

# **BOARD OF GOVERNORS**

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# **INFLATION REPORT**

This report analyzes the development of both inflation and the economy in Mexico, as well as different domestic economic indicators, in compliance with Article 51, last section, of Banco de México's Law.

## **FOREWARNING**

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

Unless otherwise stated, this document has been prepared using data available as of August 5, 2013. Figures are preliminary and subject to changes.

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#### 1. Introduction

Banco de México's actions contributed to generating an environment of credibility regarding the efforts to curb inflation in Mexico. In recent years, the virtuous circle between the price formation process and the anchoring of inflation expectations, which are increasingly less affected by the relative price adjustments, strengthened. In this context, in the second quarter of 2013 it was confirmed that the inflation uptick at the end of the first quarter was temporary.

Hence, over the period analyzed by this Inflation Report, Banco de México's Board of Governors decided to maintain unchanged its target for the Overnight Interbank Interest Rate at 4 percent. This decision was made after having considered the recent evolution of inflation and its outlook, the important deceleration of the Mexican economy, the fragile international environment, as well as the volatility in international financial markets.

Following a rebound in March and April 2013, annual headline inflation began a downward trend from May onwards. This headline inflation dynamics mainly reflected the non-core inflation evolution, which was temporarily affected by the change in the relative price of a reduced group of goods. Alongside with this, annual core inflation continued to locate below 3 percent, even with a slight downside trend. Thus, the inflation evolution, supported by the monetary policy stance, confirms the continuity in its convergence to the 3 percent permanent target.

In the second quarter of 2013, the slowdown of the Mexican economy, which had been observed since the second half of 2012, intensified. This loss of dynamism derives from a series of adverse shocks, both domestic and external, which have amplified the slack in the economy.

The above took place in a context of persisting considerable downward risks to the global economy. Specifically, international trade kept weakening and the global growth continued to slow down, although considerable differences prevail, on the one hand, among the main advanced economies, and, on the other hand, between these and the emerging ones. Therefore, given the greater weakness of the world economy and lower international commodity prices, an outlook of low inflation in a number of countries is expected.

In the second quarter of 2013, the U.S. Federal Reserve announced that, if the employment recovery and an inflation trend congruent with its long-term target persist, it could start to reduce the pace of asset purchases in the second half of the year. This generated increases in risk premia and, consequently, higher medium- and long-term interest rates in the U.S. Moreover, given the global importance of the U.S. financial conditions, long-term interest rates in other economies also increased in a context of high volatility in international financial markets.

Although all emerging markets were affected by the referred volatility, its impact was lower in those characterized by better macroeconomic fundamentals, as is the case of Mexico. Thus, adjustments in the domestic exchange rate and fixed-income markets took place in an orderly manner. In this regard, in addition to the monetary policy contribution, the soundness of public finances should be noted,

highlighting the fiscal consolidation effort anticipated for this year. Hence, despite the abovementioned turbulence and the transitory inflation increase, its evolution expectations and the inflationary risk premium remained stable.

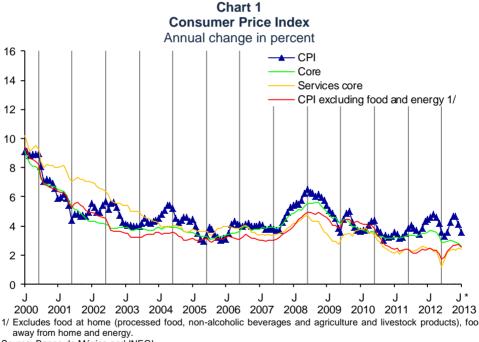
Considering all of the above, particularly the slack in the economy, as well as the low pass-through of exchange rate adjustments on inflation, inflation is anticipated to consolidate its downside trend over the following months. Thus, the forecasts for annual headline and core inflations for the rest of 2013 and 2014 are slightly lower than those presented in the previous Inflation Report. The Mexican economy is expected to resume a trajectory of greater growth from the second half of 2013 onwards. Nonetheless, taking into account the weakness shown by the economic activity in the first semester, the forecast interval for the GDP growth rate for the year as a whole is revised down from one of 3.0 to 4.0 percent in the last Inflation Report to one of 2.0 to 3.0 percent. For 2014 the forecast for the GDP growth rate remains between 3.2 and 4.2 percent.

The Board of Governors considers that the monetary policy stance is congruent with the inflation convergence towards the 3 percent permanent target within the horizon at which the monetary policy operates. Nonetheless, the Board will monitor the implications of the performance of the economic activity and the monetary stance of Mexico relative to other countries onto the inflation outlook. It will also remain alert so that the relative price changes do not affect the price formation process in the economy. All of the above, in order to take action, if required, so as to reach the abovesaid permanent inflation target.

#### 2. **Recent Developments of Inflation**

#### 2.1. Inflation

Since more than a decade ago, the price formation process in Mexico has exhibited a trend towards low inflation levels, converging to the 3 percent permanent target. Thus, despite occasional supply-related shocks, which affected some products' relative prices, the monetary policy conduction has contributed to the absence of second round effects, and, therefore, to the temporary effect of the referred shocks on inflation. An example of the above is the transitory impact on the inflation trajectory that the strong price increases in a small group of agricultural products had at the end of first quarter of 2013 and at the beginning of the second one, which derived from adverse weather and sanitary conditions (Table 1 and Chart 1). In this regard, the Box 1 "Relative Price Changes and Inflation Convergence to the 3 Percent Target" shows evidence suggesting that the price formation process in the economy has not been affected by the referred shocks.

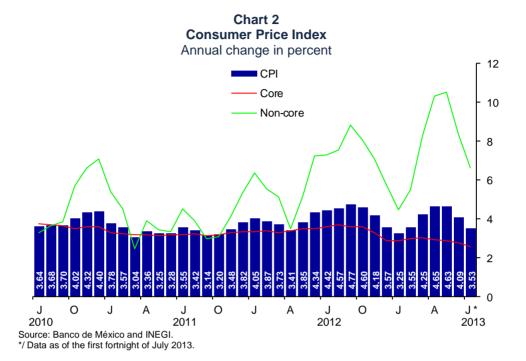


1/ Excludes food at home (processed food, non-alcoholic beverages and agriculture and livestock products), food

Source: Banco de México and INEGI.

\*/ Data as of the first fortnight of July 2013.

In the second guarter of 2013 annual headline inflation observed an average level of 4.46 percent (3.69 percent in the first quarter). In line with the expected trajectory, announced in the previous Inflation Report, annual headline inflation initiated a downward trend, following the inflation uptick from 4.25 to 4.65 percent between March and April 2013, once the effects of the shocks affecting some agricultural products' prices started to revert, thus locating at 4.09 percent in June and the first fortnight of July 2013, clearly below the upper limit of the variability interval around the inflation target set by this Central Institute (3.53 percent, Table 1 and Chart 2).



Average annual core inflation in the second quarter 2013 lied at 2.87 percent, while in the first one it was 2.95 percent. This indicator, which better responds to the monetary policy stance and has a stronger association with the economic activity cycle, has maintained levels below 3 percent since December 2012, with the only exception in March 2013, when it reached 3.02 percent. In recent months it has even presented a slight downside trajectory, shifting from 3.02 percent in March to 2.79 percent in June and to 2.57 percent in the first fortnight of July (Table 1 and Chart 3).

# Box 1 Relative Price Changes and Inflation Convergence towards the 3 Percent Target

Since the beginning of the previous decade, annual headline inflation in Mexico has presented a downside trend towards the 3 percent permanent target. Thus, even when supply shocks affecting the relative prices of some products were observed occasionally, the refusal of Banco de México to accommodate second round effects resulted into a transitory nature of the referred shocks on inflation.

In 2012 and in early 2013, the trajectory of inflation dynamics was temporarily affected by a series of shocks. In 2012, inflation in Mexico was impacted by higher international commodity prices, which affected, among others, the price of corn flour, and by an avian flu outbreak, which increased the egg and chicken meat prices. Later, in March and April 2013, inflation was influenced by the negative effects caused by frosts on the production of some fruit and vegetables, which coincided with a new avian flu outbreak, which again adversely affected the egg and chicken meat prices. In addition, an increase in the public transport fares took place in Mexico City and the State of Mexico

Although the impact of the referred shocks on inflation was transitory, it is important to thoroughly analyze if they carried widespread implications for the price formation process in the economy. To do that, this Box presents an updated analysis of the Technical Chapter of the Inflation Report October - December 2011 (Banco de México, 2011), which refers to the micro data base used for the calculation of the Consumer Price Index (CPI) to study the price formation process in the economy.

The results shown below indicate that the referred relative price changes did not alter the characteristics of the price formation process in Mexico, which is congruent with an environment of low and stable inflation. Based on these results, it can be inferred that the impact of the referred shocks has concentrated on a few products and did not hamper the inflation convergence towards the 3 percent target.

# 1. Stylized Facts of the Price Formation Process in an Environment of Low and Stable Inflation

Different papers in the recent economic literature analyze the nature of the price formation process of an economy and its relation with inflation. These papers use price databases collected to construct price indices, based on which a series of indicators, that allow a better comprehension of the price formation process, is created. Among these indicators are the frequency and the magnitude of price changes. Its relevance lies in the fact that, in line with Klenow and Kryvtsov (2008) and Gagnon (2007), these indicators

allow the decomposition of inflation adjustments  $(\pi_t)$  in the following way:

$$\pi_t = fr_t^+ dp_t^+ + fr_t^- dp_t^-$$

where,  $fr_t^+$  and  $fr_t^-$  are the frequencies of price increases and price reductions, while  $dp_t^+$  and  $dp_t^-$ , are their respective magnitudes. Therefore, headline inflation can be decomposed into the sum of the frequency of price increases multiplied by the magnitude of price increases plus the frequency of price reductions multiplied by the magnitude of these price reductions.

Additionally, Klenow and Kryvtsov (2008) show that it is possible to analyze the strategies followed by firms, when these carry out their price revisions, based on the indicators of frequency and magnitude. These strategies can be defined as time-dependent (where firms review their prices in predetermined periods) or as state-dependent (in which firms revise their prices according to the circumstances faced at the micro and macroeconomic level).

Based on the above, the following three stylized facts have been identified in the recent literature, which characterize the price formation process in countries with low and stable inflation levels:

- There is no widespread downward rigidity in prices, even more a good share of price changes are downward.
- ii. Magnitudes of observed price changes are relatively moderate.
- iii. Predominance of time-dependent strategies of price revision.

The first stylized fact implies that in an environment of low and stable inflation, prices are flexible both upwards and downwards. Thus, the real shocks affecting some goods are reflected in the relative price adjustments. That is, the shocks affecting a specific group of goods are reflected in increases or reductions solely of the prices of the goods affected directly or indirectly, depending whether they are negative or positive. But they do not generate second round effects, which, in turn, is reflected in the moderate and transitory impact on inflation.

The second stylized fact is associated to the fact that, given low inflation levels, the main determinants of price changes are demand and supply of the respective goods. Thus, if a shock affects some products, it has an impact only on the prices of the affected group, but not on the rest, which would adjust

<sup>&</sup>lt;sup>1</sup> See Banco de México (2011) for further explanation.

in line with the inflation trend. In this way, and given that the shocks normally affect a small group of goods, on average the magnitudes of price changes would be moderate, provided inflation persists at low levels.

The third stylized fact arises from the fact that, in a context of low inflation, the costs related to price changes become relevant, which induces firms to plan and carry out price adjustments in the predetermined periods, which would allow amortizing the costs of doing it (a time-dependent strategy). Only in the presence of the relevant real shocks, firms alter the pattern (state-dependent strategy). However, as mentioned before, most of the shocks affect a small group of goods and in an environment of low inflation no second round effects are generated, reason for which generally time-dependent strategies of price revisions prevail.

For the case of Mexico, Gagnon (2007) analyzes the period encompassing from January 1994 to June 2002, and finds that the price formation process in this time frame observed downside rigidities, high magnitudes of price changes and the predominance of the state-dependent strategy. Afterwards, Banco de México (2011) reported that for the period from June 2002 to December 2011, in contrast to the one analyzed by Gagnon (2007), the price formation process was characterized by a significant share of downward price adjustments, moderate magnitudes of price changes and the predominance of time-dependent strategies, which corresponds to the stylized facts congruent with an environment of low and stable inflation.

# 2. Analysis of the Price Formation Process in Mexico

This Section evaluates whether shocks affecting inflation in Mexico in 2012 and the first half of 2013 modified the dynamics of the price formation process. To that end, the results reported by Banco de México (2011) are updated with information up to the first fortnight of July 2013.

# 2.1 Downward Price Flexibility

In the analyzed period, it is found that the frequency of downward price adjustments in the products included in the CPI continued to increase despite the shocks on inflation of the CPI in 2012 and in early 2013. Table 1 shows that the frequency of decreases shifted from 7.5 percent to 7.9 percent. Despite a higher frequency of upward changes, the proportion at which the reductions increased exceeds that of the increments.

Additionally, it is found that the factor affecting most the increment of the CPI flexibility in the last decade has been the dynamics of the frequency of the core component changes. While the frequency of the noncore component changes (the most affected by the referred supply shocks) remained at levels similar to those reported in the previous analysis of Banco de México's (2011), the frequency of decreases of the core subindex shifted from 5.2 to 5.5 percent.

This greater flexibility and, more importantly, the higher frequency of price decreases in relation to the increased frequency of price increments were observed in each component of the core subindex. While the frequency of merchandise price reductions went from 6.8 to 7.1 percent (4.4 percent growth), the frequency of increases shifted from 9.7 to 10.1 percent (4.1 percent increase). In the case of services, the group that better reflects the domestic conditions affecting inflation, the frequency of decreases changed from 2.8 to 3.3 percent (17.9 percent growth), as compared to a change in the frequency of increases from 5.1 to 5.3 percent (3.9 percent increase).

Table 1
Frequency of Increases and Decreases

		Mean <sup>1/</sup>						
		orice increases r+)	Frequency of price decreases (fr-)					
	Jun02 - Dec11	Jun02 - 1fJul13	Jun02 - Dec11	Jun02 - 1fJul13				
CPI	10.3	10.6	7.5	7.9				
Core	7.8	8.1	5.2	5.5				
Merchandise	9.7	10.1	6.8	7.1				
Services	5.1	5.3	2.8	3.3				
Non-core	29.9	29.8	26.0 25.9					

1/ Weighted data in accordance with the weight of each item. Source: Own calculations based on data of Banco de México and INEGI.

#### 2.2 Moderate Magnitude of Price Changes

With respect to the magnitude of price changes, Table 2 indicates that, by incorporating evidence from the last year and a half during which the abovereferred shocks took place, both the net magnitude of price changes, and the absolute magnitude maintained the same levels they had presented over the period from June 2002 to December 2011.<sup>2</sup> Thus, there is no evidence pointing to the fact that the shocks, which occurred after the referred period, caused the firms in Mexico to resort to increasing their prices in an unusual way. This suggests that inflation expectations remained anchored, and that these shocks did not generate second round effects.

The above is confirmed by analyzing the core inflation component, given that, with respect to the data reported by Banco de México (2011), the net average magnitude of price changes reduced from 1.7 to 1.6 percent. Given that the absolute magnitude did not observe changes, this downside adjustment can be attributed to the abovereferred increase in the frequency of this subindex' price decreases.

On the other hand, in the services' group it is more clearly observed that the events, which occurred in

<sup>&</sup>lt;sup>2</sup> The net magnitude is the difference between the average of upward changes minus the average of downward changes and it is estimated as  $dp = (fr^+dp^+ + fr^-dp^-)/fr$ . The absolute magnitude is the average of the absolute value of price changes and it is estimated as  $|dp| = (fr^+|dp^+| + fr^-|dp^-|)/fr$ .

2012 and in early 2013, did not have a widespread impact on the price formation process. In particular, it is found that the decreased net magnitude in the core component derives from the fact that, while the merchandise prices registered the same net magnitude of changes that they had presented till December 2011, the services observed a reduction to the same extent, by shifting from 3.0 to 2.8 percent.

In the case of the non-core component, it is found that the absolute magnitude increased slightly, by moving from 11.4 to 11.5 percent (0.9 percent growth), which is attributed to the fact that, due to the referred supply shocks, the price changes were slightly greater than those reported in Banco de México (2011). Nonetheless, given that this increment in adjustments was observed both in the case of increases and reductions, the net magnitude remained at the level presented till December 2011.

Table 2 **Absolute and Net Magnitude of Price Changes** 

	Mean <sup>1/</sup>						
		nitude of price es ( dp )	Net magnitude of price changes (dp)				
	Jun02 - Dec11	Jun02 - 1fJul13	Jun02 - Dec11	Jun02 - 1fJul13			
CPI	8.4	8.4	1.7	1.7			
Core	6.7	6.7	1.7	1.6			
Merchandise	7.0	7.0	1.4	1.4			
Services	6.6 6.5		3.0	2.8			
Non-core	11.4 11.5 1.8		1.8				

1/ Weighted data in accordance with the weight of each item.
Source: Own calculations based on data of Banco de México and INEGI.

#### 2.3 Strategies of Price Revisions

In the literature, differences have been found with respect to the strategies of firms' price revisions, depending on the inflation level (Klenow and Kryvtsov, Time-dependent strategies prevail 2008). economies with low inflation levels, while statedependent strategies are more common in economies characterized by high inflation levels. That is, in a context of low inflation levels, firms review prices in predetermined periods, i.e., regardless of inflation increases or decreases, the frequency of price adjustments is relatively constant. Therefore, the correlation between the frequency of changes and inflation is low. Derived from this, inflation is principally accounted for by adjustments in the magnitude of price changes. In turn, in environments of high inflation. firms have no pre-established patterns to review prices. This generates a positive and high correlation between inflation and the frequency of price changes. Thus, in this case, both the frequency and the magnitude of price changes are highly correlated with inflation.

After having analyzed evidence for the case of Mexico in the time frame from 1994 to 2002, Gagnon (2007) found that the correlation of inflation both with the frequency and the magnitude of price changes was high. In contrast, in Banco de México (2011) it was noted that over the period 2002-2011, in line with lower average inflation in the period, the correlation of inflation with the frequency of price changes was low, while the correlation with the magnitude was high.

To determine if the shocks occurred after 2011 affected the strategies of price determination, Table 3 presents the correlation coefficients between inflation and the statistics of the frequency and the magnitude of price changes reported by Banco de México (2011) and its update for the period from June 2002 to the first fortnight of July 2013. The results indicate that, despite the referred shocks, the correlation between inflation and the frequency of price changes persists at low levels. For some subindices, particularly the services' core subindex, this correlation even decreases. In turn, the correlation of inflation with the magnitude of price changes persists at high levels.

Table 3 Correlation with Inflation

		Correlation coefficient 1/						
		price changes (fr)	-	ude of price les (dp)				
	Jun02 - Dec11	Jun02 - 1fJul13	Jun02 - Dec11	Jun02 - 1fJul13				
CPI	0.26	0.22	0.95	0.95				
Core	0.45	0.35	0.85	0.89				
Merchandise	0.56	0.55	0.92	0.90				
Services	0.25	0.16	0.64	0.79				
Non-core	0.11	0.13	1.00	1.00				

1/ The used data of inflation correspond to that calculated with the methodology  $\pi_t = \mathrm{dp}_t \mathrm{fr}_t$  for each CPI component. Source: Own calculations with data of Banco de México and INEGI.

To complement the above, the exercise presented in Banco de México (2011) is updated, i.e. in that exercise it is estimated what percentage of the variance of inflation is accounted for by the timedependent terms, and what part by the statedependent terms. The results in Table 4 suggest that, despite the effect caused by the abovementioned supply shocks, the strategies of price revision remained predominantly time-dependent.

Table 4 Strategies of Price Revision

Paper	Period	Average annual inflation	Time- dependent	State- dependent	
			Percentage	e structure	
Gagnon (2007)	1994.01 - 2002.06	17.5	41.9	58.1	
Banco de México (2011)	2002.06 - 2011.12	4.4	88.1	11.9	
Banco de México (2013)	2002.06 - 2013.07	4.3	88.8	11.2	

#### 3. Final Considerations

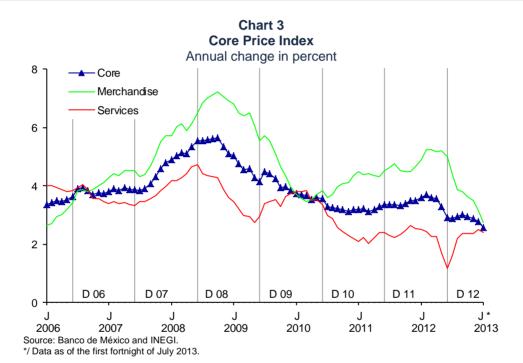
In 2012 and in early 2013, inflation in Mexico was affected by a series of shocks on some commodity prices, other shocks related to weather and sanitary factors, and those derived from adjustments in some government approved fares. However, as foreseen by Banco de México, the impact was transitory and no second round effects presented.

The results reported in this Box indicate that, based on the analysis of the micro data used for the CPI calculation, the nature the price formation process tends to exhibit in an environment of low and stable inflation was not affected by the referred shocks. In particular, the downward price flexibility has been consolidating. On the other hand, while the magnitude of price changes in the CPI did not register an impact by these shocks, the price changes in the group of services even observed lower magnitudes than those presented before the referred events. Finally, the strategies of firms' price revision did not only seem to be unaffected by the relative price changes, but the use of time-dependent strategies kept expanding.

### 4. References

[1] Banco de México (2011). "Características del Proceso de Formación de Precios en México:

- Evidencia de Micro Datos del INPC", in the Technical Chapter of the Inflation Report October December 2011, pp. 60-79.
- [2] Gagnon, E. (2007). "Price Setting during Low and High Inflation: Evidence from Mexico". Board of Governors of the Federal Reserve System, International Finance Discussion Papers, No. 896.
- [3] Klenow, P. J. and O. Kryvtsov (2008). "State-Dependent or Time-Dependent Pricing: Does it Matter for Recent U.S. Inflation?". The Quarterly Journal of Economics. Vol. 123, No. 3, pp. 863-904.



The favorable evolution of core inflation partly derives from the trajectory of the merchandise subindex, whose annual growth rate changed from an average of 4.01 percent in the first quarter to 3.42 percent in the second one. The dynamics of merchandise core inflation reflect that the shocks, registered in 2012, are about to finish dissipating. The referred shocks are related to higher international commodity prices and to the presence of greater price discounts in an environment of a considerable weakening of wholesale sales' indicators (Table 1 and Chart 4a). In the case of food merchandise prices, the average annual growth rate dropped from 4.80 to 4.27 percent in the referred quarters, with the lower incidence of corn- and soy-derived goods standing out. The average annual inflation of non-food merchandise declined from 3.39 to 2.74 percent over these quarters, with the diminishing contribution of cleaning, personal hygiene and motor vehicle articles.

Table 1
Consumer Price Index and Components

Annual change in percent

	Annual change							rage cent	
	January	February	March	April	May	June	1fJuly *	1Q	2Q
PI	2013 3.25	2013 3.55	2013 4.25	2013 4.65	2013 4.63	2013 4.09	2013 3.53	2013 3.69	2013 4.46
Core	2.88	2.96	3.02	2.95	2.88	2.79	2.57	2.95	2.87
Merchandise	4.37	3.86	3.81	3.63	3.49	3.14	2.75	4.01	3.42
Food, beverages and tobacco	5.23	4.59	4.58	4.48	4.38	3.94	3.55	4.80	4.27
Corn-derived	5.62	4.23	3.98	3.40	2.89	1.50	1.50	4.60	2.59
Corn tortilla	5.48	4.06	3.78	3.11	2.50	0.97	1.04	4.44	2.19
Soy-derived	5.36	4.46	4.21	4.16	3.14	2.15	1.32	4.68	3.15
Non-food merchandise	3.69	3.27	3.21	2.95	2.79	2.49	2.11	3.39	2.74
Cleaning services	5.97	4.57	4.15	4.12	4.01	3.83	2.32	4.89	3.99
Personal hygene articles	5.53	5.17	5.63	5.28	5.11	4.41	4.24	5.45	4.93
Motor vehicles	2.79	2.20	2.27	1.95	1.60	1.48	0.59	2.42	1.68
Services	1.62	2.21	2.35	2.37	2.36	2.49	2.41	2.06	2.41
Housing	2.07	2.09	2.10	2.10	2.14	2.21	2.22	2.08	2.15
Education (tuitions)	4.55	4.55	4.56	4.57	4.40	4.34	4.34	4.55	4.43
Other services	0.33	1.66	1.98	2.01	1.99	2.24	2.06	1.32	2.08
Telephone services 1/	-17.93	-10.34	-7.79	-6.51	-6.93	-5.42	-5.77	-12.04	-6.29
Non-core	4.47	5.47	8.29	10.32	10.56	8.39	6.62	6.07	9.75
Agriculture and livestock	5.51	7.48	14.29	17.25	15.30	8.99	4.29	9.04	13.80
Fruit and vegetables	-2.21	4.66	19.85	25.13	15.51	-1.22	-6.40	7.10	12.69
Green tomato	-42.87	-31.62	116.30	227.28	102.81	-27.66	-40.33	-2.70	83.46
Tomato	1.44	30.25	33.25	32.71	43.49	-5.82	-23.79	19.51	19.09
Zucchini	-22.11	-3.19	82.03	80.15	7.17	-12.72	1.93	13.22	23.95
Livestock	10.52	9.20	11.00	12.66	15.08	15.38	10.94	10.24	14.37
Chicken	9.02	7.47	10.19	13.66	18.09	20.60	14.53	8.89	17.44
Egg	25.96	22.16	30.82	39.59	50.52	48.20	21.45	26.27	46.01
Energy and government approved fares	3.89	4.36	5.02	6.47	7.75	8.06	8.11	4.42	7.42
Energy	5.60	5.48	5.86	6.48	8.24	8.36	8.33	5.65	7.67
Gasoline	10.75	10.88	11.37	11.31	11.03	11.49	11.94	11.00	11.28
Electricity	-2.43	-2.92	-2.55	-4.20	-4.29	-4.62	-5.43	-2.63	-4.36
Domestic gas	9.14	9.02	8.93	9.68	10.17	9.67	9.38	9.03	9.84
Government approved fares	0.62	2.22	3.37	6.26	6.51	7.15	7.35	2.07	6.64
Public transport fares	2.19	2.33	2.08	8.42	9.01	10.49	11.00	2.20	9.31
Vehicle procedures' fees	-71.06	-52.04	14.68	46.82	46.82	46.82	46.81	-48.92	46.82
Taxi	1.79	1.97	2.00	3.59	3.88	4.08	4.17	1.92	3.85

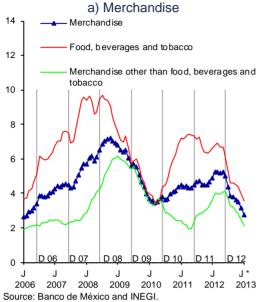
<sup>1/</sup> Includes mobile phone service, local fixed phone service, national and international long distance phone service.

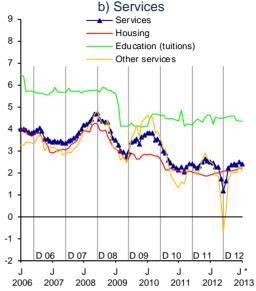
The annual change rate of the services core subindex, which better reflects the domestic conditions affecting inflation, located at levels well below 3 percent since February 2011, which indicates the absence of demand-related inflationary pressures (Chart 3). In this regard, in the second quarter of 2013 this subindex presented an average annual growth rate of 2.41 percent (2.06 percent in the first one; Table 1 and Chart 4b). The increase is principally accounted for by the observed performance of the telephone services' fees, which over the period analyzed in this Inflation Report decreased in a smaller proportion than they did in the same period of last year (Chart 5). As a reflection of the above, the annual change rate of the item of services other than housing and education increased from 1.32 to 2.08 percent between the first and the second quarters 2013. On the other hand, the average annual growth rate of the housing group marginally rose from 2.08 to 2.15 percent over the referred time horizon, while that of education diminished from 4.55 to 4.43 percent in the same time frame.

<sup>2/</sup> Excludes food at home (processed food, non-alcoholic beverages and agriculture and livestock products), food away from home and energy. Source: Banco de México and INEGI.

<sup>\*/</sup> Data as of the first fortnight of July 2013.

Chart 4
Core Price Index: Merchandise and Services
Annual change in percent
handise b) Se





\*/ Data as of the first fortnight of July 2013.

Chart 5 **Services Price Index** Annual change in percent 9 8 Services 4 Telephone services 0 6 -4 -8 -12 3 -16 -20 -24 D 06 D 07 D 08 D 09 D 10 D 11 0 -28 J\* J 2006 2007 2008 2009 2010 2011 2012 2013 Source: Banco de México and INEGI.

In the second quarter of 2013, the average annual non-core inflation was affected by both weather and sanitary conditions, which influenced some agriculture and livestock goods' supply, and by adjustments in the government fares of different items in some federal entities. Hence, the average annual growth rate of the non-core inflation was 9.75 percent between April and June, as compared to 6.07 percent in the previous quarter. In particular, from March to May, this indicator's

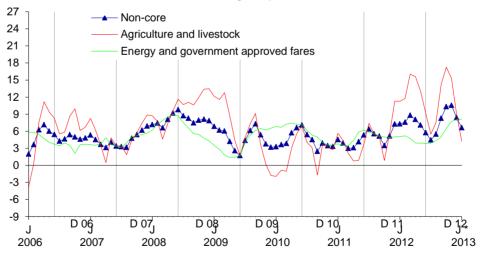
\*/ Data as of the first fortnight of July 2013.

annual change rate shifted from 8.29 to 10.56 percent, to subsequently drop to 8.39 percent in June, and further to 6.62 percent in the first fortnight of July (Table 1 and Chart 6).

In this respect, it should be pointed out that the transitory increase in this indicator mainly resulted from the impact of two supply shocks on some agriculture and livestock products' prices: i) the damage caused by frosts at the beginning of March to the production of some vegetables and ii) a new outbreak of avian flu, which affected the egg and chicken meat prices. The above was complemented by a low comparison base corresponding to the same period of last year. This increased the average annual growth rate of the agricultural products' prices from 9.04 to 13.80 percent from the first to the second quarter of the year. These shocks' greater impact was in April, when the annual change of agriculture and livestock products reached 17.25 percent. From then onwards, this indicator began a downside trajectory, and located at 8.99 percent in June and at 4.29 percent in the first fortnight of July (Table 1, Chart 7a and Chart 8).

The average annual growth rate of the subindex of energy and government approved fares rose from 4.42 to 7.42 percent from the first to the second quarter of 2013 (Table 1, Chart 7b and Chart 9). This was mainly a result of the following three elements: i) the change in the seasonal factors of the CPI, derived from the update of its weighting structure, <sup>1</sup> ii) a higher increment of gasoline prices with respect to 2012, and iii) the fading of the effect generated by the elimination of the vehicle ownership tax fees in different states of Mexico in 2012. Additionally, the increase in the referred indicator was also affected by an upward adjustment in public transport fares in some entities of the country, Mexico City and the State of Mexico standing out due to their weight in the CPI.

Chart 6
Non-core Price Index
Annual change in percent

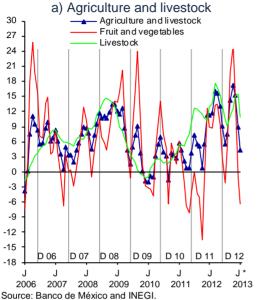


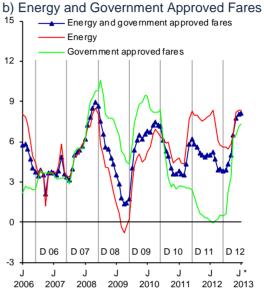
Source: Banco de México and INEGI. \*/ Data as of the first fortnight of July 2013.

See Box 1 of the Inflation Report January - March 2013.

# Chart 7 Non-core Price Index

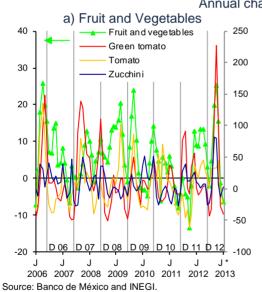
Annual change in percent

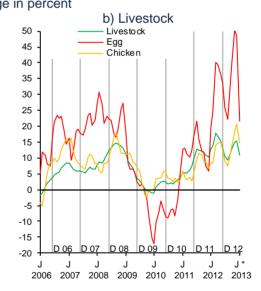




\*/ Data as of the first fortnight of July 2013.

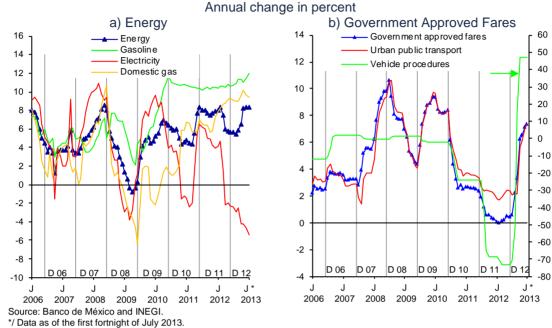
# Chart 8 Agricultural Price Index Annual change in percent



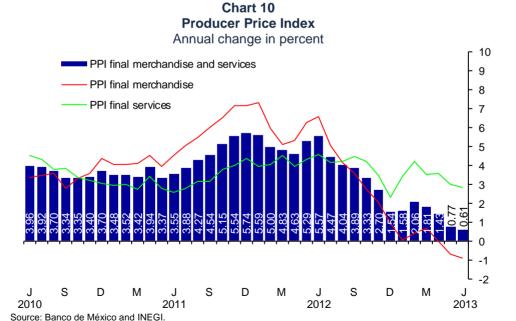


\*/ Data as of the first fortnight of July 2013.

Chart 9
Non-core Price Index



The Producer Price Index (PPI) of finished merchandise and services, excluding crude oil, lowered its average annual change for the fourth consecutive quarter, from 1.82 percent in the first quarter to 0.93 percent in the second one (Chart 10). This mainly resulted from lower incidences of the merchandise, whose average annual rate shifted from 0.38 to -0.53 percent from the first to the second quarters, while that of services went from 3.73 to 3.15 percent in the same time period.

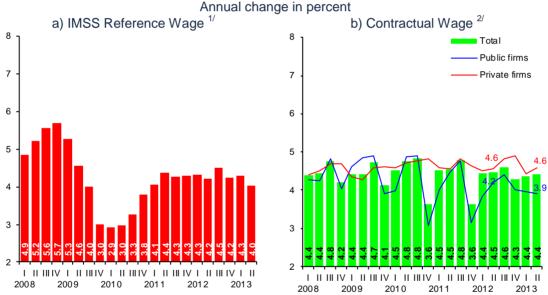


# 2.2. Wages

The recent evolution of the main wage indicators suggests that labor costs still do not represent an element generating inflationary pressures. In the second quarter of 2013, the reference wage of IMSS-insured workers observed an annual change of 4.0 percent, below the figure of 4.3 percent registered in the previous quarter (Chart 11a).

Meanwhile, the contractual wage negotiated by firms under federal jurisdiction increased on average 4.4 percent over the second quarter of 2013, a figure slightly below that registered in the same quarter of last year (4.5 percent). This difference was mainly due to the lower increase of the contractual wage in state-owned firms, which agreed on the average increment of 3.9 percent (4.2 percent in the same quarter of 2012). In turn, private firms negotiated an average rise of 4.6 percent in the reference quarter, equal to that in the same period of last year (Chart 11b).





<sup>1/</sup>During the second quarter of 2013 an average of 16.3 million contributors were registered in IMSS.

Source: Calculated by Banco de México with data from IMSS and STPS.

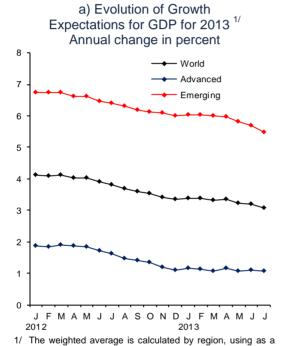
<sup>2/</sup>The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (Secretaría del Trabajo y Previsión Social, STPS) equals approximately 2 million.

### 3. Economic and Financial Environment

## 3.1. International Environment

The pace of growth of the world economy continued to slow down in the second quarter of 2013, even though important differences persisted among countries. As a result, the growth forecasts for the year, particularly for emerging economies, kept revising downwards (Chart 12a). Thus, international trade continued losing dynamism, affecting global industrial activity (Chart 12b). In this environment of weaker world economy and lower commodity prices, inflation is expected to generally remain at low levels in most advanced and emerging economies.

Chart 12
World Economic Indicators



b) World Trade and Industrial Production Annual change in percent, s. a.



s. a. / Seasonally adjusted figures. Source: CPB Netherlands.

the corresponding year.

Source: Prepared by Banco de México with data from the IMF and Consensus Forecasts.

weight the share of each country's GDP, based on the purchasing power parity, with respect to world total GDP in

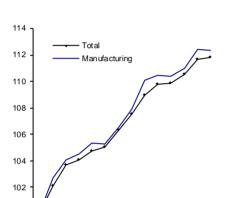
#### 3.1.1. World Economic Activity

U.S. economic activity continued to recover in the second quarter of 2013, supported by the dynamism of domestic private demand. GDP grew at an annualized quarterly rate of 1.7 percent in this period, above the figure of 1.1 percent registered in the previous quarter.<sup>2</sup> In contrast, the expansion rate of industrial production decelerated, from an annualized quarterly growth rate of 4.2 percent in the first quarter of 2013 to 0.6 percent in the second one (Chart 13a).

<sup>&</sup>lt;sup>2</sup> According to the Advance Report of the Bureau of Economic Analysis (BEA). This report also included a historical review of the activity data, with a new subdivision of private fixed investment in expenditure on intellectual property products.

Employment continued improving in the second guarter, as non-farm payroll presented an average increase of 188 thousand jobs a month, although in July only 162 thousand jobs were created. On the other hand, the unemployment rate dropped from 7.6 percent in March to 7.4 percent in July. It should be noted that the observed decrease in the unemployment rate partly derived from a lower labor participation rate (Chart 13b).

a) Industrial and Manufacturing Production Index I 2010=100, s. a.

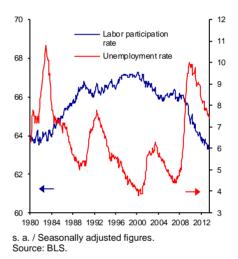


2010 2011 s. a. / Seasonally adjusted figures. Source: U.S. Federal Reserve

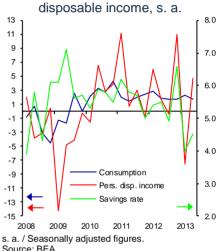
100

# Chart 13 **U.S. Economic Activity**

b) Unemployment Rate and Labor Participation Rate In percent of labor force and of population, s. a.



c) Private Consumption Spending, Real Personal Disposable Income and Savings Rate Annualized quarterly change in percent and in percent of personal



Lower federal spending related to the automatic spending cuts ("Sequestration"), in force since March 1, 2013, continued producing a considerable negative impact on U.S. GDP growth in the second quarter.3 The most recent estimates of the Congressional Budget Office (CBO) for 2013 suggest a reduction in the U.S. fiscal deficit greater than expected at the beginning of the year, including the automatic spending cuts, derived from higher than anticipated revenue and extraordinary revenues from the dividend payments of the government sponsored mortgage agencies Freddie Mac and Fannie Mae. Thus, in May 2013 the CBO reviewed downwards its fiscal deficit estimate for 2013 from 5.3 to 4.0 percent of GDP, as compared to a deficit of 7.0 percent of GDP observed in 2012.

The fiscal adjustment in the second quarter of 2013 was offset by a sustained recovery of private domestic demand. In particular, household expenditure continued expanding, as a result of higher net wealth, backed by increased housing prices and stock market indices, and greater credit availability (Chart 13c). These factors are complemented by the sustained improvement in

The Inflation Report January - March 2013 describes the fiscal consolidation measures, which came in force this year.

In line with the CBO forecast, the fiscal consolidation measures adopted this year are anticipated to negatively affect the GDP growth in 2013 by approximately 1.5 percentage points.

employment, which contributed to the progress in strengthening households' financial situation. Regarding investment, the recovery of housing prices, together with a reduced number of houses available for sale, spurred the expansion of residential construction, while investment in non-residential construction recovered after a marked fall in the first quarter of 2013. On the other hand, investment in machinery and equipment kept showing certain weakness, despite the high levels of corporate profits. Net exports continued to negatively contribute to growth, given the weak world economy and the recent strengthening of the U.S. dollar.

Given an outlook of consolidation in the economic activity recovery, particularly of employment, the U.S. Federal Reserve pointed out that in the second half of the year it could start diminishing its asset purchases.<sup>5</sup> This has initiated the decompression of some risk premia in the financial markets, which translated in considerable increases in medium- and long-term U.S. interest rates (See Box 2 "The Process of Risk Premia Decompression and its Impact on Longer-term Interest Rates in the U.S. and the Rest of the World"). These higher interest rates have taken place via different channels and are generally due to: i) the interpretation by the market of the U.S. Federal Reserve comments, regarding the fact that the beginning of slowing down the asset purchase pace is approaching, reason for which a sustained increase of longer-term interest rates has begun. which precipitated a massive portfolio adjustment, ii) the fact that once the Federal Reserve suspends its asset purchases, the supply of long-term assets flown to the market would de facto be increasing, generating downward pressures on its prices and, therefore, increases in its yields, and iii) the expectations that the short-term interest rate would rise sooner than foreseen.

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As it is well-known, in late 2008 the Federal Reserve began implementing a series of quantitative easing programs (QE), which led to lower long-term interest rates. This reduction derived from the fact that, concurrent with the large-scale asset purchases of this central bank, particularly Treasury bonds and mortgage-backed securities, a reduction in some risk premia was being generated.

# Box 2 Process of Risk Premia Decompression and its Effect on Longer-term Interest Rates in the U.S. and the Rest of the World

In light of the recent improvement in the U.S. labor market, the Federal Reserve pointed out that if the recovery of the economic activity is consolidated, it could start to reduce its pace of financial asset purchases (mainly treasury securities and mortgage-backed securities) in the second half of the year. This generated an increase in longer-term interest rates both in the U.S. and in other advanced and emerging economies in an environment of high volatility in international financial markets (Chart 1). This Box describes some channels through which the monetary policy actions in the U.S. affected the U.S. interest rates.

Chart 1
Interest Rates of 10-year Bonds
in Selected Countries
Percent



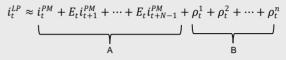
Source: Bloomberg and Proveedor Integral de Precios (PiP).

#### Monetary Policy Actions in the U.S.

Since late 2008, as a response to the global financial crisis, the Federal Reserve gradually diminished its monetary policy rate to levels close to zero. Subsequently, it started to implement quantitative easing programs (QE), which considerably increased the size of its balance sheet and modified its composition (Chart 2). Initially, the goal of this type of programs was to provide liquidity so as to reestablish the functioning of certain financial markets, which no longer operated adequately. Afterwards, these programs sought to encourage the economic recovery via a reduction in long-term interest rates.

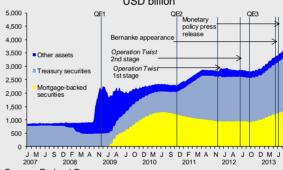
In order to illustrate the impact by the referred programs on long-term interest rates, it is convenient to decompose the latter into two elements: i) the short-

term interest rate and its expectations in the time frame over which long-term investment persists (A) and ii) different risk premia (B). Thus, the long-term interest rate can be expressed as follows:



where  $i_t^{IP}$  represents the nominal long-term interest rate,  $i_t^{PM}$  refers to the monetary policy interest rate and  $E_t i_t^{PM}$  represents the expectation at the time t of the monetary policy interest rate in the period t+i for  $i=1,\ldots,N$ , where N is the number of periods during which long-term investment matures and n is the umpteenth risk premia.

Chart 2
Federal Reserve Balance Sheet: Assets
USD billion



Source: Federal Reserve.

The monetary policy impact on long-term interest rates is presented through the two abovementioned elements:

- 1. First, via the reference interest rate of the monetary policy and the signals of its future trajectory.
- 2. Second, via its impact on the "risk premia" (Kim and Orphanides, 2007).

Regarding the first element, the U.S. Federal Reserve has used a forward guidance to reiterate its commitment to maintaining the monetary policy interest rates at exceptionally low levels for an extended time period. Particularly, it mentioned that it would maintain the monetary policy rate within a target range for the federal funds' rate of 0 to 0.25 percent at least as long as the unemployment rate remains above 6.5 percent, projected inflation between one and two years ahead is not higher than 2.5 percent, and long-

A detailed description of the expansive measures implemented by the U.S. Federal Reserve to reestablish an orderly functioning of financial markets was presented in the Box "Deflationary and Inflationary Risks in the U.S." in the Inflation Report, January -March 2009.

term inflation expectations remain stable.<sup>2</sup> The abovementioned together with the unemployment and inflation forecasts, have led to the current expectation of the reference rate to maintain at levels close to zero for an extended period. The above suggests that insofar as the U.S. economic recovery consolidates, higher real interest rates are anticipated.

With regard to the second element, the downward trend observed till mid-May in long-term U.S. interest rates can be mainly associated to a reduction in risk premia. As argued in the next section, they diminished as a result of the quantitative easing programs.

### 2. Effects of the Quantitative Easing Programs on Long-term Interest Rates

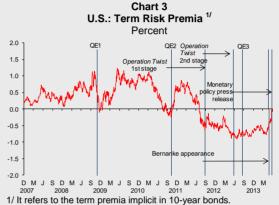
#### 2.1. Via Risk Premia

One of the main channels by means of which the unconventional monetary policy actions impact long-term interest rates is via *portfolio rebalancing*. This is one of the channels which has operated with the implementation of the Federal Reserve asset purchase programs, as well as the Operation Twist programs.<sup>3</sup>

In general, the term premia can be defined as an additional yield demanded by investors to maintain a long-term asset, instead of consecutively investing in a of short-term assets with the same characteristics (see Kim and Wright, 2005). Thus, by means of this channel, with the massive asset purchases, the monetary authority reduces the amount of securities in the market, displacing some investors and reducing the participation of others, while simultaneously increasing the amount of bank reserves -risk-free and short-term- in the central bank's current accounts (Bernanke, 2010 and Gagnon et al., 2011). Thus, consequent on the quantitative easing implemented by the Federal Reserve, a downward trend in term premium implicit in the U.S. 10-year government bonds was observed (Chart 3).

Generally, the term premium is positive, given that investors tend to demand a compensation for the uncertainty regarding the future trajectory of interest rates and other factors. However, between the beginning of 2012 and the first half of 2013, the indicators of term premium suggest that it took negative values (see Kim and Wright, 2005). In this case, the fact that the term premium has been

<sup>2</sup> See the Federal Reserve press release of January 28 and March 18, 2009 for the beginning of the forward guidance program and of December 12, 2012 for the system of thresholds. negative can be interpreted as investors' willingness to pay a compensation for maintaining these assets, largely due to the policy to maintain short-term interest rates practically at zero and the massive asset purchases by the Federal Reserve. Therefore, the recent uptick of the term premium can be associated to the fact that investors demand an additional compensation for maintaining these assets, derived from the monetary authority's possible increase in the supply of long-term assets in the market.



Source: Kim and Wright (2005), U.S. Federal Reserve.

Additionally, in response to the changes in the relative interest rates and lower supply of long-term instruments, investors started to invest in a different type of securities, such as those issued by corporations, national and foreign, and by other countries, apart from assets. Specifically, the Federal Reserve strategy has been partly based on the presumption that different financial assets have a certain degree of substitutability, reason for which the changes in the net supply of an available asset affect its yield and that of those assets with some degree of similarity (see Bernanke, 2010). Therefore, the purchases of treasury securities and mortgage-backed securities reduce the yield of this type of securities and encourage investors to acquire other assets with relatively similar characteristics.<sup>5</sup> Simultaneously, the demand for similar assets increases, its price grows and its yield diminishes. In this way, the asset purchase programs have also affected the interest rates of other assets. To give an example, some financial institutions, which sold mortgage-backed securities to the Federal Reserve, substituted them in their portfolios with long-term, high-quality corporate bonds, thus suppressing these assets' yields as well (Chart 4). Others acquired securities issued by other countries, thus affecting the interest rates and the exchange rates in a number of economies.

<sup>&</sup>lt;sup>3</sup> The Operation Twist programs refer to the monetary policy operations by means of which the Federal Reserve sells short-term securities and purchases long-term securities, thus modifying the composition and the span of the amount of Treasury securities in the market.

Despite the fact that this article was published as a Federal Reserve working paper in 2005, more recent estimates of the term premium can be seen on the web page of this central bank, as part of the supplementary material of this article.

See Krishnamurthy and Vissing-Jorgensen (2011) for an evaluation of the differentiated effects of different Federal Reserve asset purchases on the securities not involved in the purchases of this central bank.

# Chart 4 Interest Rates of Government Bond and Corporate Bond in the U.S. Percent



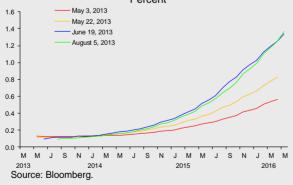
Source: Bloomberg.

Note: The corporate bond interest rate is composed of the nonweighted average of the corporate bonds' yield with a maturity of 20 to 30 years, and whose issuance exceeds a hundred million dollars.

#### 2.2. Via the Expectations of Short-term Interest Rate

The announcements of asset purchases by a central bank can send out signals to the market participants regarding the changes in the monetary authority's outlook of the current and future economic conditions (the signaling channel). In this context and given the announcements of future reductions in the asset purchases by the Federal Reserve, the signaling channel possibly generated changes in the prospects of the future trajectory of the monetary policy rate. Indeed, given the recent announcements by the Federal Reserve, and despite the fact that they referred solely to its asset purchase programs, and not to possible changes in the monetary policy interest rate, federal fund futures have increased recently (Chart 5).

Chart 5
Futures of the Federal Fund Rate in the U.S.
Percent



#### 3. Final Considerations

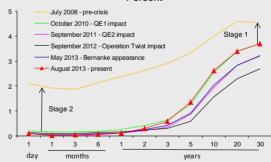
Considering the cyclical phase the U.S. economy is currently going through and its outlook, the U.S. interest rates are anticipated to gradually increase over the following years. In this regard, this impact is estimated to take place in two stages:

- a) Stage 1: By means of the activity in the balance sheet, which would impact the risk premia. In this context, when the Federal Reserve reduces its pace of asset purchases, it will generate downside pressure on its prices, and, thus, higher yields. This effect seems to have been excluded, at least partially, by the markets.
- b) Stage 2: Even though still distant, it would take place via upward adjustments in the federal fund interest rates, once the conditions specified by the Federal Reserve to carry out this type of measures have been satisfied.

Thus, in the first stage a gradual steepening of the yield curve in the U.S. is expected, and, subsequently, in the second stage a parallel upward shift in the referred curve is anticipated (Chart 6).

Finally, given the importance of the U.S. financial markets in the world economy, higher interest rates in this country are also expected to lead to increments in the interest rates of the rest of advanced and emerging economies.

Chart 6
Yield Curve of Government Bonds in the U.S.
Percent



Source: U.S. Department of the Treasury.

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<sup>&</sup>lt;sup>6</sup> See Bauer and Rudebusch, 2012.

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The Euro zone has been enduring a severe recession since the first quarter of 2012, even though at the margin there have been certain signs of recovery in some economies. In particular, available indicators suggest a less weak economic activity in the second quarter of 2013. Among these indicators, industrial production and retail sales expanded over the period of April - May (Chart 14a). Furthermore, the purchasing managers' index and the household confidence index continued to improve in the reference quarter (Chart 14b). Nonetheless, throughout the quarter, the unemployment rate in the region persisted at its historical maximum level of 12.1 percent, reached in March (Chart 14c). Likewise, even though the recovery of the region's economies is anticipated to start in the second half of 2013, weakness of households' and firms' balance sheets, the process of the financial system healing, the fiscal consolidation and the prevailing structural problems are expected to keep limiting its growth in the following quarters.<sup>6</sup>

The measures implemented by the European Central Bank (ECB) aimed to increase the available liquidity have relaxed the financial conditions for the Euro zone member states. These lower financial pressures have resulted in a reduced demand by banks for funding from the ECB, above all in the countries of the periphery. Nonetheless, a high degree of fragmentation in credit markets of the region and a vicious circle between the difficulties of banks and those of the sovereign issuers persist. In order to tackle these problems, the European authorities made further progress in forming a banking union:

- I. In mid-May of 2013 it was agreed to carry out in the first quarter of 2014 an asset quality review of the Euro zone banks and to determine the possible capitalization needs before the entry into force of the single supervisory mechanism (SSM). Besides, the principal features of the procedure to allow the direct recapitalization of banks by the European Stability Mechanism (ESM) was agreed upon, including the access conditions, burden sharing scheme and conditionality.
- II. In late June of 2013, the European Council proposed a directive on the recovery and resolution of credit institutions and investment firms (BRRD), which provides the national authorities with many tools to tackle possible banking crises in three steps: first, preparation and

It should be pointed out that, given the weak economic activity and still tight credit conditions, in the midsecond quarter the European Commission recommended the extension of maturities in which various countries, including the Netherlands, Portugal, Spain and France, should reach the target for a fiscal deficit under 3 percent of GDP.

Once the review is concluded, stress tests will be carried out by the European Banking Authority (EBA).

prevention; second, early intervention; and, finally, resolution. The adoption of this directive and of a unified regulatory framework denominated Single Rule Book represents a prerequisite for the conclusion of the direct capitalization procedure of banks by the ESM.

III. In early July, the European Commission proposed a Single Resolution Mechanism (SRM), which would complement the SSM. Once the SSM is in force at the end of 2014, the ECB will be directly supervising the banks in the Euro zone and in other European Union member states that decide to enter the banking union.<sup>8</sup>

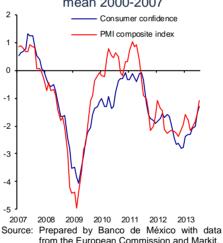
Despite this progress, agreements on some fundamental aspects are still to be made in order to implement these proposals. Thus, there is still the risk that given the slow progress of these reforms, the necessary conditions for a recovery of credit and a strengthening of growth will not be established.

a) Industrial Production Index January 2008=100, s. a.

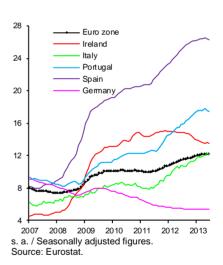
120 Euro zone reland 115 Italy Portugal 110 Germany 105 100 90 85 80 75 70 2008 20.09 2010 2011 2012 2013 s. a. / Seasonally adjusted figures.

Chart 14
Euro Zone Economic Indicators

b) Consumer Confidence and Purchasing Managers' Composite Index Standard deviation of the mean 2000-2007



c) Unemployment Rate In percent of economically active population, s. a.



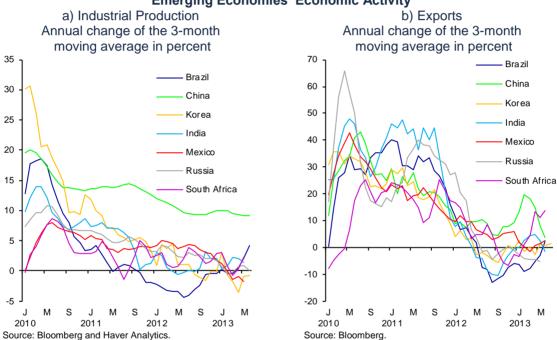
In Japan, the adoption of a more accommodative monetary policy stance, as well as a major fiscal stimulus, have produced a positive impact on confidence and private consumption, and have generated a depreciation of the real exchange rate, which supported exports. In particular, industrial production recovered considerably in the second quarter. However, uncertainty persists regarding the effectiveness of the monetary policy to stimulate growth. This calls even more urgently for the implementation of a structural reforms' agenda, together with the medium-term fiscal consolidation, which ensures the sustained economic recovery.

Source: Furostat

In particular, the ECB will supervise those banks with a total value of their assets exceeding EUR 30 billion or over EUR 5 billion, if they represent more than 20 percent of the national GDP, and at least the three main banks of each Euro zone member state.

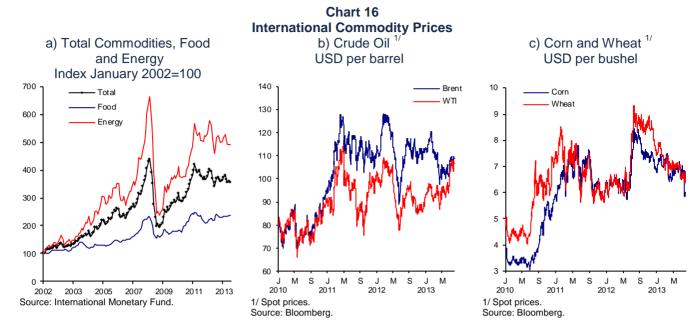
The growth of the main emerging economies continued to moderate in the second quarter, due to the reduction of commodity prices and lower dynamism of domestic and external demand, which was reflected in a slowdown of industrial production (Chart 15a and Chart 15b). Moreover, some countries did not take advantage of the improvement in the terms of trade to increase their productive capacity, which, in the current environment of low commodity prices, could imply growth rates below those registered in recent years. In some other countries, the strong credit growth has prompted the authorities' adoption of measures so as to avoid the build-up of financial sector vulnerabilities, which contributed to the reduction of the economic activity dynamism. There are also countries going through serious imbalances, both domestic and external, which had to implement restrictive economic policies in an environment of lower domestic growth.

Chart 15
Emerging Economies' Economic Activity



# 3.1.2. Commodity Prices

International commodity prices continued showing reductions in the period analyzed by this Inflation Report (Chart 16a). The crude oil price diminished over most of the second quarter, due to both lower demand forecasts and greater crude oil supply, which resulted from an increase in oil production by the non-members of the Organization of Oil Exporting Countries (OPEC), particularly the U.S. However, crude oil prices rebounded by the end of the quarter, in light of renewed geopolitical risks in the Middle East (Chart 16b). In turn, grain prices dropped in the period, given the outlook of a greater world production due to the forecast of more favorable weather conditions in this agricultural cycle (Chart 16c).



#### 3.1.3. World Inflation Trends

In the second quarter of 2013 inflation generally remained at low levels in the main advanced and emerging economies, and it is expected to continue at low levels in the following months. Lower inflationary pressures mainly stem from the weakness of economic activity and lower commodity prices.

In the U.S., annual headline inflation increased from 1.5 percent in March to 1.8 percent in June, still lying below the Federal Reserve long-term target of 2 percent (Chart 17a). Nevertheless, core inflation diminished in the referred period, from 1.9 to 1.6 percent, as a result of the deceleration of external demand for goods, the modest appreciation of the U.S. dollar, and a temporary reduction of health services prices.

In the Euro zone, the downside movement of annual headline inflation persisted in the second quarter, sliding from 1.7 percent in March to 1.6 percent in June. Thus, inflation remains under the ECB target, that is, below but close to 2 percent in the medium term. Core inflation also dropped in the quarter, from 1.5 to 1.2 percent. In this case, the economic recession and high unemployment contributed to maintaining low inflation in the region. In the U.K., headline inflation exhibited a slight growth throughout the referred period, moving from 2.8 to 2.9 percent, as a result of higher energy prices. In the meanwhile, core inflation slid from 2.4 to 2.3 percent, as a result of the weakness of the economy.

In Japan, the annual change of the consumer price index went from -0.9 percent in March to 0.2 percent in June, partly due to higher energy prices and a strong depreciation of the Japanese yen. The growth of prices excluding food and energy changed from -0.8 to -0.2 percent over the same period.

Inflation in emerging economies generally remained low with respect to the previous years. This was contributed to by lower international commodity prices

and the lower dynamism of their economic activity (Chart 17b). However, the recent reversal of capital flows to these economies resulted in a depreciation of their currencies, which in some cases could affect the inflation evolution.

Chart 17 **Headline Inflation in Advanced and Emerging Economies** b) Emerging Economies a) Advanced Economies Annual change in percent Annual change in percent 7 14 Brazil U.S. China Furo zone India 1/ 6 12 Mexico Japan Poland 5 10 8 3 6 2 1 2 0 0 -1 -2 -3 -4 2006 2007 2008 2009 2010 2011 2012 2006 2007 2008 2009 2010 2011 2012 2013 1/ It refers to inflation of wholesale prices. Source: BLS, Eurostat and Japan Statistics Bureau.

#### 3.1.4. International Financial Markets

Even though an outlook of lower inflation is anticipated in many countries, differences are perceived among them with respect to their economic activity performance, which has resulted in a desynchronization of the monetary policies of the main central banks. In particular, the difference in the cyclical position of the main advanced countries with respect to the U.S. prompted that, given higher long-term rates, some central banks ratified the accommodative nature of their monetary policies, even giving new information about maintaining this stance for a considerable time period.

Source: National Statistics Bureaus

In its monetary policy meeting in June, the Federal Reserve confirmed its decision to proceed with a monthly purchase of securities for USD 85 billion. It also ratified its expectation that the target range for the federal funds' rate between 0 and 0.25 percent will persist at least as long as the unemployment rate remains above 6.5 percent, provided that inflation between one and two years ahead is forecast not to exceed 2.5 percent and long-term inflation expectations remain stable. In this meeting, the U.S. Federal Reserve released the inflation forecasts of the Federal Open Market Committee members (FOMC), which indicate that following a drop in 2013 caused by transitory factors, inflation will increase and will tend towards the 2 percent target over the next two years. Furthermore, at the end of this meeting, the Chairman of the Federal Reserve mentioned that, if the economy keeps recovering in accordance with the forecast, this Central Institute could start reducing the pace of its financial assets' purchases in the second half of 2013, concluding the program in mid-2014, the period in which the unemployment rate is

expected to lie close to 7 percent. Besides, he emphasized that an increase in the target interest rate is not automatic, even when the unemployment rate reaches the required level to assess a possible change in its stance, and that the reduction in the monetary stimulus could be delayed if a considerable tightening in financial conditions is observed. It should be noted, that in recent weeks, different authorities of the Federal Reserve, including its Chairman, made statements regarding the details of the strategy to reduce asset purchases, as well as clarifications, which dissipated speculations over the possible increases in the reference interest rate in the near future. In its monetary policy meeting of July 31, 2013, the U.S. Federal Reserve stated that it would maintain unchanged both the target range for the federal funds rate, and its program of asset purchases. In the same line, in its announcement it recognized that an inflation rate persistently lower than the 2 percent target could represent a risk to the performance of the economy, although inflation is estimated to approach the medium-term target.

In turn, given lower inflationary pressures and a persisting deterioration of the economic situation, in May the ECB reduced by 25 basis points the rate of the main refinancing operations to 0.50 percent, and its rate of the margin finance facility by 50 basis points, to 1.0 percent, while it did not modify the deposit facility rate, which remained at 0.0 percent. In its meetings of June, July and August 2013, the ECB maintained unchanged its policy rates. At the press conference of July 4, 2013, the President of the ECB noted that the available indicators still do not suggest a considerable improvement of the economic activity, but rather only a lower rate of weakening. In a context in which interest rates worldwide started to increase, as a result of the Federal Reserve announcements that the pace of asset purchases could be reduced, the ECB used for the first time a forward quidance for its monetary policy, indicating that the interest rates are expected to remain at their current levels or below them for a long time, given an outlook of low inflation in the medium run, in light of the widespread weakness of the economy and of the monetary and credit aggregates. This guidance of the monetary policy course was endorsed at the meeting of August.

In its monetary policy meeting of July 4, 2013, the Bank of England (BOE) decided to maintain its reference rate at 0.5 percent and the amount of assets to be purchased at GBP 375 billion. The BOE also indicated that based on the recent information, the forecasts for growth and inflation announced in the Inflation Report of May will be reached. However, it warned that a considerable rise in the market interest rates could affect this outlook, and that, in its opinion, the implicit increase in the future expected trajectory of the reference rate was not congruent with the recent events in the U.K. economy. Similarly, the BOE noted that the result of the analysis being carried out with respect to the Remit Letter regarding the advisability to offer a future guidance for its monetary policy will be announced in August, together with the Inflation Report release. It should be noted that the BOE in its meeting of August 1, 2013 maintained its monetary policy unchanged.

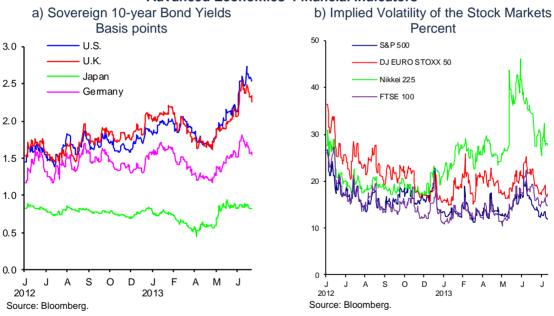
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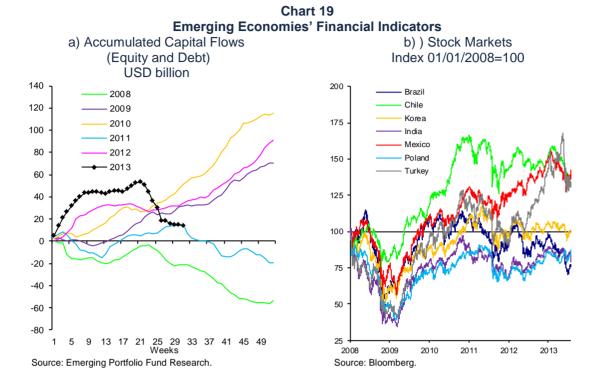
In the Minutes of the U.S. Federal Reserve monetary policy meeting of May 2013, a number of participants had already expressed their willingness to reduce the pace of asset purchases as early as the meeting of June. Besides, in its appearance before Congress in late May, the Chairman of the Federal Reserve pointed out that, given a continuous and sustained improvement of the labor market outlook, the reduction in the pace of asset purchases could begin in the following meetings.

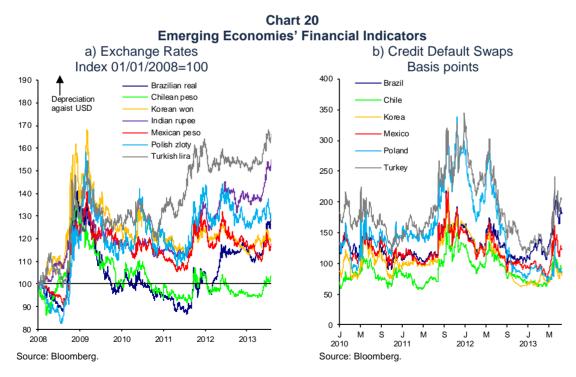
The Bank of Japan (BOJ), in its April meeting, pointed out that it would seek to reach its 2 percent inflation target approximately within a two-year horizon. To this end, the BOJ changed its main operational target from the interbank funding rate to the monetary base. To achieve its inflation target, the BOJ intends to double the stock of the monetary base, by means of increasing its government bonds' holdings and other instruments in the remainder of 2013 and 2014. In its monetary policy meetings of June and July, the BOJ maintained its policy rate and the asset purchases unchanged, and stressed an improvement in the inflationary expectations and the economic growth.

Despite additional monetary easing in some central banks of the main advanced economies, longer-term interest rates presented an upward trend worldwide, derived from the fact that the impact of the U.S. financial conditions took precedence over those of the rest of the markets. Thus, most of these economies registered increases in their long-term interest rates and higher volatility in the stock markets (Chart 18). In the case of emerging economies, this, together with a downside revision of their growth forecasts, generated capital outflows, falls in the stock markets, depreciation of the national currencies, and, generally, increases in longer-term interest rates and in the sovereign credit risk premia (Chart 19 and Chart 20).

Chart 18
Advanced Economies' Financial Indicators







Given the abovementioned, no changes in the monetary policy stances of the main emerging economies' central banks are anticipated, even though they indicated that they would monitor the events in international financial markets. In general, depreciation in the emerging economies' currencies so far have not

translated in stronger inflationary pressures. However, in some economies with less solid macroeconomic fundamentals an uptick in inflation expectations has been observed.

Following the adjustment in international financial markets, in the last weeks, as mentioned above, the Federal Reserve has provided further information on the conditions in which the reduction in the pace of asset purchases and the beginning of an increase of the reference interest rate would take place. This generated a favorable reaction in financial markets, with a moderate reversal in the prices of different assets of both advanced and emerging economies with respect to the levels achieved in early July. It should be pointed out that the markets' response had been differentiated, depending on the strength of each country's economic fundamentals.

#### 3.2. Development of the Mexican Economy

#### 3.2.1. Economic Activity

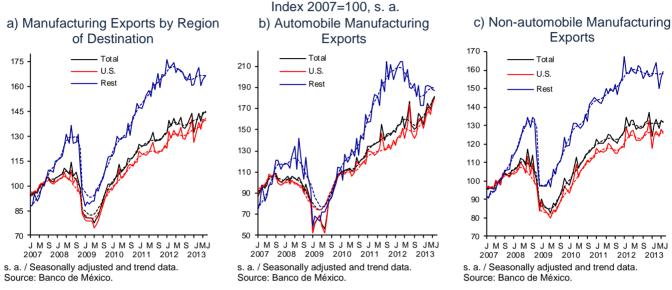
In the second quarter of 2013, the deceleration that the Mexican economy had been registering since the second half of 2012 accentuated. This loss of dynamism resulted from a series of adverse shocks, among which the following are noteworthy:

- i. An environment of relatively low growth of economic activity and world trade, which generated a reduction in the growth rate of external demand for Mexico's exports since the second half of 2012. In this context, the modest growth of U.S. industrial activity in late 2012 and early 2013 did not result in an increase of Mexican exports, which is due to the fact that, with the exception of the automobile sector, this reflected a more favorable performance of certain sectors that do not tend to be closely related to Mexican exports. In any event, the low response of the Mexican manufacturing exports to the recovery of the U.S. industrial production is estimated to be temporary, and not a permanent change in the existing relation between the manufacturing activity of Mexico and that of the U.S. In particular, once the U.S. industrial growth encompasses more sectors, the impulse to Mexican exports is expected to become more evident.
- ii. The real exchange rate appreciation registered till mid-May 2013 could have led to greater deterioration in the tradable goods' production as compared to that implicit by a lower impulse of external demand.
- iii. The effort of fiscal consolidation foreseen for 2013, together with the lower public expenditure observed since the fourth quarter of last year and in the first half of 2013, as part of the administration change, accentuated the loss of domestic demand dynamism.
- iv. The negative trend of the housing sector aggravated the weak performance of the construction industry.

The weak external demand, observed since mid-2012, and whose impact was accentuated by the abovedescribed external shocks, was reflected in a stagnation of Mexican manufacturing exports. In particular, even though in recent months automobile exports to the U.S. continued with a positive trend, the rest of the

manufacturing exports to that country remained stagnant. Additionally, manufacturing exports to markets other than the U.S. had a highly unfavorable performance both in non-automobile exports, especially those to Canada and Europe, and in the automobile exports, destined to practically all the regions (Chart 21).

Chart 21 Indicators of Manufacturing Exports

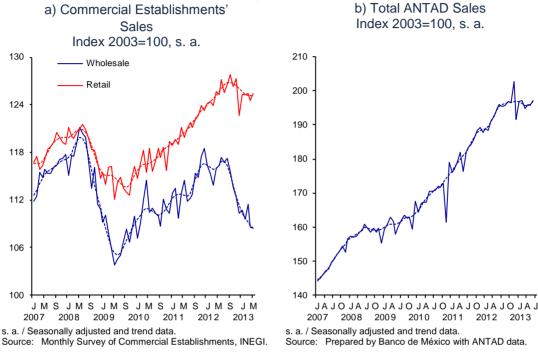


The indicators of domestic spending evolution also suggest that in the second quarter of 2013 it kept decelerating. In particular:

- i. In line with the recent data, private consumption presented a weak growth pace in the analyzed quarter. Specifically, indicators of retail and wholesale sales exhibited a negative trend (Chart 22).
- ii. In accordance with the above, some consumption determinants continued to observe an unfavorable performance in recent months, as is the case of workers' remittances and the average real income of IMSS-insured workers (Chart 23a and Chart 23b). Likewise, since early 2013 the consumer confidence index has registered a negative trend (Chart 23c).
- iii. The more timely data suggest that in the second quarter of 2013, gross fixed investment continued to slow down (Chart 24a). Apart from the adverse performance of spending on investment in machinery and imported equipment (Chart 24b), the evolution of investment largely reflected the stagnant construction sector. The performance of this sector is mainly due to a lower level of public construction and the negative trajectory presented by the housing sector (Chart 24c). This, in turn, partly reflects two factors: i) as a consequence of the 2008 crisis, Sofols faced increasing difficulties to access funding sources, which resulted in a gradual loss of its capacity to grant credit, which reduced the funding options to the construction sector and ii) some construction

firms decided to expand towards regions and markets, in which demand ultimately turned out to be insufficient.

Chart 22
Consumption Indicators



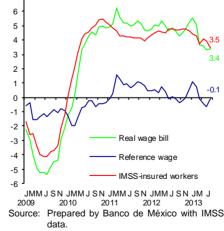
### a) Workers' Remittances USD million, s. a.

### 2,600 2,500 2,400 2,300 2,100 2,000 1,800 1,700 1,600 1,700 1,600 2,006 2007 2008 2009 2010 2011 2012 2013 s. a. / Seasonally adjusted and trend data.

Source: Banco de México.

# Chart 23 Consumption Determinants

b) Real Wage Bill of IMSS-insured
Workers
Annual change in percent



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



s. a. / Seasonally adjusted and trend data.

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

a) Investment and its Components Index 2003=100, s. a.

#### Indicators of Investment b) Imports of Capital Goods Index 2007=100, s. a.

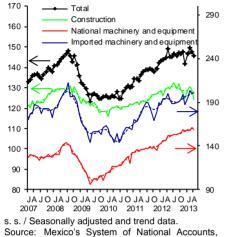
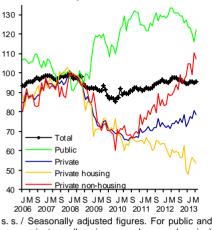




Chart 24

c) Real Value of Production in the Construction Sector by Contracting Institutional Sector January 2008=100, s. a.



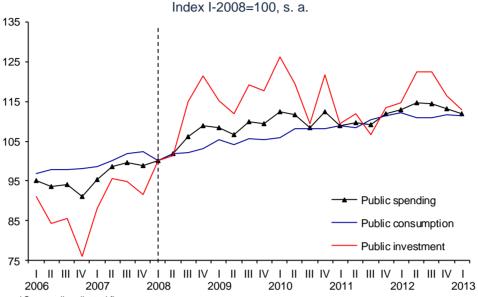
private (housing and non-housing) construction, the seasonal adjustment was prepared by Banco de México with data from INEGI.

Source: INEGI.

Lower spending of public investment in the first months of the year iv. contributed to the decrease in the growth rate that domestic demand had been registering (Chart 25). This has been influenced by the fact that for 2013 a fiscal consolidation effort is considered, which implies a reduction of 3.2 percent in real terms of the public spending for the year as a whole, as well as the deceleration of expenditure which generally takes place at the end and the beginning of an administration. However, by the end of the second quarter the use of expenditure practically returned to normal.

Regarding the sectors of the economic activity, the slowdown observed both in external and domestic demand, triggered a loss of dynamism in industrial activities in the second quarter of 2013, with the manufacturing and construction sectors standing out due to their importance (Chart 26a and Chart 26b). Likewise, the tertiary sector has been presenting a lower growth rate as compared to previous quarters. In particular, the services more related to the domestic market reduced their growth rate with respect to the previous quarter, principally, as a result of a deceleration in the mass media services, professional, scientific and technical services, and government activities. On the other hand, the services more related to external demand, such as commerce and transport, mail and warehousing services continued increasing moderately in the analyzed quarter.

Chart 25
Total Public Spending and its Components



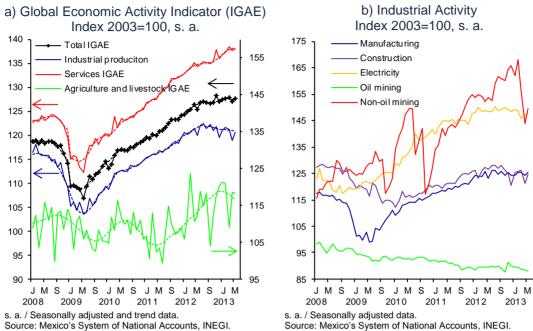
s. a. / Seasonally adjusted figures.

Source: Prepared by Banco de México with data from Mexico's System of National Accounts, INEGI.

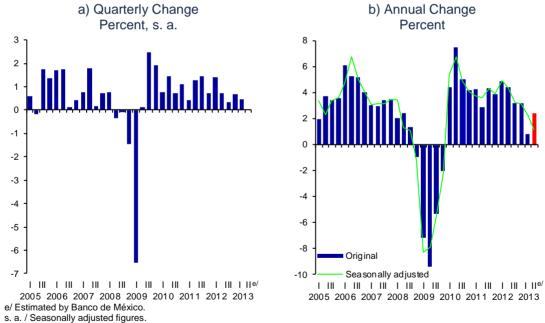
In contrast, improved weather conditions in the second quarter of the year were reflected in a recovery of the agricultural sector activity level, following a contraction in the previous quarter. The increase in the production of sugar cane, cotton, oats, cucumber, rice and wheat particularly stands out. In turn, higher production of cow's milk, honey, beef and poultry was also observed.

Thus, for the second quarter of 2013, GDP is estimated to have shown a quarterly seasonally adjusted growth of approximately 0 percent, a figure lower than the 0.45 percent observed in the last quarter (Chart 27a). This would imply an annual seasonally adjusted GDP growth of 1.2 percent in the second quarter of 2013 (2.2 percent in the first quarter). Based on data without seasonal adjustment, an annual GDP change of 2.5 percent is anticipated in the reference quarter (0.8 percent in the previous quarter), a figure which is affected upwards by the fact that in 2013 the Easter Week was celebrated in March, while in 2012 it was in April (Chart 27b).







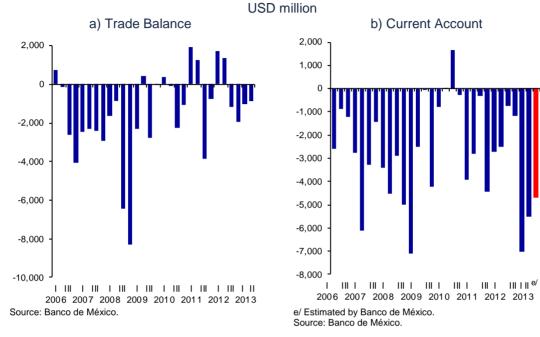


Source: Mexico's System of National Accounts, INEGI. Seasonal adjustment up to the second quarter of 2013 by Banco de México.

Finally, in the second quarter of 2013, the trade balance registered a deficit of USD 841.8 million (Chart 28a). In line with the above, the available data suggest that in the referred quarter the current account presented a moderate annualized deficit of 1.5 percent of GDP (Chart 28b). In this context, the inflow of resources

via the financial account, mainly foreign direct investment, allowed an easy financing of the current account deficit in this period.

Chart 28
Trade Balance and Current Account



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

Given the moderation of the economic activity growth in Mexico, the stronger Mexican financial system has been a factor which partly attenuated the shocks on the economy. In particular, in the analyzed quarter, financing to the non-financial private sector —especially, domestic and external debt issuance, and bank credit to small and medium firms— expanded with a similar dynamism to that observed in the first quarter of 2013. The above occurred despite the environment of uncertainty in international financial markets, weakness of external demand and a lower growth rate of domestic expenditure. Nonetheless, in line with the slowdown of the economic activity, lower dynamism in the demand for credit in some markets has been observed, particularly in the credit to households, which brought about its lower growth rate.

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

Percentage of GDP

	Annual flows						Stock 2013 IIe/	
	2012 I	2012 II	2012 III	2012 IV	2013 I	2013 II <sup>e/</sup>	% GDP	Est. %
Total sources	10.6	11.3	10.7	10.0	10.3	7.3	88.3	100.0
Domestic sources 1/	6.4	6.7	5.6	4.4	4.4	3.3	57.5	65.2
Foreign sources <sup>2/</sup>	4.3	4.6	5.1	5.6	5.9	3.9	30.7	34.8
Total uses	10.6	11.3	10.7	10.0	10.3	7.3	88.3	100.0
Public sector	3.4	3.4	3.2	3.7	3.1	3.3	41.6	47.1
Public sector (PSBR) 3/	3.0	2.9	2.8	3.2	2.7	2.9	38.7	43.9
States and municipalities	0.3	0.5	0.5	0.5	0.4	0.4	2.9	3.3
International reserves 4/	2.3	2.4	2.1	1.8	1.4	8.0	13.9	15.7
Private sector	3.1	3.2	3.3	3.2	3.0	3.0	34.1	38.6
Households	1.5	1.4	1.4	1.4	1.3	1.2	14.6	16.5
Consumption	0.6	0.6	0.7	0.6	0.6	0.6	4.6	5.2
Housing 5/	0.8	0.7	8.0	8.0	0.6	0.6	10.0	11.3
Firms	1.7	1.8	1.9	1.8	1.8	1.8	19.5	22.1
Domestic <sup>6/</sup>	1.2	1.3	1.3	1.0	1.0	1.1	11.7	13.3
Foreign	0.4	0.6	0.6	8.0	8.0	8.0	7.8	8.8
Commercial banks' foreign assets 7/	-0.3	-0.6	-0.1	-0.1	0.0	0.0	1.2	1.3
Other 8/	2.0	2.9	2.2	1.4	2.8	0.2	-2.4	-2.8

Source: Banco de México.

Note: Figures may not add up due to rounding. Preliminary figures expressed as a percentage of average GDP of the last four quarters The information on (revalued) flows is stripped from the effect of exchange rate fluctuations

e/Estimated data are based on the timely information for the second quarter of 2013.

During the second quarter of 2013, the total sources of financial resources expanded at a lower rate than in previous quarters (Table 2).10 This moderation in the growth rate was recorded both in the domestic and the external sources of funding. On the one hand, the monetary base in the second quarter presented an average annual nominal change of 4.4 percent, lower than the 8.9 percent registered in the previous quarter. 11,12 The lower growth rate of the monetary base is largely due to a base effect, since there was a significant increase in the demand for banknotes and coins during the period of April - June 2012, as it often happens in the run-up to federal elections. Additionally, the slowdown of economic activity during the first half of 2013 has been reflected in a lower demand for currency by the public. Thus, as the aforementioned base effect gradually dissipates and the economic activity takes on greater dynamism during the

<sup>1/</sup>It includes the monetary aggregate M4 held by residents. Annual revalued flows of domestic sources exclude the effect of the reform to the ISSSTE Law on the monetary aggregate M4. Information on the stock of domestic sources includes the effect of this reform.

<sup>2/</sup>It includes the monetary aggregate M4 held by non-residents, 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>3/</sup>Public Sector Borrowing Requirements (Requerimientos Financieros del Sector Público, RFSP or PSBR, for its acronym in English) and historical stock of Public Sector Borrowing Requirements (HSPSBR or SHRFSP, for its acronym in Spanish) as reported by the Ministry of Finance (SHCP). Figures of revalued flows exclude the impact of the reform to the ISSSTE Law on PSBR. Information on HSPSBR does include the effect of this reform on the public debt.

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

<sup>5/</sup>Total portfolio of financial intermediaries and 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). It includes debt-restructuring programs.

<sup>6/</sup>Total portfolio of financial intermediaries. It includes debt-restructuring programs

<sup>7/</sup> It includes assets from abroad 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, as well as non-monetary liabilities from IPAB, among others.

<sup>&</sup>lt;sup>10</sup> The information on annual flows of sources and uses of financial resources is estimated using the timely

data as of the second quarter of 2013

The monetary base is defined as the sum of currency in circulation plus the bank deposits in Banco de

<sup>&</sup>lt;sup>12</sup> The calculations are based on the quarterly average of daily stocks.

second half of the year, a higher demand for currency and, consequently, a higher annual growth rate of the monetary base can be expected.

On the other hand, even though the stock of financial saving in the economy –defined as the monetary aggregate M4 minus the stock of banknotes and coins held by the public– maintained its long-term growth trend, it decreased in May and June (Chart 29a). This decline was mainly due to the impact that the increases in medium- and long-term interest rates had on the valuation of government debt securities. As mentioned above, the perception that the Fed may reduce the pace of its asset purchases in the near future led to widespread increases in medium and long-term interest rates in Mexico as well as in other economies, and to associated drops in the prices of the assets that pay such rates. In this regard, the components of financial saving that were the most affected by this valuation effect were the non-resident and the resident compulsory components.<sup>13</sup>

The stock of non-resident financial saving decreased marginally during the second quarter of 2013 (Chart 29a). This aggregate is composed mainly by medium- and long-term government debt securities, whose valuation was affected by the aforementioned increases in interest rates observed in May and June (Chart 29b). Nevertheless, longer term interest rates partially came back down in July, which is estimated to have reduced the negative impact on capital gains that affected this monetary aggregate by the end of the second quarter.

Additionally, the proportion of short-term government debt securities out of total securities holdings by non-residents increased moderately, thus affecting the maturity composition of this portfolio. Considering figures in nominal terms, in order to exclude the aforementioned valuation effect derived from changes in interest rates during the period, the stock of non-resident securities holdings increased by MXN 7.0 billion in the second quarter (0.4 percent with respect to the first quarter). In particular, short-term government securities holdings by foreign investors grew by MXN 18.3 billion (3.8 percent), while medium- and long-term securities holdings decreased by MXN 11.3 billion (-0.9 percent). It is important to note that a set of medium and long-term government issues were expected to mature on June 20 —which accounts for the reduction in non-resident securities holdings— and that, after this date, non-residents have gradually reconstituted their government securities portfolios.

The stock of resident financial saving registered a lower growth rate relative to that observed in recent months, also as a result of higher interest rates of debt securities (Chart 29c). Resident compulsory saving —which includes investment in medium and long-term government securities by pension funds— decreased due to the lower market valuation of these debt securities, which has partially reverted in recent weeks. Meanwhile, resident voluntary financial saving continued to grow at a similar pace to that of the first quarter of 2013.

1

<sup>&</sup>lt;sup>13</sup> In June 2013, the participation of holdings of fixed-rate bonds (Bonos M) and Udibonos in the total stock of non-resident financial saving and the indicator of resident compulsory saving was 66.1 percent and 31.5 percent, respectively.

<sup>&</sup>lt;sup>14</sup> The figures corresponding to the changes in non-resident holdings of government securities are in nominal value.

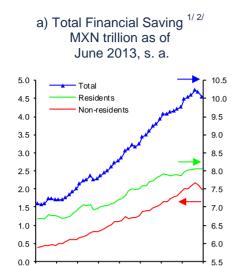
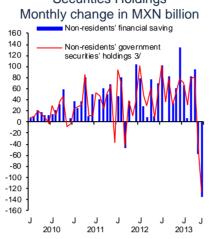
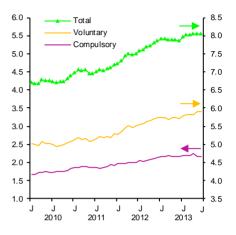


Chart 29
Financial Saving Indicators
b) Financial Saving and Nonresidents' Government
Securities Holdings



c) Residents' Financial Saving 1/2/ MXN trillion as of June 2013. s. a.



Source: Banco de México.

2010

s. a. / Seasonally adjusted figures.

2011

- 1/ Defined as the monetary aggregate M4 minus the stock of banknotes and coins held by the public.
- 2/ Figures are adjusted to exclude the impact of the reform to the ISSSTE Law.

2013

3/ Holdings of government securities expressed in market value.

2012

The annual flows of the uses of financial resources continued expanding in the second quarter of 2013, albeit at a more moderate pace. The flow of funding to the public sector increased in the second quarter due to higher public expenditure, which was the result of an effort aimed at regularizing planned government spending, while financial resources to states and municipalities remained stable. Moreover, the rate of accumulation of international reserves decreased. Finally, financing to the private sector continued to show a growth trajectory similar to that observed in previous quarters (Table 2).

With respect to this last point, financing to non-financial private firms continued to expand, albeit at a more modest rate in the second quarter of 2013 (Chart 30). In debt markets —both external and domestic-, private firms continued to issue securities with considerable dynamism during the second quarter of the year. Debt placements in international markets were higher than the previous quarter, implying that the corresponding stock continued to grow at high rates. However, no issuances were registered in June, in line with the low activity observed in general in international private debt markets. The net placement of debt in the domestic market also increased, being the highest since the last quarter of 2009. Thus, the net issuance of medium-term debt during the second quarter of 2013 was MXN 18.3 billion, as a result of gross placements of MXN 23.8 billion and amortizations for MXN 5.6 billion (Chart 31a). Interest rates of domestic securities remained unchanged in the second quarter, after having observed a generalized decline across all maturities in March. The interest rates of medium-term securities increased in response to the recent rise in the yields of government

<sup>&</sup>lt;sup>15</sup> The information on annual flows of sources and uses of financial resources is estimated with preliminary data as of the second guarter of 2013.

securities (Chart 31b). However, their levels were lower than those recorded in 2012.

Real annual change in percent 30 - Total 1/ 2/ 25 Credit 1/2/3/ Issuance 20 15 10 5 0 -5 -10 D D D D 2010 2009 2011 2012 2013

Chart 30 Domestic Financing to Non-financial Private Firms

Source: Banco de México.

In bank credit markets, both commercial and development banks continued to channel resources to firms. Commercial banks' credit portfolio increased during the second quarter of the year at a rate similar to that observed in the previous quarter (Chart 32a). The expansion of bank credit was more noticeable in the small and medium enterprises portfolio. Meanwhile, the stock of loans to large firms continued to expand, although at a slower pace, partly because these large companies have better access to alternative sources of funding. After having recorded a decline in March, corporate credit interest rates remained stable in the second quarter of the year (Chart 32b). Corresponding delinquency rates rose in the second quarter, as a result of default by a small number of firms, and not of a generalized deterioration of the portfolio (Chart 32c).

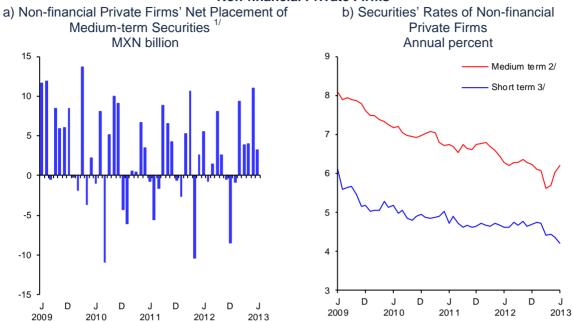
Development banks' credit to firms continued growing at high rates, although slightly lower than those registered at the beginning of this year (Chart 32a). The moderation in this portfolio's growth rate was observed across all firm sizes. This occurred in an environment in which interest rates and the corresponding delinquency rates did not record any significant changes (Chart 32b and Chart 32c).

<sup>1/</sup> These figures are affected by the disappearance of some non-banking financial intermediaries and their conversion to non-regulated Sofom.

<sup>2/</sup>From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and mediumsize firms (PyMES, for its acronym in Spanish) from consumer credit to credit granted to non-financial firms.

<sup>3/</sup>It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as nonbank financial intermediaries.

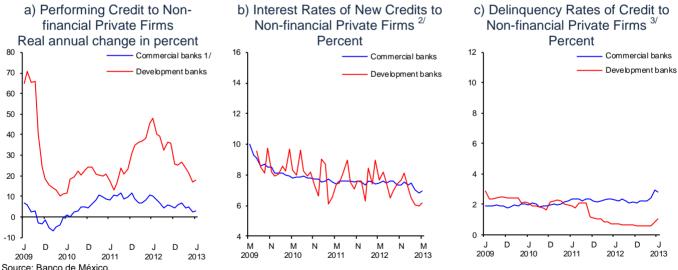
Chart 31
Non-financial Private Firms



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

- 1/ Placements less amortizations in each month (securities and prepayments).
- 2/ Placements of more than one year.
- 3/ Placements of up to one year.

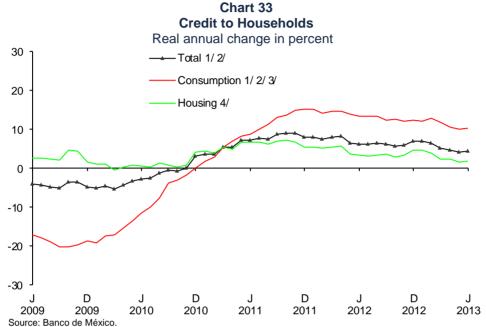
# Chart 32 Banks' Credit to Non-financial Private Firms



- 1/From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and medium-size firms (PyMES, for its acronym in Spanish) from consumer credit to credit granted to non-financial firms.
- 2/It refers to the interest rates of new credits granted by banks to non-financial private firms, weighted by the associated stock of performing credit and for all credit terms requested.
- 3/The delinquency rate (Índice de Morosidad, IMOR) is defined as non-performing portfolio divided by total loan portfolio.

Credit to households continued to expand, albeit with less vigor. Consumer credit continued to grow at relatively high rates, although its expansion rate has moderated somewhat. Mortgage loans have recently increased at a lower rate as

well (Chart 33). Thus, credit to households registered an average real annual growth rate of 4.4 percent for the April - June period, as a result of expansions of the consumer and mortgage loan components of 10.3 and 1.9 percent, respectively. <sup>16</sup>



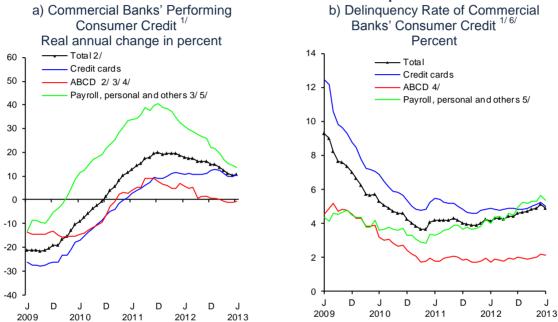
- 1/From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and mediumsize firms (PyMES, for its acronym in Spanish) from consumer credit to credit granted to non-financial firms.
- 2/Figures from March 2008 onwards include the total consumer credit portfolio of commercial banks' subsidiaries Sofom E.R.
- 3/It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as non-bank financial intermediaries.
- 4/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, the National Housing Fund (Instituto del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit), the ISSSTE Housing fund (Fondo de la Vivienda del ISSSTE, Fovissste) and other non-bank financial intermediaries.

Consumer credit continued to expand, albeit at more moderate rates compared to the previous quarters (Chart 33). In particular, commercial bank consumer credit slowed down due to the lower growth rate of personal and payroll loans (Chart 34a). Thus, commercial bank consumer credit increased in the period of April - June at an average rate of 10.7 percent, a figure below the 13.6 percent corresponding to the first quarter of 2013. As for the components of this portfolio, the payroll, personal and other loans components expanded in annual real terms at an average rate of 14.5 percent in April - June, as compared to 19.4 percent observed in the period of January - March. The credit card portfolio maintained its sustained growth path at rates around 10 percent. The durable consumption goods portfolio (ABCD, after its Spanish acronym) observed an average real annual change of -0.9 percent in the April - June period, slightly below the growth of 0.01 percent registered in January - March. In this regard, the ABCD

<sup>&</sup>lt;sup>16</sup> The statistics of credit for housing are affected by the conversion of Sofoles to non-regulated Sofomes, given that the latter do not disclose information regarding their credit portfolio to the financial authorities. By excluding the stock of credit granted by these institutions, the real annual growth rates of credit for housing and credit to households from April to June 2013 would be 3.3 and 5.6 percent, respectively.

portfolio has grown at relatively low rates, partly as a result of higher competition in this segment due to greater participation of other non-bank financial intermediaries, particularly in the offering of auto loans. As to the costs of consumer loans, interest rates across all market segments within this portfolio have remained stable. For the particular case of credit cards, the stability in interest rates has been observed throughout the year, both for the total number of clients as for revolving clients. 17 With respect to delinquency rates in consumer loans, they have observed a moderate upward trend (Chart 34b). However, this trend has not been widespread, but mostly limited to the personal loan portfolio.

Chart 34 **Commercial Banks' Credit for Consumption** 



1/It includes credit portfolio of credit-card regulated SOFOM: Tarjetas BANAMEX, Santander Consumo, Ixe Tarjetas and Sociedad Financiera Inbursa. From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and mediumsize firms (PyMES) from consumer credit to credit granted to non-financial firms.

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

4/ It includes credit for property acquisition and automobile credit.

Source: Banco de México.

5/"Others" refers to credit for payable leasing operations and other consumer credits.

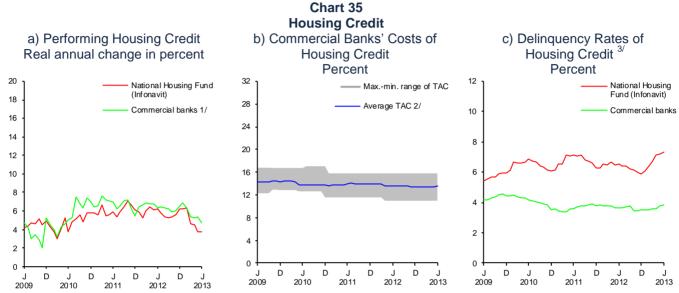
6/The delinquency rate (Indice de Morosidad, IMOR) is defined as non-performing loans divided by total loans.

Mortgage loans maintained a positive growth rate in the second guarter of 2013. although lower than that observed in the previous quarter. This was the result of a slowdown in the growth rates of the credit portfolios of the National Housing Fund (Instituto del Fondo Nacional de la Vivienda para los Trabajadores, Infonavit) and of commercial banks (Chart 35a). The performing portfolio of the National Housing Fund grew at a rate of 4.0 percent in average real annual terms in the period of

<sup>3/</sup>From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from durable goods (ABCD) to other consumption credits by one banking institution.

<sup>&</sup>lt;sup>17</sup> A convenience credit card user is a person who pays off his or her credit card balance in full each month, as opposed to a revolving user, who does not. For further detail on the recent evolution of interest rates in the credit card segment, see the document "Basic Indicators of Credit Cards," released by Banco de México on July 11, 2013.

April - June 2013, while commercial banks' credit increased by 5.1 percent over the same period. In the latter case, the interest rates and the delinquency rates have remained stable (Chart 35b and Chart 35c). However, the delinquency rate of the Infonavit portfolio has displayed a moderate upward trend during the year (Chart 35c).



Source: Banco de México.

<sup>1/</sup>Figures are adjusted in order to avoid distortions by the pass-through effect of UDIS trust portfolio to the balance sheet of commercial banks and by the reclassification of credit in direct portfolio to ADES.

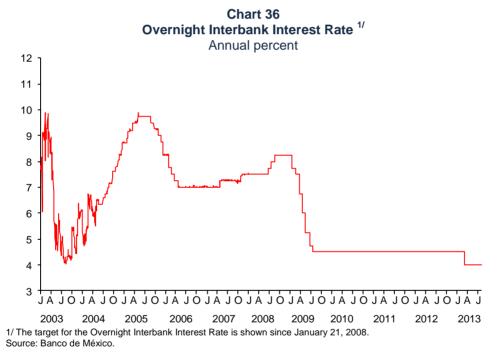
<sup>2/</sup>Indicator's simple average resuming the total annual cost (TAC) for a standard mortgage product.

<sup>3/</sup> The delinquency rate (Indice de Morosidad, IMOR) is defined as non-performing portfolio divided by total loan portfolio.

#### 4. Monetary Policy and Inflation Determinants

The measures taken by the Central Institute have managed to impede second round effects, derived from the different episodes of relative price changes, which have temporarily affected inflation in recent years. This has contributed to generating an environment of credibility regarding the effort aimed at curbing inflation in Mexico, which gave rise to more dependable expectations of the economic agents regarding the future inflation trajectory, when making decisions on consumption, savings and investment. Thus, in recent years the virtuous circle between the price formation process and the anchoring of medium- and long-term inflation expectations, which are increasingly less affected by adjustments in the relative prices, has strengthened. It has allowed consolidating the process of inflation convergence towards the 3 percent target, considering the variability interval of plus/minus one percentage point around it.

During the period analyzed in this Inflation Report, Banco de México's Board of Governors decided to maintain the target for the Overnight Interbank Interest Rate at 4 percent (Chart 36).



Among the elements considered for the conduction of the monetary policy over the analyzed period, the following stand out:

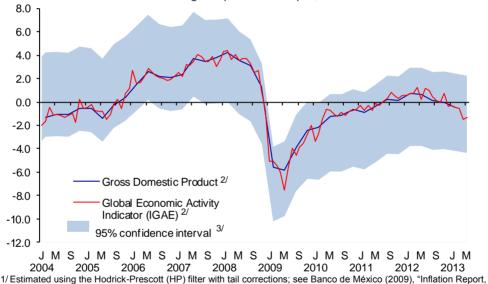
- a) The persistence of core inflation below 3 percent, even with a slight downside trend, since the second half of 2012, which seems to have significantly accentuated in the second quarter of 2013, as a reflection of the weakness of external and domestic demand.
- b) The transitory increase in non-core inflation, observed since February 2013, which is in line with the forecast.

- c) The inflation expectations remain stable and there is no evidence of second round effects on the price formation process in the economy, just like in previous episodes of relative price adjustments.
- d) The orderly adjustment in Mexican financial markets, as a response to the changed perception regarding the pace of Federal Reserve asset purchases. This derived from the strength of the macroeconomic framework, which led to the anchoring of inflation expectations.

The slowdown of the economy, and the concomitant degree of slack in the main input markets have led not only to the absence of demand-related pressures on the general price level or the external accounts, but also induced a lower inflation level and even propitiated the persistence of core inflation below 3 percent. In particular:

a) Lower growth recently presented by the economy was reflected in a negative trend of the output gap. 18





April - June 2009", p.69. 2/GDP figures up to the first quarter of 2013, IGAE figures up to May 2013.

3/ Confidence interval for the output gap calculated with an unobserved components' method.

s. a. / Prepared with seasonally adjusted figures.

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

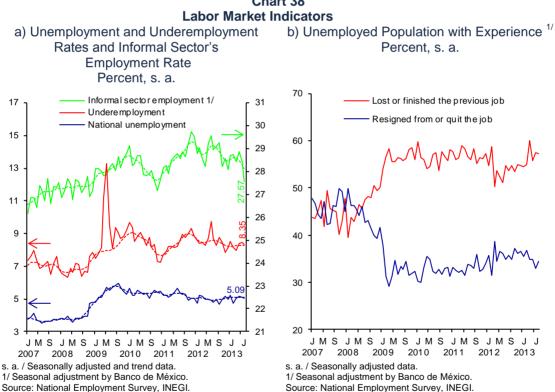
b) With respect to the labor market, the recent evolution of the national unemployment and underemployment rates suggests a greater slack in this market. Indeed, these rates have registered a new deterioration in recent months (Chart 38a). Likewise, the fraction of unemployed workers who lost their job as compared to those who quit their job, increased (Chart 38b). In turn, even though the number of IMSS-insured

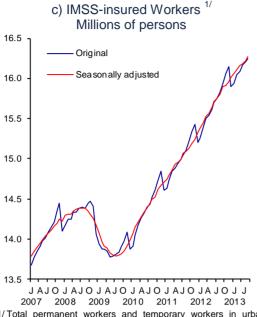
<sup>&</sup>lt;sup>18</sup> Considering that this indicator's estimation is subject to a certain degree of uncertainty, it should be carefully interpreted, given that, from a statistical point of view, it does not register levels significantly different from zero.

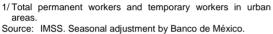
workers continued to grow, the number of construction workers insured in this institution has shown a negative trend in recent months and that of the trade sector presented a lower dynamism (Chart 38c and Chart 38d).

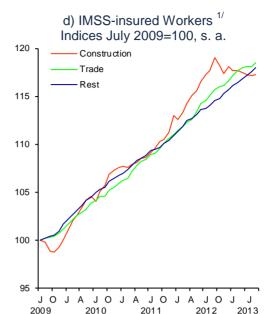
- These labor market conditions have propitiated moderate wage c) increases in the analyzed quarter, which, together with the tendency of the average labor productivity, have caused unit labor costs to remain at low levels (Chart 39).
- As mentioned above, in the debt market and the market of credit to the d) non-financial private sector, different indicators suggest no signs of overheating.
- The deficit of the current account is estimated to have remained at e) moderate levels and the economy is considered to have received funding from abroad, mainly by means of foreign direct investment, by an amount sufficient to easily finance it. Thus, no demand-related pressures on the Mexican external accounts have been observed.

## Chart 38







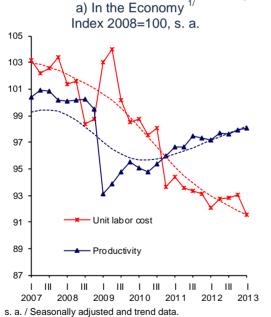


s. a. / Seasonally adjusted data.

1/ Total permanent workers and temporary workers in urban areas.

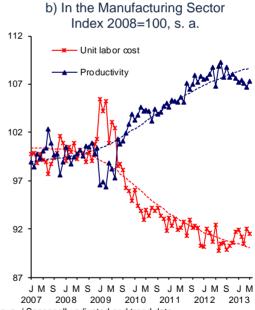
Source: Prepared by Banco de México with data from IMSS.

#### Chart 39 **Productivity and Unit Labor Cost**



Data from 2010 onwards are preliminary and based on INEGI demographic projections.

Source: Prepared and seasonally adjusted by Banco de México with data from the National Employment Survey, Mexico's System of National Accounts, INEGI.



s. a. / Seasonally adjusted and trend data. Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey and the industrial activity indicators of Mexico's System of National Accounts, INEGI.

Just as in recent years, when different supply-related shocks temporarily affected inflation in Mexico, inflation expectations remained stable in the analyzed period. This performance can be perceived both in inflation expectations stemming from surveys, and in those drawn from the prices of the market-based instruments. In particular, in line with Banco de México expectation survey among private sector analysts, given the transitory increase in headline inflation, the median of inflation expectations for the end of 2013 was revised upwards from 3.70 to 3.94 percent between the surveys of March and May, and later dropped to 3.80 and 3.59 percent in June and July, respectively, as a response to the evidence implying the transitory nature of the inflation increase. It should be noted that between March and July, the median of core inflation expectations for the end of 2013 diminished from 3.36 to 2.85 percent, thus reaching historical minimum levels. In turn, noncore inflation expectations implicit in the referred medians rose from 4.84 to 6.13 percent over the same time frame (Chart 40a).<sup>20</sup>

Medium- and long-term inflation expectations remained stable over the referred period, even though they persisted above the 3 percent target. Particularly, the median of headline inflation expectations for the end of 2014 shifted from 3.61 to 3.68 percent. This resulted from the decrease of the median of core inflation expectations from 3.30 to 3.25 percent between the two surveys and the increment in non-core inflation expectations implicit in the corresponding medians from 4.63 to 5.16 percent. In turn, the medians of inflation expectations for the average of the next 4 years and for the next 5 to 8 years persisted at 3.5 percent (Chart 40b).<sup>21</sup>

In addition to the information drawn from the surveys, the evolution of inflation expectations obtained from the prices of market-based financial instruments confirms that the inflationary process in Mexico is well-anchored. It is particularly relevant, that, despite the strong adjustment in the Mexican financial markets at the end of the second quarter, the indicator of break-even inflation and inflation risk —indicator that corresponds to the difference between the 10-year bond nominal yield and the real yield associated to inflation-indexed debt instruments of the same maturity—has persisted around 3.5 percent (Chart 41).

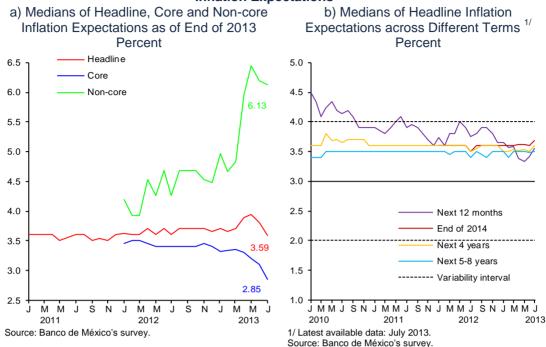
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<sup>&</sup>lt;sup>19</sup> In recent years, the gradual process of inflation convergence towards the established 3 percent target has not been interrupted despite various shocks, which had affected the Mexican economy, producing certain impacts on inflation levels. Among these shocks the following stand out: significant adjustments to electricity fares (2002), sanitary contingencies (2004), considerable increases in international commodity prices (2006 to 2008), world and domestic recession (2009), volatility in international financial markets, generating exchange rate depreciations and higher commodity prices (2011 and 2012), and an animal health emergency (2012).

According to the Banamex Survey of Financial Market Analysts' Expectations, the median of headline inflation expectations for the end of 2013 remained around 3.70 percent between the surveys of March 20, 2013 and July 22, 2013. This resulted from a reduction in the medians of core inflation expectations for the same time horizon from 3.40 to 3.11 percent, while non-core inflation expectations implicit in the referred medians grew from 4.69 to 5.68 percent.

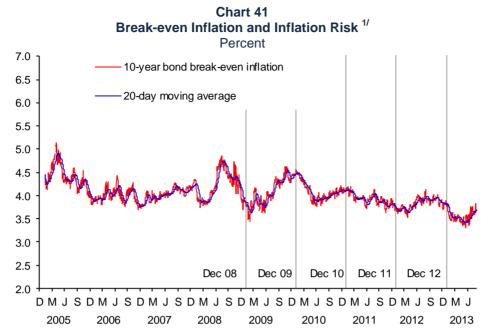
In line with the Banamex Survey, the medians of headline inflation expectations for 2014 remained stable around 3.60 percent between the surveys of March 20, 2013 and July 22, 2013. This performance derived from the fact that the median of core inflation expectations for the end of 2014 dropped from 3.40 to 3.33 percent, while the median of implicit expectations for non-core inflation increased from 4.29 to 4.39 percent.

Chart 40 Inflation Expectations



As a response to a possible deceleration in the pace of the Federal Reserve financial asset purchase, higher volatility in international financial markets was observed, mainly affecting emerging economies. In this scenario, given that the Mexican economy is highly integrated in terms of trade and finances to the world economy, the local markets were affected. In particular, the medium- and long-term interest rates in Mexico increased considerably and the Mexican peso depreciated with respect to the levels reached in the first months of the year and located in early July at levels similar to those reached at the end of 2012. Subsequently, as mentioned in Section 3.1.3, the statements recently made by the Federal Reserve authorities contributed to a partial reversal of these effects.

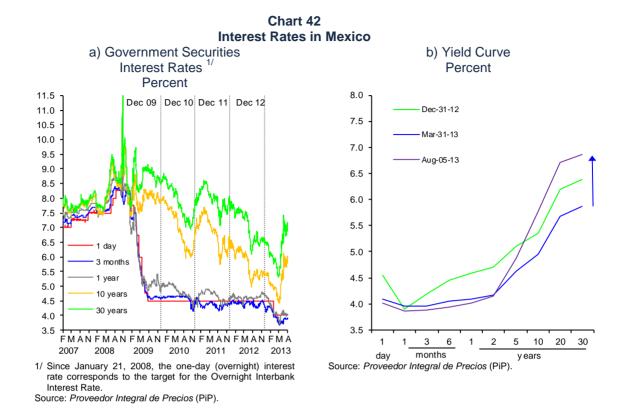
It is important to note that the adjustments in longer-term interest rates and in the exchange rate are mainly due to external factors and have taken place in an orderly manner. As a result, inflation expectations and inflation risk premium have remained stable. This is due to the macroeconomic strength of the Mexican economy, which has contributed to the consolidation of an environment of confidence and stability, which has been reflected in a solid anchoring of the inflationary process. In this sense, it is important to point out the contribution of the fiscal consolidation effort expected for the year.



1/ The break-even inflation and inflation risk implicit in 10-year bonds is calculated based on nominal and real interest rates of the secondary market.

Source: Banco de México's estimate with data from Valmer.

Derived from the above, it is clear that the increases in longer-term interest rates in Mexico result from the contagion of the decompression process of certain risk premia in the U.S. economy and from the expected higher short-term interest rates in the U.S. in the future. Specifically, the interest rates of 10-year government bonds in Mexico shifted from 4.95 percent in late March to 5.90 percent in early July, where they have remained (Chart 42a). On the other hand, in line with the absence of changes in the monetary policy reference rates, the interest rate of government bonds with 3-month maturity persisted around 3.90 percent in the referred period. Thus, from the end of the first quarter to the beginning of August, the slope of the yield curve (the difference between the 10-year and 3-month interest rate) changed from approximately 100 to 200 basis points, a level similar to that registered in early 2012 (Chart 42b).



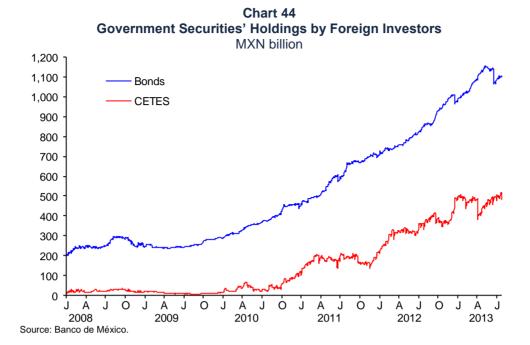
At the beginning of the second quarter, long-term interest rate spreads between Mexico and the U.S. reduced to the levels registered prior to the global financial crisis in late 2008. However, the recent increment of the longer-term interest rates was greater in Mexico than in the U.S., reason for which these spreads reached levels registered at the beginning of the year (Chart 43).



 $$\operatorname{Chart}\,43$$  Interest Rate Spreads between Mexico and the U.S.  $^{1/}$ 

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

Regarding the abovedescribed adjustment in the government securities' market, it is important to stress that it was orderly and with adequate levels of liquidity. In this regard, it should be emphasized that, as mentioned in Section 3.2.2, foreign investors' total holdings of these securities remained relatively stable, even though they adjusted its composition moderately, increasing the share of short-term securities (Chart 44). Moreover, it should be pointed out that most foreign investors in Mexican government securities are institutional, i.e. they are insurance companies and pension funds, among others, who have a long-term investment horizon, given that their liabilities are also long-term. The participation of this type of investors reflects the prevailing environment of confidence, derived from the strength and stability of the Mexican economy.



One of the strengths of the Mexican macroeconomic framework is the flexible exchange rate regime, which throughout the years has proved to be useful in partly offsetting the effects of the external shocks. Thus, following a considerable appreciation of the Mexican peso in the first months of the year, given the change in the outlook of the world financial markets, the national currency registered an adjustment which reverted the abovereferred appreciation. In this way, the nominal exchange rate depreciated, shifting from MXN/USD 12.35 at the end of March to MXN/USD 13.40 in mid-June. Subsequently, the parity reverted part of this adjustment, in a context of volatility in international financial markets, and located close to MXN/USD 12.70 in the first days of August (Chart 45).

Chart 45
Nominal Exchange Rate and Real Exchange Rate

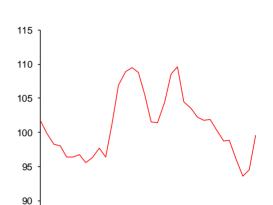
a) Nominal Exchange Rate and its
b) Multilateral Real Exchange Rate <sup>2/</sup>



Expectations as of End of

1/ The observed exchange rate is the daily data of the FIX exchange rate. The latest datum of the observed exchange rate corresponds to August 5, 2013. For its expectations, the latest datum corresponds to the survey of July 2013.

Source: Banco de México and Banco de México survey.



Index 2010 = 100

2/ With respect to 51 countries. An increase in the index corresponds to a depreciation of the real exchange rate.Source: Bank for International Settlements.

ODF

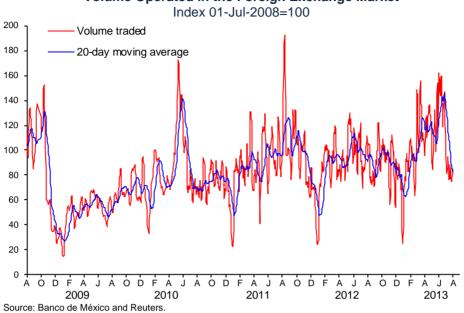
The price formation process in the exchange rate market has been efficient due to the fact that the traded volumes have persisted at high levels (Chart 46). Despite the volatile parity, the adjustment registered in the period analyzed by this Inflation Report is estimated to be congruent with the new environment the Mexican economy is experiencing. Additionally, considering the low pass-through of the exchange rate fluctuations to inflation, the referred adjustment is not expected to generate inflationary pressures. Thus, the flexible exchange rate regime, which allows adjustments in the real exchange rate, contributes to the Mexican economy's adaptation to the changes in the world environment. This confirms the importance of the exchange rate regimen in the institutional framework for the conduction of the macroeconomic policy in Mexico. It should be emphasized that the above would not take place, if the floating regime was not supported by congruent fiscal and monetary policies.

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80

ODF

Chart 46
Volume Operated in the Foreign Exchange Market



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

As previously indicated, due to a series of adverse shocks, the slowdown of the Mexican economy, observed since the second half of 2012, accentuated in the second quarter of 2013. This loss of dynamism was faster and more profound than anticipated, in an environment of lower growth rates in different emerging economies. Thus, even though the economic activity is expected to strengthen in the second half of 2013, driven by enhanced public spending, greater growth of the U.S. economy and the recovery of private domestic demand, weakness of the economic activity in Mexico in the first half of the year makes necessary a revision of the GDP growth forecast in Mexico for 2013 as a whole.

On the other hand, different aspects related to the world economy point to weakness of external demand and downward risks to growth in 2014. In particular. as compared to what was expected in the previous Inflation Report, a gradual increase in international interest rates is currently anticipated, although volatility periods cannot be ruled out. Furthermore, there is little room in the global economy to considerably expand public expenditure, the economic activity in Europe remains weak and emerging economies have been slowing down. These factors, together with a less favorable performance of the Mexican economy in the first half of 2013, could be reflected in lower expectations for the growth of the Mexican economy in 2014. Nevertheless, these conditions will tend to be offset by the relatively greater U.S. economic growth estimated for that year, and by the favorable impact that the recently approved structural reforms, such as the labor reform, the economic competition reform and the telecommunications reform, will have on the potential growth of the Mexican economy. Thus, despite the relatively adverse international environment, for 2014 the trajectory for the Mexican GDP growth is expected to be similar to that anticipated in the previous Inflation Report. This highlights the relevance of proceeding with the structural reforms, which would allow offsetting the adverse effects that an unfavorable international environment could have on the Mexican economic growth

Going into further detail, the expectations regarding the U.S. economic activity are the following:<sup>22</sup>

- a) With respect to the last Inflation Report, the anticipated U.S. GDP growth for 2013 dropped from 2.1 to 1.8 percent, while for 2014 it remained at 2.7 percent.
- b) The growth forecasts for the U.S. industrial production in 2013 were adjusted downwards from 3.0 percent in the previous Inflation Report to 2.6 percent in the current one. This adjustment is largely due to the fact that in the second quarter this indicator increased less than the analysts' expectations at the moment of the last Inflation Report release. For 2014, an expansion of the U.S. industrial production is estimated to

<sup>&</sup>lt;sup>22</sup> Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in July 2013

expand at a rate of 3.2 percent, as compared to 3.4 percent in the last Inflation Report.

**Growth of the Mexican Economy:** Based on the above arguments, the forecast interval for the GDP growth rate in Mexico for 2013 (measured as the percentage change of the average of real GDP across all quarters of 2013 with respect to the corresponding average across all quarters of 2012) is revised downwards from 3.0 to 4.0 percent in the previous Inflation Report to 2.0 to 3.0 percent. For 2014, the forecast interval for GDP growth remains unchanged as compared to the last Inflation Report. In particular, it remains between 3.2 and 4.2 percent (Chart 47a).

**Employment:** In line with the revision to the expected GDP growth, the growth expectation of the number of IMSS-insured workers in 2013 is adjusted downwards in this Inflation Report, with respect to the previous one, while that for 2014 remains unchanged. In particular, an increase of 450 to 550 thousand IMSS-insured workers is anticipated for 2013, as compared to a range of 550 to 650 thousand insured workers expected in the last Inflation Report. For 2014, an increase of 700 to 800 thousand IMSS-insured workers is estimated.

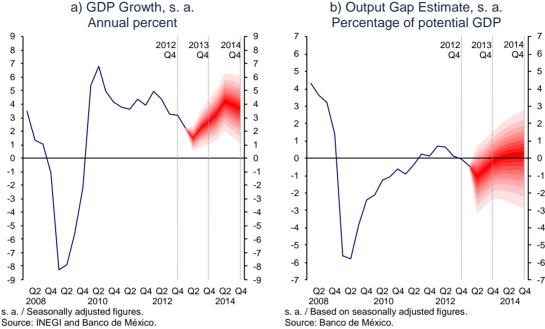
**Current Account:** For 2013, the expected deficits in the trade balance and the current account amount to USD 2.7 and 15.6 billion, respectively (0.2 and 1.2 percent of GDP, in the same order). For 2014, deficits in the trade balance and the current account of USD 4.9 and 17.9 billion are estimated, respectively (0.4 and 1.3 percent of GDP, in the same order). It is noteworthy that the moderate expected current account deficits, as well as the measures taken by the Mexican Federal Government to finance its external debt liabilities suggest that financing these deficits will not pose a problem in the forecast horizon and that there will be no pressures on the exchange rate arising from this source.

In line with the forecasts for the evolution of the Mexican economy, no aggregate demand-related pressures on inflation or the external accounts are anticipated. In particular, the output gap, that had been diminishing, is expected to gradually recover in the second half of 2013 and to remain at levels close to zero in 2014 (Chart 47b). Thus, the current cyclical phase of the economy is estimated to contribute to consolidating the downward inflation trend.

In addition to the fact that the Mexican economic growth outlook in the short term has become more unfavorable, downward risks have increased. Among the main risks, the following should be pointed out:

I. The possibility that the external demand remains without presenting a solid recovery. In this sense, in the case of lower than expected U.S. expansion rate, or if the U.S. growth keeps concentrating in the sectors that normally do not represent a relatively important impulse for Mexican exports, an environment of low growth could prevail in Mexico.





- II. In an environment in which the decompression of risk premia is anticipated to persist in the U.S. financial markets, an abrupt adjustment in the emerging economies' financial markets, with a consequent adverse effect on the economic activity, cannot be ruled out.
- III. The lack of consolidation of the reforms required for Europe to resume its sustainable growth trend could extend the recession in the region, which could, in a more noticeable way, affect global demand and international financial markets.

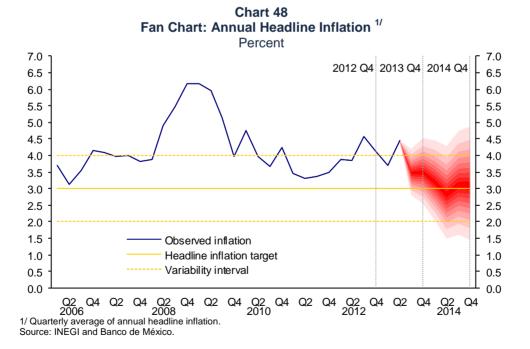
In contrast, the reactivation of public spending on investment expected for the second half of the year could generate an environment of lower uncertainty that would induce higher spending of the private sector. Likewise, progress in the process of structural reforms could also contribute to a more favorable environment for growth.

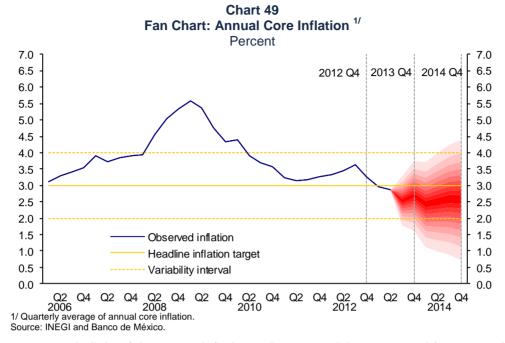
**Inflation:** Taking into account the economic activity evolution and the monetary policy stance established by the Board of Governors, inflation is anticipated to present a convergence trend towards the 3 percent target over the next quarters. In particular, the forecast for annual headline inflation for the rest of 2013 and 2014 is slightly below with respect to the one of the previous Inflation Report. From July onwards, annual headline inflation is anticipated to locate close to 3.5 percent, fluctuating over the next months and concluding 2013 around this level. In 2014 inflation will resume its downside trend to locate close to 3 percent at the end of the year (Chart 48). In line with the forecast for annual core inflation, for the rest of 2013 and 2014 this variable will remain below 3 percent (Chart 49).

These forecasts are congruent with the current phase of the economy and, therefore, with the slack prevailing in input markets, reasons for which no demand-related inflationary pressures are anticipated. By virtue of the abovesaid and considering the low pass-through of exchange rate adjustments onto inflation, the recent depreciation of the national currency is not estimated to generate inflationary pressures. In sum, the forecast inflation trajectory lies very close to 3 percent within the horizon at which the monetary policy operates. In this sense, the monetary policy is congruent with the inflation convergence towards the permanent target set by Banco de México.

In line with the forecast for annual core inflation, the annual change of the merchandise prices is estimated to persist around or even under 3 percent and that of the services' prices, below that level in the forecast horizon, which is particularly relevant, given that, as indicated before, it is this price subindex that better reflects the domestic conditions affecting inflation. Considering that practically since December 2012 annual core inflation remained below 3 percent, this forecast implies a considerably long period (2 years), over which the referred indicator is anticipated to remain close to its minimum historical levels. This is another proof of the progress in the convergence process of inflation towards its 3 percent target.

The forecast considers the downward trend of annual non-core inflation given the expectation of larger agricultural production in 2013 with respect to 2012 and in light of a downward trend in the international prices of food commodities. Additionally, the fading of the effect produced by the higher egg price on the annual growth rate of this subindex is expected.





In light of the recent inflation trajectory and the presented forecasts, the balance of risks for inflation is considered to have improved with respect to the previous quarter. Nonetheless, the anticipated trajectory of this variable could be affected by some factors, among which the following stand out:

- The possibility that the weakness of the Mexican economic activity could continue in the second half of 2013, which could generate downward demand-related pressures.
- 2. Higher exchange rate volatility given the new conditions in international financial markets, which could affect inflation both upwards and downwards. Nonetheless, as stated above, the pass-through of the exchange rate fluctuations on inflation has been low, reason for which the impact on inflation would be limited, even more so if the period of slackness in the economy is extended.
- 3. In the medium-term, the possibility of stronger market competition in the economy, derived from progress in the process of structural reforms, which could contribute to lower inflation.
- 4. Adverse weather or sanitary conditions, which would lead to upward adjustments in the agricultural products' prices, or new adjustments in public prices. Insofar as these shocks have a clearly identified origin, the impact on inflation is expected to be transitory and no second round effects are anticipated.

Considering the recent performance of inflation and its outlook, a major deceleration of the Mexican economy, weakness of the international environment and volatility in international financial markets, the Board of Governors considers the monetary policy stance to be congruent with an environment in which no

widespread pressures on inflation are expected, and in which the growth rate of spending in the economy is anticipated to be in line with the convergence of inflation towards its 3 percent target in the medium term. In any event, the Board will monitor the implications of the economic activity performance and the monetary stance of Mexico relative to other countries onto the inflation outlook. It will also remain alert so that the relative price changes do not affect the price formation process in the economy. All of the above, in order to take action, if required, so as to reach the abovesaid permanent inflation target.

Finally, it should be noted that the downward revision of the GDP growth forecast for 2013, largely due to the lack of impulse from abroad, should strengthen the conviction for the pressing need to proceed with the structural reforms in Mexico. Unfortunately, it is clear that over the next years the world economic situation can hardly be expected to improve to such an extent that it would make the Mexican economy expand above the interval forecast in this Inflation Report for 2014, particularly, that of 3.2 to 4.2 percent. The referred growth interval is clearly insufficient to reduce the unemployment rate to levels comparable to the pre-crisis ones, to create better-paid jobs and to combat poverty in a fast and sustainable manner. Hence, it is imperative to increase the potential GDP growth rate of the country to levels above 5 percent in the medium term, for which it is necessary to properly implement the already legislated reforms (some of them at the constitutional level only) and to carry out the pending ones, the energy, fiscal and financial reforms standing out among them.

