presence of asymmetries for a large group of CPI food items is analyzed. Second, a counterfactual exercise is carried out to simulate the price dynamics between 2006 and 2014 of the goods, for which evidence of an upward asymmetry was found, assuming that this bias would not have been existed. Based on this exercise the counterfactual price indices are calculated and are used to quantify some of the benefits on households' welfare. Third, examples are given about markets, where it could be interesting to analyze price dynamics in segments of the production chain, before commercialization.

In this Box, food poverty refers to the poverty calculated as the percentage of the population whose income is below the minimum welfare line, defined by the National Council for Evaluation of Social Development Policy (Consejo Nacional de Evaluación de la Política de Desarrollo Social). (CONEVAL, 2014).

# 3. Identification of Food Items with Upward Asymmetries in Price Pass-through

The price series of 80 food items (food merchandise and agricultural products) are analyzed, belonging to the CPI as well as the Producer Price Index (PPI), because for these goods there are corresponding series defined in both indices. In total, the analyzed goods represent 18 percent of the CPI and 79.2 percent of the CPI food item group. To estimate the pass-through of producer to consumer prices a distributed-lag econometric model is used, which allows to estimate the referred bias using time series of monthly changes of CPI and PPI form 1996 to 2013.<sup>2, 3</sup>

In the sample of goods studied, 41 food items are identified –representing 65 percent of the analyzed basket and 11.7 percent of the CPI– with statistical evidence of an upward bias of the pass-through onto consumer goods. Table 1 presents the estimates of the magnitude of the upward asymmetries for the 41 goods. Among them, the following goods stand out due to their upward asymmetries and their large weight in the CPI: beef meat, chicken, pork, eggs, milk, bread and soft-drinks.

#### 4. Potential Effects of Eliminating Upward Asymmetries in the Pass-through onto Consumer Prices

In order to estimate the effects of the upward asymmetries on the pass-through onto consumer prices, counterfactual price indices are calculated, simulating their dynamics between 2006 and 2014, assuming the absence of these asymmetries in the 41 goods identified before. Intuitively, these counterfactual indices generate the price level that would have existed if the reductions in producer prices were passed to the consumer prices in the same magnitude as the price increases did, i.e., assuming an upward asymmetry of 0.0 For the rest of the goods and services of the CPI, the observed price indices are used.

Table 1
Results of the Estimation of Upward Asymmetries in the
Price Pass-through 1/

	Frice rass-tillough						
	Good	CPI weight	Asymmetry				
	Good	Percent	Percentage points				
Me	eat	4.43					
1	Beef	1.78	0.64				
2	Chicken	1.32	0.27				
3	Pork	0.69	0.21				
4	Chorizosausage	0.45	0.40				
5	Sausages	0.12	0.38				
6	Dry meat and cold cuts	0.05	0.38				
7	Bacon	0.02	0.38				
	gs, milk and dairy products	2.13					
8	Eggs	0.61	0.14				
9	Pasteurized and fresh milk	1.43	0.56				
-	Evaporated, condensed milk	0.06	0.68				
	American cheese	0.02	0.50				
_	ft-drinks and prepared water	1.69	0.00				
_	Bottled soft-drinks	1.09	2.53				
	Bottled water	0.40	0.33				
	Packaged juices or nectars	0.20	1.13				
	uit and vegetables	1.39	7.70				
_	Bean	0.28	0.48				
_	Apple	0.23	0.42				
	Lemon	0.21	0.32				
	Onion	0.17	0.21				
_	Zucchini	0.13	0.15				
_	Other fresh chillies	0.09	0.22				
_	Grape	0.07	1.37				
	Carrot	0.07	0.26				
	Nopal	0.07	0.12				
	Other dry legumes	0.06	0.30				
	Other canned fruit	0.02	0.46				
	ead	1.08	0.40				
_	Pastry/Bakery	0.53	0.65				
	White bread	0.29	0.72				
	Sliced bread	0.20	0.56				
_	Packed pastries, cakes	0.06	0.54				
	real, cereal products and others	0.50	0.04				
-	Cereal flakes	0.21	0.69				
31	Rice	0.15	0.52				
١٠.	Potato chips and similar	0.07	0.39				
	Wheat flour	0.03	0.67				
	Instant soups and tomato puree	0.03	1.80				
	Other condiments	0.02	5.59				
-	gar and desserts	0.38	0.03				
_	Sugar	0.18	0.35				
	Instant coffee	0.12	1.20				
	Roasted coffee	0.03	0.43				
	Chocolate	0.05	1.18				
	th and seafood	0.03	7.10				
_	Shrimp	0.09	0.35				
	Canned fish and seafood	0.04	0.59				
	estimates of the highest accumulated u						

<sup>1/</sup> Estimates of the highest accumulated upward asymmetry within three months of the producer price change is reported.

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

The used model is based on Peltzman (2000). The details of model specification are presented in Guerrero, Juárez, Kochen, Puigvert and Sámano (2015). Unit root test are applied for the series of each good for the study period. The results suggest that the series are stationary. Likewise, other tests of stationarity like Ng and Perron (2001) for the monthly changes of the price index of the analyzed goods in the study period suggest that the aggregate price indexes are stationary.

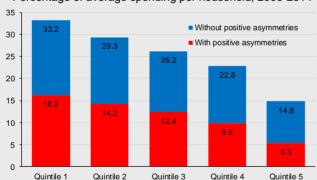
In order to avoid that the price increase based on the fiscal modifications that where introduced in 2014 bias the results of the asymmetries in the pass-through to consumer prices, the estimation is realized using data up to 2013.

<sup>&</sup>lt;sup>4</sup> The 39 analyzed goods for which no evidence of positive asymmetries, statistically different from zero, was found, are: edible vegetable oils and fats; avocado; canned tuna and sardines; dried chili; canned chiles, moles and sauces; soft drink concentrates; cream; peach; processed beans; biscuits; guava; ices; Ham; tomato; milk powder; lettuce and cabbage; butter; Corn dough and flour; melon; orange; other fruits; other legumes; other seafood; potatoes and other tubers; papaya; noodles, cucumber; fish; pineapple; bananas; fresh cheese; watermelon; green tomato; yogurt; mayonnaise and mustard; corn tortilla; other cheeses; Manchego cheese or Chihuahua; Asadero and Oaxaca cheese.

The period 2006 – 2014 is of special interest, because it is characterized by high volatility in domestic food prices, mainly driven by international food commodity prices. During episodes of high volatility, the presence of upward asymmetries has greater implications for price levels, as compared to low volatility periods. This is because price variations and the adverse effects of asymmetries on the price levels are more frequent. The counterfactual exercise yields the following results:

- 1. Effects on CPI. If there had not been upward asymmetries in the 41 identified products in the period 2006 2014, annual CPI inflation would have been 13 basis points lower each year.
- 2. Mixed Impacts on Population. It is to be expected that the effects on food consumption, when eliminating the upward asymmetries in the pass-through onto prices, might potentially be larger for urban households of the lower income group. These households spend 33 percent of their total expenditure for food and almost half of the resources for goods identified with upward asymmetries (Chart 2). In contrast, households of the last income quintile spend almost 15 percent of the expenditure in food items, but only around a third part of this spending is for goods with upward asymmetries.

Chart 2
Share of Expenditure in Food Items for Urban Households
Percentage of average spending per household, 2006-2014<sup>1/</sup>



1/ Percentages are calculated based on the adjusted quarterly expenditure of average household, by income quintile, using data from National Income and Expenditure surveys (ENIGH).

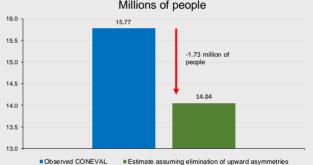
Source: Elaborated with data from INEGI.

Effects on Urban Households' Welfare Lower price levels of the 41 goods would have implied welfare gains through a higher purchasing power of their disposable income.<sup>5</sup>

In particular, if during the period 2006 – 2014 the upward asymmetries of the identified food items were eliminated, the average household in the first income quintile would have increased its purchasing power of their disposable income by approximately 686 MXN in December 2014, which is equivalent to an increase of 1.6 percent of its total annual income.

- 4. Effects on CONEVAL's Urban Food Basket. If upward asymmetries of the identified food items were eliminated, the monthly cost of this urban food basket would have been 5.1 percent lower than that observed in August 2014, the most recent month at which poverty was measured.
- 5. Effects on Food Poverty. The lower cost of the food basket, defined by CONEVAL, would have implied approximately 1.7 million people less living in food poverty, equivalent to 11 percent of the people living in that condition in 2014 (Chart 3).

Chart 3
Change in Urban Food Poverty in Absence of Asymmetries , 2014



Source: Elaborated with data from CONEVAL and INEGI.

# 5. Other Goods with Upward Asymmetry in Price Pass-through

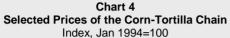
Two thirds of the expenditure of the households in the first income quintile goes to non-food items and services. Thus, if there were upward asymmetries in the consumer prices of these sectors, the potential welfare gains of eliminating these asymmetries would be even higher than those presented previously.

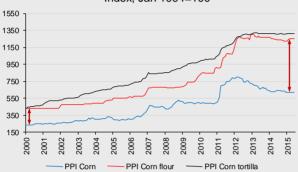
Additionally, it is possible that the upward asymmetries are not only present in the commercial sector (as estimated in the previous exercise), but also in other segments of the production chain.

Welfare gains were calculated as the difference between the equivalent variation calculated using observed prices vs. the one calculated using counterfactual prices, derived from the elimination of the upward asymmetries. The calculation of equivalent changes is based on the methodology described in Juárez (2015).

It is important to mention that this exercise does not consider general equilibrium effects due to which, the results might present a slight upward bias. For example, it could be the case, given lower price levels that the increase in wages and/or government transfers would have been lower than observed, and thus, the reduction in the number of people living in poverty would have been slightly less than estimated.

Particularly, it could be the case in the pass-through of inputs to producer prices. For example, Chart 4 shows that in the case of the corn-tortilla chain, the gap between some of the input prices and producer prices of corn flour has widened during the last 15 years. Moreover, since 2011, it is observed that the drop in corn prices has not led to lower corn flour or tortilla prices. A similar case is presented in the barley-beer chain. In Chart 5 it is shown that since 2009, the gap between barley and malt has widened, as in the case of beer prices.





Source: Elaborated with data from INEGI.

Chart 5
Selected Prices in the Barley-Beer Chain
Index. Jan 1994=100



Source: Elaborated with data from INEGI.

### 6. Final Considerations

The results presented in this Box indicate that welfare gains derived from eliminating upward asymmetries in the pass-through onto consumer prices of some food items would be reflected via lower price levels and less inflation, which would favorably affect households' welfare, particularly that of the lower income group. Moreover, these gains could be potentially larger as those calculated in this Box, as the analyzed price pattern could also prevail in other goods and services in the economy, as well as in different segments of the production chain.

The results show that the study of the factors that generate the upward asymmetries in the pass-through onto prices and the identification of effective ways to take action to eliminate these asymmetries is a step of fundamental importance in order to improve society's welfare. A factor that could cause that inadequate functioning of markets, for example, are the lack of market competition.

Indeed, international evidence has shown that there is a positive relation between the presence of upward asymmetries in the pass-through to consumer prices and the lack of market competition (Lloyd et al. 2006; Borenstein et al. 1997). In sum, a natural step to identify actions that would allow to eliminate these asymmetries in the pass-through onto consumer prices and thereby, to improve population's welfare consists in analyzing the conditions of competition in the markets for which evidence of an upward asymmetry was found

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Peltzman, S. (2000). "Prices Rise Faster than They Fall", *Journal of Political Economy*, 108: 466-50.

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

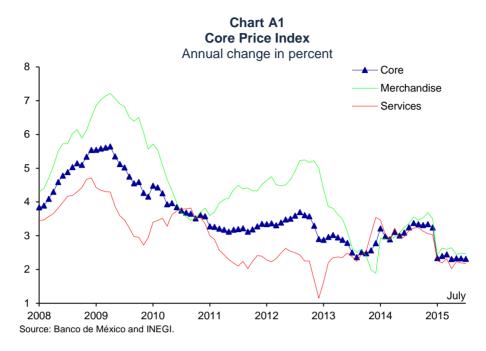
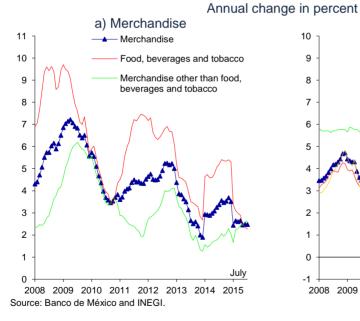


Chart A2
Core Price Index: Merchandise and Services



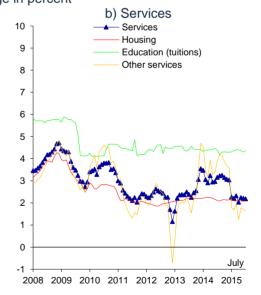


Chart A3
Non-core Price Index

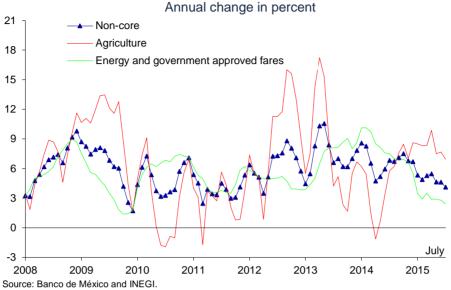
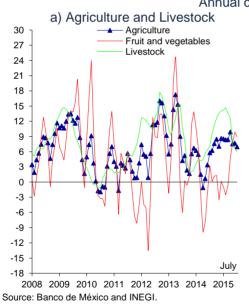
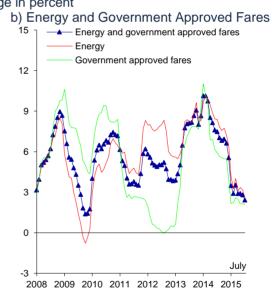


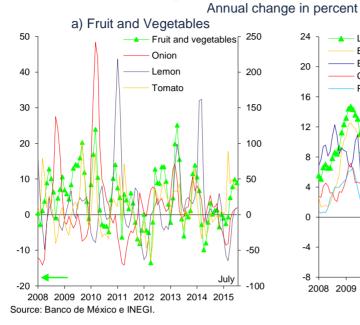
Chart A4
Non-core Price Index
Annual change in percent





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Chart A5
Agriculture and Livestock Price Index



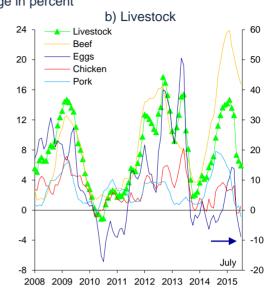
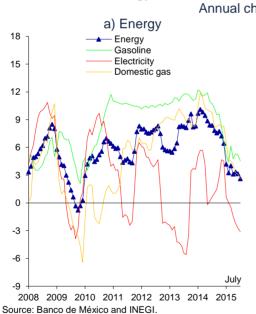
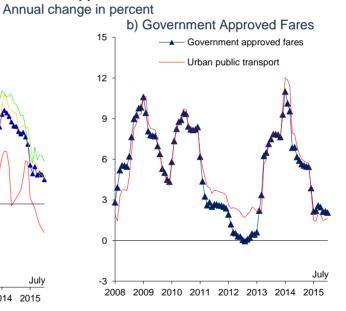


Chart A6
Energy and Government Approved Fares Price Index





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# Section III: Quarterly Report July - September 2015

### 1. Introduction

In line with its constitutional mandate, the monetary policy conducted by Banco de México aims at procuring the stability of the purchasing power of the national currency. Furthermore, this Central Institute seeks to achieve its mandate at the lowest possible cost to society in terms of economic activity. In the last few years, there has been significant progress in the creation of an environment of low and stable inflation in Mexico. Thereby, after having converged to the permanent 3 percent target and even locating below this target since May 2015, headline inflation decreased further and registered new historical minimum levels in the quarter subject of this Report. To this performance of inflation contributed the monetary policy stance, lower than expected economic growth and the direct and indirect effects on inflation of the price reductions of widely used inputs, such as energy products, commodities and telecommunication services. Several of these reductions have resulted from the implementation of structural reforms. Looking forward, inflation is expected to continue locating below 3 percent for the rest of 2015.

The favorable evolution of inflation has taken place in a difficult economic juncture. Domestically, economic activity kept growing at a moderate pace, due to which an environment of slack prevailed in the economy and consequently, no aggregate demand-related pressures on prices were present. Meanwhile, the adjustment in relative prices, associated with the national currency's depreciation in response to significant external shocks, has mainly been reflected in durable goods' prices. In the external domain, uncertainty with respect to the normalization process of the U.S. monetary policy remains. Furthermore, global growth remains at low levels and there is greater concern regarding the depth of China's deceleration, all of which has further negatively affected commodity prices. This contributed to the fact that volatility in international financial markets continued being high and that investors' risk aversion increased during the reference quarter. This was reflected in declines in the prices of financial assets globally, especially in emerging economies' currencies and stock indices worldwide. In the Mexican case, the MXN/USD exchange rate absorbed most of the adjustment, registering high volatility with a depreciatory trend in the third quarter, even though this trend partially reverted in October. In light of this, inflation expectations remained wellanchored and the exchange rate pass-through onto prices was very low. Taking these elements into account, in the period covered by this Report, the Board of Governors maintained the Overnight Interbank Interest Rate target at 3 percent, by virtue of the fact that it considered the monetary policy stance to be conducive to support the convergence of inflation to the permanent 3 percent target.

During the third quarter of 2015, the Mexican economy continued growing, but at a moderate pace. In particular, external demand maintained a weak performance. As to domestic spending, at the beginning of this period investment showed less dynamism than in the second quarter. However, private consumption indicators exhibited a higher growth rate than in the previous quarter. In this context, slack conditions persisted in the economy and thus no pressures on prices in the main input markets nor in the external accounts were perceived.

World economic activity continued weakening. The modest recovery in the advanced economies and the persistent deceleration in the emerging ones were reflected in the lower dynamism of international trade and financial markets. In face of this situation, a reduction in the growth outlook and an intensification of downward risks have been observed. Among these risks the possibility that a disorderly adjustment of the Chinese economy could have greater effects on the global economy stands out. Other reasons for concern have been the recession of Brazil, with extremely high inflation rates in the middle of a political crisis, and the problems that Turkey is undergoing. It should be pointed out that the deceleration of the emerging economies does not only respond to idiosyncratic factors, but also reflects the damage caused by a long period of below-potential growth in most of the advanced economies.

In this environment, a high volatility in international financial markets was observed. The possible impact of lower global growth, particularly in emerging economies, on the growth and inflation outlook of advanced economies, generated higher uncertainty regarding their possible economic policy actions. In particular, it stands out that market participants anticipate a delay in the normalization process of the U.S. monetary policy and an increased easing in other advanced economies. In turn, the latent concern regarding the growth outlook of the Chinese economy and the doubts about the effects of its economic policy also contributed to this environment of high instability, which negatively affected commodity prices. In response, during the reported quarter drops in the prices of financial assets were observed globally, especially in the currencies of emerging economies and some commodity-exporting advanced economies, as well as in most countries' stock market indices. In fact, some emerging economies' central banks increased their reference interest rate due to a rebound of inflation, explained in some cases by the depreciation of their currencies in a context of macroeconomic vulnerability. However, global monetary conditions are expected to remain extraordinarily accommodative in the near future.

In light of the complicated global outlook, national financial markets were affected. Thus, the Mexican peso depreciated against the U.S. dollar, while government bonds' interest rates showed declines for different terms, although with certain volatility as well. In this sense and given that additional episodes of turmoil in financial markets cannot be ruled out, it is fundamental to preserve a solid macroeconomic framework in Mexico in order to maintain confidence in the Mexican economy, such that the country risk component in the interest rates keeps at low levels, which will be crucial in face of an external environment with more stringent financial conditions.

It is expected that in the rest of 2015, the Mexican economy will continue showing a moderate dynamism, given the expectation of low growth of U.S. industrial activity, a modest expansion of domestic demand and that the effects of structural reforms will only gradually be reflected in greater competitiveness. Specifically, GDP in Mexico in 2015 is anticipated to grow between 1.9 and 2.4 percent, narrower interval as compared to the one of 1.7 to 2.5 percent in the previous Report, reflecting more information available regarding the performance of the economy in the present year. For 2016, a recovery of economic activity is further anticipated in light of the expected improvement of U.S. industrial production for that year, such that the forecast interval for the GDP growth rate in Mexico is maintained unchanged as compared to the previous Report, between 2.5 and 3.5 percent. For 2017, a more significant improvement in the U.S. industrial sector and a great boost

to economic activity derived from the structural reforms' implementation in the country is expected. Thus, a GDP growth of between 3.0 and 4.0 percent is expected. Given that, conditions of slack are expected to prevail in the economy in the coming years, although gradually decreasing.

Regarding inflation, the slack prevailing in the economy and the absence of aggregate demand-related pressures on prices are expected to continue being factors that contribute to its good performance. In particular, annual headline and core inflation are expected to remain below 3 percent in the rest of 2015. For 2016, both indicators are anticipated to observe an increase, locating at levels close to 3 percent. This would reflect the vanishing of the effect of favorable supply shocks that took place in 2015 and the impact of the exchange rate depreciation on some product prices, rather than a widespread deterioration of the price formation process. However, for 2017, these effects are anticipated to vanish and a moderate downward trend is expected, locating headline and core inflation at the end of that year closer to 3 percent.

The Board of Governors will continue to monitor the performance of all inflation determinants and its medium- and long-term expectations, in particular the monetary stance of Mexico relative to the U.S., the pass-through of exchange rate movements onto consumer prices, as well as the evolution of the degree of slackness in the economy. All this in order to be able to take the necessary measures in a flexible manner and whenever conditions demand it in order to consolidate the convergence of inflation to the permanent 3 percent target.

# 2. Recent Development of Inflation

#### 2.1. Inflation

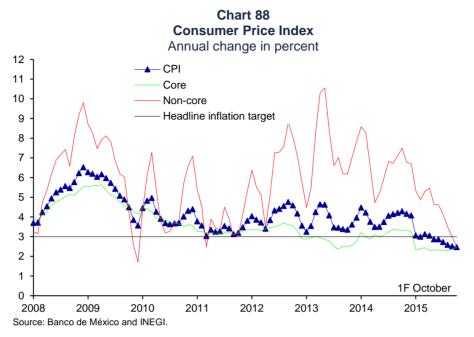
In the third quarter of 2015, annual headline inflation exhibited further reductions in addition to those observed in the previous quarter, locating below 3 percent and reaching new historical minimum levels. To the favorable performance of inflation contributed the monetary policy stance, which has been conducive to efficiently reach the 3 percent target, the prevailing slack in the economy and price reductions of widely used inputs, such as energy products, certain commodities and telecommunication services. The drop in some telecommunication services and energy prices is associated with the structural reforms. These reductions have directly influenced the recent evolution of inflation by lower increases of consumer prices, and indirectly, by contributing to lower costs for firms. In this context, the effect of the exchange rate depreciation on prices has been limited, and has been mainly reflected reflected in durable goods, which continued increasing slowly, without showing evidence of second round effects on the price formation process in the economy so far. To date, relative price changes due to the exchange rate depreciation occurred in an orderly and gradual manner (Table 5 and Chart 88).

Table 5
Consumer Price Index, Main Components and Trimmed Mean Indicators

	Annua	al change	in perc	ent				
	2014				2015			
	ı	II	III	IV	I	II	III	1F October
PI	4.16	3.59	4.15	4.18	3.07	2.94	2.61	2.47
Core	3.03	3.07	3.32	3.30	2.39	2.32	2.33	2.46
Merchandise	2.91	3.10	3.46	3.57	2.56	2.52	2.46	2.71
Food, beverages and tobacco	4.65	4.81	5.32	5.35	3.15	2.56	2.20	2.32
Non-food merchandise	1.51	1.72	1.96	2.13	2.07	2.49	2.67	3.04
Services	3.14	3.04	3.21	3.08	2.26	2.15	2.22	2.24
Housing	2.24	2.20	2.11	2.14	2.10	2.09	2.06	1.98
Education (tuitions)	4.36	4.42	4.29	4.30	4.36	4.35	4.37	4.28
Other services	3.73	3.54	4.06	3.72	1.80	1.57	1.75	1.90
Non-core	7.79	5.29	6.89	6.99	5.17	4.92	3.53	2.52
Agriculture	4.33	0.94	6.53	8.04	8.39	8.34	5.33	3.83
Fruit and vegetables	4.54	-6.86	1.48	-0.73	-1.39	7.43	7.91	6.78
Livestock	4.12	5.49	9.33	13.43	14.15	8.81	4.00	2.30
Energy and government approved fares	9.99	8.09	7.11	6.35	3.30	2.87	2.42	1.72
Energy	9.87	8.92	7.92	7.12	3.82	3.21	2.43	1.07
Government approved fares	10.23	6.64	5.71	4.93	2.32	2.26	2.39	2.91
Trimmed Mean Indicator 1/								
CPI	3.64	3.63	3.75	3.83	3.13	2.86	2.67	2.51
Core	2.92	3.05	3.15	3.21	2.83	2.76	2.73	2.76

<sup>1/</sup> Prepared by Banco de México with data from INEGI.

Source: Banco de México and INEGI.

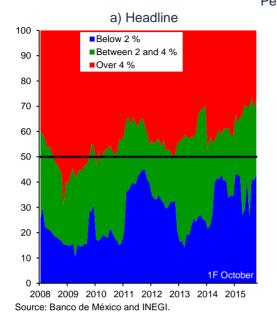


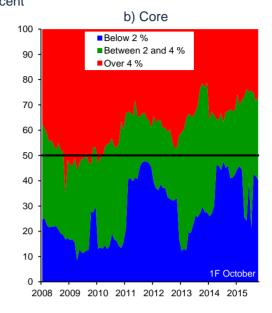
Between the second and third quarter of 2015, annual headline inflation decreased from an average of 2.94 to 2.61 percent, reaching 2.47 percent in the first fortnight of October. Meanwhile, average annual core inflation remained stable in the mentioned quarters, registering levels of 2.32 and 2.33 percent, respectively, while in the first fortnight of October it was 2.46 percent. In the referred quarters, the average annual change rate of the non-core component decreased from 4.92 to 3.53 percent, locating at 2.52 percent in the first fortnight of October. It is noteworthy that, since September, headline inflation as well as core and non-core inflation lied for the first time below 3 percent.

The downward trajectory of annual headline inflation was not just due to less price increments of a small number of goods and services, but because of the favorable evolution of the great majority of them. This is shown by the stability of different trend measures of these indicators. One indicator is obtained by calculating the share of the Consumer Price Index (CPI) basket that presents annual price changes within different intervals. In order to do so, each month the generic items, which compose the basket of the headline and core index, are grouped into three categories according to their annual price change. Specifically, three groups are defined: i) items with an annual price change below 2 percent, ii) between 2 and 4 percent, and iii) over 4 percent. By calculating the percentage of the CPI basket in the referred intervals, it turns out that a high percentage presents price increments of less than 4 percent (blue and green areas, Chart 89). In particular, the share of goods and services of the CPI basket with increases below 4 percent was on average close to 70 percent in the third quarter of 2015, figure comparable to the previous guarter (Chart 89a). With respect to the core component, the share with increases below 4 percent was around 75 percent in both quarters (Chart 89b).

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Chart 89
Percentage of the CPI Basket according to Intervals of Annual Increments
Percent

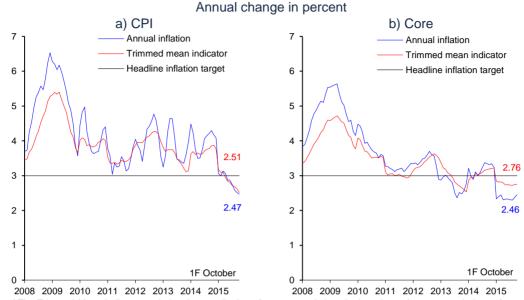




One of the measures used in previous Reports to analyze the medium term inflation trend is the Trimmed Mean Indicator. This indicator provides information about the evolution of headline and core inflation in the low frequency, excluding extreme (high and low) price changes in each period. Thus, this indicator is usually not affected by relative price changes of a few goods and services, which have only transitory effects on inflation. The recent evolution of this indicator, both for headline and core inflation, shows that lower inflation observed in the reference quarter has been the result of a generalized drop in the price growth rate (Chart 90 and Table 5). In particular, in the first fortnight of October 2015, these indicators were 2.51 and 2.76 percent, respectively.

Another indicator that provides information on price dynamics is the annualized monthly (seasonally adjusted) inflation. This indicator, estimated for both headline and core inflation, remains at low levels, around 3 percent. However, towards the end of the period covered by this Report, both measures show an increase (Chart 91). In the case of headline inflation, this increment is partly explained by a higher monthly (seasonally adjusted) non-core inflation, due to recently observed increases in public transport prices in some cities. With respect to this, it should be mentioned that the non-core component tends to show high volatility and does not present an upward trend so far. In the case of core inflation, the increase in the referred indicator has been more moderate, although with a slight upward trend, reflecting the change in the price of merchandise relative to services, mainly induced by the exchange rate depreciation.

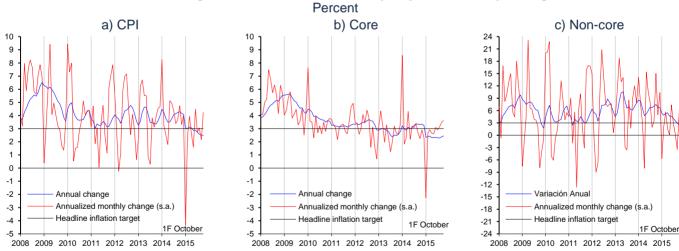
Chart 90
Price Indices and Trimmed Mean Indicators 1/



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.

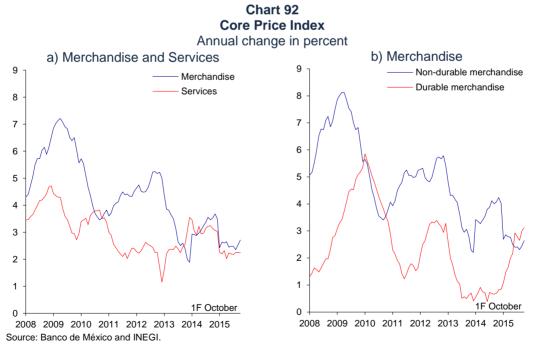
Chart 91
Annual Change and Annualized Seasonally Adjusted Monthly Change



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

The referred relative price adjustment has implied increases in the annual growth rate of merchandise prices, mainly in those of durable goods, while service prices have been characterized by registering low and stable annual change rates (Chart 92 and Table 5).

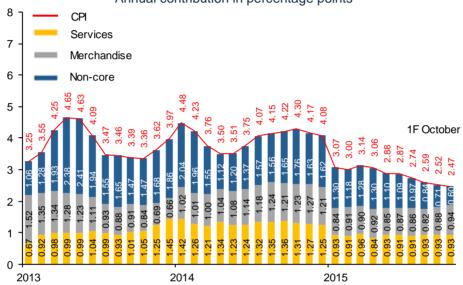
- The merchandise price subindex reduced its average annual change from 2.52 percent in the second quarter of 2015 to 2.46 percent in the reference quarter, locating at 2.71 percent in the first fortnight of October. On the one hand, the average annual price change of the non-food merchandise group increased from 2.49 percent to 2.67 percent between the referred quarters and by 3.04 percent in the first fortnight of October. In particular, the average annual change of durable goods' prices, as subgroup of the non-food merchandise, went from 2.36 percent to 2.81 percent from the second to the third quarter of the year and located at 3.11 percent in the first fortnight of October (Chart 92b). Consequently, although these changes remain at low levels, it has been mainly in this category where the effects of the depreciation of the Mexican peso have been manifested. On the other hand, after having decreased its growth pace as registering average annual price changes of 2.56 percent and 2.20 percent in the referred quarters, some food items also presented slight increases in the annual price change rates towards the end of the guarter and in October, due to which their annual growth rate located at 2.32 percent in the first fortnight of October (Chart 92).
- Average annual changes of the services price subindex remain stable at low levels, reporting figures of 2.15 percent in the second quarter of 2015 and 2.22 percent in the third quarter. In the first fortnight of October, the annual price change of services was 2.24 percent. Reductions in telecommunication services prices, as well as moderate price increases in most of the other services have contributed to maintain this moderate price dynamic (Chart 92a and Table 5).



The non-core price index kept decelerating its average annual growth rate (Chart 93 and Table 5).

Agricultural products prices reduced their average annual growth between the second and third quarter of 2015, passing from 8.34 percent to 5.33 percent and later locating at 3.83 percent in the first fortnight of October. This result was mainly due to a lower annual growth rate of livestock products prices, which reduced from 8.81 percent to 4 percent between these quarter (2.30 percent in the first fortnight of October), while the average annual growth rate of the fruits and vegetables price subindex increased from 7.43 percent to 7.91 percent in the same period, later decreasing to 6.78 percent in the first fortnight of October.

Chart 93
Consumer Price Index
Annual contribution in percentage points 1/



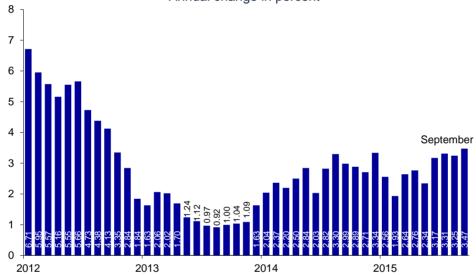
1/ In some cases, the sum of respective components can differ due to rounding. Source: Prepared by Banco de México with data from INEGI.

The average annual changes of energy and government-approved fares price subindex decreased from 2.87 percent in the second quarter of 2015 to 2.42 percent in the third guarter and located at 1.72 percent in the first fortnight of October. The group of energy products reduced the average annual price change from 3.21 percent to 2.43 percent in the mentioned quarters and later reached a level of 1.07 percent in the first fortnight of October, with the drops in electricity fares standing out, which passed from -2.09 percent to -3.08 percent in the second and third guarter of 2015. It is noteworthy that the progress made regarding the implementation of the energy reform has favorably contributed to the dynamics of these fares, by promoting the adoption of new technologies that use cheaper and less polluting fuels. Additionally, the average annual change rate of gasoline prices decreased from 5.09 percent to 3.98 percent in the referred quarters, while that of domestic gas went from 3.51 percent to 3.33 percent. On the other hand, the group of governmentapproved fares registered average annual changes of 2.26 percent and 2.39 percent in the mentioned periods and 2.91 percent in the first fortnight of October, this last increase is attributable to the increment in public transport fares in some cities.

#### 2.2. Producer Price Index

The Producer Price Index (PPI) of total production, excluding oil, registered an average annual change rate of 3.34 percent in the third quarter of 2015, while in the previous quarter it was 2.76 percent. In September, this indicator's annual change rate was 3.47 percent (Chart 94). This increase was mainly due to the increment in Mexican peso-nominated prices of export merchandise goods, among which are computers, electronic appliances, trucks and automobiles, which was reflected in the final merchandise and services index. On the other hand, intermediate use goods and services registered lower annual change rates than those of final merchandise and services prices, with industrial and commercial electricity fares standing out, and those of oil-derived products.

Chart 94
Producer Price Index 1/
Annual change in percent

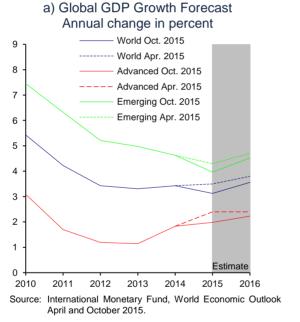


#### 3. Economic and Financial Environment

### 3.1. External Conditions

The international environment has been characterized by continued weakness of economic activity, which was reflected in a reduction of the international trade volume (Chart 95). The gradual recovery of advanced economies was less than expected, while the slowdown of emerging economies intensified. The case of China stands out in that, besides having important vulnerabilities in the financial system, it faces significant challenges to rebalance and increase the sustainability of its sources of growth. Besides, commodity prices remain at extremely low levels. Therefore, the downward risks to the global growth outlook have increased. All this contributed to higher volatility in international financial markets, in particular in the exchange rate against the U.S. dollar of the currencies of commodity-exporting countries, in addition to the uncertainty regarding the normalization of U.S. monetary policy. Thus, the external scenario got substantially more complicated.

# Chart 95 World Economic Activity





#### 3.1.1. World Economic Activity

In the U.S., the economy registered moderate growth during the third quarter. GDP grew 1.5 percent at an annualized quarterly rate, compared to 3.9 percent in the previous quarter. To this, the main contribution came from a continued solidity of domestic demand, which offset the strong disaccumulation of inventories that with 1.4 percentage points negatively contributed to the GDP (Chart 96a). In particular, private consumption maintained a solid expansion at an annualized quarterly rate of 3.2 percent, supported by high consumer confidence, a larger increase in personal disposable income and an extremely low level of interest rates, which stimulated household spending and residential investment. Additionally, the

Compilation of Quarterly Reports Released in 2015

<sup>&</sup>lt;sup>26</sup> According to the GDP Advance Estimate of the U.S. government Bureau of Economic Analysis (BEA).

favorable performance of new house construction starts and the recovery of firms' spending in equipment were reflected in a modest increase in fixed investment. Finally, net exports contributed slightly negatively to GDP growth.

On the other hand, industrial production continued exhibiting weak growth, reflecting the effects of a generalized U.S. dollar appreciation and weaker global demand, the drop in oil exploration and production and the high inventory level. Indeed, after the contraction of 2.4 percent at an annualized quarterly rate in the second quarter, industrial production only increased 1.8 percent in the third quarter. This figure partly reflected the moderate recovery of manufacturing which, in turn, it is explained by greater dynamism of the automotive sector (Chart 96b).

In this context, the labor market further improved during the third quarter, although at a more moderate rate than in the previous quarter. Thus, non-farm payroll expanded on average 167 thousand jobs per month, below the 231 thousand jobs last quarter. At the same time, the unemployment rate dropped from 5.3 percent in June to 5.1 percent in September, level close to that considered as long term rate by the Federal Reserve. However, other labor market indicators, such as the labor participation rate and the percentage of persons working part time for economic reasons continue suggesting certain slackness in this market. This, plus the absence of significant wage pressures, intensified the debate with respect to the strength of the relationship between the unemployment rate and inflation, and it has complicated the interpretation of the signs arisen from different labor market indicators with respect to the future evolution of inflation (Chart 96c).

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

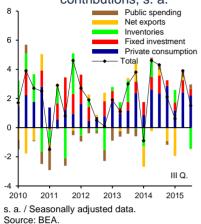
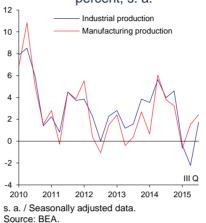


Chart 96 U.S. Economic Activity

b) Industrial and Manufacturing
Production
Annualized quarterly change in
percent, s. a.



c) Wage Indicators Annual change in percent



In the Euro zone, economic recovery remained weak and at a slower pace than expected, with a lot of heterogeneity among member countries. Consumption remains the main source of growth, supported by factors like the gradual improvement of labor market conditions, consumer confidence and low financing costs (Chart 97a). However, industrial production weakened from July to August (Chart 97b). With respect to this, the recent Euro appreciation and lower external demand from emerging economies, in particular from China, are having a negative impact on the region's exports (Chart 97c), due to which the European Central Bank (ECB) revised the GDP growth outlook for the next years downwards.

# Chart 97 Economic Activity in the Euro zone

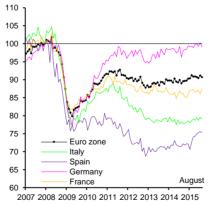
 a) Economic Sentiment Indicator and Consumer Confidence Standardized data for the period 2000-2007



1/ Composite indicator, made up of five sectorial confidence indicators: industry, services, retail, construction and consumption.

Source: Haver Analytics.

b) Industrial Production <sup>1/</sup> Index December 2007=100, s. a.



s. a. / Seasonally adjusted data. 1/ Excludes construction industry Source: Eurostat. c) Exchange Rate and
Exports of Goods
Annual change of the 3-month



In Japan, the economy continued showing weakness in the third quarter of the year, after shrinking 1.2 percent at an annualized quarterly rate in the second quarter. In particular, households' income increase and high firms' revenues have not led to an increased private sector spending, suggesting caution of consumers and firms. On the other hand, capital goods' orders and business surveys point to investment having lost dynamism during the quarter. Finally, lower demand from China was reflected in an additional decrease in industrial production in the period covered by this Report.

Activity in emerging economies continued slowing down, as reflected in low industrial production and export growth (Chart 98a and Chart 98b). Moreover, macroeconomic vulnerabilities of some countries accentuated, particularly in those economies, which did not made the necessary economic policy adjustments during the first years of this decade, in light of the important capital inflows due to globally low interest rates and high commodity prices. This exacerbated domestic and external imbalances. Thus, on the one hand, the drop in the terms of trade of commodity exporters contributed to a deterioration of external and fiscal accounts. On the other hand, tightening financial conditions provoked a worsening of firms' balances in light of the significant accumulation of corporate debt in the last years (Chart 98c). Among the countries most affected by these phenomenon can be mentioned Russia, Brazil, Turkey and Indonesia. Additionally, downward risks for this group of economies have intensified, among other reasons, due to the challenges faced by China in its transformation towards a mainly consumptionbased economy, in a context of high levels of indebtedness and excess capacity in some industries.

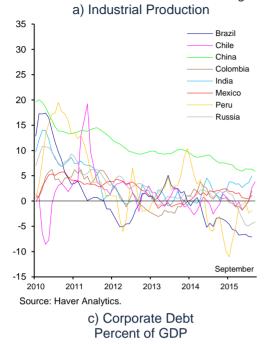
Going into detail about China's evolution, the growth pace of its economy kept moderating to 6.9 percent in the third quarter (Chart 98d). Although the service sector and consumption maintained a relatively solid growth, investment and industry continued slowing down. Government's fiscal and monetary stimuli, including incentives for infrastructure spending, have been insufficient to offset the lower dynamism of residential construction and that of manufacturing sector investment. This greater weakness of industrial activity was reflected in a significant reduction in the demand for commodities, like oil and metals. Finally, the reform to the exchange rate fixing mechanism created uncertainty about the effects of the economic policy adjustments of this country on the global economy.<sup>27</sup>

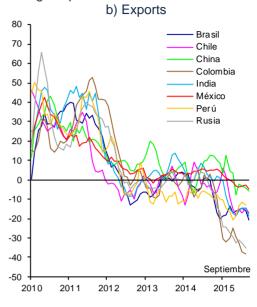
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<sup>&</sup>lt;sup>27</sup> China's central bank announced on August 11 a modification of the determination mechanism for the opening exchange rate, on which each day a 2 percent interval is fixed. From this date on, the opening exchange rate refers to the closing quote of the interbank market of the previous day. In contrast, previously this level was determined by the authorities. According to the central bank, this modification has the objective to get each time closer to a market-based exchange rate determination mechanism.

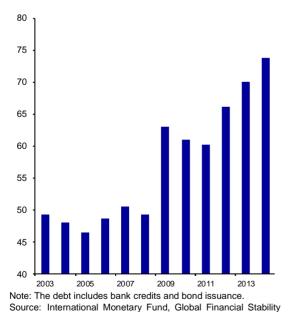
Chart 98
Economic Indicators of Emerging Economies

Annual change of the 3-month moving average in percent

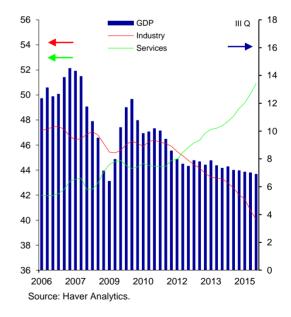




d) China: GDP by Sectors Annual change in percent and in percent of GDP



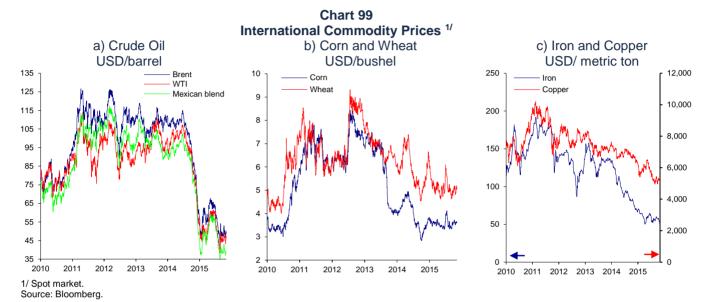
Report, October 2015.



## 3.1.2. Commodity Prices

Commodity prices decreased during most of the third quarter of 2015, mainly due to excess supply and a lower global demand, although they showed some signs of recovery in October. Oil prices dropped in light of high production and inventory

levels, the expectation regarding an increase in the exports of Iran, Libya and Iraq, and worries about the weakening of global demand. However, crude oil prices registered a slight rebound at the beginning of October, given increasing tensions in the Middle East (Chart 99a). On the other hand, cereal prices decreased due to the favorable U.S. production outlook and the expectation of less demand worldwide (Chart 99b). Finally, metal prices maintained their downward trend, as result of substantial increases in the supply of most metals and, as shown, of the slowdown of Chinese demand (Chart 99c).



#### 3.1.3. Inflation Trends Abroad

Inflation in the main advanced economies declined during the period covered in this Report, mainly due to the additional drop in oil prices and, in some cases, due to the currency appreciation (Chart 100a). Meanwhile, slower than expected convergence of inflation to the medium-term targets led to a reduction in inflation expectations, particularly those derived from financial instruments. These factors, together with the downward revision of the growth outlook, could contribute to inflation levels remaining at low levels for a prolonged period.

In the U.S., the annual change of the consumption deflator persistently maintained levels close to zero, locating at 0.2 percent in September, well below the inflation target of 2.0 percent. The weakness of this indicator is mainly due to low energy prices and the generalized U.S. dollar appreciation. In fact, the change of the core component remained low at 1.3 percent at an annual rate in September, precisely due to the USD appreciation effect on non-energy import prices.

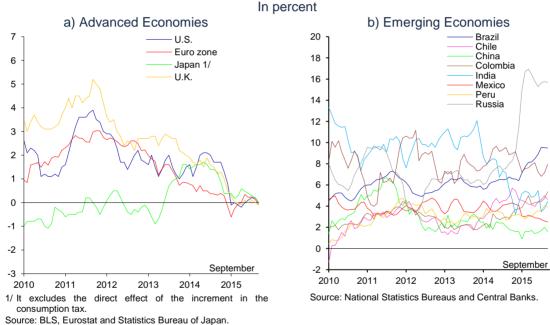
In the Euro zone, headline inflation returned to negative levels at the end of the quarter, mainly driven by low energy prices. Thus, it dropped from 0.2 percent in June to -0.1 percent in September. On the other hand, in the same period the core indicator slightly increased from 0.8 percent to 0.9 percent. In this environment, the ECB continued anticipating that inflation will stay low in the next months and will begin to increase gradually at the end of year, given the pass-through of the past Euro depreciation onto prices and the recovery of domestic demand. However, the ECB estimated that this rebound will be slower than previously expected, due to the

drop in commodity prices, the recent Euro appreciation and the downward revision of the growth outlook of the Euro zone.

Inflation in Japan also decreased during the quarter, passing from 0.4 percent in June to 0.0 percent in September. This happened, because the energy price drop offset the increase of prices, mainly food, derived from the Yen depreciation.

Emerging economies continue with a mixed inflationary scenario, with most countries registering low inflation rates in an environment of weak domestic and external demand. In contrast, in some countries, like Brazil, Chile, Colombia and Peru, inflation was above the respective central bank target, partly reflecting the strong depreciation of their currencies, in combination with some macroeconomic imbalances (Chart 100b). Additionally, an increase in inflation expectations was also observed, which reduced the degrees of freedom of these countries' monetary policy. Meanwhile, in the case of Mexico, despite the MXN depreciation, no increase in inflation and its expectations was registered (see Box 5).

Chart 100
Annual Headline Inflation in Advanced and Emerging Economies



# Box 5 Pass-through of Exchange Rate Movements onto Prices in Latin-American Economies

#### 1. Introduction

Uncertainty about the beginning of the normalization of the U.S. monetary policy, together with problems in financial markets in China, the drop in commodity prices worldwide, in particular of crude oil, and the feedback between these developments and the global environment of low growth have contributed to increasing volatility in international financial markets, mainly putting pressure on the exchange rates in emerging economies. Indeed, the currencies of the main emerging economies registered a generalized depreciation against the U.S. dollar of 25 percent on average since October 2014. In Latin America, this depreciation has been on average around 30 percent.

In this context, besides the important decline observed in commodity prices and the weakening of economic activity, both headline as well as core inflation have been increasing in countries like Brazil, Chile, Colombia and Peru. In most of these countries, these indicators are even above the upper range bound of the variability interval defined around their respective inflation targets. With respect to this, at least part of this inflation increase has been attributed to the effect of the exchange rate depreciation on prices.

In this Box a measure of pass-through of exchange rate movements onto consumer prices is estimated for the main Latin-American economies with inflation targeting regimes: Brazil, Chile, Colombia, Mexico and Peru. Results show that for the Mexican economy the pass-through is low in comparison with that estimated for other countries.

#### 2. Depreciation and inflation in the region

The observed currency depreciation in the main Latin-American economies from October 2014 until present has been substantial, although not homogeneous. In Brazil, the depreciation has been 55 percent, in Chile 15 percent, in Colombia 44 percent and in Peru 14 percent, while in Mexico it was 24 percent (Chart 1).

In light of the observed depreciation, in most cases, headline and core inflation have been increasing, even locating, as shown, above the upper bound of the variability interval of their corresponding inflation targets (Chart 2). Besides the observed increase in inflation, it stands out that even inflation expectations for the end of 2015 increased in most analyzed economies

Chart 1
Exchange Rate Depreciation in Latin-American Economies
Percent

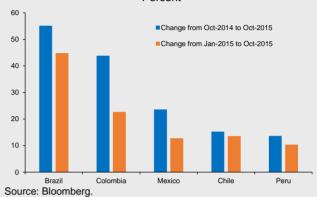
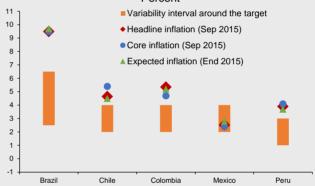


Chart 2
Inflation Target and Observed and Expected Inflation
Percent



Note: Data as of September 2015.

Source: Central bank of each country, INEGI and Haver Analytics.

Given the aforementioned, it is clear that even though the currencies' depreciation has been generalized in the region, the behavior of inflation has been mixed. In the case of Mexico, inflation has shown a downward trend and even reached historical minimum levels. This, despite the fact that the MXN depreciation has been even higher than the observed in other countries of the region.

This suggests that the heterogeneous behavior of inflation in Latin America cannot exclusively be attributed to differences in the magnitude of adjustment in the observed exchange rate in each country, but rather to other factors, being one of them the degree of exchange rate pass-through onto prices. Taking this into consideration, in the following an econometric exercise is

The countries considered are: Brazil, Chile, Colombia, Korea, India, Hungary, Peru, Poland, Czech Republic, Russia, Thailand and Turkey.

presented, based on which a measure of exchange rate pass-through onto prices for each country is estimated.

## 3. Estimation of the Exchange Rate Pass-through onto Prices

Following the methodology of Albagli et al. (2015), in this section an estimation of the pass-through of exchange rate movements onto prices is presented for Brazil, Chile, Colombia, Mexico and Peru, For that purpose, a VAR model was estimated for each country. The periodicity of data is monthly and the sample comprises from January 2000 to June 2015. The variables included in the model are those commonly used to analyze small and open economies.<sup>2</sup> The endogenous variables vector includes: an economic activity indicator, the nominal exchange rate against the USD, the consumer price index and the monetary policy rate. The previous exogeneity order is used for the Choleski decomposition. As exogenous variables the first two principal components of the following variables are included: world and U.S. industrial production indices, U.S. federal funds rate, oil prices, international food prices, and a country-specific export

As a measure of pass-through it is considered, the response of the consumer price index, accumulated in the first 12 months, after a 1 percent shock to the nominal exchange rate. Thus, in Table 1 it is presented the impact of a 1 percent depreciation of each analyzed country's exchange rate against the U.S. dollar on annual inflation, measured in basis points.

Table 1
12-month accumulated Effect on Inflation
of a 1 percent Depreciation

Basis points	
Country	Effect
Brazil	26.8
Chile	17.5
Peru	9.4
Colombia	4.6
Mexico	3.8

Source: Estimated by Banco de México.

As can be observed, the level of exchange rate pass-through onto prices is higher in Brazil and considerably lower in Mexico, which helps to explain why inflation has located at historical minimum levels in Mexico in the last months, despite the significant exchange rate depreciation.<sup>3</sup> Thus, the results show that, given the magnitude of depreciation suffered by these currencies, the countries with a greater pass-through coefficient are those that presented higher levels of inflation recently.

#### 4. Final Considerations

The information presented in this Box shows that in several Latin-American countries, the exchange rate depreciation has had a significant impact on inflation. Additionally, an increase in inflation expectations for the end of 2015 has also been observed in some of these countries. In light of these developments, central banks of several of these economies have taken measures in order to increase their monetary policy rates.

In this context the case of Mexico stands out, whose inflation has remained below the 3 percent target, despite the exchange rate depreciation. This favorable behavior can mainly be explained by the strengthening of the macroeconomic framework in the last decade. A monetary policy focused on price stability together with fiscal discipline have contributed to controlling the inflationary phenomenon and to creating an environment of low and stable inflation. Among the structural achievements in controlling inflation, that have been documented by the Central Institute in the last year, stand out:

- The reduction in the level, volatility and persistence of inflation (Banco de México, 2010);
- ii. A price formation process that is similar to the way prices are determined in economies with a large history of price stability (Banco de México, 2011b, 2013b);
- iii. A stronger anchoring of inflation expectations (Banco de México, 2011c and 2013a); and,
  - A gradual reduction in inflation compensation and the inflationary risk premium (Banco de México, 2013c).

All this has contributed to the decrease in the passthrough of exchange rate fluctuations onto prices, which has also allowed the favorable evolution of inflation in the last months, despite the observed depreciation. In addition to this, as shown in this Report, slack conditions prevailing in the economy as well as input price reductions have also supported the favorable performance of inflation in the current year.

<sup>&</sup>lt;sup>2</sup> All variables are expressed in logarithmic differences, except the monetary policy rate, which is included as difference in percentage points.

These results are in line with the previous estimations of the exchange rate pass-through onto prices. In the Technical Chapter of the Inflation Report January - March 2011, results showed that for the period June 2001 – December 2010, the elasticity of the pass-through on prices was 0.02 percentage points one year after a shock. Updating this exercise in the Box "Estimation of the Effect of the Exchange Rate Adjustment on Inflation", "published in the Inflation Report July September 2012, with information until August 2012, an pass-through elasticity of 0.03 percentage points, 12 months after the shock was estimated.

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Banco de México (2012) Box 1 "Estimation of the Effect of the Exchange Rate Adjustment on Inflation", Inflation Report July - September 2012.

Banco de México (2013a) Box 3 "Anchoring of Mediumand Long-term Inflation Expectations in face of Adverse Supply Shocks", Inflation Report January - March 2013.

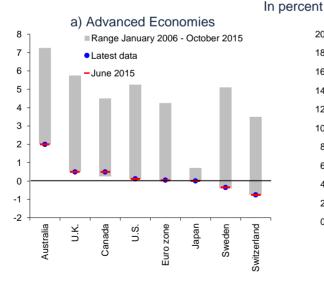
Banco de México (2013b) Box 1 "Relative Price Changes and Convergence of Inflation to the 3 percent Target", Inflation Report April - June 2013.

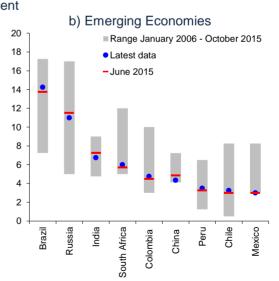
Banco de México (2013c) Box 1 "Inflation Decomposition and Inflation Risk", Quarterly Report October - December 2013.

## 3.1.4. Monetary Policy and International Financial Markets

In this environment of low growth and reduced inflation in main advanced economies, highly accommodative monetary conditions are anticipated to persist for a longer time and in some cases monetary stimulus may even be expanded (Chart 101a). On the other hand, some emerging economies, which, possibly due to macroeconomic vulnerabilities, have been characterized by a greater exchange rate pass-through onto inflation, increased their reference interest rates despite less economic dynamism (Chart 101b).

# Chart 101 Monetary Policy Rates of Advanced and Emerging Economies





Source: Haver Analytics.

In its October meeting, the Federal Reserve maintained its reference rate unchanged, but explicitly pointed out that in the next meeting it will determine whether or not it is appropriate to increase the target range of the federal funds rate. This decision will depend on the evolution of economic activity, the labor market and inflation, reaffirming that it expects the pace of monetary policy normalization to be gradual. In its announcement, it evaluated more favorably the strength of domestic demand and stressed that the labor market continued improving. This latter besides the decline in the growth pace of employment and the recent stability of the unemployment rate. Furthermore, it reiterated its expectation that inflation will gradually increase towards the medium-term target, to the extent to which the labor market improves and temporary effects on inflation, caused by energy and import price drops, vanish. Finally, the Federal Reserve affirmed that it is monitoring the global economic and financial events, although eliminated the references made in the last announcement with regard to the possible negative effects of the uncertain international scenario on U.S. growth and inflation

Meanwhile, the Bank of England in its October meeting decided to maintain the reference rate unchanged at 0.5 percent, as well as the balance of its security purchase program at GBP 375 billion. In its announcement, although it mentioned the deterioration of the global environment, it pointed out that domestic demand has remained solid and that there is evidence of pressures on the capacity of some sectors in the economy, although progress in productivity contributed to limit this effect on inflation. At the same time, it reiterated its expectations that once it determines the first increase in its reference rate, the pace of subsequent increments will be gradual.

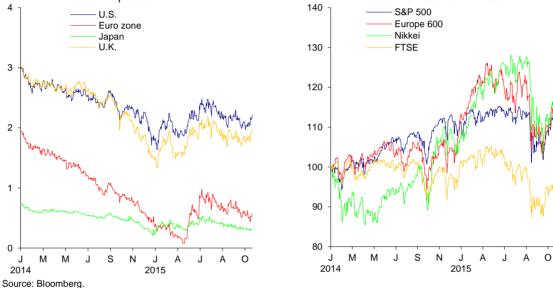
In its October meeting, the ECB decided to maintain its monetary policy interest rates unchanged and reiterated its intention to continue implementing its security purchase program for EUR 60 billion monthly at least until September 2016 and, in any event, until a change in the inflation trend consistent with the achievement of the medium-term target is perceived. The ECB stressed that downward risks to the growth and inflation outlook in the Euro zone tightened, in light of the concern about the growth outlook in emerging economies and the possible repercussions for the region, derived from the recent development in financial markets and of commodities. In this context, it pointed out that the degree of monetary policy easing should be revised in the next meeting in December, once the new macroeconomic forecasts are available, and it reiterated its disposal to take action, if necessary, using all instruments available in its mandate to maintain an appropriate degree of monetary easing.

In its meeting in October, the Bank of Japan ratified that it will continue with its lax monetary program in order to reach the 2 percent inflation target, considering that the implemented quantitative and qualitative stimulus measures are having the expected effects. In this way, it maintained the objective to increase the monetary base at an annual rate close to JPY 80 trillion, and its decision to continue buying government bonds and other instruments. Besides, it pointed out that, although long-term inflation expectations further recovered, annual inflation will probably remain close to 0 percent for some months, due to the impact of the drop of energy prices, while it anticipates the Japanese economy to continue growing at a low rate.

As mentioned before, volatility in international financial markets kept high in the period covered by this Report. This was the result of uncertainty with respect to the normalization process of the U.S. monetary policy, the concerns regarding the

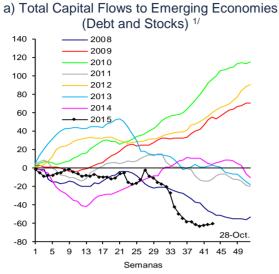
Chinese growth outlook and its possible repercussions for the global financial and economic situation, as well as the perception of higher vulnerability of emerging economies. Thus, advanced economies registered certain tightening of financial conditions, given the downturn in their stock markets and a real interest rate increase due to lower inflation expectations (Chart 102).

Chart 102 Financial Indicators of Selected Advanced Economies a) 10-year Bond Yield b) Stock Markets Index 01/01/2014=100 In percent 140 S&P 500 U.S. Europe 600 Furo zone Nikkei Japan Пĸ 130 FTSF



The perception of greater divergence in the cyclical position between emerging economies and the U.S. economy, in addition to the drop in terms of trade, provoked a restructuring of portfolios towards less risky assets. This was reflected in a reduction in capital flows towards emerging economies, leading to a reduction in their financial asset prices and a greater depreciation of their currencies (Chart 103). On the other hand, sovereign risk premia indicators showed increases, mainly in those economies with greater macroeconomic challenges. Finally, the uncertain global environment exacerbated the risks that some emerging economies with weak fundamentals, like Brazil and Turkey, faced a disordered process of economic and financial adjustment. This, in turn, points to potential risks of contagion to other economies.

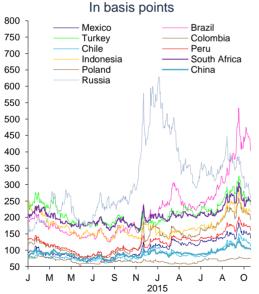
Chart 103 **Financial Indicators of Emerging Economies** 

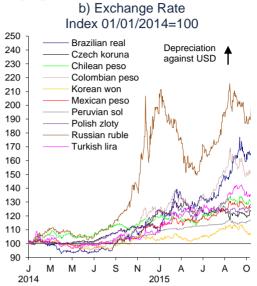


1/ The sample includes funds used for emerging economies' stock and bonds transactions, registered in advanced economies. The flows exclude the performance of the portfolio and exchange rate movements.

Source: Emerging Portfolio Fund Research.

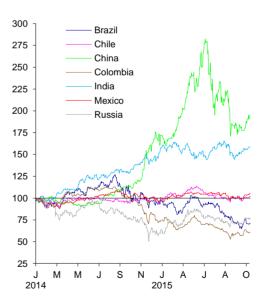
## c) Sovereign Credit Risk Measuring Market Indicators (CDS)





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

Source: Bloomberg



Source: Bloomberg.

Since October, volatility in international financial markets started showing certain decline, to a great extent, due to greater risk appetite of institutional investors. This, in light of the prevailing expectations of a possible delay in the start of the normalization process of the U.S. monetary policy and the measures adopted by Chinese authorities to stabilize their financial market and boost growth. This was reflected in an improvement of global stock markets, in a slight appreciation of

emerging economies' exchange rates and certain decline in these countries' sovereign risk indicators. Additionally, long-term interest rates experienced a reduction at the end of the quarter, mainly reflecting the decision of the Federal Reserve not to increase the reference rate in its September meeting, as well as the increased expectations that emerging economies weakness, especially China, could lead advanced economies' monetary policy to remain lax for a prolonged time period.

However, a new rebound of volatility in international financial markets cannot be ruled out, in particular in the case that the first increase in the federal funds rate might be unexpected for most of the market, that the expectation of the subsequent trajectory of increments might be more pronounced than foreseen, or in the case of negative news regarding the economic and financial evolution of China. In this context, the position of higher vulnerability of some emerging economies stands out, in the face of significant deterioration in their macroeconomic situation in general, which requires important policy adjustments.

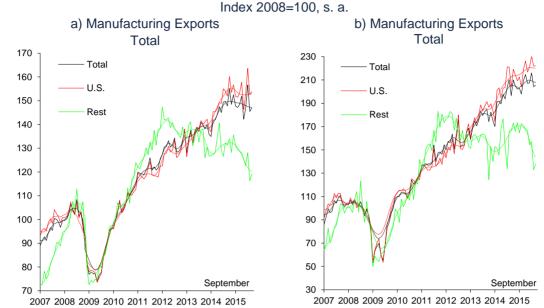
## 3.2. Evolution of the Mexican Economy

## 3.2.1. Economic Activity

In the third quarter of the present year, economic activity in Mexico maintained the moderate growth pace registered since the beginning of 2015. In particular, net exports continued presenting a low dynamism, while some domestic demand components showed certain improvement.

With respect to the external sector, manufacturing exports kept exhibiting a relative stagnation in the July - September 2015 period, despite the significant real MXN/USD exchange rate depreciation (Chart 104a). However, U.S. industrial production only grew 1.8 percent at an annualized seasonally adjusted quarterly rate, after having contracted 0.3 and 2.4 percent in the first two quarters of the year. To the extent to which the income effect of a weak external demand dominated the favorable price effect derived from the real exchange rate depreciation, both automotive and non-automotive exports to the northern neighbor country registered low growth. Additionally, in line with the weakness that demand from countries other than the U.S. has been presenting since several quarters, in the July - September 2015 period, exports to these countries continued exhibiting a negative trend, in particular those directed to Asia and Europe (Chart 104b and Chart 104c). Meanwhile, oil exports maintained the unfavorable performance shown since the beginning of 2012 (Chart 104d). In particular, in the reference period, shrinking of oil exports reflected a new decline in the oil price, since the export platform even presented a slight increase.

Chart 104 Export Indicators



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

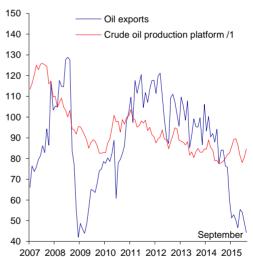
Source: Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

# c) Manufacturing Exports Non-automotive Total U.S. Rest 120 100 90 80 70 September 2007 2008 2009 2010 2011 2012 2013 2014 2015

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

Source: Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

## d) Oil Exports and Crude Oil Export Platform



2007 2008 2009 2010 2011 2012 2013 2014 2015

s. a. / Seasonally adjusted data.

1/3-month moving average of daily barrels.

Source: Ministry of Finance (SAT), Ministry of Economy (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.

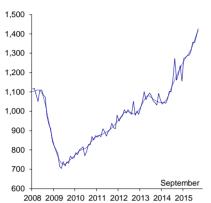
With respect to domestic spending, some of the private consumption indicators registered higher growth rates than last quarter, supported by the evolution of the labor market, low inflation and the rebound in income from workers' remittances.

- i. In the reported period, domestic light vehicle sales and commercial establishment revenues presented higher growth than that observed in the previous quarter, while ANTAD sales expanded at a similar rate, thus further exhibiting high dynamism (Chart 105a and Chart 105b). Meanwhile, the monthly indicator of domestic private consumption, which is a broader measure of private consumption, maintained its moderate growth pace at the beginning of the quarter (Chart 105c).
- ii. In this context, some consumption determinants have gradually shown an improvement. In particular, in the first semester of 2015, workers' wage bill exhibited an increment, although starting from very low levels (Chart 106a). Income from remittances, both in constant USD and MXN, registered an increase in the period July September as compared to the second quarter (Chart 106b). On the other hand, in the third quarter of the current year, bank credit for consumption presented an increase in its growth rate in relation to the one observed in the previous quarter (see Section 3.2.3). In contrast, the consumer confidence indicator maintained certain downward trajectory in the reported quarter, although it stands out that the component that measures the perception about the possibility of buying durable goods continued recovering (Chart 106c).

According to the latest data, gross fixed investment showed moderate dynamism at the beginning of the quarter subject of this Report (Chart 107a). In particular, growth observed in machinery and equipment, due to a greater dynamism of capital goods' imports (Chart 107b), was partially offset by the weakness that continued presenting investment spending in the construction sector, especially non-residential (Chart 107c). In this context, capital goods' imports have been boosted by a favorable outlook in the automotive, telecommunication sectors and the energy sector, as refers to electricity production and distribution.

## a) Domestic Light Vehicle Retail Sales

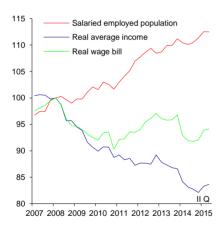
Thousands of units, annualized, s. a.



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

Source: Prepared by Banco de México with data from the Mexican Automotive Industry Association (AMIA).

# 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.

# Chart 105 Consumption Indicators

b) Commercial Retail Business Revenues and ANTAD Sales Index 2008=100, s. a.



 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; and prepared by Banco de México with data from ANTAD.

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



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

Source: INEGI.

# Chart 106 Consumption Determinants

b) Workers' Remittances Billion, constant USD and MXN,  $^{1/}$ 

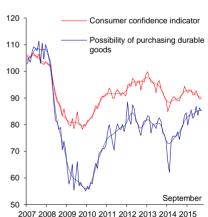


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

1/ Prices as of the second fortnight of December 2010.

Source: Banco de México.

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



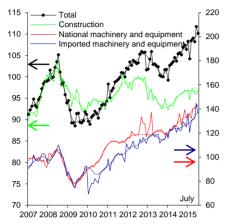
a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: National Consumer Confidence Survey (ENCO), INEGI and Banco de México.

# Chart 107 Investment Indicators

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

### 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

## 120 115 -110 -105 -100 -95 -90 -85 -70 -2007 2008 2009 2019 2011 2012 2013 2014 2015

- s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
- Source: Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI.

  Merchandise Trade Balance. SNIEG.
  Information of National Interest.

## c) Investment in Residential and Non-residential Construction



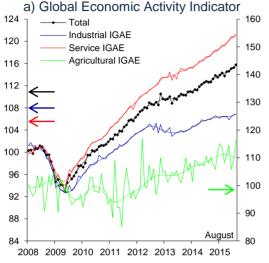
- s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
- Source: Mexico's National Accounts System,

As regards to economic activity from the production side, in the first two months of the third quarter the industrial sector showed a slow growth pace, while services exhibited a positive trend (Chart 108a).

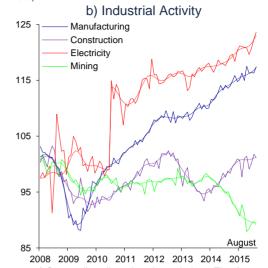
- i. As to industrial production, in the two months of July August of the ongoing year, the manufacturing sector kept presenting a positive trajectory, although it lost certain dynamism. In contrast, the construction sector maintained a weak performance (Chart 108b) and that of mining continued registering a negative trend, mainly reflecting the low level of oil production and the unfavorable performance of services associated with that sector (Chart 108c).
- ii. Meanwhile, services kept showing a favorable evolution (Chart 108d). In the two months of July August, the main sectors sustaining this upward trajectory were domestic trade, transport services and mass media information services, as well as temporary accommodation services and food and drink preparation services. The positive performance of these aggregates would seem to have been the result of the dynamism observed in consumption, the impact of the election process, the improvement of the telecommunication sector and the stimulus from tourist activities. In contrast, some sectors of the tertiary activities showed a less favorable evolution, with the case of financial and insurance services, corporative and educational services standing out.
- iii. At the beginning of the third quarter of the current year, primary activities showed a positive growth rate, derived from an increase in crop planting in spring-summer cycle and a better harvest of the autumn winter cycle and of some perennial crops.

# Chart 108 Production Indicators

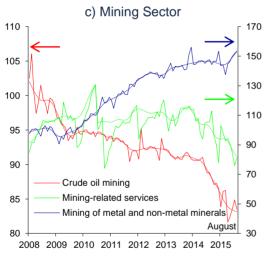
Index 2008=100, s. a.



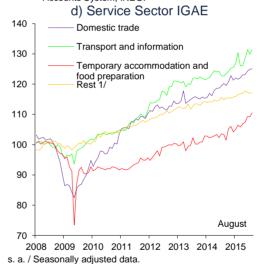
 s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
 Source: Mexico's National Accounts System, INEGI



 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

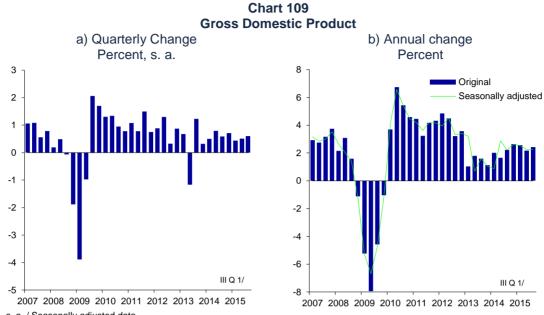


 s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
 Source: Monthly Industrial Activity Indicator, Mexico's National Accounts System, INEGI.



I/ Includes the rest of the service sectors.
 Source: Prepared by Banco de México with data from Mexico's National Accounts System.

In this context, in the third quarter of 2015, according to the latest quarterly GDP advanced estimate published by INEGI, economic activity showed a seasonally adjusted quarterly growth of 0.6 percent, figure compared to the growth rate of 0.5 percent observed in the previous quarter (Chart 109a). At an annual seasonally adjusted rate, according to the latest GDP advanced estimate, the Mexican economy presented an annual increase of 2.3 percent in the reference quarter, compared to 2.2 percent registered in the previous quarter. Data without seasonal adjustment show that the annual change, according to the latest GDP advanced estimate, was 2.4 percent in the third quarter of the present year, compared to 2.2 percent reported for the second quarter (Chart 109b).



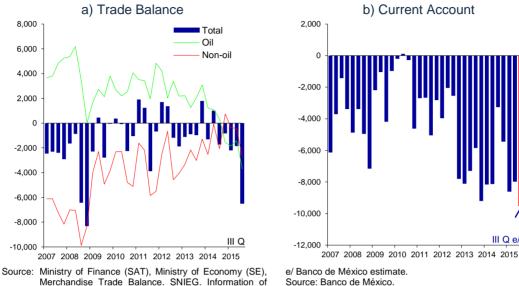
s. a. / Seasonally adjusted data.

1/ Data corresponding to the third quarter of 2015 refers to the quarterly GDP advanced estimate published by INEGI.

Source: Mexico's National Accounts System, INEGI.

Finally, in the third quarter of 2015, Mexico's trade balance showed a deficit of USD 6,469 million, composed of deficits of USD 2,783 million in the non-oil trade balance and USD 3,686 million in the one for oil (Chart 110a). Thus, the balance of the oil trade balance kept deteriorating and showed a deficit for the fourth consecutive quarter, after having presented surplus since 2009. On the other hand, latest data suggest that the current account will have registered a moderate deficit in the third quarter of 2015 and that it continued receiving resources through the financial account that allowed the financing of this deficit (Chart 110b). In particular, it is foreseen that, as reflection of the favorable outlook in face of the new investment possibilities opened up by structural reforms, further resources are captured in the direct investment and portfolio accounts. With respect to the latter, in the third quarter, a slight inflow of resources from non-resident investors to the stock market and government bond market was observed (see Section 3.2.3).

Chart 110 **Trade Balance and Current Account** USD million



National Interest

Source: Banco de México.

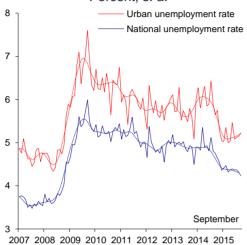
#### 322 Labor Market

In light of the moderate economic growth, in the third guarter of 2015 conditions of slack persisted in the labor market.

- Indeed, in the third quarter of 2015, national and urban unemployment rates registered levels similar to those last guarter and continued above pre-crisis levels (Chart 111a). In particular, in July - September of the current year, the national unemployment rate presented an average level of 4.3 percent in seasonally adjusted terms, figure similar to that reported in the second quarter of 4.4 percent, while the urban unemployment rate remained at 5.2 percent.
- ii. The labor participation rate exhibited an increase with respect to the average of the second quarter (Chart 111b).
- iii. In line with that, the number of IMSS-insured workers kept showing a favorable increase (Chart 111c).
- iv. However, the growth pace of informal sector employment exceeded that of formal employment, so that the informality indicators continued without improvement (Chart 111d).

Chart 111
Labor Market Indicators

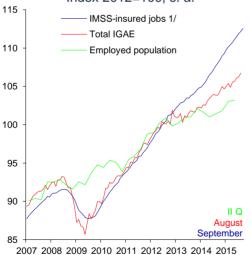
## a) National and Urban Unemployment Rates Percent, s. a.



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.

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

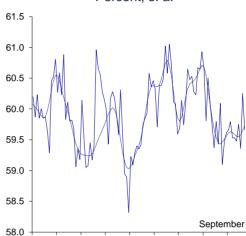


s. a. / Seasonally adjusted data.

 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).

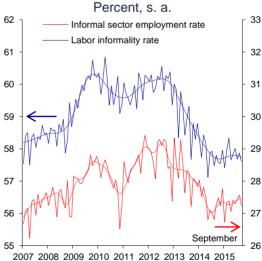




2007 2008 2009 2010 2011 2012 2013 2014 2015

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

# d) Informal Sector Employment<sup>1/</sup> and Labor Informality <sup>2/</sup>



- a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
- 1/ It refers to individuals working in non-agricultural economic units, operating with no accounting records and with households' resources.
- 2/ It includes workers who, besides being employed in the informal sector, work without social security protection and whose services are used by registered economic units, and workers self-employed in subsistence agriculture.

Source: National Survey on Occupation and Employment (ENOE), INEGI.

In this context of slackness in the labor market, growth rates of the main wage indicators in the economy observed in the third quarter of the current year continued

being moderate. In particular, no significant changes with respect to the changes reported in the previous quarters were presented.

- i. In the third quarter of 2015, the reference wage of IMSS-insured jobs increased 4.3 percent annually, same figure as that registered in the previous two quarters (Chart 112a).
- ii. Meanwhile, in the period July September of this year, contractual wages negotiated by firms under federal jurisdiction presented a growth rate of 4.3 percent, as compared to 4.2 percent observed in the same quarter of 2014 (Chart 112b). This result reflected the fact that both private and public firms' negotiations led to average increases close to those in the third quarter of 2014. In particular, public firms' negotiations in the third quarter of 2015 led to an average raise of 4.0 percent, data similar to the average of 3.9 percent in the same period of the previous year, while private firms' negotiations resulted in an average wage increase of 4.6 percent, level comparable to that of 4.5 percent registered in the third quarter of 2014.
- iii. In the second quarter of 2015, the average wage growth rate of total salaried workers in the economy (of 2.5 percent) maintained levels close to that of the previous quarter and located below the levels reported in 2012 (Chart 112c).
- iv. From October 1st, 2015, the Council of Representatives of the National Minimum Wage Commission (CONASAMI) determined to homologate the minimum wage valid in economic zone 'B' with that of economic zone 'A'. This led to an increase of the average general minimum wage from MXN 69.26 daily to MXN 70.10 daily.

Chart 112 Wage Indicators

Annual change in percent

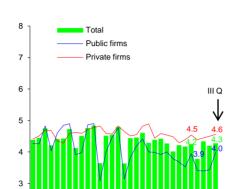
a) IMSS Reference Wage 1/

2008 2009 2010 2011 2012 2013 2014 2015

8

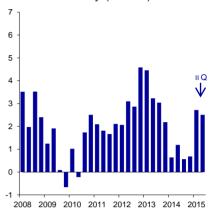
7

6



b) Contractual Wage 2/

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



- 1/ During the third quarter of 2015, on average 18.0 million workers registered at IMSS.
- 2/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.

2008 2009 2010 2011 2012 2013 2014 2015

3/ To calculate the average monthly nominal wages, the lowest 1 percent and the highest 1 percent in the wage distribution were excluded. Individuals with zero income or those who did not report are excluded.

Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE).

## 3.2.3. Financial Saving and Financing in Mexico

In the third quarter of 2015, the sources of financial resources in the economy increased at a lower rate than in the previous quarter. This performance was the result of a moderation in the growth rate of both domestic and external sources of resources, the latter in a context characterized by a reduction in capital flows to emerging economies.

With respect to the domestic sources of financial resources, the stock of domestic financial saving –defined as the monetary aggregate M4 held by residents minus the stock of currency held by the public– grew less than last quarter (Chart 113a). This behavior was mainly explained by a moderation in the growth of the stock of voluntary financial saving, while the stock of the compulsory financial saving registered a real annual change close to that observed in the previous quarter (Chart 113b). On the other hand, although the growth rate of the monetary base was similar to that registered in the previous quarter, it continues at high levels. This is to a great extent due to the temporary effect of the elections that took place in Mexico on money demand, as well as some remaining effects of the fiscal reform and other changes in the use of payment methods, whose impacts on the annual growth rates should be vanishing over time.

growth rates in percent

90

80

70

60

50 40

30

20

10

0

-10

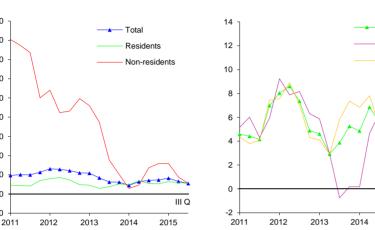
a) Total Financial Saving 1/ Quarterly average of real annual

Chart 113 **Financial Saving Indicators** 

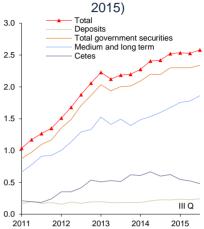
b) Resident Financial Saving

Quarterly average of real annual

growth rates in percent



c) Non-resident Financial Saving Stock at the end of the guarter in MXN trillion (MXN of September



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

> As refers to the external sources of resources, the growth pace of the stock of nonresident financial saving slowed down in the third quarter as compared to the previous one. This was mainly the result of a moderation in the expansion rate of the short-term government securities' holdings by foreign investors (Chart 113c). Meanwhile, external sources channeled to the financing of non-financial private firms kept moderating their growth pace, in an environment characterized by less liquidity in international financial markets.

Total

Compulsory

Voluntary

III Q

2015

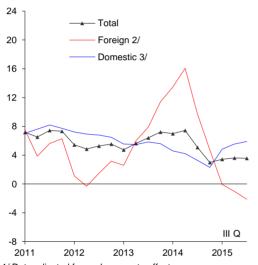
In line with the above, the growth rate of the use of financial resources in the economy registered a reduction with respect to the previous quarter. The decrease in international reserves, as result of the measures adopted by the Foreign Exchange Commission to support the good functioning of the exchange market, in a context of a moderation in the growth rate of the sources of financial resources, allowed to provide resources for the financing of the private sector (see Section 4). Public Sector Borrowing Requirements (PSBR) were lower than those observed in the past quarter, while financing for the states and municipalities was similar to that registered in the second quarter of 2015. Finally, financing flows to the non-financial private sector remained unchanged with respect to those registered in the previous quarter.

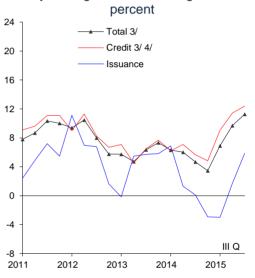
Going into details, total financing to non-financial private firms maintained during the third quarter a growth rate similar to that registered in the previous quarter, derived from a higher growth of domestic financing, offsetting the slowdown of external financing (Chart 114). Regarding the latter, as mentioned in previous Reports, there has been a slow pace of private debt placements in international markets, while external credit also has been showing less dynamism. In contrast, in the domestic market, credit granted by commercial banks to non-financial private firms kept increasing its growth rate, registering an average real annual change of 11.4 percent in the third quarter, above the 9.2 percent in the previous quarter (Chart 115a). It is worth mentioning that part of this increase is due to a currency depreciation effect, since a relatively small portion of the credit portfolio corresponds to USD-denominated credits, which are registered at market value in MXN. Also some firms decided to reduce their foreign debt in USD and substitute it with domestic financing in MXN, in light of the uncertainty prevailing in international financial markets (Chart 114). Likewise, direct credit by development banks continued accelerating its growth pace. All the before mentioned, in a context where interest and delinquency rates, in general, remained at relatively low levels, although in the reference quarter a slight increase in the interest rates of commercial bank credit is noted, as well as a certain improvement in the quality of their credit portfolio (Chart 115b and Chart 115c).

Chart 114
Financing to the Non-financial Private Sector



b) Domestic Financing to Non-financial Private Firms Quarterly average of real annual growth rates in



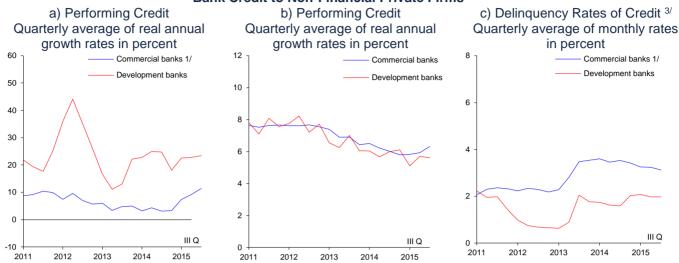


- 1/ Data adjusted for exchange rate effects.
- 2/ Data of foreign financing for the third quarter of 2015 are preliminary.
- 3/ These data can be affected by the disappearance of some non-bank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
- 4/ It refers to the performing and non-performing credit portfolio, and includes credit from commercial and development banks, as well as other non-bank financial intermediaries.

Source: Banco de México.

In the domestic debt market, placement of securities by non-financial private firms kept showing high dynamism in the third quarter of this year. In particular, net placement of medium- and long-term debt instruments was MXN 20.7 billion, constituting the highest quarterly amount on record (Chart 116a). This was the result of gross placements of MXN 25.8 billion, while gross amortizations – scheduled redemptions and prepayments— were MXN 5.2 billion. Meanwhile, both the average interest rate of short-term debt placements, as well as the corresponding to medium- and long-term securities, increased with respect to the previous quarter (Chart 116b).

Chart 115
Bank Credit to Non-Financial Private Firms



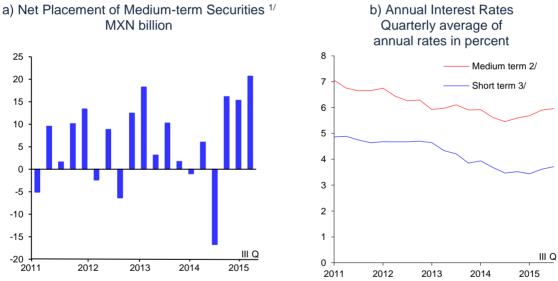
1/ Includes the Sofomes ER subsidiaries of bank institutions and financial groups.

2/ 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.

3/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

Source: Banco de México.

## Chart 116 Securities of Non-financial Private Firms in the Domestic Market



1/ Placements excluding amortizations in the quarter (scheduled redemptions and prepayments).

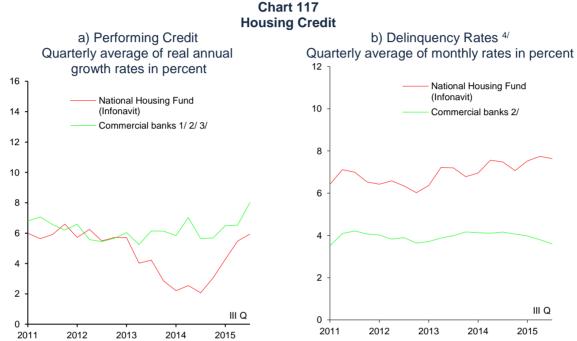
2/ Placements of more than one year.

3/ Placements of up to one year.

Source: Banco de México, with data from Valmer and Indeval.

Regarding credit to households, during the third quarter of 2015, its expansion was greater than that observed in the second quarter. This is mainly explained by the dynamism still shown by mortgage credit. Indeed, commercial banks' mortgage loans portfolio increased in the third quarter at an average real annual rate of 8.1

percent, which was above the rate of 6.5 percent registered in the previous period.<sup>28</sup> Likewise, mortgage loans granted by Infonavit increased its growth rate, passing from 5.5 percent in the second quarter of 2015 to 6.0 percent in the third quarter of the year (Chart 117a). In this environment, interest rates remained stable, while the delinquency rate of commercial banks' mortgage credit diminished. On the other hand, although the delinquency rate of the Infonavit credit portfolio did not observe significant changes in the period covered by this Report, it remains at relatively high levels (Chart 117b).



1/ Figures are adjusted in order to avoid distortions by the transfer from the UDIS trust portfolio to the commercial banks' balance sheet and by the reclassification of direct credit portfolio to ADES program.

2/ It includes sofomes owned by commercial banks.

3/ Figures are adjusted to avoid distortions due to the inclusion of some regulated sofomes to the bank credit statistics.

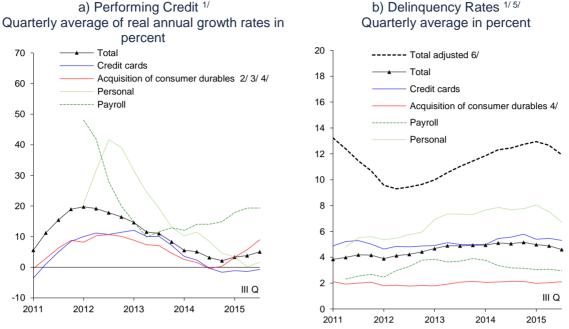
4/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

Source: Banco de México

Consumer credit granted by commercial banks observed an increase in its growth rate in the third quarter of 2015 with respect to the previous quarter. The average real annual growth rate of consumer credit was 5.1 percent in the period, compared to 3.8 percent registered in the previous quarter (Chart 118a). This was due to the dynamism that continues to be observed in the segment of payroll credit and an increase in the growth rate of credit for the acquisition of consumer durables. In contrast, personal and credit card loans kept showing a practically zero growth. Interest rates remained unchanged with respect to the previous quarter, while the quality of the portfolio improved, particularly in the personal loan segment. The latter reflected the evolution of delinquency rates, which, although continue at high levels, registered a decrease in the reference period (Chart 118b).

<sup>&</sup>lt;sup>28</sup> 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 and own housing.

Chart 118
Commercial Banks' Consumer Credit



- 1/Includes the Sofomes ER subsidiaries of bank institutions and financial groups.
- 2/ Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of one banking institution's automobile loan portfolio.
- 3/ From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from acquisition of consumer durables to other consumer credits by one banking institution.
- 4/ It includes credit for movable property acquisition and auto loans.
- 5/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.
- 6/ It is defined as non-performing portfolio plus debt write-offs accumulated over the last 12 months divided by the total portfolio plus debt write-offs accumulated over the last 12 months.

Source: Banco de México.

In sum, financing to the non-financial private sector developed in line with the performance of economic activity. From here on, to the extent to which the recovery of productive activity consolidates, a gradual increase in the private sector's demand of financing resources would be expected. In this context, it is relevant to elaborate a forecast exercise of the sources and uses of financing resources of the economy that illustrates the factors that could support or limit financing to the private sector towards the end of 2015 and in 2016 (Table 6). In particular:

i. Taking into consideration the observed evolution of the sources of financing resources until the third quarter of 2015, for the end of 2015 they are estimated to be equivalent to 7.0 percent of GDP, figure below the 10.2 percent observed in 2014. This, mainly as result of the slowdown of external sources, as reflection of less resources from abroad channeled to emerging economies. Referring to the use of financing resources, the annual flow of financing to the private sector is estimated to be 2.6 percent of GDP, slightly above the 2.4 percent registered in 2014. This was due to the fact that, despite the mentioned reduction in sources, the expected decrease in international reserves will have provided resources for the private sector, to which would also contribute the lower use of resources by the public sector. With respect to this, resources for the public sector —the sum of PSBR and state and municipality financing— are expected to register a reduction with respect to the end of 2014, passing from 4.8 to 4.4 percent of GDP in 2015.

ii. For 2016, more sources of financing resources are anticipated, as compared to the end of 2015, increasing their annual flow to 8.1 percent of GDP. This would reflect an increase in domestic sources, while foreign sources would continue to present a reduced flow. This latter, in line with the uncertainty expected to prevail in international financial markets given the environment described in this Report. In relation to the use of financial resources, based on the forecasts presented by the Ministry of Finance (Secretaría de Hacienda y Crédito Público) in the General Criteria of Economic Policy 2016, financing to the private sector is anticipated to drop from 4.4 percent to 3.8 percent of GDP, what would allow channeling financing resources to the private sector equivalent to 2.8 percent of GDP, slightly above the flow of 2.6 percent anticipated for 2015. This, even considering a slight accumulation of international reserves.

The results of the previous exercise show that, in a context of tighter financial conditions—particularly of foreign financial markets—, it is of fundamental importance for Mexico to continue with the fiscal consolidation process. This, in addition to guaranteeing the sustainability of public debt, will avoid pressuring the loanable funds market in Mexico. In particular, strengthening of public finances would contribute to the reduction in risk premia, partly attenuating the interest rate increase that could be observed derived from an international environment with prevailing uncertainty and more restrictive monetary policies in some advanced countries, like the U.S. and the U.K.

Table 6
Total Funding of the Mexican Economy (Sources and Uses)

Percentage of GDP

	Annual flows							
	2010	2011	2012	2013	2014	2015 <sup>e/</sup>	2016 <sup>e/</sup>	
Total sources	9.4	10.1	9.8	8.5	10.2	7.0	8.1	
Domestic sources	4.1	5.7	4.4	4.7	5.8	5.3	6.1	
Voluntary M4	2.6	4.2	3.0	4.1	4.2	3.9	4.7	
Compulsory M4	1.5	1.5	1.4	0.7	1.7	1.4	1.4	
Foreign sources	5.3	4.4	5.5	3.7	4.3	1.7	2.0	
Non-residents M4	2.9	3.0	4.5	1.3	2.3	0.1	0.3	
Foreign securities and credit 1/	2.4	1.4	1.0	2.4	2.0	1.6	1.7	
Total uses	9.4	10.1	9.8	8.5	10.2	7.0	8.1	
International reserves 2/	2.2	2.4	1.8	1.0	1.3	-1.4	0.5	
Public sector financing	4.3	3.7	4.2	4.1	4.8	4.4	3.8	
Public Sector Borrowing Requirements (PSBR) 3/	3.9	3.4	3.8	3.7	4.6	4.1	3.5	
States and municipalities	0.4	0.3	0.5	0.4	0.2	0.3	0.3	
Private sector financing	2.7	3.6	3.0	3.9	2.4	2.6	2.8	
Foreign	0.7	0.8	0.6	1.5	0.7	0.2	0.3	
Domestic <sup>4/</sup>	2.0	2.8	2.4	2.4	1.7	2.4	2.5	
Other concepts 5/	0.3	0.4	0.8	-0.6	1.7	1.5	1.0	

Note: Figures may not add up due to rounding. Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of exchange rate fluctuations.

Source: Banco de México.

e/ Estimated figures, expressed in percent of nominal average annual GDP estimated by Banco de México.

<sup>1/</sup>Includes external debt of the federal government, public entities and firms, and external PIDIREGAS, external liabilities from commercial banks and financing to the non-financial private sector.

<sup>2/</sup> As defined by Banco de México's Law.

<sup>3/</sup>From 2010 to 2014, Public Sector Borrowing Requirements (PSBR) corresponds to the data published by the Ministry of Finance (SHCP). Data for 2015 and 2016 correspond to those published in the General Criteria of Economic Policy 2016.

<sup>4/</sup>Total portfolio of financial intermediaries, of the National Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit*), and of the ISSSTE Housing Fund (*Fondo de la Vivienda del ISSSTE, Fovissste*), as well as the issuance of domestic debt.

5/ It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries

<sup>5/</sup> It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and INFONAVIT, non-monetary liabilities from the Institute for the Protection of Bank Savings (Instituto de Protección del Ahorro Bancario, IPAB), the effect of the change in the valuation of public debt instruments, as well as non-recurring revenues of the public sector derived from the net acquisition of financial assets and liabilities, among other concepts.

#### 4. Monetary Policy and Inflation Determinants

During the period covered by this Report, the Board of Governors decided to maintain the target for the Overnight Interbank Interest Rate at 3 percent, by virtue of the fact that it considered this monetary policy stance was conducive to support the convergence of inflation to its 3 percent target (Chart 119). With respect to this, it is noteworthy that, in face of an extremely difficult economic situation, the monetary policy conduction in Mexico required that the Central Institute weighs domestic and external factors in order to define the appropriate monetary policy stance.

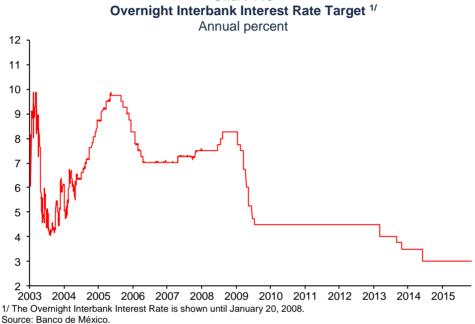


Chart 119

de México.

Among the elements, which were taken into consideration to support the monetary

policy decisions, the following stand out. With respect to domestic factors:

- a) Already being below 3 percent, inflation experienced further decreases and continued registering new historical minimum levels, and is anticipated to continue below 3 percent during the rest of 2015 and close to that level in 2016 and 2017.
- b) Given that economic activity in Mexico has continued presenting a moderate growth pace, conditions of slackness persist in the labor market and in the economy in general, thus no generalized aggregate demandrelated or input market-related pressures on prices are anticipated.
- c) Until now, the pass-through of the exchange rate depreciation has mainly been reflected in a price increase of durable goods, without generating second round effects on the price formation process in the economy.
- d) Inflation expectations for the end of this year continue declining, with its mean locating below 3 percent, while those corresponding to the end of 2016 and longer-term horizons remain anchored.

With respect to external factors:

- The Mexican peso, like other emerging economies' currencies, further e) depreciated, in light of the possible interest rate increase by the Federal Reserve. This implied a risk due to the effect that this could have had on prices and inflation expectations, thus Banco de México remained alert to avoid this from happening.
- f) High volatility of oil prices, with potential of affecting the external accounts, public finances and the exchange rate.

Going into the details of inflation determinants, economic activity has continued registering slack conditions. In particular:

- i. The output gap continues being negative and is expected to remain that way in the near future (Chart 120 and Chart 128b).
- ii. In the labor market slack conditions persist, such that moderate increments presented by main wage indicators during the period covered by this Report, together with the upward trend exhibited by labor productivity, contributed to the fact that unit labor costs for the economy in general remained at low levels (Chart 121).

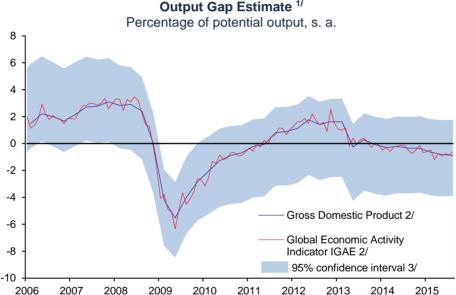


Chart 120 Output Gap Estimate 1/

s. a. / Prepared with seasonally adjusted data.

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

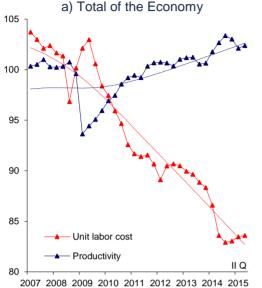
<sup>1/</sup> Estimated using the Hodrick-Prescott (HP) filter with tail correction; see Banco de México Inflation Report, April -June 2009, p. 69.

<sup>2/</sup> GDP figures as of the third quarter of 2015 refers to the quarterly GDP advanced estimate published by INEGI. IGAE figures as of August 2015.

<sup>3/</sup> Confidence interval of the output gap calculated with an unobserved components' method.

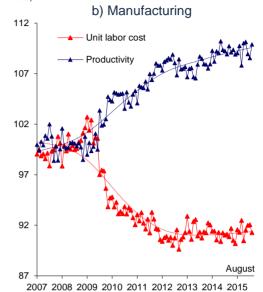
Chart 121
Productivity and Unit Labor Cost

Index 2008=100, s. a.



 s. a. / Seasonally adjusted and trend data. The former is represented by a solid line; the latter by a dotted line. Trends estimated by Banco de México.

Source: Unit cost prepared by Banco de México with data from INEGI. The Global Index of Labor Productivity in the Economy (IGPLE) published by INEGI.



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

Regarding the behavior of inflation expectations, derived from Banco de México's survey to private sector specialists, the median of those for the end of 2015 continued decreasing, passing from 3.0 to 2.7 percent between May and October 2015 surveys.<sup>29</sup> In particular, within this forecast, both the median of core inflation expectations, as well as that corresponding to implicit non-core inflation reduced from 2.7 to 2.6 percent and from 4.1 to 2.8 percent, respectively (Chart 122a). On the other hand, the median of headline inflation expectations for the end of 2016 remained around 3.4 percent in the same period.<sup>30</sup> In particular, the median of those for the core component continued at 3.1 percent, while implicit non-core inflation expectations slightly dropped from 4.7 to 4.6 percent (Chart 122b). Finally, those corresponding to longer-term horizons decreased from 3.5 to 3.4 percent between the referred surveys (Chart 122c).<sup>31</sup>

<sup>&</sup>lt;sup>29</sup> According to Banamex Survey of Financial Market Analysts' Expectations, the median of headline inflation expectation for the end of 2015 registered a similar behavior, as declining from 3.0 to 2.7 percent between the surveys from May 20, 2015 and October 20, 2015.

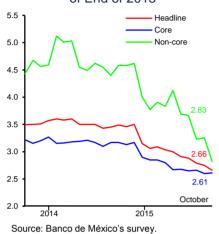
<sup>30</sup> Likewise, the median of headline inflation expectation for the end of 2016, according to the Banamex Survey, maintained around 3.4 percent between the surveys from May 20, 2015 and October 20, 2015.

<sup>&</sup>lt;sup>31</sup> With respect to the median of long-term inflation expectations in the Banamex survey (corresponding to the period 2017-2021), it remained on average around 3.5 percent between the surveys from May 20, 2015 and October 20, 2015.

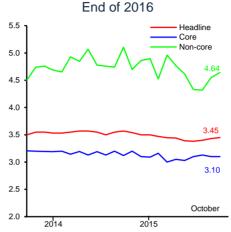
Chart 122 Inflation Expectations

Percent

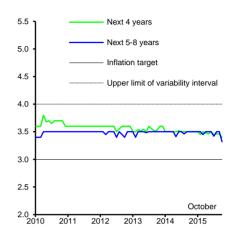
a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2015



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



c) Medians of Headline Inflation Expectations for Different Terms

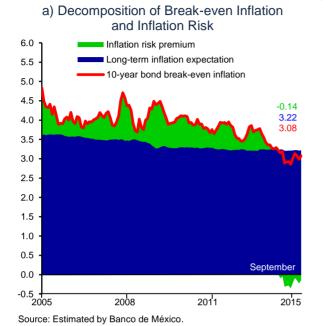


Regarding the evolution of inflation expectations implicit in 10-year market instruments, they kept around 3.2 percent between May and September 2015, while the inflationary risk premium adjusted from approximately -20 to -15 basis points (Chart 123a).<sup>32</sup> In this way, although break-even inflation (the difference between long-term nominal and real interest rates) increased approximately 5 basis points during the reference period, it is still at low levels, close to its historic minimum level (Chart 123b), reflecting that the holders of nominal interest rate-indexed instruments keep demanding a relatively low compensation for inflation and inflationary risk related to Mexican government bonds.

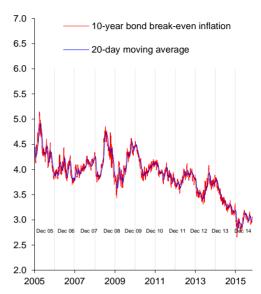
<sup>&</sup>lt;sup>32</sup> For a description of the estimation of long-term inflation expectations, see the Box "Decomposition of Breakeven Inflation" in the Quarterly Report, October-December 2013.

Chart 123
Inflation Expectations

Percent



b) 10-year Bond Break-even Inflation



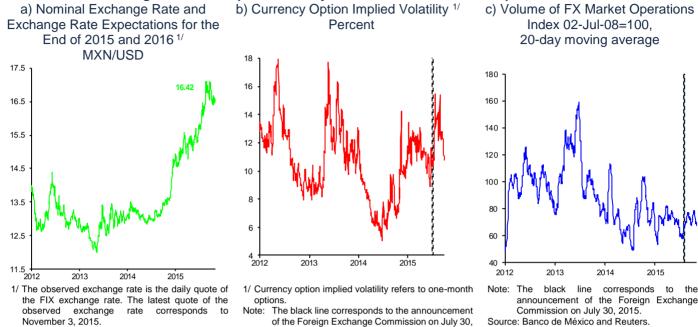
Source: Estimated by Banco de México with data from Valmer and Bloomberg.

As result of the high volatility levels registered in international financial markets, during the third quarter of the year a generalized appreciation of the U.S. dollar against most currencies was observed, as well as important commodity price reductions and practically worldwide losses in stock markets. However, in October part of these adjustments reverted. In this environment, although national markets were affected, they continued functioning in an orderly manner.

The Mexican peso, like other emerging economies' currencies, registered in the third quarter an additional depreciation against the U.S. dollar, reaching levels above 17 MXN/USD. Later, in October part of this depreciation reverted in order to locate around 16.50 MXN/USD, although with certain volatility. Thus, between June and early November 2015, the national currency registered a depreciation of 5.8 percent, passing from around 15.6 to 16.5 MXN/USD (Chart 124a).

Source: Banco de México

Chart 124
Exchange Rate and Implied Volatility and Volume of FX Market Operations



Source: Bloomberg.

In this context, and despite the volatility registered in financial markets, government securities' holdings by non-residents remained relatively stable and no net reductions in holdings of Federal Government titles by institutional investors were observed. With respect to this, it is noteworthy that the investors' holdings of short-term instruments decreased, while those of medium- and long-term instruments continued increasing (Chart 125). However, the adjustment of risk exposure of the portfolio of investors and of Mexican firms led to a greater demand for exchange rate hedges, which contributed to the depreciation of the national currency.

In virtue of the volatility observed in international financial markets, the Foreign Exchange Commission decided on July 30, 2015 to strengthen the mechanisms to provide liquidity to the national exchange market in order to reduce the probability of additional pressures disturbing its orderly functioning.<sup>33</sup> Specifically, it increased the amount to be offered in the without minimum-price daily auctions from USD 52 million to USD 200 million and decreased the minimum price in the corresponding USD auctions (from one equivalent to an exchange rate 1.5 percent higher than the FIX exchange rate determined the previous day to one equivalent to a 1 percent higher exchange rate). On September 28, it extended the validity of these auctions until November 30, 2015 and expressed that it will continue monitoring the operating conditions in the exchange market in order to adjust the mentioned mechanisms if necessary. Regarding this, it should be noted that since its reintroduction on December 9, 2014, the USD auction mechanism with minimum price has been activated on fifteen occasions, implying an assigned total amount of USD 2,709 million. While the amount assigned through the USD auction without minimum price amounts USD 18,296 million (from March 11, 2015 to present). These mechanisms contributed to stabilize the conditions in the national exchange market. This, in

Compilation of Quarterly Reports Released in 2015

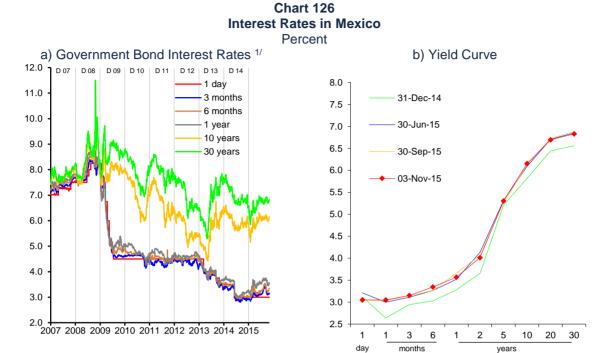
<sup>&</sup>lt;sup>33</sup> See the press releases from the Foreign Exchange Commission from July 30 and September 28, 2015.

Source: Banco de México.

combination with other factors, contributed to a better performance of volatility indicators, which stopped increasing, and to the fact that the operations volume stopped declining (Chart 124b and Chart 124c), besides interrupting the trend of MXN depreciation.

Chart 125 Government Securities' Holdings by Foreign Investors and Exchange Rate MXN billion and MXN/USD 2,500 Bonds 18 CETES 2,000 Total 17 Exchange rate 16 1.500 15 14 1,000 13 500 11 10 2009 2010 2011 2012 2013 2014 2015

Interest rates in Mexico declined, although with certain volatility. On the one hand, those for short- and medium-term horizons registered, during the first part of the third quarter generalized increases and later reductions to the same or even lower levels than those observed at the beginning of the period covered by this Report. These changes were associated with the changes of economic agents' perspective regarding the possible adjustment of the monetary policy stance in Mexico and the U.S. Thus, after increasing around 40 basis points during the reference period, the 3-month sovereign bonds rate increased from 3.1 to 3.5 percent between June and September, returning to 3.1 percent in early November. On the other hand, interest rates for longer-term horizons showed more stability and even slightly decreased during this period. Specifically, the 10-year bond interest rates decreased close to 10 basis points, passing from 6.2 percent at the end of June to 6.1 percent at the beginning of November 2015 (Chart 126a). In this way, the slope of the yield curve (the difference between 10-year and 3-month rate) registered a decline of approximately 10 basis points, moving from 310 to 300 basis points in the same period (Chart 126b).



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).

The spreads between Mexican and U.S. interest rates registered a mixed behavior. In particular, while those corresponding to short- and medium-term horizons registered levels similar to those observed at the beginning of the reference period or even declined after having increased significantly, those for long-term horizons presented an increase, given that the decline in U.S. interest rates was higher. In this way, the 10-year interest rate spread increased from around 375 to 395 basis points in the period covered by this Report (Chart 127).

Spreads between Mexican and U.S. Interest Rates 1/ Percentage points 10 Dec 06 Dec 07 Dec 09 Dec 10 Dec 11 Dec 12 9 1 day 8 3 months 6 months 7 1 year 10 years 6 30 years 5 4 3 2 1 2010 2011 2012 2007 2008 2009 2015 1/ For the U.S. target rate, an average interval considered by the Federal Reserve is considered.

Chart 127

Source: Proveedor Integral de Precios (PiP) and U.S. Department of the Treasury

Looking forward, it is possible that the volatility in international markets continues. Consequently, it is fundamental to maintain a solid macroeconomic framework in Mexico, therefore it is necessary to concretize the recently proposed efforts in the fiscal area, adjust the monetary policy stance if necessary and continue implementing structural reforms in an adequate and timely manner. This will contribute to maintain confidence in the Mexican economy, distinguishing it from other emerging economies, such that the country risk component of interest rates in general remains at low levels, which will be crucial in an external environment of increasingly stringent financial conditions.

#### 5. Inflation Forecasts and Balance of Risks

This chapter presents the macroeconomic scenario foreseen for the Mexican economy for the rest of 2015, 2016 and 2017, derived from the analysis presented in this Report for the external environment and evolution of the Mexican economic activity.

**GDP Growth:** For 2015, considering the increased information regarding the evolution of the economy throughout the year, the width of the forecast interval for GDP growth in Mexico is reduced from one between 1.7 to 2.5 percent in the previous Report to one between 1.9 to 2.4 percent in the present Report. For 2016, GDP growth is expected to be between 2.5 and 3.5 percent, the same interval as in the previous Report. For 2017, the GDP growth rate is estimated to lie between 3.0 and 4.0 percent (Chart 128a).

These forecasts take into account that in 2015 growth of economic activity in Mexico has been low and that it continues expanding at a moderate pace in the rest of the year. In particular, the evolution of external demand is anticipated to be modest due to the low dynamism expected for U.S. industrial production.<sup>34</sup> Additionally, domestic demand is foreseen to maintain moderate growth rates.

For 2016, U.S. industrial activity is still anticipated to register higher growth than in the current year and, consequently, it will be an impulse for manufacturing exports from Mexico. This recovery of U.S. industrial production is expected to be supported by the vanishing of the effect of the recent U.S. dollar appreciation and by the fact that no contraction, like the one in early 2015 in the energy sector, caused by the oil price drop, is to be expected. Furthermore, it is foreseen that the recovery of the external sector supports domestic demand growth in Mexico, to which could also contribute a positive effect of structural reforms. It should also be noted that this forecast considers that the oil production platform will practically remain unchanged with respect to the present year.<sup>35</sup>

For 2017, a more remarkable improvement of U.S. industrial activity is foreseen and that subsequent progress in the implementation of structural reforms will be reflected in a greater impulse for economic activity in Mexico.

**Employment:** For 2015, an increase of between 640 and 710 thousand IMSS-insured jobs is expected, compared to the expectation of an increase of between 560 and 660 thousand jobs in the previous Report, given the better than expected performance of this indicator so far this year and the fact that its recovery has been more vigorous than that of economic activity. For 2016, also considering this dynamism to be higher than that of the economy, the expected increase in the number of IMSS-affiliated jobs is revised upwards to between 630 and 730

.

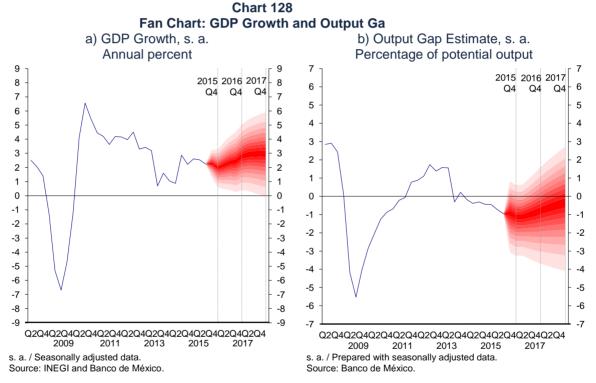
<sup>&</sup>lt;sup>34</sup> Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in October 2015. For industrial production in 2015, these are adjusted from an annual growth of 1.9 percent in the previous Report to 1.6 percent in the present Report. For 2016, the growth of this indicator is adjusted from 2.7 percent reported in the last Report to 2.3 percent in the present Report. For 2017, growth of 2.8 percent is foreseen for this indicator.

This forecast about the oil production platform is based on the General Criteria of Economic Policy (CGPE 2016), according to which it is anticipated to reach 2,262 thousand barrels per day in 2015, 2,247 thousand barrels daily in 2016 and 2,250 thousand barrels daily in 2017.

thousand, compared the one foreseen in the previous Report of between 600 and 700 thousand. For 2017, an increase of between 660 and 760 thousand work posts is anticipated.

**Current Account:** With respect to external accounts, for 2015 trade balance and current account deficits of USD 9.4 billion and of USD 30.3 billion are expected, respectively (0.8 and 2.6 percent of GDP, in that same order). For 2016, trade balance and current account deficits of USD 6.6 billion and USD 29.8 billion, respectively are foreseen (0.6 and 2.5 percent of GDP, in that order). For 2017, trade balance and current account deficits of USD 9.4 billion and USD 34.9 billion are expected, respectively (0.7 and 2.7 percent of GDP, in the same order).

In a context of moderate growth, no aggregate demand-related pressures on inflation or external accounts are expected. In particular, the output gap is anticipated to remain negative in the forecast horizon, although gradually closing (Chart 128b).



Mexico's GDP growth scenario, presented in this Report, is subject to different risks. Among the downward risks are the following:

- A delay in the recovery of the U.S. industrial sector, either due to lower dynamism of the global economy or due to an additional USD appreciation.
- ii. A new drop in Mexico's oil production and/or its price.
- iii. A deterioration in international financial market conditions, propitiating an increase in firms' financial costs, in turn, affecting their balance.

- iv. An additional deterioration in economic agents' confidence in light of the persistence of a weak economy and/or the absence of progress in the strengthening of the rule of law.
- v. Less dynamism of the automotive sector, given the problems that some of the sector's participants have experienced at the global level.

Among the upward risks, the following stand out:

- i. That the progress in the implementation of the structural reforms has a favorable effect on investors' expectations, faster than expected.
- ii. A better than expected U.S. recovery.

**Inflation:** Considering the slack presented by the economy and the absence of demand-related pressures on prices, headline as well as core inflation are expected to remain below 3 percent in the rest of 2015. For 2016, both indicators are anticipated to observe an increase, locating at levels close to 3 percent. This would reflect the vanishing of the effect of favorable supply shocks that took place in 2015 and the impact of the exchange rate depreciation on some product prices, rather than a widespread deterioration of the price formation process. For 2017, these effects are anticipated to vanish and a moderate downward trend is expected, locating headline and core inflation at the end of that year closer to 3 percent (Chart 129 and Chart 130).

The forecast for the inflation trajectory might be affected by some risks, among which stand out the following:

#### Upward risks:

i. That, in face of a new deterioration of international financial markets conditions, the Mexican peso returns to a depreciatory trend, propitiating price increases in a broad set of goods and services, derived from a contamination of inflation expectations. It is important to note that, just as in the past, Banco de México will be alert to avoid this from happening.

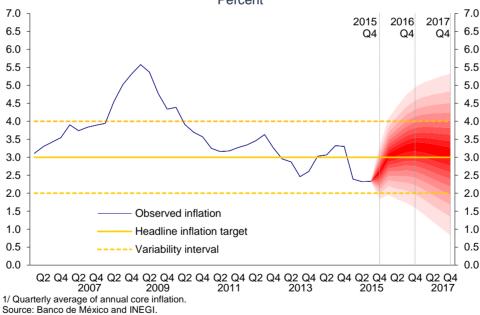
#### Downward risks:

- i. A lower than expected dynamism of economic activity.
- ii. That some widely used inputs continue exhibiting price decreases, in some cases as a result of the implementation of structural reforms.
- iii. That the national currency reverts part of the depreciation accumulated in the previous months.

Fan Chart: Annual Core Inflation 1/ Percent 7.0 7.0 2015 2016 2017 6.5 6.5 Q4 Q4 6.0 6.0 5.5 5.5 5.0 5.0 4.5 4.5 4.0 4 0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 Observed inflation 1.0 Headline inflation target 1.0 Variability interval 0.5 0.5 0.0 0.0 Q2 Q4 1/ Quarterly average of annual headline inflation. Source: Banco de México and INEGI.

Chart 129

Chart 130
Fan Chart: Annual Core Inflation 1/
Percent



Considering the facts presented in this Report, Banco de México's Board of Governors will continue to monitor the performance of all inflation determinants and its medium- and long-term expectations, in particular the monetary stance of Mexico relative to the U.S., the pass-through of exchange rate movements onto consumer prices, as well as the evolution of the degree of slackness in the economy. All this in order to be able to take the necessary measures in a flexible manner and

whenever conditions demand it in order to consolidate the convergence of inflation to the permanent 3 percent target.

Considering the complex international environment and the expectations that it will persist in the future, it is fundamental to maintain a solid macroeconomic framework in Mexico. Therefore, it is necessary, in addition to the timely adjustment of the monetary policy stance, to concretize the recently proposed efforts in the fiscal environment, as well as to continue implementing structural reforms in an adequate and timely manner. This will contribute to preserve an environment of confidence towards the Mexican economy, distinguishing it from other emerging economies, such that the country risk component of interest rates remains at low levels. This will be fundamental in an external environment of increasingly stringent financial conditions. Thereby, it will be possible to make further progress in the consolidation of a more solid and resistant economy.

The outlook described in this Report stresses the importance of focusing on the generation of domestic sources of growth for Mexico. In this sense, the approval of the structural reforms was a step in the right direction. In the short run, these reforms can have a significant effect on investment, as it has already started to be observed, and that is expected to continue in the next years. However, their greater contribution is expected to occur in the long run. An adequate instrumentation would imply a profound change in the economy's functioning, modifying the incentives of economic agents and propitiating an environment of increased competition that balances the opportunities of market participation. Furthermore, these reforms, correctly implemented, could achieve an increase in human capital and would facilitate the adoption of new technologies. This, together with the also-to-be-expected improved resource allocation, would allow reaching a higher productivity growth. However, this process may take time. Thus, although their favorable effects may not be immediately evident, it is necessary to persist in their adequate implementation and to be vigilant towards the continuation of the change process.

Finally, as mentioned in previous occasions, it is necessary to strengthen institutions and the rule of law, which would clearly imply an appropriate legal framework, but especially, its enforcement and full compliance. It should be noted that this strengthening also requires constant effort from society for its results to be reflected in greater economic growth that leads to increased welfare for the entire population.

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

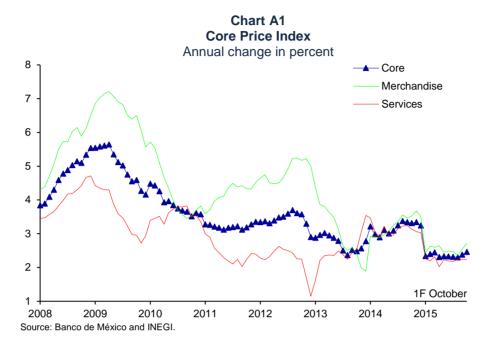
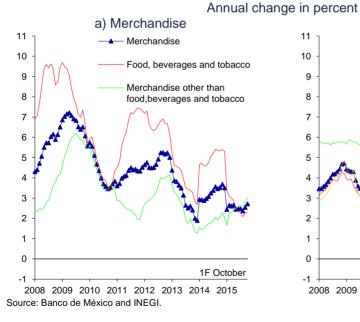


Chart A2
Core Price Index: Merchandise and Services



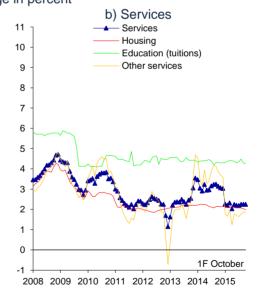


Chart A3 Non-core Price Index

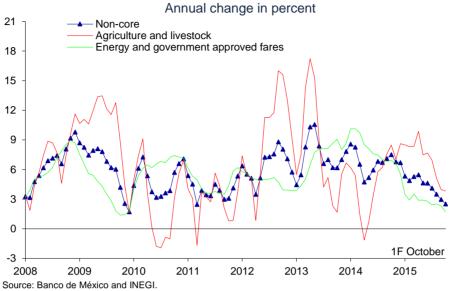
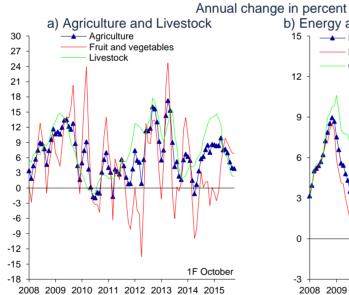


Chart A4 Non-core Price Index



Source: Banco de México and INEGI.

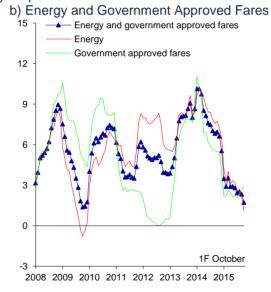


Chart A5
Agriculture and Livestock Price Index

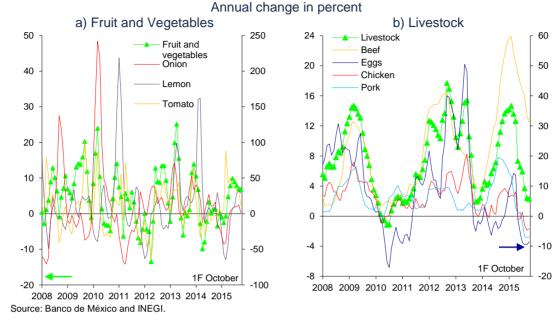
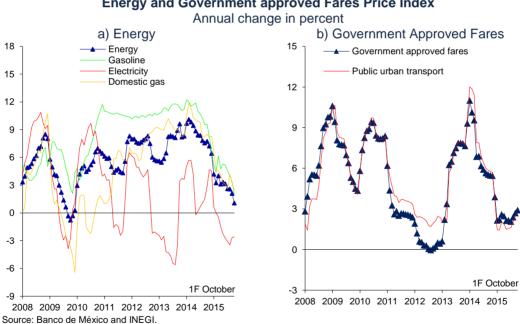


Chart A6
Energy and Government approved Fares Price Index



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Annex 1:

**BOXES** 

#### Section IV: Quarterly Report October - December 2015

#### 1. Introduction

In line with its constitutional mandate, the monetary policy conducted by Banco de México aims at procuring the stability of the national currency's purchasing power, seeking to achieve this mandate at the lowest cost to society in terms of economic activity. The efforts undertaken by this Central Institute to attain an environment of low and stable inflation in Mexico contributed to the convergence of headline inflation to the permanent 3 percent target in the first months of 2015, and since May 2015 it located below the referred target, closing 2015 at 2.13 percent, a historic low since the CPI has been measured.

The favorable evolution of inflation has taken place in a highly complex juncture. During 2015 and in early 2016, the domestic economy predominantly kept growing at a moderate pace, without registering aggregate demand-related pressures on prices and with inflation expectations that were well-anchored. Still, the international environment faced by the Mexican economy has been characterized by a noticeably weak expansion rate of the world economy for several years, generating continuous downward adjustments in growth expectations. Likewise, in 2015 recurrent episodes of volatility in financial markets were registered, a persistent downward trend in oil prices was observed, as well as a high degree of uncertainty regarding the moment and the pace at which the U.S. monetary policy stance will normalize. This was in contrast to the expectations of a greater monetary stimulus from most of the rest of advanced economies. The referred adverse environment further intensified over the first weeks of 2016. Indeed, despite the first adjustment to the target for the federal funds rate in December 2015, which temporarily dissipated an element of uncertainty in financial markets, in early 2016 the downward trend in the international oil price strengthened, while at the same time there were clear signs of doubt regarding the growth outlook and the efficiency of the economic policies adopted in China. Likewise, the expectation of a pronounced divergence among advanced economies' monetary policy stances prevailed, despite the anticipation that the U.S. monetary policy normalization process would be more gradual, which kept raising the value of the U.S. dollar against other currencies, especially those of emerging economies.

All of the above further increased the levels of risk aversion and volatility in international financial markets, leading to generalized depreciations of emerging economies' currencies, as well as a deterioration in their sovereign risk indicators. The latter, in part, reflected signs of vulnerability in some important emerging economies, such as China, Brazil and Russia. The referred volatility soared in the first half of February, while the international environment faced by the Mexican economy kept deteriorating. In this context, the national currency continued depreciating, not only as a response to factors triggering the depreciation of the real exchange rate, such as the drop in oil prices, but also as a result of the presence of operating mechanisms in financial markets that tended to amplify the negative response of the national currency to the prevailing environment. Thus, in the first weeks of 2016 the Mexican peso depreciated considerably as compared to the depreciation that had already been registered in the fourth quarter of 2015, despite

the fact that the Federal Reserve maintained the federal funds rate unchanged in its January meeting.

In this context, in each monetary policy decision the Board of Governors procured to carefully weigh the possible influence of both internal and external factors on inflation and its expectations, so as to prevent the previously mentioned events from jeopardizing the attainment of the Central Bank target. Thus, during much of 2015 Banco de México maintained the monetary policy reference rate unchanged at 3 percent, its historic low. However, following the first increment in the federal funds rate by the Federal Reserve, in its December monetary policy meeting Banco de México's Board of Governors decided to make an upward adjustment of 25 basis points to the target for the reference interest rate. Thus, considering the integration and openness of the commercial and financial sectors in Mexico to its foreign partners, particularly, the U.S., the Central Institute sought to prevent the riskadjusted spread of U.S. interest rates from compressing. In turn, in its meeting on February 4, 2016, just like the Federal Reserve and considering that the central scenario of the inflation evolution in the short and medium term would remain congruent with the convergence of inflation to its permanent target, it decided to maintain this target unchanged. Still, following this monetary policy meeting, volatility in international financial markets aggravated and the international environment faced by the Mexican economy kept deteriorating. This further adversely affected the quote of the national currency, hence increasing the probability of inflation expectations deviating from the consolidation path to the permanent 3 percent target. In view of that, in an extraordinary meeting, on February 17, 2016 the Board of Governors decided to increase the target for the reference interest rate by 50 basis points to a level of 3.75 percent. This adjustment was part of a series of measures announced in coordination with the Ministry of Finance and the Foreign Exchange Commission seeking to contribute to strengthening the country's economic fundamentals and to help anchor the value of the national currency. In particular, the Foreign Exchange Commission decided to suspend the daily auctions of the foreign currency, at the same time announcing that in exceptional cases it may discretionally intervene in the exchange market, ratifying that the key factor to procure the anchoring of the national currency would be upholding sound macroeconomic fundamentals. It is in this context that the increase in the reference interest rate target and the spending cuts of MXN 132.3 billion announced by the Ministry of Finance should be evaluated.

As regards domestic conditions that affected the monetary policy decisions, in the fourth quarter of 2015 the Mexican economy kept registering a sustained expansion of private consumption. On the other hand, manufacturing exports remained stagnant as a reflection of both weakness in the U.S. industrial activity and of a lower demand for Mexican goods in the rest of the world, while the dynamism of gross fixed investment diminished. As a result, in the fourth quarter of 2015, GDP grew less than in the previous quarter. In annual terms, productive activity in Mexico expanded 2.5 percent during 2015. In this context, slack conditions persisted in the economy, even though some indicators suggest that these seem to be gradually fading. Thus, no aggregate demand-related pressures on prices have been perceived.

For 2016 and 2017, the outlook for the external environment faced by the Mexican economy has become more complex. In particular, a lower impulse of external demand is anticipated, as compared to the estimation in the previous Quarterly Report, given a lower expected dynamism of the U.S. industrial activity and a

greater weakness of demand in other countries. Thus, the interval for the GDP growth rate anticipated for 2016 is adjusted downwards from one between 2.5 and 3.5 percent in the last Quarterly Report to one of 2.0 to 3.0 percent in the current one. For 2017, GDP is expected to expand between 2.5 to 3.5 percent, which is below the estimation of 3.0 to 4.0 percent in the previous Report.

The favorable evolution of inflation observed in 2015 occurred despite the depreciation of the national currency, which so far has only been reflected in the prices of some merchandise that increased pausefully and gradually, without generating second round effects on the price formation process in the economy. This has been contributed to, besides the adequate monetary policy stance, by the environment of slack conditions prevailing in the economy, as well as the direct and indirect effects on inflation generated by reductions in the prices of widely used inputs, such as commodities, energy products and telecommunication services, the latter two largely as a result of the implementation of structural reforms. It should be noted that in January 2016 annual headline inflation rebounded, which was mainly related to the expected arithmetic effects derived from the lower prices of phone services that took place in January 2015 and a temporary increment in the prices of some vegetables. The energy pricing policy for 2016 partially offset the above mentioned factors, which allowed annual headline inflation to lie at 2.61 percent. Subsequently, in the first fortnight of February, the referred indicator located at 2.94 percent, due to the additional rise in the non-core inflation, in particular, the subindex of fruit and vegetables.

In 2016 annual headline inflation is anticipated to increase. It is also estimated that, as a result of modifications in the gasoline pricing mechanism by the Ministry of Finance and considering the seasonality of its international prices -which can imply higher gasoline prices in the second and third quarters, and lower gasoline prices in the first and the fourth quarters of the year- it may temporarily reach levels slightly above 3 percent, concluding the year around that level. Annual core inflation is expected to gradually go up throughout the year, consequent on the adjustment in the relative prices of merchandise with respect to services prices, derived from the exchange rate depreciation, to conclude 2016 at levels close to 3 percent. For 2017, both headline and core inflation are estimated to stabilize around the permanent inflation target. This projected inflation path considers the fading of favorable supply shocks that occurred in early 2015, as well as adjustments in the referred relative prices.

In the described context, on February 17, the Board of Governors clarified that the increment in the reference rate target to 3.75 percent does not initiate the cycle of monetary contraction. It reassured, however, that in the future it will remain alert to the performance of all inflation determinants and its expectations for the medium and long term, especially the exchange rate and its possible pass-through onto consumer prices. Likewise, it maintained that it would continue monitoring the monetary stance of Mexico relative to that of the U.S., without overlooking the evolution of the output gap. All this in order to be able to take measures in a flexible manner and whenever conditions demand it, so as to consolidate the efficient convergence of inflation to the 3 percent target.

#### 2. Recent Development of Inflation

#### 2.1. Inflation

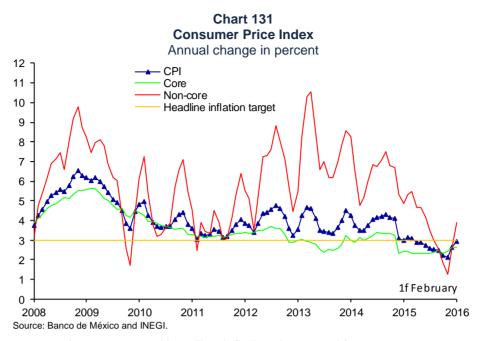
In the fourth quarter of 2015, annual headline inflation exhibited further reductions in addition to those observed since the beginning of the second quarter of the year. Indeed, since May annual headline inflation lied below the 3 percent target, consecutively registering historic lows over the following months, and closing 2015 with an annual change of 2.13 percent. This is the lowest figure since the CPI has been published. In addition to the adequate monetary policy stance, in a framework of slack economic conditions and absence of demand-related pressures onto prices, the favorable performance of inflation was also associated with lower prices of widely used inputs, such as the energy products and telecommunications services, which, in a number of cases, stemmed from the implementation of structural reforms, as well as the commodity price decline. These reductions affected the recent inflation evolution both directly (through more moderate increments in consumer prices) and indirectly (by contributing to lower costs for firms). This took place in a context in which the pass-through of exchange rate depreciation onto prices has been limited and was mainly reflected in the durable goods' prices, with no evidence of second round effects on the price setting process in the economy. In this regard, it should be noted that the change in relative prices, derived from the depreciation of the national currency was pauseful and gradual (Table 7 and Chart 131).

Table 7
Consumer Price Index, Main Components and Trimmed Mean Indicators

	Annu	al change	e in perce	nt					
	2	014	•	20	015		2016		
	III	IV	I	II	III	IV	January	1f February	
CPI	4.15	4.18	3.07	2.94	2.61	2.27	2.61	2.94	
Core	3.32	3.30	2.39	2.32	2.33	2.40	2.64	2.62	
Merchandise	3.46	3.57	2.56	2.52	2.46	2.78	2.86	2.94	
Food, beverages and tobacco	5.32	5.35	3.15	2.56	2.20	2.55	2.59	2.73	
Non-food merchandise	1.96	2.13	2.07	2.49	2.67	2.98	3.09	3.11	
Services	3.21	3.08	2.26	2.15	2.22	2.09	2.46	2.36	
Housing	2.11	2.14	2.10	2.09	2.06	2.00	2.06	2.09	
Education (tuitions)	4.29	4.30	4.36	4.35	4.37	4.28	4.32	4.19	
Other services	4.06	3.72	1.80	1.57	1.75	1.52	2.32	2.09	
Non-core	6.89	6.99	5.17	4.92	3.53	1.87	2.52	3.89	
Agriculture	6.53	8.04	8.39	8.34	5.33	2.76	5.27	8.46	
Fruit and vegetables	1.48	-0.73	-1.39	7.43	7.91	6.33	19.36	28.58	
Livestock	9.33	13.43	14.15	8.81	4.00	0.84	-2.05	-1.61	
Energy and government approved fares	7.11	6.35	3.30	2.87	2.42	1.33	0.84	1.09	
Energy	7.92	7.12	3.82	3.21	2.43	0.52	-0.44	-0.15	
Government approved fares	5.71	4.93	2.32	2.26	2.39	2.86	3.27	3.45	
Trimmed Mean Indicator 1/									
CPI	3.70	3.79	3.12	2.87	2.67	2.52	2.47	2.52	
Core	3.11	3.15	2.78	2.71	2.70	2.77	2.80	2.81	

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

Source: INEGÍ.



Average annual headline inflation decreased from 2.61 to 2.27 percent between the third and the fourth quarters of 2015. In January 2016 it located at 2.61 percent. This rebound was largely related to the arithmetic effect, which was expected to occur as a consequence of the elimination of the national long-distance telephone charge, lowering the international long-distance charge and reducing fixed telephone tariffs that took place in early 2015, as well as climatic conditions that affected some vegetables' prices. The evolution of headline inflation also partially reflected the change in relative prices as a result of the depreciation of the national currency, which affected some merchandise' prices. However, these effects were offset, to a certain extent, by the reductions in some energy prices, such as electricity and gasoline prices, that in part reflected the decreases in the international prices of the said goods. Subsequently, in the first fortnight of February, annual headline inflation was 2.94 percent, an increment that is explained by the performance of non-core inflation, while core inflation slightly declined with respect to the previous month (Table 7).

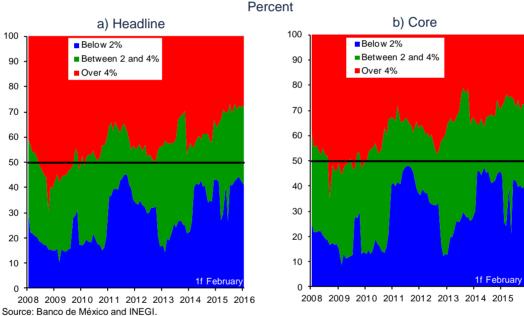
Throughout the reported quarter, both core and non-core inflation lied well below 3 percent. The former indicator remained at low levels and shifted from an average annual change of 2.33 percent in the third quarter to 2.40 percent in the fourth one, while the latter dropped from 3.53 to 1.87 percent, in the same time frame. In January 2016, these indicators' annual changes were 2.64 and 2.52 percent, respectively, while in the first fortnight of February they lied at 2.62 and 3.89 percent, in the same order (Table 7).

The downward path of headline inflation in the last quarter of 2015 reflects the favorable evolution of the prices of most goods and services. As mentioned before, the increment in January 2016 is principally explained by the anticipated effects due to the comparison base, as well as some targeted and temporary price increases of some goods and services. In particular, the upward trend of core inflation in the reference quarter was largely due to the impact of the exchange rate depreciation on some merchandise prices, in particular, durable goods. In turn, in January 2016 this indicator's increment was associated to the price reduction in telephone

services in early 2015, which did not repeat in 2016. In the first fortnight of February, annual headline inflation went up, due to the additional rebound in some vegetables' prices.

The described inflation dynamics is reflected in the evolution of some indicators associated to the differentiated price behavior in terms of their change level, as well as in the measures of headline and core inflation trends. In the first place, it is relevant to visualize the basket of goods and services of the headline and core index, which is grouped into three categories according to their annual price change: items with an annual price change below 2 percent, between 2 and 4 percent, and over 4 percent. In this sense, it turns out that a high percentage of both baskets exhibits price increments of less than 4 percent (blue and green areas, Chart 132). In particular, the share of goods and services of the CPI basket of the headline and core index with increases below 4 percent was 72 percent in the fourth quarter of 2015 (as compared to the shares of 60 and 68 percent for these indicators in the fourth quarter of 2014).

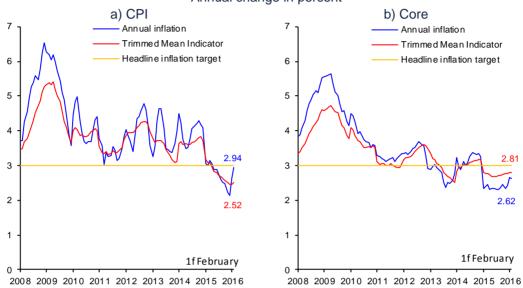
Chart 132
Percentage of the CPI Basket according to Intervals of Annual Increments



The medium-term inflation trend, represented by the Trimmed Mean Indicator, points to a relatively widespread decrease in the price growth rate in the reference quarter. Thus, between the third and the fourth quarters of 2015, the Trimmed Mean Indicator for headline inflation shifted from 2.67 to 2.52 percent, a figure that, given this indicator's stability, coincides with that obtained in the first fortnight of February 2016. As regards core inflation, the referred indicator went up from 2.70 to 2.77 percent in the said quarters, and remained relatively stable in the first fortnight of February, registering 2.81 percent. Thus, the Trimmed Mean Indicator for both baskets shows that the observed rebound in annual headline and core inflation

between the end of 2015 and the first fortnight of February 2016 was due to price increments in a reduced set of goods and services (Chart 133 and Table 7).<sup>36</sup>

Chart 133
Price Indices and Trimmed Mean Indicators 1/
Annual change in percent



<sup>1/</sup> 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.

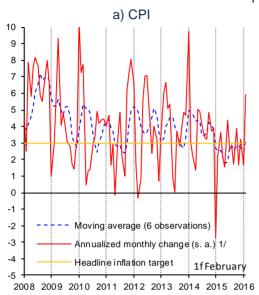
The trend of the annualized monthly (seasonally adjusted) inflation indicates that, at the margin, headline inflation seems to be locating slightly below 3 percent. On the other hand, core inflation trend has persisted a bit below 3 percent. Hence, both measures present levels congruent with the permanent target (Chart 134). It is worth recalling that this indicator, since it is based on the monthly change of the price index, is not affected by comparison base effects, unlike annual inflation, and, therefore, yields information on the most recent inflation dynamics.

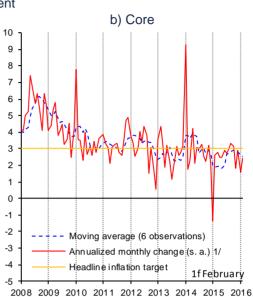
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<sup>&</sup>lt;sup>36</sup> It should be pointed out that the Trimmed Mean Indicator is obtained by excluding the generic items whose prices present extreme variations (both highest and lowest) from the calculation of headline inflation. This prevents the changes in relative prices of some goods or services from affecting its trend indicator, reason for which its evolution is primarily due to generalized price changes.

Chart 134
Annualized Seasonally Adjusted Monthly Change and Trend
Percent





s. a. / Seasonally adjusted data.

1/ The annualized biweekly change is used for the last observation.

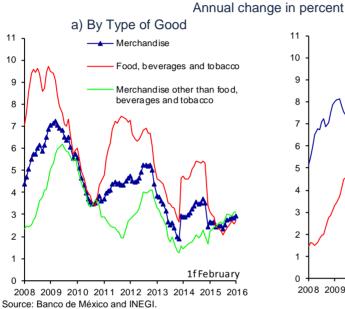
Source: Seasonal adjustment prepared by Banco de México with own data and data from INEGI.

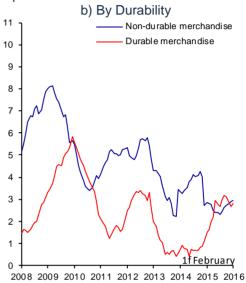
As mentioned above, although annual core inflation persists at low levels, its increment in the fourth quarter of 2015 was largely triggered by the changes in relative prices of merchandise with respect to those of services, as a result of the exchange rate depreciation. The increase in this indicator in January 2016 resulted from lower prices of telephone services, which had occurred in early 2015, and, as indicated above, did not take place this year. Furthermore, in the first fortnight of February, annual core inflation declined slightly.

- Between the third and fourth quarters of 2015, the merchandise price subindex increased its average annual change from 2.46 to 2.78 percent, locating at 2.86 and 2.94 percent in January and in the first fortnight of February, respectively (Chart 135a). This was caused by a greater growth rate of the prices of this subindex' two components, even though its annual changes remain at moderate levels. On the one hand, durable goods' prices continued reflecting the effects of the exchange rate depreciation (Chart 135a), which was manifested in the average annual change of non-food merchandise' prices, that shifted from 2.67 to 2.98 percent between the third and the fourth quarters of 2015, registering 3.09 percent in January 2016 and 3.11 percent in the first fortnight of February. On the other hand, some food merchandise' prices have also recently increased, reason for which the average annual change of this item went up from 2.20 to 2.55 percent in the same quarters, reaching 2.59 percent in January 2016 and 2.73 percent in the first fortnight of February.
- The increase of the services price subindex remained at relatively low levels, which partially offset the effect of the merchandise price increments on the CPI growth. In particular, the average annual change of services declined from 2.22 to 2.09 percent between the third and the

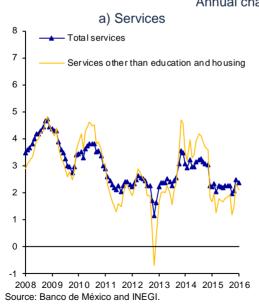
fourth quarters. In January 2016, the annual change of this subindex lied at 2.46 percent, while in the first fortnight of February its annual change was 2.36 percent. Thus, the described dynamics was mainly due to the performance of the services other than education and housing, as their average annual changes went down from 1.75 to 1.52 percent in the referred quarters, reaching 2.32 percent in January 2016 and going down to 2.09 percent in the first quarter of February (Chart 136).

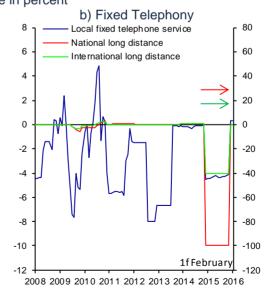
Chart 135
Core Price Index: Merchandise





# Chart 136 Core Price Index Annual change in percent





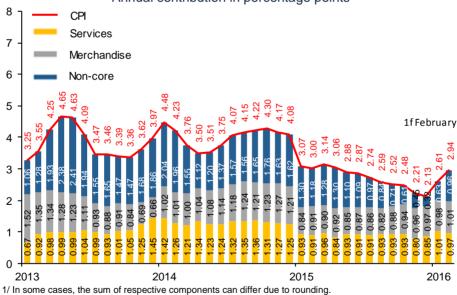
In the last quarter of 2015, the average annual growth rate of the non-core price index continued decelerating. This was mainly due to the performance of the prices of agricultural products and energy (Table 7). Thus, in the reference period, the contribution of non-core inflation to annual headline inflation diminished, thus offsetting a greater contribution of core inflation (Chart 137). In January 2016, the annual change of the non-core price index, as mentioned, rebounded, which was related to higher prices of some vegetables that persisted in the first fortnight of February. The following stands out within the non-core index' components:

- Throughout the reference quarter, the annual growth rates of the agricultural products' price subindex continued decelerating. Thus, the average annual change of this subindex plunged from 5.33 to 2.76 percent between the third and the fourth quarters of 2015, highlighting lower growth rates in the prices of livestock products. In January 2016, the annual change of this subindex was 5.27 percent, while in the first fortnight of February it reached 8.46 percent, reflecting annual price increments in goods, such as tomato (120.18 percent) and onion (115.97 percent).
- Between the third and the fourth quarters of 2015, average annual changes of energy prices and government approved fares diminished from 2.42 to 1.33 percent, registering 0.84 percent in January 2016 and 1.09 percent in the first fortnight of February. The annual variations of energy prices continued decelerating in the reference quarter, so that the average annual growth of these prices plunged from 2.43 to 0.52 percent, observing -0.44 percent in January 2016 and subsequently -0.15 percent in the first fortnight of February. Lower prices of various energy products, that took place in early 2016, were especially relevant for the above. In particular:
  - The gasoline price setting mechanism established by the Ministry of Finance for the country (with the exception of the Northern border region) consists in defining a range of maximum and minimum values in 2016, specifying the maximum price for each gasoline type, which would be set on a monthly basis, and that considers a variation of up to plus/minus 3 percent in relation to these fuels' price in late 2015. It is important to emphasize that this policy refers solely to setting a maximum price, so that any firm that considers it as suitable to charge a lower price, could do it. Therefore, in principle, it would even be possible to observe a lower quote than the minimum value of the defined range for the maximum price. Based on this rule, in early 2016 a 3 percent decrease in the maximum low octane gasoline price and a 2.81 percent drop in the maximum high octane gasoline price were registered. After that, in February, low octane gasoline did not present variations in its maximum price, while high octane gasoline further decreased by 0.21 percent, attaining a 3 percent reduction with respect to the price that prevailed in 2015. The variations observed in gasoline prices in January and the first fortnight of February matched those registered for maximum prices.

In this regard, on February 22, the President of Mexico brought forward the date of the beginning of gasoline and diesel imports, setting it on April 1, 2016, rather than January 1, 2017. This measure is expected to enhance competition in the national fuel market, and in the medium term it should bring down their prices, promoting a better inflationary environment.

- Low electricity consumption tariffs declined 2 percent and remained fixed for the rest of the year.
- L.P. gas price increased 2.74 percent at the beginning of the year and remained unchanged in February, while the price of natural gas presented a monthly increment of 2.30 percent in January 2016 and a decrease of 0.07 percent in the first fortnight of February, as it is associated to its international counterpart.
- The average annual change of the group of government approved fares shifted from 2.39 to 2.86 percent between the third and the fourth quarters of 2015, locating at 3.27 percent in January 2016. This variation was mainly a result of the increment in public transport prices that occurred in different cities of Mexico in early 2016, among which Guadalajara and Ciudad Juarez stand out. In the first fortnight of February, their annual change was 3.45 percent.

Chart 137
Consumer Price Index
Annual contribution in percentage points 1/



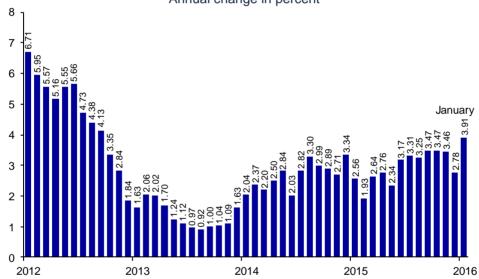
#### 2.2. Producer Price Index

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

In the fourth quarter of 2015, the Producer Price Index (PPI) of total production, excluding oil, registered an average annual change rate of 3.23 percent, while in

the previous quarter it was 3.34 percent. In January 2016, this indicator's annual change rate was 3.91 percent (Chart 138). A lower variation rate in the fourth quarter of 2015, as compared to the previous one, is accounted for by a lower contribution of final merchandise and services prices, in particular, agricultural products' prices, as well as the services for the mining and construction industries. On the other hand, intermediate use goods and services exhibited lower annual change rates than those of final merchandise and services, with the negative annual rates of oil-derived products, industrial electricity fares and telecommunication services standing out. The increment in the annual change rate of the PPI registered in January mainly stemmed from the increase in the prices in MXN of some exports' merchandise that are quoted in U.S. dollars. Thus, the referred increments would not necessarily imply pressures on the CPI over the following months, insofar as it has to do with higher prices of some export goods, which do not directly affect consumer prices in Mexico since they are destined to markets other than Mexico.

Chart 138
Producer Price Index 1/
Annual change in percent



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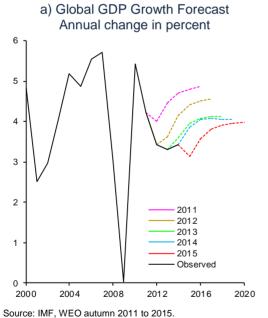
#### 3. Economic and Financial Environment

#### 3.1. External Conditions

Since the onset of the global financial crisis, the world economy has expanded at a weak pace, reflecting structural factors, the persistence of macroeconomic imbalances and a weak international financial system. Consequently, the medium-term world economic outlook has been adjusted downwards and the international trade volume has slowed down at the margin (Chart 139a and Chart 139b).

During the fourth quarter of 2015, this tendency became more pronounced, as world economic growth substantially moderated, derived from the sluggish conditions of advanced economies and the persistent deceleration of emerging ones. In early 2016, the world outlook was further affected by greater vulnerabilities of some of these economies, such as China, Brazil and Russia, the renewed drop in international commodity prices, particularly oil prices, and a greater expected divergence in the monetary policies of the main advanced economies' central banks. In the first half of February, investors' perception of global growth prospects and the financial systems' ability to tackle the increasingly more complex international environment became significantly more negative. This led to greater risk aversion and strong declines in the prices of financial assets. The said factors generated growing volatility in international financial markets and an increase in the risks to global growth and inflation.

Chart 139
World Economic Activity





#### 3.1.1. World Economic Activity

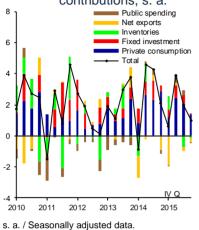
U.S. economic growth rate decelerated from 2.0 to 1.0 percent at an annualized quarterly rate between the third and the fourth quarters of 2015. The appreciation

of the U.S. dollar, low oil prices and lower external demand kept weakening the growth of exports, of industrial production, in particular manufacturing, as well as of investment in infrastructures and equipment related to the energy sector. Likewise, the dynamism of spending on private consumption was lower in this period, following high growth in the previous quarters. Moreover, temporary factors, such as the adjustment in inventories and a warmer than expected weather conditions, that brought down the demand for electricity, contributed to lower economic growth in the fourth quarter of last year. In turn, residential investment continued expanding at a solid rate during the referred period (Chart 140a).

In the fourth quarter of 2015 industrial production exhibited the worst performance since mid-2009, as it registered a drop of 3.3 percent at an annualized quarterly rate, after having grown 2.7 percent in the previous quarter. Among other factors, it reflected the contraction of activity in the energy sector, a lower demand for electricity and gas, as a result of the abovementioned climate conditions and a strong moderation in the manufacturing sector expansion, as a consequence of the low performance of its exports. Growth in the manufacturing sector declined at an annualized quarterly rate of 3.2 percent in the third quarter, to 0.1 percent in the last quarter of the year (Chart 140b). Nonetheless, in January 2016 industrial production registered a certain rebound, due to the recovery in the manufacturing sector, and to the fact that the normalization of climate conditions was reflected in greater electricity and gas production.

Weak productive activity contrasts with strong U.S. labor market. In particular, non-farm payroll expanded on average by 279 thousand jobs a month in the fourth quarter of 2015, as compared to 192 thousand jobs in the third one, even though in January this indicator only increased by 151 thousand jobs. Furthermore, the unemployment rate dropped from 5.1 percent in September 2015 to 4.9 percent in January 2016, level close to that considered as the long-term rate by the Federal Reserve. On the other hand, wage growth persisted low, although some indicators, such as the average hourly rate and unit labor costs point to an incipient acceleration (Chart 140c).

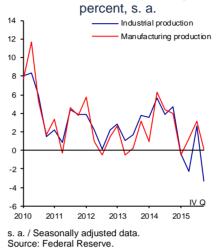
a) Real GDP and Components Annualized quarterly change in percent and percentage point contributions, s. a.



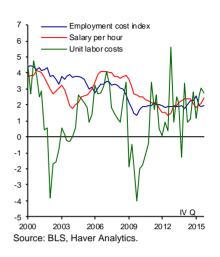
Source: BFA

**U.S. Economic Activity** b) Industrial and Manufacturing Production Annualized quarterly change in

Chart 140

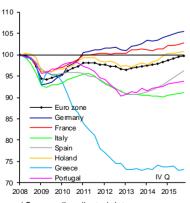


c) Wage Indicators Annual change in percent



During the period covered by this Report, in the Euro zone, the economy moderately recovered, with a growth of 1.1 percent at an annualized quarterly rate, apparently accounted for by weak external demand and private investment (Chart 141a and Chart 141b). Thus, private consumption seems to have constituted the principal source of expansion, supported by personal income, given the progress in the labor market (Chart 141c) and lower energy prices. Still, the outlook for the region remains uncertain due to domestic imbalances, to the slow improvement in financial markets and the continuous deceleration of the world economy. This is in addition to a more complex geopolitical outlook that has turned more complex in light of the migratory crisis afflicting the region. In this way, downward risks to growth and inflation in the Euro zone have accentuated.

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



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

Chart 141 **Economic Activity in the Euro Zone** b) Exchange Rate and Exports

of Goods

Annual change of the 3-month moving average in percent 40 -30 Exports of goods Nominal effective exchange rate 30 -20 Depreciation 20 -15 -10 10 0 0 5 10 December

-10 2010 2011 2012 2013 2014 2015 2016 Source: Haver Analytics, BIS.

c) Unemployment Rate In percent of economically active population, s. a.



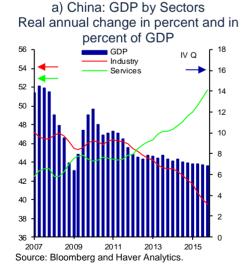
Source: Eurostat.

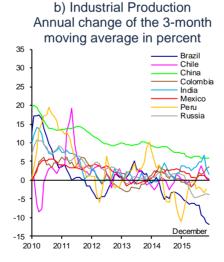
In Japan, economic activity shrank by 1.4 percent at an annualized quarterly rate during the last quarter of 2015, after a modest recovery of 1.3 percent in the third one. The deterioration of economic activity was mainly brought about by a considerable decrease of private consumption, in particular of durable goods. Furthermore, the change in inventories and public spending adversely contributed to growth again. On the contrary, the growth rate of fixed capital investment accelerated during the period. Finally, net exports also contributed to mitigating the drop in GDP in the fourth quarter of 2015, as a result of a strong contraction in imports.

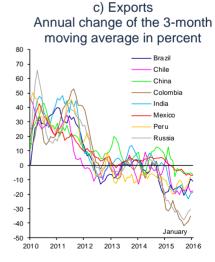
In China, the annual GDP growth rate continued moderating gradually during the fourth quarter of 2015, registering a 6.8 percent variation, its smallest expansion since the beginning of 2009. A major loss of dynamism in the industrial sector stands out, which could not be offset by a greater expansion of the services sector (Chart 142a). Besides, uncertainty increased regarding this country's growth outlook, the soundness of its financial system and the effectiveness of economic policies that had been implemented to take on these challenges.

As a reflection of the weakness of the Chinese economy, of the continuous decline in commodity prices and the stagnation of international trade, the vast majority of emerging economies kept decelerating in the last quarter of 2015. This is evident from an extended loss of dynamism of their industrial production, which in some cases registered negative growth rates, for instance in Brazil, Russia and Peru (Chart 142b), and a slump in exports, especially commodity exporting countries, such as Brazil, Russia, Chile, Colombia and Peru (Chart 142c). In the future, risks to these economies' growth remain downward, partly due to some of these economies' vulnerability in their macroeconomic fundamentals, in an environment characterized by tighter financial conditions, but also due to the weak world economic growth and its negative impact on the performance of commodity prices.

## Chart 142 Economic Indicators of Emerging Economies

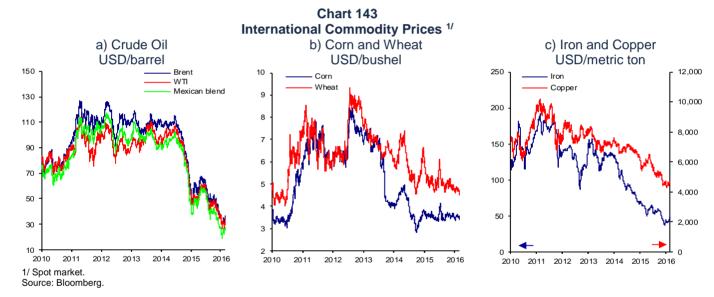






### 3.1.2. Commodity Prices

International commodity prices resumed their downward trend in the early fourth quarter of 2015, following a period of relative stability in the previous one. Thus, oil prices slumped again, reflecting the persistence of a structural imbalance between supply and demand, which may worsen due to the expected increment in exports from Iran and the refusal of OPEC members to cut down their oil production (Chart 143a). The impact of the tentative agreement between Saudi Arabia and Russia to cap their oil output at January levels, in order to reduce the oversupply conditions prevailing in the world market and, hence, to stop the decline in oil prices, is still uncertain. This is due to the fact that the participation of countries such as Iran and Iraq, which have previously announced their intention to raise oil production, is required. On the other hand, grain prices remained low in the presence of favorable supply prospects and high inventories (Chart 143b). Finally, metal prices also resumed their downward trend, as a result of the surplus of global production and weakening demand, above all in emerging economies (Chart 143c).



#### 3.1.3. Inflation Trends Abroad

Inflation in the main advanced economies persisted far below the targets of their respective central banks, even registering decreases in some measures of inflation expectations (Chart 144a and Chart 144b). This mainly responded to lower commodity prices, in an environment of slack conditions in productive capacity. Even though in the medium term inflation is expected to converge to the central banks' targets, as a result of these factors, the referred transition may be slower than previously anticipated. Additionally, risks of downward adjustments in inflation expectations have increased.

In the U.S., downward pressures to inflation, resulted from the U.S. dollar appreciation and lower energy prices, prevailed during the quarter, although inflation in January rebounded. The annual change of the consumption deflator was 1.3 percent in January 2016, while inflation, excluding food and energy, was 1.7 percent. On the other hand, inflation measured by the general consumer price index

lied at 1.4 percent in January 2016, while core inflation attained 2.2 percent in the same month.

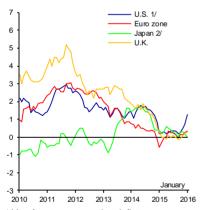
In turn, headline inflation in the Euro zone was 0.3 percent in January 2016, while core inflation remained stable at around 1.0 percent. In accordance with the European Central Bank, the expected inflation path is significantly lower than anticipated in December, reason for which inflation rates are forecast to remain very low or even become negative over the next months.

In Japan, inflation prevailed low during the quarter and in January 2016 it lied at 0.0 percent, just like inflation excluding fresh food. Likewise, the renewed weakness in oil prices is expected to affect the inflation evolution over the next months. In particular, the Bank of Japan estimates that the contribution of energy prices will remain negative throughout the 2016 fiscal year, that inflation in the said year will be lower than expected and it will take longer to attain the 2 percent target.

Emerging economies kept exhibiting a differentiated inflation outlook, reflecting the balance between weak domestic demand, together with low commodity prices, and the possible pass-through of strong depreciations observed in their exchange rates onto prices. While in some countries, such as Mexico and China, inflation remains low, in Russia, Turkey and a number of Latin American countries, such as Brazil, Chile, Colombia and Peru, it exceeded the inflation targets (Chart 144c).

Chart 144
Annual Headline Inflation and Inflation Expectations in Advanced and Emerging Economies
In percent

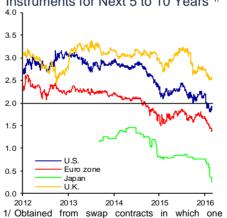
## a) Advanced Economies: Headline Inflation



- 1/ It refers to consumption deflator.
- 2/ It excludes the direct effect of the increment in the consumption tax.

Source: BEA, Eurostat and Statistics Bureau of Japan.

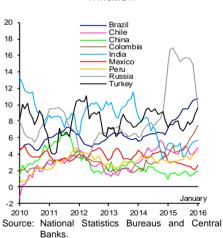




1/ Obtained from swap contracts in which one counterparty agrees to pay a fixed rate in exchange for receiving a referenced payment at an inflation rate over a specified period.

Source: JP Morgan.

### c) Emerging Economies: Headline Inflation



### 3.1.4. International Monetary Policy and Financial Markets

The described environment contributed to an increasing divergence among advanced economies' monetary policy stances, as well as among the monetary policy stances of emerging economies. In particular, in the U.S. the Federal Reserve is anticipated to continue with the normalization of its monetary policy that was initiated last December, although at a more pauseful pace than estimated some months ago. On the other hand, the Bank of Japan and the European Central Bank

relaxed their monetary policies over the last months, and there is a possibility that they may shortly provide additional stimuli. Also, some emerging economies, characterized by a greater pass-through of exchange rate onto inflation, possibly due to macroeconomic vulnerabilities, raised their reference interest rates despite a lower economic dynamism.

In December 2015, the Federal Reserve considered that labor market conditions had improved considerably and that it looked quite feasible that over the next two years inflation would go up to levels close to its 2 percent target. Thus, in line with the market expectation, for the first time since late 2008 it decided to modify the target range of the federal funds rate from an interval of 0 to 0.25 percent to one of 0.25 to 0.5 percent. In the press release, it was pointed out that the Federal Reserve expected economic conditions to evolve in such a manner that increments in the reference rate would be gradual, although it was stressed that, by virtue of the low inflation level, this indicator's observed and expected progress would be carefully monitored. In January 2016, even though labor market conditions further improved, this Institute warned that the growth rate of economic activity decelerated in late 2015, and that inflation will remain low in the short term, due to additional declines in energy prices. Furthermore, it eliminated the assessment of balanced risks to the prospects of economic activity and of the labor market. In this context, the Federal Reserve left unchanged its reference rate, pointing out that it is closely monitoring the performance of the global economy and financial markets, and it will evaluate their implications for the labor market, inflation and for the balance of risks for the U.S. outlook.

In its February meeting, the Bank of England unanimously decided to maintain its reference rate unchanged at 0.5 percent, and to preserve the balance of its security purchase program at GBP 375 billion. In its press release, it stated that the wage growth had been weaker than anticipated and that labor costs are expected to grow at a slower rate than estimated, which would contribute to a slower inflation recovery. Likewise, it indicated that the recent declines in commodity prices imply that inflation is likely to remain below 1 percent until the end of the year, with a slightly more modest inflation forecast than in December. Finally, this Institution confirmed that, given the probable persistence of adverse factors affecting the economy, the increment in the reference rate will be more gradual and it will reach a lower level than in previous cycles.

In contrast, the European Central Bank expanded the level of its monetary policy relaxation in December, given a weaker than expected inflation dynamics and downward risks for its outlook. In particular, the ECB decided to lower its deposit rate from -0.2 to -0.3 percent and to extend the asset purchase program through March 2017 (it had previously planned to end the program in September 2016). In January 2016, the ECB stated that it would be necessary to reconsider its monetary policy stance and to subsequently carry out an additional easing in its March meeting. The above, due to the increase in downward risks both to the economic activity and inflation, as a result of a greater uncertainty regarding the growth outlook of both Euro zone economies and emerging economies, volatility in the financial markets, a further decrease in commodity prices and geopolitical risks prevailing in the region. In his speech to the European Parliament, Mario Draghi, President of the ECB, added that a possible monetary policy stance revision in March depended on two factors: first, on the size and persistence of the pass-through of the decline in commodity prices and its incidence onto wages and prices;

second, on the impact of the recent volatility in the financial markets on the monetary policy transmission mechanism, in particular via banks.

In its meeting of January, the Bank of Japan unexpectedly cut an interest rate that applies on a part of resources kept by banks in excess of what is required in the Central Bank of -0.1 percent.<sup>37</sup> Besides, it maintained the objective to increase the monetary base at an annual rate close to JPY 80 trillion, and its decision to continue purchasing government bonds and other instruments. Likewise, the Governor of the Bank of Japan announced that the required easing measures will be taken, including the increment in the asset purchase program and a further reduction in the policy interest rate, in order to reach the inflation target, and that it will continue innovating in the use of different instruments.

On the other hand, there was also divergence among emerging economies' monetary policy stances. Although the People's Bank of China continued providing the monetary stimulus in the last quarter of 2015 to underpin the growth outlook, some central banks that had diminished their target rate during the third quarter decided to maintain it. Furthermore, a large number of emerging economies increased their monetary policy rate, particularly in Latin America, reflecting the unfavorable performance of inflation and the increment in the U.S. reference rate.

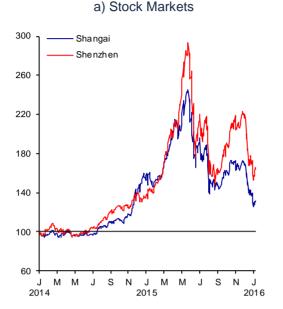
During the fourth quarter of 2015, international financial markets registered certain volatility in light of the uncertainty regarding the moment of the first increment in the U.S. federal funds rate. Despite the moderate response of the markets to the announcement of the first raise in the reference interest rate of the referred country in mid-December, volatility in financial markets increased again in early 2016. The renewed fall in commodity prices, in particular oil prices, uncertainty as to the soundness of the economic growth of China, concern over the world economic growth and the greater divergence among the outlooks for the main advanced economies' central banks' monetary policies translated in a further increased risk aversion. Volatility in the financial markets accentuated in February, as oil prices kept falling and investors' perception of the world economic growth outlook continued worsening. In particular, concern about the soundness of financial systems in an environment of lower growth and higher risks increased. These two factors stemmed from a high exposure to the sectors associated with commodities and in general emerging economies, in a context of lower interest spreads. In China, financial markets presented a considerable turbulence at the beginning of 2016, which affected other countries. Specifically, China's stock market indices experienced major losses as a result of the expiration of some stabilization measures, the announcement of new measures at the beginning of the year that aim at limiting stock sales, and the authorities' inability to reestablish investors' confidence, as a result of which the capital outflow intensified (Chart 145a). Derived from the above, the exchange rate depreciated against the U.S. dollar and the official basket of currencies used as a reference by the People's Bank of China (Chart 145b). Thus, this Institution was forced to intervene in the exchange market, with an important decline in its international reserves.

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<sup>&</sup>lt;sup>37</sup> To reduce the adverse impact of this negative interest rate on banks' profits, the Bank of Japan introduced a differentiated system of the deposit rate. Under this new scheme, banks will receive 10 basis points over the average of excess reserves maintained in the central bank in 2015, and a zero rate over the required reserves. The rate of -0.1 percent will only be applied to the deposits bigger than the sum of the two above mentioned balances.

Chart 145 China Financial Indicators

Index January 2014=100





Source: Bloomberg.

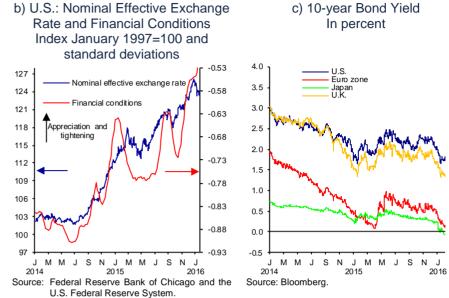
During the reported period, advanced economies' stock market indices and riskier assets' prices declined (Chart 146a). Furthermore, U.S. dollar observed a generalized appreciation against advanced and emerging countries' currencies, and financial conditions in the U.S. tightened (Chart 146b). On the other hand, long-term government bond interest rates in this group of countries dropped (Chart 146c). Among other reasons, this evolution was attributed to a higher demand for low-risk assets given the recent generalized deterioration in investors' perception of the world expansion outlook, the Bank of Japan unexpected decision to reduce the interest paid on some banks' deposits to negative rates, and, in general, due to greater expectations that a number of advanced economies' central banks will uphold a highly accommodative stance.

a) Stock Markets

Index 01/01/2014=100

Chart 146
Financial Indicators of Selected Advanced Economies





Meanwhile, during the first weeks of 2016, in general, emerging economies' exchange rates strongly depreciated, the stock market indices and the sovereign risk indicators deteriorated, and there were capital outflows (Chart 147). Among the factors that contributed to the deterioration in these economies' financial markets. the following should be highlighted: concern over the debt sustainability of some countries, particularly those with high levels of liabilities in the foreign currency; the impact of lower commodity prices, in particular oil prices, and, in general, slack conditions in the global economy. Besides, the modifications in the international banking regulation, that consider higher capital requirements over positions in debt instruments that these could maintain, together with specific norms in some countries, such as the U.S., that explicitly confine them to preserving positions in these instruments, have propitiated a reduction in the holdings of the mentioned global banks' securities for the trading book in these economies. The above affected the depth and liquidity of financial markets in the countries, in which global banks play an important role, which also influenced these countries' financial market conditions and aggravated their financial variables' responses to different shocks.

Chart 147
Financial Indicators of Emerging Economies

300

275

250

225

200

175

150

125

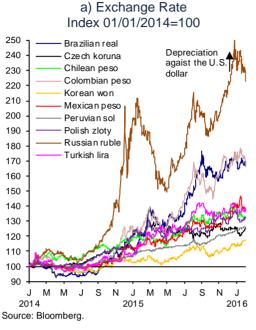
100

75

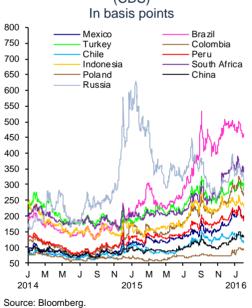
50

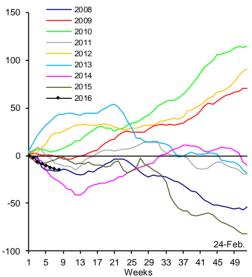
25

2014



# c) Source: Bloomberg. source: Bloomberg. d) Total Capital Flows to Emerging Economies (CDS) (Debt and Stock) 1/





М

2015

S

b) Stock Markets

Index 01/01/2014=100

Brazil

Chile

China

India

Peru

Russia

Mexico

Colombia

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.

### 3.2. Evolution of the Mexican Economy

### 3.2.1. Economic Activity

In the fourth quarter of 2015, economic activity in Mexico continued growing supported by the performance of private consumption, while manufacturing exports remained stagnant, as a reflection of weak U.S. industrial activity and a lower demand in other countries, while gross fixed investment reduced its dynamism. As a consequence, in the fourth quarter, productive activity expanded less than in the previous one.

Indeed, with respect to the evolution of domestic demand, private consumption indicators point to a relatively high growth rate in the fourth quarter. In particular:

- i. ANTAD sales maintained an upward trajectory in the fourth quarter of 2015. Likewise, commercial enterprises' revenues from the sale of goods and services kept growing in October and November, even though they decreased in December 2015 (Chart 148a). In turn, with data as of January 2016, domestic light vehicle sales maintained a strong dynamism and are at especially high levels (Chart 148b). Finally, the monthly indicator of domestic private consumption, which is a broader measure of private consumption, in the period of October-November 2015 maintained a growing trend (Chart 148c). Its performance was contributed to not only by the expansion in the consumption of goods, but also by the dynamism of spending on services.
- ii. This performance has partly reflected the positive evolution of the labor market and of low inflation, which generated increments in the real wage bill (Chart 149a). Likewise, in the fourth quarter of 2015 and early 2016, income from remittances kept growing and for 2015 as a whole it exhibited levels close to those prior to the onset of the global financial crisis (Chart 149b). Additionally, the consumer confidence indicator somewhat improved with respect to its weak performance in the first quarters of 2015, which is more evident in the component that measures the perception of the current feasibility of buying durable goods (Chart 149c). For its part, commercial bank credit for consumption presented a greater growth rate as compared to the third quarter of 2015 (see Section 3.2.3)

### a) Commercial Retail Business Revenues and Total ANTAD Sales Index 2008=100, s. a.

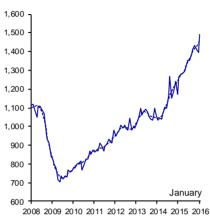


s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: Monthly Business Survey, INEGI; prepared by Banco de México with ANTAD data.

### Chart 148 **Consumption Indicators**

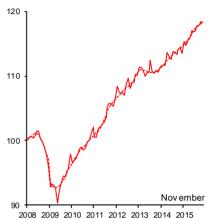
b) Domestic Light Vehicle Retail Sales Thousands of units, annualized, s.a.



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).

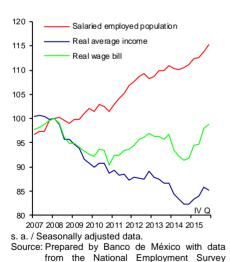
c) Monthly Indicator of Domestic **Private Consumption** Index 2008=100. s. a.



Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: INEGI.

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

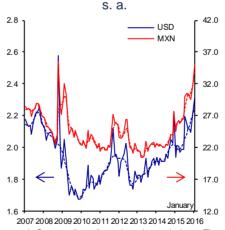


(ENOE), INEGI.

**Consumption Determinants** 

b) Workers' Remittances Billion, constant USD and MXN,1/

Chart 149



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

c) Consumer Confidence Index January 2003=100, 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.

Source: Banco de México.

In contrast, at the end of 2015 gross fixed investment signaled a possible unfavorable trend change (Chart 150a). This performance is consequent on the fact that the declining trend registered in the investment in construction since early 2015, in particular in the item of non-residential construction (Chart 150b), has recently been joined by deceleration of investment in machinery and equipment. Indeed, 115

110

105

100

95

90

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80

75

by a dotted line.

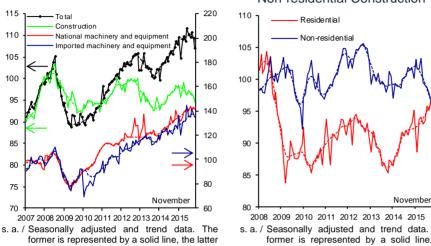
Source: Mexico's National Accounts System, INEGI.

imports of capital goods contracted in the fourth quarter of 2015, following a positive trend over the first three quarters of the year (Chart 150c).

### Chart 150 **Investment Indicators**

Index 2008=100, s. a.

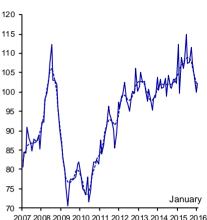
#### b) Investment in Residential and a) Investment and its Components Non-residential Construction



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. The former is represented by a solid line, the latter by a dotted line.

Source: Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance. Information of National Interest.

As regards external demand, despite the depreciation of the real exchange rate of MXN against the U.S. dollar, manufacturing exports remained stagnant in the last quarter of 2015 and in January 2016, which was congruent with the weakness of U.S. industrial activity and the deterioration of demand from the rest of the world (see Box 6) (Chart 151a). Indeed, both automotive and non-automotive exports to the U.S. presented a low dynamism, while those to the rest of the world continued exhibiting a negative trend (Chart 151b and Chart 151c). In particular, the low growth rate of automotive exports to the U.S. in late 2015 could be associated to the fact that, for the most part, they seek to meet the needs of the sedan segment of the market, which reduced its demand relative to that of passenger vans, possibly as a consequence of a lower gasoline price in the U.S.

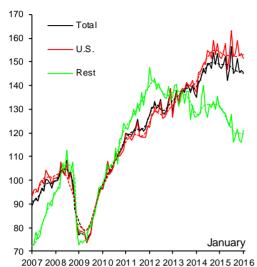
On the other hand, oil exports continued with a downward path, which in the reported period reflected both the drop in exports prices of the Mexican blend of crude oil and a smaller volume of exports (Chart 151d).

### Chart 151 Export Indicators

Index 2008=100, s. a.

### a) Total Manufacturing Exports

### b) Automotive Manufacturing Exports

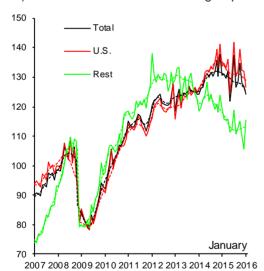




s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

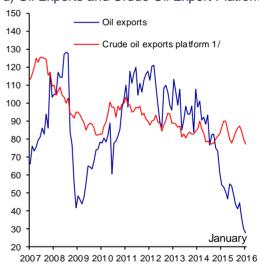
Source: Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest.

### c) Non-automotive Manufacturing Exports



s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.
Source: Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (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.

1/3-month moving average of daily barrels.

Source: Ministry of Finance (SAT), Ministry of Economy (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 6 Analysis of the Recent Evolution of Mexican Manufacturing Exports to the U.S.

#### 1. Introduction

Mexican manufacturing exports stagnated during 2015, at the same time as U.S. industrial production and world demand markedly decelerated. However, this performance could seem atypical given a sharp depreciation of the real exchange rate shown by the national currency.

The slowdown of the world trade following the global financial crisis, in an environment in which different currencies depreciated against the U.S. dollar, generated a renewed interest in the analysis of the sensitivity of a country's exports to the shocks in the real exchange rate.1 It has been argued that the higher prevalence of global value chains could account for a part of this apparent lower response. Indeed, when countries share production chains, a depreciation of one of these countries' currencies not only implies that its exports can be sold cheaper, but also that the cost of its inputs increases, thus lowering the favorable effect of depreciation, as compared to the scenario in which all inputs are produced locally. Furthermore, in the integration of production chains, changes in the demand for exports by the country at the end of the production chain affect the country producing intermediate goods, as opposed to a situation where only final goods are exported, case in which only the direct demand of a purchasing country would be relevant. Thus, the effect of a lower demand for intermediate inputs by a purchasing country can offset part of the positive impact of the real exchange rate depreciation on the selling country's exports.

For a number of decades, Mexico has shared production chains with the U.S., particularly after the implementation of NAFTA, to a degree in which the two countries' economic cycles synchronized.<sup>2</sup> Thus, given the existence of productive chains between the manufacturing sectors of Mexico and the U.S., the factors affecting the performance of the U.S. manufacturing sector impact, in turn, production and exports of the Mexican manufacturing sector. In this sense, the referred factors, for example a drop in U.S. exports, could even be more significant for understanding the evolution of Mexican exports than the changes in the real exchange rate of the Mexican peso

against the U.S. dollar, at least in the short term. Indeed, although a depreciation could boost Mexican exports, its full effect may take time to realize, given that firms take time in adjusting their production and investment decisions, since they need to modify their allocation of productive resources. On the other hand, if U.S. exports decline, its effect on the imports of Mexican inputs is more immediate.

This Box presents evidence that manufacturing exports of Mexico to the U.S. are relatively more sensitive to changes in the level of external demand, measured via the U.S. manufacturing production, as compared to the shocks in the real exchange rate. Moreover, the analysis also suggests that the response to the variations in the U.S. manufacturing production is more immediate. These results are in line with the expected direction, considering Mexico's integration in the U.S. production chains.

Related to the previous point, the Box also presents evidence of a recent slump in U.S. import demand for intermediate goods. This reduction could, in turn, be associated with a lower volume of U.S. exports, as a result of both the generalized appreciation of the U.S. dollar and a lower global expansion. Mexico's exports of this type of products also deceased, consistent with a lower U.S. demand. From a lower frequency perspective, smaller U.S. exports and imports of manufacturing goods could be due to the technological change in the U.S. that induced a reallocation of labor-intensive manufacturing to other regions of the world.

Relation between Mexican manufacturing exports to the U.S. and the U.S. manufacturing production and the real exchange rate of the Mexican peso against the U.S. dollar

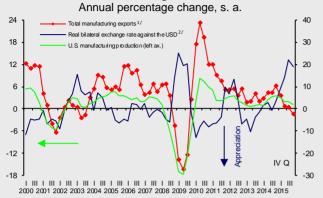
Chart 1 shows the correlation between Mexican manufacturing exports and U.S. manufacturing production illustrating the deceleration in the growth of the U.S. manufacturing production between 2014 and 2015, which was also observed in Mexican manufacturing exports to this country in the same period. In contrast, the correlation between Mexican manufacturing exports and the real exchange rate of the Mexican peso against the U.S. dollar is less evident (Chart 1).

On the other hand, the real exchange rate of the U.S. dollar seems to show a closer correlation with this country's manufacturing production (Chart 2). Thus, the generalized appreciation of its currency seems to be one of the factors that triggered the deceleration of its manufacturing production, apart from the decrease in international trade and a lower world economic growth. In this way, the generalized appreciation of the U.S. dollar and its negative impact on U.S. exports seem to have, in turn, affected Mexican exports.

See the documents Haltmaier Jane (2015), "The slowdown in global trade," FRB IFDP Notes; IMF (2015), "Exchange rates and trade flows: disconnected?," Chapter 3 of the World Economic Outlook, October; and Ahmed et al. (2015), "Depreciations without exports? Global value chains and the exchange rate elasticity of exports," World Bank policy research working paper.

<sup>&</sup>lt;sup>2</sup> See Chiquiar, Daniel and Manuel Ramos-Francia (2005), "Trade and business-cycle synchronization: evidence from Mexican and U.S. manufacturing industries," The North American Journal of Economics and Finance and the corresponding boxes of the Quarterly Reports January - March 2014 and April - June 2015.

Chart 1
Mexican Manufacturing Exports, Real Bilateral
Exchange Rate against the U.S. dollar, and U.S.
Manufacturing Production



- s. a. / Seasonally adjusted data.
- 1/ From figures expressed in millions of current U.S. dollars.
- 2/ Data without seasonal adjustment.

Source: Banco de México and U.S. Federal Reserve.

Chart 2
Real Exchange Rate and U.S. Manufacturing Production



- s. a. / Seasonally adjusted data.
- 1/ Data without seasonal adjustment.
- Note: A depreciation of the real multilateral exchange rate against the U.S. dollar is reflected in positive percentage changes.

Source: U.S. Federal Reserve.

The impact of the changes in the U.S. manufacturing production and the real bilateral exchange rate between Mexico and the U.S. onto Mexican exports is estimated formally, using an error correction model (ECM) relating those variables. The estimation was carried out using the quarterly seasonally adjusted figures from the first quarter of 1994 to the fourth one of 2015.

The identified long-term relation is the following:

$$X_{t} = 1.40 Y_{t}^{U.S.} + 0.44 RER_{t} + EC_{t}$$

Likewise, the following specification of the short-term dynamics was obtained:

$$\begin{split} \Delta X_{t} &= -0.30 - 0.09 \ EC_{t-1} - 0.11 \ \Delta X_{t-3} + 1.90 \ \Delta Y_{t}^{EUA} \\ &- 0.31 \ \Delta Y_{t-8}^{EUA} - 0.12 \ \Delta TCR_{t-1} + 0.05 \ \Delta TCR_{t-2} + 0.13 \ \Delta TCR_{t-4} \\ &- 0.021 \ \Delta TCR_{t-1} + 0.05 \ \Delta TCR_{t-2} + 0.13 \ \Delta TCR_{t-4} \end{split}$$

Where:

X = Manufacturing exports to the U.S. in constant U.S. dollars, seasonally adjusted and deflated with the U.S. consumer price index.

 $Y^{\text{U.S.}} = \text{Index}$  of the seasonally adjusted volume of the U.S. manufacturing production.

RER = Real bilateral exchange rate with consumer prices.

EC = Error correction term.

It can be observed that sensitivity of exports to the evolution of the U.S. manufacturing production is greater than that referring to the real exchange rate, which can be appreciated in the magnitude of the estimated coefficients. This is evident both in the long-term relation and in the short-term dynamics. It should be stressed that the shortterm response of Mexican exports to the real exchange rate fluctuations is very limited, although statistically it is indeed different from zero. However, long-term elasticity is greater. This result suggests that exporting firms take some time to react to real exchange rate fluctuations. A simulation of the model in which the exchange rate increases exogenously in the first quarter of the year suggests that the greatest effect will be observed throughout the year following the shock. That is, positive effects of a real exchange rate depreciation on exports are clearly observed between 5 and 8 quarters after the said depreciation.

The estimated model allows calculating to what extent the deceleration of the U.S. industrial production led to a lower growth of Mexican manufacturing exports to this country. In particular, in a contrafactual scenario in which the U.S. manufacturing sector would have grown 2.8 percent in 2015 (at an average rate observed over the last six years), rather than 2.0 percent registered during the year, Mexican manufacturing exports to this country would have grown at a rate of 4.5 percent, as compared to the registered 2.5 percent.

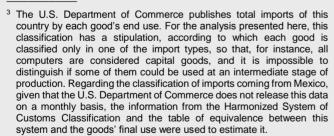
On the other hand, even though the effects of the real exchange rate depreciation are moderate in the short term, long-term elasticity estimated in the model suggests that the increment in the real exchange rate of the Mexican peso against the U.S. dollar, as the one registered in 2015, of 16.2 percent, could imply that exports located 7.1 percent above the figure that could have been observed in the absence of such a depreciation, once all the effect takes place. Thus, even though the sensitivity to the U.S. industrial production is greater than to that to the real exchange rate, the magnitude of the shock to the latter variable suggests that it could significantly boost Mexican exports over the next quarters. However, the adverse shocks to the level of U.S. manufacturing production could be offsetting the said impulse.

### 3. Imports of U.S. intermediate inputs

As mentioned above, the results reported in this Box, in particular the considerable effect of the manufacturing production on Mexican exports, which is even bigger than that of the real exchange rate, could be partly due to the fact that Mexico and the U.S. share production chains of manufactured goods. In this sense, the fall in the U.S. external demand generated important adverse consequences on Mexican exports. Indeed, U.S. exports decelerated significantly, in light of a lower global growth and the generalized U.S. dollar appreciation. In connection to that, its imports have also stagnated (Chart 3). This decline in imports is largely due to the drop in imports of materials and industrial supplies (Chart 4). In particular, the referred imports observed a sharp contraction of 27.6 percent in the period from March 2014 to December 2015.

Congruent with lower U.S. demand for intermediate goods, imports of this type of goods from Mexico are the ones that contracted the most (Chart 5).<sup>3</sup> Thus, a lower demand for intermediate goods affected the evolution of manufacturing exports of Mexico.<sup>4</sup> It should be pointed out that Mexico has not lost its share in the U.S. imports of intermediate goods, which suggests that weakness in this type of exports has been consequent on lower demand, and not on lower competitiveness of the country (Chart 6).

The information presented hereby also allows us to note that, in contrast, U.S. exports of final goods, such as the non-automotive consumer goods and vehicles, presented a positive trend. The above was possibly a consequence of the fact that U.S. demand for these goods maintained a more favorable dynamism as compared to the external sector. Hence, Mexican imports of this type of goods also increased, even though a recomposition in automotive imports coming from Mexico has been observed, from finished vehicles to automotive spare parts.



<sup>&</sup>lt;sup>4</sup> Although intermediate exports of Mexico represented around 10 percent of exports, excluding crude oil, to the U.S. in March 2014, before the recent fall in U.S. imports of this type of goods, the decrease has been so marked that it affected the evolution of total Mexican exports.



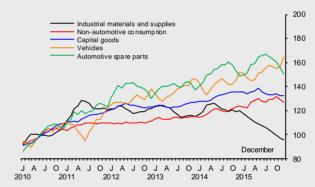
s. a. / Seasonally adjusted data.

\* Excluding crude oil.

Source: U.S. Department of Commerce.

## Chart 4 Total U.S. Imports, excluding Crude Oil, by Good's Final Use

Indices 2010=100, 3-month moving average, s. a.

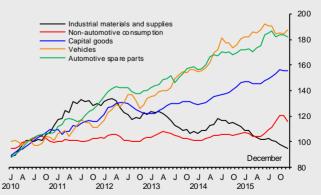


s. a. / Seasonally adjusted data.

Source: Prepared by Banco de México with data from the U.S. Department of Commerce.

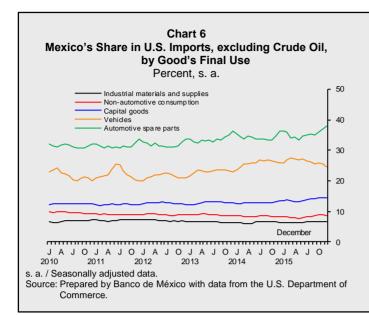
## Chart 5 U.S. Imports, excluding Crude Oil, from Mexico, by Good's Final Use

Indices 2010=100, 3-month moving average, s. a.



s. a. / Seasonally adjusted data.

Source: Prepared by Banco de México with data from the U.S. Department of Commerce



#### 4. Final remarks

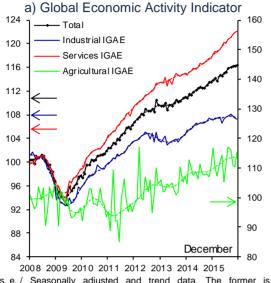
Results in this Box suggest the risk that shocks to the volume of external demand could continue offsetting the possible push to Mexican exports, coming from the real exchange rate depreciation of the Mexican peso against the U.S. dollar.

In this sense, the importance of pursuing the adequate implementation of structural reforms stands out. On the one hand, these would allow generating domestic sources of growth that would support the strength of the Mexican macroeconomic framework in a more complex international environment. Furthermore, and in a manner directly related to the results of this analysis, they would allow the Mexican economy to have the required flexibility for the producers to be able to quickly and efficiently reallocate their productive resources, in a way consistent with the depreciation of the real exchange rate.

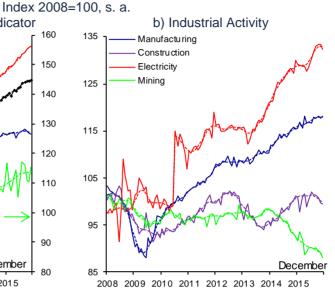
As regards production, the economic growth in the fourth quarter fundamentally reflected the dynamism of the services sector, while industrial production remained stagnant (Chart 152a).

- i. In particular, in the period of October December, within industrial production the electricity sector kept expanding at a fast rate, partly as a result of the implementation of the structural reform in this sector. On the other hand, despite a positive trend, the manufacturing production decelerated significantly in light of the weak U.S. industrial activity and demand from other countries. In contrast, in the construction sector a negative trend persisted (Chart 152b). Likewise, mining continued declining, in particular consequent on decreases in the subsector related to the oil well exploration (Chart 152c).
- ii. In the last quarter of 2015, a practically generalized growth of all components of the services' sector occurred (Chart 152d). However, the dynamism of some services more related to consumption, such as in the trading sector and the mass media information sector, stands out. On the contrary, corporate and businesses management services, as well as leisure, cultural and recreational services contracted.
- iii. In the fourth quarter of 2015, primary activities decreased, derived from a smaller harvest of a number of crops of the spring-summer cycle and some perennial crops.

### Chart 152 Production Indicators

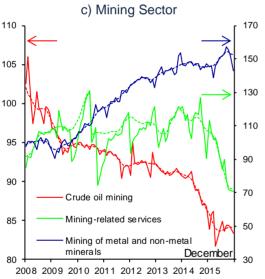


s. e. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line. Source: Mexico's National Accounts System, INEGI.



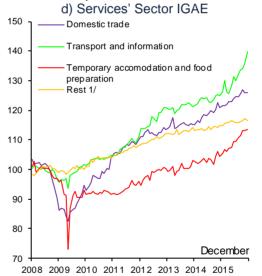
s. a. / Seasonally adjusted and trend data. The former is represented by a solid line, the latter by a dotted line.

Source: Monthly Industrial Activity Indicator, Mexico's National Accounts System, INEGI.



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.



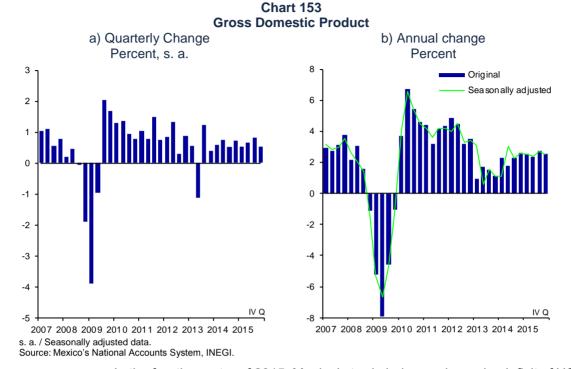
s. a. / Seasonally adjusted data.

1/ Includes the rest of the services' sectors.

Source: Prepared by Banco de México with data from Mexico's National Accounts System, INEGI..

As a result of the above, economic activity showed a seasonally adjusted quarterly growth of 0.5 percent in the fourth quarter of 2015, which is compared to the growth rate of 0.8 percent in the previous one (Chart 153a). Both seasonally adjusted data and data without seasonal adjustment indicate that the Mexican economy presented an annual increase of 2.5 percent in the reference quarter, compared to 2.7 percent in the third quarter with seasonally adjusted data, and to 2.8 percent of original data (Chart 153b). Based on this result, GDP growth in Mexico in 2015 was

2.5 percent, slightly above 2.3 percent registered in 2014, and that estimated by Banco de México.



In the fourth quarter of 2015, Mexico's trade balance showed a deficit of USD 3,939 million (Chart 154a), while for the year as a whole it presented a negative balance of USD 14,460 million, which is compared to a balance of USD 2,849 million observed in 2014. The said change mainly reflected the decrease in the oil trade balance, which shifted from a surplus of USD 1,097 million in 2014 to a deficit of USD 9,855 million in 2015. On the other hand, non-oil trade balance rose from USD 3,945 million to USD 4,605 million, in the same time frame. The deterioration in the oil trade balance in 2015 was due to the decline in the terms of oil trade, to the fact that the crude oil exports' platform did not show clear signs of recovery and to the increment in the volumes of imports of oil-derived products (see Box 7).

Finally, in the last quarter of 2015, the current account registered a deficit similar to those registered in the first three quarters of 2015 (Chart 154b). It should be emphasized that, despite a reduction in the holdings of government securities by non-residents, the rest of the items of the financial account, including direct foreign investment, received sufficient resources to finance the current account deficit.

# Box 7 Recent Performance of the Global Oil Market and its Effects on the Oil Trade Balance of Mexico

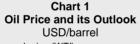
#### 1. Introduction

From 2014 onwards, the international crude oil price has decreased significantly, hence adversely affecting the oil trade balance of Mexico. This Box analyzes the performance of the world crude oil market and explains that the reduction in the crude oil price is consequent on both supply and demand factors. Furthermore, for the case of Mexico, it is shown that the decline in the price of the Mexican exports blend led to a deterioration in the terms of trade of oil-derived products, which, together with a significant increment in the volume of imports and a relatively stable platform of crude oil exports, led to a shift in the crude oil balance of Mexico from a surplus of USD 1,097 million in 2014 to a deficit of USD 9,855 million in 2015.

#### 2. Evolution and outlook of the world oil market

Oil prices have plunged since mid-2014, from USD 107 per barrel in June 2015 to less than USD 30 per barrel in mid-January 2016, attaining a minimum level of USD 26.2 per barrel on February 11, according to the quote of the West Texas Intermediate (WTI) (Chart 1). This evolution in the crude oil price generated important macroeconomic effects in petroleum exporting countries.

Over the previous years, crude oil prices increased due to a growing demand from emerging economies, in particular China. This increment triggered a significant expansion in oil production.





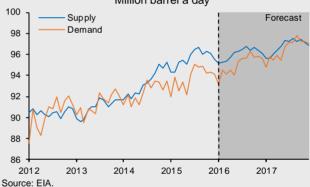
Note: 95% confidence interval and the median are estimated based on the probability distribution extracted from option prices on crude oil prices (WTI) as of February 5, 2016.

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

However, derived from this environment, suppliers of this fuel took certain measures that generated an imbalance between the supply and demand in the global oil market, as well as a plunge in oil prices (Chart 2). In particular, the following factors should be highlighted:

- Continued efforts undertaken by non-OPEC countries to increase their productive capacity, with the case of the U.S. standing out. In particular, the development of new technologies with lower requirements of investment and shorter production horizons, as is the case of shale oil in the U.S., boosted production and increased competitive pressures in this market.
- A drastic change regarding the OPEC response, as it decided to maintain its production levels, despite a slump in crude oil prices and a spike in the inventory levels.
- Further increments expected in the global crude oil supply, as a result of the recent elimination of economic sanctions against Iran, and, to a lower extent, the recent decision of the U.S. to repeal ban on exports of crude oil.

Chart 2
World Supply and Demand of Crude Oil
Million barrel a day



Additionally, some demand-related factors, such as the persisting deterioration in the world economic outlook, weak industrial activity at the global level, and, a warmer winter in the Northern hemisphere, as an occasional factor, negatively affected the recent evolution of the crude oil price.

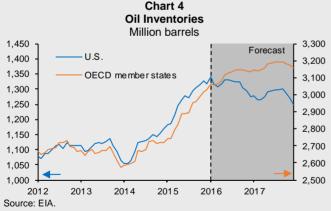
The reaction of the world supply to low crude oil prices turned out to be more moderate than expected. In particular, U.S. oil production remained more solid than expected, despite the significant reductions in investment in the sector and in the number of operating oil fields (Chart 3).<sup>1</sup>

<sup>1</sup> This country's producers responded to low crude oil prices by reducing costs and boosting productivity, concentrating their production in the most efficient fields, which attenuated the decline in production.

On the other hand, in its meeting of December 2015, OPEC ratified its stance to maintain unchanged its production levels, which are expected to persist high in the future. Additionally, the production of Iran is estimated to spike.<sup>2</sup> In this environment, recently some of the main oil producing countries, in particular Russia and Saudi Arabia, reached a tentative agreement to maintain their production at the January levels, in order to enhance price stability. Still, the impact of this agreement onto prices is still uncertain, since it does not encompass such important oil producing countries, as Iran and Iraq.

#### Chart 3 **World Oil Supply** Annual change in percent and shares in percentage points Forecast Non-OPEC member states, excl. U.S. 3 OPEC 2 1 0 -1 -2 2013 2014 2015 2016 2017 Source: EIA.

In these conditions of excess of supply, crude oil inventories are anticipated to remain at historically high levels at least for the next two years. According to the projections of the U.S. Energy Information Administration, inventories accumulation is estimated towards the first half of 2017 (Chart 4).



Thus, the world oil market will maintain a significant structural imbalance between supply and demand. As a result, depressed prices and high volatility are expected to persist in the medium term. In addition, the balance of

risks for these prices still has a downward bias, derived from the possibility that crude oil exports from Iran will be higher than expected, that U.S. shale oil production will be stronger than anticipated and that the world growth outlook will deteriorate even further, thus decreasing crude oil demand.

### 3. Recent performance of the Mexican oil balance

Shocks in the world crude oil market affected the Mexican economy, and, in particular, the oil trade balance. Indeed, this balance has been deteriorating in recent years, which accentuated in 2015. As specified in this section, the referred deterioration reflected both a decrease in terms of oil trade and an increment in the volume of imports of oil-derived goods, in a context in which the crude oil volume exported by Mexico remained stagnant.

### 3.1 Effects of lower terms of trade

Consistent with the negative evolution of oil prices at the world level, the price of the Mexican blend for exports (PME) also plunged. Indeed, in 2015 the PME presented an annual drop of 49 percent, shifting from an average price of USD/barrel 86.00 in 2014 to USD/barrel 43.88 in 2015 (Chart 5).

Likewise, consequent on the reduction in the international crude oil price, prices of oil-derived goods also declined. In particular, the international gasoline price reduced significantly. Specifically, the average price of gasoline imported to Mexico changed from USD 0.74 per liter in 2014 to USD 0.50 per liter in 2015, which implied an annual reduction of 31.9 percent (Chart 5). As can be appreciated, this drop was less than proportional as compared to that of the crude oil drop, which could be due to the fact that gasoline is a good with a higher degree of processing. Similarly, the price of Mexican imports of diesel reduced significantly, although to a lesser degree than the PME, as well.<sup>3</sup>

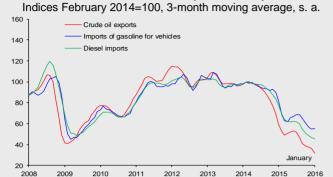
This performance of the prices of oil exports and imports suggests that the terms of oil trade in Mexico have recently deteriorated. In this context, the referred terms of trade were estimated using two methodologies. Both methods face the difficulty to obtain adequate information regarding the unit values of exports and imports, which is the information required for the estimation.<sup>4</sup>

U.S. EIA estimates that the production of Iran may shift from an average of 2.8 million barrels a day in 2015 to 3.1 million barrels a day in 2016, and to almost 3.6 million barrels a day in 2017.

In 2015, imports of gasoline for vehicles amounted to 38.9 percent of total gasoline imports and imports of diesel totaled 13.2 percent.

Foreign trade information validates the values of imports and exports, rather than the volume of goods. This exercise implied the verification of data consistency, to the extent possible.

### Chart 5 Unit Value of Crude Oil Exports and Imports



s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI.
Merchandise Trade Balance of Mexico. SNIEG. Data of national interest.

In the first methodology, constructing the unit value of imported oil-derived products required the manual validation of data consistency regarding these goods' volumes. Subsequently, the unit value index of the main imported oil-derived products was calculated, weighting the indices by product with the structure of the imports value of these goods' basket as of February 2014. <sup>5</sup> Based on this data, the terms of trade were estimated, which were defined as the ratio of the PME index to the index of the unit value of the main imported oil-derived products. <sup>6</sup>

The second methodology is based on Anitori, et al. (2008). In this case, to overcome the difficulties in order to obtain adequate data regarding the unit values of exported and imported goods, a statistical algorithm was used, that eliminated atypical observations in the unit values. In particular, this algorithm makes use of the assumptions regarding the distribution of unit values by product for each months, together with the data at the transaction level. In this estimation, Fisher indices are calculated for the unit values of imports and exports to use them in the estimation of the terms of trade.

February 2014 was chosen as a baseline, as from this month onwards oil exports presented a persisting downward trend. Chart 6 shows that the estimations of the terms of oil trade in Mexico, based on these two methods, yield very similar results. In particular, in both cases it is evident that the terms of oil trade have deteriorated considerably since mid-2014. As a result, the oil balance of the country experienced an important adverse impact due to this behavior.

### Chart 6 Terms of Oil Trade

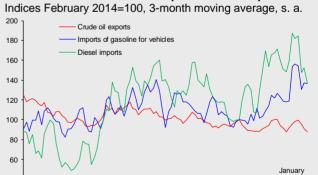


Source: Prepared by Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Data of national interest.

### 3.2 Effects of exported and imported volumes of oilrelated goods on the oil trade balance

The oil trade balance was also considerably affected by a significantly higher volume of imported oil products, while the volume of exported crude oil has not recovered (Chart 7). Indeed, while the volume of exported crude oil observed a change of only 2.65 percent in 2015, with respect to 2014, the volume of imported gasoline rose by 27.4 percent, and of diesel by 22.2 percent.

### Chart 7 Volume of Crude Oil Exports and Oil Imports



s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Data of national interest.

2013

2015

2010

2008

2009

2011

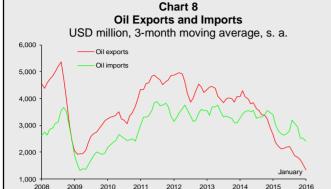
Thus, even if the terms of change had not deteriorated, the differentiated trajectory of the volume of oil imports

Incorporating 100 percent of operations of traded oil goods was impossible, given the difficulty to validate the data. However, the index seems to be representative of the Mexican oil trade, as it included around 80 percent of the oil exports' value (corresponding to crude oil) and 85.8 percent of the value of imports in 2015 (corresponding to the main 8 products).

Anitori, Paola and Maria Serena Causo (2008), "Outlier Detection and Treatment: Quality Improvements in the Italian Unit Value Indexes", ISTAT – the Italian National Institute of Statistics.

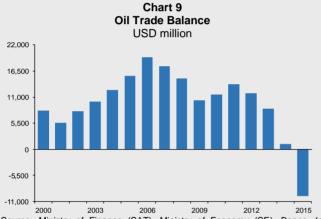
The algorithm eliminates products with less than 10 transactions a month, with the exception of exported crude oil, and the imports of gasoline, diesel and natural gas. Once these products are eliminated and atypical observations are detected by the algorithm, approximately 82 percent of the value of oil exports and 79 percent of the value of oil imports in 2015 are included.

and exports would have led to a deterioration in the oil trade balance (Chart 8 and Chart 9).



s. a. / Seasonally adjusted data.

Source: Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Data of national interest



Source: Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Data of national interest...

### 3.3 Contributions to the deterioration of the oil trade balance

To evaluate the relative importance between the changes in the prices of traded goods and changes in their volumes, it is possible to use the fact that the change in the traded volume in the product *s* can be expressed as follows:

$$\Delta Value_s = P_{s1}Q_{s1} - P_{s0}Q_{s0} = P_{s0}[Q_{s1} - Q_{s0}] + Q_{s1}[P_{s1} - P_{s0}]$$
 where,

ΔValue<sub>s</sub>=Change in the traded value of product s between 2014 and 2015.

 $P_{st}$  = Price of the product s in the period t (2014 or 2015).  $Q_{st}$  = Traded volume of the product s in the period t.

 $P_{s0}[Q_{s1}-Q_{s0}] =$  Effect of the variation in the traded quantity between 2015 and 2014 on the change in the traded value.

 $Q_{s1}[P_{s1}-P_{s0}] =$  Effect of the variation in the price between 2015 and 2014 on the change in the traded value.

This decomposition can be calculated only for products, for which precise information regarding unit values and traded volumes is available. Thus, this disaggregation of the effects was carried out only for the products, for which it was possible to manually validate their unit values and for the remaining products the total effect was classified as "not identified". Hence, the effect of aggregated price and quantity was calculated both for exports and imports.

As can be observed in Table 1, the deterioration of USD 10,952 million in the trade balance between 2014 and 2015 was contributed to by the estimated quantity effect by 55 percent, which in turn was mainly due to the increment in the imported volume, while the exports platform did not recovery significantly. On the other hand, consistent with the deterioration in the terms of trade, the estimated price effect generated a greater impact on exports relative to imports, so that the net impact on the oil trade balance was negative.

Table 1
Change in the Oil Trade Balance between 2014 and 2015:
Estimation of Price and Quantity Effects

USD million

	∆ Exports	∆ Imports	Δ Oil trade balance
Quantity effect	950	6,961	-6,011
Price effect	-18,027	-14,229	-3,798
Not identified	-2,077	-934	-1,143
Total	-19,154	-8,202	-10,952

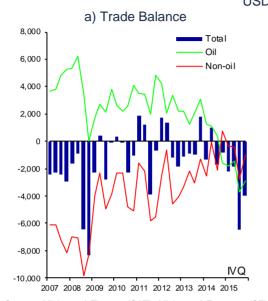
Source: Prepared by Banco de México with data from Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance of Mexico. SNIEG. Data of national interest

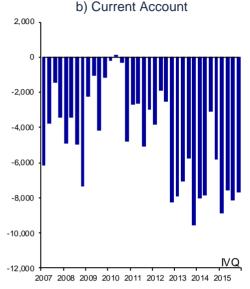
In total, the above described results point to the deterioration in the oil balance in Mexico, both due to the decrease in the terms of change, and to higher volumes of imports, in a context in which the crude oil exports platform has not recovered significantly.

### 4. Final remarks

Given a lower international crude oil price, in an international context that has become more complex, the measures of fiscal and monetary adjustment, taken by the Ministry of Finance and Banco de México, respectively, are important. In particular, these actions will allow facing the shock to the economy, derived from the deterioration in the oil trade balance, that has been observed in view of the decrease in the terms of oil trade in Mexico. Furthermore, the adjustments will contribute to strengthening the economic fundamentals of the country, so that Mexico will be in a better position to face the adverse external environment.

Chart 154
Trade Balance and Current Account
USD million





Source: Ministry of Finance (SAT), Ministry of Economy (SE), Banco de México, INEGI. Merchandise Trade Balance. SNIEG. Information of National Interest. Source: Banco de México.

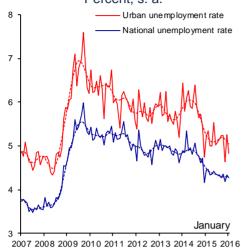
#### 3.2.2. Labor Market

As a reflection of the moderate expansion rate of the economy, in the fourth quarter of 2015 slack conditions persisted in the labor market, although some indicators suggest that these could be gradually diminishing.

- i. In the last quarter of 2015 and in January 206, the national unemployment rate presented a level similar to that in the third one, while the urban unemployment rate decreased with respect to the level of the third quarter (Chart 155a). In particular, the national unemployment rate showed an average level of 4.3 percent in seasonally adjusted terms both in the third and the fourth quarters of 2015 and in January 2016. The urban unemployment rate reduced from 5.2 percent on average in seasonally adjusted terms in the third quarter of 2015 to 5.0 percent in the fourth one and further to 4.8 percent in January 2016.
- ii. This performance has been observed in a context of an increasing number of jobs in the economy, while the labor participation rate registered higher levels as compared to the first months of 2015 (Chart 155b). Indeed, the number of IMSS-adjusted employments preserved a growing trend (Chart 155c).
- iii. As regards the informal sector employment, in the reference quarter and in the first month of 2016 its indicators increased incipiently relative to the third one, while they still kept locating at levels below the ones reported immediately following the global crisis (Chart 155d).

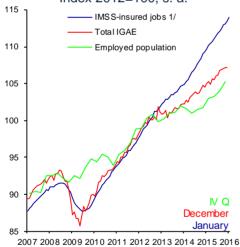
### Chart 155 Labor Market Indicators

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



2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
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.

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

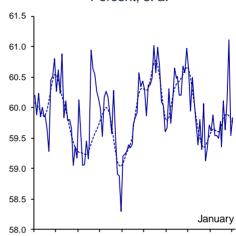


s. a. / Seasonally adjusted data.

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).





2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 s.a. / Seasonally adjusted and trend data. The former is

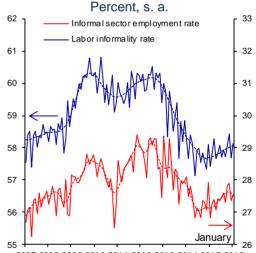
represented by a solid line, the latter by a dotted line.

1/ Percentage of economically active population (EAP) with respect to the population of 15 years old and older.

Source: National Survey on Occupation and Employment

(ENOE), INEGI.

## d) Informal Sector Employment <sup>1/</sup> and Labor Informality <sup>2/</sup>



2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

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

1/ It refers to individuals working in non-agricultural economic units, operating with no accounting records and with households' resources.

2/ It includes workers who, besides being employed in the informal sector, work without social security protection, and whose services are used by registered economic units, and workers self-employed in subsistence agriculture.

Source: National Survey on Occupation and Employment (ENOE), INEGI.

In this context, in the last quarter of 2015 moderate wage increments persisted, although, in a context of a lower inflation, they recovered in real terms.

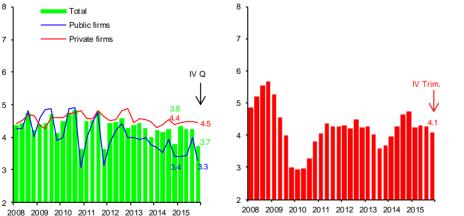
- i. In the last guarter of 2015, contractual wages negotiated by firms under federal jurisdiction presented a growth rate of 3.7 percent, lower than the 3.8 percent reported in the same guarter of 2014 (Chart 156a). Likewise, in January 2016 a smaller change rate was registered as compared to 2015 (4.1 percent and 4.3 percent, respectively). In particular, while in the fourth quarter of 2015 public firms' negotiations led to a slightly lower average raise than in the same quarter of last year, private firms' negotiations resulted in a slightly higher average increment, in the same comparison. Specifically, public firms' negotiations in the last quarter of 2015 resulted in an average increment of 3.3 percent, which is below 3.4 percent in the same quarter of 2014, while private firms' negotiations derived in an average wage increment of 4.5 percent, an average above 4.4 percent reported in the fourth quarter of 2014. In January 2016, the changes were smaller both for public and private firms, and resulted in average increments of 3.2 and 4.4 percent, respectively (3.4 and 4.7 percent in January 2015, in the same order).
- ii. The reference wage of IMSS-insured jobs decreased its annual growth rate, shifting from a 4.3 percent rate in the third quarter to a 4.1 percent in the fourth one (Chart 156b). In real terms, the reference wage of IMSS-insured jobs went up 1.8 percent in the fourth quarter of 2015, figure above the 1.6 percent observed in the third one.
- iii. In the fourth quarter of 2015, the average wage growth rate of total salaried workers in the economy (4.2 percent) presented an increment close to that observed in the third quarter (4.1 percent; Chart 156c). In real terms, this item increased 1.9 percent in the fourth quarter, after a raise of 1.4 percent in the third one

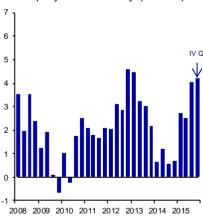
# Chart 156 Wage Indicators Annual nominal change in percent

a) Contractual Wage 1/

b) IMSS Reference Wage <sup>2/</sup>







1/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (STPS) equals approximately 2 million.

2/ During the fourth quarter of 2015, on average 18.2 million workers registered in IMSS.

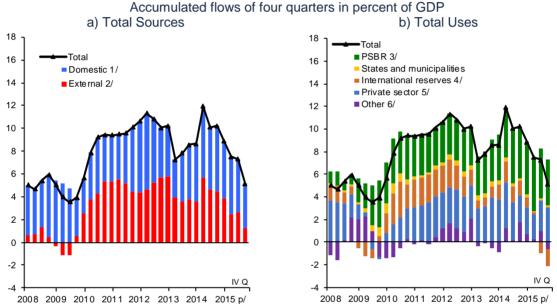
3/ To calculate average nominal wages, the lowest 1 percent and the highest 1 percent in the wage distribution were excluded. Individuals with zero income or those who did not report it are excluded.

Source: Calculated by Banco de México with data from IMSS, STPS and INEGI (ENOE).

### 3.2.3. Financial Saving and Financing in Mexico

In the fourth quarter of 2015, the growth rate of the sources of financial resources in the economy continued moderating with respect to the previous quarter. It was the result of the recent slowdown in the growth rate of both domestic and external sources, which had been taking place since 2014 (Chart 157a). This derived from an environment characterized by a greater risk aversion in international financial markets. Despite the above, lower Public Sector Borrowing Requirements (PSBR), together with the decrease in international reserves, observed in the reported quarter, allowed the financing to the private sector to expand in the last three months of the year at a greater rate than in the previous quarter.

Chart 157
Total Funding of the Mexican Economy (Sources and Uses)



Note: Figures expressed in percent of the nominal average annual GDP. This information on (revalued) flows is stripped from the effect of exchange rate fluctuations.

p/ Preliminary figures.

1/ It includes the monetary aggregate M4 held by residents.

- 2/ It includes the monetary aggregate M4 held by non-residents, foreign financing to the federal government, public institutions and entities, commercial banks' foreign liabilities and financing to the non-financial private sector.
- 3/ Public Sector Borrowing Requirements (RFSP) correspond to the data published by the Ministry of Finance (SHCP).

4/ As defined by Banco de México's Law.

- 5/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 foreign financing. It includes restructuring programs.
- 6/It includes commercial banks' foreign assets, as well as capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and the National Housing Fund, non-monetary liabilities from the Institute for the Protection of Bank Savings (*Instituto de Protección del Ahorro Bancario*, IPAB), as well as the effect of the change in the valuation of public debt instruments, among other concepts.

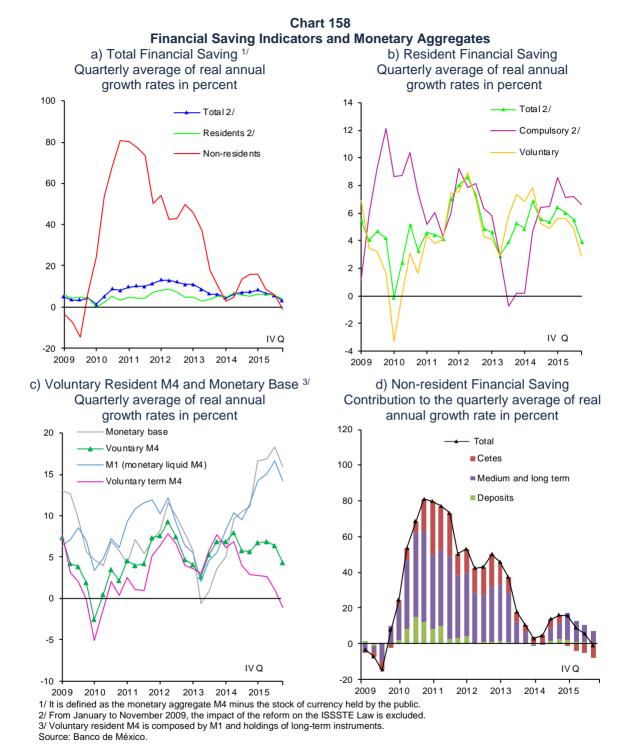
Source: Banco de México.

With respect to the domestic sources of financial resources, the growth of the stock of domestic financial saving—defined as the monetary aggregate M4 held by residents minus the stock of currency held by the public—moderated with respect to the previous quarter. In particular, its growth rate declined from 5.5 to 3.9 percent, on average, between the third and the fourth quarters of 2015 (Chart 28a). Regarding the evolution of its components, the stock of compulsory financial saving grew at a lower rate with respect to that registered in the third guarter of 2015, as a

reflection of the lower valuation of the portfolio of government debt securities associated to the higher medium- and long-term interest rates (Chart 158b). Likewise, the stock of voluntary financial saving registered a lower growth rate—the reduction in the holdings of medium- and long-term financial instruments being the most notable development within this component. In this regard, derived from the environment of historically low interest rates, the demand by households and businesses for liquid financial instruments went up, which contributed to a decline in the long-term component of the voluntary M4 and to a rise of this aggregate's liquid component (Chart 158c). This also helps to explain the relatively high growth rate of the monetary base in the reported quarter. It should be noted that the monetary base expansion was also explained by the higher demand for cash related to continuing effects of the Tax Reform and some changes in the use of means of payment, which persisted throughout 2015.<sup>38</sup> However, its growth moderated during the reported period, decreasing from 18.3 to 16.6 percent in real annual terms between the third and the fourth quarters of 20.

In what concerns the external sources of resources, the stock of non-resident financial saving decreased in real annual terms by 1.0 percent in the fourth quarter of 2015, after presenting a continuous positive path since the fourth quarter of 2009 (Chart 158a). This was largely explained by lower non-resident holdings of government securities, particularly short-term debt, despite the fact that holdings of medium- and long-term debt continued to grow in real annual terms (Chart 158d). With respect to the financial resources from foreign sources channeled to the financing of the private sector, they contracted 1.7 percent at an annual rate in the fourth quarter in a global environment characterized by tighter conditions of foreign financing to corporate businesses.

<sup>38</sup> See Box 2, "Recent Evolution of the Monetary Base and Means of Payment", from the Quarterly Report January – March 2015.



As regards the use of financial resources in the economy, in the fourth quarter of 2015, the PSBR represented 4.1 percent of GDP in their annual flows, which implies a decrease as compared to the 4.4 percent registered in the third quarter of the year. Financing to states and municipalities remained around 0.2 percent of GDP (Chart 157b). Meanwhile, international reserves declined in the last quarter of the

year, which derived from the sales of USD to the market in the auctions implemented by the Central Institute according to the measures set forth by the Foreign Exchange Commission to provide adequate liquidity to the foreign exchange market. The decrease in international reserves over the last four quarters amounted to 1.5 percent of GDP, which was above the 1.0 percent accumulated in the period between the fourth quarter of 2014 and the third quarter of 2015. This reduction in international reserves took place in spite of Banco de México's purchases of foreign currency from the Federal Government in December, which resulted from the exercise of its oil options.

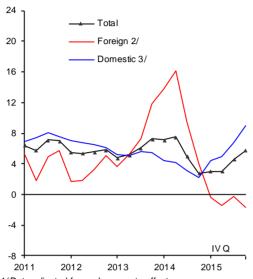
In contrast with all of the above, financing flows to the private sector increased, totaling 3.1 percent of GDP in the fourth quarter of the year, compared to the 2.7 percent registered up to the previous quarter. Thus, in the described environment of a deceleration in the growth of sources of financial resources, the decrease in international reserves and the lower financial resources used by the public sector facilitated the expansion of financing to the private sector.

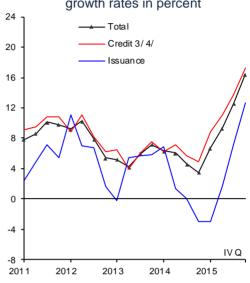
In the fourth quarter of 2015, total financing to the private sector grew faster than in the previous quarter, which reflected higher growth of both domestic financing to firms and credit to households (Chart 159a). In particular, domestic financing to firms grew at an average rate of 16.4 percent, which was above the 12.6 percent rate in the previous guarter. This greater expansion was driven by the dynamism that the domestic market for private securities observed during the year, as well as by the growth of bank credit (Chart 159b). In this respect, credit granted by commercial banks to non-financial private firms recorded a real average annual percent change of 13.4 in the fourth guarter of 2015, as compared to 11.4 percent in the third quarter. It should be pointed out that this expansion is accounted for, in part, by the effect of the national currency depreciation, given that a small share of the stock of credit corresponds to loans and credit lines in USD, which are recorded in MXN at market rates. Likewise, in the current context of volatility in international financial markets, some firms have substituted part of their external liabilities in USD with financing in the domestic market, which has also been reflected in the abovementioned contraction of external financing to the private sector. Meanwhile, direct credit by development banks expanded at an average rate similar to that in the previous quarter (Chart 160a). All this, in an environment in which interest rates continued at relatively low levels and without observing significant changes with respect to the previous quarter, while delinquency rates, especially in the commercial bank credit portfolio, continued diminishing (Chart 160b and Chart 160c).

Chart 159
Financing to the Non-financial Private Sector

a) Total Financing to the Non-financial Private Sector <sup>1/</sup> Real annual growth rates in percent

b) Domestic Financing to Non-financial Private Firms Quarterly average of real annual growth rates in percent

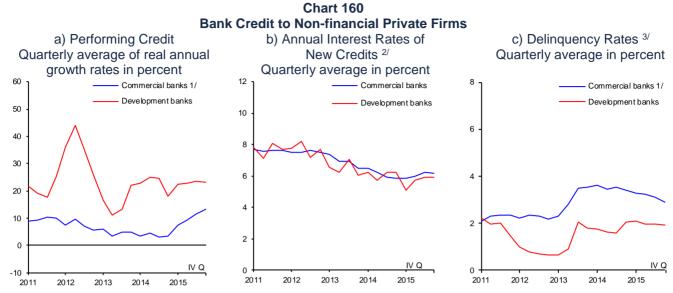




- 1/Data adjusted for exchange rate effects.
- 2/Data of foreign financing for the fourth quarter of 2015 are preliminary.
- 3/These data can be affected by the disappearance of some non-bank financial intermediaries and their conversion to non-regulated multiple purpose financial corporations (Sofom ENR).
- 4/ It refers to the performing and non-performing credit portfolio, and includes credit from commercial and development banks, as well as from other non-bank financial intermediaries.

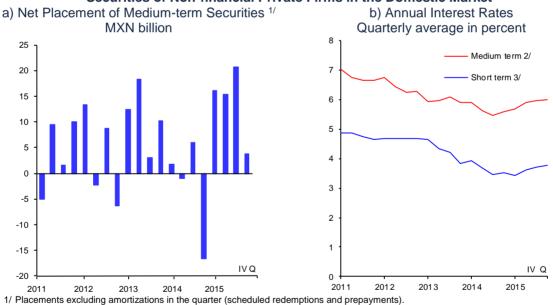
Source: Banco de México.

In the domestic debt market, non-financial private firms continued financing through the issuance of securities during the fourth quarter of 2015, although with a smaller dynamism with respect to the rate of placement registered in the three previous quarters. In particular, in the last quarter, net placement of medium- and long-term debt instruments was MXN 3.9 billion, which contrasts with the average net placement of MXN 17.4 billion over the last three quarters of the year (Chart 161a). Despite the above, it stands out that medium- and long-term private debt issuance –net of prepayments and amortizations— in 2015 was the highest on record, amounting to MXN 56 billion. In this context, average interest rates of non-financial firms' securities increased with respect to the last quarter, even though their levels remain close to historic lows (Chart 161b).



- 1/ It includes the Sofomes ER subsidiaries of bank institutions and financial groups.
- 2/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.
- 3/The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans. Source: Banco de México.

Chart 161
Securities of Non-financial Private Firms in the Domestic Market

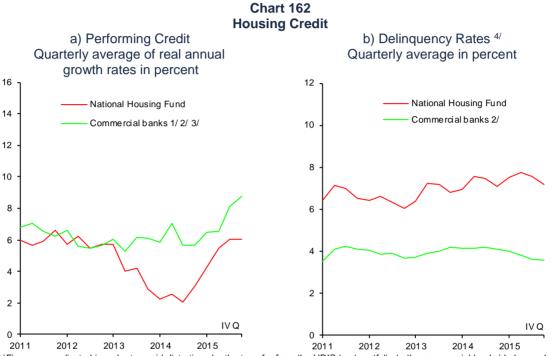


- 2/ Average weighted yield to maturity of emissions in circulation, with a term over a year, at the end of the month.
- 3/ Average weighted rate of private debt placements, at a rate of up to 1 year, expressed in a 28-day curve. It only includes stock exchange certificates.

Source: Banco de México, with data from Valmer and Indeval.

In the fourth quarter of 2015, credit to households expanded at an average rate of 6.7 percent, which is above 5.7 percent observed in the third quarter. Largely, it is due to the increment in the mortgage credit. In particular, commercial banks' mortgage loans portfolio increased at a real average annual rate of 8.8 percent,

which was higher than 8.1 percent observed in the previous period.<sup>39</sup> On the other hand, the average growth rate of mortgage loans granted by National Housing Fund (Infonavit) was 6.0 percent, figure similar to that in the previous quarter (Chart 162a). In this environment, the interest rates of mortgage loans did not observe relevant changes with respect to the previous quarter. At the same time delinquency rates of commercial banks' mortgage portfolio did not present significant changes, and the delinquency rate of the National Housing Fund portfolio went down, although it still remains at relatively high levels (Chart 162b).



1/Figures are adjusted in order to avoid distortions by the transfer from the UDIS trust portfolio to the commercial banks' balance sheet and by the reclassification of direct credit portfolio to ADES program.

4/The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

Source: Banco de México.

During the fourth quarter of 2015, consumer credit granted by commercial banks expanded at a greater rate relative to the third quarter, as its growth rate increased from 5.1 to 7.6 percent. This expansion was observed practically in all segments, including the segment of credit cards, which had been registering a low dynamism over the previous months (Chart 163a). It should be stressed that interest rates remained practically unchanged with respect to the previous quarter, and the quality of the portfolio continued improving, particularly in the personal loan segment (Chart 163b).

<sup>2/</sup> It includes sofomes owned by commercial banks.

<sup>3/</sup>Figures are adjusted to avoid distortions due to the inclusion of some regulated sofomes to the bank credit statistics.

<sup>39</sup> 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.

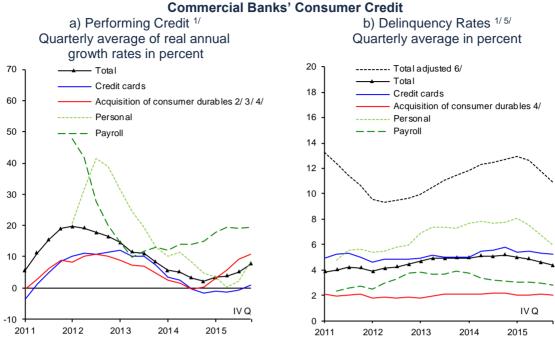


Chart 163

 $1/\mbox{lt}$  includes the Sofomes ER subsidiaries of bank institutions and financial groups.

In sum, despite the environment of volatility and tight conditions in international financial markets, financing to the private sector in Mexico continued expanding, thus supporting productive activity. Moreover, stability in the lending rates, as well as the noticeable improvement in the quality of credit portfolios, suggest the absence of demand-related pressures in different segments of the loanable funds market. However, given the weak global growth and increased uncertainty that is expected to prevail abroad, there are risks that the sources of financial resources will be limited in 2016. Therefore, it is relevant to elaborate a prospective exercise of sources and uses of financial resources of the economy, illustrating the factors that may impact the evolution of financing to the private sector.

Thus, given the macroeconomic environment described in this Report —that considers tighter external financial conditions and lower oil prices as compared to the previous years-, in 2016 the annual flow of sources of financial resources is expected to again turn out lower, compared to the average observed between the years 2010 and 2014 (Table 8). In particular, the said flow is estimated to locate at 6.6 percent of GDP by the end of 2016, which is slightly above 5.2 percent estimated for 2015, but below 9.7 percent registered on average over the previous five years. The relatively low flow of financial resources to the economy in 2016 fundamentally reflects the limited availability of sources of foreign financing, given the possible increments in U.S. interest rates, greater risk aversion, that is

<sup>2/</sup>Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of the banking institution's automobile loan portfolio.

<sup>3/</sup>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.

<sup>4/</sup> It includes credit for movable property acquisition and auto loans.

<sup>5/</sup>The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

<sup>6/</sup>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.
Source: Banco de México.

anticipated to persist in international financial markets, and, in general, the prospect that capital flows to emerging economies would be limited.

In relation to the use of financial resources of the public sector, based on the General Criteria of Economic Policy 2016, the volume of PSBR would amount to 3.5 percent of GDP this year, which is compared to 4.1 percent of GDP in 2015. Nonetheless, in the framework of the coordinated strategy of the economic policy among the Ministry of Finance, the Foreign Exchange Commission and Banco de México, among other measures, a preemptive adjustment to the spending of the Federal Public Administration for 2016 was announced. The adjustment, amounting to MXN 132.3 billion (0.7 percent of GDP), includes a reduction in Pemex spending of MXN 100 billion and a decrease in the Federal Government spending of MXN 32.3 billion (0.5 and 0.2 percent of GDP, respectively). The adjustment in the Pemex budget derives from an environment of low oil prices, and, consequently, this firm's lower revenues. Therefore, although this component of the adjustment would not imply a reduction in PSBR, it should represent an improvement in firm's productivity and efficiency, by means of reducing corporate and administrative expenditure, as well as the revision of its investment program to channel resources to more costeffective projects. On the other hand, and derived from the fact that the Federal Government has oil hedging programs for the fiscal year 2016 that protect the level of the budget revenues, a further decrease of 0.2 percent of GDP in the PSBR should be anticipated for 2016, as a consequence of the modification in the Federal Government expenditure for the said amount. It should be stressed that the referred adjustment of 0.2 percent of GDP was carried out preemptively, given the expectation that in 2017 oil prices will remain depressed, which would be reflected in a lower revenue of the Federal Government, if equivalent oil hedging programs for that year are excluded. Thus, considering the fiscal adjustment announced on February 17, 2016, PSBR are expected to be 3.3 percent of GDP for 2016. Thus, considering the flow of financing to states and municipalities, the use of resources by the public sector in 2016 would be 3.5 percent of GDP. Likewise, the international reserves are estimated to register a decrease of 0.1 percent of GDP, in contrast with the reduction of 1.5 percent of GDP observed in 2015. Given the above said, the flow of financial resources channeled to the private sector is expected to be 3.0 percent of GDP during the year, figure similar to that registered in 2015 (3.1 percent of GDP).

Thus, the preemptive adjustment in the public spending recently announced by the Ministry of Finance is expected to contribute to the stabilization of the public debt to GDP ratio, thus strengthening the macroeconomic framework and prompting resources to be channeled to financing of the non-financial private sector. Indeed, given the complex external environment, the sources of resources may be smaller than expected, reason for which the lower absorption of resources by the public sector implicit in this preemptive adjustment reduces possible pressures to the loanable funds market in Mexico. In this sense, it is of fundamental importance to proceed with the fiscal consolidation process, in a way that would allow the economy to evolve in an efficient and orderly manner in an external environment of less favorable conditions. This, besides guaranteeing the public debt sustainability, would facilitate maintaining the channeling of resources to the private sector, and preserving credit markets, especially interest rates, free of pressures.

Table 8 Total Funding of the Mexican Economy (Sources and Uses)

Percentage of GDP

	Annual flows								
	2010	2011	2012	2013	2014	2015 <sup>p/</sup>	2016 <sup>e/</sup>		
Total sources	9.4	10.1	10.0	8.6	10.2	5.2	6.6		
Domestic sources	4.1	5.7	4.4	4.7	5.8	3.9	5.2		
Voluntary M4	2.6	4.2	3.0	4.1	4.1	2.6	3.8		
Compulsory M4	1.5	1.5	1.4	0.7	1.7	1.3	1.4		
Foreign sources	5.3	4.4	5.7	3.8	4.4	1.3	1.4		
Non-resident M4	2.9	3.0	4.5	1.3	2.3	-0.2	0.0		
Foreign securities and credit 1/	2.5	1.4	1.2	2.5	2.2	1.5	1.4		
Total uses	9.4	10.1	10.0	8.6	10.2	5.2	6.6		
International reserves 2/	2.2	2.4	1.8	1.0	1.3	-1.5	-0.1		
Public sector financing	4.3	3.6	4.2	4.1	4.8	4.3	3.5		
Publis Sector Borrowing Requirements (PSBR) 3/	3.9	3.4	3.8	3.7	4.6	4.1	3.3		
States and municipalities	0.4	0.3	0.5	0.4	0.2	0.2	0.2		
Private sector financing	2.7	3.7	3.1	3.9	2.4	3.1	3.0		
Foreign	0.7	0.9	0.8	1.6	0.8	0.1	0.1		
Domestic 4/	2.0	2.8	2.3	2.3	1.6	2.9	2.9		
Other concepts 5/	0.3	0.4	0.9	-0.5	1.8	-0.7	0.2		

Note: Figures may not add up due to rounding. Figures expressed in percent of nominal average annual GDP. The information on (revalued) flows is stripped from the effect of the exchange rate fluctuation.

Source: Banco de México.

p/ Preliminary data.

e/Estimated data, expressed in percent of nominal average annual GDP estimated by Banco de México.

<sup>1/</sup>It includes the external debt of the federal government, public entities and firms, and external PIDIREGAS, external liabilities from commercial banks and financing to the non-financial private sector.

<sup>2/</sup> As defined by Banco de México's Law.

<sup>3/</sup>From 2010 to 2015, Public Sector Borrowing Requirements (PSBR) correspond to the data published by the Ministry of Finance (SHCP). Data for 2016 consider those published in the General Criteria of Economic Policy 2016, less the adjustment of 0.2 percent of GDP that takes into account the preemptive adjustment of MXN 32.3 billion in the Federal Government expenditure announced by the Ministry of Finance on February 17, 2016.

4/Total portfolio of financial intermediaries, of the National Housing Fund (Institute del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit), and of the

ISSSTE Housing Fund (Fondo de la Vivienda del ISSSTE, Fovissste), as well as the issuance of domestic debt.

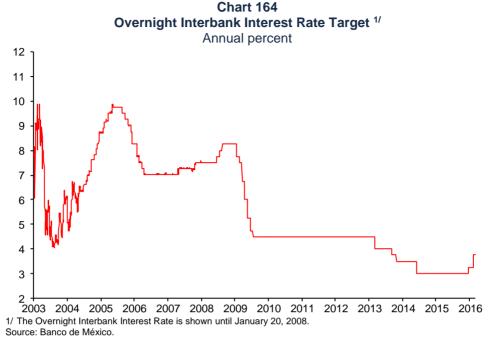
<sup>5/</sup>It includes capital accounts and results and other assets and liabilities of commercial and development banks, Banco de México, non-bank financial intermediaries and Infonavit, non-monetary liabilities from the Institute for the Protection of Bank Savings (Instituto de Protección del Ahorro Bancario, IPAB), as well as the effect of the change in the valuation of public debt instruments, among other concepts.

### 4. Monetary Policy and Inflation Determinants

The complex economic situation faced by Mexico in 2015 and in early 2016 induced Banco de México to carefully consider the possible effects of both domestic and external factors on the evolution of inflation and its expectations, so as to define the most appropriate monetary policy stance. Indeed, on the one hand, the domestic environment was characterized by moderate growth, absence of demand-related pressures onto prices and the anchoring of inflation expectations. On the other hand, as stated in Section 3.1, the external environment was characterized by recurrent episodes of financial volatility, as a result of which the value of the national currency registered strong pressures.

Thus, after maintaining the target for the Overnight Interbank Interest Rate unchanged at 3 percent in its October 2015 meeting, in December Banco de México's Board of Governors decided to increase the referred target by 25 basis points, to a level of 3.25 percent. This followed a 25 basis point increment in the target range for the U.S. Federal Reserve reference rate, seeking to prevent a compression of the risk-adjusted interest rate spread of Mexico against that of the U.S., which could have affected capital flows in the short term. Subsequently, in the meeting of February 4, 2016, the Board of Governors decided to maintain the level of this target unchanged, just like the Federal Reserve did, considering that the central scenario for inflation in the short and medium terms considered at the moment was still congruent with the consolidation of the convergence of inflation to its permanent 3 percent target. Despite the abovesaid, the Board of Governors warned that the additional depreciation of the national currency recorded in early 2016 and the possibility that it would persist or become accentuated, and thus likely contaminate inflation expectations, had become the main risk to inflation.

Therefore, following the increased volatility in international financial markets, the deterioration of external environment and the exchange rate depreciation that took place over the weeks following the referred meeting, the Board of Governors held an extraordinary meeting, where it was announced that it was considered appropriate to increase by 50 basis points the target for the Overnight Interbank Interest rate to 3.75 percent (Chart 164). The goal of this decision was to prevent the additional weakness in the exchange rate of the national currency from increasing the probability that inflation expectations would be affected. In this regard, the Board of Governors clarified that this increment does not initiate a cycle of monetary contraction. It should be noted that this decision was part of a set of coordinated measures by the authorities regarding economic policy. In particular, together with the described monetary policy measure, the Ministry of Finance (Secretaría de Hacienda y Crédito Público) announced a preemptive adjustment to the spending of the Federal Public Administration for 2016, and the Foreign Exchange Commission decided to suspend auctions of U.S. dollars, leaving open the possibility to intervene discretionally in the exchange market in exceptional cases, ratifying that the key element to procure the anchoring of the national currency would be to preserve stable macroeconomic fundamentals.



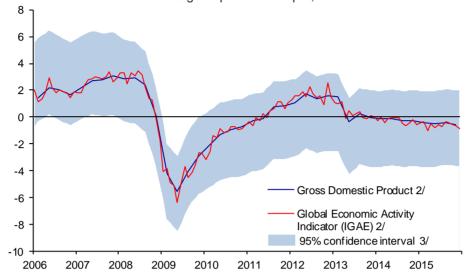
Domestic conditions taken into consideration to support the monetary policy decisions both in October and December 2015, and on February 4, 2016, were relatively similar. In contrast, external conditions gauged in each one of the referred decisions were worsening over time, even leading to an extraordinary decision on February 17, 2016. These two groups of conditions are described below.

### 4.1. Domestic Factors in Monetary Policy Decisions

- a) During the period in which the monetary policy decisions described here were taken, inflation presented a favorable performance. Indeed, after converging to the 3 percent permanent target, from May 2015 onwards it continued showing a downward trend, locating below its 3 percent target, even considering its rebound in January and the first fortnight of February 2016, as a consequence of the factors indicated in Section 2. In line with the above, both headline and core inflation were anticipated to close 2015 around 2 percent. They were estimated to grow gradually in 2016, locating around 3 percent, and in 2017 both indicators were expected to stabilize around the said level.
- b) In the third and fourth quarters of 2015, the Mexican economy registered a moderate growth rate, although it was considered that in the future it would face downward risks. In this context, the output gap remained negative and it is expected to remain so in the foreseeable future (Chart 165). Thus, even though some indicators suggested that slack conditions in the economy and in the labor market could be gradually diminishing, no generalized aggregate demand-related pressures onto prices were anticipated over the next semesters.

Chart 165 Output Gap Estimate <sup>1/</sup>

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 fourth quarter of 2015. IGAE figures as of December 2015.

3/Confidence interval of the output gap calculated with an unobserved components' method.

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

- c) Headline and core inflation expectations, measured by surveys for the end of 2015, 2016 and 2017, continued decreasing, while longer-term inflation expectations continued consolidating their reduction. Likewise, inflation expectations implicit in long-term market instruments remained stable. Specifically, as regards the performance of inflation expectations derived from the survey conducted by Banco de México among private sector specialists, the following stands out:
  - i. Inflation for the end of 2016 reduced from 3.4 percent in the September survey to 3.1 percent in the January 2016 survey. 40 In particular, the median of core inflation expectations shifted from 3.1 to 3.0 percent in the same time period, while those corresponding to implicit non-core inflation reduced from 4.6 to 3.4 percent (Chart 166a). Subsequently, in the February survey, headline inflation expectations for the end of 2016 reached 3.4 percent. Particularly, the median of core inflation expectations remained at 3.0 percent, while that corresponding to the non-core component went up, locating at 3.6 percent.
  - ii. The median of inflation expectations for the end of 2017 went down from 3.4 to 3.3 percent between September 2015 and February 2016.<sup>41</sup> Specifically, the median of expectations for the core component remained at 3.2 percent during the analysis period, while

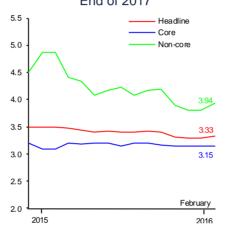
<sup>&</sup>lt;sup>40</sup> The median of headline inflation expectation for the end of 2016 in the Banamex survey diminished from 3.4 to 3.1 percent between the surveys of September 22, 2015 and February 22, 2016.

<sup>&</sup>lt;sup>41</sup> The median of headline inflation expectation for the end of 2017, based on the Banamex survey, lied at 3.2 percent between the surveys of January 7, 2016 and February 22, 2016.

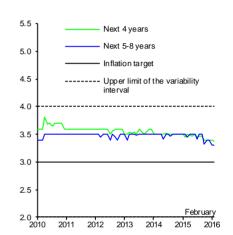
- those implicit in the non-core component decreased from 4.2 to 3.9 percent (Chart 166b).
- iii. Inflation expectations for longer horizons continue consolidating their reduction and are located at 3.3 percent for the first time on record (Chart 166c).<sup>42</sup>

### Chart 166 Inflation Expectations Percent

- a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2016
- 5.5 4.0 3.38 3.5 3.0 3.01 2.5 2.0 Headline Core 1.5 Non-core February 2015 2016 Source: Banco de México's Survey.
- b) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2017



c) Medians of Headline Inflation Expectations for Different Terms



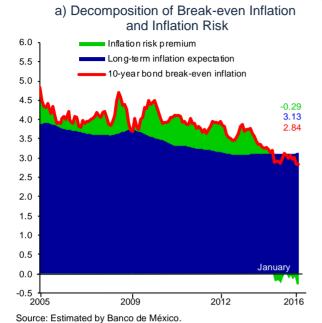
iv. Regarding the evolution of inflation expectations implicit in 10-year market instruments, they remain stable around 3.0 percent, while the inflation risk premium adjusted downwards again between September 2015 and January 2016 (Chart 167a). In this way, the break-even inflation (the difference between long-term nominal and real interest rates) decreased by approximately 20 basis points during the reference period, and remained at low levels (Chart 167b), reflecting that the holders of nominal interest rate-indexed instruments keep demanding a relatively low compensation for inflation and inflation risk in Mexican government bond.

<sup>&</sup>lt;sup>42</sup> The median of long-term inflation expectations of the Banamex survey (for the following 3 to 8 years) also decreased from 3.5 to 3.3 percent between the surveys of September 22, 2015 and February 22, 2016.

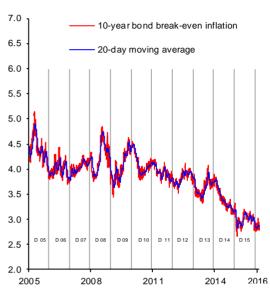
<sup>&</sup>lt;sup>43</sup> For a description of the estimation of long-term inflation expectations, see Box "Decomposition of Breakeven Inflation" in the Quarterly Report, October-December 2013. For this report, the estimation was updated to include data as of December 2015.

Chart 167
Inflation Expectations

Percent



### b) 10-year Bond Break-even Inflation



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

## 4.2. External Factors in Monetary Policy Decisions

As mentioned above, the external factors that were taken into consideration when making the monetary policy decisions were the ones that represented the most important modifications since September 2015. The implications of the change in the external environment for each monetary policy decision described in the Report are explained below:

- a) In the monetary policy decision taken in October 2015, besides the above described domestic environment, it was assessed that different external factors, such as the weak global economic growth and uncertainty regarding the beginning of the normalization of the Federal Reserve monetary policy, had been generating a depreciation in the currencies of emerging economies, including Mexico. Even though the depreciation of the national currency in this period was significant, the resulted change in relative prices took place in an orderly and gradual manner. In particular. merchandise prices had increased in a pauseful and gradual way, above all as a consequence of the behaviour of durable goods' prices, while second round effects on the prices of non-tradable goods and services, derived from the adjustment in the exchange rate of the Mexican peso. were not observed. In this context, the Board of Governors maintained the target for the Overnight Interbank Interest rate unchanged at a level of 3.0 percent.
- b) In the monetary policy decision of December 2015, the depreciation of the exchange rate still did not generate any second round effects on the price setting process. However, as expected, the Federal Reserve increased

the target range for the reference rate by 25 basis points and noted that the rate of future rises would be gradual and would depend on the observed and expected evolution of employment and inflation. In this context, Banco de México's Board of Governors decided to raise the target for the Overnight Interbank Interest rate by 25 basis points, to a level of 3.25 percent. By doing this, the Central Bank sought to prevent the risk-adjusted interest rate spread of Mexico relative to that of the U.S. from reducing and that, as a result, capital flows would be affected in the short term.

- c) In the monetary policy decision taken on February 4, 2016, the following changes in the external environment and their implications for the national currency stood out:
  - i. The Federal Reserve maintained its monetary policy rate unchanged in its January meeting and reiterated that the trajectory of the subsequent increases would be gradual and would continue depending on the observed and expected evolution of employment and inflation. Moreover, it mentioned that it would assess the global environment and its impact on the balance of risks to the economic activity and inflation. Economic analysts and financial markets interpreted this as a more gradual trajectory of future increments in the reference rate than previously expected.
  - ii. Despite the above, volatility in international financial markets spiked, in an environment of low global growth and lower forecast of the said expansion, as well as a greater divergence among the monetary policy stances of various central banks of the main advanced economies and significant falls in oil prices. As a result, the Mexican peso significantly depreciated against the U.S. dollar, even though the Federal Reserve maintained its monetary policy unchanged. In particular, the observed depreciation of the national currency during 2015 was not the most considerable one among those registered in other emerging economies and some advanced oil exporting and/or basic merchandise exporting countries. This changed in early 2016, when the Mexican peso became one of the most depreciated currencies against the U.S. dollar.

In this context, given that the central scenario for the inflation evolution for the short and medium term remained congruent with the consolidation of the inflation convergence to its permanent 3 percent target, the Board of Governors decided to maintain the target for the Overnight Interbank Interest Rate unchanged at 3.25 percent. However, the Board pointed out that the balance of risks to inflation has deteriorated in the short term. It stressed that the most important upward risk to inflation was the additional depreciation of the national currency observed in 2016, and the possibility that it may persist or become accentuated, thus possibly contaminating inflation expectations and leading to an increase in the growth rate of non-tradable goods' prices.

d) Finally, as regards the monetary policy decision announced on February 17, derived from an extraordinary meeting and in the framework of an economic policy strategy, in coordination with the Ministry of Finance and the Foreign Exchange Commission, it was considered that:

- i. Volatility in international financial markets continued increasing. In particular, it stood out that oil prices kept going down and had generated a new adverse impact on the quote of the Mexican peso. Pressures on the national currency increased even further, given the perception that the fiscal position was weakening, mainly via Pemex, and that the use of the Mexican peso as a risk-hedging mechanism of other emerging countries, and even of the crude oil price became more generalized, leading to a further depreciation of the currency beyond the balance adjustment that could be justified by the slump in oil prices. This increased the probability that inflation expectations incongruent with the consolidation of the permanent 3 percent target would arise.
- ii. In light of the complex external environment, of high risk aversion in the markets and of the perception of threats to public finances, strengthening the macroeconomic framework of the Mexican economy was crucial.

Therefore, the Ministry of Finance and the Central Bank decided to strengthen the economic fundamentals within the purview of their responsibility. Thus, together with the 50 basis points increment in the target for the Overnight Interbank Interest Rate, the Ministry of Finance announced a preemptive adjustment to the public spending for 2016, while the Foreign Exchange Commission decided to suspend auctions of U.S. dollars, leaving open the possibility to intervene discretionally in the exchange market in exceptional cases. As regards this point, over the weeks prior to the decisions taken on February 17, it became evident that some agents participated in the foreign exchange market using high frequency automatic trading models that took advantage of the nature of the still functioning auctions mechanism. Particularly, the strategies adopted by these models took advantage of the exchange rate volatility to make profits, which in turn affected its level and drove its volatility further upwards. The above has been worsened by the recent changes in the international financial regulation regarding risk exposure, which have induced global banks to generally reduce their activity in financial markets. This led to less liquidity and less depth in the operation of practically all financial assets, particularly those characterized by greater relative risk, among which financial instruments issued by emerging economies are included.

In the press release referring to the decision of February 17, the Board of Governors indicated that, although this measure would not initiate a monetary contraction cycle, in the future it will closely monitor the evolution of all determinants of inflation and its expectations for the medium and long term, especially the exchange rate and its possible pass-through onto consumer prices. Likewise, it pointed out that it will continue monitoring the monetary position of Mexico relative to the U.S., without overlooking the output gap performance, in order to be able to take the necessary measures in a flexible manner and whenever conditions demand it, so as to consolidate the efficient convergence of inflation to the 3 percent target.

#### 4.3. Domestic Financial Markets

The evolution of domestic financial markets was affected by the volatility observed in international financial markets. The foreign exchange market remained the main shock-absorber of external shocks, while the fixed income market indicators

remained relatively stable, reason for which only marginal reductions in the holdings of Federal Government bonds by institutional investors, were observed.

Indeed, the Mexican peso, just like other emerging economies' currencies, depreciated against the U.S. dollar and presented high volatility during the period covered by this Report, as well as an additional depreciation so far in 2016. Hence, from September to December 2015, the exchange rate depreciated 2.4 percent from approximately 16.86 to 17.27 MXN/USD- to later attain a level of 18.19 MXN/USD on February 4, 2016. Subsequently, it reached its maximum level of 19.42 MXN/USD on February 11, 2016. Thus, the parity accumulated a depreciation of 10.6 percent from late September 2015 to February 16, 2016 (Chart 168a and Chart 168b). Both real and financial factors contributed to this performance of the exchange rate. Among real factors the following can be named: the deterioration in the terms of trade as a result of the drop in oil prices, as well as the stagnation of demand for exports, derived from the small volume of global trade, and, in particular, of the deceleration of the U.S. industrial activity. Among factors of a financial nature, the next stand out: the use of exchange rate hedges of the Mexican peso in the adjustment strategies in other currencies' risk exposure within national and international investment portfolios, greater risk aversion among these, and considerable uncertainty as to the world economic and geopolitical environment since the beginning of 2016.

With the set of measures announced by the authorities on February 17, 2016, the exchange rate appreciated 6.6 percent since the attained maximum of 19.42 MXN/USD, returning to levels below 18 MXN/USD over the weeks following the adoption of the above referred measures.

Chart 168 **Exchange Rate and Implied Volatility** a) Nominal Exchange Rate 1/ b) Currency Option Implied Volatility 1/ MXN/USD Percent 1/ The observed exchange rate is the daily quote of the FIX 1/ Currency option implied volatility refers to one-month exchange rate Source: Banco de México Source: Bloomberg.

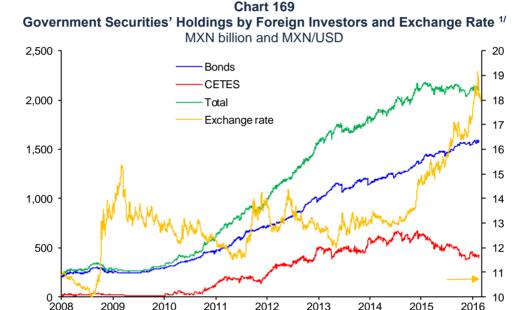
In the period covered by this Report, the Foreign Exchange Commission announced sequential modifications to the intervention mechanisms in the foreign exchange market, as of November 23, 2015 halting USD 200 million in daily dollar sales at no minimum price, and extending its daily auctions with a minimum price until January 29, 2016. Besides, it launched the supplementary dollar auctions with a minimum price. In this regard, it should be noted that during the fourth quarter of 2015 and until February 16, 2016, the mechanism of ordinary dollar auctions with a minimum price was activated 18 times, while the mechanism of supplementary dollar auctions with a minimum price was activated 10 times. In sum, the total amount allocated by means of different intervention mechanisms implemented by the Foreign Exchange Commission in the reference period amounted to USD 12, 272 million.

Subsequently, as a result of the deterioration in the global environment in mid-February, along with the fiscal and monetary measures announced on February 17 by the Ministry of Finance and Banco de México, the Foreign Exchange Commission decided to suspend daily auctions of dollars, on that day discretionally selling USD 2 billion, to strengthen the impact produced by the referred measures on the quote of the national currency, given the degree of its misalignment. In this sense, the possibility to discretionally intervene in the exchange rate market was established, if exceptional conditions arise. In this regard, it should be noted that the goal of the Foreign Exchange Commission intervention in the use of international reserves in Banco de México is to continue preserving order and liquidity in the market, reason for which the said Commission stressed that it would only intervene in exceptional circumstances of low liquidity in the market or in case

of other disruptions. The anchoring of the national currency's value will be primarily procured by means of preserving solid economic fundamentals.<sup>44</sup>

On the other hand, it is noteworthy that as a result of the annual review of the Flexible Credit Line granted to Mexico, on November 24, the IMF reaffirmed that Mexico continues qualifying to access, if necessary and under no condition, the FCL resources of approximately USD 65 billion.

With respect to the performance of the fixed-income market, in the described context and despite the volatility in the financial markets, interest rates in Mexico performed favorably. As regards government securities' holdings by non-residents, marginal reductions in holdings of Federal Government titles by institutional investors were observed. In this regard, it should be pointed out that investors' holdings of short-term instruments decreased, while those of medium- and longterm instruments increased slightly (Chart 169).



2012

2010 1/ The total includes CETES, bonds, udibonos, bondes and bondes D. Source: Banco de México

2011

2009

Thus, short-term interest rates in Mexico reflected the increases in the reference interest rate derived from the monetary policy actions during the period covered by this Report and so far in 2016. In contrast, those for long-term horizons remained stable. In particular, the 3-month sovereign bonds rate shifted from 3.2 to 3.3 percent in the fourth quarter of 2015, following the increment in the reference rate in December 2015, to later rise to 4.0 percent in the days following the 50 basis points increase in the reference rate on February 17, 2016. In turn, the 2-year bond interest rate declined from 4.1 to 4.0 percent in the reference period, level at which it remained until early February, to later attain 4.4 percent in the last days. On the other hand, despite increments in short-term rates, the 10-year bond interest rates shifted from 6.2 to 6.3 percent during the reference period, to later decrease to 6.1 percent from early February onwards (Chart 170a). Thus, the slope of the yield

2013

2014

2015

2016

<sup>&</sup>lt;sup>44</sup> See the press releases of the Foreign Exchange Commission as of November 19, 2015, January 28 and February 17, 2016.

curve (the difference between 10-year and 3-month rate) persisted around 300 basis points, to late plunge to 210 basis points over the days following the decision of February 17, 2016 (Chart 170b).

**Interest Rates in Mexico** Percent b) Yield Curve a) Government Bond Interest Rates 1/ 12.0 <sub>D 07</sub> D 08 | D 09 | D 10 | D 11 | D 12 | D 13 | D 14 | D 15 8.0 11.0 Dec 31 2014 3 months 7.5 6 months 10.0 Sep 30 2015 1 vear 7.0 10 years 9.0 6.5 Dec 31 2015 30 years 8.0 6.0 Mar 01 2016 5.5 7.0 5.0 6.0 4.5 5.0 4.0 4.0 3.5 3.0 3.0 2.5 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 10 20 30 Day

Chart 170

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).

Despite the above said, the spreads between Mexican and U.S. long-term interest rates registered some increments, given a further decline in the U.S. rates. Thus, the 10-year interest rate spread remained around 400 basis points in the period covered by this Report, to later go up to 430 basis points over the days following February 17 (Chart 171).

Months

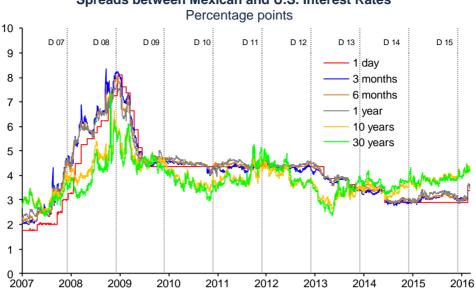


Chart 171
Spreads between Mexican and U.S. Interest Rates 1/

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.

As indicated by Banco de México in different press releases during the analyzed period, there was a high risk that volatility in international financial markets will remain high or will even go further up. As a result of the above, as well as the prospect that oil prices will remain depressed for a relatively long horizon and the possibility of a disorderly decompression of the term premia in international financial markets given the expected normalization of the U.S. monetary policy, it was fundamental to maintain a solid macroeconomic framework in our country. In view that some of the above referred risks actually took place, it was necessary to carry out a set of coordinated fiscal, monetary and exchange rate policy measures seeking to strengthen the economic fundamentals of the country. These measures are anticipated to enhance confidence in Mexico and to contribute to the persistence of the sovereign risk component in interest rates, as well as other risk premia, at low levels. In the future, in light of the current external environment, in which financial conditions are tightening, and of greater risk aversion, it will be crucial to continue monitoring the macroeconomic framework of the country and to adjust it, if necessary, so that the Mexican economy would continue distinguishing itself among the rest of emerging economies.

#### 5. Inflation Forecasts and Balance of Risks

This section describes the macroeconomic scenario foreseen for the Mexican economy for 2016 and 2017, which considers both the external and domestic conditions presented in this Report. In particular, it takes into account the recent deterioration in the international environment, as well as the adjustments of the monetary and fiscal policy made by the authorities to tackle that deterioration, which were announced on February 17, 2016.

**GDP Growth:** According to the data published in the previous and the current Quarterly Reports, the Mexican economy performed slightly better than what could be previously appreciated. In particular, the quarterly seasonally adjusted growth rates of the first half of 2015 were adjusted upwards. Moreover, in the third quarter, GDP expanded more than it was suggested by the timely estimation published by INEGI. In turn, in the fourth quarter, the economy expanded less than in the third one, but more than estimated in the previous Report. Thus, GDP of 2015 as a whole expanded 2.5 percent, slightly above the upper limit of the forecast interval published in the last Quarterly Report.

Despite the above, for 2016 and 2017 a more complex external environment, and, particularly, greater downward risks for the growth of the Mexican economy are anticipated. In particular, a lower dynamism of external demand is expected with respect to the previous estimation, mainly because of the downward adjustment in the forecast for the U.S. industrial activity and the slowdown in the world economy. <sup>45</sup> At the same time, adjustments in the U.S. industrial activity forecast could be associated to the widespread appreciation of the U.S. dollar, in an environment of weak global economic activity, volatility in international financial markets and a reduction in the world trade. Furthermore, the forecast of a low oil price for an extended time period also seems to have deteriorated the growth outlook for the U.S. industrial sector, due to its adverse impact on the energy sector.

Considering the elements mentioned before, the forecast interval for GDP growth in Mexico in 2016 is reduced with respect to the previous Report, from one between 2.5 to 3.5 percent, to one between 2.0 to 3.0 percent (Chart 172a). Similarly, for 2017 the GDP growth outlook is estimated to be between 2.5 and 3.5 percent as compared to the interval of 3.0 to 4.0 percent published in the last Quarterly Report.

In this context, the forecast considers that the monetary adjustment, together with the announced cuts in public expenditure, will contribute to strengthening the country's economic fundamentals. Thus, the moderate effect of these measures on the economic activity in the short term will tend to be offset by generating an environment more conducive to growth. Particularly, the adjustments announced on February 17 will contribute to enhancing investors' confidence regarding Mexico's commitment to maintaining a solid macroeconomic framework and its ability to duly act, given the difficulties in the external environment, and thus distinguishing itself favorably among other emerging countries as an investment

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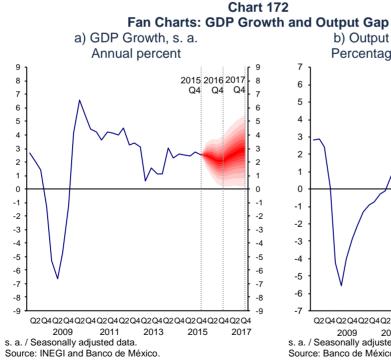
<sup>&</sup>lt;sup>45</sup> Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in February 2016. For 2016, U.S. industrial production is expected to expand 0.8 percent, as compared to the expansion rate of 2.3 percent estimated in the last Quarterly Report. For 2017, growth of 2.4 percent is foreseen, with respect to 2.8 percent reported in the previous Quarterly Report.

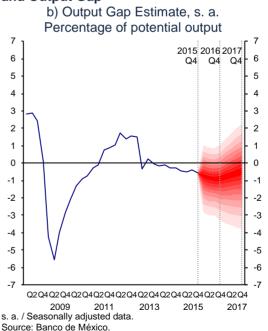
destination. Additionally, a more favorable environment for domestic sources of growth will be created, while preventing a deterioration in inflation expectations and fostering a more orderly adjustment in domestic financial markets.

**Employment:** Consistent with the adjustment in the economic outlook, the forecast of an increase in the number of IMSS-affiliated jobs is revised downwards. For 2016, an increment of between 610 and 710 thousand IMSS-insured jobs is expected (an increase of between 630 and 730 thousand jobs in the previous Quarterly Report). For 2017, an increment of between 650 to 750 thousand IMSS-affiliated jobs is estimated (an interval of 660 to 760 thousand jobs in the last Report).

**Current Account:** In 2015, the trade balance registered a deficit of USD 14.5 billion (1.3 percent of GDP). In this context, the current account deficit amounted to USD 32.4 billion (2.8 percent of GDP), as compared to USD 24.8 billion (1.9 percent of GDP) in 2014. This change in the current account balance between 2014 and 2015 is mainly accounted for by the deterioration in the oil production balance. Indeed, the current account excluding the oil production balance presented a deficit of 2.0 percent of GDP in 2014, figure similar to that observed in 2015. For 2016, trade balance and current account deficits of USD 12.0 and 30.3 billion are expected, respectively (1.2 and 2.9 percent of GDP, in the same order). For 2017, trade balance and current account deficits of USD 13.1 and 33.5 billion, respectively, are projected (1.2 and 2.9 percent, in the same order).

In line with the economic growth forecast, no aggregate demand-related pressures on inflation or external account are projected. In particular, the output gap is expected to remain negative in the forecast horizon (Chart 172b).





The GDP growth outlook for Mexico presented in this Report is subject to different risks. Among downward risks to this outlook, the following are noteworthy:

- An even lower than expected dynamism of the U.S. industrial activity. This
  could occur, for instance, if the U.S. dollar keeps appreciating, given a
  greater weakness of world demand or as a consequence of a greater
  deterioration of energy prices.
- ii. That oil prices will not recover. In the short term, this could lead to a lower domestic expenditure.
- iii. That volatility in the financial markets will further intensify, consequent on events associated, for instance, with an economic environment in China or given uncertainty related to the possible rate of the U.S. monetary stimulus withdrawal. As in the previous case, this volatility could lead to disorderly adjustments in the exchange rate, which could trigger a deterioration in the confidence levels, and, therefore, in consumers' and investors' spending.

On the other hand, among upward risks the next stand out:

- A better than expected U.S. industrial activity, which, together with a more orderly adjustment of the real exchange rate, may lead to a considerable increase in Mexican non-oil exports.
- ii. That the implementation of structural reforms may produce more favorable and faster effects on investment.

**Inflation:** The projected inflation path considers the fading of favorable supply shocks that occurred in early 2015, adjustments in relative prices derived from the exchange rate depreciation, as well as the change in the gasoline pricing mechanism, and, as a consequence, the change in its seasonal nature, which would imply higher gasoline prices in the second and third quarters, and lower prices of this fuel in the first and the fourth ones of the year. Hence, annual headline inflation is anticipated to increase in 2016, and, derived from the above referred seasonality, to temporarily reach levels slightly above 3 percent between the second and the third quarters, to later close the year around this level. Annual core inflation is expected to gradually go up throughout the year, as a result of the mentioned adjustment in relative prices, to also conclude 2016 at levels close to 3 percent. For 2017, both annual and core inflation are estimated to stabilize around the permanent inflation target. It should be noted that this outlook does not imply a generalized deterioration in the price formation process, but rather reflects the anticipated effect produced by the above mentioned factors onto inflation (Chart 173 and Chart 174).

The forecast of the inflation trajectory could be affected by certain risks. Among upward risks the following should be specified:

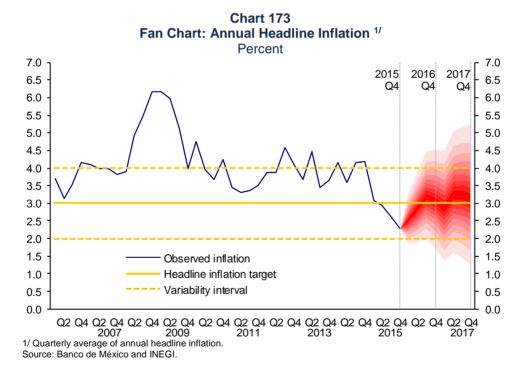
i. In light of the consequences of the international environment on the performance of the exchange rate, that the depreciation of the national currency occurs again, which could contaminate inflation expectations

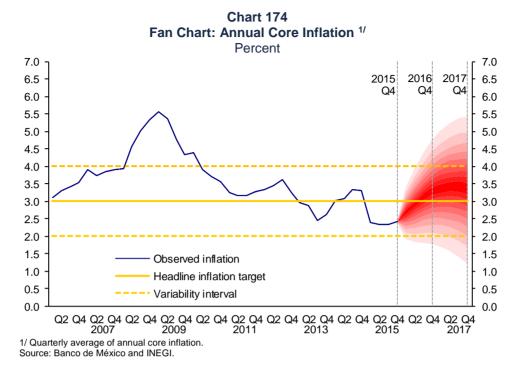
and generate higher prices of non-tradable goods. Nonetheless, it should be pointed out that the measures taken by Banco de Mexico in its last monetary policy decisions, in particular upward adjustments of 25 basis points in the target for the Overnight Interbank Interest Rate on December 17, 2015 and of 50 basis points on February 17, 2016, show this Central Institute's commitment to maintaining inflation expectations well-anchored.

i. A greater than anticipated dynamism of economic activity, which could lead to a faster than expected closing of the output gap. Still, this risk is estimated to take place gradually.

On the other hand, among downward risks the following can be highlighted:

- That as a result of structural reforms, prices of some widely used inputs, such as telecommunication services and energy products, would further diminish.
- ii. That at least a part of the recent depreciation of the national currency may revert, as it has been happening already.





Considering the facts stated in this Report, on February 17, the Board of Governors clarified that, although its latest monetary policy decision does not initiate the cycle of monetary tightening, in the future it will remain alert to the performance of all inflation determinants and its expectations for the medium and long term, especially the exchange rate and its possible pass-through onto consumer prices. Likewise, it maintained that it would continue monitoring the monetary stance of Mexico relative to the U.S., without overlooking the evolution of the output gap. All this in order to be able to take measures in a flexible manner and whenever conditions demand it, so as to consolidate the efficient convergence of inflation to the 3 percent target.

In view of increased volatility in international financial markets and the deterioration in the external environment faced by the Mexican economy, on February 17, 2016 the Mexican authorities acted in a timely and coordinated manner, so as to implement a series of adjustment measures that would contribute to strengthening the country's macroeconomic fundamentals, Indeed, as stated in this Quarterly Report, as part of a comprehensive package of measures, in an extraordinary meeting. Banco de México decided to increase the reference interest rate. At the same time, the Federal Government announced a preemptive spending cut in the Federal Public Administration, which would allow facing the shock to government revenue, represented by a decrease and the deterioration in the future outlook for oil prices. An adjustment to the Pemex budget was also announced, besides the intention to accelerate the implementation of the hydrocarbon reform so as to enhance productivity and efficiency of the sector. Meanwhile, the Foreign Exchange Commission suspended dollar auctions, leaving the possibility of intervening discretionally in the exchange market in exceptional cases. The fast response of authorities, in light of more unfavorable conditions and the coordinated action among different institutions of the Mexican state will allow the measures to be more effective so as to simultaneously guarantee the country's financial stability and generate an environment more favorable for greater economic growth.

Furthermore, the importance of having domestic sources of growth is underlined, particularly in a context of a weak world economy and a low volume of world trade. If the structural reforms are adequately implemented, apart from directly benefitting the welfare of the Mexican population, they would allow to distinguish the Mexican economy among other emerging countries even more and to consolidate a greater growth rate in the medium term. In connection with the above, and as stated in previous Quarterly Reports, it is necessary to strengthen the rule of law and guarantee legal certainty. This would allow to enhance the effect of structural reforms onto the economic growth, besides directly attracting greater investment to the country.

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

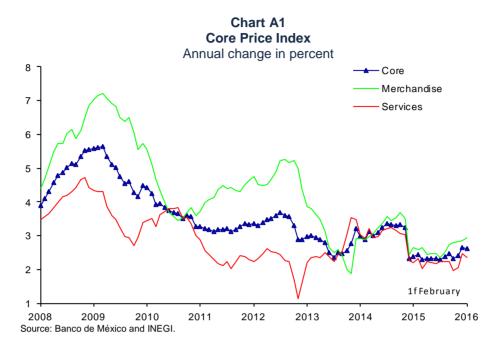


Chart A2
Core Price Index: Merchandise and Services

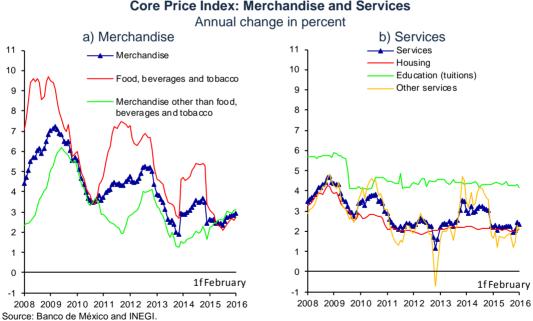


Chart A3
Non-core Price Index

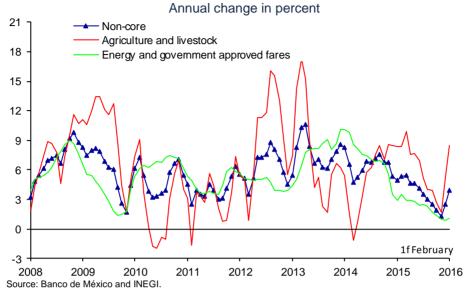
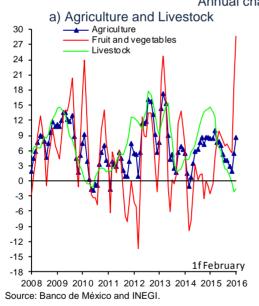


Chart A4
Non-core Price Index
Annual change in percent



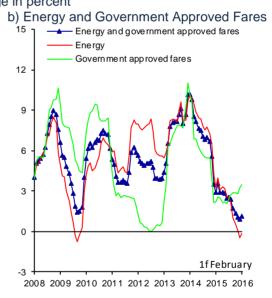


Chart A5
Agriculture and Livestock Price Index

a) Fruit and Vegetables 50 250 - Fruit and vegetables Onion Tomato 200 40 Serrano pepper 30 150 20 100 10 50 0 -10 -50 1f February -100 2008 2009 2010 2011 2012 2013 2014 2015 2016 Source: Banco de México and INEGI.

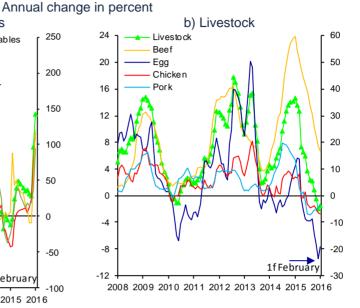
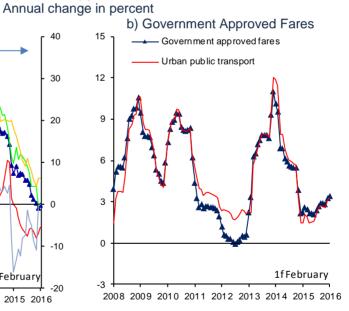


Chart A6
Energy and Government Approved Fares Price Index

a) Energy 18 Energy Gasoline Electricity 15 L.P. gas 30 Natural gas 12 20 9 10 3 0 -3 -6 1f February 2008 2009 2010 2011 2012 2013 2014 2015 2016 Source: Banco de México and INEGI.



## **Annex**

Mexico's Relationship with the International Monetary Fund, the Bank for International Settlements, the Group of Twenty and other Fora

#### International Monetary Fund

Mexico is a founding member of the International Monetary Fund (IMF) since its creation in 1944. Under the 14<sup>th</sup> General Review of Quotas, in December 2010, the Board of Governors of the IMF agreed to implement a general increase in quotas that includes Mexico, and was ratified and became effective on January 26, 2016. As a result of this reform, the quota of Mexico in this international organization increased from SDR 3,625.7 million to 8,912.7 million, effective February 16, 2016. Thus, Mexico's relative participation in the IMF's total quotas augmented from 1.52 to 1.87 percent.

During 2015, two topics stood out regarding Mexico's relationship with the IMF: 1) the consultations under the Article IV of the IMF's Articles of Agreement; and 2) the annual review of the Flexible Credit Line (FCL), which was set to expire on November 25, 2016. Furthermore, Dr. Agustín Carstens, Governor of Banco de México, as Chairman of the International Monetary and Financial Committee (IMFC)<sup>46</sup> of the IMF (appointment effective March 23, 2015)<sup>47</sup> chaired two meetings of the aforementioned Committee in 2015, during the Spring and Annual Meetings of the IMF/World Bank, held in Washington, D.C., U.S. in April,<sup>48</sup> and in Lima, Peru,<sup>49</sup> in October, respectively.

The consultation under the Article IV of the IMF's Articles of Agreement is a surveillance and assessment exercise carried out by the Fund with each member country. In November 2015, the IMF announced the results of its most recent consultation to Mexico. In its assessment of the Mexican economy, the IMF Executive Board highlighted the progress achieved in the implementation of the recently approved structural reforms, which derived in greater investment, especially in sectors related to telecommunication services and energy, the expansion of bank credit and a better protection to financial services' users; lower prices of telecommunication services and smaller increments in energy prices. A more active role of development banks is added

<sup>&</sup>lt;sup>46</sup> The IMFC is the primary advisory body for the IMF Board of Governors that deliberates on the main policy issues that the entity has to follow. In practice, the IMFC has been a key instrument in providing strategic direction to the IMF. The IMFC, composed by finance ministers and central bank governors, has 24 members, reflecting the composition of the IMF Executive Board. The entity functions via a council, including the process of its President selection. Several international institutions participate as observers in the IMFC meetings.

<sup>&</sup>lt;sup>47</sup> See IMF Press Release as of February 20, 2015.

<sup>&</sup>lt;sup>48</sup> See the Press Release of the IMFC 31st Meeting, on April 18, 2015.

<sup>&</sup>lt;sup>49</sup> See the Press Release of the IMFC 32nd Meeting, on October 9, 2015.

To carry out the consultation, an IMF delegation visits the member country, gathers and analyzes its economic and financial data, and meets with the competent authorities to discuss the country's economic situation, its outlook, and current economic policy measures. Based on these consultations, the IMF technical staff elaborates and submits for discussion a report on the country to the Executive Board. Afterwards, the IMF informs the country's authorities about its conclusions and recommendations.

<sup>&</sup>lt;sup>51</sup> See <u>Press Release as of November 17, 2015</u>.

to the list. In line with the IMF estimates, progress achieved in the implementation of structural reforms will contribute to a larger potential GDP for Mexico in the medium term. Likewise, the IMF recognized the credibility and strength of the macroeconomic policy framework in Mexico, emphasizing that the monetary policy stance is appropriate and that it contributed to maintaining inflation below its permanent target of 3 percent in annual terms, to keeping inflation expectations anchored, and inflationary pressures contained, despite the depreciation of the Mexican peso against the U.S. dollar, Likewise, the IMF recognized the Mexican authorities' commitment to implementing a gradual fiscal consolidation in order to strengthen public finances and to reinforce investors' confidence in the country. Additionally, the approval of the motion to liberalize gasoline prices was highlighted, along with the fact that prices will start to fluctuate within bands in 2016 and 2017, prior to their full liberalization in 2018. Furthermore, the IMF stressed that the fiscal responsibility framework for state and local governments is in line with the best international practices. On the other hand, the Executive Board highlighted that the Mexican financial system, including banks and other financial intermediaries, remains solid, shows high liquidity and capitalization levels, and meets Basel III requirements. Finally, the IMF recognized that the external position of Mexico is strong and consistent with the fundamentals of the Mexican economy, while an adequate stance prevails with respect to the implementation of its macroeconomic policies. In particular, it emphasized that the flexible exchange rate policy has played a key role as a shock absorber of economic adjustments in light of external shocks.

In November 2015, the IMF Executive Board concluded the annual review of the Flexible Credit Line for Mexico,52 which once again confirmed the country's compliance with the criteria to access this credit instrument.53 The FCL is granted exclusively to countries that continuously maintain a solid policy framework, which generates and conveys certainty to international financial markets. Based on this annual review, the Executive Board concluded that the external position of the country is sustainable, given that a moderate current account deficit in the medium term and a low level of external debt, resistant to negative shocks from abroad, are expected. Likewise, the review ratified that the international reserves are at adequate levels and that Mexico maintains uninterrupted access to international capital markets in favorable conditions. highlighting that the country is one of the emerging economies with the strongest credit ratings. The above review took place during an environment of low and stable inflation below the permanent target set by Banco de México, and well-anchored inflation expectations. In addition, the IMF ratified that the country is characterized by a sustainable public debt position and sound public finances. This has been added to the presence of a sound financial sector, free of solvency problems that may jeopardize systemic stability, which confirms that the banking system, in particular, has adequate capital and liquidity levels. Finally, the review acknowledges its appreciation for the institutional quality in Mexico.

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<sup>&</sup>lt;sup>52</sup> See Press Release of the Foreign Exchange Commission of November 24, 2015.

That arrangement was originally valid for 2 years, until November 2016, with access to approximately USD 66 billion at the end of the first quarter of 2016 (which is equivalent to 531 percent of Mexico's current quota in the IMF).

#### Bank for International Settlements

The main mission of the Bank for International Settlements (BIS) is to support central banks' efforts in their pursuit of monetary and financial stability, to foster international cooperation in those areas, and to act as a bank for central banks. The BIS encourages debate and facilitates collaboration among monetary authorities by means of bimonthly meetings and other regular consultations, where Governors and other senior officials of BIS member central banks analyze the main economic events and the prospects for the world economy and international financial markets, and take advantage of the opportunity to share opinions and experiences on matters of their particular interest.

Banco de México became a member of the BIS in 1996 and since then has actively participated in its meetings, fora and committees, and has been part of some of its governing bodies.

In 2015, the participation of the Governor of Banco de México is noteworthy in the Economic Consultative Committee (ECC) and in the Global Economic Meeting (GEM), in his capacity of Chairman of these groups, thus complying with the mandate granted by the BIS Board of Directors on July 1, 2013. As Chairman in these meetings, the Governor coordinated the selection of topics for discussion and the work program of these fora, where the evolution and risks in the global economy and the international financial system are monitored and assessed. In particular, the GEM guides the work and receives reports of three Basel-based central bank committees that work to design and implement regulation and supervision norms to achieve financial stability.<sup>54</sup> In the course of 2015, the following topics, among others, were discussed in these meetings: the impact and implications of the sharp decline in oil prices; central banks' response to severe fluctuations in commodity prices and exchange rates; the recent evolution of inflation and inflation expectations, and the monetary policy response to its trend; the implications of large and rapid changes in external conditions for monetary policy; the appropriate policy mix (monetary, fiscal and structural reforms) at the current economic juncture; the evolution of the natural interest rate since the recent financial crisis; and the effect of large fluctuations in exchange rates on domestic macroeconomic conditions and their implications for monetary policy.

Banco de México's Governor also took an active role in the work of the BIS Executive Board, of which he has been a member since 2011. This body is in charge, among other issues, of establishing the strategic and policy direction of this international institution, overseeing its operations and addressing its governance issues, appointing its main executive officers, and supervising their performance. In particular, Governor Carstens participated in the activities of one of the consultative committees of this Board, i.e. the Banking and Risk Management Committee, which is in charge of analyzing and evaluating the financial objectives of the bank, the business model of its banking operations and its risk management framework.

The Governor also participated in the Governors and Heads of Supervision (GHOS) meeting, in which the initiatives aimed at promoting a sound

<sup>&</sup>lt;sup>54</sup> The Committee on the Global Financial System (CGFS), the Committee on Payments and Market Infrastructures (CPMI) and the Market Committee.

Compilation of Quarterly Reports Released in 2015

international financial system and progress in the agenda of regulatory and supervision reforms to enhance global financial stability were analyzed. Moreover, guidelines and strategic priorities in the work program of the Basel Committee on Banking Supervision are established in this meeting.

Banco de México also had an outstanding involvement in the activities of other recurring consultative fora organized by the BIS, in which more specific topics with a particular impact on a specific group of economies or regions are discussed. Among these meetings, the following should be underscored: 1) the Central Bank Governance Group, where specific information and research regarding the design and functioning of central banks as public institutions are exchanged, and in which the criteria and priorities relative to the governance of monetary authorities are established; 2) the Major Emerging Market Economies, which analyzes the impact of the international economic juncture on emerging markets and the measures adopted by these group of countries; 3) the Consultative Council for the Americas (CCA), that seeks to strengthen the BIS work agenda with the central banks of the region, in particular Latin America, to be able to take into account topics of their specific interest and concern.

During 2015, Banco de México and the BIS Representative Office for the Americas based in Mexico City closely collaborated in the organization and implementation of projects of common interest. Among the most significant activities, it should be mentioned a joint collaboration between these two institutions for the organizations of a CCA Meeting and a BIS CCA High-Level Roundtable on Financial Issues, with the participation of CCA central bank Governors and CEOs of major financial institutions with business activities in the Americas, events that took place in Cancun, Quintana Roo, Mexico, on May 30, 2015. In the CCA meeting, the reports of the Consultative Groups, prepared by the Directors of Financial Stability and the Directors of Operations of member central banks, were analyzed, as well as the cooperative endeavors and research activities that were carried out. At the roundtable, the focus was on two topics: the impact of recent macroeconomic developments in the Americas (including the fall in commodity prices and divergent monetary policies in advanced economies) and the impact of regulation on the regional financial business and credit.

#### Financial Stability Board

The main goal of the Financial Stability Board (FSB) is to coordinate the activities of national financial authorities and entities in charge of elaborating norms at the international level, as well as to develop and promote the implementation of efficient financial regulation and supervision policies in order to reach global financial stability.

During 2015, Banco de México actively participated in the plenary meetings and in the FSB Steering Committee activites, where, among other topics, the following were discussed: the impact of the economic situation of Greece, vulnerabilities affecting the global financial system and the policy actions needed to address them, the update of the Early Warning Exercise (EWE), the risks associated with market liquidity in fixed-income markets and of asset management activities, the regulation of the shadow banking system, the

situation of over-the-counter markets (OTC) and reports on the implementation and effects of the recent reforms in the financial regulation and supervision prepared for the Group of Twenty (G20).

Banco de México also participated in the meetings of the Regional Consultative Group for the Americas, a forum in which the FSB members of the Americas and non-member jurisdictions meet to analyze the vulnerabilities affecting the financial systems in the region, as well as the financial stability initiatives of the FSB and its members' jurisdictions.

During 2015, it is worth mentioning the joint organization between Banco de México and the FSB of the 8<sup>th</sup> Meeting of the FSB Regional Consultative Group for the Americas, which was held in Cancun, Quintana Roo, Mexico on May 28, 2015. In this event, the discussion focused, among other topics, on the evaluation of risks and vulnerabilities faced by the financial systems of the region, on the progress in the FSB's work plan and its policy priorities in view of the changes in the international environment, and on finalizing of the design of the still pending post-crisis reforms.

#### The Group of Twenty

The Group of Twenty (G20) is the main forum for international dialogue and cooperation, seeking to contribute to economic and financial growth and stability. Advanced and emerging market economies participate in this forum, representing as a whole around 90 percent of the world GDP, 80 percent of global trade and two thirds of total population. The most relevant financial and economic topics are discussed in this forum in order to foster strong, sustainable and balanced growth. Likewise, this forum seeks to promote an open and constructive dialogue on the relevant topics related to the international monetary and financial system, and, concurrently, to help strengthen the international financial architecture.

In 2015, Turkey's G20 Presidency focused on developing strategies to ensure robust and inclusive economic growth (so that all segments of the society share the benefits of growth and prosperity) by means of the G20 members' collective action (implementation of the agreed commitments), emphasizing investment strategies as a driving force of economic expansion. The Turkish G20 Presidency concluded with the Leaders' Summit held in Antalya, Turkey on November 15 and 16, 2015.

To fulfill the commitments adopted by Mexico before the G20, both the Ministry of Finance (SHCP, for its acronym in Spanish) and Banco de México actively participated in the activities of the G20 working groups established for specific purposes: the Framework for Strong, Sustainable and Balanced Growth Working Group, the Investment and Infrastructure Working Group (as well as the seminars and conferences organized by them), and the meetings of Finance Ministers and Central Bank Governors, as well as the Deputies meetings.

Center for Latin American Monetary Studies (CEMLA)

Banco de México was one of the main driving forces behind the creation of CEMLA (formally established in September 1952), as it was one of the seven founding central banks. Currently, the Center has 53 members, 30 of which are Associates (with the right of voice and vote) and 23 Collaborating Members (with the right of voice only).

Among the main goals of CEMLA, the following can be named: 1) to promote a better understanding of monetary and banking topics as well as fiscal and exchange rate policy issues in Latin America and the Caribbean; 2) to help improve the training of the personnel of central banks and other financial bodies in Latin America and the Caribbean by means of seminars and special courses and the publication of research studies; 3) to conduct research and to systematize the results obtained in the aforementioned areas; and 4) to provide information to its members regarding topics of international and regional interest related to monetary and financial policies.

As an Associate of this Center, Banco de México participated in different Governors' meetings, as well as the meetings of the Assembly held in 2015. Furthermore, Banco de México is a permanent member of CEMLA's Board of Governors, Alternates Committee and Auditing Committee, the government bodies in which, among other things, the strategic plan, work program, budget, and guidelines to improve governance of the Center are approved. In this regard, it should be noted that in March 2015, Banco de México, represented by the head of the Directorate of International Affairs, assumed the Presidency of the Audit Committee of CEMLA, and hosted the Autumn meeting of this Committee, held on August 24, 2015 in Mexico City.

In order to support the training efforts of CEMLA and to strengthen its human capital, in 2015 Banco de México's personnel actively participated in different seminars, workshops, courses and technical meetings offered by this Center, some of which were even organized by this Central Bank.

It is noteworthy that Banco de México and CEMLA jointly organized the XCIX Meeting of Central Bank Governors, and the meeting of the Board of Governors and the Assembly of the Center, events that took place in Cancun, Quintana Roo, Mexico, on May 28-30, 2015. While the meeting of the Board of Governors and the Assembly focused on operational, administrative and good governance issues of CEMLA, the meeting of Governors was focused on the discussion, among other topics, of the following: international economic and financial outlook; macroeconomic strengths and challenges in Latin America and the Caribbean; the G20 agenda and work program; monetary policy challenges related to recent trend in commodity prices; strengthening of financial stability through a macroprudential approach and the implications for monetary policy; and the international private banking view on the economic and financial situation in Latin America and the Caribbean.

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#### **Basic Information**

Table A 1 **Summary of Selected Indicators** 

	2011	2012	2013	2014	2015 <sup>p/</sup>
Social and demographic indicators					
Population (millions) 1/	115.7	117.1	118.4	119.7	121.0
Total population growth rate 1/	1.2	1.2	1.1	1.1	1.1
Life expectancy at birth 1/	74.1	74.3	74.5	74.7	75.0
Production and prices					
Gross Domestic Product (GDP) in MXN billion p/	14,550	15,627	16,116	17,252	18,136
		Annı	ual change in perce	ent	
GDP at 2008 constant prices p/	4.0	4.0	1.3	2.3	2.5
Consumer Price Index (Dec-Dec)	3.82	3.57	3.97	4.08	2.13
Money and finances					
Monetary aggregates 2/		Real a	nnual change in pe	rcent	
Monetary base	5.9	9.4	2.4	9.1	16.9
M1	10.9	9.4	4.4	9.9	15.0
M4	10.0	12.1	7.5	6.6	6.5
Domestic financial saving 3/	10.3	12.2	7.8	6.3	5.8
Interest rates 4/					
28-day Cetes	4.24	4.24	3.75	3.00	2.98
28-day TIIE (Interbank Equilibrium Interest Rate) 5/	4.82	4.79	4.28	3.52	3.32
			MXN/USD		
Exchange rate (end of period) <sup>6/</sup>	13.9904	13.0101	13.0765	14.7180	17.2065
Public finances			Percent of GDP		
Public balance 7/	-2.4	-2.6	-2.3	-3.1	-3.5
Primary balance 7/	-0.6	-0.6	-0.4	-1.1	-1.2
Public Sector Borrowing Requirements	-3.4	-3.8	-3.7	-4.6	-4.1
Net public debt <sup>8/</sup>	29.0	31.6	32.2	36.4	39.8
External sector			Percent of GDP		
Trade balance	-0.1	0.0	-0.1	-0.2	-1.3
Current account	-1.1	-1.4	-2.4	-1.9	-2.8
Financial account	4.5	4.6	5.4	4.5	3.0
Total external debt	21.1	22.1	24.3	26.0	30.4
Interest paid	1.5	1.7	1.9	2.0	2.3
			USD billion		
Gross international reserves (end of period) 9/	149.2	167.1	180.2	195.7	177.6

<sup>1/ 1990-2010</sup> basic demographic indicators and 2010-2050 Mexico's population projections of the National Council of Population (Consejo Nacional de Población, CONAPO).

2/ Estimates based on the average of monthly outstanding stocks.

<sup>3/</sup> Defined as monetary aggregate M4 less currency outside banks.

<sup>4/</sup> Average during the period.

<sup>5/</sup> The Interbank Equilibrium Interest Rate (TIIE) is calculated by Banco de México using commercial bank quotes as stipulated in the Official Gazette of March 23, 1995.

<sup>6/</sup> Used to settle liabilities in foreign currency.

<sup>7/</sup> Based on the revenue-expenditure methodology.

<sup>8/</sup> Refers to the broad economic debt, which includes net liabilities of the federal government, public entities and enterprises and of official financial intermediaries (development banks and trust funds). Outstanding stocks at end of period. Calculated by Banco de México.

<sup>9/</sup> As defined in Banco de México's Law.

p/ Preliminary figures.

Source: CONAPO, Mexico's System of National Accounts (Sistema de Cuentas Nacionales de México), National Statistics Bureau (INEGI), Banco de México, Mexican Stock Exchange and Ministry of Finance (Secretaría de Hacienda y Crédito Público, SHCP).

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Table A 2 Socio-Demographic Indicators

30CIO-L	<i>p</i> emograpnic	c inaica	ators					
	2008	2009	2010	2011	2012	2013	2014	2015
Population (millions) 1/	111.3	112.9	114.3	115.7	117.1	118.4	119.7	121.0
Urban population 2/	n.a.	n.a.	76.2	76.1	76.1	76.0	76.1	76.2
Rural population 2/	n.a.	n.a.	23.8	23.9	23.9	24.0	23.9	23.8
Population by sq.km	56.7	57.4	58.2	58.9	59.6	60.3	61.1	61.8
Total population grow th rate 3/	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.1
National unemployment rate 4/	3.9	5.3	5.3	5.2	4.9	4.9	4.8	4.3
Unemployment rate (in urban areas) 5/	4.8	6.6	6.4	5.9	5.8	5.7	5.9	5.1
Life expectancy at birth (years)	74.0	74.0	74.0	74.1	74.3	74.5	74.7	75.0
Fertility rate 6/	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2
Mortality rate (per thousand)	4.8	5.0	5.2	5.1	5.1	5.2	5.2	5.3
Infant mortality rate (per thousand live births)	15.1	14.6	14.1	13.7	13.3	13.0	12.7	12.4
Number of hospital beds (per 100 000 inhabitants) 7/	71.2	70.5	74.1	74.0	73.2	73.9	74.5	74.2
Illiteracy rate (population 15 years old or older) 8/	7.3	7.0	6.9	6.5	6.2	6.0	5.7	5.2
Number of students per teacher (grade school) 8/	26.0	26.1	26.1	26.0	25.7	25.4	25.0	24.9
Population with access to drinking water 2/	90.3	90.7	91.2	91.6	92.0	92.3	92.7	93.0

<sup>1/ 1990-2010</sup> basic demographic indicators and 2010-2050 Mexico's population projections of the National Council of Population (CONAPO).

Source: Annual Government Report 2015, Mexico's Presidency; CONAPO and INEGI Occupation and Employment Survey.

<sup>2/</sup> Percentage of total population. The estimate of the population by area of residence is based on the population projections by size of locality 2010 - 2030. For years prior to 2010, there are no available data.

<sup>3/</sup> An average annual growth rate including the net migration balance.

<sup>4/</sup> Ratio of unemployed population to economic active population. The Unemployed Population is comprised of individuals that were not engaged in working activities during the reference week, but were searching for work during the last month.
Data are adjusted to the demographic projections of the National Council of Population (CONAPO). Figures correspond to the population of 15 years and other.

<sup>5/</sup> Unemployment rate in 32 cities. Figures correspond to the population of 15 years and older.

<sup>6/</sup> At the end of women's reproductive life.

<sup>7/</sup> Only data from public sector institutions. Data estimated in 2015.

<sup>8/</sup> Data estimated in 2015.

n.a. Not available.

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Table A 3 Infrastructure

	เกเลรเเ	ucture						
	2008	2009	2010	2011	2012	2013	2014	2015
National road network 1/2/								
Roads (km)	364,612	366,807	371,936	374,262	377,660	378,922	389,345	389,345
Federal toll roads (km)	8,064	8,335	8,397	8,459	8,900	9,174	9,457	9,457
Federal non-toll roads (km)	40,563	40,509	40,575	40,643	40,752	40,812	40,783	40,783
Paved roads (km) 3/	131,245	136,157	138,404	141,361	146,221	148,329	155,239	155,239
Railroad transportation 2/								
Total railroad network (km)	26,704	26,709	26,715	26,727	26,727	26,727	26,727	26,727
Passengers (million passengers/km) 4/	178	449	844	891	970	1,036	1,150	1,202
Commercial cargo (million tons/km) 5/	74,582	69,185	78,770	79,728	79,353	77,717	80,683	81,515
Air transportation <sup>2/</sup>								
Number of international airports	60	61	64	64	64	64	63	63
Passengers (thousands)	53,300	46,971	48,698	50,764	55,153	60,007	65,135	68,358
Cargo (thousands tons)	525	466	571	562	559	582	618	629
Sea transportation 2/								
Number of ports (sea and river)	114	116	116	117	117	117	117	117
Sea fright (international and domestic cargo, thousand tons)	265,237	241,923	272,811	282,902	283,462	288,696	286,134	292,469
Comunications <sup>2/</sup>								
Phones (thousands of lines in services)	20,491	19,506	19,919	19,731	19,791	19,881	20,103	20,799
Cellular phones (thousand subscribers)	75,323	83,219	91,384	94,583	100,727	103,762	102,188	102,000
Telegraph services (number of offices)	1,591	1,582	1,588	1,592	1,615	1,620	1,677	1,684
Postal services (locations served)	17,724	16,536	16,966	17,080	16,903	17,021	16,971	16,990
Radio stations <sup>6/</sup>	1,469	1,501	1,472	1,485	2,147	2,263	1,745	1,733
TV stations <sup>6/</sup>	702	691	688	693	1,044	1,037	1,071	1,119
Lodging (number of rooms) 7/	604,051	623,555	638,494	651,160	660,546	627,296	692,351	701,735
Energy								
Electric power generation (gigawatts/hour) 8/	267,696	266,564	274,701	290,755	294,637	296,342	301,467	174,294
Oil reserves (millions of barrels) 9/	43,563	43,075	43,074	43,837	44,530	42,158	37,400	n.a.

<sup>1/</sup> It refers to the National Road Inventory of December each year.

Source: Annual Government Report 2015, Mexico's Presidency and PEMEX.

<sup>2/</sup> Preliminary figures in 2014 and estimates in 2015.

<sup>3/</sup> For 2013, excludes road sections constructed and/or modernized, that are in the process of completion and delivery/reception.

<sup>4/</sup> From June 2008 onwards, figures include intercity and suburban service.

<sup>5/</sup> Excluding baggage and express service.

<sup>6/</sup> Includes broadcasting, concessions and licenses.

<sup>7/</sup> Figures as of December of each year, except for 2015, when preliminary figures are up to June.

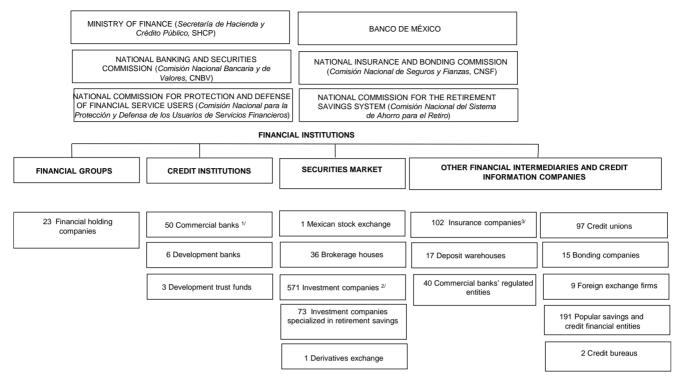
<sup>8/</sup> Includes Federal Electricity Commission (Comisión Federal de Electricidad, CFE) and Central Light and Power Company (Luz y Fuerza del Centro, LFC) and external energy producers. Data as of July 2015. 9/ As of December 31 of each year.

n.a. Not available.

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# Table A 4 Mexican Financial System

#### REGULATORY AUTHORITIES



<sup>1/</sup>The number of financial entities refers to those authorized as of December 2015.

Data as of December 2015.

Source: Banco de México.

<sup>2/</sup>Includes stock investment funds, fixed-income investment funds for individuals and enterprises, and equity investment funds.

<sup>3/</sup> Includes insurance companies, insurance companies specialized in pensions, health insurance companies, housing credit companies, and financial guarantee companies.

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## **Production and Employment**

Table A 5 **Main Production Indicators** 

2008 prices

Annual change in percent

	2011	2012	2013	2014	2015 <sup>p/</sup>
Gross Domestic Product	4.0	4.0	1.3	2.3	2.5
Private consumption	4.8	4.9	2.2	1.8	3.2
Public consumption	2.4	3.5	1.0	2.4	2.3
Private investment	12.1	9.0	-1.6	4.9	6.3
Public investment	-4.1	-9.0	-1.3	-4.7	-6.8
Exports (goods and services)	8.2	5.8	2.3	7.0	9.0
Imports (goods and services)	8.0	5.5	2.6	6.0	5.0

p/ Preliminary figures. Source: Mexico's System of National Accounts, INEGI.

Table A 6 **Gross Domestic Product** 

	MXN million at current prices	Exchange rate <sup>1/</sup>	USD million
2010	13,282,061.0	12.6360	1,051,127.9
2011	14,550,013.9	12.4233	1,171,185.2
2012	15,626,906.6	13.1695	1,186,602.1
2013	16,116,129.8	12.7720	1,261,833.7
2014	17,251,611.6	13.2925	1,297,850.4
2015 <sup>p/</sup>	18,135,706.4	15.8483	1,144,333.8

<sup>1/</sup> Exchange rate used to settle liabilities denominated in foreign currency, average of the period.

p/ Preliminary figures.
Source: Mexico's System of National Accounts, INEGI; Banco de México.

Table A 7 **Aggregate Supply and Demand** 2008 prices

	An	nual cha	ange in	percei	nt	Percent	of GDP
	2011	2012	2013	2014	2015 <sup>p/</sup>	2008	2015 <sup>p/</sup>
Aggregate supply	5.0	4.4	1.6	3.2	3.2	130.2	133.8
GDP	4.0	4.0	1.3	2.3	2.5	100.0	100.0
Imports	8.0	5.5	2.6	6.0	5.0	30.2	33.8
Aggregate demand	5.0	4.4	1.6	3.2	3.2	130.2	133.8
Total consumption	4.5	4.7	2.0	1.9	3.0	77.8	78.7
Private	4.8	4.9	2.2	1.8	3.2	66.9	67.7
Public	2.4	3.5	1.0	2.4	2.3	10.9	11.0
Total investment	7.8	4.8	-1.6	2.9	3.8	23.1	21.9
Private	12.1	9.0	-1.6	4.9	6.3	17.5	18.1
Public	-4.1	-9.0	-1.3	-4.7	-6.8	5.6	3.7
Exports	8.2	5.8	2.3	7.0	9.0	27.9	35.2

p/ Preliminary figures. Source: Mexico's System of National Accounts, INEGI.

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Table A 8 **Aggregate Supply and Demand** 

Annual change in percent with respect to the same period of last year

	2012	2013	2014			2015 <sup>p/</sup>		
	2012	2013	2014	ı	II	III	IV	Annual
Aggregate supply	4.4	1.6	3.2	3.5	3.1	3.6	2.4	3.2
GDP	4.0	1.3	2.3	2.5	2.3	2.8	2.5	2.5
Imports	5.5	2.6	6.0	6.7	5.4	6.2	2.2	5.0
Aggregate demand	4.4	1.6	3.2	3.5	3.1	3.6	2.4	3.2
Total consumption	4.7	2.0	1.9	3.0	3.0	2.8	3.3	3.0
Private	4.9	2.2	1.8	3.0	3.0	3.0	3.5	3.2
Public	3.5	1.0	2.4	3.4	2.6	1.5	1.8	2.3
Total investment	4.8	-1.6	2.9	5.5	5.5	4.1	0.6	3.8
Private	9.0	-1.6	4.9	7.4	7.0	7.6	3.5	6.3
Public	-9.0	-1.3	-4.7	-2.8	-1.1	-10.5	-11.4	-6.8
Exports	5.8	2.3	7.0	12.3	9.3	10.0	5.1	9.0

p/ Preliminary figures.
Source: Mexico's System of National Accounts, (INEGI).

Table A 9 **Domestic Saving and Investment** 

Percent of GDP at current prices

Item	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Financing of gross capital formation 1/	22.0	22.2	23.0	21.7	21.5	22.7
Financed with external savings 2/	0.5	1.1	1.4	2.4	1.9	2.8
Financed with domestic savings	21.6	21.1	21.7	19.3	19.6	19.9

p/ Preliminary figures.
Source: Banco de México with data from Mexico's System of National Accounts, INEGI and Banco de México.

<sup>1/</sup> Includes gross capital formation plus change in inventories.
2/ Current account stocks of the balance of payments, measured in MXN and as a proportion of GDP.

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Table A 10 **Gross Domestic Product by Sector** 

2008 prices

	Annual change in percent					Perd of C	
_	2011	2012	2013	2014	2015 <sup>p/</sup>	2008	2015 <sup>p/</sup>
Total	4.0	4.0	1.3	2.3	2.5	100.0	100.0
Primary sector	-2.3	7.4	0.9	4.3	3.1	3.2	3.1
Secondary sector	3.4	2.9	-0.5	2.6	1.0	35.6	33.2
Mining	-0.4	0.9	-0.1	-1.5	-5.8	8.6	6.7
Electricity, water supply and pipeline gas supply	6.9	2.1	0.5	8.2	3.8	2.1	2.3
Construction	4.1	2.5	-4.8	2.0	2.5	8.4	7.3
Manufacturing industry	4.6	4.1	1.1	3.9	2.9	16.5	16.8
Tertiary sector	4.7	4.5	2.4	1.9	3.3	58.6	61.0
Commerce	9.7	4.8	2.2	3.1	4.5	14.6	15.7
Transport, mail and warehousing services	4.0	4.1	2.4	3.4	3.4	5.7	5.9
Mass media services	4.4	16.3	5.0	0.2	10.1	2.6	3.5
Financial and insurance services	7.1	7.7	10.4	-0.9	0.9	3.2	4.4
Real estate and leasing services	2.9	2.5	1.0	2.0	2.3	11.8	11.9
Professional, scientific and technical services	5.1	1.1	1.2	1.7	3.4	2.4	2.2
Corporate and firm management services	3.5	8.6	-1.8	7.2	2.1	0.6	0.6
Business support services, waste management and remediation services	6.0	4.4	4.3	-0.2	1.0	3.3	3.1
Educational services	1.6	2.2	0.8	0.1	0.7	3.9	3.5
Health and social assistance services	2.1	2.1	0.6	-0.6	1.3	2.0	1.9
Cultural and sport services, and other recreational services	-0.7	2.9	3.4	-1.5	4.6	0.5	0.4
Temporary lodging services, and food and beverage-related services	1.5	5.4	1.8	2.9	5.9	2.3	2.2
Other services, except for government-related services	1.9	3.3	2.1	1.6	2.4	2.1	2.0
Government activity-related services	-1.4	3.7	-0.5	2.9	2.6	3.7	3.6

p/ Preliminary figures.
Source: Mexico's System of National Accounts, INEGI.

Table A 11 Manufacturing 2008 prices

	Annu	it		cent GDP		
<del>-</del>	2012	2013	2014	2015 <sup>p/</sup>	2008	2015 <sup>p/</sup>
Total	4.1	1.1	3.9	2.9	16.5	16.8
Food industry	2.6	1.0	0.5	1.6	3.7	3.5
Beverage and tobacco industries	2.6	-0.5	4.7	5.9	0.8	0.9
Textile input manufacturing	3.1	-2.7	-3.1	2.1	0.1	0.1
Textile manufacturing (except for apparel)	-0.1	3.5	6.3	10.1	0.1	0.1
Apparel industry	-0.5	3.3	-3.0	7.3	0.5	0.4
Leather product industry (except for leather clothing)	3.5	-0.6	-1.7	2.2	0.1	0.1
Timber industry	13.0	-2.2	1.1	3.1	0.2	0.2
Paper industry	4.8	2.1	3.1	3.2	0.3	0.3
Printing and printing-related industries	-4.1	-6.9	-2.2	1.1	0.1	0.1
Oil and coal by-product industries	1.1	3.3	-4.4	-7.7	0.7	0.5
Chemical industry	-0.3	8.0	-0.8	-1.0	2.2	1.8
Plastic and rubber industry	9.0	-1.9	5.3	4.7	0.4	0.5
Non-metal mineral products industry	2.3	-3.1	2.0	5.2	0.9	8.0
Basic metal industries	3.8	0.4	8.8	-3.8	1.2	1.1
Metal products industry	3.9	-3.3	6.0	5.8	0.6	0.6
Machinery and equipment	5.5	1.0	-0.6	-0.6	0.5	0.7
Manufacturing of measurement and other equipment, electronic						
components and accessories	0.5	3.8	10.6	6.9	0.7	0.8
Manufacturing of electric supply equipment and electric						
devices and accessories	1.7	-2.0	8.5	6.0	0.5	0.5
Transport equipment manufacturing	13.9	5.6	12.1	7.0	2.1	3.2
Manufacturing of furniture and furniture-related products	2.8	-6.0	-1.8	7.9	0.2	0.2
Other manufacturing industries	0.4	0.0	6.4	3.9	0.4	0.4

p/ Preliminary figures.
Source: Mexico's System of National Accounts, INEGI.

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Table A 12 Crude Oil, Gas Production and Crude Oil Reserves

Year —	Crude oil (Million barrels)		<b>Natural gas</b> (Million cubic feet	Total oil reserves <sup>1/</sup>
			per day)	(Billion barrels)
	Total	Daily average	Total	Total
2001	1,141.4	3.127	4,511	53.0
2002	1,159.6	3.177	4,423	50.0
2003	1,230.4	3.371	4,498	48.0
2004	1,238.1	3.383	4,573	46.9
2005	1,216.7	3.333	4,818	46.4
2006	1,188.3	3.256	5,356	45.4
2007	1,122.6	3.076	6,058	44.5
2008	1,021.7	2.792	6,919	43.6
2009	949.5	2.601	7,031	43.1
2010	940.6	2.577	7,020	43.1
2011	931.7	2.553	6,594	43.8
2012	932.5	2.548	6,385	44.5
2013	920.6	2.522	6,370	42.2
2014	886.5	2.429	6,532	37.4
2015 <sup>p/</sup>	827.4	2.267	6,401	n.a.

1/ Figures up to December 31.
p/ Preliminary figures.
n.a. Not available.
Source: Institutional Database and Oil Statistics (*Indicadores Petroleros*), PEMEX.

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Table A 13 **Employment: IMSS-insured Workers 1/** Thousands

Year <sup>2/</sup>	Permanent	Temporary in urban areas	Total
2010	12,826	1,786	14,612
2011	13,267	1,936	15,202
2012	13,848	2,054	15,902
2013	14,250	2,105	16,356
2014	14,783	2,269	17,052
2015	15,381	2,304	17,685
2014 Jan	14,228	2,132	16,360
Feb	14,303	2,174	16,477
Mar	14,374	2,203	16,577
Apr	14,437	2,215	16,653
May	14,504	2,224	16,728
Jun	14,559	2,246	16,804
Jul	14,586	2,267	16,853
Aug	14,620	2,287	16,907
Sep	14,708	2,338	17,045
Oct	14,831	2,376	17,208
Nov	14,911	2,402	17,312
Dec	14,783	2,269	17,052
2015 Jan	14,794	2,303	17,097
Feb	14,885	2,336	17,221
Mar	14,969	2,360	17,328
Apr	15,024	2,373	17,397
May	15,062	2,369	17,431
Jun	15,146	2,393	17,539
Jul	15,188	2,403	17,591
Aug	15,250	2,402	17,651
Sep	15,344	2,417	17,761
Oct	15,461	2,443	17,904
Nov	15,548	2,458	18,006
Dec	15,381	2,304	17,685

1/ Permanent and temporary workers in urban areas.
2/ Data as of the end of the year.
Source: Mexican Social Security Institute (Instituto Mexicano del Seguro Social, IMSS).

Table A 14
Employment and Unemployment Indicators 1/

Percent

		In relation to eco	nomic active popu	ılation	In relation	to employed p	opulation
		National unemployment rate <sup>2/</sup>	Unemployment rate in urban areas <sup>3/</sup>	Partial employment and unemployment rate <sup>4/</sup>	Underemployment rate 5/	Informal labor rate <sup>6/</sup>	Employment rate in the informal sector <sup>7/</sup>
2012		4.9	5.8	11.4	8.5	59.6	28.7
2013		4.9	5.7	11.2	8.4	58.8	28.3
2014		4.8	5.9	11.0	8.1	57.8	27.4
2015		4.3	5.1	10.6	8.4	57.8	27.4
2014	1	4.8	6.0	11.0	8.3	58.0	27.8
	II	4.9	6.1	11.3	8.2	57.6	27.3
	III	5.2	6.3	11.3	8.1	57.9	27.1
	IV	4.4	5.1	10.4	8.0	57.9	27.5
2015	- 1	4.2	5.1	10.3	8.1	57.6	27.1
	II	4.3	5.2	10.7	8.3	57.8	27.3
	III	4.6	5.4	10.7	8.5	57.8	27.4
	IV	4.2	4.9	10.8	8.6	58.2	27.8

<sup>1/</sup> Figures refer to individuals 15 years old and older.

Source: National Employment Survey (Encuesta Nacional de Ocupación y Empleo, ENOE).

<sup>2/</sup> Ratio of unemployed population to economic active population. The unemployed population is composed of individuals that were not engaged in working activities during the reference week, but were searching for work during the last month.

<sup>3/</sup> Unemployment rate in 32 cities is generated based on data from the monthly National Employment Survey (ENOE).

<sup>4/</sup> Percent of economic active population that is not working, plus the individuals that worked less than 15 hours during the reference week.

<sup>5/</sup> Employed individuals needing and willing to work more hours than those spent in their current jobs.

<sup>6/</sup> It refers to the sum, without duplicating, of the vulnerable individuals in terms of work, due to the nature of the economic unit they work for, with those whose work ties and employee status are not recognized as their source of employment. This rate includes —besides those working in non-registered small businesses or in the informal sector— other analogous modalities, such as self-employed in subsistence agriculture, as well as workers without the social security and whose services are used by registered economic units.

<sup>7/</sup> Percent of employed population working in economic non-agricultural units operating with no accounting records and financed with households' funds, or by an individual in charge of the activity, without identifying it as an independent enterprise. Thus, this production unit is not an identifiable entity, independent from the household or an individual in charge of it. Therefore, this production unit ends up operating on a small scale.

Table A 15 Real Exchange Rate Index 1/

			Indices 1990 = 100		Ar	nual change in pe	rcent
Year	respe	eral with ect to the U.S.	Multilateral GDP- weighted <sup>2/</sup>	Multilateral trade- weighted <sup>3/</sup>	Bilateral with respect to the U.S.	Multilateral GDP- weighted <sup>2/</sup>	Multilateral trade- weighted <sup>3/</sup>
1997	9	95.0	85.8	94.2	-11.7	-16.6	-13.5
1998	Ş	95.8	84.5	92.7	0.9	-1.6	-1.6
1999	8	38.0	77.6	84.4	-8.1	-8.1	-8.9
2000	8	32.2	68.7	77.4	-6.7	-11.5	-8.3
2001	7	78.5	62.6	72.4	-4.5	-8.8	-6.5
2002	7	78.4	60.9	71.9	-0.1	-2.8	-0.6
2003	8	35.7	71.6	80.4	9.3	17.5	11.8
2004	8	38.0	77.0	84.0	2.6	7.5	4.4
2005	8	34.4	73.6	81.2	-4.0	-4.4	-3.2
2006	8	34.1	72.7	81.3	-0.3	-1.2	0.0
2007	8	33.4	74.8	82.1	-0.8	2.9	1.1
2008	8	33.8	78.1	83.9	0.4	4.5	2.2
2009	9	96.5	88.6	95.8	15.1	13.4	14.2
2010	8	38.0	81.6	88.6	-8.7	-7.9	-7.5
2011	8	36.3	82.8	88.3	-2.0	1.5	-0.4
2012	8	39.7	83.9	91.1	4.0	1.3	3.2
2013	8	35.0	77.5	86.0	-5.2	-7.6	-5.6
2014	8	36.4	77.0	87.0	1.7	-0.7	1.1
2015	10	00.5	82.0	98.0	16.2	6.5	12.7
2014	I 8	36.0	77.6	86.9	1.7	-1.0	1.1
	II 8	35.6	77.5	86.6	2.7	1.8	2.9
I	II 8	35.8	76.6	86.6	-0.8	-1.4	-0.8
ľ	/ 8	38.3	76.2	87.9	3.1	-2.1	1.4
2015	1 9	94.1	77.8	92.6	9.4	0.3	6.5
	II 9	97.9	80.0	95.9	14.4	3.3	10.8
ı	II 10	04.8	85.1	101.9	22.1	11.1	17.6
ľ	/ 10	)5.1	84.9	101.7	19.0	11.5	15.6

<sup>1/</sup>An increase in the index implies a depreciation of the Mexican peso.
2/The real effective exchange rate is estimated based on consumer prices and with respect to a basket of 111 countries, weighted with the GDP of each

one of them.

3/ The real effective exchange rate is estimated based on consumer prices and with respect to a basket of 111 countries, weighted with the GDP of each one of them.

3/ The real effective exchange rate is estimated based on consumer prices and with respect to a basket of 49 countries, weighted by the participation of each country in trade with Mexico. The trade with these countries represents approximately 98% of total trade of Mexico.

Source: Prepared by Banco de México with data from the IMF, INEGI, OECD and central banks.

## **Prices, Wages and Productivity**

Table A 16 **Main Price Indicators** Annual change in percent

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Prices												
Consumer prices												
End-period	5.19	3.33	4.05	3.76	6.53	3.57	4.40	3.82	3.57	3.97	4.08	2.13
Annual average	4.69	3.99	3.63	3.97	5.12	5.30	4.16	3.41	4.11	3.81	4.02	2.72
Producer prices. Finished merchandise excluding oil												
End-period	7.97	2.46	7.12	3.69	10.48	1.99	4.39	7.19	0.94	0.13	4.24	5.29
Annual average	8.58	3.56	6.12	4.25	7.38	5.91	3.25	5.23	4.56	-0.17	2.29	5.43
Producer prices. Finished merchand. and serv. excl. oil												
End-period	6.52	3.59	5.39	3.57	7.75	3.29	3.70	5.74	1.54	1.71	3.70	4.20
Annual average	6.43	4.22	5.12	3.83	5.79	5.36	3.57	4.21	4.22	1.24	2.53	4.29
Producer prices. Finished merchand. and serv. with oil												
End-period	6.57	4.01	5.50	4.40	6.50	4.34	3.89	6.58	1.01	1.47	1.79	3.03
Annual average	6.81	4.52	5.39	4.05	6.33	4.88	3.82	4.92	4.32	0.99	1.95	2.28
Construction cost index (residential) 1/												
End-period	12.15	-0.39	8.50	3.04	9.57	-0.33	4.54	9.28	0.78	-0.06	3.75	6.42
Annual average	12.25	1.19	7.58	3.36	9.70	-0.06	3.84	6.07	4.65	0.15	2.74	4.82

<sup>1/</sup> Starting from January 2004, this indicator replaced the Social Housing Construction Index (Índice Nacional del Costo de Edificación de Vivienda de Interés Social, INCEVIS).
Source: Banco de México and INEGI.

Table A 17 Consumer Price Index (CPI) 2nd fortnight Dec 2010 base

			С	hange in percent	
	Month	CPI		Annual	
		2nd fortnight Dec 2010	Annual	12-month moving	Monthly
				average	
2000	Dec	64.303	8.96	9.49	
2001	Dec	67.135	4.40	6.37	
2002	Dec	70.962	5.70	5.03	
2003	Dec	73.784	3.98	4.55	
2004	Dec	77.614	5.19	4.69	
2005	Dec	80.200	3.33	3.99	
2006	Dec	83.451	4.05	3.63	
2007	Dec	86.588	3.76	3.97	
2008	Dec	92.241	6.53	5.12	
2009	Dec	95.537	3.57	5.30	
2010	Dec	99.742	4.40	4.16	
2011	Dec	103.551	3.82	3.41	
2012	Dec	107.246	3.57	4.11	
2013	Dec	111.508	3.97	3.81	
2014	Jan	112.505	4.48	3.91	0.89
	Feb	112.790	4.23	3.97	0.25
	Mar	113.099	3.76	3.93	0.27
	Apr	112.888	3.50	3.83	-0.19
	May	112.527	3.51	3.74	-0.32
	Jun	112.722	3.75	3.71	0.17
	Jul	113.032	4.07	3.76	0.28
	Aug	113.438	4.15	3.82	0.36
	Sep	113.939	4.22	3.89	0.44
	Oct	114.569	4.30	3.96	0.55
	Nov	115.493	4.17	4.01	0.81
	Dec	116.059	4.08	4.02	0.49
2015	Jan	115.954	3.07	3.90	-0.09
	Feb	116.174	3.00	3.79	0.19
	Mar	116.647	3.14	3.74	0.41
	Apr	116.345	3.06	3.70	-0.26
	May	115.764	2.88	3.65	-0.50
	Jun	115.958	2.87	3.58	0.17
	Jul	116.128	2.74	3.46	0.15
	Aug	116.373	2.59	3.34	0.21
	Sep	116.809	2.52	3.19	0.37
	Oct	117.410	2.48	3.04	0.51
	Nov	118.051	2.21	2.88	0.55
	Dec	118.532	2.13	2.72	0.41

Table A 18 Consumer Price Index (CPI) by Type of Good

Annual change in percent 2nd fortnight Dec 2010 base

	Month	СРІ	Food, beverages and tobacco	Apparel, footwear and accessories	Housing	Furniture and household goods	Medical and personal care	Transport	Education and entertainment	Other goods and services
2002	Dec	5.70	5.45	2.19	9.54	-2.08	3.72	3.95	7.25	6.47
2003	Dec	3.98	4.31	0.32	4.20	0.16	4.35	2.47	6.35	5.88
2004	Dec	5.19	8.17	1.14	5.04	1.28	2.89	5.38	4.77	4.72
2005	Dec	3.33	2.24	1.26	3.60	1.87	3.87	3.50	5.09	4.46
2006	Dec	4.05	6.27	1.24	3.27	1.75	3.41	3.54	4.41	4.17
2007	Dec	3.76	6.00	1.31	2.32	1.85	4.04	3.16	4.19	4.49
2008	Dec	6.53	10.24	2.30	5.44	6.11	4.83	5.47	5.51	6.51
2009	Dec	3.57	4.24	3.47	0.94	5.51	4.94	5.35	4.04	4.36
2010	Dec	4.40	5.29	3.34	2.92	2.66	4.27	6.88	3.89	4.82
2011	Dec	3.82	6.02	3.43	2.10	2.83	1.94	4.99	3.15	4.47
2012	Dec	3.57	7.20	2.51	-0.68	4.56	5.01	4.54	3.15	5.10
2013	Dec	3.97	4.11	1.52	3.84	0.67	2.27	7.33	3.64	3.52
2014	Jan	4.48	5.19	1.51	3.75	1.21	2.78	8.27	3.80	4.45
	Feb	4.23	4.97	1.81	3.10	1.44	1.95	8.06	3.79	4.95
	Mar	3.76	3.43	1.60	2.95	1.87	1.99	7.76	3.33	5.19
	Apr	3.50	2.46	1.82	2.60	2.07	2.29	7.07	4.18	5.67
	May	3.51	3.25	1.84	2.06	2.10	2.33	7.10	3.64	5.62
	Jun	3.75	4.45	2.22	2.10	1.55	2.52	6.57	3.55	5.72
	Jul	4.07	5.41	2.27	2.28	2.03	2.31	6.60	3.68	5.87
	Aug	4.15	5.70	2.50	2.26	2.47	2.57	6.22	3.56	6.11
	Sep	4.22	6.16	2.42	2.23	2.05	2.51	6.00	3.73	6.21
	Oct	4.30	6.47	2.40	2.10	2.00	2.78	6.01	3.82	6.48
	Nov	4.17	6.00	2.33	2.14	1.70	3.40	5.55	3.88	6.59
	Dec	4.08	6.54	2.27	2.02	1.58	2.87	4.45	3.85	6.80
2015	Jan	3.07	5.24	2.03	0.80	1.47	2.16	3.01	3.57	5.85
	Feb	3.00	4.99	2.09	0.65	1.87	3.37	2.78	3.54	5.43
	Mar	3.14	4.93	2.34	0.59	1.85	3.20	3.67	4.06	5.28
	Apr	3.06	5.40	2.52	0.62	2.07	3.20	2.89	3.20	4.91
	May	2.88	4.27	2.65	0.65	1.89	3.13	3.20	3.64	4.73
	Jun	2.87	4.26	2.80	0.57	2.22	2.86	3.34	3.69	4.62
	Jul	2.74	3.95	2.75	0.45	2.28	2.89	3.14	3.74	4.58
	Aug	2.59	3.20	2.37	0.56	2.02	3.19	3.12	3.76	4.76
	Sep	2.52	2.88	2.37	0.63	2.38	3.40	2.89	3.63	4.83
	Oct	2.48	2.95	2.62	0.58	3.01	3.51	2.46	3.53	4.68
	Nov	2.21	2.62	2.89	-0.02	3.33	3.26	2.39	3.46	4.55
	Dec	2.13	2.32	2.90	-0.07	2.94	3.33	2.43	3.55	4.51

Table A 19 Inflation: CPI, Core and Complementary CPI Subindices

Annual change in percent 2nd fortnight Dec 2010 base

	Month	СРІ	Core 1/	Merchandise	Services	Non-Core	Agricultural	Energy and government approved fares
2006	Dec	4.05	3.65	3.42	3.84	5.42	8.30	3.72
2007	Dec	3.76	3.87	4.52	3.33	3.39	3.42	3.36
2008	Dec	6.53	5.54	6.50	4.72	9.80	11.63	8.68
2009	Dec	3.57	4.16	5.57	2.94	1.72	1.66	1.76
2010	Dec	4.40	3.58	3.82	3.36	7.09	6.96	7.16
2011	Dec	3.82	3.35	4.52	2.40	5.34	3.73	6.19
2012	Dec	3.57	2.90	5.00	1.15	5.74	9.18	3.84
2013	Dec	3.97	2.78	1.89	3.54	7.84	6.67	8.65
2014	Jan	4.48	3.21	2.93	3.47	8.58	6.21	10.13
	Feb	4.23	2.98	2.91	3.05	8.28	5.43	10.12
	Mar	3.76	2.89	2.88	2.90	6.54	1.49	9.73
	Apr	3.50	3.11	2.97	3.23	4.75	-1.13	8.52
	May	3.51	3.00	3.08	2.94	5.19	0.67	8.14
	Jun	3.75	3.09	3.24	2.96	5.96	3.37	7.59
	Jul	4.07	3.25	3.37	3.15	6.83	5.78	7.47
	Aug	4.15	3.37	3.56	3.22	6.72	6.22	7.03
	Sep	4.22	3.34	3.46	3.24	7.11	7.57	6.82
	Oct	4.30	3.32	3.53	3.14	7.51	8.46	6.93
	Nov	4.17	3.34	3.68	3.06	6.78	7.04	6.62
	Dec	4.08	3.24	3.50	3.03	6.70	8.61	5.55
2015	Jan	3.07	2.34	2.43	2.26	5.34	8.50	3.49
	Feb	3.00	2.40	2.64	2.20	4.88	8.32	2.90
	Mar	3.14	2.45	2.60	2.32	5.29	8.34	3.52
	Apr	3.06	2.31	2.65	2.03	5.46	9.86	2.89
	May	2.88	2.33	2.44	2.23	4.64	7.50	2.90
	Jun	2.87	2.33	2.48	2.20	4.63	7.67	2.80
	Jul	2.74	2.31	2.47	2.18	4.12	6.94	2.42
	Aug	2.59	2.30	2.36	2.25	3.51	5.14	2.51
	Sep	2.52	2.38	2.54	2.24	2.96	3.98	2.33
	Oct	2.48	2.47	2.73	2.25	2.52	3.91	1.68
	Nov	2.21	2.34	2.79	1.95	1.84	2.70	1.33
	Dec	2.13	2.41	2.82	2.07	1.28	1.72	1.00

<sup>1/</sup> Core inflation is obtained by eliminating from the CPI calculation the goods and services with more volatile prices, otherwise its determination process does not correspond to market conditions. Thus, the groups excluded from the core component are the following: agricultural and energy and fares approved by government.
Source: Banco de México and INEGI.

Table A 20 Producer Price Index (PPI) Excluding Oil
June 2012 base = 100

	Finis	shed mercha	ndise		Services		Finished m	erchandise	and services
Period		Percentag	je change		Percenta	ge change		Percenta	ige change
101104	Index	Annual	Monthly	Index	Annual	Monthly	Index	Annual	Monthly
2000 Dec	54.953	7.38	0.57	61.126	9.60	1.03	58.108	8.58	0.82
2001 Dec	56.386	2.61	-0.32	64.656	5.77	0.37	60.626	4.33	0.06
2002 Dec	59.934	6.29	0.31	68.010	5.19	0.31	64.061	5.67	0.31
2003 Dec	63.673	6.24	0.85	70.142	3.13	0.27	66.960	4.52	0.53
2004 Dec	68.747	7.97	-0.29	73.828	5.25	0.41	71.328	6.52	0.08
2005 Dec	70.438	2.46	0.45	77.225	4.60	0.34	73.886	3.59	0.39
2006 Dec	75.454	7.12	0.30	80.202	3.85	0.14	77.865	5.39	0.21
2007 Dec	78.235	3.69	0.00	82.976	3.46	0.31	80.643	3.57	0.16
2008 Dec	86.436	10.48	0.33	87.342	5.26	0.42	86.896	7.75	0.38
2009 Dec	88.156	1.99	-0.05	91.306	4.54	0.80	89.756	3.29	0.39
2010 Dec	92.026	4.39	0.72	94.102	3.06	0.65	93.080	3.70	0.68
2011 Dec	98.640	7.19	0.73	98.215	4.37	1.01	98.424	5.74	0.87
2012 Dec	99.570	0.94	-0.36	100.488	2.31	-0.15	99.937	1.54	-0.27
2013 Jan	99.392	0.06	-0.18	101.025	3.43	0.53	100.045	1.58	0.11
Feb	99.478	0.42	0.09	102.030	4.23	0.99	100.499	2.06	0.45
Mar	99.546	0.67	0.07	102.375	3.52	0.34	100.678	1.81	0.18
Apr	98.934	-0.01	-0.61	102.485	3.59	0.11	100.355	1.43	-0.32
May	98.569	-0.68	-0.37	102.548	3.01	0.06	100.161	0.77	-0.19
Jun	99.101	-0.90	0.54	102.864	2.86	0.31	100.606	0.61	0.44
Jul	98.565	-0.71	-0.54	103.281	2.94	0.41	100.452	0.76	-0.15
Aug	98.692	-0.41	0.13	103.211	2.77	-0.07	100.500	0.87	0.05
Sep	99.286	-0.17	0.60	103.537	2.83	0.32	100.987	1.04	0.48
Oct	99.247	-0.18	-0.04	103.781	2.88	0.24	101.061	1.06	0.07
Nov	99.626	-0.30	0.38	104.006	3.34	0.22	101.378	1.16	0.31
Dec	99.704	0.13	0.08	104.548	4.04	0.52	101.642	1.71	0.26
2014 Jan	100.420	1.03	0.72	104.408	3.35	-0.13	102.016	1.97	0.37
Feb	100.962	1.49	0.54	104.989	2.90	0.56	102.573	2.06	0.55
Mar	101.018	1.48	0.06	105.210	2.77	0.21	102.695	2.00	0.12
Apr	100.820	1.91	-0.20	105.498	2.94	0.27	102.691	2.33	0.00
May	100.896	2.36	0.08	105.420	2.80	-0.07	102.706	2.54	0.01
Jun	100.584	1.50	-0.31	105.677	2.73	0.24	102.621	2.00	-0.08
Jul	100.953	2.42	0.37	106.160	2.79	0.46	103.036	2.57	0.40
Aug	101.513	2.86	0.55	106.118	2.82	-0.04	103.355	2.84	0.31
Sep	101.705	2.44	0.19	106.516	2.88	0.37	103.630	2.62	0.27
Oct	102.075	2.85	0.36	106.669	2.78	0.14	103.913	2.82	0.27
Nov	102.470	2.85	0.39	106.913	2.80	0.23	104.248	2.83	0.32
Dec	103.934	4.24	1.43	107.614	2.93	0.66	105.406	3.70	1.11
2015 Jan	104.650	4.21	0.69	106.893	2.38	-0.67	105.548	3.46	0.13
Feb	104.996	4.00	0.33	107.367	2.26	0.44	105.945	3.29	0.38
Mar	105.813	4.75	0.78	108.138	2.78	0.72	106.743	3.94	0.75
Apr	105.952	5.09	0.13	108.130	2.50	-0.01	106.823	4.02	0.08
May	105.704	4.77	-0.23	108.166	2.61	0.03	106.689	3.88	-0.13
Jun	106.242	5.63	0.51	108.471	2.64	0.28	107.134	4.40	0.42
Jul	107.000	5.99	0.71	108.993	2.67	0.48	107.797	4.62	0.62
Aug	107.751	6.15	0.70	109.291	2.99	0.27	108.367	4.85	0.53
Sep	108.422	6.60	0.62	109.672	2.96	0.35	108.922	5.11	0.51
Oct	108.587	6.38	0.15	109.729	2.87	0.05	109.044	4.94	0.11
Nov	108.907	6.28	0.29	109.691	2.60	-0.03	109.220	4.77	0.16
Dec	109.432	5.29	0.48	110.440	2.63	0.68	109.835	4.20	0.56

Table A 21
Producer Price Index (PPI) Excluding Oil

Classified by finished goods' end use Annual change in percent in December of each year

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PPI finished merchandise and services	3.59	5.39	3.57	7.75	3.29	3.70	5.74	1.54	1.71	3.70	4.20
Domestic demand	3.99	5.25	3.67	7.24	3.32	3.44	5.45	2.49	2.51	3.32	3.13
Consumption	4.56	4.03	3.70	6.24	4.07	3.33	4.75	2.88	3.35	2.95	2.33
Investment	0.82	10.77	2.81	12.55	-0.53	3.58	8.78	0.65	-0.16	4.52	5.74
Exports	0.63	6.41	2.81	11.61	3.11	5.61	7.77	-2.12	-0.94	5.02	7.79
PPI finished merchandise	2.46	7.12	3.69	10.48	1.99	4.39	7.19	0.94	0.13	4.24	5.29
Domestic demand	3.21	7.16	3.90	10.07	1.92	4.05	6.90	2.83	0.95	3.75	3.57
Consumption	4.84	4.94	4.60	8.42	3.64	4.40	5.68	4.66	1.86	3.46	2.80
Investment	0.56	10.91	2.75	12.77	-0.76	3.48	8.87	0.42	-0.25	4.14	4.61
Exports	-0.58	6.94	2.79	12.25	2.30	5.79	8.36	-3.33	-1.35	5.16	8.45
PPI services	4.60	3.85	3.46	5.26	4.54	3.06	4.37	2.31	4.04	2.93	2.63
Domestic demand	4.59	3.81	3.49	5.04	4.46	2.96	4.29	2.16	4.10	2.89	2.69
Consumption	4.41	3.53	3.20	5.02	4.32	2.72	4.21	1.83	4.26	2.65	2.04
Investment	9.34	6.70	4.59	5.89	6.84	6.67	6.20	6.09	0.69	8.20	16.23
Exports	4.93	4.63	2.88	9.40	5.99	4.97	5.76	5.06	3.04	3.72	1.41

Source: Banco de México and INEGI.

Table A 22 Producer Price Index (PPI) Excluding Oil

Classified by origin of finished goods

Annual change in percent in December of each year

ltem	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PPI finished merchandise and services	3.59	5.39	3.57	7.75	3.29	3.70	5.74	1.54	1.71	3.70	4.20
Agriculture, livestock, forest use, fishing and hunting	8.32	8.42	4.45	14.16	-0.51	13.20	3.46	5.76	-0.10	4.65	1.52
Mining	5.22	31.48	10.39	-3.82	31.26	17.60	9.17	-2.60	-0.35	9.20	16.06
Electricity, water supply and pipeline gas supply	4.41	4.60	4.07	11.70	-0.33	4.90	5.30	3.68	4.25	3.58	-2.77
Construction	0.61	11.76	2.90	13.08	-0.95	3.89	9.29	0.41	-0.69	4.46	4.38
Manufacturing industry	2.46	4.81	3.82	9.03	3.38	3.23	6.81	1.30	0.28	4.17	6.06
Transport, mail and w arehousing services	5.94	2.87	2.73	6.07	6.86	2.73	5.74	2.99	4.20	2.57	2.96
Mass media services							2.67	-13.84	13.08	-3.81	-14.38
Real estate and leasing services	2.85	3.30	2.72	3.62	2.16	2.24	1.96	2.04	2.11	2.03	1.89
Professional, scientific and technical services							5.69	2.85	2.47	4.23	3.13
Business support services, waste management and remediation services							2.14	5.09	4.38	4.45	7.22
Educational services							4.37	6.91	4.53	4.37	4.36
Health and social assistance services							3.75	3.03	3.91	3.45	3.65
Cultural and sport services, and other recreational services							2.91	4.19	2.18	2.93	3.63
Temporary lodging services and food and beverage-related services	3.94	3.83	3.96	6.02	3.55	3.69	4.74	4.03	3.06	5.11	3.93
Other services excluding government activity services							3.28	3.25	2.91	2.97	2.83

Table A 23
Construction Cost Index

Annual change in percent in December of each year

ltem	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
General index	0.61	11.76	2.90	13.08	-0.95	4.80	9.29	0.41	-0.69	4.46	4.38
Construction materials index	-0.24	14.11	2.55	15.47	-1.84	5.16	10.56	-0.16	-1.39	4.54	4.41
Non-metal minerals	3.65	2.82	4.88	7.78	2.58	3.16	4.81	4.98	4.30	5.10	5.30
Cement and concrete	0.18	4.76	4.71	8.72	0.14	5.37	9.04	1.24	-1.97	5.58	10.14
Cementing materials	3.83	5.19	3.38	10.40	3.26	5.01	5.91	4.98	0.63	4.75	7.21
Clay materials	4.53	6.59	3.67	6.30	0.21	2.85	1.68	1.48	2.84	2.15	6.95
Concrete products	1.68	8.20	3.18	5.06	0.98	1.82	3.16	2.44	1.64	3.18	7.67
Concrete structures	2.04	7.93	4.35	11.35	-0.25	3.24	6.75	1.72	1.15	2.85	6.68
Other concrete products	2.86	7.96	1.47	8.19	0.70	2.51	3.95	1.96	-0.26	5.13	3.27
Other non-metal mineral products	7.27	7.83	0.53	7.77	-3.32	3.05	6.32	7.47	-2.03	3.53	4.96
Timber products	4.46	4.12	3.38	7.27	1.80	3.03	2.86	5.04	1.48	1.83	7.44
Paint and similar materials	6.76	3.05	0.85	19.19	-0.27	5.01	14.83	1.27	2.91	0.17	7.41
Plastic materials	18.90	5.10	-1.68	8.36	-4.76	5.37	3.26	2.39	-0.56	3.47	7.82
Other chemical products	9.03	29.07	0.98	49.02	-10.00	7.40	15.62	-5.34	-6.52	13.68	-19.64
Metal products	-1.33	30.58	0.90	26.13	-7.13	5.54	11.50	-1.55	-4.30	4.53	1.42
Wire products	-23.82	23.86	-3.55	24.34	-8.83	5.22	36.15	-10.69	-8.24	-1.20	4.17
Electric equipment	0.10	12.82	6.04	15.68	2.24	1.71	6.22	5.28	-0.15	1.39	6.23
Electric accessories	18.88	52.24	0.54	-4.09	6.34	15.71	5.63	1.22	-5.74	-0.33	4.75
Furniture and accessories	3.84	10.02	4.56	11.52	3.14	2.39	4.24	5.14	3.80	1.71	10.31
Other materials and accessories	4.15	8.74	2.84	16.92	-0.36	7.70	7.51	2.55	1.57	6.45	5.65
Rented machinery and equipment subindex	2.78	2.79	2.89	6.89	1.82	3.24	5.26	-0.24	1.43	5.14	6.77
Worker earnings' subindex	3.83	3.79	4.35	3.55	3.07	3.32	3.80	3.21	2.87	3.91	3.78

Table A 24 **Contractual Wages** 

				Contractu	ıalwages				
	eriod		Total		Manufactures				
·	criou	Annual increase (percent)	Number of workers (thousand)	Number of firms	Annual increase (percent)	Number of workers (thousand)	Number of firms		
2004	Average	4.1	1,776	5,920	4.6	534.7	2,431		
2005	Average	4.4	1,783	5,957	4.7	541.2	2,476		
2006	Average	4.1	1,684	5,819	4.4	482.7	2,433		
2007	Average	4.2	1,858	6,251	4.4	566.8	2,546		
2008	Average	4.4	1,910	6,308	4.7	557.5	2,768		
2009	Average	4.4	1,824	6,645	4.4	511.5	2,930		
2010	Average	4.3	1,882	6,825	4.8	560.0	3,268		
2011	Average	4.3	1,971	7,192	4.7	612.8	3,445		
2012	Average	4.4	2,073	7,442	4.8	638.1	3,405		
2013	Average	4.3	2,072	7,802	4.6 1/		3,403 1		
2014	Average	4.1	2,198	8,250	4.5	708.7	3,584		
2015	Average	4.1	2,230	8,334	4.6	760.3	3,725		
2012	Jan	4.4	171.4	603	4.9	53.9	293		
	Feb	4.5	232.6	902	4.7	106.0	441		
	Mar	4.5	168.3	888	4.6	90.0	464		
	Apr	4.5	122.7	756	4.8	44.3	314		
	May	4.4	211.0	782	4.5	52.2	374		
	Jun	4.5	100.8	715	4.6	41.8	290		
	Jul	4.4	239.7	391	4.6	21.3	158		
	Aug	5.0	114.0	736	4.9	61.2	313		
	Sep	5.0	56.8	498	4.6	31.2	227		
	Oct	4.2	570.0	501	5.1	100.1	236		
	Nov	4.6	49.5	399	4.9	20.3	178		
	Dec	4.9	35.9	271	5.3	15.9	117		
2013	Jan	4.3	185.0	535	4.8 1/	47.2 <sup>1/</sup>	245 1/		
	Feb	4.4	213.8	864	4.7	103.5	392		
	Mar	4.5	147.0	898	4.6	78.0	419		
	Apr	4.3	250.0	793	4.6	80.1	422		
	May	4.6	126.1	726	4.8	69.4	371		
	Jun	4.6	90.4	557	4.3	41.6	276		
	Jul	4.1	237.3	582	4.6	25.5	230		
	Aug	4.6	79.7	941	4.7	46.9	285		
	Sep	4.4	80.3	544	4.7	43.5	234		
	Oct	4.0	560.5	522	4.7	87.1	241		
	Nov	4.2	49.8	438	4.4	21.1	182		
	Dec	4.2	51.5	402	4.3	25.0	106		
2014 <sup>p</sup>	Jan Feb	3.8 4.4	186.8 205.6	707 822	4.5 4.5	51.3 97.3	308 408		
	Mar	4.4	181.4	1,014	4.5	110.3	499		
	Apr	4.0	275.7	762	4.6	74.7	367		
	May	4.4	100.2	638	4.2	58.9	334		
	Jun	4.4	82.1	650	4.4	42.7	339		
	Jul	4.1	240.7	436	4.3	26.1	190		
	Aug	4.5	113.7	734	4.8	56.3	297		
	Sep	4.2	87.8	588	4.2	44.2	258		
	Oct	3.7	611.1	625	4.5	105.4	256		
	Nov	4.3	48.1	378	4.5	15.7	164		
	Dec	3.9	64.6	896	4.7	25.7	164		
2015	Jan	4.3	192.2	530	4.6	65.3	262		
	Feb	4.4	211.7	822	4.4	103.8	427		
	Mar	4.3	225.0	1,174	4.6	122.8	591		
	Apr	4.1	241.6	750	4.8	80.3	375		
	May	4.4	158.0	762	4.9	62.1	352		
	Jun	4.4	108.4	795	4.3	47.7	352		
	Jul	4.8	43.4	377	4.7	30.4	206		
	Aug	4.4	86.9	717	4.7	51.2	306		
	Sep	4.1	251.0	574	4.2	34.7	255		
	Oct	3.6	597.7	578	4.6	108.6	240		
	Nov	4.0	75.1	474	4.3	37.3	237		
	Dec	4.3	38.4	781	4.3	16.1	122		

<sup>1/</sup> Data of Manufacturing as of 2013 correspond to the classification of the Industrial Classification System of North America (2007).

p/ Preliminary figures starting from the indicated date.

Note: Annual wage increase figures correspond to weighted averages of monthly figures. Annual figures of number of workers and number of firms correspond to total monthly figures. Source: Ministry of Labor.

Table A 25
Nominal Earnings and Output per Worker (ENOE)

Annual change in percent

_		A	Output per worker					
ŀ	Period	Average monthly earnings ——	Total	Manufactures				
2011	Average	1.5	1.8	2.8				
2012	Average	3.7	0.7	0.9				
2013	Average	2.8	0.3	-2.4				
2014	Average	-0.9	1.9	1.6				
2015	Average	4.6	0.1	0.0				
2011	1	1.9	3.4	6.1				
	II	1.2	2.6	0.3				
	III	1.0	2.2	4.5				
	IV	1.9	-0.8	0.5				
2012	1	2.3	1.1	1.8				
	II	2.8	0.0	3.5				
	III	3.3	-0.8	-1.0				
	IV	6.5	2.4	-0.7				
2013	1	5.0	-0.4	-3.3				
	II	2.9	1.1	-1.9				
	III	2.6	1.5	-1.4				
	IV	0.8	-1.1	-3.0				
2014	1	-1.3	0.8	-0.2				
	II	-0.3	1.8	0.3				
	III	-0.8	2.0	1.9				
	IV	-1.1	2.9	4.4				
2015	1	2.6	1.0	2.0				
	II	2.9	0.2	0.5				
	III	6.9	0.2	0.0				
	IV	6.1	-0.9	-2.5				

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

Table A 26 **Minimum Wage** MXN per day

		Geo	graphic area <sup>2/</sup>	
Term starting date	National average 1/	Α	В	С
1996 Jan 1	18.43	20.15	18.70	17.00
1996 Apr 1	20.66	22.60	20.95	19.05
1996 Dec 3	24.30	26.45	24.50	22.50
1997 Jan 1	24.30	26.45	24.50	22.50
1998 Jan 1	27.99	30.20	28.00	26.05
1998 Dec 3	31.91	34.45	31.90	29.70
1999 Jan 1	31.91	34.45	31.90	29.70
2000 Jan 1	35.12	37.90	35.10	32.70
2001 Jan 1	37.57	40.35	37.95	35.85
2002 Jan 1	39.74	42.15	40.10	38.30
2003 Jan 1	41.53	43.65	41.85	40.30
2004 Jan 1	43.30	45.24	43.73	42.11
2005 Jan 1	45.24	46.80	45.35	44.05
2006 Jan 1	47.05	48.67	47.16	45.81
2007 Jan 1	48.88	50.57	49.00	47.60
2008 Jan 1	50.84	52.59	50.96	49.50
2009 Jan 1	53.19	54.80	53.26	51.95
2010 Jan 1	55.77	57.46	55.84	54.47
2011 Jan 1	58.06	59.82	58.13	56.70
2012 Jan 1	60.50	62.33	60.57	59.08
	National average 1/	Geograph	ic area <sup>2/3/</sup>	
	National average	Α	В	_
2012 Nov 27	60.75	62.33	59.08	_
2013 Jan 1	63.12	64.76	61.38	
2014 Jan 1	65.58	67.29	63.77	
2015 Jan 1	68.34	70.10	66.45	
2015 Apr 1	69.26	70.10	68.28	_
	General minimum wage <sup>4/</sup>			
2015 Octubre 1	70.10			
2016 Enero 1	73.04			

<sup>1/</sup> Country's average weighted by the number of wage earners in each region.
2/ States and municipalities are classified by regions to show country's different costs of living.
3/From November 27, 2012, the council of representatives of the Minimum Wage Commission (CONASAMI) decided to unify the previous decoraphic areas 'A' and 'B' within the same minimum wage. In turn, the previously known as geographic

area 'C' was denominated 'B'.

4/ Starting from October 1, 2015, the Council of Representatives established a general minimum wage across the country. Source: Minimum Wage Commission.

### **Monetary and Financial Indicators**

Table A 27 Main Monetary and Financial Indicators

Ivialli Wionetally all	u i illaliciai	mulcators	<u>,                                     </u>	
	2012	2013	2014	2015
Monetary aggregates 1/	Rea	ıl annual char	ige in percent	
Monetary base	9.38	2.40	9.09	16.92
M1	9.39	4.43	9.93	15.00
M4	12.07	7.46	6.56	6.52
Domestic financial saving 2/	12.24	7.85	6.34	5.77
		Percent of	GDP 3/	
Monetary base	4.77	4.91	5.21	5.95
M1	13.19	13.86	14.81	16.64
M4	64.11	69.34	71.81	74.72
Domestic financial saving 2/	59.89	65.01	67.18	69.42
Nominal interest rates <sup>4/</sup>		Annual rates	in percent	
28-day TIIE 5/	4.79	4.28	3.52	3.32
28-day Cetes	4.24	3.75	3.00	2.98
CPP <sup>6/</sup>	3.25	2.97	2.41	2.18
CCP 7/	4.20	3.86	3.23	3.03
Exchange rate 8/		MXN/U	SD	
To settle liabilities				
denominated in foreign currency	13.0101	13.0765	14.7180	17.2065
Mexican stock exchange 8/	Inde	ex base Octob	oer 1978=100	
Stock exchange benchmark index (IPC)	43,706	42,727	43,146	42,978

<sup>1/</sup> Based on the average of monthly stocks

<sup>2/</sup> Defined as monetary aggregate M4 less currency outside banks. 3/ GDP (base 2008) annual average.

<sup>4/</sup> Average of daily or weekly observations.
5/ The Interbank Equilibrium Interest Rate (TIIE) is calculated by Banco de México, using commercial bank quotes as stipulated in the Official Gazette of March 23, 1995.

<sup>6/</sup> Commercial Bank's Average Cost of Funds (CPP) covers term deposits, certificate of deposits, other current account deposits (other than demand deposits), banker's acceptances and commercial paper with bank guarantee. The publication of this rate started in August 1975 and will continue to be published for an undetermined period, as stipulated in the Official Gazette of November 8, 2005.

<sup>7/</sup> Commercial Bank's Average Cost of Term Deposits (CCP) includes the interest of term deposits denominated in domestic currency. It excludes convertible subordinated debt, guarantees and interbank operations. The publication of this rate started in February 1996. For further information, see the Official Gazette of February 13, 1996.

<sup>8/</sup> At end of period.

Source: Banco de México and Mexican Stock Exchange (Bolsa Mexicana de Valores, BMV).

Table A 28
Monetary Aggregates
Stocks in MXN billion

End of period	Monetary base	M1	M2	М3	M4	Domestic financial saving
			Nomina	al stocks		
2002	263.9	766.5	3,056.6	3,081.8	3,125.6	2,893.4
2003	303.6	857.7	3,458.4	3,492.2	3,524.9	3,261.3
2004	340.2	946.6	3,800.7	3,889.8	3,928.8	3,627.6
2005	380.0	1,068.5	4,366.1	4,503.8	4,545.9	4,209.7
2006	449.8	1,218.5	4,972.3	5,149.7	5,201.4	4,811.9
2007	494.7	1,350.1	5,384.9	5,647.7	5,720.0	5,289.9
2008	577.5	1,482.9	6,269.9	6,596.6	6,680.6	6,186.2
2009	632.0	1,614.6	6,672.3	7,053.0	7,126.8	6,589.7
2010	693.4	1,833.3	7,207.8	7,952.0	8,037.2	7,437.9
2011	763.5	2,083.2	8,065.7	9,227.1	9,330.6	8,664.7
2012	846.0	2,280.0	8,740.2	10,573.9	10,684.9	9,950.9
2013	917.9	2,513.8	9,507.3	11,566.2	11,658.7	10,865.8
2014	1,062.9	2,879.2	10,539.7	12,989.4	13,107.5	12,178.8
2015 Jai	n 1,024.7	2,889.8	10,715.5	13,244.4	13,365.9	12,455.1
Fe	b 1,025.4	2,871.4	10,703.5	13,204.7	13,325.5	12,407.4
Ma	r 1,064.3	2,886.5	10,677.9	13,110.4	13,234.1	12,301.5
Ap	r 1,046.4	2,925.3	10,834.6	13,267.6	13,392.4	12,458.5
Ma	y 1,057.9	2,943.6	10,995.5	13,437.3	13,561.2	12,617.4
Jui	n 1,054.4	2,969.8	10,950.1	13,362.6	13,492.7	12,545.3
Ju	l 1,073.4	3,025.5	11,085.0	13,524.7	13,653.5	12,691.4
Au	g 1,079.7	3,055.3	11,073.1	13,534.0	13,669.4	12,703.8
Se	p 1,073.2	3,059.2	11,081.2	13,540.4	13,675.3	12,717.6
Oc	t 1,095.6	3,106.1	11,156.5	13,598.2	13,727.5	12,751.3
No	v 1,118.9	3,132.7	11,123.2	13,527.4	13,656.5	12,661.7
De	c 1,241.7	3,351.9	11,301.7	13,725.8	13,858.0	12,769.9
		Δ	verage stocks as pe	ercentage of GDP 1/		
2009	4.51	11.88	53.30	56.01	56.64	52.70
2010	4.50	11.88	52.07	56.21	56.81	52.86
2010	4.50	12.44	51.76	58.32	59.02	55.05
2012	4.77	13.19	53.95	63.43	64.11	59.89
2012	4.91	13.86	56.53	68.75	69.34	65.01
2014	5.21	14.81	58.23	71.21	71.81	67.18
2015	5.95	16.64	60.51	74.01	74.72	69.42

The Monetary Base includes banknotes and coins in circulation plus the net creditor balance of commercial and development banks' current accounts at Banco de México.

**Domestic Financial Saving** is equal to M4 **less currency outside banks.** 1/ GDP (2008 base) annual average.

Source: Banco de México.

M1 includes currency outside banks plus domestic private sector deposits in checking accounts and current accounts.

M2 includes M1 plus domestic private sector deposits at banks and savings and popular loan entities (other than deposits in checking and current accounts) plus public sector and private sector securities held by the resident private sector, and housing and retirement savings funds.

M3 includes M2 plus non-residents' demand and term deposits in banks, plus public sector securities held by non-residents.

M4 includes M3 plus deposits in Mexican banks' agencies abroad, from the domestic private sector and non-residents.

Table A 29 **Monetary Base** Stocks in MXN billion

		Liabilit	ies	As	ssets
End of period	Monetary base	Banknotes and coins in circulation 1/	Bank deposits	Net domestic credit	Net international assets 2/
2001	225.580	225.223	0.358	-185.735	411.315
2002	263.937	263.937	0.000	-265.566	529.503
2003	303.614	303.614	0.000	-360.043	663.657
2004	340.178	340.178	0.000	-375.992	716.170
2005	380.034	380.034	0.000	-408.133	788.167
2006	449.821	449.821	0.000	-375.146	824.967
2007	494.743	494.743	0.000	-457.484	952.227
2008	577.543	577.542	0.000	-739.750	1,317.293
2009	632.032	631.938	0.095	-672.860	1,304.892
2010	693.423	693.423	0.000	-796.192	1,489.615
2011	763.492	763.491	0.001	-1,318.080	2,081.572
2012	846.019	845.396	0.624	-1,320.331	2,166.351
2013	917.876	917.875	0.001	-1,440.338	2,358.214
2014					
Jan	869.144	869.143	0.001	-1,579.319	2,448.462
Feb	864.385	864.385	0.001	-1,568.702	2,433.088
Mar	858.038	858.038	0.000	-1,563.636	2,421.674
Apr	873.153	873.152	0.000	-1,599.216	2,472.369
May	875.566	875.565	0.000	-1,576.083	2,451.649
Jun	875.845	875.845	0.000	-1,622.041	2,497.886
Jul	887.168	887.167	0.002	-1,664.632	2,551.801
Aug	886.288	886.285	0.002	-1,642.759	2,529.046
Sep	883.141	883.141	0.000	-1,714.317	2,597.459
Oct	908.611	908.611	0.000	-1,747.213	2,655.824
Nov	944.940	944.939	0.000	-1,789.241	2,734.180
Dec	1,062.893	1,062.892	0.001	-1,822.202	2,885.095
2015					
Jan	1,024.725	1,024.725	0.000	-1,960.887	2,985.612
Feb	1,025.435	1,025.434	0.001	-1,939.521	2,964.957
Mar	1,064.273	1,064.273	0.001	-1,955.041	3,019.314
Apr	1,046.382	1,046.382	0.001	-2,002.573	3,048.956
May	1,057.904	1,057.904	0.000	-1,964.388	3,022.292
Jun	1,054.391	1,054.390	0.000	-1,993.878	3,048.269
Jul	1,073.443	1,071.939	1.504	-2,035.404	3,108.847
Aug	1,079.657	1,078.994	0.664	-2,062.056	3,141.714
Sep	1,073.234	1,072.557	0.677	-2,002.888	3,076.122
Oct	1,095.608	1,095.608	0.000	-1,831.832	2,927.440
Nov	1,118.916	1,118.916	0.000	-1,745.622	2,864.539
Dec	1,241.685	1,239.327	2.358	-1,822.182	3,063.867

 <sup>1/</sup> Currency outside banks and in banks' vaults.
 2/ Net international assets are defined as gross reserves plus credit agreements with central banks with maturity of more than six months, minus total liabilities with the IMF and with foreign central banks with maturity of less than six months.
 Source: Banco de México.

Table A 30 Monetary Aggregates M1, M2, M3 and M4

Stocks in MXN billion

			Dece	mber		
	2010	2011	2012	2013	2014	2015
1. Currency outside banks	599.4	665.9	734.0	792.9	928.8	1,088.1
2. Domestic currency checking accounts	794.1	934.7	979.4	1,082.7	1,215.3	1,334.7
3. Foreign currency checking accounts	128.1	132.9	163.6	189.0	232.5	333.1
4. Current account deposits	304.4	341.1	393.2	438.0	490.1	581.5
5. Demand deposits in saving and popular loan entities	7.3	8.6	9.8	11.1	12.6	14.5
6. M1=(1+2+3+4+5)	1,833.3	2,083.2	2,280.0	2,513.8	2,879.2	3,351.9
7. Residents' term deposits in domestic bank	1,213.3	1,289.4	1,387.4	1,459.4	1,583.0	1,747.6
8. Term deposits in saving and popular loan entities	46.8	49.9	54.2	69.0	76.3	84.9
9. Public securities held by residents 1/	2,873.8	3,274.0	3,583.9	3,913.8	4,393.0	4,344.5
Federal government securities	1,866.7	2,126.5	2,328.9	2,529.1	2,889.7	2,886.3
Banco de México securities (BREMS)	1.0	0.0	0.0	0.0	0.0	0.0
IPAB securities	537.8	599.7	660.8	693.7	733.5	631.6
Other public securities	468.3	547.8	594.2	691.0	769.7	826.7
10. Private securities 1/	332.0	383.2	391.9	435.3	429.2	508.6
11. Housing and other funds <sup>2/</sup>	908.6	986.1	1,042.8	1,116.1	1,179.1	1,264.2
12. M2=(6+7+8+9+10+11)	7,207.8	8,065.7	8,740.2	9,507.3	10,539.7	11,301.7
13. Non-residents' deposits in domestic bank	108.1	126.3	119.8	136.2	165.2	147.0
14. Public securities held by non-residents	636.1	1,035.0	1,714.0	1,922.7	2,284.5	2,277.1
15. M3=(12+13+14)	7,952.0	9,227.1	10,573.9	11,566.2	12,989.4	13,725.8
16. Residents' deposits in Mexican bank agencies abroad	43.1	32.0	22.6	19.3	22.6	25.7
17. Non-residents' deposits in Mexican bank agencies abroad	42.1	71.5	88.4	73.2	95.5	106.6
18. M4=(15+16+17)	8,037.2	9,330.6	10,684.9	11,658.7	13,107.5	13,858.0

Note: Stocks may not coincide with components' totals due to rounding.

Source: Banco de México.

<sup>1/</sup>Includes holdings of Investment Companies Specialized in Retirement Savings (Sociedades de Inversión Especializadas en Fondos para el Retiro, SIFFORES)

<sup>2/</sup>Includes public housing funds (National Employees' Housing Fund – *Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit and the Housing Fund – *Fondo de la Vivienda del ISSSTE*, Fovissste) and retirement funds other than Siefores, particularly those managed by Banco de México and the retirement savings' funds from the Public Employees' Social Security Institute (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*, ISSSTE).

Table A 31 Credit Market Conditions Survey: Financing 1/

			Total				4t	h quarter of 2015		
	2014		20	15		By size of	of firm	Ву ес	onomic activity 2/	
em	4th	1st	2nd	3rd	4th	From 11 up to 100 workers	Over 100 workers	Manufactures	Services and commerce	Other
OTAL FINANCING										
Percentage of firms										
Firms using financing: 3/	86.6	84.9	86.4	83.5	87.3	82.8	90.0	93.4	87.6	62.0
Source: 4/										
Suppliers	79.4	79.0	77.9	74.9	74.6	77.6	72.8	85.1	73.5	42.
Commercial banks	34.4	36.2	36.9	36.5	41.4	32.5	46.7	36.3	45.3	33.
Foreign banks	8.0	6.7	7.7	6.3	6.3	3.0	8.2	6.0	7.0	2.
Firms from the corporate group/headquarters	24.2	24.6	21.9	18.9	20.4	11.1	26.0	25.5	19.4	8
Development banks	5.9	5.4	5.4	6.3	5.7	3.5	6.9	6.2	5.5	5.
Via bond issuance	2.3	3.5	1.7	2.9	1.7	0.0	2.7	0.7	2.4	0.
Firms granting financing: 3/	77.4	80.3	80.7	79.3	79.6	75.8	81.9	88.8	79.1	49.
Destined for: 4/										
Clients	75.2	78.5	78.8	77.5	75.9	72.1	78.1	85.5	75.1	45.
Suppliers	12.1	17.9	13.3	10.4	13.6	6.2	18.0	18.4	11.6	9.
Other firms from the same corporate group	13.1	13.3	16.8	11.6	15.6	12.6	17.4	19.8	14.9	4.
Other	0.3	0.6	0.3	0.4	0.1	0.2	0.1	0.0	0.0	1.
Average maturity of financing (in days) granted to:										
Clients	62	64	60	58	55	46	60	51	58	5
Suppliers	51	42	54	50	58	46	60	59	58	5
Other firms of the same corporate group	94	101	84	69	69	81	64	75	65	6
Firms expecting to request credit in the following							•			
three months: 3/	38.8	36.7	35.4	37.1	33.8	26.7	38.1	32.9	36.6	17.

<sup>1/</sup> Sample with a nationwide coverage of at least 450 firms. Responses are voluntary and confidential.

<sup>2/</sup> Manufacturing sector and services and commerce sector are the only representative at the national level.

<sup>3/</sup> Since the press release of the first quarter of 2010, the results are presented as a percentage of the total of firms. In the previous press releases this information was presented as a percentage of responses.

<sup>4/</sup> The total percentage may be above 100 since firms may choose more than one option. Source: Banco de México.

Table A 32 Credit Market Conditions Survey: Bank Credit <sup>1/</sup>

		Total				4	th quarter of 2015		
2014		20	15		By size	of firm	By eco	nomic activity 2/	
4th	1st	2nd	3rd	4th	From 11 up to 100 workers	Over 100 workers	Manufactures	Services and commerce	Othe
43.9	47.5	48.6	49.6	49.8	45.3	52.5	46.2	53.0	41.
20.0	23.0	26.5	24.6	25.1	16.9	30.0	23.1	27.2	18
									8:
7.3	5.1	11.1	9.4	9.4	9.1	9.5	17.2	6.0	
1.5	6.1	2.4	1.6	1.7	0.0	2.3	3.0	1.3	
21.9	19.3	15.1	19.2	22.0	7.4	27.0	22.1	22.3	18
1.8	1.8	1.5	2.8	3.9	9.2	2.2	3.0	4.2	:
									4
									4
									4
									4
49.2		47.3	45.9	52.0	50.7	52.4	49.3		4
44.5	42.0	45.9	45.2	49.4	43.6	51.4	47.8	50.1	4
53.1	50.9	56.3	51.3	43.7	36.1	46.1	37.2	46.8	4
47.9	50.4	48.7	46.2	43.0	35.3	45.2	40.8	44.5	3
80.0	77.0	73.5	75.4	74.9	83.1	70.0	76.9	72.8	8
2.6	4.5	2.2	3.3	1.5	2.0	1.1	0.7	1.6	
1.5	1.0	1.8	1.8	1.7	4.0	0.3	0.9	1.7	
0.5	0.9	1.0	0.6	0.3	0.1	0.4	0.0	0.4	
75.5	70.7	68.5	69.7	71.4	77.1	68.1	75.3	69.1	7
45.7	52.8	46.1	46.5	50.3	55.9	46.3	48.1	49.1	6
36.4	45.9	34.1	36.1	41.8	46.5	38.5	35.3	42.3	6
34.1	43.3	35.4	38.9	41.0	46.8	36.8	36.9	41.2	5
30.0	35.6	32.6	33.4	40.8	44.7	38.0	39.2	40.1	
26.6	32.1	25.8	26.4	27.8	30.2	26.1	26.8	25.8	2
35.0	43.3	36.5	35.0	42.5	49.1	37.8	37.3	43.2	5
						33.2		33.1	5
									ē
									6
39.8	48.8	38.4	40.4	45.0	46.9	43.7	44.9	42.7	6
13.9	18.3	16.3	18.0	18.6	23.2	15.8	15.5	19.8	2
									3
									3
52.9	49.6	54.9	49.1	47.0	42.5	50.7	52.8	40.1	3
	4th  43.9  20.0  74.7  7.3  1.5  1.8  52.1  59.0  45.4  49.2  44.5  53.1  47.9  80.0  2.6  1.5  75.5  45.7  36.4  34.1  30.0  26.6  32.9  42.1  32.1	4th 1st  43.9 47.5  20.0 23.0  74.7 81.2 7.3 5.1 1.5 6.1 21.9 19.3 1.8 1.8  52.1 57.6 59.0 58.5 42.5 42.5 42.4 46.2 49.2 45.8 44.5 42.0  53.1 50.9 47.9 50.4  80.0 77.0  2.6 4.5 1.5 1.0 0.5 0.9 75.5 0.9 75.5 0.9 75.5 0.9 75.5 0.9 75.5 0.9 34.1 43.3 30.0 35.6 2.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 30.0 35.6 32.1 35.0 43.3 32.2 32.1	2014         20           4th         1st         2nd           43.9         47.5         48.6           20.0         23.0         26.5           74.7         81.2         77.3           7.3         5.1         11.1           1.5         6.1         2.4           21.9         19.3         15.1           1.8         1.8         1.5           52.1         57.6         61.4           59.0         58.5         62.2           42.5         43.2         44.1           45.4         46.2         49.8           47.9         50.4         48.7           80.0         77.0         73.5           2.6         4.5         2.2           1.5         1.0         1.8           45.7         50.9         56.3           45.7         52.8         46.1           36.4         45.9         34.1           34.1         33.3         35.6         32.6           35.0         43.3         36.4           36.6         32.1         25.8           35.0         43.3         36.5           36	2014         2015           4th         1st         2nd         3rd           43.9         47.5         48.6         49.6           20.0         23.0         26.5         24.6           74.7         81.2         77.3         75.5           7.3         5.1         11.1         9.4           1.5         6.1         2.4         1.6           21.9         19.3         15.1         19.2           1.8         1.8         1.5         2.8           52.1         57.6         61.4         58.0           59.0         58.5         62.2         77.8           42.5         43.2         44.1         44.8           45.4         46.2         49.8         46.2           49.2         44.5         42.0         45.9         45.2           53.1         50.9         56.3         51.3         47.9         50.4         48.7         46.2           80.0         77.0         73.5         75.4         2.2         3.3         1.5         1.0         1.8         1.8           0.5         0.9         1.0         1.6         75.5         70.4         46.5 </td <td>2014         2015           4th         1st         2nd         3rd         4th           43.9         47.5         48.6         49.6         49.8           20.0         23.0         26.5         24.6         25.1           74.7         81.2         77.3         75.5         71.8           7.3         5.1         11.1         9.4         9.4           1.5         6.1         2.4         1.6         1.7           21.9         19.3         15.1         19.2         22.0           1.8         1.8         1.5         2.8         3.9           52.1         57.6         61.4         58.0         62.8           59.0         58.5         62.2         57.8         59.1           42.5         43.2         44.1         44.8         47.3           45.4         46.2         49.8         46.2         51.9           49.2         44.5         48.9         46.2         51.9           44.5         42.0         45.9         45.2         49.4           45.1         42.0         45.9         45.2         49.4           45.2         3.3         1</td> <td>  The image</td> <td>  Ath</td> <td>  Ath</td> <td>  By size of firm</td>	2014         2015           4th         1st         2nd         3rd         4th           43.9         47.5         48.6         49.6         49.8           20.0         23.0         26.5         24.6         25.1           74.7         81.2         77.3         75.5         71.8           7.3         5.1         11.1         9.4         9.4           1.5         6.1         2.4         1.6         1.7           21.9         19.3         15.1         19.2         22.0           1.8         1.8         1.5         2.8         3.9           52.1         57.6         61.4         58.0         62.8           59.0         58.5         62.2         57.8         59.1           42.5         43.2         44.1         44.8         47.3           45.4         46.2         49.8         46.2         51.9           49.2         44.5         48.9         46.2         51.9           44.5         42.0         45.9         45.2         49.4           45.1         42.0         45.9         45.2         49.4           45.2         3.3         1	The image	Ath	Ath	By size of firm

- 1/ Sample with a nationwide coverage of at least 450 firms. Responses are voluntary and confidential.
- 2/ Manufacturing sector and services and commerce sector are the only representative at the national level.
- 3/ The bank credit market includes commercial banks, development banks and foreign banks.
- 4/ Since the press release of the first quarter of 2010 the results are presented as a percentage of the total of firms. In the previous press releases, this information was presented as a percentage of responses. Figures may not add up due to rounding.
- 5/ The total percentage may be above 100 since firms may choose more than one option.
- 6/ Diffusion index is defined as the sum of the percentage of firms that mentioned that there were more accessible conditions, plus the half of the total percentage of firms that indicated that there were no changes in the access conditions. Under this metrics, when the value of the diffusion index is superior (inferior) to 50, it means that more firms pointed out that they perceived conditions as more accessible (less accessible) in the relevant variable, as compared to the situation observed in the previous quarter.
- 7/ Diffusion index is defined as the sum of the total percentage of firms that mentioned that there were less expensive conditions, plus the half of the total percentage of firms that indicated that there was no change. Under this metrics, when the value of the diffusion index is superior (inferior) to 50, it means that more firms pointed out that they perceived less expensive (more expensive) conditions in the relevant variable, as compared to the situation observed in the previous quarter.
- 8/ From a set of possible constraints, each firm marks each factor's share (very limiting, relatively limiting or not limiting), reason for which total percentage of factors can be above 100. Furthermore, the percentage of each factor includes the total of very limiting and relatively limiting grades.
  Source: Banco de México.

# Table A 33 Total Financing to Non-Financial Private Sector

Quarterly data Stocks in MXN billion

		Extern	al financing			Domestic fina	ancing		
	Total financing	External credit 1/	External debt issuance 2/	Commercial banks 3/	Development banks 3/	Non-bank financial intermediaries 3/	Domestic debt issuance 4/	Infonavit 5/	Fovissste 6/
2012									
Mar	4,671,361	438,813	549,323	1,930,665	143,837	325,026	310,820	827,312	145,566
Jun	4,829,627	486,406	564,747	1,989,286	157,066	347,733	306,018	832,435	145,935
Sep	4,948,994	439,139	639,612	2,036,630	160,451	361,077	314,601	852,795	144,690
Dec	5,065,035	446,542	675,947	2,100,728	166,342	371,056	303,330	858,099	142,992
2013									
Mar	5,079,319	408,780	659,123	2,118,775	170,302	350,313	317,217	903,957	150,853
Jun	5,272,712	437,943	729,246	2,174,878	179,992	359,996	339,525	906,493	144,639
Sep	5,498,489	448,735	834,945	2,239,188	191,887	370,064	338,236	926,104	149,331
Dec	5,725,036	489,655	912,461	2,325,652	210,690	385,521	343,887	917,791	139,379
2014									
Mar	5,809,054	511,189	913,825	2,321,503	218,023	385,324	349,196	968,476	141,517
Jun	5,959,869	527,349	976,070	2,377,230	225,982	401,339	345,708	964,300	141,890
Sep	6,127,021	546,976	1,018,753	2,413,903	240,718	416,515	352,656	985,945	151,555
Dec	6,409,948	665,064	1,089,965	2,495,243	263,460	425,942	337,642	991,881	140,752
2015									
Mar	6,552,108	639,740	1,097,389	2,551,123	270,649	432,244	356,097	1,050,677	154,188
Jun	6,767,994	675,127	1,174,112	2,617,241	286,548	441,461	371,722	1,051,845	149,939
Sep	7,207,004	770,776	1,248,286	2,737,880	305,807	520,750	396,440	1,074,072	152,994
Dec	7,402,668	779,496	1,279,299	2,845,992	330,417	540,917	397,856	1,074,863	153,828

Note: Figures are subject to revision. The total stocks may not coincide with the sum of their components due to the rounding of the figures.

<sup>1/</sup> Previously, denominated as External Direct Financing. Includes credit from foreign suppliers to Mexican firms, from foreign commercial banks and other creditors. In February 2016, figures of External Credit were updated, due to the reclassification of the information of foreign commercial banks' report credits stemming from the survey. This modification is made retroactive as of March 2014 and affects the External Credit series, as well as the series it is part of. Source: data on foreign supplier credit is obtained from the balance sheets of the issuing firms listed on the Mexican Stock Exchange, while credit from foreign commercial banks is obtained from Banco de México's Survey: "Outstanding Consolidated Claims on Mexico".

<sup>2/</sup> Commercial paper, bonds and securities issued by Mexican companies abroad. In February 2016, the external issuance data were revised retroactively as of March 2006. This modification affects the series of External Debt Issuance, as well as the series it is part of. Source: Banco de México.

<sup>3/</sup> Includes total loan portfolio (performing and non-performing). In the case of commercial and development banks, the portfolio associated with debt-restructuring programs (UDIs and ADES) is included. In the case of development banks, in October 2015 part of the credit balance of Enterprises and individuals with business activities was reclassified to Other sectors, retroactive to August 2012. This derived from data retransmission by development banks, which reclassified the destination of a part of the credit portfolio. Source: Banco de México.

<sup>4/</sup> Calculated by Banco de México based on data from S.D. INDEVAL S.A. de C.V.

<sup>5/</sup> Non-performing and performing mortgage portfolio from the National Employees' Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit). Source: Minimum Catalogue of the National Banking and Securities Commission (CNBV, for its acronym in Spanish).

<sup>6/</sup> Non-performing and performing mortgage portfolio from the Public Employees' Housing Fund (Fondo de Vivienda del Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, Fovissste). Source: Minimum Catalogue of the National Banking and Securities Commission (CNBV, for its acronym in Spanish).

Table A 34
Financial System Flow of Funds Matrix, January – December 2015 1/

Flows revalued as a percentage of GDP 2/

	Res	ident privat	e sector 3/	States	and municipa	lities 4/	P	ublic sector <sup>f</sup>	5/	E	Banking sector 6	3/	Ext	ternal secto	r
	Use of funds (assets)	Source of funds (liabil.)	Net financing received	Use of funds (assets)	Source of funds (liabil.)	Net financing received	Use of funds (assets)	Source of funds (liabil.)	Net financing received	Use of funds (assets)	Source of funds (liabil.)	Net financing received	Use of funds (assets)	Source o funds (liabil.)	f Net financing received
	а	b	c = b - a	d	е	f = e - d	g	h	i = h - g	j	k	l = k - j	m	n	o = n - m
1. Change in domestic financial instruments (2 + 7 + 8 + 9)	6.1	5.8	-0.4	0.1	0.2	0.1	0.9	2.9	2.0	5.4	3.8	-1.6	0.1		-0.1
Financial instruments     Currency (banknotes and coins)	6.1 0.9	0.9	-5.2 -0.9	0.1	0.0	-0.1	0.2	2.5	2.3	0.6	3.3 0.9	2.7 0.9	-0.2		0.2
Checkable, time and savings deposits	2.4		-2.4	0.1		-0.1	0.2		-0.2		2.5	2.5	-0.2		0.2
4.1 Non-financial enterpr. and other instit. 7	1.4		-1.4	0.1		-0.1	0.2		-0.2		1.4	1.4	-0.2		0.2
4.2 Individuals 5. Securities issued 8/	1.0	0.4	-1.0		0.0			0.5		0.0	1.0	1.0			
	2.3 0.5	0.4	-1.9		0.0	0.0		2.5	2.5	0.6	0.0	-0.6	0.0		0.0
Retirement and housing funds <sup>9/</sup> Financing	0.5	0.5 1.7	-0.1 1.7		0.2	0.2	0.4	0.1 0.6	0.1 0.2	2.4	0.4	-2.0			
7.1 Non-financial enterpr. and other instit. 10/		1.0	1.0		0.2	0.2	0.4	0.6	0.2	1.7	0.4	-1.3			
7.2 Households		0.7	0.7		0.2	0.2	0.4	0.0	0.2	0.7	0.4	-0.7			
8. Shares and other equity		0.4	0.4							0.1		-0.1	0.3		-0.3
9. Other financial system items <sup>11/</sup>		2.8	2.8				0.3	-0.2	-0.6	2.2		-2.2			
10. Change in external financial															
instruments (11 + 12 + 13 + 14 + 15)	1.2	1.1	0.0				-0.1	1.3	1.4	-1.6	0.0	1.6	2.4	-0.5	-2.9
11. Foreign direct investment		2.5	2.5										2.5		-2.5
12. External financing		0.2	0.2					1.3	1.3		0.0	0.0	1.5		-1.5
13. Financial assets held abroad	1.2		-1.2				-0.1		0.1	-0.1		0.1		1.0	1.0
<ol><li>Banco de México international reserves</li></ol>										-1.5		1.5		-1.5	-1.5
<ol><li>Errors and omissions (balance of payments)</li></ol>	1	-1.5	-1.5										-1.5		1.5
16. Statistical discrepancy 12/		-0.2	-0.2										-0.2		0.2
17. Total change in financial instruments (1+ 10 +16)	7.3	6.7	-0.6	0.1	0.2	0.1	0.9	4.2	3.3	3.8	3.8	0.0	2.3	-0.5	-2.8 <sup>13</sup>

- 1/Preliminary figures. Figures may not add up due to rounding.
- 2/ Excludes the effect of exchange rate fluctuations (MXN/USD).
- 3/ Private sector includes firms, individuals, non-bank financial intermediaries.
- 4/ States and municipalities show their position in relation to the banking sector and the debt market.
- 5/ Public sector measured as the change in the financial position of the public sector at market value.
- 6/Banking sector includes Banco de México, development banks and commercial banks (including agencies abroad). By construction, this sector has a total net position of zero (line item 17), which has to do with financial intermediaries. Statistics on assets and liabilities from commercial banks, development banks and Banco de México were used to consolidate banking sector's financial flows.
- 7/ In addition to firms, private sector includes non-bank financial intermediaries.
- 8/Includes government securities, IPAB securities, BREMS, private securities and state and municipal securities, and securities held by Siefores.
- 9/Includes retirement saving funds from both the Public Employees' Social Service Institute (Instituto de Seguridad y Servicios Sociales para los Trabajadores del Estado, ISSSTE) and the Social Security Institute (Instituto Mexicano del Seguro Social, IMSS) held by Banco de México, and housing funds.
- 10/In addition to firms, private sector includes individuals with business activities, and non-bank financial intermediaries and securities associated to restructuring programs.
- 11/Includes non-classified assets, real estate assets and others, as well as banking sector's capital accounts and balance sheets.
- 12/Difference between financial data and data drawn from the balance of payments.
- 13/Corresponds to the balance of payments' current account. A negative figure implies external financing to the domestic economy (external sector surplus), which is equivalent to Mexico's current account deficit.

Source: Banco de México.

# Table A 35 Banco de México's Bonds (BONDES D)

One year Weekly auction results

08/01/2015 364 15/01/2015 357 22/01/2015 350 29/01/2015 343 05/02/2015 329 19/02/2015 322 26/02/2015 364 12/03/2015 364 12/03/2015 364 12/03/2015 350 26/03/2015 364 12/03/2015 350 26/03/2015 364 12/03/2015 350 26/03/2015 364 16/04/2015 367 23/04/2015 367 23/04/2015 367 23/04/2015 367 23/04/2015 367 23/04/2015 369 14/05/2015 329 21/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 367 23/07/2015 364 16/07/2015 367 23/07/2015 369 09/07/2015 364 16/07/2015 367 23/07/2015 364 16/07/2015 367 23/07/2015 369 09/07/2015 369 09/07/2015 369 09/07/2015 369 09/07/2015 369 13/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 365 22/10/2015 364 08/10/2015 365 03/09/2015 364 08/10/2015 357 15/10/2015 364 08/10/2015 357	2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000	2,000 2,000 2,000 2,000 2,000 2,000	6,410 14,485 11,923	Weighted placement 99.86547 99.88323	<b>Maximum</b> 99.87001	Minimum allotted	Minimum
15/01/2015 357 22/01/2015 350 29/01/2015 343 05/02/2015 343 05/02/2015 329 19/02/2015 322 26/02/2015 364 12/03/2015 357 19/03/2015 357 19/03/2015 364 12/03/2015 357 19/03/2015 364 16/04/2015 357 23/04/2015 350 26/03/2015 343 01/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 322 28/05/2015 308 11/06/2015 309 11/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350	2,000 2,000 2,000 2,000 2,000 2,000	2,000 2,000 2,000	14,485		99.87001	00.00050	
22/01/2015 350 29/01/2015 343 05/02/2015 343 05/02/2015 329 19/02/2015 322 26/02/2015 364 12/03/2015 357 19/03/2015 363 01/04/2015 357 23/04/2015 357 23/04/2015 357 23/04/2015 350 26/03/2015 343 01/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 322 28/05/2015 315 04/06/2015 301 11/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 309 17/09/2015 364 08/09/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 367 15/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 343 29/10/2015 350	2,000 2,000 2,000 2,000 2,000	2,000 2,000		99 88323		99.86052	99.82320
29/01/2015         343           05/02/2015         336           12/02/2015         329           19/02/2015         322           26/02/2015         315           05/03/2015         357           19/03/2015         357           19/03/2015         343           01/04/2015         357           29/04/2015         364           16/04/2015         357           23/04/2015         364           16/04/2015         357           23/04/2015         350           30/04/2015         343           07/05/2015         329           21/05/2015         329           21/05/2015         329           21/05/2015         329           21/05/2015         308           11/06/2015         301           18/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         380           09/07/2015         350           30/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         322	2,000 2,000 2,000 2,000	2,000	11,923	JJ.00JZJ	99.88366	99.88270	98.87781
05/02/2015         336           12/02/2015         329           19/02/2015         322           26/02/2015         315           05/03/2015         364           12/03/2015         357           19/03/2015         350           26/03/2015         343           01/04/2015         364           16/04/2015         357           23/04/2015         350           30/04/2015         343           07/05/2015         329           21/05/2015         329           21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         364           16/07/2015         350           30/07/2015         364           16/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         329           20/08/2015         329           20/08/2015         329           20/08/2015         308	2,000 2,000 2,000			99.89456	99.89456	99.89456	99.82989
12/02/2015         329           19/02/2015         322           26/02/2015         315           05/03/2015         364           12/03/2015         357           19/03/2015         350           26/03/2015         343           01/04/2015         364           16/04/2015         357           23/04/2015         350           30/04/2015         343           07/05/2015         329           21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         364           16/07/2015         360           09/07/2015         364           16/07/2015         357           23/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         329           20/08/2015         329           20/08/2015         308           10/09/2015         308           10/09/2015         308	2,000 2,000	2 000	10,710	99.90079	99.90367	99.90010	99.87803
19/02/2015 322 26/02/2015 315 05/03/2015 364 12/03/2015 357 19/03/2015 350 26/03/2015 343 01/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 351 06/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364	2,000	2,000	12,279	99.90479	99.90884	99.90387	99.85736
26/02/2015 315 05/03/2015 364 12/03/2015 357 19/03/2015 350 26/03/2015 343 01/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 287 02/07/2015 280 09/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 364 08/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 343 29/10/2015 343		2,000	7,370	99.90358	99.90980	99.90306	99.8602
05/03/2015 364 12/03/2015 357 19/03/2015 350 26/03/2015 350 26/03/2015 343 01/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 322 20/08/2015 323 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350	2,000	2,000	4,799	99.89847	99.89847	99.89406	99.8509
12/03/2015 357 19/03/2015 350 26/03/2015 343 01/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 350 30/07/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350		2,000	8,132	99.90193	99.90193	99.90193	99.8704
19/03/2015         350           26/03/2015         343           01/04/2015         337           09/04/2015         364           16/04/2015         357           23/04/2015         350           30/04/2015         343           07/05/2015         329           21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         287           02/07/2015         280           09/07/2015         364           16/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         329           20/08/2015         322           27/08/2015         308           10/09/2015         308           10/09/2015         308           10/09/2015         301           17/09/2015         308           10/10/2015         364           08/10/2015         357           15/10/2015         350           22/10/2015         343           29/10/2015         364	2,000	2,000	10,630	99.88296	99.88296	99.88296	99.8211
26/03/2015 343 01/04/2015 337 09/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 322 28/05/2015 315 04/06/2015 301 11/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 315 03/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350	2,000	2,000	6,600	99.89005	99.89005	99.89005	99.8632
01/04/2015 337 09/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 350 30/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364	2,000	2,000	11,700	99.89417	99.89420	99.89364	90.0000
01/04/2015 337 09/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 350 30/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364	2,000	2,000	4,000	99.89925	99.90000	99.89900	90.0000
09/04/2015 364 16/04/2015 357 23/04/2015 350 30/04/2015 343 07/05/2015 329 21/05/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 308 10/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364	2,000	2,000	20,700	99.89659	99.89843	99.89613	99.8615
16/04/2015         357           23/04/2015         350           30/04/2015         343           07/05/2015         329           21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         280           09/07/2015         364           16/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         322           27/08/2015         308           10/09/2015         301           17/09/2015         304           24/09/2015         301           17/09/2015         294           24/09/2015         364           08/10/2015         364           08/10/2015         367           15/10/2015         350           22/10/2015         343           29/10/2015         343           29/10/2015         364           29/10/2015         364           30/10/2015         364	2,000	2,000	6,064	99.88651	99.88823	99.88554	99.8605
23/04/2015 350 30/04/2015 343 07/05/2015 336 14/05/2015 329 21/05/2015 315 04/06/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 343 06/08/2015 329 20/08/2015 322 27/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 309 17/09/2015 308 10/09/2015 309 17/09/2015 308 10/09/2015 309 17/09/2015 364 08/10/2015 365 08/10/2015 364 08/10/2015 365 08/10/2015 364 08/10/2015 357	2,000	2,000	5,280	99.88786	99.89589	99.88760	99.8583
30/04/2015 343 07/05/2015 336 14/05/2015 329 21/05/2015 322 28/05/2015 315 04/06/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 343 06/08/2015 329 20/08/2015 329 20/08/2015 308 10/09/2015 308 10/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 364 08/10/2015 364 08/10/2015 364	2,000	2,000	8,869	99.89059	99.89273	99.88937	99.8610
07/05/2015 336 14/05/2015 329 21/05/2015 322 28/05/2015 315 04/06/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 364 16/07/2015 357 23/07/2015 343 06/08/2015 329 20/08/2015 329 20/08/2015 315 03/09/2015 308 10/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 357 15/10/2015 357	2,000	2,000	6,633	99.88797	99.88822	99.88740	99.8600
14/05/2015         329           21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         280           09/07/2015         364           16/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         322           27/08/2015         308           10/09/2015         301           17/09/2015         294           24/09/2015         364           08/10/2015         357           15/10/2015         350           22/10/2015         350           22/10/2015         350           22/10/2015         364           08/10/2015         357           15/10/2015         343           29/10/2015         343           29/10/2015         343           29/10/2015         343	2,000	2,000	4,438	99.88748	99.88958	99.88720	99.8622
21/05/2015         322           28/05/2015         315           04/06/2015         308           11/06/2015         301           18/06/2015         294           25/06/2015         287           02/07/2015         280           09/07/2015         364           16/07/2015         357           23/07/2015         343           06/08/2015         329           20/08/2015         329           20/08/2015         315           03/09/2015         308           10/09/2015         301           17/09/2015         294           24/09/2015         364           08/10/2015         357           15/10/2015         350           22/10/2015         343           29/10/2015         343           29/10/2015         343           29/10/2015         343           29/10/2015         343	2,000	2,000	7,250	99.88660	99.88865	99.88500	99.8649
28/05/2015 315 04/06/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 322 27/08/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 350	2,000	2,000	6,300	99.87713	99.88173	99.87647	99.8597
04/06/2015 308 11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 322 27/08/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 357 15/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 343 29/10/2015 343	2,000	2,000	6,950	99.87933	99.88200	99.87903	99.8622
11/06/2015 301 18/06/2015 294 25/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 322 27/08/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 350 22/10/2015 343 29/10/2015 343	2,000	2,000	6,700	99.88289	99.88289	99.88289	99.8648
18/06/2015         294           25/06/2015         287           02/07/2015         280           09/07/2015         364           16/07/2015         357           23/07/2015         350           30/07/2015         343           06/08/2015         329           20/08/2015         322           27/08/2015         308           10/09/2015         301           17/09/2015         294           24/09/2015         364           08/10/2015         357           15/10/2015         343           29/10/2015         343           29/10/2015         343           29/10/2015         343	2,000	2,000	5,850	99.88621	99.88621	99.88621	99.8679
25/06/2015 287 02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 315 03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 350	2,000	2,000	5,100	99.89190	99.89365	99.89123	99.8734
02/07/2015 280 09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 329 20/08/2015 322 27/08/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 343	2,000	2,000	5,300	99.88577	99.88600	99.88573	99.3000
09/07/2015 364 16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 336 13/08/2015 329 20/08/2015 315 03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 343	1,000	1,000	3,445	99.90441	99.90487	99.90410	99.8854
16/07/2015 357 23/07/2015 350 30/07/2015 343 06/08/2015 336 13/08/2015 329 20/08/2015 315 03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 343	1,000	1,000	12,643	99.87273	99.87314	99.87255	99.8516
23/07/2015 350 30/07/2015 343 06/08/2015 336 13/08/2015 329 20/08/2015 322 27/08/2015 315 03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 343 29/10/2015 336	1,000	1,000	3,800	99.87476	99.87540	99.87410	99.8585
30/07/2015     343       06/08/2015     336       13/08/2015     329       20/08/2015     322       27/08/2015     315       03/09/2015     308       10/09/2015     301       17/09/2015     294       24/09/2015     364       08/10/2015     357       15/10/2015     343       29/10/2015     343       29/10/2015     336	1,000	1,000	1,300	99.87548	99.87600	99.87542	99.8754
06/08/2015 336 13/08/2015 329 20/08/2015 322 27/08/2015 315 03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 343 29/10/2015 336	1,000	1,000	2,250	99.87905	99.88260	99.87787	99.8000
13/08/2015     329       20/08/2015     322       27/08/2015     315       03/09/2015     308       10/09/2015     301       17/09/2015     294       24/09/2015     287       01/10/2015     364       08/10/2015     357       15/10/2015     343       29/10/2015     336	1,000	1,000	1,450	99.88316	99.88316	99.88316	99.8794
20/08/2015     322       27/08/2015     315       03/09/2015     308       10/09/2015     301       17/09/2015     294       24/09/2015     287       01/10/2015     364       08/10/2015     357       15/10/2015     350       22/10/2015     343       29/10/2015     336	1,000	1,000	6,200	99.89508	99.89553	99.89463	99.8738
27/08/2015     315       03/09/2015     308       10/09/2015     301       17/09/2015     294       24/09/2015     287       01/10/2015     364       08/10/2015     357       15/10/2015     350       22/10/2015     343       29/10/2015     336	1,000	1,000	3,340	99.90316	99.90390	99.90285	99.8962
03/09/2015 308 10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 336	1,000	1,000	3,728	99.91019	99.91022	99.90710	99.9006
10/09/2015 301 17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 336	1,000	1,000	2,300	99.91219	99.91233	99.91213	99.8986
17/09/2015 294 24/09/2015 287 01/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 336	1,000	1,000	2,000	99.91300	99.91424	99.91176	99.9000
24/09/2015     287       01/10/2015     364       08/10/2015     357       15/10/2015     350       22/10/2015     343       29/10/2015     336	1,000	1,000	2,200	99.89914	99.89927	99.89912	99.8709
01/10/2015 364 08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 336	1,000	1,000	64,100	99.90806	99.90834	99.90778	99.0000
08/10/2015 357 15/10/2015 350 22/10/2015 343 29/10/2015 336	500	500	4,200	99.90037	99.90037	99.90037	99.8953
15/10/2015     350       22/10/2015     343       29/10/2015     336	500	500	1,750	99.90713	99.90713	99.90713	99.9022
22/10/2015 343 29/10/2015 336	500	500	4,176	99.91066	99.91088	99.91000	99.9050
29/10/2015 336	500	500	8,100	99.88700	99.88720	99.88670	99.8787
	500	500	1,000	99.89181	99.89181	99.89181	99.8711
00/11/2010 329	500	500	850	99.89538	99.89628	99.89403	99.8917
12/11/2015 322	500	500	2,350	99.89550	99.89584	99.89500	99.8923
	500	500	1,000	99.89381	99.89632	99.88810	99.8876
	500	500	500	99.88160	99.88160	99.88160	99.8816
26/11/2015 308	500	500		99.88330	99.88350	99.88300	99.8830
03/12/2015 301			800 5.935	99.88662	99.88662	99.88662	99.8830
10/12/2015 294	500	500 500	5,935		99.88190	99.88160	
17/12/2015 287	F00	500 500	1,150	99.88174			99.8755
24/12/2015 280 31/12/2015 273	500 500	500	2,300	99.88017	99.88017	99.88017 99.88945	99.8713 99.8501

Continues

#### Continuation

## Banco de México's Bonds (BONDES D)

Three years
Weekly auction results

	_	Am	ount in MXN m	illion		Pr	ice	
	Maturity (days)	Offered	Allotted	Tendered	Weighted placement	Maximum	Minim um allotted	Minimum
08/01/2015	1,078	2,000	2,000	28,160	99.38583	99.39280	99.38560	90.00000
15/01/2015	1,071	2,000	2,000	37,858	99.44500	99.44500	99.44500	99.20000
22/01/2015	1,064	2,000	2,000	14,350	99.47769	99.47800	99.47767	99.41041
29/01/2015	1,057	2,000	2,000	16,535	99.48473	99.48514	99.48377	99.40000
05/02/2015	1,050	2,000	2,000	11,273	99.48189	99.48210	99.48110	99.45749
12/02/2015	1,043	2,000	2,000	6,400	99.47386	99.47400	99.47385	99.43520
19/02/2015	1,092	2,000	2,000	12,400	99.40630	99.40630	99.40630	99.36390
26/02/2015	1,085	2,000	2,000	10,759	99.42168	99.42484	99.42050	99.39617
05/03/2015	1,078	2,000	2,000	2,700	99.43163	99.43227	99.43150	99.40000
12/03/2015	1,071	2,000	2,000	7,500	99.43938	99.44190	99.43820	99.41909
19/03/2015	1,064	2,000	2,000	9,200	99.44619	99.45000	99.43874	99.40500
26/03/2015	1,057	2,000	2,000	8,000	99.44101	99.44500	99.43650	99.41231
01/04/2015	1,051	2,000	2,000	7,196	99.42045	99.42164	99.42000	99.30000
09/04/2015	1,043	2,000	2,000	8,500	99.39471	99.41870	99.39001	99.34000
16/04/2015	1,036	2,000	2,000	7,922	99.38855	99.39000	99.38500	99.35517
23/04/2015	1,092	2,000	2,000	10,535	99.35539	99.38966	99.35159	99.33001
30/04/2015	1,085	2,000	2,000	7,983	99.34113	99.34119	99.34019	99.31096
07/05/2015	1,078	2,000	2,000	13,759	99.33327	99.33400	99.33300	99.25000
14/05/2015	1,071	2,000	2,000	8,750	99.33320	99.33320	99.33320	99.20549
21/05/2015	1,064	2,000	2,000	6,849	99.35602	99.35602	99.35602	99.31271
28/05/2015	1,057	2,000	2,000	7,200	99.39000	99.39000	99.39000	99.34141
04/06/2015	1,050	2,000	2,000	10,072	99.38892	99.40805	99.38720	99.37389
11/06/2015	1,043	2,000	2,000	17,200	99.42500	99.42500	99.42500	99.38474
18/06/2015	1,092	2,000	2,000	6,300	99.39383	99.39500	99.39354	99.35000
25/06/2015	1,085	2,000	2,000	13,900	99.37272	99.39508	99.36127	99.10000
02/07/2015	1,078	1,000	1,000	16,600	99.45262	99.45441	99.45185	99.43580
09/07/2015	1,071	1,000	1,000	10,600	99.45506	99.45833	99.45409	99.43288
16/07/2015	1,064	1,000	1,000	3,100	99.45339	99.45600	99.45300	99.42253
23/07/2015	1,057	1,000	1,000	7,600	99.44755	99.45351	99.44500	99.42000
30/07/2015	1,050	1,000	1,000	2,700	99.44015	99.44150	99.43880	99.43609
06/08/2015	1,043	1,000	1,000	4,399	99.44495	99.44495	99.44495	99.43243
13/08/2015	1,036	1,000	1,000	9,700	99.45897	99.45897	99.45897	99.41680
20/08/2015	1,092	1,000	1,000	9,350	99.42782	99.42789	99.42700	99.41400
27/08/2015	1,085	1,000	1,000	16,309	99.39669	99.39903	99.39618	99.35000
03/09/2015	1,078	1,000	1,000	9,249	99.39099	99.39156	99.39090	99.32973
10/09/2015	1,071	1,000	1,000	6,025	99.40382	99.40400	99.40340	99.38940
17/09/2015	1,064	1,000	1,000	8,087	99.39093	99.39100	99.39002	99.25000
24/09/2015	1,057	1,000	1,000	6,388	99.39484	99.39520	99.39420	99.34701
01/10/2015	1,050	500	500	3,300	99.46674	99.46674	99.46674	99.44562
08/10/2015	1,043	500	500	2,849	99.47720	99.47900	99.47600	99.45000
15/10/2015	1,036	500	500	1,000	99.49079	99.49080	99.49079	99.47713
22/10/2015	1,029	500	500	5,200	99.44537	99.45368	99.43290	99.00000
29/10/2015	1,022	500	500	2,200	99.45732	99.45750	99.45720	99.38500
05/11/2015	1,015	500	500	3,150	99.46571	99.46716	99.45990	98.97000
12/11/2015	1,064	500	500	3,000	99.41500	99.41500	99.41500	99.40810
19/11/2015	1,057	500	500	2,730	99.43675	99.43700	99.43642	99.41238
26/11/2015	1,050	500	500	2,899	99.45206	99.45308	99.44800	99.42917
03/12/2015	1,043	500	500	2,000	99.46091	99.46091	99.46091	99.45236
10/12/2015	1,036	500	500	1,600	99.46486	99.46486	99.46486	90.00000
17/12/2015	1,092	500	500	1,000	99.45239	99.45239	99.45239	99.36620
24/12/2015	1,085	500	500	1,100	99.37098	99.37100	99.37098	99.27111
31/12/2015	1078	500	500	4,187	99.39568	99.39570	99.39500	99.34545

Continues

#### Continuation

## Banco de México's Bonds (BONDES D)

Five years Weekly auction results

	_	An	nount in MXN m	illion		Pr	ice	
ı	Maturity (days)	Offered	Allotted	Tendered	Weighted placement	Maximum	Minimum allotted	Minimu
08/01/2015	1,792	2,000	2,000	31,100	98.90740	98.90770	98.90710	98.8000
15/01/2015	1,785	2,000	2,000	19,496	99.03226	99.98613	98.99530	98.0000
22/01/2015	1,778	2,000	2,000	23,150	99.02917	99.03001	99.02833	98.9500
29/01/2015	1,771	2,000	2,000	14,000	99.06629	99.06700	99.06620	99.0222
05/02/2015	1,820	2,000	2,000	10,342	98.98100	98.98100	98.98100	98.9414
12/02/2015	1,813	2,000	2,000	12,049	98.97755	98.97780	98.97680	98.8862
19/02/2015	1,806	2,000	2,000	16,550	98.96200	98.96200	98.96200	98.8937
26/02/2015	1,799	2,000	2,000	9,300	98.97533	98.97540	98.97510	98.9427
05/03/2015	1,792	2,000	2,000	14,150	98.99010	98.99010	98.99000	98.0000
12/03/2015	1,785	2,000	2,000	48,650	99.04935	99.04935	99.04935	99.0003
19/03/2015	1,778	2,000	2,000	6,800	99.04202	99.04300	99.04142	98.9939
26/03/2015	1,771	2,000	2,000	3,700	99.03410	99.03510	99.03260	98.9000
01/04/2015	1,765	2,000	2,000	5,200	99.01960	99.02600	99.00000	98.8673
09/04/2015	1,820	2,000	2,000	6,200	98.95260	98.95260	98.95260	98.7500
16/04/2015	1,813	2,000	2,000	6,100	98.90740	98.90740	98.90740	98.8612
23/04/2015	1,806	2,000	2,000	9,163	98.85393	98.87500	98.84603	98.8309
30/04/2015	1,799	2,000	2,000	10,173	98.84672	98.84710	98.84610	98.7500
07/05/2015	1,792	2,000	2,000	12,017	98.85300	98.85300	98.85300	98.7630
14/05/2015	1,785	2,000	2,000	10,650	98.82148	98.83156	98.81970	98.6000
21/05/2015	1,778	2,000	2,000	16,247	98.83302	98.83302	98.83102	98.7672
28/05/2015	1,771	2,000	2,000	32,665	98.87300	98.87300	98.87300	98.8000
04/06/2015	1,820	2,000	2,000	11,084	98.86491	98.86510	98.86490	98.7000
11/06/2015	1,813	2,000	2,000	10,657	98.90901	98.90903	98.90901	98.8000
18/06/2015	1,806	2,000	2,000	10,511	98.89371	98.89600	98.89200	98.8000
25/06/2015	1,799	2,000	2,000	10,643	98.87187	98.88138	98.87137	98.8000
02/07/2015	1,792	1,000	1,000	30,078	98.98739	98.98900	98.98721	98.9400
09/07/2015	1,785	1,000	1,000	5,500	98.97500	98.98062	98.97234	98.9000
16/07/2015	1,778	1,000	1,000	4,900	98.95060	98.95110	98.95010	98.8598
23/07/2015	1,771	1,000	1,000	2,250	98.93480	98.93480	98.93480	98.8697
30/07/2015	1,764	1,000	1,000	3,400	98.92470	98.92470	98.92470	98.9021
06/08/2015	1,820	1,000	1,000	4,950	98.86983	98.87115	98.86976	98.7850
13/08/2015	1,813	1,000	1,000	14,700	99.26856	99.88500	98.85628	98.7600
20/08/2015	1,806	1,000	1,000	7,053	98.87894	98.87910	98.87811	98.7500
27/08/2015	1,799	1,000	1,000	9,607	98.86929	98.86929	98.86929	98.7500
03/09/2015	1,792	1,000	1,000	5,910	98.87960	98.87960	98.87960	98.7751
10/09/2015	1,785	1,000	1,000	2,000	98.87690	98.87690	98.87690	98.8723
17/09/2015	1,778	1,000	1,000	3,695	98.83945	98.83950	98.83902	98.7720
24/09/2015	1,771	1,000	1,000	8,150	98.86340	98.86340	98.86340	90.0000
01/10/2015	1,820	500	500	7,385	98.92789	98.92789	98.92789	98.8500
08/10/2015	1,813	500	500	3,800	98.99282	98.99340	98.99050	98.9000
15/10/2015	1,806	500	500	6,310	99.02450	99.03074	99.01650	98.9500
22/10/2015	1,799	500	500	13,590	98.94786	99.03030	98.94000	98.5000
29/10/2015	1,792	500	500	19,600	98.96609	98.96800	98.96482	98.8900
05/11/2015	1,785	500	500	5,400	98.96548	98.96760	98.95700	98.9000
12/11/2015	1,778	500	500	3,600	98.94754	98.94825	98.94701	98.8836
19/11/2015	1,771	500	500	3,700	98.95469	98.95500	98.95416	98.9102
26/11/2015	1,764	500	500	9,056	98.95957	98.96000	98.95900	90.0000
03/12/2015	1,820	500	500	5,100	98.90801	98.90801	98.90801	98.8350
10/12/2015	1,813	500	500	8,810	98.87856	98.88270	98.87580	98.6608
17/12/2015	1,806	500	500	1,000	98.89526	98.89526	98.89526	98.8037
24/12/2015	1,799	500	500	1,600	98.77950	98.77950	98.77950	98.7195
31/12/2015	1,792	500	500	9,613	98.86945	98.87052	98.86860	98.8008

Source: Banco de México.

Table A 36 Representative Interest Rates: Cetes and Fixed Rate Bonds

Yields on public securities Annual rates in percent 1/

			CET	<b>ES</b> 2/				Fixed ra	te bond		
	•	28 days	91 days	182 days	364 days	3 years	5 years	7 years	10 years	20 years	30 years
						(1092 days)	(1820 days)	(2520 days)	(3640 days)	(7280 days)	(10800 days)
2004		6.82	7.10	7.38	7.74	8.25	8.75	9.30	9.54	10.45	
2005		9.20	9.33	9.30	9.28	9.11	9.14	9.34	9.42	9.81	
2006		7.19	7.30	7.41	7.51	7.71	7.86	8.19	8.39	8.55	8.08
2007		7.19	7.35	7.48	7.60	7.60	7.70		7.77	7.83	7.83
2008		7.68	7.89	8.02	8.09	8.00	8.24		8.36	8.55	8.44
2009		5.43	5.52	5.60	5.83	6.51	7.41		7.96	8.48	8.79
2010		4.40	4.57	4.68	4.86	5.59	6.35		6.95	7.60	7.85
2011		4.24	4.35	4.51	4.66	5.38	5.93		6.65	7.85	8.00
2012		4.24	4.38	4.51	4.63	4.89	5.09		5.60	6.79	6.80
2013		3.75	3.81	3.90	3.98	4.42	4.70		5.63	6.42	6.67
2014		3.00	3.12	3.23	3.35	4.72	4.88		6.01	6.74	7.02
2015		2.98	3.14	3.29	3.54	4.90	5.31		5.96	6.56	6.62
2013											
	Jan	4.15	4.30	4.44	4.59	4.87	4.90		5.47	5.83	
	Feb	4.19	4.19	4.25	4.32	4.51	4.68		5.03		6.10
	Mar	3.98	4.00	4.09	4.22	4.44	4.63			5.69	5.88
	Apr	3.82	3.89	3.97	4.11	4.27	4.15		5.00	5.37	
	May	3.72	3.73	3.80	3.98	4.00	4.14		4.64	5.88	5.32
	Jun	3.78	3.83	3.91	4.08	4.35	4.70		6.20		6.71
	Jul	3.85	3.89	3.98	4.01	4.69				6.62	6.75
	Aug	3.84	3.89	3.95	4.00	4.79			5.93	7.00	
	Sep	3.64	3.68	3.75	3.71	4.34			6.13		7.67
	Oct	3.39	3.47	3.55	3.53	4.04	4.79		5.97	6.94	7.30
	Nov	3.39	3.48	3.56	3.60	4.35	5.22			7.24	7.65
	Dec	3.29	3.41	3.51	3.64	4.38	5.12		6.33	7.18	
014											
	Jan	3.14	3.41	3.55	3.66	5.06	5.27		6.46		7.59
	Feb	3.16	3.39	3.52	3.78	4.86	5.09			7.44	7.43
	Mar	3.17	3.29	3.46	3.68	4.80	5.06		6.32	6.89	
	Apr	3.23	3.37	3.49	3.66	4.72	5.07		6.15	7.12	7.20
	May	3.28	3.42	3.51	3.61	4.70	4.80		5.87		6.94
	Jun	3.02	3.08	3.17	3.10	4.57	4.57			6.53	6.65
	Jul	2.83	2.90	2.99	3.03	4.42	4.53		5.69	6.40	
	Aug	2.77	2.89	2.97	3.01	4.57	4.57		5.65		6.86
	Sep	2.83	2.86	2.97	3.09	4.81	4.74			6.50	6.88
	Oct	2.90	2.95	3.04	3.17	4.64	4.88		6.08	6.50	6.74
	Nov	2.85	2.92	3.01	3.17	4.54			5.98	6.53	
	Dec	2.81	2.92	3.02	3.22	4.92	5.12		5.90		6.92
2015											
	Jan	2.67	2.91	3.01	3.23	4.69	4.58			6.37	6.00
	Feb	2.81	2.94	3.09	3.21	4.93	5.05		5.31	6.24	
	Mar	3.04	3.12	3.32	3.53	5.26	5.15		6.04		6.42
	Apr	2.97	3.09	3.24	3.50	4.88	5.18		5.83	6.43	6.38
	May	2.98	3.09	3.20	3.51	5.07	5.26			6.61	6.69
	Jun	2.96	3.12	3.25	3.54	5.01	5.33		6.25	6.73	
	Jul	2.99	3.13	3.28	3.63	4.89	5.46		6.07		6.76
	Aug	3.04	3.35	3.45	3.70	5.01	5.59			6.56	6.68
	Sep	3.10	3.33	3.46	3.72	4.80	5.67		6.07	6.72	
	Oct	3.02	3.13	3.26	3.53	4.60	5.37			6.56	6.90
	Nov	3.02	3.22	3.42	3.70	4.83	5.46		6.18		6.89
	Dec	3.14	3.29	3.51	3.68	4.80	5.64			6.81	6.90

**Continues** 

<sup>1/</sup> Simple average. 2/ Primary auction placement rate for 28, 91, 182 and 364 days, respectively. Source: Banco de México.

#### Continuation

### Representative Interest Rates: Udibonos and IPAB Bonds

Yields on public securities Annual rates in percent 1/

_		HDIRO			Surtax					
		ODIDO	NOS <sup>2/</sup>		BPAs 3/4/	BPATs 3/5/	BPA 182 3/6/			
	3 years	10 years	20 years	30 years	3 years	5 years	7 years			
	(1092 days)	(3640 days)	(7280 days)	(10800 days)	(1092 days)	(1820 days)	(2548 days)			
2004		4.79			0.38	0.40	0.38			
2005		4.92			0.23	0.21	0.20			
2006		4.17	4.34	4.41	0.20	0.20	0.20			
2007	3.40	3.63	3.58	3.61	0.14	0.11	0.13			
2008	3.48	4.04	3.75	4.21	0.22	0.18	0.19			
2009	2.53	3.84		4.40	0.44	0.37	0.35			
2010	1.47	2.79		3.66	0.26	0.22	0.22			
2011	1.47	2.59		3.91	0.31	0.28	0.24			
2012	0.99	1.97		3.12	0.38	0.36	0.25			
2013	0.88	1.86		3.10			0.20			
2014	0.92	2.56		3.55			0.00			
2015	2.03	2.91		3.52			0.00			
2013										
Jan	1.40	1.56		2.63			0.34			
Feb	1.04	1.56		2.38			0.33			
Mar	1.15	1.41		2.40			0.23			
Apr	0.95	1.10		2.32			0.17			
May	0.73	1.36		2.33			0.16			
Jun	0.90	1.80		3.54			0.19			
Jul	1.16	2.00		3.25			0.22			
Aug	0.79	2.15		3.52			0.20			
Sep	0.56	2.34		3.56			0.16			
Oct	0.40	2.11		3.61			0.14			
Nov	0.70	2.35		3.82			0.13			
Dec	0.75	2.54		3.81			0.11			
014										
Jan	0.58	2.62		3.88			0.08			
Feb	0.99	2.60		4.03			0.01			
Mar	1.15	2.61		3.77			0.03			
Apr	1.29	2.75		3.69			0.05			
May	1.03	2.48		3.35			0.11			
Jun	0.55	2.38		3.34			0.04			
Jul	0.68	2.43		3.31			-0.03			
Aug	0.75	2.36		3.25			-0.02			
Sep	0.77	2.51		3.47			-0.03			
Oct	0.88	2.64		3.37			-0.08			
Nov	0.94	2.68		3.54			-0.08			
Dec	1.45	2.65		3.64			-0.05			
2015	4.04	0.50		0.04			0.40			
Jan Esh	1.84	2.52		3.24			-0.12			
Feb	2.00	2.62		3.10			-0.07			
Mar	2.40	2.82 2.86		3.35			0.04			
Apr	2.15			3.49			0.11			
May	2.30	2.88		3.52			0.10			
Jun	2.00	2.99		3.51			0.04			
Jul	1.82	2.91		3.61			0.00			
Aug	2.02	3.00		3.57			-0.04			
Sep	1.74	2.99		3.60			-0.01			
Oct	1.56	2.99		3.64			-0.02			
Nov	1.94 2.62	3.02 3.27		3.68 3.89			-0.05 -0.01			

<sup>1/</sup> Simple average.

<sup>2/</sup> Federal government development bonds denominated in UDIs paying a fixed real interest rate.
3/ Savings protection bonds issued by the Institute for the Protection of Bank Savings (*Instituto de Protección al Ahorro Bancario*, IPAB).

<sup>4/</sup> Spread in percentage points over the coupon paying the 28-day Cetes primary auction interest rate.

<sup>5/</sup> Spread in percentage points over the coupon paying the 91-day Cetes primary auction interest rate.

<sup>6/</sup> Spread in percentage points over the coupon paying the 182-day Cetes primary auction interest rate.

Source: Banco de México.

## Table A 37 Representative Interest Rates

Costs of bank deposits (CCP and CPP), interbank interest rate, overnight interest rate and short-term private securities

Annual rates in percent 1/

	Target rate	2/	Weighte	d funding rate		Interbank ra	tes		Co	st of bank deposits			Short-term private securities 3/
			Bank	Government	28-day TIIE 4	91-day TIIE 4/	91-day Mexibor <sup>5/</sup>	CCP 6/	CCP-USD 7/	CCP-Udis 8/	CPP 9/	CCP development banks 10/	
2004			6.75	6.57	7.15	7.44	7.26	5.41	2.91	4.88	4.62	6.95	7.44
2005			9.30	9.00	9.61	9.63	9.50	7.64	3.61	5.50	6.47	9.46	9.70
2006			7.23	7.07	7.51	7.69	7.38	6.06	4.05	5.45	5.14	7.55	7.51
2007			7.23	7.12	7.66	7.78	7.24	5.99	4.44	4.93	5.00	7.47	7.56
2008	7.84		7.82	7.67	8.28	8.35		6.73	3.27	4.74	5.69	7.94	8.71
2009	5.59		5.62	5.55	5.93	5.93		5.07	2.62	4.67	4.25	6.06	7.07
2010	4.50		4.59	4.55	4.91	5.00		4.17	2.18	4.20	3.41	4.87	5.29
2011	4.50		4.48	4.46	4.82	4.86		4.18	2.15	3.89	3.34	4.67	4.92
2012	4.50		4.49	4.50	4.79	4.81		4.20	2.79	4.37	3.25	4.79	4.73
2013	3.97		3.98	4.00	4.28	4.29		3.86	3.57	4.30	2.97	4.52	4.25
2014 2015	3.22 3.01		3.22 3.05	3.25 3.08	3.52 3.32	3.53 3.34		3.23 3.03	3.78 3.71	4.29 4.33	2.41 2.18	3.99 3.91	3.55 3.42
	3.0		3.05	3.00	3.32	3.34		3.03	3.71	4.33	2.10	3.91	3.42
2013	Jan 4.50		4.50	4.49	4.84	4.86		4.25	3.23	4.31	3.24	4.92	4.80
	Feb 4.50		4.50	4.50	4.82	4.82		4.25	3.58	4.31	3.29	4.95	4.76
	Mar 4.11	1 .	4.15	4.16	4.48	4.49		4.09	3.60	4.31	3.18	4.70	4.38
	Apr 4.00		4.02	4.02	4.33	4.34		3.93	3.38	4.32	3.03	4.53	4.35
	May 4.00		4.02	4.02	4.32	4.32		3.86	3.54	4.32	2.99	4.54	4.35
	Jun 4.00		4.01	4.02	4.30	4.31		3.84	3.58	4.32	2.97	4.52	4.24
	Jul 4.00	)	4.01	4.01	4.32	4.32		3.84	3.66	4.32	2.94	4.52	4.32
	Aug 4.00	)	4.00	4.01	4.31	4.31		3.85	3.58	4.31	2.98	4.52	4.28
	Sep 3.79	9	3.81	3.82	4.10	4.11		3.67	3.63	4.31	2.83	4.43	4.11
	Oct 3.69	9	3.70	3.72	3.98	3.97		3.67	3.65	4.25	2.85	4.30	3.89
	Nov 3.50	)	3.53	3.57	3.79	3.79		3.53	3.78	4.25	2.74	4.17	3.77
	Dec 3.50	)	3.56	3.62	3.79	3.79		3.51	3.63	4.25	2.64	4.17	3.77
2014													
	Jan 3.50		3.49	3.51	3.78	3.80		3.47	3.54	4.25	2.57	4.11	3.83
	Feb 3.50		3.49	3.52	3.79	3.80		3.46	3.96	4.25	2.61	4.12	3.80
	Mar 3.50		3.49	3.52	3.80	3.81		3.44	3.73	4.26	2.54	4.12	3.93
	Apr 3.50		3.50	3.53	3.81	3.81		3.41	3.83	4.29	2.55	4.15	3.88
	May 3.50		3.50	3.53	3.80	3.82		3.42	3.86	4.31	2.60	4.18	3.80
	Jun 3.08		3.11	3.14	3.43	3.44		3.30	3.85	4.17	2.50	4.02	3.43
	Jul 3.00		3.00	3.02	3.30	3.31		3.12	3.85	4.31	2.35	3.87	3.36
	Aug 3.00		3.01	3.05	3.30	3.31		3.05	3.73	4.31	2.30	3.89	3.32
	Sep 3.00		3.00	3.02	3.29	3.30		3.02	3.86	4.32	2.28	3.83	3.36
	Oct 3.00		3.01	3.04	3.29	3.30		3.03	3.71	4.32	2.26	3.84	3.34
	Nov 3.00		3.02	3.05	3.29	3.30		3.04	3.79	4.32	2.25	3.82	3.19
2015	Dec 3.00	)	3.05	3.08	3.30	3.31		3.03	3.61	4.32	2.15	3.87	3.38
	Jan 3.00	)	3.01	3.04	3.30	3.31		3.01	3.42	4.32	2.20	3.83	3.33
	Feb 3.00		3.03	3.06	3.30	3.31		3.01	3.77	4.32	2.24	3.82	3.36
	Mar 3.00		3.05	3.08	3.30	3.33		3.00	3.59	4.32	2.21	3.82	3.45
	Apr 3.00		3.02	3.04	3.30	3.31		3.02	3.66	4.31	2.23	3.84	3.41
	May 3.00		3.00	3.02	3.30	3.31		3.02	3.67	4.32	2.24	3.87	3.53
	Jun 3.00		3.07	3.10	3.30	3.31		3.03	3.82	4.32	2.23	3.86	3.28
	Jul 3.00	)	3.07	3.10	3.30	3.32		3.03	3.74	4.33	2.15	3.96	3.36
	Aug 3.00		3.03	3.08	3.32	3.35		3.03	3.78	4.33	2.13	3.98	3.32
	Sep 3.00		3.03	3.06	3.33	3.36		3.04	3.69	4.33	2.16	4.03	3.46
	Oct 3.00		3.02	3.04	3.31	3.32		3.03	3.73	4.34	2.16	3.98	3.39
	Nov 3.00		3.05	3.07	3.32	3.38		3.02	3.88	4.34	2.13	3.95	3.58
	Dec 3.11		3.21	3.24	3.42	3.50		3.06	3.77	4.35	2.11	4.02	3.60

- 1/ Simple average.
- 2/ Banco de México's target for the interest rate on overnight operations in the interbank funding market (operational target).
- 3/ 28-day interest rate calculated based on Indeval data.
- 4/ The Interbank Equilibrium Interest Rate (TIIE) is calculated by Banco de México using commercial bank quotes as stipulated in the Official Gazette of March 23, 1995.
- 5/ The Mexibor rate stopped being calculated on March 13, 2007 as stated in Nacional Financiera, S.N.C. press release in Mexico's Official Gazette (Diario Oficial de la Federación) of that day.
- 6/ Commercial Bank's Average Cost of Terms Deposits (CCP) includes the interest of term deposits denominated in domestic currency. It excludes convertible subordinated debt, guarantees and interbank operations. The publication of this rate started in February 1996. For further information, see the Official Gazette of February 13, 1996.
- 7/ Commercial Bank's Average Cost of Term Deposits in Dollars (CCP-USD) includes term liabilities and foreign bank loans denominated in U.S. dollars. It excludes convertible subordinated debt, guarantees, interbank operations, and loans granted by Export-Import Banks, Commodity Credit Corporation and other similar institutions. The publication of this rate started in May 1996. For further information, see the Official Gazette of May 6, 1996.
- 8/ Commercial Bank's Average Cost of Term Deposits in investment units (CCP-Udis) includes the same type of instruments used in the calculation of the CCP, but denominated in investment units (Udis). The publication of this rate started in November 1995.
- 9/ Commercial Bank's Average Cost of Funds (CPP) covers term deposits, certificate of deposits, other current account deposits (other than demand deposits), banker's acceptances and commercial paper with bank guarantee. The publication of this rate started in August 1975, and will continue to be published for an undetermined period, as stipulated in the Official Gazette of November 3, 2005.
- 10/ Observed interest rate, expressed in annual percent. Development bank's Average Cost of Funds in domestic currency includes bank term deposits, certificates of deposit, banker acceptances and credit from Banco de México (through auctions). This rate is determined with the information provided by development bank institutions to Banco de México.

Source: Banco de México, based on Indeval data.

Table A 38 **Representative Exchange Rates** MXN/USD

Exchange rate to settle liabilities

48-hour interbank exch. rate Closing references

Part				currency in Mexico 1/		•	21	
End of period			. ,		В	luv	S	Sell
2010								
2010			End of period	End of period				
2011	2010		12.3571	12.6360				
2013	2011		13.9904	12.4233			13.9725	
2014	2012		13.0101	13.1695	12.8684	13.1570	12.8704	13.1599
2014	2013		13.0765	12.7720	13.0850	12.7699	13.0900	12.7728
Dec   10, 12, 12, 13, 13, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14	2014							
Jan	2015		17.2065	15.8483	17.2050	15.8685	17.2120	15.8728
Feb	2012							
Mar   12,8039   12,7561   12,8005   12,7428   12,8035   12,7459   12,9033   13,0512   13,0277   13,0649   13,0511   13,0677   13,0687   14,2941   13,6719   13,011   13,0675   13,3267   13,3267   13,3274   13,0078   13,3396   13,3115   13,6719   13,011   13,0237   13,3894   13,3075   13,3596   13,3115   13,3624   13,011   13,0275   13,3274   13,075   13,3596   13,3115   13,3624   13,075   13,3574   13,0078   13,1315   13,3624   13,007   13,1841   13,007   13,011   12,8728   13,0694   12,8982   13,0714   12,906   Nov   13,0372   13,0872   12,9370   13,0683   12,9390   13,0713   Dec   13,0101   12,8670   12,8684   12,8705   12,8704   12,8729   12,7130   12,8728   13,0694   12,8729   12,7144   12,7219   12,7150   12,6937   12,7170   12,6960   12,8680   12,7144   12,7459   12,7164   12,7489   12,7186   Mar   12,3579   12,5745   12,3319   12,5186   12,3339   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204   12,5204								
Apr								
May								
Jun								
Jul	I	May	13.9169	13.5556	14.2901	13.6687	14.2941	13.6719
Aug		Jun	13.6652	13.9820	13.3374	13.9078	13.3396	13.9112
Sep		Jul	13.2837	13.3894	13.3075	13.3597	13.3115	13.3629
Oct         13.0900         12.8728         13.0694         12.8982         13.0714         12.9006           Nov         13.0372         13.0872         12.9370         13.0683         12.9390         13.0712           Dec         13.0101         12.8670         12.8684         12.8705         12.8683         12.9370         12.8724           2013         Jan         12.7134         12.7219         12.7150         12.6937         12.7170         12.6960           Feb         12.8680         12.7144         12.7459         12.7164         12.7468         12.7489         12.7186           Mar         12.3579         12.5745         12.3319         12.5166         12.3339         12.5074           May         12.6328         12.2522         12.8011         12.3151         12.8041         12.3174           Jun         13.1884         12.9361         12.9665         12.9547         12.9795         12.9579           Jul         13.2539         12.8704         13.3860         12.9268         13.3900         12.9304           Sep         13.0119         13.0925         13.1504         13.0866         13.1524         13.0718           Oct         12.8903         13.09		Aug	13.2746	13.1790	13.1980	13.1815	13.2000	13.1841
Nov	;	Sep	12.9170	12.9871	12.8563	12.9303	12.8593	12.9327
Dec		Oct	13.0900	12.8728	13.0694	12.8982	13.0714	12.9006
Dan		Nov	13.0372	13.0872	12.9370	13.0683	12.9390	13.0713
Jan   12.7134   12.7219   12.7150   12.6937   12.7170   12.6960   Feb   12.8680   12.7144   12.7459   12.7164   12.7489   12.7186   Mar   12.3579   12.5745   12.3319   12.5186   12.3339   12.5204     Apr   12.1550   12.2249   12.1391   12.2057   12.1411   12.2078     May   12.6328   12.2522   12.8011   12.3151   12.8041   12.3174     Jun   13.1884   12.9361   12.9765   12.9547   12.9795   12.9579     Jul   12.7321   12.7851   12.7820   12.7600   12.7850   12.7637     Aug   13.2539   12.8704   13.3860   12.9268   13.3900   12.9304     Sep   13.0119   13.0925   13.1504   13.0866   13.1524   13.0718     Oct   12.8903   13.0187   13.0380   12.9951   13.0400   12.9982     Nov   13.0925   13.0634   13.1125   13.0794   13.1175   13.0832     Dec   13.0765   13.0098   13.0850   13.0044   13.0900   13.0083     2014   Jan   13.3671   13.1981   13.3120   13.2172   13.3160   13.2207     Feb   13.2992   13.2888   13.2420   13.2750   13.2460   13.2784     Mar   13.0837   13.2688   13.2420   13.2750   13.2460   13.2784     Mar   13.0837   13.2681   13.0830   13.0044   13.0640   13.2036     Apr   13.1356   13.0681   13.0830   13.0921   12.9865   12.9945     Jul   13.0578   12.9479   12.8525   12.9215   12.8560   12.9945     Jul   13.0578   12.9479   12.8525   12.9215   12.8560   12.9945     Jul   13.0578   12.9479   13.680   13.1430   13.0700   13.1452     Sep   13.4541   13.2002   13.4215   13.2378   13.4235   13.2984     Dec   14.7180   14.4266   14.7445   14.5160   14.7475   14.5198    2015   Jan   14.6878   14.6757   14.9470   14.6927   14.9500   14.6964     Feb   14.9228   14.9167   14.9255   14.9138   14.9295   14.9184     Mar   15.1542   15.2003   15.2560   15.2338   15.3795   15.2380     May   15.3681   15.2555   15.3850   15.2591   15.3890   15.2629     Jun   15.5676   15.4562   15.6900   15.4802   15.4802   15.4802     Jul   16.2140   15.8881   16.1230   15.2500   16.5420   16.6825   16.5459     Jul   16.2140   15.8881   16.1230   15.9392   16.1260   15.9430     Aug   16.8863   16.4880   16.6795   16.5420   16.6825		Dec	13.0101	12.8670	12.8684	12.8705	12.8704	12.8729
Feb	2013							
Mar		Jan	12.7134	12.7219	12.7150	12.6937		12.6960
Apr		Feb	12.8680	12.7144	12.7459	12.7164	12.7489	12.7186
May	1	Mar	12.3579	12.5745	12.3319	12.5186	12.3339	12.5204
Jun		Apr	12.1550	12.2249	12.1391	12.2057	12.1411	12.2078
Jul	1	May	12.6328	12.2522	12.8011	12.3151	12.8041	12.3174
Aug         13.2539         12.8704         13.3860         12.9268         13.3900         12.9304           Sep         13.0119         13.0925         13.1504         13.0686         13.1524         13.0718           Oct         12.8903         13.0187         13.0380         12.9951         13.0400         12.9982           Nov         13.0925         13.0634         13.1125         13.0794         13.1175         13.0832           Dec         13.0765         13.0098         13.0850         13.0044         13.0900         13.0083           Jan         13.3671         13.1981         13.3120         13.2172         13.3160         13.22784           Feb         13.2992         13.2888         13.2420         13.2750         13.2460         13.2784           Mar         13.0837         13.2154         13.0620         13.2004         13.0640         13.2784           May         12.8660         12.9479         12.8525         12.9215         12.8560         12.9424           Jun         13.0323         12.9832         12.9850         12.9873         13.2050         12.9894           Aug         13.0811         13.1490         13.0680         13.1430		Jun	13.1884	12.9361	12.9765	12.9547	12.9795	12.9579
Sep         13.0119         13.0925         13.1504         13.0686         13.1524         13.0718           Oct         12.8903         13.0187         13.0380         12.9951         13.0400         12.9882           Nov         13.0925         13.0634         13.1125         13.0794         13.1175         13.0832           Dec         13.0765         13.0098         13.0850         13.0044         13.0900         13.0083           Zota         13.0765         13.098         13.0850         13.0044         13.0900         13.0083           Zota         13.3671         13.1981         13.3120         13.2172         13.3160         13.2207           Feb         13.2992         13.2888         13.2420         13.2750         13.2460         13.2784           Mar         13.0837         13.2154         13.0620         13.2004         13.0640         13.2036           Apr         13.1356         13.0681         13.0830         13.0623         13.0850         13.0650           May         12.8660         12.9479         12.8525         12.9215         12.8666         12.9449           Jul         13.0578         12.9479         12.8525         12		Jul	12.7321	12.7851	12.7820	12.7600	12.7850	12.7637
Oct         12.8903         13.0187         13.0380         12.9951         13.0400         12.9982           Nov         13.0925         13.0634         13.1125         13.0794         13.1175         13.0832           2014         2014         3.0765         13.0098         13.0850         13.0044         13.0900         13.0832           2014         3.0004         13.0907         13.0083         13.0044         13.0900         13.0083           2014         3.0004         13.0620         13.2172         13.3160         13.2207           Feb         13.2992         13.2888         13.2420         13.2750         13.2460         13.2784           Mar         13.0837         13.2154         13.0620         13.2004         13.0640         13.2036           Apr         13.1356         13.0681         13.0830         13.0623         13.0850         13.0850           May         12.8660         12.9479         12.8525         12.9215         12.8660         12.9242           Jun         13.0578         12.9734         13.2030         12.9873         13.2050         12.9242           Jul         13.0578         12.9734         13.0680         13.1430         13.07		Aug	13.2539	12.8704	13.3860	12.9268	13.3900	12.9304
Nov		Sep	13.0119	13.0925	13.1504	13.0686	13.1524	13.0718
Dec   13.0765   13.098   13.0850   13.0044   13.0900   13.0083	(	Oct	12.8903	13.0187	13.0380	12.9951	13.0400	12.9982
2014   Jan		Nov	13.0925	13.0634	13.1125	13.0794	13.1175	13.0832
Jan		Dec	13.0765	13.0098	13.0850	13.0044	13.0900	13.0083
Feb         13.2992         13.2888         13.2420         13.2750         13.2460         13.2784           Mar         13.0837         13.2154         13.0620         13.2004         13.0640         13.2036           Apr         13.1356         13.0681         13.0830         13.0623         13.0850         13.0650           May         12.8660         12.9479         12.8525         12.9215         12.8560         12.9242           Jun         13.0323         12.9832         12.9850         12.9921         12.9865         12.9945           Jul         13.0578         12.9734         13.2030         12.9873         13.2050         12.9844           Aug         13.0811         13.1490         13.0680         13.1430         13.0700         13.1452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14	2014							
Mar         13.0837         13.2154         13.0620         13.2004         13.0640         13.2036           Apr         13.1356         13.0881         13.0830         13.0623         13.0850         13.0650           May         12.8660         12.9479         12.8525         12.9215         12.8560         12.9242           Jun         13.0323         12.9832         12.9850         12.9921         12.9865         12.9945           Jul         13.0578         12.9734         13.2030         12.9873         13.2050         12.9894           Aug         13.0811         13.1490         13.0680         13.1430         13.0700         13.1452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015         Jan         14.6878         14.6757         14.9470		Jan	13.3671	13.1981	13.3120	13.2172	13.3160	13.2207
Apr 13.1356 13.0681 13.0830 13.0623 13.0850 13.0650 May 12.8660 12.9479 12.8525 12.9215 12.8560 12.9242 Jun 13.0323 12.9832 12.9850 12.9921 12.9865 12.9945 Jul 13.0578 12.9734 13.2030 12.9873 13.2050 12.9894 Aug 13.0811 13.1490 13.0680 13.1430 13.0700 13.1452 Sep 13.4541 13.2002 13.4215 13.2378 13.4235 13.2398 Oct 13.4239 13.4768 13.4690 13.4785 13.4715 13.4807 Nov 13.7219 13.5819 13.9055 13.6261 13.9080 13.6284 Dec 14.7180 14.4266 14.7445 14.5160 14.7475 14.5198 2015  2015  Jan 14.6878 14.6757 14.9470 14.6927 14.9500 14.6964 Feb 14.9228 14.9167 14.9255 14.9138 14.9295 14.9184 Mar 15.1542 15.2003 15.2550 15.2276 15.2610 15.233 Apr 15.2525 15.2228 15.3258 15.3795 15.2338 15.3795 15.2330 May 15.3581 15.2555 15.3850 15.2591 15.3890 15.2629 Jun 15.5676 15.4862 15.6900 15.4803 15.6950 15.4842 Jul 16.2140 15.8881 16.1230 15.9392 16.1260 15.9430 Aug 16.8863 16.4880 16.6795 16.5420 16.6825 16.5459 Sep 17.0073 16.8372 16.9300 16.8546 16.9330 16.8593 Oct 16.4503 16.6020 16.5040 16.5767 16.5070 16.5810		Feb	13.2992	13.2888	13.2420	13.2750	13.2460	13.2784
May         12.8660         12.9479         12.8525         12.9215         12.8560         12.9242           Jun         13.0323         12.9832         12.9850         12.9921         12.9865         12.9945           Jul         13.0578         12.9734         13.2030         12.9873         13.2050         12.9894           Aug         13.0811         13.1490         13.0680         13.1430         13.0700         13.1452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015         Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560	1	Mar	13.0837	13.2154	13.0620	13.2004	13.0640	13.2036
Jun         13.0323         12.9832         12.9850         12.9921         12.9865         12.9945           Jul         13.0578         12.9734         13.2030         12.9873         13.2050         12.9894           Aug         13.0811         13.1490         13.0680         13.1433         13.0700         13.452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015         Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           May         15.3581         15.2555         15.3550         15.259		Apr	13.1356	13.0681	13.0830	13.0623	13.0850	13.0650
Jul         13.0578         12.9734         13.2030         12.9873         13.2050         12.9894           Aug         13.0811         13.1490         13.0680         13.1430         13.0700         13.1452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9655         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015         Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.280           May         15.3581         15.2555         15.8900	1	May	12.8660	12.9479	12.8525	12.9215	12.8560	12.9242
Aug         13.0811         13.1490         13.0680         13.1430         13.0700         13.1452           Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015         Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2380           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         16.5676         15.4562         15.690		Jun	13.0323	12.9832	12.9850	12.9921	12.9865	12.9945
Sep         13.4541         13.2002         13.4215         13.2378         13.4235         13.2398           Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015           Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.233           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2380           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880		Jul	13.0578	12.9734	13.2030	12.9873	13.2050	12.9894
Oct         13.4239         13.4768         13.4690         13.4785         13.4715         13.4807           Nov         13.7219         13.5819         13.9055         13.6261         13.9080         13.6284           Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015           Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2820           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4562         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880		Aug	13.0811	13.1490	13.0680	13.1430	13.0700	13.1452
Nov Dec         13.7219 (13.5819)         13.9055 (13.6261)         13.9080 (13.6284)           2015           Jan 14.6878 (14.6757)         14.9470 (14.6927)         14.9500 (14.9964)           Feb 14.9228 (14.9167)         14.9255 (14.9138)         14.9295 (14.9184)           Mar 15.1542 (15.2003)         15.2560 (15.2276)         15.2610 (15.2323)           Apr 15.2225 (15.2228)         15.3755 (15.2338)         15.3795 (15.2380)           May 15.3581 (15.2555 (15.3850)         15.2591 (15.3890) (15.6950)         15.4842           Jul (16.2140)         15.8881 (16.1230) (15.9392) (16.1260) (15.9430)           Aug (16.8863)         16.4880 (16.6795) (16.5420) (16.6825) (16.5459)           Sep (17.0073)         16.8372 (16.9300) (16.8546) (16.9330) (16.8593)           Oct (16.4503)         16.6020) (16.5040) (16.5767) (16.5070) (16.5810)		Sep	13.4541	13.2002	13.4215	13.2378	13.4235	13.2398
Dec         14.7180         14.4266         14.7445         14.5160         14.7475         14.5198           2015           Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2566         15.2276         15.2610         15.2333           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2880           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4862         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9439           Aug         16.8863         16.4880         16.6795         16.5420         16.6825         16.5459           Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040 <td>(</td> <td>Oct</td> <td>13.4239</td> <td>13.4768</td> <td>13.4690</td> <td>13.4785</td> <td>13.4715</td> <td>13.4807</td>	(	Oct	13.4239	13.4768	13.4690	13.4785	13.4715	13.4807
2015		Nov	13.7219	13.5819	13.9055	13.6261	13.9080	13.6284
Jan         14.6878         14.6757         14.9470         14.6927         14.9500         14.6964           Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2380           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4562         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880         16.6795         16.5420         16.6825         16.5459           Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040         16.5767         16.5070         16.5810		Dec	14.7180	14.4266	14.7445	14.5160	14.7475	14.5198
Feb         14.9228         14.9167         14.9255         14.9138         14.9295         14.9184           Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2380           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4562         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880         16.6795         16.5420         16.6825         16.5459           Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040         16.5767         16.5070         16.5810	2015							
Mar         15.1542         15.2003         15.2560         15.2276         15.2610         15.2323           Apr         15.2225         15.2228         15.3755         15.2338         15.3795         15.2380           May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4562         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880         16.6795         16.5420         16.6825         16.5459           Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040         16.5767         16.5070         16.5810			14.6878	14.6757	14.9470	14.6927	14.9500	14.6964
Apr     15.2225     15.2228     15.3755     15.2338     15.3795     15.2380       May     15.3581     15.2555     15.3850     15.2591     15.3890     15.2629       Jun     15.5676     15.4662     15.6900     15.4803     15.6950     15.4842       Jul     16.2140     15.8881     16.1230     15.9392     16.1260     15.9430       Aug     16.8863     16.4880     16.6795     16.5420     16.6825     16.5459       Sep     17.0073     16.8372     16.9300     16.8546     16.9330     16.8593       Oct     16.4503     16.6020     16.5040     16.5767     16.5070     16.5810								
May         15.3581         15.2555         15.3850         15.2591         15.3890         15.2629           Jun         15.5676         15.4662         15.6900         15.4803         15.6950         15.4842           Jul         16.2140         15.8881         16.1230         15.9392         16.1260         15.9430           Aug         16.8863         16.4880         16.6795         16.5420         16.6825         16.5459           Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040         16.5767         16.5070         16.5810	1	Mar	15.1542	15.2003	15.2560	15.2276	15.2610	15.2323
Jun     15.5676     15.4562     15.6900     15.4803     15.6950     15.4842       Jul     16.2140     15.8881     16.1230     15.9392     16.1260     15.9430       Aug     16.8863     16.4880     16.6795     16.5420     16.6825     16.5459       Sep     17.0073     16.8372     16.9300     16.8546     16.9330     16.8593       Oct     16.4503     16.6020     16.5040     16.5767     16.5070     16.5810		Apr	15.2225	15.2228	15.3755	15.2338	15.3795	15.2380
Jul     16.2140     15.8881     16.1230     15.9392     16.1260     15.9430       Aug     16.8863     16.4880     16.6795     16.5420     16.6825     16.5459       Sep     17.0073     16.8372     16.9300     16.8546     16.9330     16.8593       Oct     16.4503     16.6020     16.5040     16.5767     16.5070     16.5810	1	May	15.3581	15.2555	15.3850		15.3890	
Aug     16.8863     16.4880     16.6795     16.5420     16.6825     16.5459       Sep     17.0073     16.8372     16.9300     16.8546     16.9330     16.8593       Oct     16.4503     16.6020     16.5040     16.5767     16.5070     16.5810		Jun	15.5676	15.4562	15.6900	15.4803	15.6950	15.4842
Sep         17.0073         16.8372         16.9300         16.8546         16.9330         16.8593           Oct         16.4503         16.6020         16.5040         16.5767         16.5070         16.5810		Jul	16.2140	15.8881	16.1230	15.9392	16.1260	15.9430
Oct 16.4503 16.6020 16.5040 16.5767 16.5070 16.5810		Aug	16.8863	16.4880	16.6795	16.5420	16.6825	16.5459
		Sep	17.0073	16.8372	16.9300	16.8546	16.9330	16.8593
Nov 16.5492 16.6348 16.5705 16.6323 16.5735 16.6367		Oct	16.4503	16.6020	16.5040	16.5767	16.5070	16.5810
		Nov	16.5492	16.6348	16.5705	16.6323	16.5735	16.6367
Dec         17.2065         17.0019         17.2050         17.0703         17.2120         17.0750		Dec	17.2065	17.0019	17.2050	17.0703	17.2120	17.0750

<sup>1/</sup>The FIX exchange rate is determined by Banco de México as an average of wholesale foreign exchange references for transactions payable in 48 hours. It is published in Mexico's Official Gazette (*Diario Oficial de la* Federación) one banking business day after its setting date. It is used to settle liabilities denominated in foreign currency payable in Mexico the day after its publishing.

2/ Representative exchange rate for wholesale transactions (among banks, securities firms, foreign exchange firms and other major financial and non-financial companies). Payable two banking business days after it has been

Source: Banco de México.

settled.

Table A 39

Mexican Stock Exchange (*Bolsa Mexicana de Valores*, BMV) Market Capitalization

MXN million, according to the last listed prices

Previous methodology: indices by sector according to the previous classification of the Mexican Stock Exchange Retail and Communications Other 1/ Overall total Minina Manufacturing Construction Services commerce and transport 72,479 282,035 2004 1,916,618 241,646 294,503 740,438 143,762 141,755 362,336 953,698 89.036 399.823 168.316 201.570 3,771,498 497,754 241,064 2006 142,574 572.818 650.601 1,395,233 271.454 2007 4,340,886 273,841 586,815 453,355 644,805 1,772,050 390,211 219,810 2008 3,220,900 141,652 516,354 217,308 632,165 1,239,884 313,449 160,088 2007 Jan 3.913.893 159.576 584.392 523.214 686.725 1.445.725 272.927 241.333 3,832,303 170,370 573,036 518,959 645,178 1,418,774 278,568 227,417 Feb Mar 4,114,981 184,568 584,043 518,859 702,902 1,570,875 304,561 249,173 Apr 4,211,416 206,279 590,771 512,628 677,685 1,639,947 336,276 247,831 May 4,553,781 216,700 621,506 579,198 675,223 1,842,954 360,116 258,083 4,557,468 223,457 616,893 580,709 674,899 1,831,792 375,705 254,013 Jun Jul 4.500.724 259.809 609.272 550 394 682.319 1.753.651 400.414 244 866 Aug 4,447,516 239,114 584.517 531.416 676.377 1,797,302 381.663 237.127 Sep 4.442.831 278.613 584.392 506.299 679.080 1.802.060 363.185 229.201 4 566 888 571 289 705 923 1 790 600 Oct 356 109 501 224 397 432 244 312 390,350 4.370.523 539.076 468.501 305.970 668,734 1.778.275 219.617 Nov 4,340,886 273,841 586,815 453,355 644,805 1,772,050 390,211 219,810 Dec 2008 4,215,720 268,704 555,655 461,093 638,710 1,701,257 375,152 Jan 215,150 4,258,349 301,698 460,261 636,353 1,658,264 376,175 Feb 597,974 227,623 Mar 4,483,960 315,522 605,295 441,826 705,025 1,778,918 402,917 234,456 4,382,527 332,787 632,963 455,806 699,076 1,614,075 391,486 256,334 May 4.619.520 344.048 670.331 490,154 760.944 1,696,804 412,462 244 777 4.271.885 1.528.599 Jun 311.578 648.423 427.249 703.959 401.141 250.935 4 009 636 375 043 260 837 629 652 703 719 1 425 274 386 785 228 326 Jul 3,861,576 349,383 362,045 217.972 622,733 656.516 1.445.782 207.144 Aua 3,653,418 154,185 311,390 Sep 580.825 640.870 1.411.917 356.567 197.664 3,005,325 Oct 139,177 489,392 192,992 548,903 1,152,003 323,224 159,635 2,981,598 116,986 181,339 605,936 1,142,233 313,258 143,423 Nov 478,424 Dec 3,220,900 141,652 516,354 217,308 632,165 1,239,884 313,449 160,088 2009 2,879,821 118,556 496,867 191,876 495,116 1,168,246 276,741 132,419 Feb 2.652.792 125,187 463,339 159.527 459,557 1.058.985 262.011 124,186

				New r	methodology: Mex	cican Stock Excha	nge classified b	by sector 2/3/			
			Energy 4/	Materials	Industrial	Services and non-basic consumer goods	Frequently consumed goods	Health care	Financial services	Telecom services	FIBRAs
2012		6,818,386	-	1,267,993	659,865	390,524	2,214,939	62,058	783,784	1,385,379	53,843
2013		7,043,213	60,205	1,039,869	860,115	418,190	2,232,512	75,314	825,960	1,377,166	153,881
2014		7,336,864	85,167	984,285	924,660	457,026	2,246,540	67,821	821,792	1,491,430	258,143
2015		7,166,472	83,482	833,209	952,513	606,535	2,394,341	50,433	840,806	1,155,469	249,684
2014											
	Jan	6,745,930	66,449	1,010,350	856,099	407,281	2,106,766	71,163	762,936	1,308,901	155,984
	Feb	6,431,865	66,772	991,813	819,837	387,493	1,992,329	69,408	747,600	1,202,138	154,476
	Mar	6,647,774	77,966	1,005,022	836,382	395,267	2,088,690	68,781	782,663	1,235,441	157,562
	Apr	6,683,452	78,612	994,592	842,110	385,942	2,131,358	72,089	773,308	1,243,023	162,418
	May	6,774,676	81,705	1,039,175	865,548	368,110	2,172,098	73,005	816,567	1,195,876	162,592
	Jun	7,094,308	83,067	1,074,320	900,109	379,468	2,236,613	76,061	847,135	1,275,526	222,009
	Jul	7,332,979	86,090	1,099,026	921,602	386,292	2,229,861	77,658	850,950	1,437,428	244,072
	Aug	7,597,031	90,533	1,123,270	982,008	415,821	2,308,542	77,287	879,460	1,470,777	249,332
	Sep	7,561,524	94,584	1,093,032	1,007,846	417,146	2,242,174	74,236	865,209	1,515,218	252,079
	Oct	7,514,646	95,115	1,080,866	991,567	429,961	2,209,706	75,113	881,296	1,493,430	257,591
	Nov	7,422,661	94,111	1,063,316	960,588	454,375	2,196,287	70,161	821,496	1,498,836	263,491
	Dec	7,336,864	85,167	984,285	924,660	457,026	2,246,540	67,821	821,792	1,491,430	258,143
2015		,,	,	,	,,,,,,	. ,			, ,	, - ,	,
	Jan	7,057,264	82,143	913,489	875,864	452,639	2,142,591	62,266	813,673	1,452,554	262,044
	Feb	7,476,394	90,429	1,000,238	918,219	456,558	2,381,674	49,002	858,132	1,461,721	260,420
	Mar	7,426,036	96,061	948,921	906,372	456,274	2,444,069	47,142	851,635	1,422,709	252,853
	Apr	7,473,975	103,031	984,674	911,496	451,466	2,401,227	52,536	831,586	1,490,225	247,733
	May	7,496,304	95,172	1,000,503	885,303	439,735	2,447,346	52,092	820,165	1,507,888	248,101
	Jun	7,542,803	89,829	991,684	899,611	457,383	2,443,441	50,506	820,294	1,546,646	243,410
	Jul	7,637,495	90,810	985,777	957,664	531,760	2,498,740	48,910	826,715	1,451,341	245,778
	Aug	7,508,133	85,675	957,096	960,178	502,656	2,549,147	47,217	786,512	1,388,873	230,779
	Sep	7,451,590	79,674	910,200	975,194	550,540	2,611,782	46,506	790,611	1,250,657	236,426
	Oct	7,478,926	91,918	900,661	1,000,372	607,383	2,427,815	44,253	827,067	1,333,550	245,906
	Nov	7,323,575	83,909	860,224	994,268	615,199	2,411,820	47,360	824,882	1,238,676	247,236
	Dec	7,166,472	83,482	833,209	952,513	606,535	2,394,341	50,433	840,806	1,155,469	249,684

<sup>1/</sup> Mainly holding companies.

<sup>2/</sup> The new BMV methodology of classifying by sector is in force since March 2009.

<sup>3/</sup> From January 2013, the Mexican Stock Exchange places FIBRAs in a separate sector.

<sup>4/</sup> During 2013, the Mexican Stock Exchange incorporated this sector, due to the placement of securities by a firm of the referred sector. Source: Mexican Stock Exchange (Bolsa Mexicana de Valores, BMV).

Table A 40 Mexican Stock Exchange Main Benchmark Index (Índice de Precios y Cotizaciones, IPC, de la Bolsa Mexicana de Valores, BMV)

End of period October de 1978 = 100

	Overall total	Mining	Manufacturing	Construction	Retail and commerce	Communications and transport	Services	Other 1/
2004	12,918	16,686	4,159	21,353	20,040	56,329	1,858	4,399
2005	17,803	20,214	4,611	30,743	27,731	80,359	2,144	5,406
2006	26,448	32,778	7,167	40,316	44,267	121,352	3,331	6,833
2007	29,537	62,127	7,604	34,786	44,610	155,119	4,128	7,094
2008	22,380	30,885	5,894	16,985	36,242	117,947	3,340	4,395
2007								
Jan	27,561	36,646	7,275	42,167	46,976	126,368	3,407	6,841
Feb	26,639	39,118	6,960	41,843	43,775	123,644	3,347	6,540
Mar	28,748	42,375	7,194	41,722	47,212	138,488	3,695	7,170
Apr	28,997	47,396	7,302	41,184	45,180	143,208	3,732	7,477
May	31,399	49,803	7,727	46,071	44,084	162,220	3,937	7,786
Jun	31,151	51,287	7,701	45,607	44,223	159,443	3,995	7,646
Jul	30,660	59,451	7,577	43,154	44,751	151,036	4,316	7,836
Aug	30,348	54,821	7,371	41,735	44,402	155,461	4,012	7,607
Sep	30,296	63,878	7,393	39,097	44,870	153,871	3,719	7,410
Oct	31,459	81,346	7,266	38,665	47,676	154,812	4,223	7,731
Nov	29,771	69,714	6,941	35,851	45,041	155,216	4,099	6,887
Dec	29,537	62,127	7,604	34,786	44,610	155,119	4,128	7,094
2008								
Jan	28,794	60,949	7,288	35,368	43,952	149,535	3,949	6,921
Feb	28,919	68,471	7,487	35,197	43,925	145,208	4,001	7,355
Mar	30,913	71,844	7,660	33,942	49,260	157,831	4,302	7,569
Apr	30,281	74,254	8,030	34,764	48,565	145,373	4,364	7,811
May	31,975	74,207	8,558	36,334	52,977	153,781	4,717	7,479
Jun	29,395	67,260	8,261	32,673	48,121	141,239	4,332	7,431
Jul	27,501	56,368	7,907	29,732	46,827	131,709	4,202	6,838
Aug	26,291	47,173	7,734	26,886	42,691	131,480	3,935	6,195
Sep	24,889	33,432	6,982	23,440	40,847	130,871	3,763	5,823
Oct	20,445	30,269	5,443	17,032	29,465	111,675	3,014	4,647
Nov	20,535	25,498	5,348	15,211	33,231	106,754	3,005	3,917
Dec	22,380	30,885	5,894	16,985	36,242	117,947	3,340	4,395
2009								
Jan	19,565	25,850	5,624	14,830	28,482	109,444	2,943	3,651
Feb	17,752	27,295	5,210	13,330	26,265	95,479	2,767	3,475

		, -	,	-,	-,	-,	,	, -	-, -
			New i	methodology: Me	xican Stock Excha	nge classification	on by sector 2/		
					Services				
					and non-	Frequently		Financial	Telecom
			Materials	Industrial	basic	consumed	Health care	services	services
					consumer	goods		361 11063	361 VICES
					goods				
2011		37,078	597	120	351	462	467	52	657
2012		43,706	797	169	407	623	496	75	664
2013		42,727	662	198	532	642	603	90	734
2014		43,146	625	221	521	674	552	98	806
2015		42,978	547	243	684	787	423	102	783
2014									
	Jan	40,880	645	199	511	599	570	86	775
	Feb	38,783	629	192	503	575	555	85	743
	Mar	40,462	632	200	540	606	581	85	776
	Apr	40,712	634	202	525	618	577	85	760
	May	41,363	655	207	522	639	584	86	767
	Jun	42,737	679	214	537	663	609	88	799
	Jul	43,818	692	217	531	664	622	90	819
	Aug	45,628	701	230	532	683	619	93	833
	Sep	44,986	697	239	521	665	594	95	836
	Oct	45,028	685	238	530	663	611	96	830
	Nov	44,190	663	227	538	664	571	95	819
	Dec	43,146	625	221	521	674	552	98	806
2015									
	Jan	40,951	581	208	504	644	507	90	780
	Feb	44,190	617	219	551	698	441	97	803
	Mar	43,725	599	218	548	714	426	97	829
	Apr	44,582	628	221	566	707	471	98	827
	May	44,704	648	219	561	717	467	98	839
	Jun	45,054	642	218	571	708	455	100	853
	Jul	44,753	618	231	601	732	444	105	830
	Aug	43,722	605	231	584	744	431	99	789
	Sep	42,633	568	236	604	756	425	96	766
	Oct	44,543	574	245	642	800	409	100	782
	Nov	43,419	548	242	679	786	398	101	787

684

787

423

102

783

42,978

Dec

243

<sup>1/</sup> Mainly holding companies.
2/ The new BMV methodology of classification by sector is in force since March 2009.
Source: Mexican Stock Exchange (*Bolsa Mexicana de Valores*, BMV).

### **Public Finances**

Table A 41 **Public Finance Indicators: 2010-2015** 

Percent of GDP

Item	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Budgetary revenues	22.3	22.5	22.5	23.6	23.1	23.5
Net paid expenditure	25.1	25.0	25.1	25.9	26.2	27.0
Budgetary balance	-2.8	-2.5	-2.6	-2.3	-3.2	-3.5
Balance of EUIBC 1/	0.0	0.0	0.0	0.0	0.0	-0.1
Public balance <sup>2/</sup>	-2.8	-2.4	-2.6	-2.3	-3.1	-3.5
Primary balance on a cash basis 3/	-0.9	-0.6	-0.6	-0.4	-1.1	-1.2
PSBR	-3.9	-3.4	-3.8	-3.7	-4.6	-4.1
Accrued operational balance 4/	-1.6	-2.1	-2.7	-0.4	-3.3	-2.0
Net broad economic debt 5/	27.9	29.0	31.6	32.2	36.4	39.8
Budgetary sector financial cost 6/	1.9	1.9	2.0	2.0	2.0	2.2

<sup>1/</sup> EUIBC = Entities under Indirect Budgetary Control. It includes non-budgetary balance and the difference with sources of financing.

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<sup>1/</sup> EUISC = Entitles under indirect Budgetary Control. It includes non-budgetary balance and the difference with sources of infancing.

2/ It includes total budgetary balance and the balance of EUIBC.

3/ Defined as the public sector balance less the budgetary financial cost and that of EUIBC.

4/ Defined as public sector accrued economic balance less the inflationary component of the financial cost. Measured by Banco de México.

5/ Includes net liabilities of the federal government, public entities and official financial intermediaries (development banks and public funds and trusts). Stocks at end of period. Measured by Banco de México.

6/ Excludes financial cost of public entities under indirect budgetary control.

Table A 42 Public Sector Revenues, Expenditures and Balances in 2014 and 2015

	201	14		2015			
	Obse	rved	Progra	mmed	Obser	ved <sup>p/</sup>	Real
Item	MXN	Percentage	MXN	Percentage	MXN	Percentage	growth %
	billion	of GDP	billion	of GDP 1/	billion	of GDP	2015-2014
Budgetary revenues	3,983.1	23.1	4,022.1	22.0	4,264.6	23.5	4.2
Federal government	2,888.1	16.7	2,904.0	15.9	3,180.0	17.5	7.2
Tax revenues	1,807.8	10.5	1,979.0	10.8	2,366.4	13.0	27.4
ISR-IETU-IDE	959.8	5.6	1,055.7	5.8	1,222.4	6.7	24.0
Income tax (ISR)	985.9	5.7	1,059.2	5.8	1,236.9	6.8	22.1
ISR	985.9	5.7	1,048.2	5.7	1,231.7	6.8	21.6
ISR (contractors and legatees)	d.n.a.	d.n.a.	11.0	0.1	5.2	0.0	d.n.a.
Flat rate business tax (IETU)	-13.7	-0.1	-3.5	0.0	-11.3	-0.1	d.n.a.
Tax on cash deposits (IDE)	-12.3	-0.1	0.0	0.0	-3.3	0.0	d.n.a.
Value added tax (VAT)	667.1	3.9	703.8	3.8	707.2	3.9	3.2
Excise tax (IEPS)	111.6	0.6	160.0	0.9	354.3	2.0	208.9
Import duties	33.9	0.2	27.9	0.2	44.1	0.2	26.5
Other	35.3	0.2	31.6	0.2	38.4	0.2	5.9
Non-tax revenues	1,080.2	6.3	925.0	5.0	813.6	4.5	-26.7
Public entities and enterprises	1,095.0	6.3	1,118.1	6.1	1,084.5	6.0	-3.6
Pemex	440.7	2.6	439.7	2.4	427.1	2.4	-5.7
Other	654.2	3.8	678.4	3.7	657.5	3.6	-2.2
Net paid expenditures	4,528.0	26.2	4,663.6	25.5	4,892.0	27.0	5.2
Accrued programmable	3,577.8	20.7	3,638.7	19.9	3,826.2	21.1	4.1
Deferred payments	d.n.a.	d.n.a.	-31.1	-0.2	d.n.a.	d.n.a.	d.n.a.
Programamble accrued expenditures	d.n.a.	d.n.a.	3,669.8	20.0	d.n.a.	d.n.a.	d.n.a.
Current expenditures	2,682.0	15.5	2,795.3	15.3	2,889.4	15.9	4.9
Wages and servcies	1,021.2	5.9	1,098.5	6.0	1,078.4	5.9	2.8
Other current expenditures	1,660.8	9.6	1,696.8	9.3	1,811.0	10.0	6.2
Capital expenditures	895.7	5.2	874.5	4.8	936.8	5.2	1.8
Fixed investment	819.9	4.8	842.3	4.6	772.6	4.3	-8.3
Financial investment and other 2/	75.8	0.4	32.3	0.2	164.1	0.9	110.8
Non-programmable	950.3	5.5	1,024.9	5.6	1,065.8	5.9	9.2
Financial cost	346.0	2.0	401.5	2.2	407.9	2.2	14.8
Federal government	291.8	1.7	333.0	1.8	322.2	1.8	7.5
Interests	280.1	1.6	322.0	1.8	311.3	1.7	8.2
Financial restructuring	11.7	0.1	11.0	0.1	10.9	0.1	-9.1
Public entities and enterprises	54.1	0.3	68.5	0.4	85.7	0.5	54.1
Revenue sharing	584.9	3.4	607.1	3.3	629.1	3.5	4.7
Adefas and other 3/	19.4	0.1	16.3	0.1	28.8	0.2	44.6
Budgetary balance	-545.0	-3.2	-641.5	-3.5	-627.4	-3.5	d.n.a.
Balance of EUIBC	1.9	0.0	0.0	0.0	-10.2	-0.1	d.n.a.
Non-budgetary balance	6.8	0.0	d.n.a.	d.n.a.	1.8	0.0	d.n.a.
Difference from sources of financing 4/	-4.9	0.0	d.n.a.	d.n.a.	-12.0	-0.1	d.n.a.
Public balance	-543.1	-3.1	-641.5	-3.5	-637.6	-3.5	d.n.a.
Primary balance <sup>5/</sup>	-191.9	-1.1	-239.5	-1.3	-217.6	-1.2	d.n.a.
Public Sector Borrowing Requirements	-792.9	-4.6	d.n.a.	d.n.a.	-748.1	-4.1	d.n.a.

Note: Figures may not add up due to rounding. Source: Ministry of Finance (SHCP).

GDP for 2015 estimated by the Ministry of Finance.
 Includes recoverable expenditures and transfers for EUIBC amortization and financial investment.

<sup>3/</sup> Includes external net expenditure of the Federal Government.

<sup>4/</sup> Difference between the public balance calculated with the revenue-expenditure methodology and that calculated according to the sources of financing methodology

<sup>5/</sup> Defined as public sector balance less interest paid by the budgetary and non-budgetary sectors.

d.n.a. Does not apply.

p/ Preliminary figures.

Table A 43 Public Sector Revenues, Expenditures and Balances: 2010-2015 Percent of GDP

Item	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Budgetary revenues	22.3	22.5	22.5	23.6	23.1	23.5
Federal government	15.7	15.9	15.7	16.8	16.7	17.5
Tax revenues	9.5	8.9	8.4	9.7	10.5	13.0
Non-tax revenues	6.2	7.1	7.3	7.1	6.3	4.5
Public entities and enterprises	6.6	6.5	6.8	6.8	6.3	6.0
Pemex	2.9	2.7	3.0	3.0	2.6	2.4
Other	3.7	3.8	3.8	3.8	3.8	3.6
Net paid expenditure	25.1	25.0	25.1	25.9	26.2	27.0
Programmable	19.7	19.7	19.9	20.6	20.7	21.1
Current expenditures	14.7	14.8	15.1	15.1	15.5	15.9
Capital expenditures	5.0	4.8	4.7	5.4	5.2	5.2
Non-programmable expenditures	5.4	5.3	5.2	5.3	5.5	5.9
Financial cost	1.9	1.9	2.0	2.0	2.0	2.2
Revenues sharing	3.3	3.3	3.2	3.3	3.4	3.5
Adefas and other 1/	0.2	0.1	0.1	0.1	0.1	0.2
Budgetary balance	-2.8	-2.5	-2.6	-2.3	-3.2	-3.5
Balance of EUIBC 2/	0.0	0.0	0.0	0.0	0.0	-0.1
Public balance	-2.8	-2.4	-2.6	-2.3	-3.1	-3.5
Primary balance <sup>3/</sup>	-0.9	-0.6	-0.6	-0.4	-1.1	-1.2
Public Sector Borrowing Requirements	-3.9	-3.4	-3.8	-3.7	-4.6	-4.1

<sup>1/</sup> Includes net external expenditure of the Federal Government.
2/ EUIBC = Entities Under Indirect Budgetary Control.
3/ Defined as the public balance less budgetary and EUIBC financial costs.
p/ Preliminary figures.
Note: Figures may not add up due to rounding.
Source: Ministry of Finance (SHCP).

Table A 44 Public Sector Budgetary Revenues: 2010-2015

Percent of GDP

ltem	2010	2011	2012	2013	2014	2015 <sup>p</sup>
udgetary revenues	22.3	22.5	22.5	23.6	23.1	23.5
Classification I						
Federal government	15.7	15.9	15.7	16.8	16.7	17.5
Tax revenues	9.5	8.9	8.4	9.7	10.5	13.0
ISR-IETU-IDE	5.1	5.2	5.1	5.9	5.6	6.7
Income tax (ISR)	4.7	5.0	4.9	5.6	5.7	6.8
ISR	4.7	5.0	4.9	5.6	5.7	6.8
ISR (contractors and legatees)	d.n.a.	d.n.a.	d.n.a.	d.n.a.	d.n.a.	0.0
Flat rate business rax (IETU)	0.3	0.3	0.3	0.3	-0.1	-0.1
Tax on cash deposits (IDE)	0.1	-0.1	0.0	0.0	-0.1	0.0
Value added tax (VAT)	3.8	3.7	3.7	3.5	3.9	3.9
Excise tax (IEPS)	0.0	-0.5	-0.8	0.0	0.6	2.0
Imports	0.2	0.2	0.2	0.2	0.2	0.2
Other	0.4	0.3	0.2	0.2	0.2	0.2
Non-tax revenues	6.2	7.1	7.3	7.1	6.3	4.5
Rights	5.1	6.1	6.2	5.6	4.8	0.3
Fees	0.0	0.0	0.0	0.1	0.0	0.0
Other	1.1	0.9	1.1	1.4	1.4	1.9
Transfers to MFFSD 1/	d.n.a.	d.n.a.	d.n.a.	d.n.a.	d.n.a.	2.2
Public entities and enterprises	6.6	6.5	6.8	6.8	6.3	6.0
Pemex	2.9	2.7	3.0	3.0	2.6	2.4
Other	3.7	3.8	3.8	3.8	3.8	3.6
Classification II						
Oil revenues	7.7	8.6	8.9	8.3	7.1	4.6
Pemex	2.9	2.7	3.0	3.0	2.6	2.4
Exports	1.8	2.1	1.9	1.5	1.1	0.1
Domestic sales	5.1	5.3	5.5	5.7	5.6	4.2
Other	8.0	1.3	1.5	1.1	0.5	0.5
(-) Taxes <sup>2/</sup>	4.9	5.9	6.0	5.4	4.6	2.4
Federal government 3/	4.8	5.8	5.9	5.3	4.5	2.3
Non-oil revenues	14.6	13.9	13.6	15.2	16.0	18.9
Federal government	10.8	10.1	9.8	11.4	12.2	15.2
Tax revenues	9.5	8.9	8.4	9.7	10.5	13.0
ISR	4.7	5.0	4.9	5.6	5.7	6.8
IETU	0.3	0.3	0.3	0.3	-0.1	-0.1
IDE	0.1	-0.1	0.0	0.0	-0.1	0.0
VAT	3.8	3.7	3.7	3.5	3.9	3.9
IEPS	0.0	-0.5	-0.8	0.0	0.6	2.0
Other	0.5	0.5	0.4	0.4	0.4	0.5
Non-tax revenues	1.3	1.2	1.4	1.7	1.7	2.2
Rights	0.2	0.2	0.3	0.3	0.3	0.3
Fees	0.0	0.0	0.0	0.1	0.0	0.0
Other	1.1	0.9	1.1	1.4	1.4	1.9
Public entities and enterprises	3.7	3.8	3.8	3.8	3.8	3.6

<sup>1/</sup> Mexican Fund for Stabilization and Development (MFFSD). 2/ Excludes taxes paid on behalf of third parties (VAT and IEPS). 3/ Includes rights and benefits from oil extraction.

p/ Preliminary figures. Note: Figures may not add up due to rounding. Source: Ministry of Finance (SHCP).

Table A 45 **Public Sector Budgetary Expenditures: 2010-2015** 

Percent of GDP

Item	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Net paid expenditure	25.1	25.0	25.1	25.9	26.2	27.0
Programmable	19.7	19.7	19.9	20.6	20.7	21.1
Current expenditures	14.7	14.8	15.1	15.1	15.5	15.9
Wages and salaries	6.0	5.9	5.9	6.0	5.9	5.9
Direct	3.4	3.4	3.4	3.4	3.4	3.4
Indirect 1/	2.6	2.6	2.5	2.6	2.5	2.5
Acquisitions	1.6	1.7	1.7	1.7	1.4	1.3
Other <sup>2/</sup>	4.1	4.0	4.2	4.0	4.4	4.8
Subsidies and transfers 3/	3.0	3.2	3.3	3.5	3.8	3.9
Capital expenditures	5.0	4.8	4.7	5.4	5.2	5.2
Fixed investment	4.7	4.5	4.4	4.6	4.8	4.3
Direct	3.2	3.1	2.9	2.8	3.0	2.5
Indirect 4/	1.5	1.4	1.4	1.7	1.8	1.7
Financial investment and other 5/	0.3	0.4	0.4	0.9	0.4	0.9
Non-programmable	5.4	5.3	5.2	5.3	5.5	5.9
Financial cost	1.9	1.9	2.0	2.0	2.0	2.2
Federal government	1.6	1.7	1.6	1.7	1.7	1.8
Interest	1.5	1.5	1.6	1.6	1.6	1.7
Financial restructuring	0.1	0.1	0.1	0.1	0.1	0.1
Public entities and enterprises	0.3	0.2	0.3	0.3	0.3	0.5
Revenue sharing	3.3	3.3	3.2	3.3	3.4	3.5
Adefas and other <sup>6/</sup>	0.2	0.1	0.1	0.1	0.1	0.2

<sup>1/</sup> Includes contributions to state governments for basic education, and transfers for wages and salaries to entities under indirect budgetary control 1/ Includes contributions to state governments for basic education, and transfers for wages and salaries to entit (EUIBC).
2/ General services of the public sector and net external operations of firms and entities of direct budgetary control.
3/ Includes subsidies and transfers other than those paid for wages and salaries, and for capital expenditure.
4/ Includes transfers to finance fixed investment of the EUIBC.
5/ Includes recoverable expenditures and transfers for debt amortization and financial investment of the EUIBC.
6/ Includes other net flows of the federal government.

Note: Figures may not add up due to rounding. Source: Ministry of Finance (SHCP).

p/ Preliminary figures.

### Table A 46 **Public Sector Net Debt**

Average stocks

Years			Debt consolidated with Banco de México 2/								
		Domestic MXN billion	External		Total		Domestic	External		Total	
			USD million	MXN billion	MXN billion	Percentage of GDP	MXN billion	USD million	MXN billion	MXN billion	Percentage of GDP
2010		2,347.1	101,058.1	1,248.0	3,595.1	27.1	3,823.7	-6,291.3	-77.7	3,746.0	28.2
2011		2,714.6	99,291.5	1,384.9	4,099.5	28.2	4,512.7	-19,909.1	-277.7	4,235.0	29.1
2012		3,203.1	121,801.8	1,579.3	4,782.4	30.6	5,343.2	-38,743.1	-502.3	4,840.9	31.0
2013		3,612.8	124,603.5	1,630.3	5,243.1	32.5	5,979.0	-42,608.6	-557.5	5,421.5	33.6
2014	January	3,684.5	138,364.6	1,850.9	5,535.4		6,210.3	-40,967.6	-548.0	5,662.3	
	February	3,738.8	138,595.9	1,834.7	5,573.5		6,269.6	-42,038.8	-556.5	5,713.1	
	March	3,783.7	140,338.5	1,832.1	5,615.8	34.3	6,324.4	-42,360.3	-553.0	5,771.4	35.3
	April	3,781.7	141,134.3	1,847.5	5,629.2		6,342.3	-41,802.5	-547.2	5,795.1	
	May	3,802.3	143,883.8	1,850.5	5,652.8		6,379.6	-42,454.3	-546.0	5,833.6	
	June	3,843.3	143,029.0	1,855.3	5,698.6	34.2	6,426.6	-42,406.5	-550.1	5,876.5	35.3
	July	3,877.3	141,011.1	1,865.1	5,742.4		6,466.8	-41,895.2	-554.1	5,912.7	
	August	3,908.1	142,941.4	1,869.1	5,777.2		6,503.5	-42,664.4	-557.9	5,945.6	
	September	3,927.9	139,597.6	1,875.2	5,803.1	34.2	6,528.9	-42,094.7	-565.5	5,963.4	35.2
	October	3,950.4	139,921.3	1,885.8	5,836.2		6,561.5	-42,416.1	-571.7	5,989.8	
	November	3,978.5	136,753.9	1,900.4	5,878.9		6,598.1	-41,575.1	-577.7	6,020.4	
	December	4,013.4	130,381.7	1,922.0	5,935.4	34.4	6,639.7	-39,739.8	-585.8	6,053.9	35.1
2015 p/	January	4,492.1	155,295.2	2,327.6	6,819.7		7,250.4	-40,565.3	-608.0	6,642.4	
	February	4,496.3	155,273.2	2,322.2	6,818.5		7,251.8	-40,338.7	-603.3	6,648.5	
	March	4,466.5	154,227.1	2,354.2	6,820.7	39.1	7,231.5	-38,387.0	-586.0	6,645.5	38.1
	April	4,431.8	155,311.1	2,387.3	6,819.1		7,201.9	-36,903.1	-567.3	6,634.6	
	May	4,435.1	156,257.3	2,403.5	6,838.6		7,205.6	-36,056.2	-554.6	6,651.0	
	June	4,445.3	154,340.7	2,420.9	6,866.2	38.8	7,210.6	-34,652.3	-543.5	6,667.1	37.7
	July	4,461.8	151,889.5	2,442.0	6,903.8		7,221.6	-33,311.3	-535.6	6,686.0	
	August	4,482.9	147,297.6	2,472.1	6,955.0		7,226.6	-30,924.4	-519.0	6,707.6	
	September	4,503.5	147,637.8	2,495.9	6,999.4	39.1	7,225.0	-29,484.6	-498.4	6,726.6	37.6
	October	4,526.4	151,988.8	2,511.5	7,037.9		7,222.0	-28,482.4	-470.7	6,751.3	
	November	4,541.6	152,218.1	2,524.6	7,066.2		7,211.2	-26,649.3	-442.0	6,769.2	
	December	4,556.4	147,644.1	2,546.7	7,103.1	39.2	7,212.1	-24,544.9	-423.4	6,788.7	37.4

<sup>1/</sup> The net broad economic debt includes net liabilities from the federal government, non-financial public entities and enterprises, and of official intermediaries (development banks and public funds and trusts). It is calculated in accrued terms with data of the banking system; public values are reported at market value. 2/ The net economic debt consolidated with Banco de México includes central bank's assets and liabilities and all sectors of the broad economic debt.

Source: Banco de México.

<sup>(-)</sup> It means stocks of financial assets are larger than stocks of gross debt.

p/ Preliminary figures.

Table A 47 **Public Sector Net Debt** Stocks at end of period

Years			Net br	oad economic	debt 1/		Debt consolidated with Banco de México 2/					
		Domestic MXN billion	External		Total		Domestic	External		Total		
			USD million	MXN billion	MXN billion	Percentage of GDP	MXN billion	USD m illion	MXN billion	MXN billion	Percentage of GDP	
2010		2,549.6	109,638.4	1,354.0	3,903.6	27.9	4,160.9	-7,309.1	-90.3	4,070.6	29.1	
2011		2,908.4	115,765.3	1,614.6	4,523.0	29.0	4,876.4	-29,785.3	-415.4	4,461.0	28.6	
2012		3,521.7	122,465.4	1,587.9	5,109.6	31.6	5,748.5	-40,916.7	-530.5	5,218.0	32.2	
2013		3,680.6	132,362.4	1,731.9	5,412.5	32.2	6,166.2	-44,150.3	-577.7	5,588.5	33.2	
2014	January	3,684.5	138,364.6	1,850.9	5,535.4		6,210.3	-40,967.6	-548.0	5,662.3		
	February	3,793.2	137,374.4	1,818.5	5,611.7		6,328.9	-42,679.9	-565.0	5,763.9		
	March	3,873.5	139,938.0	1,826.9	5,700.4	34.2	6,434.0	-41,824.8	-546.0	5,888.0	35.3	
	April	3,775.5	144,653.8	1,893.5	5,669.0		6,396.0	-40,470.8	-529.8	5,866.2		
	May	3,884.7	144,821.0	1,862.5	5,747.2		6,528.6	-42,081.3	-541.2	5,987.4		
	June	4,048.5	144,872.4	1,879.2	5,927.7	34.8	6,661.6	-43,972.7	-570.4	6,091.2	35.8	
	July	4,081.6	145,493.6	1,924.4	6,006.0		6,708.4	-43,746.4	-578.6	6,129.8		
	August	4,123.3	145,085.6	1,897.2	6,020.5		6,760.0	-44,670.9	-584.1	6,175.9		
	September	4,086.3	143,212.6	1,923.8	6,010.1	34.8	6,732.5	-46,600.6	-626.0	6,106.5	35.3	
	October	4,153.2	146,964.2	1,980.7	6,133.9		6,854.9	-46,553.8	-627.4	6,227.5		
	November	4,259.0	147,288.9	2,046.8	6,305.8		6,963.9	-45,960.7	-638.7	6,325.2		
	December	4,397.5	146,505.2	2,159.7	6,557.2	36.4	7,097.0	-45,763.2	-674.6	6,422.4	35.7	
2015 p/	January	4,492.1	155,295.2	2,327.6	6,819.7		7,250.4	-40,565.3	-608.0	6,642.4		
	February	4,500.5	154,906.5	2,316.7	6,817.2		7,253.2	-40,022.1	-598.5	6,654.7		
	March	4,406.7	158,429.3	2,418.4	6,825.1	38.9	7,190.8	-36,118.7	-551.3	6,639.5	37.9	
	April	4,328.0	161,774.9	2,486.7	6,814.7		7,113.1	-33,250.8	-511.1	6,602.0		
	May	4,448.0	160,450.1	2,468.0	6,916.0		7,220.5	-32,765.6	-504.0	6,716.5		
	June	4,496.2	159,894.7	2,508.0	7,004.2	39.1	7,235.6	-31,125.5	-488.2	6,747.4	37.6	
	July	4,561.1	159,749.7	2,568.3	7,129.4		7,287.6	-30,332.4	-487.7	6,799.9		
	August	4,630.1	159,862.1	2,682.9	7,313.0		7,261.7	-24,021.2	-403.1	6,858.6		
	September	4,669.0	158,890.8	2,686.1	7,355.1	40.5	7,212.0	-19,757.5	-334.0	6,878.0	37.8	
	October	4,732.4	160,519.8	2,652.5	7,384.9		7,194.6	-13,345.8	-220.5	6,974.1		
	November	4,693.5	160,118.6	2,655.7	7,349.2		7,104.0	-9,369.0	-155.4	6,948.6		
	December	4,718.5	161,700.5	2,789.1	7,507.6	39.8	7,221.5	-12,665.7	-218.5	7,003.0	37.1	

<sup>1/</sup> The net broad economic debt includes net liabilities from the federal government and non-financial public entities and enterprises, as well as of official intermediaries (development banks and public funds and trusts). It is calculated in accrued terms with data of the banking system; public values are reported at market value.

<sup>2/</sup> The net economic debt consolidated with Banco de México includes central bank's assets and liabilities and all sectors of the broad economic debt. p/ Preliminary figures.

(-) It means stocks of financial assets are larger than stocks of gross debt.

Source: Banco de México.

Table A 48 Non-financial Public Sector Net Debt 1/

Stocks at end of period

	_		Pu	blic sector non-financia	al net economic deb	t
Sto	ock at end of:	Domestic	Exte	rnal	Total n	et debt
010	ock at end of. –	MXN billion	USD million	USD million	MXN billion	Percentage of GDP
2010		2,743.2	101,656.1	1,255.4	3,998.6	29.0
2011		3,095.0	108,173.2	1,508.8	4,603.7	29.5
2012		3,701.2	115,918.6	1,503.0	5,204.2	32.1
2013	January	3,716.6	119,853.5	1,523.3	5,239.8	
	February	3,719.4	118,828.1	1,518.6	5,238.0	
	March	3,863.6	117,494.6	1,452.4	5,316.0	33.9
	April	3,970.3	119,675.5	1,453.5	5,423.8	
	May	3,834.1	117,394.6	1,503.1	5,337.1	
	June	3,734.3	116,021.0	1,511.5	5,245.9	33.1
	July	3,753.5	119,228.3	1,531.7	5,285.2	
	August	3,734.5	119,786.4	1,598.1	5,332.6	
	September	3,858.0	120,391.6	1,586.1	5,444.1	33.8
	October	3,862.2	122,654.0	1,595.3	5,457.6	
	November	3,902.6	124,715.1	1,635.0	5,537.6	
	December	3,947.2	125,414.2	1,641.0	5,588.2	33.2
2014	January	3,946.4	131,210.8	1,755.2	5,701.6	
	February	4,060.5	130,238.6	1,724.1	5,784.6	
	March	4,149.5	133,240.3	1,739.4	5,888.9	35.3
	April	4,084.0	137,318.3	1,797.5	5,881.5	
	May	4,204.9	137,237.8	1,765.0	5,969.9	
	June	4,344.5	137,858.4	1,788.2	6,132.7	36.0
	July	4,358.5	138,111.9	1,826.8	6,185.3	
	August	4,403.8	137,830.8	1,802.3	6,206.1	
	September	4,382.8	136,457.5	1,833.0	6,215.8	36.0
	October	4,458.4	139,109.1	1,874.8	6,333.2	
	November	4,582.8	138,880.4	1,930.0	6,512.7	
	December	4,740.5	137,981.6	2,034.0	6,774.5	37.6
2015 <sup>p/</sup>	January	4,855.9	146,742.3	2,199.4	7,055.3	
	February	4,853.5	146,435.2	2,190.0	7,043.5	
	March	4,743.3	149,262.4	2,278.4	7,021.7	40.0
	April	4,687.9	152,254.1	2,340.4	7,028.2	
	May	4,793.7	151,399.4	2,328.7	7,122.4	
	June	4,830.7	150,468.0	2,360.2	7,190.8	40.1
	July	4,913.7	150,089.7	2,413.0	7,326.7	
	August	4,976.4	150,683.1	2,528.9	7,505.3	
	September	4,989.3	151,112.7	2,554.6	7,543.9	41.5
	October	5,067.4	152,084.1	2,513.1	7,580.5	
	November	5,041.1	151,643.8	2,515.1	7,556.2	
	December	5,074.6	152,836.3	2,636.2	7,710.8	40.8

<sup>1/</sup> Non-financial public sector (federal government and public entities) net debt is computed on an accrued basis with data available from the banking sector. Federal government domestic securities are reported at market value and external debt is classified by debtor and not by end user. p/ Preliminary figures.

Source: Banco de México.

Table A 49 **Public Sector Total Debt** 

	MXN billion		Percentage of GDP 1/			Real annual change	Percentage structure	
	2014 <sup>p/</sup>	2015 <sup>p/</sup>	2014 <sup>p/</sup>	2015 <sup>p/</sup>	Difference	2015 - 2014	2014 <sup>p/</sup>	2015 <sup>p/</sup>
Public Sector Total Debt (a+b) 2/	7,715.7	8,705.9	42.9	46.1	3.2	10.5	100.0	100.0
a. Net broad economic debt	6,557.2	7,507.6	36.4	39.8	3.3	12.1	85.0	86.2
1. Foreign	2,159.7	2,789.1	12.0	14.8	2.8	26.4	28.0	32.0
2. Domestic	4,397.5	4,718.5	24.4	25.0	0.6	5.1	57.0	54.2
b. Additional liabilities	1,158.5	1,198.3	6.4	6.3	-0.1	1.3	15.0	13.8
1. IPAB 3/	838.5	848.6	4.7	4.5	-0.2	-0.9	10.9	9.7
2. FARAC <sup>4/</sup>	165.6	182.5	0.9	1.0	0.0	7.9	2.1	2.1
3. UDIs restructuring programs 5/	47.7	49.1	0.3	0.3	0.0	0.8	0.6	0.6
4. Direct Pidiregas 6/	105.1	118.1	0.6	0.6	0.0	10.0	1.4	1.4
<ol> <li>Debtor support programs <sup>7/</sup></li> </ol>	1.6	0.0	0.0	0.0	0.0	-100.0	0.0	0.0

<sup>1/</sup> Amounts expressed in GDP ratio use the GDP of the last guarter of the year.

Source: Ministry of Finance (SHCP) and Banco de México.

Table A 50 Public Sector Total Debt Consolidated with Banco de México

		MXN billion		Percent of GDP 1/				entage cture
	2014 <sup>p/</sup>	2015 <sup>p/</sup>	2014 <sup>p/</sup>	2015 <sup>p/</sup>	Difference	2015 - 2014	2014 <sup>p/</sup>	2015 <sup>p/</sup>
Public sector total debt consolidated with Banco de México (a+b) 2/	7,580.9	8,201.3	42.1	43.4	1.3	5.9	100.0	100.0
a. Net debt consolidated with Banco de México	6,422.4	7,003.0	35.7	37.1	1.4	6.8	84.7	85.4
1. Foreign	-674.6	-218.5	-3.8	-1.2	2.6	-68.3	-8.9	-2.7
2. Domestic	7,097.0	7,221.5	39.4	38.2	-1.2	-0.4	93.6	88.1
b. Additional liabilities	1,158.5	1,198.3	6.4	6.3	-0.1	1.3	15.3	14.6
1. IPAB 3/	838.5	848.6	4.7	4.5	-0.2	-0.9	11.1	10.3
2. FARAC⁴/	165.6	182.5	0.9	1.0	0.0	7.9	2.2	2.2
3. UDISs restructuring programs 5/	47.7	49.1	0.3	0.3	0.0	0.8	0.6	0.6
4. Direct Pidiregas <sup>6/</sup>	105.1	118.1	0.6	0.6	0.0	10.0	1.4	1.4
5. Debtor support programs 7/	1.6	0.0	0.0	0.0	0.0	-100.0	0.0	0.0

<sup>1/</sup> Amounts expressed in GDP ratio use the GDP of the last quarter of the year.

Source: Ministry of Finance (SHCP) and Banco de México.

<sup>2/</sup>Non-financial public sector (federal government and public entities) net debt is computed on an accrued basis with data available from the banking sector. Federal government domestic securities are reported at market value and external debt is classified by debtor and not by end user.

<sup>3/</sup>lt corresponds to the difference between gross liabilities and total assets of IPAB, in accordance with the data of Annex II of Public Debt of the Public Finances Report as of the Fourth Quarter of 2015.

<sup>4/</sup>Bonds covered by the federal government of the trust fund for the toll highway rescue.

<sup>5/</sup> Difference between the liabilities of the federal government special Cetes with a bank and UDI's restructured debt.

<sup>6/</sup> Outstanding debt associated with direct Pidiregas is based on flows of investment carried out.

7/It corresponds to credit granted by commercial banks to the federal government via the referred programs.

p/ Preliminary figures.

<sup>2/</sup>The net debt consolidated with Banco de México comprises the sectors of broad economic debt with the central bank's financial liabilities and assets.

<sup>3/</sup>Corresponds to the difference between gross liabilities and total assets of IBAP, in accordance with the data of Annex II of Public Debt of the Public Finances Report as of the Fourth Quarter of 2015.

<sup>4/</sup>Bonds covered by the federal government of the trust fund for the toll highway rescue.

<sup>5/</sup>Difference between the liabilities of the federal government special Cetes with a bank and UDIs' restructured debt

<sup>6/</sup> Outstanding debt associated with direct Pidiregas is based on flows of investment carried out.

<sup>7/</sup>It corresponds to credit granted by commercial banks to the federal government via the referred programs.

p/ Preliminary data.

Table A 51 **Federal Government Domestic Debt Securities** 

Total circulation per instrument 1/ Current stocks in MXN billion at market value

Stoc	cks at end of:	Total securities in circulation	Cetes	Bondes	Udibonos	Fixed rate bonds	Bondes D
2010		3,152.9	557.1	0.0	583.1	1,612.5	400.2
2011		3,875.9	696.0	0.0	703.1	1,779.2	697.6
2012		4,663.1	811.9	0.0	887.1	2,057.5	906.5
2013	January	4,803.4	833.6	0.0	906.5	2,144.8	918.6
	February	4,893.4	815.0	0.0	928.3	2,212.0	938.2
	March	5,029.7	832.9	0.0	968.7	2,283.2	945.0
	April	5,216.4	833.3	0.0	1,017.4	2,401.0	964.8
	May	5,115.9	830.2	0.0	966.1	2,342.3	977.3
	June	4,923.0	848.8	0.0	920.3	2,157.7	996.3
	July	4,927.4	836.2	0.0	926.9	2,162.2	1,002.1
	August	4,992.2	826.3	0.0	944.9	2,195.9	1,025.0
	September	5,107.0	825.1	0.0	987.5	2,273.8	1,020.5
	October	5,169.8	801.7	0.0	999.1	2,321.8	1,047.1
	November	5,214.3	812.8	0.0	1,009.7	2,350.5	1,041.3
	December	5,150.5	952.1	0.0	940.1	2,195.7	1,062.6
2014	January	5,193.3	932.9	0.0	955.4	2,248.8	1,056.1
	February	5,344.0	956.9	0.0	993.7	2,319.7	1,073.7
	March	5,471.4	946.2	0.0	1,022.5	2,441.3	1,061.5
	April	5,535.9	919.5	0.0	1,045.7	2,485.0	1,085.6
	May	5,694.4	934.9	0.0	1,099.2	2,582.8	1,077.6
	June	5,677.4	950.3	0.0	1,114.6	2,517.0	1,095.5
	July	5,767.2	969.7	0.0	1,140.4	2,568.1	1,089.0
	August	5,797.6	906.6	0.0	1,164.4	2,619.2	1,107.4
	September	5,782.1	924.7	0.0	1,152.8	2,606.4	1,098.2
	October	5,936.2	954.7	0.0	1,191.3	2,659.3	1,130.9
	November	6,097.9	1,014.4	0.0	1,216.8	2,738.8	1,127.9
	December	5,935.7	1,010.6	0.0	1,128.0	2,638.7	1,158.3
2015 <sup>p/</sup>	January	6,098.6	1,007.2	0.0	1,156.3	2,772.2	1,162.9
	February	6,108.1	1,000.6	0.0	1,155.8	2,758.8	1,193.0
	March	6,150.3	1,029.7	0.0	1,147.4	2,773.4	1,199.7
	April	6,193.5	1,026.6	0.0	1,165.0	2,809.0	1,193.0
	May	6,287.4	1,041.5	0.0	1,189.6	2,857.5	1,198.8
	June	6,165.5	1,025.5	0.0	1,180.2	2,729.9	1,229.9
	July	6,229.1	1,016.2	0.0	1,201.3	2,781.7	1,229.9
	August	6,276.8	1,033.9	0.0	1,212.1	2,829.3	1,201.4
	September	6,297.6	984.0	0.0	1,232.0	2,883.2	1,198.3
	October	6,288.7	894.0	0.0	1,251.2	2,937.0	1,206.6
	November	6,293.2	847.3	0.0	1,257.4	2,972.3	1,216.2
	December	6,199.0	865.3	0.0	1,229.6	2,870.4	1,233.7

<sup>1/</sup> Total circulation includes federal government securities and placements of monetary regulation bonds. p/ Preliminary figures.
Source: Banco de México.

Table A 52 **Federal Government Domestic Debt Securities** 

Total circulation per holding sector 1/ Current stocks in MXN billion at market value

-		Total	STIL GLOCKS III WIXI				
Setos	ks at end of:	securities	Private firms	Non-bank public	Development	Commercial	Popers
38100	ks at end or:	in	and individuals	•	banks	banks	Repors
		circulation		sector			
2010		3,152.9	2,530.9	120.2	27.8	449.4	24.6
2011		3,875.9	3,199.4	152.3	37.7	428.6	57.9
2012		4,663.1	4,081.0	148.8	39.5	337.5	56.2
2013	January	4,803.4	4,233.7	131.2	55.8	327.6	55.1
	February	4,893.4	4,302.1	150.2	38.8	319.8	82.5
	March	5,029.7	4,428.9	136.8	39.2	303.1	121.7
	April	5,216.4	4,527.7	151.2	56.0	336.9	144.7
	May	5,115.9	4,475.2	141.5	43.8	277.6	177.8
	June	4,923.0	4,272.7	133.9	52.5	358.0	105.8
	July	4,927.4	4,353.1	104.3	40.8	326.8	102.5
	August	4,992.2	4,347.9	123.6	57.3	323.6	139.8
	September	5,107.0	4,496.5	128.9	43.7	324.7	113.2
	October	5,169.8	4,551.9	140.4	63.7	302.0	111.8
	November	5,214.3	4,571.7	148.8	62.7	291.4	139.7
	December	5,150.5	4,498.2	136.6	34.3	357.4	124.0
2014	January	5,193.3	4,529.0	140.5	82.9	332.8	108.1
	February	5,344.0	4,717.6	145.8	63.8	286.5	130.3
	March	5,471.4	4,698.7	142.4	86.6	430.6	113.2
	April	5,535.9	4,675.9	169.5	110.5	409.5	170.5
	May	5,694.4	4,868.6	166.4	91.3	364.3	203.7
	June	5,677.4	4,991.9	121.0	84.5	409.4	70.6
	July	5,767.2	5,066.7	140.0	75.7	381.3	103.4
	August	5,797.6	5,096.8	165.4	70.5	373.1	91.9
	September	5,782.1	5,087.2	146.6	62.0	388.0	98.2
	October	5,936.2	5,176.8	155.4	56.7	400.8	146.5
	November	6,097.9	5,395.4	184.6	50.3	251.9	215.7
	December	5,935.7	5,217.7	133.7	56.9	388.8	138.6
2015 <sup>p/</sup>	January	6,098.6	5,413.5	134.9	102.0	344.9	103.3
	February	6,108.1	5,338.9	149.3	88.7	418.9	112.3
	March	6,150.3	5,252.0	143.6	84.3	501.3	169.1
	April	6,193.5	5,293.7	154.2	78.1	371.4	296.1
	May	6,287.4	5,361.2	149.5	89.0	403.3	284.4
	June	6,165.5	5,295.7	170.0	52.8	472.8	174.2
	July	6,229.1	5,417.3	131.5	59.3	385.3	235.7
	August	6,276.8	5,381.5	138.4	47.1	433.8	276.0
	September	6,297.6	5,352.2	129.5	33.8	459.6	322.5
	October	6,288.7	5,360.5	121.8	55.1	420.2	331.2
	November	6,293.2	5,306.1	139.7	73.2	394.4	379.9
	December	6,199.0	5,205.0	137.1	47.9	411.7	397.4

<sup>1/</sup> Total circulation includes federal government securities and placement of monetary regulation bonds. p/ Preliminary figures.

Source: Banco de México.

#### **External Sector**

Table A 53 **External Sector Indicators** 

	xternai Sect	or inaid	cators					
	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Balance of payments				USD bi	llion			
Current account	-20.7	-8.7	-5.2	-13.4	-16.6	-30.3	-24.8	-32.4
Trade balance	-17.3	-4.7	-3.0	-1.4	0.0	-1.2	-2.8	-14.5
Financial account	33.9	15.8	48.7	52.8	54.9	67.8	57.9	33.8
Foreign direct investment in Mexico	28.9	17.9	26.4	23.7	20.3	45.7	25.6	28.4
Change in gross international reserves	8.1	4.6	20.7	28.6	17.8	13.2	15.5	-18.1
Stock of gross international reserves	95.3	99.9	120.6	149.2	167.1	180.2	195.7	177.6
	Percentage of GDP							
Current account	-1.9	-1.0	-0.5	-1.1	-1.4	-2.4	-1.9	-2.8
Financial account	3.1	1.8	4.6	4.5	4.6	5.4	4.5	3.0
Foreign trade		Annual change in percent						
Exports	7.2	-21.2	29.9	17.1	6.1	2.5	4.5	-4.1
Oil	17.7	-39.1	35.2	35.4	-6.2	-6.6	-13.9	-45.0
Non-oil	5.2	-17.4	29.1	14.1	8.5	4.0	7.3	0.8
Manufactures	5.1	-17.8	29.5	13.4	8.4	4.2	7.2	0.8
Other	7.4	-6.6	20.3	30.3	10.1	0.9	8.1	0.7
Imports	9.5	-24.0	28.6	16.4	5.7	2.8	4.9	-1.2
Consumer goods	11.3	-31.5	26.2	25.0	4.8	5.6	1.7	-3.5
Intermediate goods	7.9	-22.9	34.5	14.9	5.3	2.5	6.0	-1.6
Capital goods	16.4	-21.6	-1.3	15.8	10.1	1.3	1.5	5.2
Gross external debt and								
interest paid 1/			Percent of	fincome in	current a	account		
Total external debt	64.6	69.2	66.6	61.9	62.1	70.5	74.4	79.8
Public sector 2/	16.6	37.9	33.0	30.2	30.6	31.8	33.4	38.1
Private sector	48.0	31.3	33.5	31.7	31.4	38.6	41.0	41.6
Interest 3/	4.9	4.7	4.1	4.5	4.8	5.4	5.7	5.9
				Percent of	of GDP			
Total external debt	20.0	21.1	21.9	21.1	22.1	24.3	26.0	30.4
Public sector <sup>2/</sup>	5.1	11.5	10.9	10.3	10.9	11.0	11.7	14.5
Private sector	14.9	9.5	11.1	10.8	11.2	13.3	14.4	15.8
Interest 3/	1.5	1.4	1.4	1.5	1.7	1.9	2.0	2.3

<sup>1/</sup> As of 2009, debt associated with Pidiregas is reclassified from the private to the public sector. 2/ Includes Banco de México.

<sup>3/</sup> Includes private and public sector.

p/ Preliminary figures.

Note: Figures may not add up due to rounding.

Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Table A 54 **Balance of Payments** 

USD millions

		ווו טטט	IIIIOIII							
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Current account	-7,834	-14,828	-20,676	-8,666	-5,218	-13,397	-16,559	-30,322	-24,846	-32,381
Revenue	297,842	323,714	343,686	273,250	346,529	399,306	423,510	434,891	454,002	435,978
Goods and services	266,227	289,537	309,559	244,799	314,094	365,586	387,587	400,923	418,952	403,808
Goods	250,319	272,293	291,886	229,975	298,860	350,004	371,442	380,729	397,866	381,198
General merchandise	249,925	271,875	291,343	229,704	298,473	349,433	370,770	380,015	397,129	380,772
Goods procured in ports by carriers	394	418	544	271	387	571	672	714	738	426
Services	15,908	17,244	17,673	14,824	15,235	15,582	16,146	20,194	21,086	22,609
Tourist	9,559	10,367	10,861	9,431	9,991	10,006	10,766	11,854	14,320	15,527
One day visitors	2,617	2,552	2,509	2,082	2,001	1,862	1,973	2,095	1,888	1,930
Transportation	1,518	1,512	1,767	1,338	1,040	1,037	961	801	866	1,428
Other	2,213	2,813	2,536	1,974	2,203	2,676	2,445	5,444	4,011	3,724
Income	5,578	7,664	8,530	6,797	10,812	10,569	13,154	11,320	11,024	6,978
Interest	4,431	6,218	6,128	4,253	3,388	3,475	2,671	2,391	2,309	2,454
Other	1,147	1,446	2,402	2,544	7,424	7,094	10,483	8,929	8,715	4,524
Transfers	26,037	26,513	25,597	21,653	21,623	23,152	22,768	22,649	24,026	25,192
Workers' remittances	25,567	26,059	25,145	21,306	21,304	22,803	22,438	22,303	23,647	24,771
Other	470	454	452	347	319	349	330	346	379	421
Expenditures	305,676	338,542	364,361	281,916	351,747	412,703	440,069	465,213	478,847	468,359
Goods and services	280,272	307,509	335,150	259,943	327,595	381,584	401,301	412,815	433,977	427,631
Goods	256,631	282,604	309,501	234,901	301,803	351,209	371,151	381,638	400,440	395,573
General merchandise	256,058	281,949	308,603	234,385	301,482	350,843	370,752	381,210	399,977	395,232
Goods procured in ports by carriers	573	655	898	516	321	366	399	428	462	341
Services	23,641	24,904	25,649	25,043	25,792	30,375	30,150	31,177	33,537	32,057
Insurance and freight	7,418	8,297	10,000	7,510	8,723	10,225	9,726	9,755	11,604	10,048
Tourists	4,193	4,794	4,946	4,397	4,540	5,014	5,549	6,025	6,611	7,028
One day visitors	3,915	3,668	3,622	2,811	2,715	2,818	2,900	3,097	2,995	3,073
Transportation	2,111	2,333	2,585	2,376	2,428	2,524	3,053	3,664	3,815	3,564
Commissions	616	270	116	419	548	452	272	228	326	302
Other	5,389	5,542	4,380	7,530	6,838	9,342	8,650	8,407	8,186	8,043
Income	25,316	30,925	29,083	21,913	24,066	30,941	38,559	51,403	43,760	39,823
Remitted earnings	2,449	5,381	2,931	3,854	4,720	3,695	8,618	11,881	4,336	5,267
Reinvested earnings	8,028	8,463	9,319	5,132	5,108	9,460	9,509	16,121	13,747	8,711
Interests	14,840	17,080	16,833	12,926	14,239	17,787	20,431	23,401	25,676	25,845
Public sector	8,144	8,476	8,410	6,700	7,507	9,557	11,728	13,264	13,775	13,402
Private sector	6,695	8,604	8,422	6,226	6,731	8,230	8,703	10,137	11,901	12,442
Transfers	88	108	128	60	86	178	209	995	1,111	905
Financial account	10,064	23,589	33,936	15,779	48,747	52,778	54,905	67,767	57,947	33,826
Foreign direct investment	15,267	24,153	27,780	8,286	11,320	11,110	-2,164	32,587	17,325	20,310
In Mexico	21,026	32,409	28,937	17,890	26,369	23,746	20,306	45,726	25,629	28,382
Abroad	-5,758	-8,256	-1,157	-9,604	-15,050	-12,636	-22,470	-13,138	-8,304	-8,072
Portfolio investment	-1, <b>607</b>	-1,474	17,238	-14,981	32,157	47,836	73,348	49,032	46,345	27,985
Liabilities	122	13,265	4,577	15,288	38,060	42,512	81,842	51,119	47,079	20,389
Public sector	-8,011	2,057	1,257	9,314	28,096	36,975	56,869	33,156	36,019	16,923
Securities issued abroad	•		-4,696	5,836						
	-10,523	-5,753			4,970	5,326	10,226	11,184	12,956	15,663
Money market	2,512	7,810	5,953	3,479	23,126	31,650	46,643	21,973	23,063	1,260
Private sector	3,171	2,907	-6,489	5,973	9,964	5,537	24,973	17,963	11,060	3,466
Securities issued abroad	364	3,388	-2,966	1,818	9,589	12,101	15,099	18,905	6,227	-135
Money and equity market	2,806	-481	-3,523	4,155	374	-6,564	9,873	-942	4,833	3,601
Pidiregas	4,963	8,301	9,810	0	0	0	0	0	0	0
Assets	-1,729	-14,739	12,661	-30,269	-5,903	5,324	-8,494	-2,086	-734	7,597
Other investment	-3,596	910	-11,082	22,474	5,271	-6,168	-16,279	-13,853	-5,723	-14,469
Liabilities	514	19,719	7,623	1,497	32,276	-2,494	-10,005	13,426	15,187	-1,638
Public sector	-11,504	-1,195	768	11,826	5,478	302	-1,432	-2,553	3,133	320
Development banks	-7,947	-1,040	-496	1,194	648	-283	398	426	870	-651
Banco de México	0	0	0	7,229	-3,221	0	0	0	0	0
Non-bank sector	-3,557	-155	1,265	3,402	8,051	585	-1,830	-2,980	2,263	971
Private sector	9,955	15,990	3,811	-10,328	26,799	-2,796	-8,573	15,979	12,055	-1,959
Commercial banks			234	-4,085	28,903	-2,796			6,206	-3,247
	3,385	11,214					-5,856	13,811		
Non-bank sector	6,569	4,776	3,577	-6,243	-2,105	135	-2,717	2,168	5,848	1,289
Pidiregas	2,063	4,924	3,044	0	0	0	0	0	0	0
Assets	-4,110	-18,809	-18,705	20,977	-27,005	-3,674	-6,274	-27,279	-20,910	-12,830
Errors and omissions	-24	2,094	-5,182	-2,584	-22,914	-11,201	-20,822	-19,656	-16,773	-17,112
Change in gross international reserves	2,220	10,881	8,091	4,591	20,695	28,621	17,841	13,150	15,482	-18,085
Valuation adjustments	-14	-25	-12	-63	-79	-441	-317	4,639	847	2,418

Table A 55 **Balance of Payments** 

USD million

	2014			2015 <sup>p/</sup>		
	Annual	QI	QII	QIII	QIV	Annual
Current account	-24,846	-8,891	-7,613	-8,179	-7,698	-32,381
Financial account	57,947	5,915	13,821	2,390	11,699	33,826
Foreign direct investment	17,325	4,719	3,182	8,729	3,680	20,310
In Mexico	25,629	9,327	5,580	8,584	4,891	28,382
Abroad	-8,304	-4,608	-2,398	145	-1,211	-8,072
Portfolio investment	46,345	8,414	10,612	1,047	7,913	27,985
Liabilities	47,079	8,295	10,026	1,884	183	20,389
Public sector	36,019	9,076	5,006	2,027	815	16,923
Securities issued abroad	12,956	9,401	3,802	374	2,085	15,663
Money market	23,063	-326	1,204	1,652	-1,271	1,260
Private sector	11,060	-781	5,021	-142	-632	3,466
Securities issued abroad	6,227	-2,123	2,974	-1,314	328	-135
Money and equity market	4,833	1,343	2,046	1,172	-960	3,601
Assets	-734	119	585	-838	7,730	7,597
Other investment	-5,723	-7,218	27	-7,385	106	-14,469
Liabilities	15,187	-2,494	-1,902	5,834	-3,077	-1,638
Public sector	3,133	2,976	-846	798	-2,608	320
Banco de México	0	0	0	0	0	0
Private sector	12,055	-5,470	-1,056	5,037	-469	-1,959
Assets	-20,910	-4,724	1,930	-13,219	3,183	-12,830
Errors and omissions	-16,773	6,031	-9,418	-6,116	-7,609	-17,112
Change in gross international reserves	15,482	2,083	-3,459	-12,377	-4,332	-18,085
Valuation adjustments	847	971	250	472	725	2,418

p/ Preliminary figures. Note: Figures may not add up due to rounding. Source: Banco de México.

Table A 56 **Current Account USD** million

	2014			2015 <sup>p/</sup>		
	Annual	QI	QII	QIII	QIV	Annual
Current account	-24,846	-8,891	-7,613	-8,179	-7,698	-32,381
Balance of goods and services	-15,024	-4,143	-3,978	-9,857	-5,845	-23,823
Goods	-2,573	-2,170	-1,823	-6,456	-3,927	-14,375
General merchandise	-2,849	-2,201	-1,852	-6,469	-3,939	-14,460
Exports	397,129	90,404	98,134	96,094	96,141	380,772
Imports	399,977	92,605	99,985	102,562	100,080	395,232
Goods procured in ports by carriers	275	31	29	13	12	85
Services	-12,451	-1,973	-2,156	-3,401	-1,919	-9,448
Rent	-32,736	-10,384	-9,855	-4,718	-7,888	-32,844
Transfers	22,915	5,635	6,220	6,396	6,036	24,287
Oil trade balance	1,097	-1,841	-1,422	-3,686	-2,907	-9,855
Non-oil trade balance	-3,945	-360	-430	-2,783	-1,032	-4,605

Table A 57
Foreign Trade
USD million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Exports	214,233.0	249,925.1	271,875.3	291,342.6	229,703.6	298,473.1	349,433.4	370,769.9	380,015.1	397,128.7	380,772.0
Oil	31,888.6	39,016.8	43,013.8	50,635.4	30,831.3	41,693.4	56,443.4	52,955.8	49,481.5	42,586.5	23,432.5
Crude oil 1/	28,329.5	34,707.1	37,937.2	43,341.5	25,614.0	35,918.5	49,380.6	46,852.4	42,711.7	35,855.5	18,779.4
Other	3,559.1	4,309.7	5,076.7	7,293.8	5,217.3	5,774.9	7,062.8	6,103.4	6,769.8	6,731.0	4,653.0
Non-oil	182,344.4	210,908.3	228,861.5	240,707.2	198,872.2	256,779.7	292,990.0	317,814.1	330,533.6	354,542.2	357,339.6
Agricultural products 2/	5,981.1	6,835.9	7,415.0	7,894.6	7,725.9	8,610.4	10,309.5	10,914.2	11,245.8	12,181.3	12,858.4
Mining	1,167.7	1,320.6	1,737.1	1,931.0	1,447.9	2,424.0	4,063.5	4,906.5	4,714.4	5,064.0	4,504.5
Manufactures	175,195.6	202,751.8	219,709.4	230,881.6	189,698.4	245,745.3	278,617.1	301,993.4	314,573.4	337,296.9	339,976.7
Imports	221,819.5	256,058.4	281,949.0	308,603.3	234,385.0	301,481.8	350,842.9	370,751.6	381,210.2	399,977.2	395,232.4
Oil	16,393.7	19,637.0	25,469.2	35,656.9	20,462.5	30,211.2	42,704.1	41,138.5	40,867.8	41,489.7	33,287.7
Non-oil	205,425.8	236,421.3	256,479.9	272,946.3	213,922.5	271,270.7	308,138.8	329,613.1	340,342.3	358,487.5	361,944.7
Consumer goods	31,512.9	36,901.0	43,054.5	47,940.7	32,828.1	41,422.7	51,790.2	54,272.4	57,329.4	58,299.1	56,279.4
Oil	5,570.7	7,303.1	10,931.9	15,805.1	8,929.7	12,820.3	18,964.6	18,668.8	16,931.9	15,756.8	13,058.8
Non-oil	25,942.1	29,597.9	32,122.6	32,135.6	23,898.4	28,602.4	32,825.7	35,603.6	40,397.5	42,542.4	43,220.5
Intermediate goods	164,091.1	188,632.5	205,295.5	221,565.4	170,911.7	229,812.4	264,020.2	277,911.1	284,823.4	302,031.2	297,253.4
Oil	10,823.0	12,333.9	14,537.3	19,851.8	11,532.8	17,390.8	23,739.5	22,469.7	23,935.9	25,732.9	20,228.8
Non-oil	153,268.1	176,298.5	190,758.2	201,713.6	159,378.9	212,421.6	240,280.7	255,441.4	260,887.5	276,298.3	277,024.5
Capital goods	26,215.5	30,524.9	33,599.0	39,097.1	30,645.2	30,246.7	35,032.4	38,568.1	39,057.4	39,646.8	41,699.7
Trade balance	-7,586.6	-6,133.2	-10,073.7	-17,260.7	-4,681.4	-3,008.7	-1,409.5	18.3	-1,195.1	-2,848.5	-14,460.4
Oil trade balance	15,494.9	19,379.8	17,544.6	14,978.4	10,368.9	11,482.3	13,739.3	11,817.2	8,613.7	1,096.8	-9,855.2
Non-oil trade balance	-23,081.4	-25,513.0	-27,618.4	-32,239.1	-15,050.3	-14,490.9	-15,148.8	-11,798.9	-9,808.8	-3,945.3	-4,605.2

1/ Data provided by PMI Internacional, S.A. de C.V. (operation figures).
2/ Includes livestock and fishing.
p/ Preliminary figures.
Note: Figures may not add up due to rounding.
Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Table A 58 **Exports by Economic Sector** 

USD million

ltem	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Total	291,342.6	229,703.6	298,473.1	349,433.4	370,769.9	380,015.1	397,128.7	380,772.0
I. Agriculture and forestry	6,851.2	6,575.5	7,325.5	8,652.9	9,225.7	9,764.9	10,345.5	10,883.1
II. Livestock, apiculture and fishing	1,043.4	1,150.4	1,284.9	1,656.6	1,688.5	1,480.9	1,835.8	1,975.3
III. Mining industries	52,566.4	32,279.3	44,117.4	60,506.8	57,862.3	54,195.9	47,650.5	27,936.9
Crude oil 1/	43,341.5	25,614.0	35,918.5	49,380.6	46,852.4	42,711.7	35,855.5	18,779.4
Other	9,224.9	6,665.3	8,198.9	11,126.2	11,009.9	11,484.2	11,795.0	9,157.5
IV. Manufacturing industries	230,881.6	189,698.4	245,745.3	278,617.1	301,993.4	314,573.4	337,296.9	339,976.7
A. Food, beverages and tobacco	8,467.3	8,346.4	9,552.1	11,528.9	11,697.1	12,902.4	13,202.2	13,514.6
B. Textile, apparel and leather products	7,684.5	6,400.3	7,151.0	7,856.4	8,036.5	8,305.3	8,468.5	8,251.6
C. Timber industry	582.2	479.0	492.9	530.6	583.7	727.9	721.0	783.2
D. Paper, printing and publishing	1,944.8	1,665.7	1,959.7	2,119.1	1,962.8	1,884.4	1,971.0	1,958.8
E. Chemical industry	8,382.1	7,582.3	8,521.5	9,910.2	10,945.6	11,103.1	10,909.9	10,299.3
F. Plastic and rubber products	6,409.7	5,390.9	6,870.4	8,094.6	9,265.3	9,770.3	10,433.4	10,307.0
G. Non-metal mineral products	3,051.1	2,430.5	2,951.6	3,094.9	3,407.7	3,657.7	3,790.2	3,819.8
H. Iron and steel	8,728.4	4,943.3	6,542.5	7,913.0	7,743.6	8,446.3	8,549.0	6,813.7
I. Mining and metallurgy	8,686.8	8,561.1	12,333.8	17,397.8	17,020.4	12,982.2	11,275.8	10,084.5
J. Metal products, machinery and equipment	169,410.3	137,566.1	182,696.7	202,353.1	222,030.5	234,643.7	256,325.3	261,293.1
<ol> <li>For agriculture and stockbreeding</li> </ol>	463.1	409.6	558.5	691.2	807.8	910.5	868.4	788.7
<ol><li>For other transport and communications</li></ol>	58,168.2	43,690.7	66,489.4	81,655.5	91,566.9	101,673.4	114,788.3	119,667.3
Automobile industry	55,681.0	42,373.1	64,947.9	79,176.5	88,377.2	97,780.9	109,395.1	114,493.4
3. Special machinery and equipment for different indust	27,894.3	24,073.5	33,560.7	38,514.2	43,732.0	43,078.9	48,676.6	47,028.7
4. Metal products (domestic use)	3,344.6	3,820.3	4,715.6	5,152.9	5,252.7	5,639.8	5,774.5	6,070.0
<ol><li>Professional and scientific equipment</li></ol>	9,007.4	8,227.3	9,808.2	10,602.0	11,459.6	12,528.4	14,102.4	14,902.7
6. Electric and electronic equipment	70,090.9	56,932.6	67,089.2	65,325.9	68,818.0	70,415.0	71,710.1	72,428.9
7. Photographic and optical equipment, watchmaking	441.9	412.1	475.2	411.4	393.4	397.6	404.9	406.9
K. Other industries	7,534.3	6,332.6	6,673.0	7,818.6	9,300.2	10,150.3	11,650.7	12,851.1

<sup>1/</sup> Data provided by PMI Internacional, S.A. de C.V. (operation figures).

Note: Figures may not add up due to rounding.
Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Table A 59 **Imports by Economic Sector** 

**ÚSD** million

Item	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
TOTAL	308,603.3	234,385.0	301,481.8	350,842.9	370,751.6	381,210.2	399,977.2	395,232.4
I. Agriculture and forestry	11,291.1	8,303.6	9,416.7	12,632.3	12,695.6	11,704.4	11,578.6	10,629.0
II. Livestock, apiculture and fishing	546.4	306.4	428.4	508.7	535.8	647.6	797.1	612.0
III. Mining industries	37,530.5	21,274.7	31,414.9	44,355.3	42,751.6	42,239.0	42,770.4	34,344.9
IV. Manufacturing	259,235.3	204,500.3	260,221.8	293,346.6	314,768.6	326,619.2	344,831.1	349,646.5
A. Food, beverages and tobacco	11,524.9	9,884.6	11,231.0	13,333.7	13,912.4	14,357.7	15,075.0	13,842.9
B. Textile, apparel and leather products	9,947.6	7,745.9	9,336.7	10,979.2	11,642.8	12,246.2	13,167.5	13,480.1
C. Timber industry	1,671.4	1,120.0	1,308.2	1,424.2	1,541.4	1,622.0	1,725.8	1,844.7
D. Paper, pringing and publishing	6,700.8	5,474.4	6,612.3	6,898.9	6,885.4	7,048.6	7,273.9	7,194.6
E. Chemical industry	19,804.1	16,685.0	19,507.8	22,004.1	23,508.4	24,477.1	25,854.4	24,415.2
F. Plastic and rubber products	16,606.8	13,270.0	18,375.3	19,891.8	22,072.8	22,719.3	24,298.0	24,635.4
G. Non-metal mineral products	2,233.1	1,658.7	2,174.0	2,547.8	2,686.7	2,676.2	3,034.0	3,033.6
H. Iron and steel	15,118.4	10,113.3	13,356.4	15,252.5	18,037.3	16,810.6	18,072.2	17,994.7
I. Mining and metallurgy	8,520.1	5,550.9	8,198.3	10,191.0	9,513.3	8,896.0	9,539.7	9,464.4
J. Metal products, machinery and equipment	155,547.4	123,195.1	158,232.0	176,808.0	191,131.1	200,774.0	209,212.8	215,114.2
1. For agriculture and stockbreeding	877.3	682.8	785.9	927.7	989.0	963.2	957.3	1,020.7
2. For other transport and communications	36,119.3	24,752.5	34,599.9	41,222.3	46,902.6	48,259.9	52,187.2	53,847.1
Automobile industry	33,993.1	23,703.5	33,283.6	38,890.7	44,143.9	45,883.7	49,136.2	50,849.9
3. Special machinery and equipment for different								
industries	40,850.7	33,492.7	41,281.1	46,948.0	53,268.0	55,324.9	57,753.3	59,757.2
4. Metal products (domestic use)	1,008.4	737.5	1,007.8	1,223.4	1,221.5	1,315.2	1,367.9	1,448.5
<ol><li>Professional and scientific equipment</li></ol>	11,958.9	8,192.4	9,794.7	10,789.0	11,328.3	12,034.5	12,772.1	14,638.1
6. Electric and electronic equipment	63,983.9	54,765.4	70,070.5	74,931.6	76,625.3	82,124.7	83,409.0	83,657.7
7. Photographic and optical equipment, watchmaking	749.0	571.9	692.1	766.2	796.3	751.7	766.1	745.0
K. Other industries	11,560.8	9,802.4	11,889.7	14,015.2	13,836.9	14,991.4	17,577.8	18,626.7

p/ Preliminary figures.

Note: Figures may not add up due to rounding.

Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

p/ Preliminary figures.

Table A 60 **Foreign Trade by Country** 

USD million

			Exports	IIIOII				Imports		
	2011	2012	2013	2014	2015 <sup>p/</sup>	2011	2012	2013	2014	2015 <sup>p/</sup>
otal	349,433	370,770	380,015	397,129	380,772	350,843	370,752	381,210	399,977	395,232
America	311,801	327,481	337,728	354,756	341,979	198,988	209,713	212,417	220,846	209,666
North America	285,121	298,780	309,892	329,080	319,334	184,002	195,000	197,109	205,323	196,750
U.S.	274,427	287,842	299,439	318,366	308,788	174,356	185,110	187,262	195,278	186,802
Canada	10,695	10,938	10,453	10,714	10,546	9,645	9,890	9,847	10,045	9,948
Central America	5,481	5,992	5,873	5,865	6,080	3,923	4,573	4,902	4,320	2,240
Costa Rica	998	993	977	996	965	2,650	3,259	3,174	2,542	550
El Salvador	666	609	639	605	636	110	106	126	127	136
Guatemala	1,787	1,827	1,735	1,790	1,814	543	612	529	490	461
Panama	1,024	1,136	1,047	989	1,042	121	83	17	20	121
Other countries of Central America	1,006	1,426	1,476	1,484	1,623	499	513	1,056	1,141	971
South America	18,871	20,563	19,682	17,828	14,750	10,084	9,075	9,380	9,778	9,600
Argentina	1,958	1,932	1,966	1,302	1,497	1,061	1,004	1,167	1,050	1,057
Brazil	4,891	5,658	5,386	4,740	3,799	4,562	4,495	4,421	4,473	4,622
Colombia	5,633	5,592	4,735	4,734	3,668	825	877	912	935	923
Chile	2,072	2,252	2,085	2,148	1,861	2,101	1,503	1,438	1,398	1,480
Peru	1,286	1,528	1,771	1,730	1,651	582	440	585	1,106	681
Venezuela	1,661	2,118	2,155	1,552	1,222	373	189	97	72	131
Other countries of South America	1,369	1,483	1,585	1,622	1,052	579	568	760	745	706
Antilles	2,328	2,148	2,281	1,984	1,815	979	1,065	1,026	1,425	1,077
Europe	21,134	23,841	21,658	22,572	20,708	41,477	44,685	47,108	49,210	48,085
European Union	19,173	22,043	19,623	20,393	18,441	37,788	40,986	43,169	44,595	43,744
Germany	4,343	4,495	3,797	3,558	3,510	12,863	13,508	13,461	13,762	13,975
Belgium	1,212	1,143	1,107	1,700	1,596	878	984	991	942	1,074
Denmark	116	190	142	147	174	443	466	421	543	483
Spain	4,905	7,075	6,962	5,959	3,535	3,843	4,081	4,311	4,753	4,554
France	720	1,282	1,288	1,603	2,120	3,360	3,467	3,686	3,786	3,727
Netherlands	2,083	1,915	1,589	2,271	1,835	3,061	3,562	4,202	3,688	3,253
Italy	1,559	1,302	1,249	1,626	1,647	4,983	5,462	5,621	5,217	5,062
Portugal	332	173	62	45	165	520	437	420	554	425
United Kingdom	2,159	2,604	1,438	1,806	1,968	2,142	2,392	2,508	2,513	2,345
Other countries of European Union	1,745	1,865	1,988	1,679	1,891	5,696	6,627	7,548	8,836	8,847
Other European countries	1,961	1,798	2,036	2,180	2,267	3,689	3,699	3,939	4,615	4,341
Asia	14,575	17,325	18,666	17,705	16,097	107,110	113,713	119,436	127,626	135,532
China	5,964	5,721	6,469	5,964	4,885	52,248	56,936	61,321	66,256	69,988
Korea	1,523	1,728	1,527	2,028	2,816	13,690	13,350	13,507	13,782	14,633
Philippines	47	67	105	128	83	1,636	1,389	1,593	1,936	1,993
Hong Kong	450	825	957	1,029	768	343	339	289	290	254
India	1,819	3,322	3,963	2,702	1,841	2,385	2,951	2,868	3,727	4,067
Indonesia	126	146	213	116	88	1,231	1,191	1,149	1,348	1,327
Israel	116	116	112	136	147	542	736	616	641	695
Japan	2,252	2,611	2,244	2,609	3,017	16,494	17,655	17,076	17,545	17,368
Malaysia	124	203	176	195	122	5,610	4,736	5,379	6,561	7,463
Singapore	592	724	577	529	523	1,185	1,371	1,456	1,200	1,328
Thailand	320	407	425	361	323		3,806		4,354	
						3,089		4,322		4,958
Taiw an	468	371	487	392	270	5,770	6,183	6,689	6,368	6,630
Other Asian countries	772	1,086	1,412	1,516	1,214	2,888	3,071	3,170	3,620	4,827
Africa	738	682	784	890	747	1,809	1,334	1,334	1,363	980
Oceania	993	1,196	1,105	1,116	1,166	1,433	1,295	901	913	957
Australia	894	1,086	988	1,009	1,051	984	935	518	554	599
New Zealand	92	102	112	99	106	435	335	371	349	349
Other countries of Oceania	7	8	5	7	10	14	25	12	11	9
Non identified	193	244	75	89	76	26	12	13	20	13

p/ Preliminary figures.

Note: Figures may not add up due to rounding.

Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Table A 61 **Main Trade Goods** 

	Exports				Imports				
	2012	2013	2014	2015 <sup>p/</sup>		2012	2013 2014		2015 p/
Total (USD million)	370,770	380,015 Percent	0,015 397,129 380,772 Total (USD mil ercent of total		Total (USD million)	370,752	381,210 Percen	399,977 t of total	395,232
Automobiles	7.9	8.5	8.2	8.6	Automobile spare parts	5.6	5.4	5.7	5.9
Automobile spare parts	5.1	5.4	5.7	6.6	Electronic microcircuits	3.1	3.5	3.5	3.7
Trucks and cargo vehicles	4.0	4.6	5.4	5.7	Telephone electric parts	3.6	4.0	3.4	3.7
Crude oil 1/	12.6	11.2	9.0	4.9	Gasoline	4.9	4.3	3.8	3.3
Computers	5.0	4.6	5.2	4.8	Automobiles	2.1	2.2	2.1	2.4
TV sets	4.8	4.4	4.2	4.4	Computers	2.2	2.3	2.2	2.4
Telephone electric devices	4.6	4.7	4.0	4.2	Spare parts for recorders and TV sets	2.7	2.5	2.4	1.5
Insulating cables for electric installations	2.4	2.7	2.8	3.0	Devices to cut or connect electric circuits	1.4	1.5	1.5	1.5
Tractors	1.6	1.5	2.0	2.3	Insulating cables for electric installations	1.3	1.4	1.4	1.4
Medical and veterinarian devices	1.3	1.3	1.5	1.7	Computer spare parts and accessories	1.5	1.5	1.4	1.4
Seats and their parts	1.3	1.4	1.6	1.6	Diesel engines	1.1	1.0	1.1	1.2
Refrigerators	1.1	1.2	1.1	1.2	Liquid crystal displays	0.9	0.8	0.8	1.2
Gold (crude, w orked and ground)	2.2	1.5	1.2	1.1	Diesel oil	1.7	1.5	1.5	1.1
Engine parts	1.0	0.9	1.0	1.1	Plastic parts for furniture, autom., apparel, etc.	1.0	1.0	1.0	1.1
Oils other than crude oil	1.3	1.5	1.4	1.0	TV sets	0.8	0.8	0.8	1.0
Gasoline engines	0.7	0.9	0.9	0.9	Engine parts	0.9	0.9	0.9	0.9
Devices to cut or connect electric circuits	0.9	0.8	0.8	0.9	Electric transformers	0.8	0.8	0.8	0.9
Freight transport	0.4	0.5	0.7	0.8	Spare parts for sound reprod. and recording devices	0.8	0.8	0.8	0.9
Electric engines and generators	0.7	0.7	0.7	0.8	Semicondutor devices	0.7	0.7	0.8	0.8
Air-conditioning machines and devices	0.5	0.6	0.7	0.8	Plumbing articles	0.8	0.7	0.8	0.8
Electrical transformers	0.7	0.7	0.7	0.7	New rubber tiers	0.8	0.8	0.8	0.8
Malt beer	0.6	0.6	0.6	0.7	Air and vacuum pumps	0.9	0.8	0.9	0.8
Plumbing articles	0.5	0.5	0.6	0.6	Propeller shafts, bearnings and gear assembiles	0.6	0.7	0.7	0.8
Automatic regulating instruments	0.5	0.5	0.6	0.6	Natural gas	0.5	0.7	0.8	0.7
Centrifuges, filters and purifiers	0.5	0.5	0.6	0.6	Medicine (retail)	0.9	0.8	0.7	0.7
Lamps and illuminated signs	0.4	0.4	0.5	0.5	Iron and steel bars and hooks	0.7	0.7	0.7	0.7
Lighting fittings	0.3	0.4	0.5	0.5	Screws, iron and steel bolts	0.6	0.6	0.6	0.7
Plastic containers	0.4	0.5	0.5	0.5	Medical and veterinarian devices	0.5	0.6	0.6	0.7
Electric machines and devices	0.4	0.4	0.5	0.5	Plastic containers	0.6	0.6	0.6	0.6
Fixed electrical capacitors	0.1	0.1	0.5	0.5	Corn	0.8	0.5	0.6	0.6
Silver (crude, worked and ground)	1.2	0.8	0.6	0.5	Printing machines and devices	0.6	0.6	0.6	0.6
Electronic microcircuits	0.4	0.4	0.4	0.5	Centrifuges, filters and purifiers	0.5	0.5	0.5	0.6
Liquid pumps	0.4	0.4	0.5	0.5	Polyethylenes	0.5	0.6	0.6	0.6
Microphones and their support bases	0.4	0.5	0.5	0.5	Liquid pumps	0.6	0.6	0.5	0.6
Fresh or refrigerated tomato	0.5	0.5	0.5	0.5	Printed circuit board assembly	0.5	0.6	0.5	0.5
Fresh or refrigerated vegetables	0.4	0.5	0.4	0.5	Seats and their parts	0.4	0.5	0.5	0.5
Plastic parts for furniture, autom., apparel etc.	0.4	0.4	0.4	0.5	Freight transport	0.6	0.6	0.5	0.5
Avocado	0.2	0.3	0.4	0.4	Gas turbines	0.5	0.4	0.5	0.5
Radios	0.3	0.4	0.4	0.4	Electric engines and generators	0.4	0.4	0.4	0.5
Medicine (retail)	0.4	0.3	0.4	0.4	Gasoline engines	0.6	0.6	0.5	0.5
Other	31.5	31.8	32.0	32.9	Other	50.3	50.3	50.8	50.4

<sup>1/</sup>Data provided by PMI Internacional, S.A. de C.V. (operation figures). Subject to revisions. p/ Preliminary figures.

Source: SAT, SE; Banco de México, INEGI. Merchandise trade balance of Mexico. SNIEG. Information of National Interest.

Table A 62 **International Travelers** 

					ittiat	ionai	IIGIOI	,ı						
Item	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Balance (USD million)	2,798	3,108	3,837	4,203	4,068	4,457	4,802	4,305	4,737	4,037	4,291	4,827	6,603	7,357
						Incoming								
Revenues (USD million)	8,858	9,362	10,796	11,803	12,177	12,919	13,370	11,513	11,992	11,869	12,739	13,949	16,208	17,457
Tourists	6,084	6,680	7,783	8,502	8,955	9,737	10,152	8,827	9,443	9,448	10,199	11,312	13,580	14,736
In border areas	2,492	2,393	2,591	2,848	2,764	2,684	2,734	2,232	2,020	1,942	2,100	2,279	2,210	2,301
With overnight stay	641	572	599	644	605	630	708	604	548	558	568	542	740	791
Without overnight stay	1,851	1,821	1,993	2,204	2,159	2,054	2,026	1,628	1,472	1,384	1,533	1,737	1,470	1,510
On cruises	282	289	421	453	458	498	483	454	529	479	440	358	419	419
Number of travelers (thousands)	100,154	92,330	99,250	103,146	97,701	93,582	92,948	88,044	81,953	75,732	76,749	78,100	81,042	87,221
Tourists	9,883	10,353	11,553	12,534	12,608	13,041	13,425	12,501	13,327	13,237	13,665	14,562	16,000	18,350
In border areas	85,136	77,002	81,204	83,905	78,577	73,599	73,031	69,842	62,578	57,205	57,885	58,983	59,257	62,756
With overnight stay	9,784	8,312	9,065	9,381	8,745	8,565	9,505	9,845	9,962	10,166	9,738	9,589	13,346	13,795
Without overnight stay	75,352	68,690	72,139	74,524	69,832	65,034	63,526	59,997	52,615	47,039	48,148	49,394	45,911	48,962
On cruises	5,136	4,974	6,493	6,707	6,516	6,943	6,491	5,701	6,048	5,289	5,199	4,555	5,785	6,115
Average spending (USD)	88.4	101.4	108.8	114.4	124.6	138.1	143.8	130.8	146.3	156.7	166.0	178.6	200.0	200.1
Tourists	615.6	645.2	673.7	678.4	710.3	746.7	756.2	706.1	708.5	713.8	746.3	776.8	848.8	803.1
In border areas	29.3	31.1	31.9	33.9	35.2	36.5	37.4	32.0	32.3	33.9	36.3	38.6	37.3	36.7
With overnight stay	65.5	68.8	66.1	68.6	69.2	73.5	74.5	61.3	55.0	54.9	58.3	56.5	55.5	57.3
Without overnight stay	24.6	26.5	27.6	29.6	30.9	31.6	31.9	27.1	28.0	29.4	31.8	35.2	32.0	30.8
On cruises	55.0	58.0	64.8	67.5	70.3	71.8	74.4	79.6	87.4	90.5	84.7	78.6	72.4	68.6
						Outgoing								
Expenditures (USD million)	6,060	6,253	6,959	7,600	8,108	8,462	8,568	7,207	7,255	7,832	8,449	9,122	9,606	10,100
Tourists	2,429	2,565	2,911	3,314	3,805	4,373	4,566	4,058	4,187	4,693	5,223	5,777	6,153	6,471
In border areas	3,631	3,688	4,048	4,287	4,303	4,089	4,001	3,149	3,067	3,139	3,226	3,346	3,452	3,629
With overnight stay	349	270	316	340	388	421	380	339	353	321	326	248	457	556
Without overnight stay	3,282	3,418	3,732	3,947	3,915	3,668	3,622	2,811	2,715	2,818	2,900	3,097	2,995	3,073
Number of travelers (thousands)	124,633	123,015	128,903	128,392	122,022	109,540	107,519	98,228	91,658	88,113	87,332	90,777	90,982	95,027
Tourists	6,492	6,603	7,398	8,000	8,486	9,387	9,397	9,037	9,331	10,200	11,209	11,694	11,243	11,279
In border areas	118,141	116,412	121,505	120,392	113,536	100,153	98,122	89,191	82,326	77,913	76,124	79,083	79,739	83,748
With overnight stay	5,456	4,441	5,096	5,305	5,516	5,870	5,129	5,067	5,003	4,599	4,372	4,217	7,018	8,329
Without overnight stay	112,685	111,971	116,409	115,087	108,020	94,283	92,992	84,124	77,323	73,314	71,752	74,866	72,721	75,419
Average spending (USD)	48.6	50.8	54.0	59.2	66.4	77.2	79.7	73.4	79.2	88.9	96.7	100.5	105.6	106.3
Tourists	374.1	388.5	393.5	414.2	448.4	465.8	485.9	449.0	448.8	460.1	466.0	494.0	547.3	573.7
In border areas	30.7	31.7	33.3	35.6	37.9	40.8	40.8	35.3	37.3	40.3	42.4	42.3	43.3	43.3
With overnight stay	63.9	60.7	62.1	64.0	70.3	71.8	74.0	66.9	70.5	69.9	74.5	58.9	65.2	66.8
Without overnight stay	29.1	30.5	32.1	34.3	36.2	38.9	38.9	33.4	35.1	38.4	40.4	41.4	41.2	40.7

Table A 63 **Revenues from Workers' Remittances** 

	2010	2011	2012	2013	2014	2015 <sup>p/</sup>
Total remittances (USD million)	21,304	22,803	22,438	22,303	23,647	24,771
Money orders	390	207	195	218	267	162
Electronic transfers	20,583	22,229	21,858	21,749	22,914	24,146
Cash and kind	331	367	386	335	466	463
Number of remittances (thousands)	67,536	69,861	71,611	76,752	80,529	84,706
Money orders	816	427	393	422	525	303
Electronic transfers	65,930	68,553	70,351	75,498	78,870	83,146
Cash and kind	789	881	867	833	1,133	1,257
Average remittances (USD)	315	326	313	291	294	292
Money orders	478	484	495	517	509	534
Electronic transfers	312	324	311	288	291	290
Cash and kind	419	417	445	402	411	369

Table A 64 Revenues from Workers' Remittances

By state and international comparison

Distribution by state and international comparison

International comparison: selected countries in 2014 By state As a Ranking Percentage structure State percentage Country USD million of GDP <u>20</u>15 <sup>p/</sup> 2015 <sup>p/</sup> 1995 2003 2011 2014 1996 2002 2011 2014 India 42,354 2.3 Michoacán 1 1 1 1 1 16 25 11.81 10.11 10 48 10.22 Mexico 3 2 2 3 2 2011 22,803 Guanajuato 10.25 9.30 9.28 8.47 9.13 1.9 Jalisco 2 3 3 2 3 12.70 8.82 8.80 9.43 8.95 2012 22 438 1.9 Estado de México 7 4 4 4.39 7.31 7.12 6.78 6.30 2013 22,303 1.8 Puebla 6 7 5 6 5 4.84 5.64 6.33 5.61 5.53 2014 23,647 1.8 8 6 6 5 20 5 21 2015 Oaxaca 9 7 4 34 5 95 5 20 24.771 22 Guerrero 4 7 10 7 5.80 5.57 4.01 5.16 6 6.11 5 92 Distrito Federal 5 8 8 5 8 5.34 5.38 5 40 4 40 China n.a. n.a. Veracruz 15 5 2.07 6.60 5.29 4.23 4.38 Nigeria 20,631 4.0 San Luis Potosí 10 12 11 11 10 3 26 2 67 3.16 3.36 3.43 Philippines 20.380 7.5 Zacatecas 11 13 12 12 11 3 12 2.66 2.76 3.12 3 10 Eavpt 19 570 7.2 Hidalgo 16 10 10 9 12 1.95 4.02 3.19 4.22 2.93 Pakistan 17,027 7.4 Baja California 23 24 19 14 13 0.85 0.94 1 77 2 48 2 75 Bangladesh 14 912 99 Tamaulipas 21 20 16 15 14 1.27 1.55 1.98 2.37 2.68 Indonesia 8,345 0.9 Nuevo León 22 22 23 13 15 1.05 1.25 1.42 2.54 2.60 Sri Lanka 7,018 9.4 Chihuahua 19 19 18 19 16 1.75 1.89 2.03 2.60 Lebanon 14.5 1.56 6.447 Chiapas 27 11 14 22 17 0.54 2.87 2.43 1.67 2.39 Guatemala 5,718 10.6 2.46 2.21 2.22 28.9 Morelos 9 13 16 18 3.56 2.56 Nepal 5.562 14

Total

Durango

Sinaloa

Nayarit

Sonora

Tlaxcala

Colima

Yucatán

Tabasco

Quintana Roo

Baja California Sur

Campeche

Aquascalientes

Coahuila

Querétaro

14

13

17

20

18

24

12

26

25

28

32

29

31

30

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28

29

30

31

32

2.08

2 99

1.93

1.57

1.84

0.76

3.11

0.60

0.75

0.31

0.09

0.13

0.10

0.12

100.00

1.73

2 12

1.87

1.50

0.92

0.85

1.72

0.99

0.69

0.40

0.57

0.35

0.34

0.13

100.00

1.89

2 38

1.58

1.53

1.13

1.26

1.46

1.07

0.83

0.53

0.48

0.43

0.25

0.18

100.00

2.09

2 16

1.75

1.55

1.82

1.27

1.37

0.84

1 17

0.53

0.48

0.44

0.22

0.20

100.00

2.15

2 15

1.86

1.61

1.56

1.52

1.41

0.91

0.88

0.54

0.53

0.47

0.23

0.21

100.00

Saudi Arabia

El Salvador

Colombia

Portugal

Thailand

Poland

Jordan

Honduras

Yemen

Romania

Peru

Serbia

Ghana

Ecuador

Kyrgyzstan

Dominican Republic

4,800

4 571

4,217

4,093

4,052

3,792

3.624

3,363

3.353

3,351

2,658

2.639

2,566

2.462

2,243

2,008

0.6

7 4

17.3

1.1

1.8

0.9

0.7

10.0

18.1

9.3

1.4

1.3

5.6

2.6

30.6

4.2

Source: Prepared with data from IMF Balance of Payments Division. In case of Mexico the source is Banco de México.

p/ Preliminary figures.

n.a. Not available

Table A 65 Foreign Investment in Government Securities
End of period outstanding stocks at face value
USD billion

		CET	ES	BON	IDES	UDIBO	NOS	BONDES	D 1/	Bond	ds	Tota	al
	_	Stock	%	Stock	%	Stock	%	Stock	%	Stock	%	Stock	%
2002		0.3	17.4	0.1	3.3	*	0.2	0.1	8.2	1.1	70.9	1.6	100.0
2003		0.4	18.0	0.5	21.9	*	0.4	*	2.1	1.2	57.5	2.1	100.0
2004		0.6	9.1	*	0.3		0.7	0.2	2.7	6.1	87.2	7.0	100.0
2005 2006		0.3 0.6	3.2 4.7	0.2	2.3 0.0	0.3	2.6 3.3	0.5 0.6	4.7 5.1	8.8 10.8	87.2 86.9	10.1 12.4	100.0 100.0
2006		0.8	4.7	*	0.0	0.4 0.5	2.4	0.6	5.1 0.5	18.8	92.8	20.2	100.0
2007		1.3	6.4	0.0	0.0	0.7	3.3	0.1	0.5	17.9	89.8	20.2	100.0
2009		0.9	3.7	0.0	0.0	0.9	3.9	*	0.2	22.1	92.2	24.0	100.0
2010		8.1	16.8	0.0	0.0	2.0	4.1	0.8	1.7	37.5	77.4	48.4	100.0
2011		15.6	22.3	0.0	0.0	3.0	4.3	0.6	0.9	50.7	72.6	69.8	100.0
2012		38.4	31.7	0.0	0.0	6.9	5.7	0.4	0.3	75.4	62.3	121.2	100.0
2013		45.8	32.6	0.0	0.0	6.7	4.8	0.4	0.3	87.3	62.3	140.3	100.0
2014		42.5	29.5	0.0	0.0	8.4	5.8	0.2	0.1	92.8	64.5	143.9	100.0
2015		26.2	21.2	0.0	0.0	6.8	5.5	0.2	0.2	90.2	73.1	123.3	100.0
2012	Jan	19.4	24.1	0.0	0.0	4.0	4.9	0.4	0.5	56.7	70.5	80.4	100.0
	Feb	24.4	28.2	0.0	0.0	4.4	5.0	0.4	0.4	57.3	66.3	86.3	100.0
	Mar	25.3	28.2	0.0	0.0	5.1	5.7	0.3	0.3	59.0	65.8	89.7	100.0
	Apr	26.4	28.7	0.0	0.0	6.2	6.7	0.4	0.4	59.1	64.2	92.1	100.0
	May	21.7	26.0	0.0	0.0	5.6	6.7	0.3	0.4	55.7	66.9	83.3	100.0
	Jun	23.9	26.3	0.0	0.0	5.8	6.4	0.3	0.3	61.1	67.0	91.1	100.0
	Jul	26.9	27.6	0.0	0.0	5.5	5.7	0.3	0.3	64.7	66.4	97.4	100.0
	Aug	29.7	29.5	0.0	0.0	5.6	5.6	0.3	0.3	65.1	64.6	100.8	100.0
	Sep	29.6	27.4	0.0	0.0	6.2	5.7	0.3	0.2	72.1	66.7	108.1	100.0
	Oct	28.7	26.4	0.0	0.0	6.5	5.9	0.3	0.3	73.4	67.4	109.0	100.0
	Nov	29.2	25.7	0.0	0.0	6.6	5.8	0.3	0.3	77.8	68.3	114.0	100.0
	Dec	38.4	31.7	0.0	0.0	6.9	5.7	0.4	0.3	75.4	62.3	121.2	100.0
2013	Jan	39.2	30.9	0.0	0.0	7.5	5.9	0.4	0.3	80.0	62.9	127.1	100.0
	Feb	37.6	29.5	0.0	0.0	8.3	6.5	0.3	0.3	81.5	63.8	127.7	100.0
	Mar	38.8	28.4	0.0	0.0	9.6	7.1	0.5	0.4	87.5	64.2	136.4	100.0
	Apr	36.7	26.0	0.0	0.0	10.4	7.4	0.7	0.5	93.1	66.1	141.0	100.0
	May	36.3	26.8	0.0	0.0	9.6	7.1	0.7	0.5	88.6	65.6	135.2	100.0
	Jun	38.2	29.3	0.0	0.0	8.6	6.6	0.5	0.4	82.9	63.7	130.2	100.0
	Jul	38.3	28.9	0.0	0.0	7.8	5.9	0.6	0.5	85.8	64.7	132.6	100.0
	Aug	35.0	27.8	0.0	0.0	6.6	5.3	0.5	0.4	83.8	66.6	125.9	100.0
	Sep	36.8	28.0	0.0	0.0	6.5	4.9	0.5	0.4	88.0	66.7	131.8	100.0
	Oct	34.3	26.0	0.0	0.0	6.9	5.2	0.5	0.4	90.2	68.4	131.9	100.0
	Nov	34.6	25.8	0.0	0.0	7.4	5.5	0.6	0.5	91.3	68.2	134.0	100.0
	Dec	45.8	32.6	0.0	0.0	6.7	4.8	0.4	0.3	87.3	62.3	140.3	100.0
2014	Jan	41.8	30.6	0.0	0.0	6.0	4.4	0.5	0.3	88.1	64.6	136.4	100.0
	Feb	46.8	32.6	0.0	0.0	6.4	4.4	0.5	0.3	90.1	62.7	143.8	100.0
	Mar	45.7	31.5	0.0	0.0	6.8	4.7	0.5	0.3	91.8	63.4	144.8	100.0
	Apr	39.8	28.4	0.0	0.0	7.1	5.1	0.4	0.3	92.8	66.2	140.2	100.0
	May	43.9	29.6	0.0	0.0	6.6	4.5	0.5	0.3	97.3	65.6	148.2	100.0
	Jun	50.0	33.0	0.0	0.0	7.2	4.7	0.4	0.3	94.0	62.0	151.7	100.0
	Jul	48.4	31.7	0.0	0.0	8.1	5.3	0.4	0.3	95.5	62.7	152.4	100.0
	Aug	45.1	29.9	0.0	0.0	8.6	5.7	0.4	0.3	96.6	64.1	150.7	100.0
	Sep	43.9	29.6	0.0	0.0	8.7	5.9	0.4	0.3	95.3	64.3	148.3	100.0
	Oct	42.6	28.7	0.0	0.0	8.6	5.8	0.3	0.2	97.1	65.3	148.6	100.0
	Nov	46.3	30.3	0.0	0.0	8.8	5.7	0.2	0.2	97.5	63.8	152.8	100.0
	Dec	42.5	29.5	0.0	0.0	8.4	5.8	0.2	0.1	92.8	64.5	143.9	100.0
2015	Jan	40.7	28.1	0.0	0.0	8.3	5.7	0.2	0.1	95.8	66.1	145.0	100.0
	Feb	38.6	27.0	0.0	0.0	8.8	6.2	0.2	0.1	95.5	66.7	143.2	100.0
	Mar	36.0	26.0	0.0	0.0	8.9	6.4	0.2	0.1	93.2	67.4	138.2	100.0
	Apr	32.8	23.9	0.0	0.0	9.3	6.8	0.2	0.1	95.1	69.2	137.3	100.0
	May	30.6	22.5	0.0	0.0	9.3	6.8	0.2	0.2	96.1	70.6	136.2	100.0
	Jun	33.4	24.7	0.0	0.0	8.8	6.5	0.2	0.2	93.0	68.6	135.5	100.0
	Jul	32.5	24.7	0.0	0.0	7.9	5.9	0.3	0.2	93.0	69.5	133.0	100.0
	Aug	30.0	23.3	0.0	0.0	7.4	5.8	0.2	0.2	90.8	70.7	128.4	100.0
	Sep	28.6	22.5	0.0	0.0	6.9	5.4	0.2	0.1	91.5	71.9	127.2	100.0
	Oct	25.3	19.9	0.0	0.0	6.9	5.4	0.2	0.2	94.7	71.9	127.2	100.0
		23.4	18.8	0.0	0.0	6.5	5.3	0.2	0.1	93.9	74.6 75.7	127.1	100.0
	Nov												

<sup>1/</sup> Includes Brems and IPAB bonds.
\*/ Less than USD 50 million.

# Table A 66 Gross External Debt Position

By residence criteria <sup>1/</sup>
End of period outstanding stocks

14		USD million		Percent of GDP			
Items -	2014 <sup>p/</sup>	2015 <sup>p/</sup>	Difference	2014 <sup>p/</sup>	2015 <sup>p/</sup>	Difference	
TOTAL (I + II + III + IV)	285,754.4	297,896.4	12,142.0	23.40	27.20	3.80	
TOTAL ADJUSTED (I + II + III + IV + V)	426,393.0	417,778.5	-8,614.5	34.92	38.15	3.23	
PUBLIC SECTOR (I + 3.3 + 4.2.1)	147,665.8	162,209.5	14,543.7	12.09	14.81	2.72	
I. Federal Government 2/	78,573.4	82,588.3	4,014.9	6.43	7.54	1.11	
II. Monetary authority	0.0	0.0	0.0	0.00	0.00	0.00	
III. Banking sector	28,694.7	26,279.5	-2,415.2	2.35	2.40	0.05	
3.1 Commercial banks 3/	17,845.7	14,960.1	-2,885.6	1.46	1.37	-0.10	
3.2 Other depositary corporations 4/	1,319.7	1,319.5	-0.2	0.11	0.12	0.01	
3.3 Development banks 2/	9,529.3	9,999.9	470.6	0.78	0.91	0.13	
IV. Other sectors	178,486.3	189,028.6	10,542.3	14.62	17.26	2.64	
4.1 Non-bank financial corporations 5/	43.8	39.3	-4.5	0.00	0.00	0.00	
4.2 Non-financial enterprises	178,442.5	188,989.3	10,546.8	14.61	17.26	2.64	
4.2.1 Public enterprises and entities 2/	59,563.1	69,621.3	10,058.2	4.88	6.36	1.48	
4.2.2 Private sector 6/	118,879.4	119,368.0	488.6	9.74	10.90	1.16	
4.2.3 IPAB <sup>7/</sup>	0.0	0.0	0.0	0.00	0.00	0.00	
V. Adjustments (5.1-5.2+5.3+5.4+5.5)	140,638.6	119,882.0	-20,756.6	11.52	10.95	-0.57	
5.1 Non-residents' holdings of MXN-denominated debt 8/	143,857.7	123,298.5	-20,559.2	11.78	11.26	-0.52	
5.2 Residents' holdings of foreign currency-denominated debt 9/	4,183.2	4,557.9	374.7	0.34	0.42	0.07	
5.3 Agencies' claims on Mexican residents 10/	887.9	1,100.5	212.6	0.07	0.10	0.03	
5.4 Pemex-Pidiregas 11/	0.0	0.0	0.0	0.00	0.00	0.00	
5.5 Other debt liabilities with non-residents 12/	76.2	41.0	-35.2	0.01	0.00	0.00	

1/Gross external debt statistics are compiled by Banco de México and the Ministry of Finance (SHCP). In order to comply with IMF's "External Debt Statistics: Guide for Compilers and Users" (2003) and, at the same time, facilitate its comparison with official figures published by the Ministry of Finance (available at www.shcp.gob.mx), both official statistics on Mexico's public external debt and its corresponding adjustments are presented following IMF's Special Data Dissemination Standard (SDDS) for residence criteria.

2/Public sector data (federal government, development banks and public enterprises and institutions) are classified according to "user" criteria"

- 3/Unlike official statistics, the present figures do not include debt with other non-resident entities of Mexican commercial bank agencies' located abroad. The reason for such exclusion is that IMF's "External Debt Statistics: Guide for Compilers and Users (2003)" considers agencies as non-residents. Figures include accrused interests
- 4/Includes financial leasing companies, financial factoring companies, limited purpose financial companies (Sociedades Financiaras de Objeto Limitado, Sofoles), savings and loan companies, credit unions, and investment funds.
- 5/Includes insurance companies, deposit warehouses, brokerage houses and bonding companies. Since official statistics do not include this item, it is reported as zero. However, liabilities of these financial auxiliaries with non-residents are considered in the adjustments section
- 6/ Data on short and long-term loans are drawn from Banco de México's Survey "Outstanding Consolidated Claims on Mexico" on foreign creditor banks.
- Since official statistics for private sector's debt are based on debtor data, figures may not coincide with those published by the Ministry of Finance.
- 7/Institute for the Protection of Banks' Savings (Instituto para la Protección al Ahorro Bancario, IPAB). Since official statistics do not include this item, it is reported as zero. However, IPAB's liabilities with non-residents are considered in the adjustments section.
- 8/ Defined as non-residents' holdings of Treasury bills (Cetes), federal government development bonds (Bondes); fixed-rate federal government development bonds (Bonos), federal government bonds denominated in investment units (Udibonos), monetary regulation bonds (BREMs) and savings protection bonds (BPAs and BPATs).
- 9/ Federal government bonds denominated in foreign currency held by Mexican residents.
- 10/Corresponds to Mexican residents' liabilities with Mexican commercial banks' agencies abroad. Includes both agencies' direct loans to Mexican residents and agencies' holdings of bonds issued by Mexican residents.
- 11/Pidiregas (*Proyectos de Infraestructura Productiva a Largo Plazo*) is a mechanism used since 1995 to finance strategic long-term investment projects for the oil, gas and energy industries. This item does not include debt related with Pidiregas-CFE because such debt is assumed as part of the private sector. If such assumption were incorrect, the Gross External Debt associated with Pidiregas would be underestimated. In 2009 the Pidiregas model of Pemex was cancelled, after which this firm's investment is funded by own sources or debt, and, therefore, it is registered as budget investment.
- 12/Includes deposits of Banco de México, international financial entities and foreign central banks.
- p/Preliminary figures. Calculations based on GDP of the last quarter of the year and end of period FIX exchange rate.
- Source: Banco de México and Ministry of Finance (SHCP).

### **Balance Sheet**



## BALANCE SHEET AS OF DECEMBER 31, 2015 MXN MILLION

<u>ASSETS</u>		<b>LIABILITIES AND EQUITY</b>	
INTERNATIONAL RESERVES INTERNATIONAL ASSETS LIABILITIES TO BE DEDUCTED	\$ 3,048,456 3,063,313 -14,857	MONETARY BASE  BANKNOTES AND COINS IN CIRCULATION  BANK DEPOSITS IN CURRENT ACCOUNT	\$ 1,241,685 1,239,327 2,358
CREDIT GRANTED TO THE FEDERAL GOVERNMENT	0	FEDERAL GOVERNMENT CURRENT ACCOUNT DEPOSITS OTHER FEDERAL GOVERNMENT DEPOSITS	337,151 80,682
SECURITIES  GOVERNMENT SECURITIES  IPAB SECURITIES		MONETARY REGULATION LIABILITIES  MONETARY REGULATION DEPOSITS  GOVERNMENT SECURITIES  BANKS	1,461,170 1,380,114 1,115,121 264,993
CREDIT GRANTED TO FINANCIAL INTERMEDIARIES AND DEBTORS FROM REPO OPERATIONS	600,688	MONETARY REGULATION BONDS OTHER DEPOSITS FROM BANKS AND CREDITORS FRI REPO OPERATIONS  DEPOSITS FROM MEXICAN OIL STABILIZATION	26,051
PARTICIPATION IN INTERNATIONAL FINANCIAL INSTITUTIONS	12,674	AND DEVELOPMENT FUND INTERNATIONAL MONETARY FUND SPECIAL DRAWING RIGHTS	18 0 68,150
FIXED ASSETS, FURNISHINGS AND EQUIPMENT	3,730	OTHER LIABILITIES TOTAL LIABILITIES	72,117 3,260,973
OTHER ASSETS	14,108	CAPITAL CAPITAL RESERVES FISCAL YEAR'S OPERATIONAL SURPLUS	8,794 170,795 239,094
TOTAL ASSETS	\$ 3,679,656	TOTAL EQUITY  TOTAL LIABILITIES AND EQUITY	\$ 3,679,656

#### MEMORANDUM ACCOUNTS \$28,858,527

The present Balance Sheet was prepared according to the rules and requirements set in the Law governing Banco de México and Banco de México's Internal Bylaw, following the Financial Reporting Standards of Banco de México, that have the favorable opinion of the Mexican Financial Reporting Standards Board, regarding its complete convergence with the national Financial Reporting Standards, except for the cases in which Banco de México's Internal law dictates a different course of action. In compliance with Article 38 of the referred Bylaw, international reserves are defined as stated in Article 19 of the Law governing Banco de México; government securities are presented as net holdings after deducting monetary retulation deposits, excluding any securities purchased or transmitted via repo operations, and if there is a creditor position, it is listed under line item Monetary Regulation Deposits; IPAB securities' holdings correspond to instruments from the Bank Savings' Protection Institute (Instituto para la Protección al Ahorro Bancario, IPAB) acquired by Banco de México via the repurchase program realized in 2008, that reached maturity in September 2015; credit granted to financial intermediaries and debtors via repo operations includes commercial banks, development banks and repo operations. The Accounts balance in foreign currency was valued at the daily exchange rate.

DRA. LORENZA MARTÍNEZ TRIGUEROS PAYMENT SYSTEMS AND CORPORATE SERVICES DIRECTOR GENERAL DR. AGUSTÍN GUILLERMO CARSTENS CARSTENS GOVERNOR

C.P. RICARDO PIÑA GUTIÉRREZ ACCOUNTING AND BUDGET DIRECTOR