BANCO DE MÉXICO

Inflation Report

January – March 2013

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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 May 6, 2013. Figures are preliminary and subject to changes.

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BOXES

1. Introduction

The growth prospects for the global economy stabilized in the first quarter of 2013, as a result of the implementation of measures designed by the authorities of the main advanced economies to support the economic recovery and the functioning of financial markets. Nonetheless, world economic activity keeps showing signs of weakness, with significant differences among regions, and it is still dependent on the monetary and fiscal stimuli in advanced economies. Therefore, the risk of an extended period of slow growth persists and, albeit the probability of an event of systemic consequences has reduced, it has not vanished altogether. Besides, new volatility episodes in international financial markets cannot be ruled out.

In the U.S., various indicators of economic activity improved more than anticipated in the first months of 2013. However, recently some of them point to a weaker economic recovery pace. In the Euro zone, the necessary efforts of fiscal consolidation, the fragility of the banking system and the ongoing deleveraging process, particularly in the economies of the periphery, have kept the region in recession. In Japan, the economic activity growth outlook improved in the short term given the announcement of further fiscal and monetary stimuli. Emerging economies' growth moderated in response to a lower dynamism of economic activity in advanced countries.

International commodity prices generally continued their downward trend in the first months of 2013. This, together with an environment of low growth, was reflected in moderate inflation levels in the major advanced and most of the emerging economies. In this environment, the monetary policy stance remained expansive in most economies and in some cases it became even looser.

The measures adopted by the authorities of the main advanced economies to strengthen the economic recovery favored a gradual improvement in international financial markets in the first months of the year. Sovereign bond spreads in the countries at the periphery of the Euro zone diminished and the conditions of the region's banks access to the interbank market improved. Still, certain volatility persisted, due to the difficulties to solve the fiscal and financial problems in various economies of the region and to further advance in the implementation of the required structural reforms, as well as given the uncertainty caused by political events in some countries.

In the period analyzed in this Report, capital flows to emerging countries increased, although with certain volatility, largely as a result of more accommodative monetary policies in the main advanced economies. In this environment, some emerging countries' exchange rates appreciated in the first months of the year. Given that Mexico is a highly integrated economy in terms of trade and finance with the world economy, particularly with the U.S., this situation was reflected in domestic financial markets, through a considerable appreciation of the Mexican peso and a fall of the market interest rates to their historical minimum.

In the first quarter of 2013, the expansion rate of the Mexican economy continued showing moderation, a tendency which had been observed since the second half of 2012. Particularly, the external demand and some consumption indicators continue to show signs of weakness. In this context, the forecast intervals for the economic growth in 2013 and 2014 have not changed with respect to the previous Inflation Report. The referred forecasts suggest the absence of aggregate demand-related pressures on either inflation or external accounts in the future. Besides, the main input markets are expected to maintain slack conditions.

In the period from the fourth quarter of 2012 to the first one of 2013, the average annual headline and core inflations decreased. In fact, core inflation located below 3 percent. However, by the end of the first quarter of 2013 and the beginning of the second one, there was a considerable uptick in annual headline inflation, following a significant increase in non-core inflation. This shock was due to comparison base effects in the CPI, which had been anticipated by Banco de México, as well as by clearly identified supply shocks, which affected the relative prices of a small set of goods pertaining to the non-core CPI basket, reason for which it is expected to be temporary. It should be noted that the current cyclical phase of the economy indicates, as mentioned above, the absence of input market-related pressures on inflation. Thus, the monetary conditions prevailing in the economy are not conducive to second round effects derived from the recent changes in the relative prices and are in line with the medium-term downward trend of inflation. As a result, medium- and long-term inflation expectations have remained stable.

The forecast for annual headline inflation presents a similar trajectory to that outlined in the previous Inflation Report. However, in the second quarter of 2013 this variable is expected to register a higher average level than previously estimated due to the above referred factors that recently affected the non-core component. From June onwards, annual headline inflation is anticipated to resume its downward trend, locating between 3 and 4 percent in the third and the fourth quarters of 2013. For 2014 annual headline inflation is forecast to lie very close to 3 percent, starting from the second quarter of 2014 the most probable trajectory being slightly lower as compared to that reported in the previous Inflation Report. For the rest of 2013 and 2014, annual core inflation is forecast to most probably be slightly lower than anticipated in the last Inflation Report. Particularly, it is expected to persist close to 3 percent and even below this level over most of the referred period. Thus, headline inflation is estimated to continue converging towards the 3 percent target.

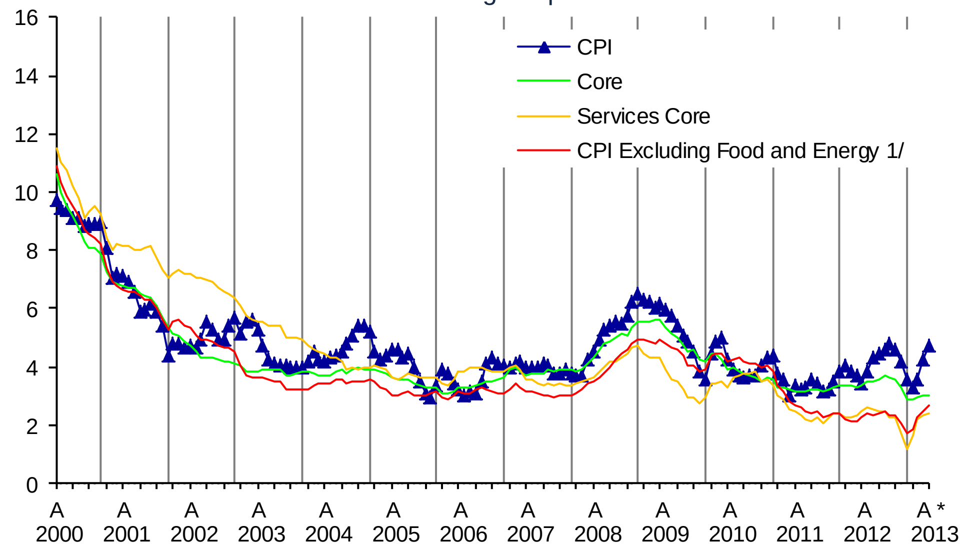
In recent years, different supply shocks have affected inflation levels in Mexico. Nonetheless, due to the structural progress in curbing inflation, the referred shocks have affected its performance only in a transitory manner and each time to a lesser extent, without jeopardizing the convergence to the 3 percent inflation target. The following factors stand out in this progress: lower level, volatility and persistence of inflation; the absence of second round effects derived from the various episodes of relative price adjustments; the anchoring of inflation expectations; and a considerable drop in inflation risk premia. Additionally, the macroeconomic policy stance based on balanced public finances and a monetary policy oriented at preserving stability of the national currency purchasing power have generated an environment of greater certainty for the Mexican economy. Thus, after a drop of 50 basis points in the benchmark interest rate in March and considering the described environment for the Mexican economy, in April Banco de México's Board of Governors decided to maintain the target for the Overnight Interbank Interest Rate unchanged at 4 percent. The Board estimates the monetary policy stance to be congruent with a scenario in which no widespread pressures on inflation are anticipated and in which the expenditure growth is in line with the inflation convergence to the 3 percent permanent target. In the future, the Board will continue to monitor the evolution of all inflation determinants. Particularly, it will remain alert so that the recent changes in relative prices do not generate second round effects on the price formation process in the economy and it will monitor the evolution of the monetary policy stance of Mexico relative to other economies. All of the above, in order to take action, if required, so as to reach the inflation target.

2. Recent Developments of Inflation

2.1. Inflation

Since late 1990s annual headline inflation in Mexico has been converging to the established 3 percent target (Chart 1).[1] This process has been more pronounced in the annual core inflation dynamics –the main indicator of the medium-term trend of headline inflation– given that the supply shocks, which had affected inflation in recent years, concentrated in the non-core component. The referred inflation convergence in Mexico to lower levels can also be clearly identified in the indicator of consumer inflation that excludes food and energy items from the general calculus –index, coinciding with the definition of core inflation used in various countries, the U.S. among them. In this regard, it stands out that this indicator has maintained below 3 percent since March 2011. In turn, the services core subindex, whose evolution reflects to a greater extent the domestic conditions affecting inflation, has observed annual changes lower than in the headline and core price indices since 2008, as these persisted at levels close to 2 percent over the last two years.

Chart 1
Consumer Price Index
Annual change in percent



1/ Excludes food at home (processed food, non-alcoholic beverages and agricultural products), food away from home and energy.
Source: Banco de México and INEGI.
*/ Data as of the first fortnight of April 2013.

In the first quarter of 2013, average annual headline inflation was 3.69 percent, while in the fourth quarter of 2012 it was 4.11 percent. However, while annual core

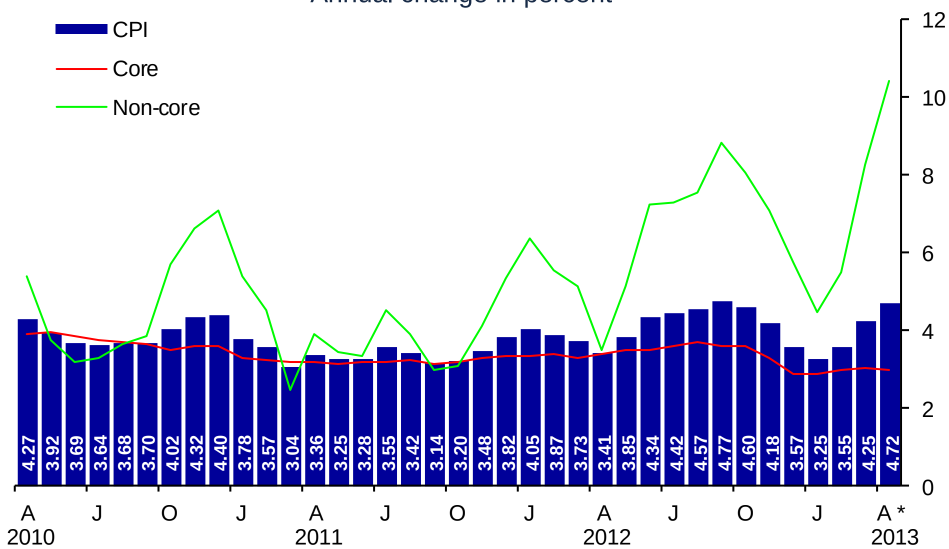
[1] Evidence on statistical features of the price formation process in Mexico can be seen in the Technical Chapter "Features of the Price Formation Process in Mexico: Evidence from CPI Micro Data", published by Banco de México in the Inflation Report, October-December 2011.

inflation remained at levels close to 3 percent over the period analyzed in this Inflation Report, non-core inflation increased considerably by the end of the first quarter and the beginning of the second one. This translated into a major increase of annual headline inflation, which reached 4.25 percent in March and 4.72 percent in the first fortnight of April (Chart 2). These dynamics were determined by the comparison base effects in the CPI, which had been anticipated by Banco de México, as well as by clearly identified supply shocks, to be described later in this Section.

Over the analyzed period, annual core inflation continued indicating a downward medium-term trend of headline inflation. Thus, during the first quarter of 2013, the average of the former was 2.95 percent, which implied a reduction with respect to 3.26 percent, observed on average in the previous quarter (Table 1 and Chart 3). This result, in line with Banco de México's forecast, was motivated by lower contribution of the merchandise core subindex.

The average annual change of the merchandise core subindex shifted from 5.13 to 4.01 percent over the fourth quarter of 2012 and the first one of 2013. This stemmed both from the partial fading of the effects of price increases in international food commodities in 2011 and the beginning of 2012, and from a considerable appreciation of the national currency. Lower inflation displayed by the merchandise subindex was common to two groups comprising it: the food, beverages and tobacco group, and the rest of merchandise. The average annual growth rate of the first group shifted from 6.49 to 4.80 percent in the reference quarters, while that corresponding to the second group went from 4.08 to 3.39 percent (Table 1 and Chart 4a).

Chart 2
Consumer Price Index
Annual change in percent



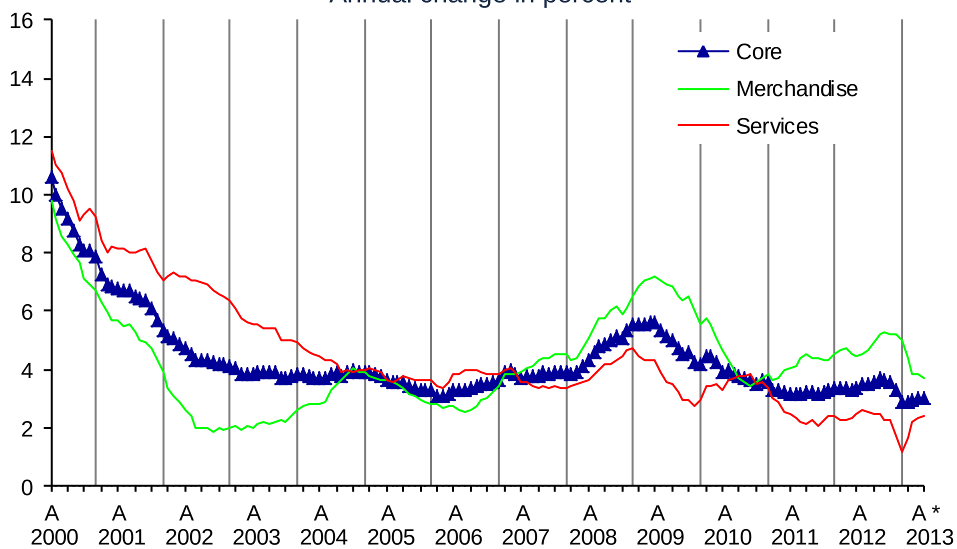
Source: Banco de México and INEGI.
*/ Data as of the first fortnight of April 2013.

Table 1
Consumer Price Index and Components
Annual change in percent

	Annual change							Average percent	
	October 2012	November 2012	December 2012	January 2013	February 2013	March 2013	1 fortnight April 2013	Q IV 2012	Q I 2013
CPI	**4.60**	**4.18**	**3.57**	**3.25**	**3.55**	**4.25**	**4.72**	**4.11**	**3.69**
Core	**3.58**	**3.30**	**2.90**	**2.88**	**2.96**	**3.02**	**3.00**	**3.26**	**2.95**
Merchandise	**5.17**	**5.22**	**5.00**	**4.37**	**3.86**	**3.81**	**3.73**	**5.13**	**4.01**
Food, beverages and tobacco	6.68	6.67	6.11	5.23	4.59	4.58	4.63	6.49	4.80
Non-food merchandise	4.00	4.10	4.13	3.69	3.27	3.21	3.02	4.08	3.39
Services	**2.25**	**1.70**	**1.15**	**1.62**	**2.21**	**2.35**	**2.39**	**1.70**	**2.06**
Housing	2.00	2.03	2.05	2.07	2.09	2.10	2.06	2.03	2.08
Education (tuitions)	4.47	4.47	4.48	4.55	4.55	4.56	4.58	4.47	4.55
Other services	1.87	0.56	-0.72	0.33	1.66	1.98	2.10	0.56	1.32
Telephone services	-10.79	-17.86	-23.00	-17.93	-10.34	-7.79	-5.98	-17.23	-12.04
Non-core	**8.07**	**7.09**	**5.74**	**4.47**	**5.47**	**8.29**	**10.44**	**6.95**	**6.07**
Agricultural	**15.60**	**13.02**	**9.18**	**5.51**	**7.48**	**14.29**	**17.53**	**12.54**	**9.04**
Fruit and vegetables	13.41	9.34	2.90	-2.21	4.66	19.85	27.14	8.40	7.10
Green tomato	4.64	4.63	-10.04	-42.87	-31.62	116.30	240.38	-1.03	-2.70
Zucchini	7.63	7.52	-26.31	-22.11	-3.19	82.03	101.28	-6.30	13.22
Livestock	16.95	15.30	13.22	10.52	9.20	11.00	11.97	15.13	10.24
Egg	39.56	36.52	33.45	25.96	22.16	30.82	36.57	36.47	26.27
Energy and government approved fares	**3.93**	**3.94**	**3.84**	**3.89**	**4.36**	**5.02**	**6.49**	**3.90**	**4.42**
Energy	6.02	5.75	5.62	5.60	5.48	5.86	6.64	5.79	5.65
Gasoline	10.49	10.76	10.61	10.75	10.88	11.37	11.68	10.62	11.00
Electricity	-2.20	-2.03	-2.26	-2.43	-2.92	-2.55	-4.20	-2.16	-2.63
Domestic gas	8.76	9.15	9.27	9.14	9.02	8.93	9.68	9.06	9.03
Government approved fares	0.24	0.51	0.45	0.62	2.22	3.37	6.02	0.40	2.07
CPI excluding food (at home and away from home) and energy [1/]	**2.34**	**2.03**	**1.69**	**1.86**	**2.28**	**2.48**	**2.69**	**2.02**	**2.21**

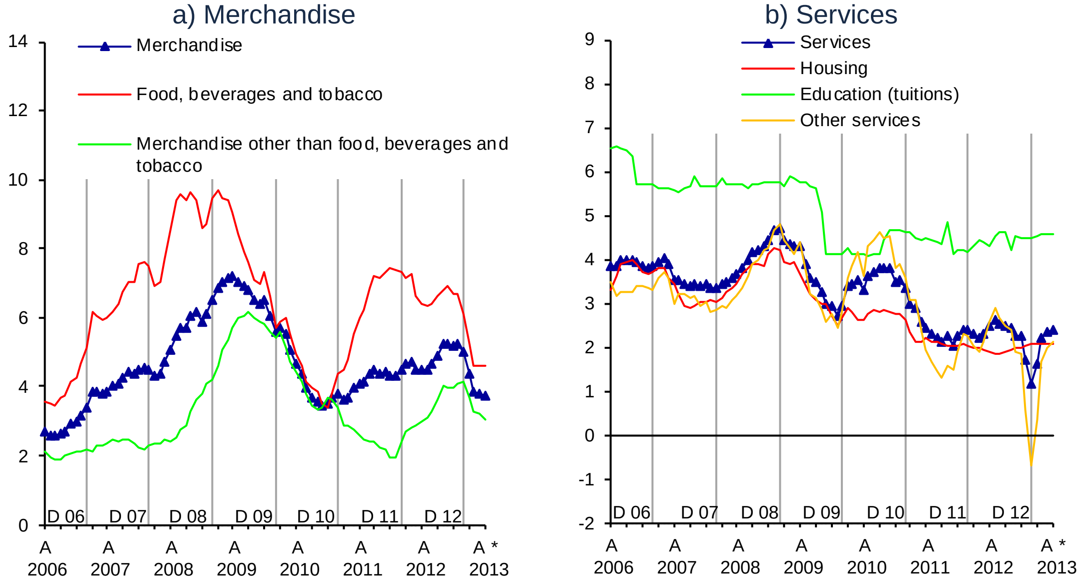
1/ Excludes food at home (processed food, non-alcoholic beverages and agricultural products), food away from home and energy.
Source: Banco de México and INEGI.

Chart 3
Core Price Index
Annual change in percent



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

Chart 4
Core Price Index: Merchandise and Services
Annual change in percent

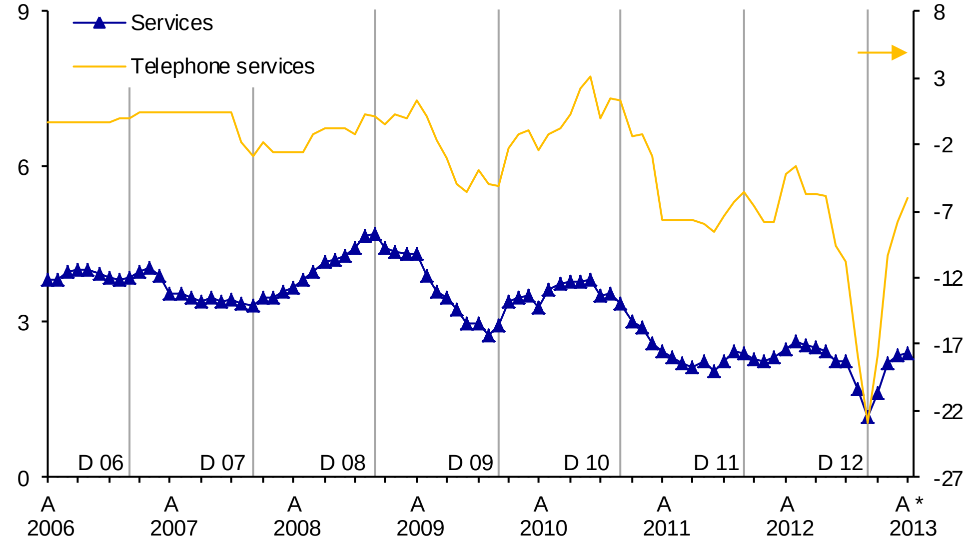


Source: Banco de México and INEGI.
*/ Data as of the first fortnight of April 2013.

The reduction of annual core inflation was limited by the performance of the services core subindex in the first quarter of 2013. This, by virtue of the fact that the annual change of this subindex turned out higher than in the previous quarter, even though it persisted at a low level. Thus, the average annual growth rate of the services core subindex shifted from 1.70 to 2.06 percent between the fourth quarter of 2012 and the first one of 2013. The dynamics of this indicator have been largely determined by the performance of the prices of services other than housing and education (Chart 4b). Particularly, the influence of the telephone services' prices, whose average annual change between the referred quarters went from -17.23 to -12.04 percent, is noteworthy (Chart 5).

Average non-core inflation dropped from 6.95 percent in the fourth quarter of 2012 to 6.07 percent in the first quarter of 2013. Nonetheless, over this period the downward trend, observed since the last months of 2012, reverted, so that in March and the first fortnight of April 2013 it reached 8.29 and 10.44 percent (Table 1 and Chart 6). This, as a result of the increasing incidence of the agricultural goods' subindex, and the subindex of energy and government approved fares (Table 1 and Chart 7).

Chart 5
Services Price Index
Annual change in percent

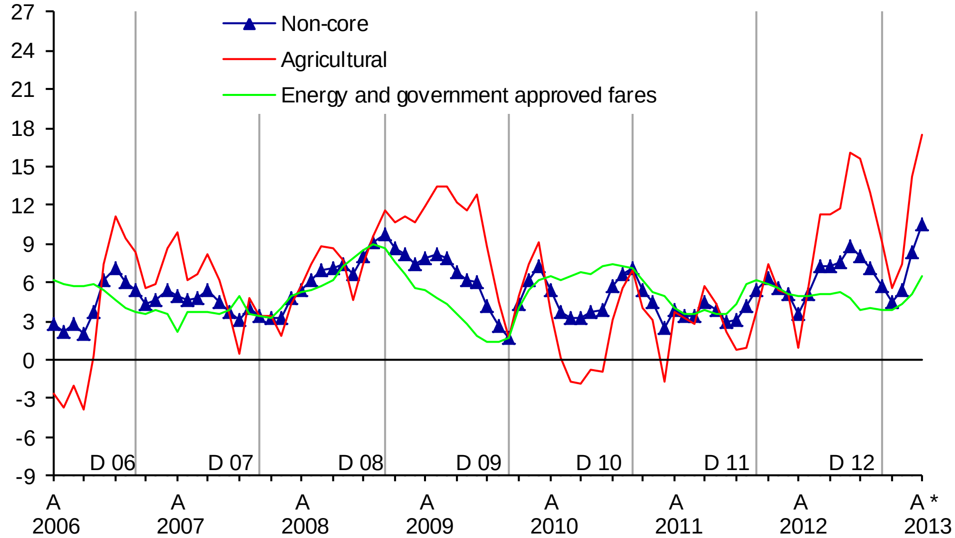


Source: Banco de México and INEGI.
*/ Data as of the first fortnight of April 2013.

The average annual change of the agricultural goods' subindex diminished from 12.54 to 9.04 percent from the fourth quarter of 2012 to the first one of 2013. However, in March and the first fortnight of April this variable increased, locating at 14.29 and 17.53 percent, respectively. This growth in the referred time frame resulted from the combination of three factors, of which only the first one was expected, while the remaining were considered a potential risk:

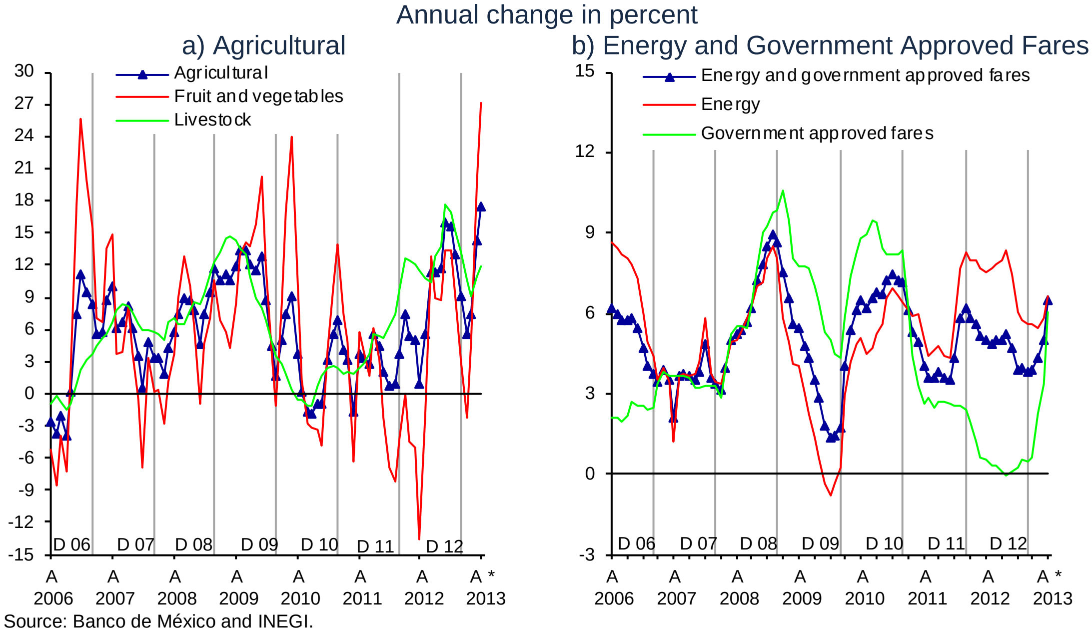
1. A low comparison base for fruit and vegetables' prices.
2. The damage caused by frosts at the beginning of March to the production of different vegetables, especially green tomato and zucchini (Table 1).
3. A new outbreak of AH7N3 avian influenza in the states of Guanajuato and Jalisco, which extended the period of persisting high prices of egg and chicken meat (Table 1 and Chart 8).

Chart 6
Non-core Price Index
Annual change in percent



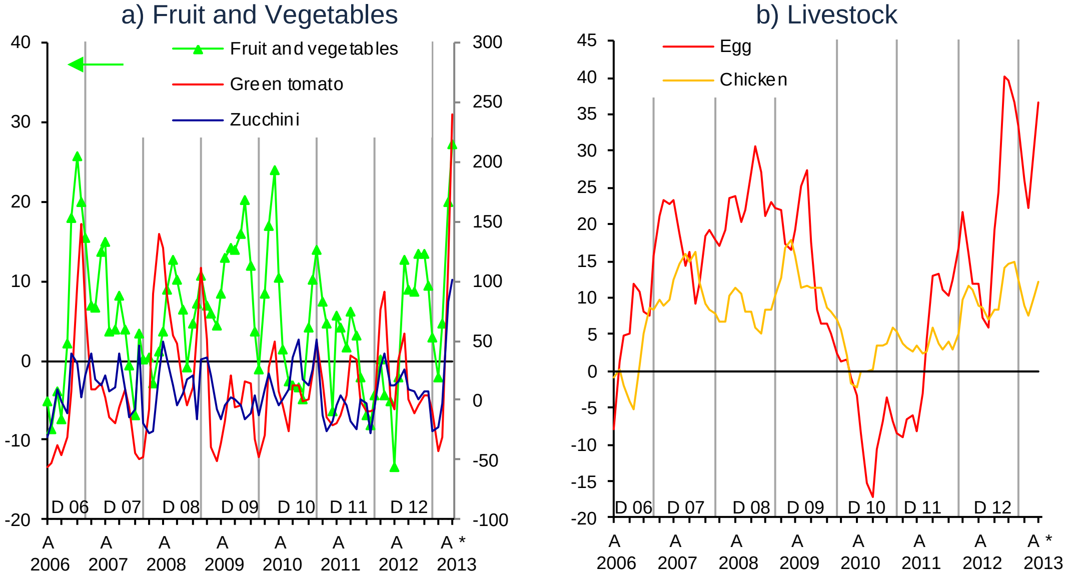
Source: Banco de México and INEGI.
*/ Data as of the first fortnight of April 2013.

Chart 7
Non-core Price Index
Annual change in percent



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

Chart 8
Agricultural Price Index
Annual change in percent



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

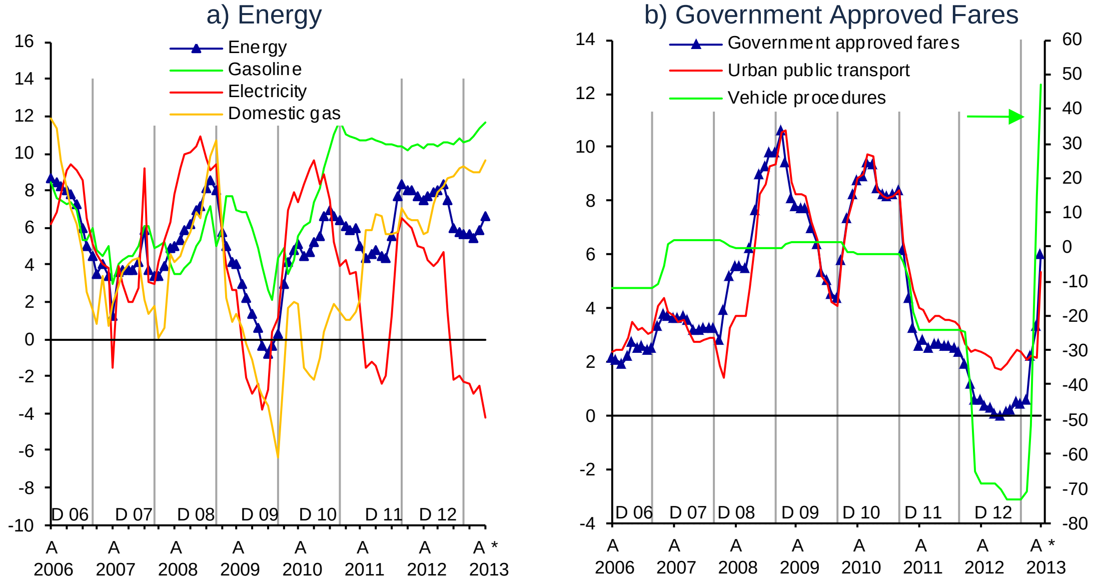
Higher non-core inflation by the end of the first quarter and the beginning of the second one of 2013 was exacerbated by the rising contribution of the subindex of energy prices and government approved fares. The average annual change of this subindex grew from 3.90 to 4.42 percent from the fourth quarter of 2012 to the first one of 2013, while in March and the first fortnight of April 2013 the annual change reached 5.02 and 6.49 percent, brought about by three factors:

a) A higher rate of gasoline price increases, due to the monthly price increment, which shifted from 9 cents per liter in the last quarter of 2012 to 11 cents during the first four months of 2013, and due to higher gasoline prices at the northern border (Chart 9a).

b) Increases in the public transport fares in different entities of Mexico, among which those of the Federal District (revised in the first fortnight of April 2013) stand out due to their weight in the CPI (Chart 9b).

c) The fading of the favorable effect on this indicator's annual change observed in 2012 prior to the elimination of the vehicle maintenance fees in most states of Mexico, coincides with the increase in certain vehicle procedures fees in some entities of the country (Chart 9b).

Chart 9
Non-core Price Index
Annual change in percent



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

Furthermore, annual non-core inflation grew even more in the first fortnight of April 2013, which produced a consequent temporary impact on annual headline inflation, due to the change in this indicator's seasonal factor generated by the new CPI weighting structure. This update diminished the weight of electricity fares, reason for which the reductions in these fares in the warm season have a lower incidence on headline inflation (Box 1).

The Producer Price Index (PPI) of finished merchandise and services, excluding crude oil, reduced its average annual change from 2.52 to 1.82 percent from the fourth quarter of 2012 to the first one of 2013 (Chart 10). This was mainly determined by the performance of merchandise producer prices, whose average annual change shifted from 1.90 to 0.38 percent in the reference quarters. Principally, this was determined by the exchange rate appreciation, which affected the export prices. In contrast, the average annual growth rate of the services prices went from 3.35 to 3.73 percent in the referred period, as a result of the impact of higher mobile telephone prices.

Box 1
Update of the CPI Weighting Structure: The Relative Weight of Electricity and Implications for Inflation Measurement

Introduction

In April 2013 the National Statistics Bureau (INEGI) updated the weighting structure of the Consumer Price Index (CPI) using the data from the Household Income and Expenditure Survey (*Encuesta Nacional de Ingresos y Gastos de los Hogares*, ENIGH) of 2010. This update allows to reflect the changes in households' consumption patterns and to maintain the representativeness of the indicator. Thus, the bias of failing to adequately capture the substitution, that the fixed basket price indices can observe over a period of time, given the changes in consumption patterns, is mitigated. Additionally, the update involved methodological improvements implemented in the ENIGH 2010, which, by means of their effect on the CPI weighting structure, increase the accuracy of inflation measurement.

This Box shows that the change of the electricity weight will have a transitory upward impact on annual headline inflation. This upward impact is not related to a modification in the price formation process, but rather to the change in the CPI measurement. It is due to the effect that the significant changes in electricity prices in different regions of Mexico have on the seasonal factor of the CPI, as a consequence of the program "summer fares" ("*tarifas de verano*"). On the other hand, in the medium run the update of the CPI weighting structure will produce a slight downward impact on inflation measurement, while at the same time mitigating the substitution bias implicit in this indicator.

Thus, it is estimated that as a result of the update of the electricity weight and its seasonal incidence in the CPI, i.e. the process of measurement rather than a change in the price formation process, annual headline inflation will observe an average level 0.10 percentage points higher, over the period between April and October 2013, with regard to that expected with the previous weight structure.

1. Electricity Tariffs Scheme and its Impact on the CPI Seasonal Pattern

The electricity tariffs in 26 out of 46 cities making up the CPI sample have a dual scheme: those denominated "the summer season", which apply in the six consecutive warmest months of the year, and those referred to as "the non-summer season". The former tariffs are lower than the latter, the difference between them varying among cities. Thus, in 2012 the summer rates were lower by 11 to 70 percent with respect to the non-summer rates. Additionally, depending on the geographical location of each city, the summer season applies in the periods of February to July, April to September or May to October.

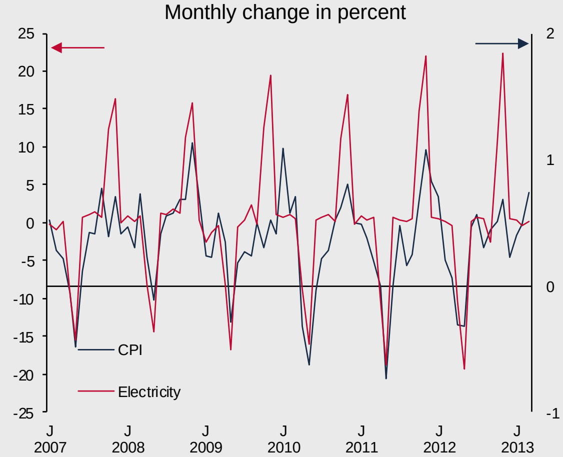
Table 1 displays that in 25 out of 26 cities the summer tariffs begin in April and May, with the only exception being Tapachula, where they start in February. Therefore, a considerable decrease in electricity fares at the beginning of the summer season and the consequent increase at its end generates a pronounced seasonal pattern both in the electricity price index, and in the CPI. As a result, the referred indices register considerable downward changes in the two-month period of April-May and upward ones in that of October-November (Chart 1). This can also be observed if electricity is excluded from the CPI, given that this variable's monthly changes in April, May, October and November are lower (Chart 2).

Table1
Cities of the CPI with the Summer Season Electricity Fares

Period	Cities
February - July	Tapachula
April - September	Acapulco, Ciudad Acuña, Campeche, Chetumal, Iguala, Mérida, Monclova, Monterrey, San Andrés Tuxtla, Tampico, Tehuantepec, Tepic, Torreón, Veracruz and Villahermosa.
May - October	Chihuahua, Colima, Culiacán, Hermosillo, Huatabampo, Jiménez, Ciudad Juárez, La Paz, Matamoros and Mexicali.

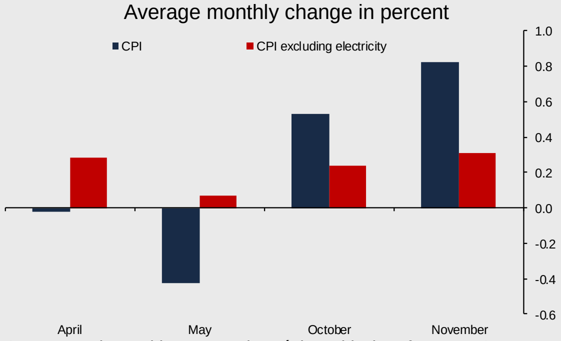
Source: Banco de México and INEGI.

Chart 1
CPI and the Electricity Price Index
Monthly change in percent



Source: Banco de México and INEGI.

Chart 2
CPI and CPI Excluding Electricity: 2007 - 2012
Average monthly change in percent



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

2. Change in the Electricity CPI Weight

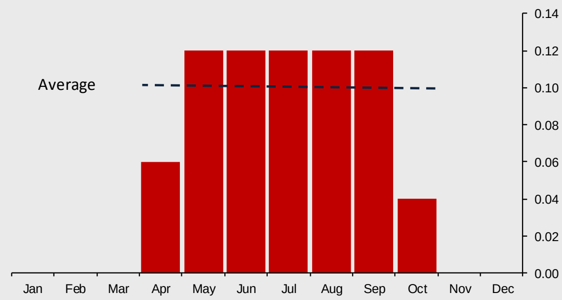
The update of the CPI weighting structure carried out by INEGI, as mentioned above, was based on the data from ENIGH 2010. This survey presents methodological improvements with respect to ENIGH 2008, where the previous CPI weights were obtained from. Among the main improvements introduced by INEGI in the last ENIGH stands out the possibility to obtain the expenditure on certain items by means of receipt verification, as was the case of spending on electricity. Its purpose was to increase the accuracy of the collected data and thus of the CPI weighting structure.[1]

The update of the CPI weighting structure produced a change in the manner in which the change of the electricity fares between "the summer season" and "the non-summer season" contribute to headline inflation. In particular, the national CPI weight of electricity dropped from 3.56 to 2.81 percent. This reduces the seasonal factor of the CPI, without modifying the months in which the CPI fluctuations associated to the beginning and the end of the referred summer season tariffs.

3. Estimate of the Contribution of the Seasonal Change on Headline Inflation

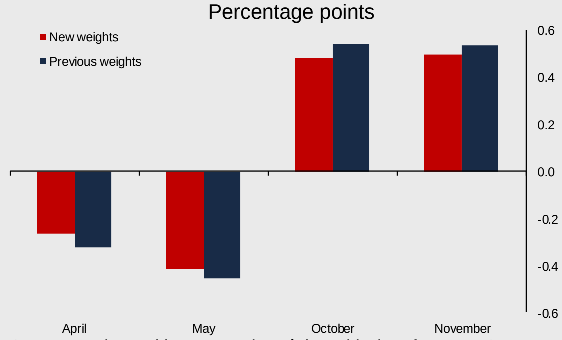
The decrease in the weight of the electricity price index, anticipating that the change in the electricity fares in the months in which the summer season begins and ends will be similar to that registered last year, is expected to increase by 0.10 percentage points the annual headline inflation forecast for the period of April to October 2013, with respect to the data that would have been obtained using the previous weighting structure. This increase will be temporary and will disappear once the season of low electricity fares is concluded (Charts 3 and 4).

Chart 3
Impact of the Change in the Electricity Weight on Annual Inflation in 2013
Percentage points



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

Chart 4
Estimated Incidence of Electricity Fares on Monthly Inflation: Beginning and End of 2013 Summer Season Electricity Tariffs
Percentage points



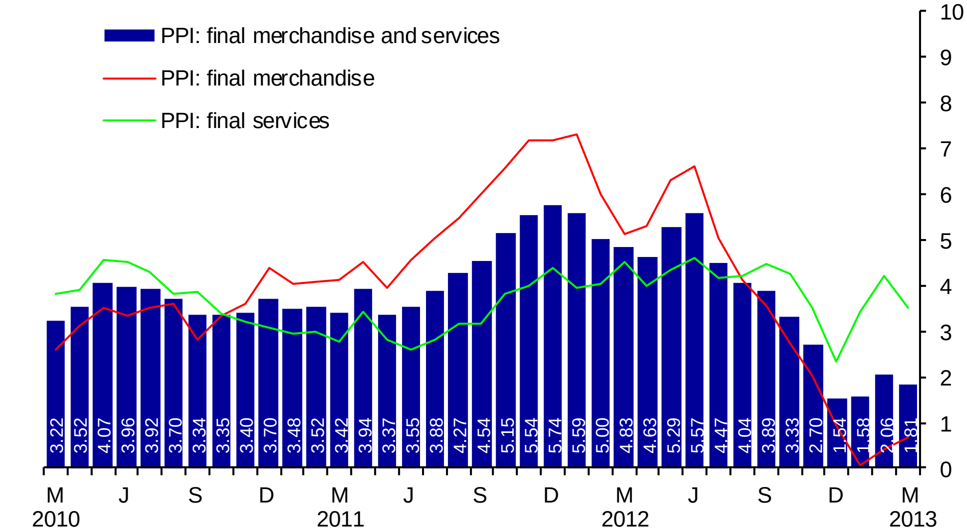
Source: Estimated by Banco de México with data from INEGI.

4. Final Considerations

The change in the electricity weight will produce a transitory upward effect on annual headline inflation. This temporary increment reflects a change in the CPI measurement, rather than in the price formation process. Therefore, this does not imply additional inflationary pressures on the electricity price index itself, nor on other CPI items. It should be pointed out that, by mitigating the implicit substitution bias in the CPI, in the medium run the update of the CPI weighting structure will have a slight downward impact on inflation measurement.

[1] INEGI points out that in previous ENIGH, the monthly expenditure on electricity reported by the survey respondent could be biased upwards given that this service is paid on a bi-monthly basis.

Chart 10
Producer Price Index
Annual change in percent

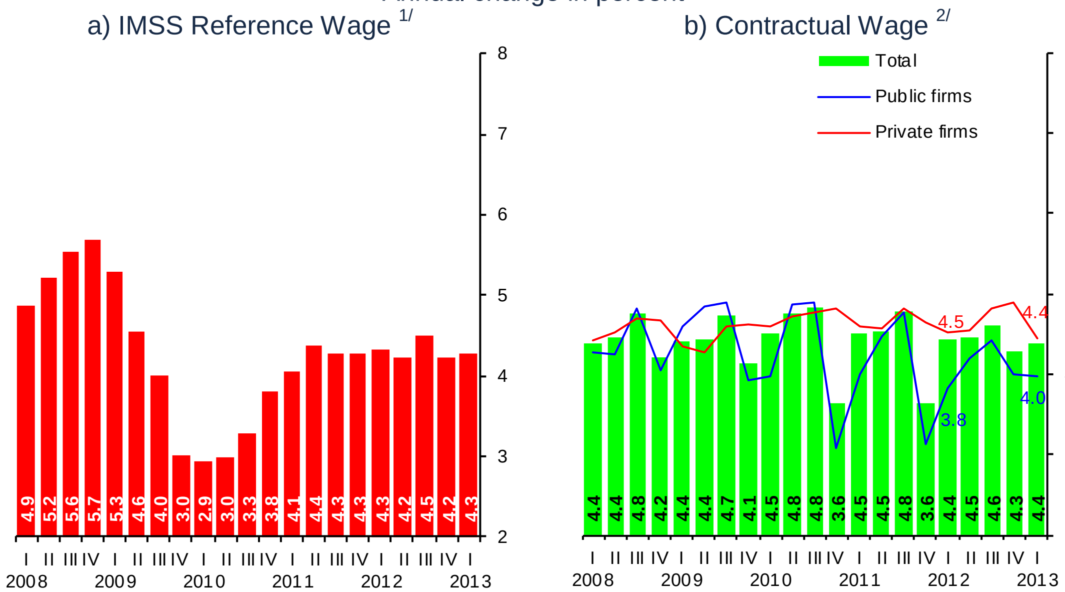


Source: Banco de México and INEGI.

2.2. Wages

The cyclical phase the economy is going through indicates that there are no input market-related pressures on inflation, which has contributed to maintaining inflation expectations well-anchored. Thus, over the first quarter of 2013, the evolution of the main wage indicators keeps suggesting that, generally, labor costs still do not represent an element generating additional inflationary pressures. Thus, the reference wage of IMSS-insured workers observed an average annual change of 4.3 percent from January to March 2013, while in the previous quarter it was 4.2 percent (Chart 11a). On the other hand, in the first quarter of 2013, the contractual wage negotiated by firms under federal jurisdiction increased 4.4 percent, a figure equal to that registered in the same period of 2012 (Chart 11b).

Chart 11
Wage Indicators
Annual change in percent



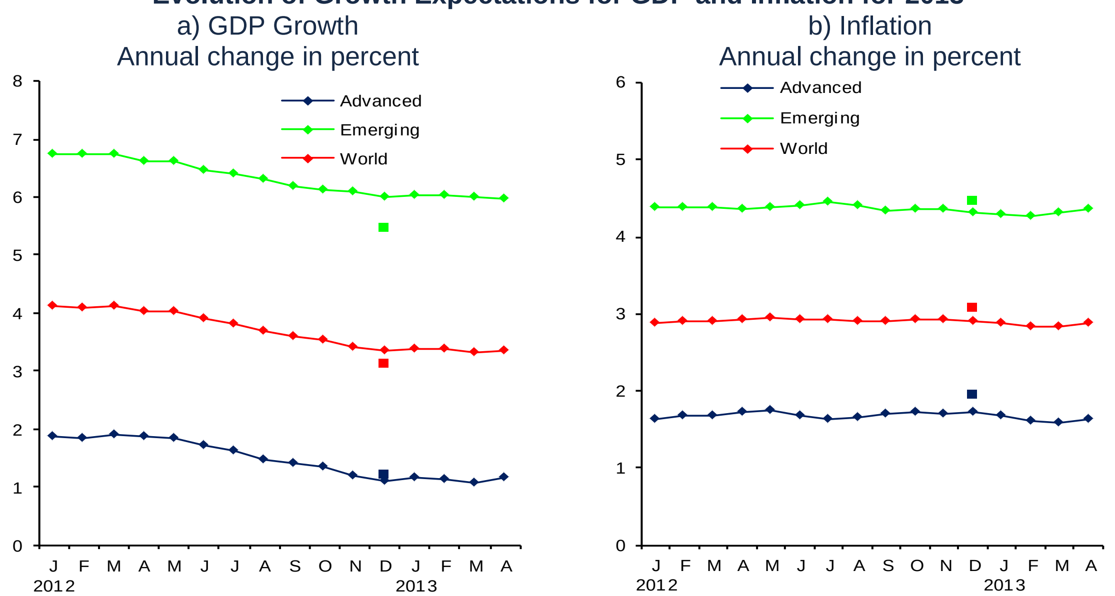
Source: Calculated by Banco de México with data from IMSS and STPS.
1/ During the first quarter of 2013 an average of 16.1 million contributors were registered in IMSS.
2/ The contractual wage increase is an average weighted by the number of involved workers. The number of workers in firms under federal jurisdiction that annually report their wage increases to the Secretary of Labor and Social Welfare (*Secretaría del Trabajo y Previsión Social*, STPS) equals approximately 2 million.

3. Economic and Financial Environment

3.1. International Environment

In the first quarter of 2013, the world economic growth outlook stabilized (Chart 12a), mainly as a result of the measures adopted by the authorities of the main advanced economies to support the economic recovery and the functioning of financial markets. However, world economic activity generally remains weak, is characterized by significant differences among regions and is dependent on the considerable monetary and fiscal stimuli in advanced economies. Even though, as a result of the economic policy actions, the probability of an event of systemic consequences has diminished, the risk of an extended period of slow economic growth and new volatility episodes in international financial markets persists. In this context, inflation in main advanced and emerging economies is anticipated to generally prevail at lower levels in 2013 with respect to 2012, reason for which the monetary policy is expected to remain accommodative in most of these economies and in some cases an additional easing is anticipated (Chart 12b).

Chart 12
Evolution of Growth Expectations for GDP and Inflation for 2013 [1/]



1/ The weighted average is calculated by region, using the share of each country's GDP as a weight, based on the purchasing power parity with respect to world total GDP in the corresponding year. Advanced economies represent approximately 46 percent of world GDP and emerging economies, around 36 percent of world GDP. The sum of these two groups stands for approximately 82 percent of world total GDP. The square marker refers to the data of 2012.

Source: Prepared by Banco de México with data from the International Monetary Fund and from Consensus Forecasts.

3.1.1. World Economic Activity

The U.S. economic activity improved more than expected in the first months of 2013, once some of the factors affecting growth in the last quarter of 2012 dissipated. Thus, GDP grew 2.5 percent at an annualized quarterly rate in the first quarter of 2013, well above the figure of 0.4 percent registered in the previous quarter.[2] It is noteworthy that inventory accumulation contributed with 1.0 percentage point to GDP growth in the first quarter of the year, after subtracting 1.5 percentage points in the previous quarter. However, by the end of the referred period some indicators weakened, pointing to a moderation in economic recovery.

The modest recovery of the U.S. economic activity reflects the presence of adverse structural factors, among which stand out the ongoing demographic changes in this country, which are derived from the population ageing and which are negatively affecting the medium-run economic expansion. This occurs by means of lower labor participation, changes in the structure and the dynamism of households' consumption and stronger pressures on public spending for social security and health care (Chart 13a).[3]

Moreover, there are different cyclical factors operating in opposite directions. In particular, in the first quarter of 2013, industrial production continued to recover, with growth shifting from 2.3 percent at an annualized quarterly rate in the fourth quarter of 2012 to 5.0 percent in the first one of 2013 (Chart 13b). In contrast, after observing a recovery since late 2012, job creation moderated significantly in March and April 2013, which resulted in an average monthly growth of the non-farm payroll of only 152 thousand jobs in the period of March – April 2013, lower than the 240 and 233 thousand jobs created in the two preceding two-month periods, respectively. The unemployment rate drop from 7.8 percent in December 2012 to 7.5 percent in April 2013 was largely due to a decrease in the labor participation rate.

With regard to demand, private consumption in the U.S. recovered in the first months of 2013, supported by a lower savings rate, which counteracted the personal disposable income reduction, derived from heavier tax burden (Chart 13c). Nonetheless, the income decline adversely affected households' spending at the end of the quarter. Altogether, the personal consumption expenditure increased 3.2 percent at an annualized quarterly rate in the first quarter of 2013, above 1.8 percent in the fourth quarter of 2012. In turn, the housing market and the residential construction sector continued to support the economic recovery. New home sales rebounded in the first quarter, which was reflected in expanding residential construction and higher housing prices. Nevertheless, non-residential investment showed a weak expansion in the reference period, despite a wide availability of internal funds of the corporate sector and improved financing conditions. In this environment, the process of fiscal consolidation continued to reduce the dynamism of the economic activity growth, even though to a lesser degree as compared to the last quarter. The negative contribution of public spending to GDP growth dropped from 1.4 percent in the fourth quarter of 2012 to 0.8 percent in the first quarter of 2013.

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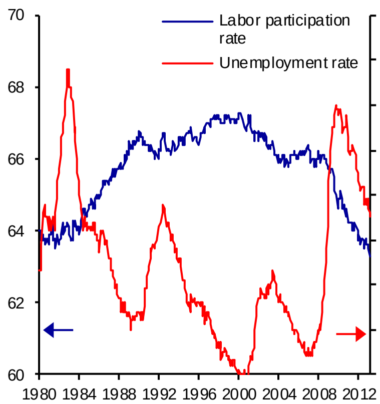
2 According to the Advance Report of the Bureau of Economic Analysis (BEA).

3 The labor participation rate, defined as the labor force as a percentage of the total civilian population, appeared to reach its maximum at the beginning of the last decade, due to a significant increase of female participation in the labor market. Although some workers, who abandoned the labor force during the crisis, could return insofar as the economy recovers, the labor participation rate is estimated to continue decreasing in the medium run, given the anticipated population ageing.

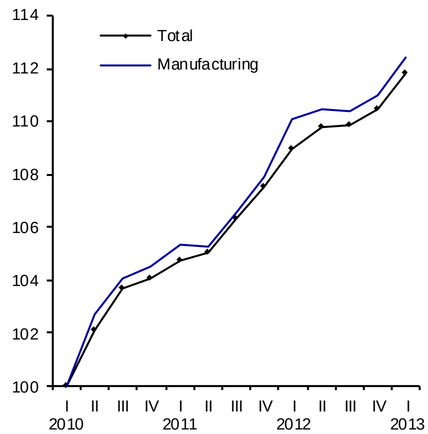
Chart 13
U.S. Economic Activity

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



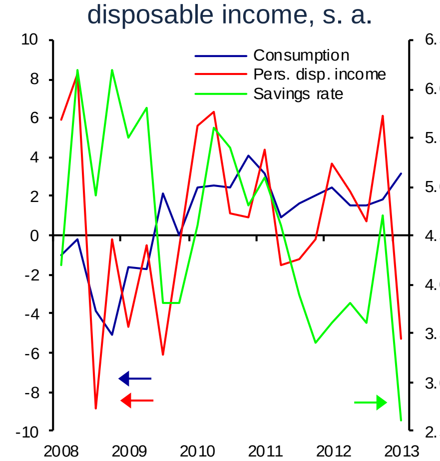
s. a. / Seasonally adjusted figures.
Source: BLS.

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



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

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



Note: An average of January and February was used for the first quarter of 2013.
s. a. / Seasonally adjusted figures.
Source: BEA.

Importantly, despite the favorable effects of further monetary stimulus on the U.S. economic activity, the country is still facing considerable risks. On the one hand, following an approval by the U.S. Congress early this year of the measures to avoid the so-called "Fiscal Cliff", the strategy of public finances consolidation is still to be defined. This strategy should ensure a sustainable debt trajectory in the medium term, including the definite solution to the automatic spending cuts ("Sequestration"), programmed for the following years, and the increase of the debt ceiling.[4,5] The possibility of failing to find an appropriate solution to these problems represents a vulnerability factor of utmost importance for the U.S. economic recovery. Besides, even though the beginning of the process of the monetary stimulus withdrawal in the U.S. is expected to proceed in an orderly

[4] The agreement reached by the U.S. Congress under the American Taxpayer Relief Act included, among other measures, increased tax liability for high-income households and an increase in the payroll tax from 4.2 to 6.2 percent, the extension of the current unemployment benefits and the reduction in Medicare physician payments for one year longer, and the postponing till March 1, 2013 of the automatic cuts in federal spending. In accordance with the Congressional Budget Office (CBO), the approved adjustments will allow reducing the magnitude of fiscal adjustment from 3.3 to 1.7 percentage points of GDP. Furthermore, in early February 2013, a suspension of the federal government's debt ceiling of USD 16.4 trillion till May 18, 2013 and, in mid-March, a continuing resolution to finance the federal government operations till the end of the fiscal year 2013 were adopted.

[5] President Barack Obama sent a USD 3.8 trillion budget plan for the next ten years. The budget plan includes measures to increase income and reduce spending by USD 1.8 trillion, as well as the elimination of the automatic spending cuts, which came into force on March 1, 2013, after the expiration of the extension period authorized in the American Taxpayer Relief Act. Among the measures stand out higher taxes for high-income earners, the reduction in spending on some federal programs and the change in the indexation method of the social security benefits programs to the consumer price index, which is expected to result in more moderate increases in the benefits.

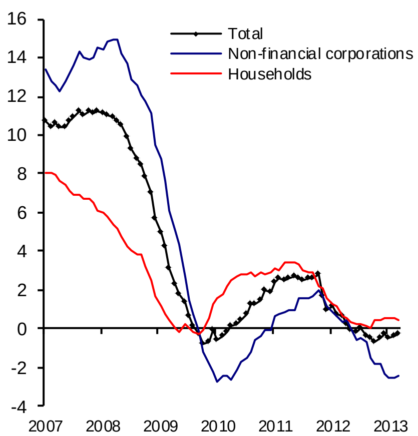
manner, there are risks related to this process. The U.S. Federal Reserve has made significant progress in its communication strategy so that market participants have information regarding the monetary policy normalization process. However, even if this process is not expected to start in the immediate future, in the medium term there is a risk of certain volatility in the financial markets, once this process begins.

In the Euro zone, the necessary fiscal consolidation efforts, the fragility of the banking system and the ongoing deleveraging process, particularly in the economies of the periphery, have kept the region in recession, which led to a continuous weakness of the banking credit (Chart 14a). Weak economic activity was reflected in the negative performance of both the confidence index and the production and demand indicators (Chart 14b). Although in the first two months of 2013 retail sales increased 1.0 percent at an annualized quarterly rate, in the previous quarter they contracted 5.9 percent. In turn, the unemployment rate in the Euro zone reached its maximum historical level of 12.1 percent in March 2013 (Chart 14c).

In this way, among the significant obstacles to a sustained recovery of the Euro zone the following persist: fatigue in the implementation of adjustment measures, continuous financial fragmentation, the deleveraging process of firms and households, particularly in the economies of the periphery, and slow progress towards a stronger banking and economic union in the region.

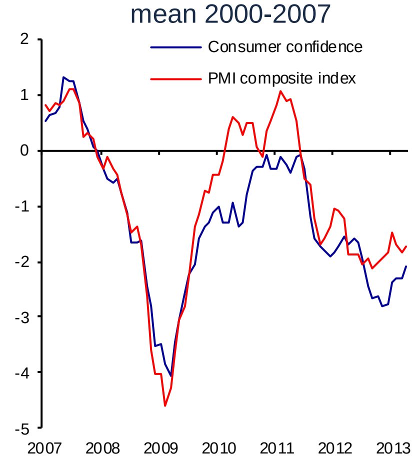
Chart 14
Euro Zone Economic Indicators

a) Financial Institutions' Credit to the Non-financial Private Sector
Annual change in percent



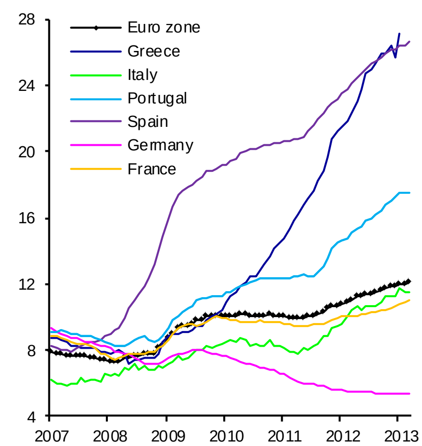
Source: BCE.

b) Businesses' and Consumer Confidence
Standard deviation of the mean 2000-2007



Source: Prepared by Banco de México with data from European Commission and Markit.

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



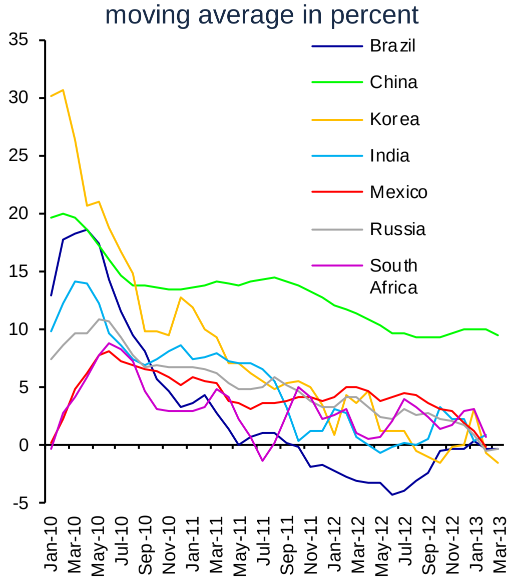
s. a. / Seasonally adjusted figures.
Source: Eurostat.

In Japan, the economic growth outlook improved in the short term, given the announcement of further fiscal stimulus and an unprecedented monetary expansion. In this regard, there are doubts with respect to the effectiveness of the medium-term strategy, mainly given the uncertainty over the transmission channels these measures operate through. After a modest progress in the fourth quarter of 2012, the economy began 2013 with enhanced dynamism. Industrial production kept recovering at the beginning of the year. Expenditure on private consumption and imports observed solid expansion during the first quarter of 2013, while businesses' expenditure and exports have rebounded.

The economic growth of emerging economies moderated in the first months of 2013, while important differences persist at the regional level. The lower expansion rate of industrial production (Chart 15a) is mainly accounted for by a decrease in exports growth, given the weak external demand (Chart 15b).

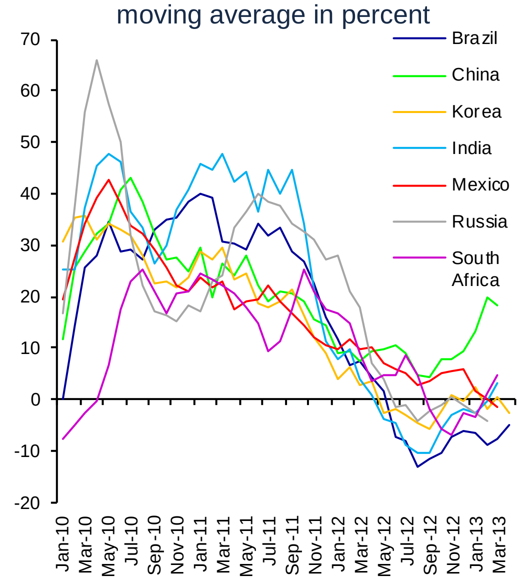
Chart 15
Emerging Economies' Economic Activity

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



Source: Haver Analytics.

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



Source: Bloomberg and Haver Analytics.

3.1.2. Commodity Prices

International commodity prices generally continued a downward trend in the first months of 2013 (Chart 16a). In particular, oil prices declined from mid-first quarter onwards, among other factors, due to a downward revision of the crude oil demand estimates for 2013 in advanced economies by the International Energy Agency (IEA), caused by an environment of weak world expansion and by an expected increase in oil production by the non-members of the Organization of Oil Exporting Countries (OPEC), particularly in the U.S. and Canada (Chart 16b).

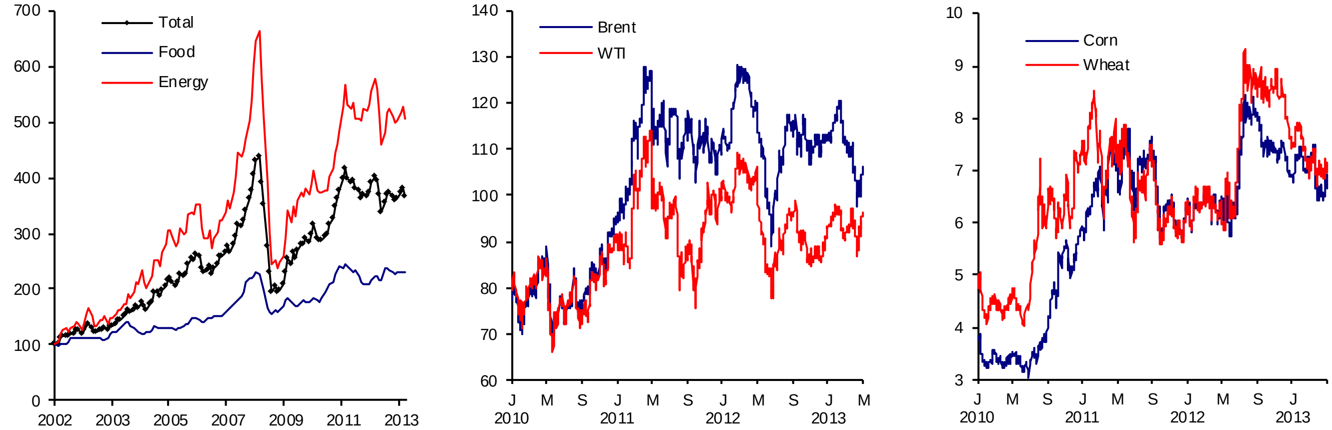
On the other hand, grain prices (particularly, corn and wheat) decreased over the analyzed period, as a reflection of expected better harvests of the current agricultural cycle in South America (Chart 16c). In general, agricultural products' prices are estimated to continue falling over the next months, mainly due to the ample world supply of these products and the fragility of the economic recovery. In April, the U.S. Department of Agriculture (USDA) carried out an upward revision of its forecast for global inventories of the major grains, which mainly originated from a downward revision in the forecast for grains' demand in the U.S. and China.

Chart 16
International Commodity Prices

a) Total Commodities, Food and Energy
Index January 2002=100

b) Crude Oil [1/]
USD per barrel

c) Corn and Wheat [1/]
USD per bushel



Source: International Monetary Fund.

1/ Spot prices.
Source: Bloomberg.

1/ Spot prices.
Source: Bloomberg.

3.1.3. World Inflation Trends

In the first quarter of 2013, inflation in main advanced and emerging economies in general remained low. In an environment of persisting weak economic activity, a downward trend of international commodity prices and with no inflationary pressures anticipated in most countries, the monetary policy is expected to remain accommodative in most advanced and emerging economies, and even in some cases an additional monetary policy easing could take place.

In the first quarter of 2013, annual headline inflation in the U.S. slipped from 1.7 percent in December 2012 to 1.5 percent in March 2013, below the 2 percent inflation target of the U.S. Federal Reserve, mainly supported by lower gasoline prices (Chart 17a). In turn, core inflation was 1.9 percent at the end of the quarter. In its monetary policy meeting in March, the U.S. Federal Reserve ratified its decision to maintain unchanged the target range for the federal funds rate of 0 to 0.25 percent. In its announcement, the U.S. Federal Reserve reiterated that the exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6.5 percent, the inflation between one and two years ahead is projected to be no more than 2.5 percent, and longer-term inflation expectations remain well-anchored. Additionally, the U.S. Federal Reserve endorsed the announcement that it would proceed with a monthly purchase of securities for USD 85 billion. In this respect, in this meeting's Minutes, even though conditional on a solid improvement in the labor market, various members of the Federal Open Market Committee of the U.S. (FOMC) pointed out that over the next meetings it could be advisable to reduce the amount of assets to be purchased. It should be noted, however, that these opinions were expressed before a series of indicators pointing to further weakening of the U.S. economy, especially the March employment report, became known. In fact, the long-term Treasury securities rates returned to the level of December 2012, when this measure was first announced. Thus, in line with market expectations, the reduction in the amount of assets to be purchased will not occur in the immediate future. In the same sense, in its monetary policy meeting of May 2013, besides announcing that it would maintain the rate of the securities' purchase unchanged, the U.S. Federal Reserve stated that it was ready to increase or to reduce the rate of securities' purchase so as to maintain an appropriate level of the monetary policy easing, insofar as the outlook for the labor market and inflation changes.

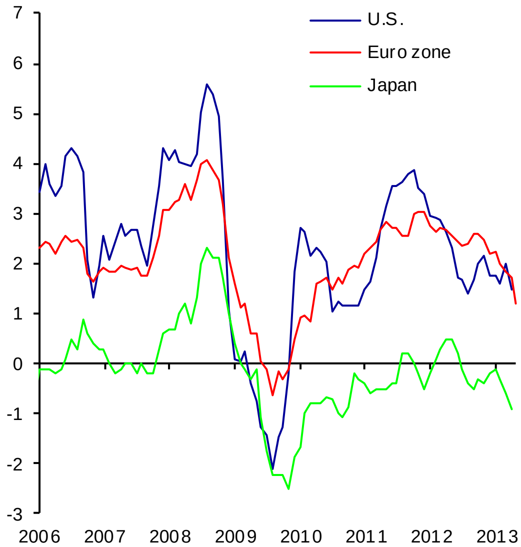
In the Euro zone, annual headline inflation shifted from 2.2 percent in December 2012 to 1.2 percent in April 2013, below the European Central Bank's (ECB) inflation target of a rate lower but close to 2 percent in the medium term, mainly due to a fall in energy prices, some calendar effects and the recession prevailing in the region. In turn, core inflation diminished from 1.5 percent in December 2012 to 1.0 percent in April 2013. The ECB, after maintaining unchanged its reference rates in the first four months of the year, decided to reduce by 25 basis points the rate of the main refinancing operations to 0.5 percent, and the rate of the margin finance facility by 50 basis points, to 1.0 percent, while it did not modify the deposit facility rate. The ECB reasserted that, given the persisting weakness of economic activity and the reduced inflationary pressures in the medium term, it will maintain an accommodative monetary policy for as long as necessary. Moreover, the ECB announced its decision to continue conducting its fixed-rate refinancing operations, with full allotment for as long as necessary and at least till July 2014.

In Japan, the annual change of the general price index remained negative in March 2013 for the tenth consecutive month. The Bank of Japan, in its April meeting, pointed out that it would seek to reach its 2 percent inflation target in the shortest time possible approximately within a two-year horizon. To do it, the Bank of Japan changed its main operational target from the interbank funding rate to the monetary base, and pointed out that it would double the stock of the latter by means of increasing its government bonds' holdings and other instruments in the remainder of 2013 and 2014. Likewise, the Bank of Japan announced a considerable extension of bonds' maturity of its purchase program.

In general, in emerging countries inflation remained at low levels in an environment in which no demand-related pressures were observed and in which international commodity prices diminished (Chart 17b), reason for which the central banks of most of these countries maintained unchanged their monetary policy rates, or even in some cases reduced them. Besides, in a context of ample global liquidity, some of the emerging economies' exchange rates have appreciated, which contributed to reducing inflationary pressures in these economies.

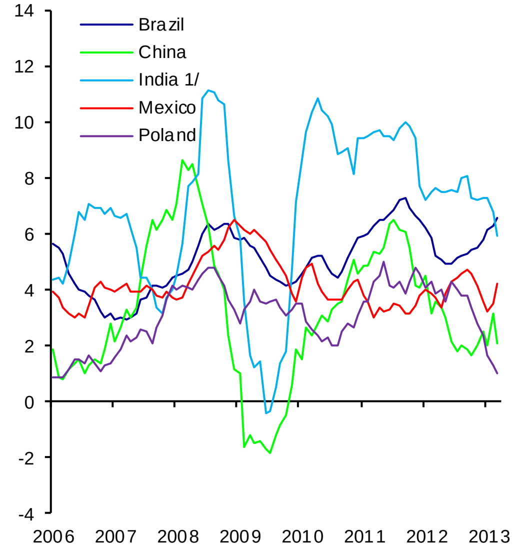
Chart 17
Headline Inflation in Advanced and Emerging Economies

a) Advanced Economies
Annual change in percent



Source: BLS, Eurostat and Japan Statistics Bureau.

b) Emerging Economies
Annual change in percent



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

3.1.4. International Financial Markets

At the beginning of the first quarter, international financial markets improved, although with certain volatility, supported by the implementation of the policies aimed at strengthening the economic recovery in main advanced economies, as well as by some favorable indicators of the world economic activity. In the U.S., agreements to reduce the magnitude of the fiscal adjustment were reached, while in Europe market conditions continued to improve as a reflection of the ECB's announcement of the program of sovereign bond purchases (Outright Monetary Transactions, OMTs) at the beginning of September 2012.

Thus, the sovereign bond spreads in the countries of the periphery of the Euro zone diminished at the beginning of the first quarter of 2013 (Chart 18a). This allowed Ireland and Portugal to return to the funding markets, which was perceived as a significant progress in the process of ensuring that the referred countries would have financing additional to that obtained through the official programs (Chart 18b). Furthermore, in mid-April 2013, the finance ministers of the Eurogroup approved the extension of loans to Ireland and Portugal by another seven years, which will contribute to reducing these countries' financial requirements.[6]

This helped to enhance confidence in financial markets, to improve the financing conditions of the region's banks and to gradually reinforce the bank deposits (Chart 18c). Moreover, improved financing conditions of the banks allowed an important prepayment of the two ECB's long-term refinancing operations for three

[6] The final decision regarding the extension requires the approval of some countries' parliaments prior to its implementation.

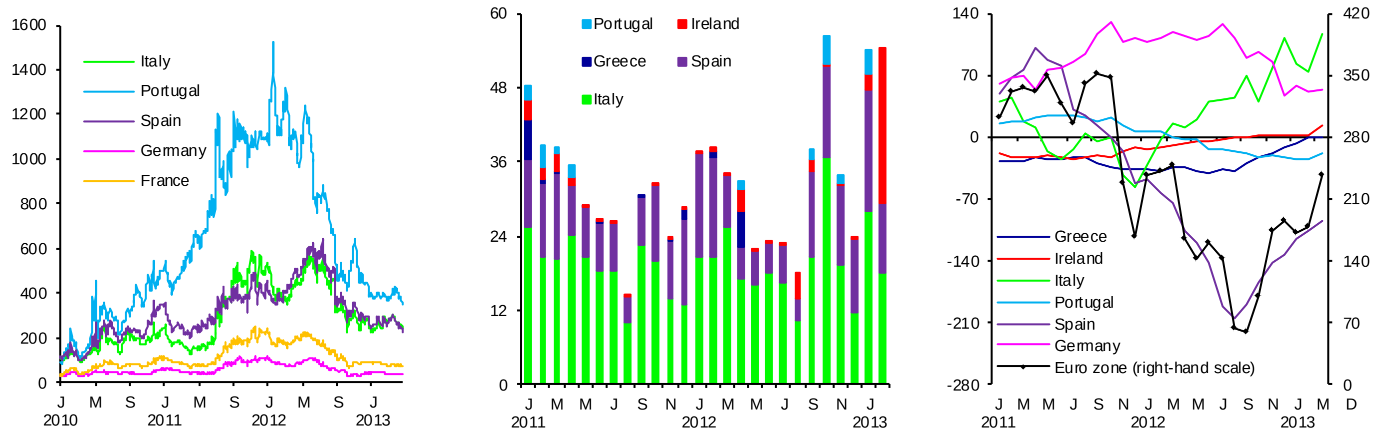
years (LTRO)[7] which took place in December 2011 and March 2012. Nonetheless, despite the persisting normalization of the interbank financing markets, this still has not led to improved conditions and credit granting to firms and households in different countries of the Euro zone. In this environment, the deteriorated prospects of the economic recovery in the region caused the European authorities to allow a relaxation on the fiscal targets' fulfillment in various countries.

Chart 18
Euro Zone Financial Indicators

a) Credit Default Swaps
Basis points

b) Debt Issuance
EUR billion

c) Deposits in Financial Institutions
12-month accumulated
flows in EUR billion



Source: Bloomberg.
Source: ECB.
Source: ECB.

The optimism in the financial markets was disrupted in late February 2013, after the elections in Italy, which generated doubts regarding the formation of a stable government in this country and its ability to proceed with the necessary reforms.[8] Later, the Cyprus crisis, associated to the country's fiscal difficulties to tackle the problems in the banking sector, again gave rise to fears that one or more countries could abandon the Euro zone. Thus, the market indicators measuring the sovereign credit risk in various Euro zone countries increased considerably again. At the end of the first quarter, Cyprus agreed on a bailout program with the European authorities and the International Monetary Fund (IMF), which to a certain degree contributed to reducing uncertainty in the international markets.[9]

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7 At the beginning of April 2013, about half of the net increase in the refinancing volume through the ECB's monetary policy operations of around EUR 500 billion has been prepaid by the banks.

8 This was compounded by the difficulties faced by Spain to advance in the implementation of its structural reforms, which generates uncertainty regarding the country's ability to comply with the conditions necessary to obtain access to the ECB's program of the sovereign bond purchase, if required.

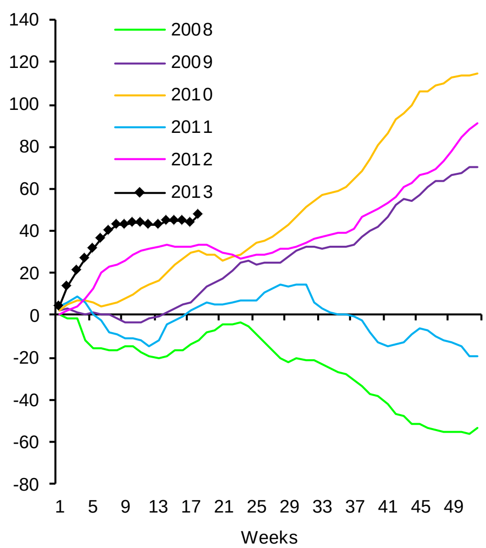
9 The EUR 10 billion support program provided by the European authorities and the IMF is conditional on the adoption by the Cyprus government of a series of measures, among which stand out the following: a) the restructuring of the two biggest banks of the country, including the deposits over EUR 100 thousand that are not protected by the deposit insurance, with an approach that avoids putting additional burden on taxpayers and contributes to placing public debt on a sustainable path; b) the implementation of fiscal consolidation measures in 2013-2016; and, c) the implementation of a significant reform of the public wage indexation mechanism, as well as steps to improve the pension system's long-term viability. Furthermore, the ECB will provide liquidity to the Bank of Cyprus in line with applicable rules.

It should be pointed out that the Euro zone remains vulnerable to volatility episodes and that significant risks persist, associated to the continuation of adjustment and structural change in different countries of the region, and to the timely adoption of measures to strengthen the banking and financial union. Besides, the negative feedback loop among the fragility of the banking system, high levels of the sovereign debt and the weakness of the economic activity prevails.

Capital flows to emerging countries, although with certain volatility, increased in the first months of 2013 at a greater rate than in previous years (Chart 19a). The referred flows were directed to the stock and debt markets, largely as a response to the more accommodative monetary conditions in advanced economies. In this context, the currencies of some of these emerging economies, Mexico among them, appreciated during the reference period, given a significant inflow of resources from abroad (see Section 3.2.2) (Chart 19b). Capital flows to emerging economies are anticipated to possibly observe certain volatility in response to new data on the economic performance in the U.S., Europe and Japan.

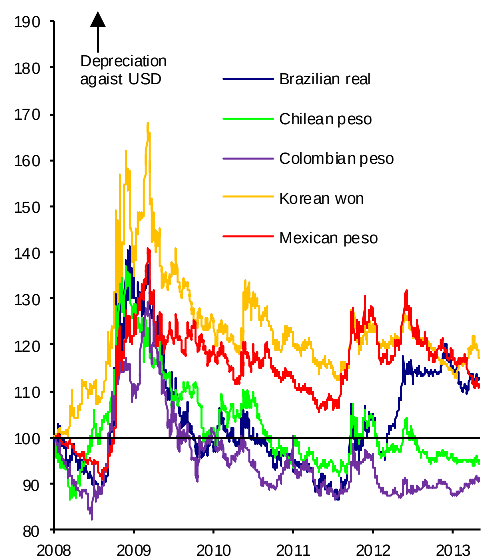
Chart 19
Emerging Economies' Financial Indicators

a) Accumulated Capital Flows
(Equity and Debt)
USD billion



Source: Emerging Portfolio Fund Research.

b) Exchange Rates
Index 01/01/2008=100



Source: Bloomberg.

3.2. Development of the Mexican Economy

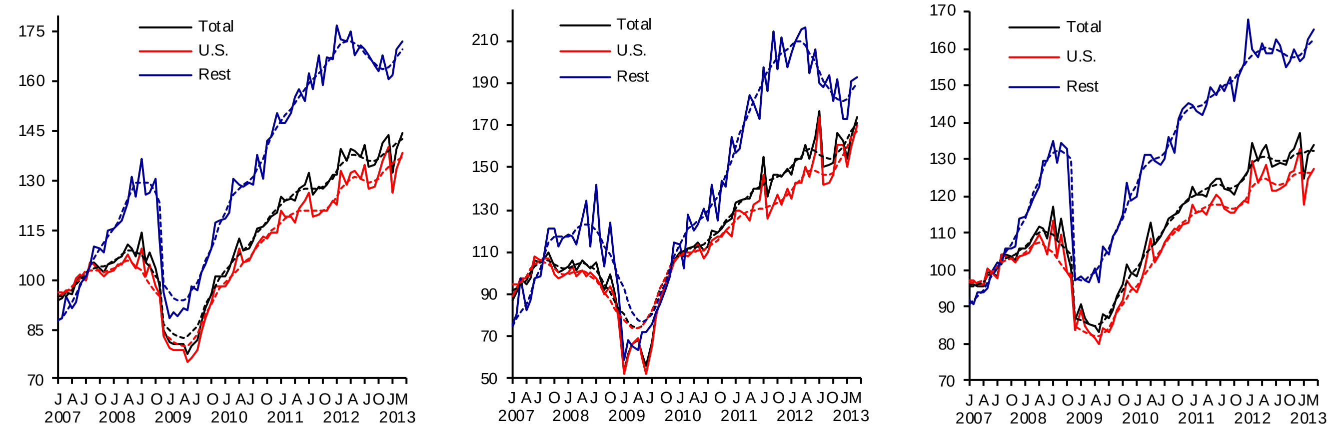
3.2.1. Economic Activity

The most recent information suggests that in the first quarter of 2013 the moderation of the Mexican economic growth rate, observed since the second half of 2012, persisted. Indeed, both external demand and some consumption and investment indicators kept registering a loss of dynamism.

Over the first three months of 2013, manufacturing exports remained stagnant. In particular, the exports to the U.S., both associated to the automobile sector and non-automobile manufacturing exports, slowed down. In turn, manufacturing exports to the rest of the world presented a negative trend, which largely reflects the performance of automobile exports (Chart 20).

Chart 20
Indicators of Manufacturing Exports
Index 2007=100, s. a.

a) Manufacturing Exports by Region of Destination | b) Automobile Manufacturing Exports | c) Non-automobile Manufacturing Exports



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

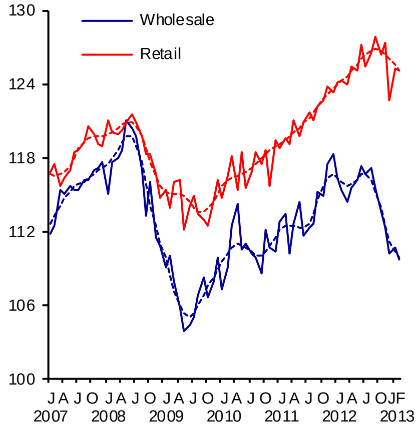
In the first quarter of 2013, indicators of domestic spending suggest that it continued to lose dynamism. In particular, public investment and private investment in housing kept decelerating, while some timely consumption-related indicators weakened even further.

i. With respect to private consumption, both ANTAD sales and commercial establishments' retail sales registered weak performance (Chart 21a and Chart 21b), which reflected a loss of dynamism both in durable and in non-durable goods, as compared to the previous quarter (Chart 21c).

ii. Consumption was affected by the less favorable performance of some of its determinants, such as the revenues from workers' remittances (Chart 22a). Likewise, the consumer confidence index stopped increasing in the analyzed quarter (Chart 22b). In turn, as mentioned below, commercial banks' consumer credits decelerated slightly in the first quarter of 2013 (see Section 3.2.2.).

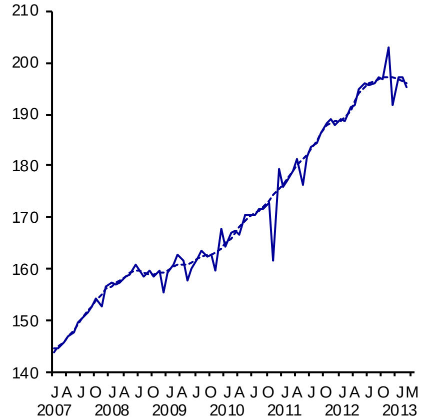
Chart 21
Consumption Indicators

a) Commercial Establishments' Sales
Index 2003=100, s. a.



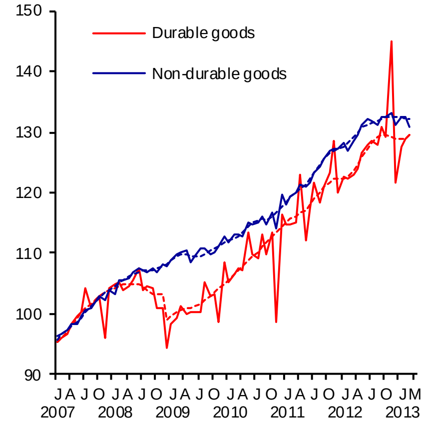
s. a. / Seasonally adjusted and trend data.
Source: Monthly Survey of Commercial Establishments (*Encuesta Mensual sobre Establecimientos Comerciales*), INEGI.

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



s. a. / Seasonally adjusted and trend data.
Source: Prepared by Banco de México with ANTAD data.

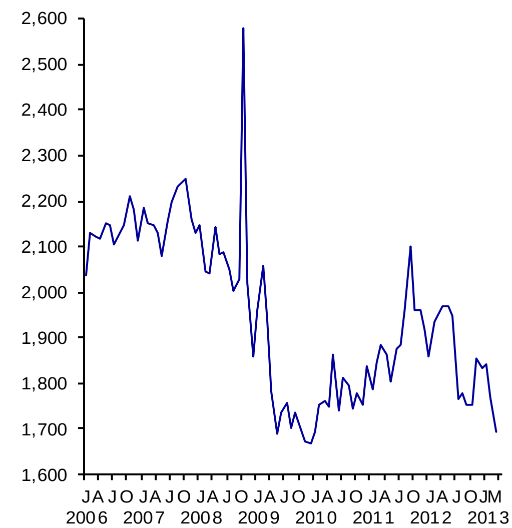
c) ANTAD Sales by Type of Good
Index 2007=100, s. a.



s. a. / Seasonally adjusted and trend data.
Source: Prepared by Banco de México with ANTAD data.

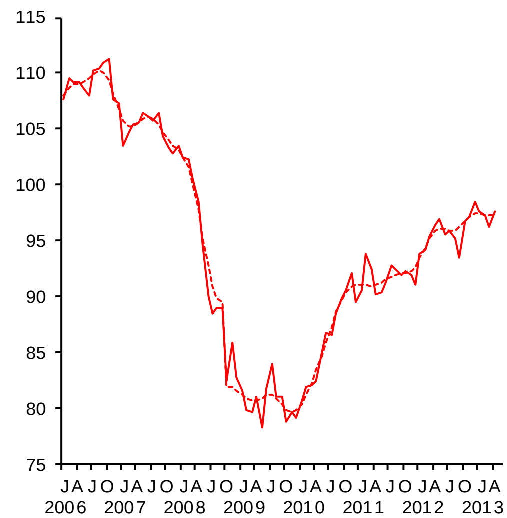
Chart 22
Consumption Determinants

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



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

b) Consumer Confidence Index (CCI)
Index Jan 2003=100, s. a.

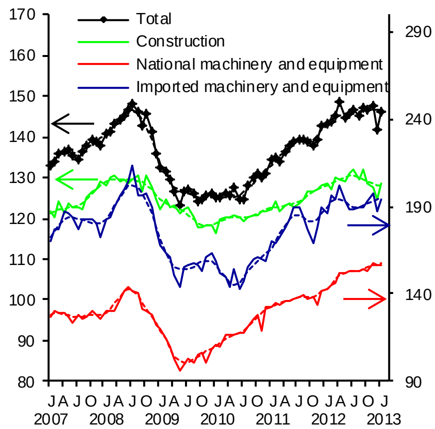


s. a. / Seasonally adjusted and trend data.
Source: National Consumer Confidence Survey (*Encuesta Nacional sobre la Confianza del Consumidor*), INEGI and Banco de México.

iii. In the period of January - March 2013, gross fixed investment components showed a mixed behavior (Chart 23a). On the one hand, investment in machinery and imported equipment continued to expand (Chart 23b). On the other hand, the housing construction and the public sector construction kept observing a downward trend (Chart 23c).

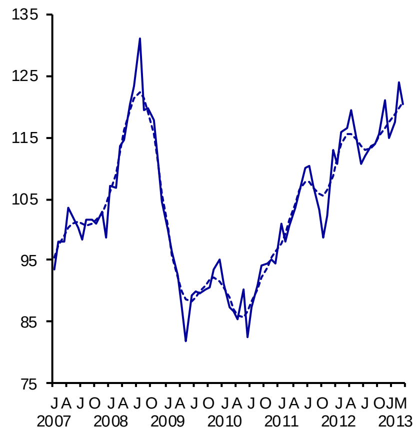
Chart 23
Indicators of Investment

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



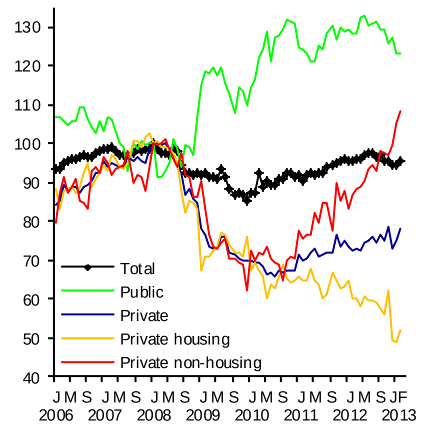
s. a. / Seasonally adjusted and trend data.
Source: Mexico's System of National Accounts, INEGI.

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



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

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



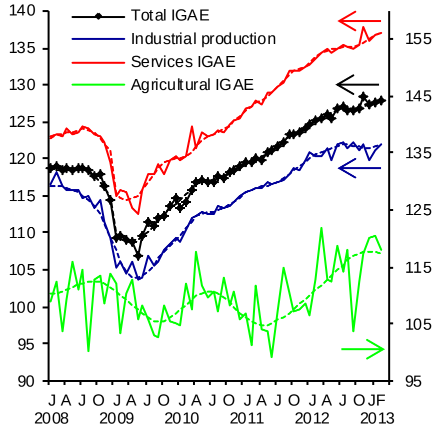
s. a. / Seasonally adjusted figures. For public and private (housing and non-housing) construction, the seasonal adjustment was prepared by Banco de México with data from INEGI.
Source: INEGI.

With respect to production in the economic activity, in January and February the Global Economic Activity Indicator (IGAE) accentuated its deceleration rate (Chart 24a). Likewise, the manufacturing industry continued to present a weak expansion rate in the first quarter of 2013, with respect to the dynamism registered till the first half of 2012 (Chart 24b and Chart 24c). With regard to the services sector, those more associated to domestic demand, such as mass media information services, professional, scientific and technical services, and financial and insurance services, kept growing moderately. In line with the slowdown of exports, in the analyzed quarter the services more related to external demand, such as commerce and transport, mail and warehousing services, increased less than in the last quarter of 2012.

Finally, in the first quarter of 2013, primary activities contracted with respect to the previous quarter, in seasonally adjusted terms. In particular, frosts and rains in the first days of March in different entities of Mexico caused losses in the agricultural production, mainly green tomato, zucchini, cucumber, carrot and lemon. Likewise, livestock production was affected by the avian flu virus in the states of Guanajuato and Jalisco. In contrast, the harvests of basic grains and perennial crops maintained a positive trend.

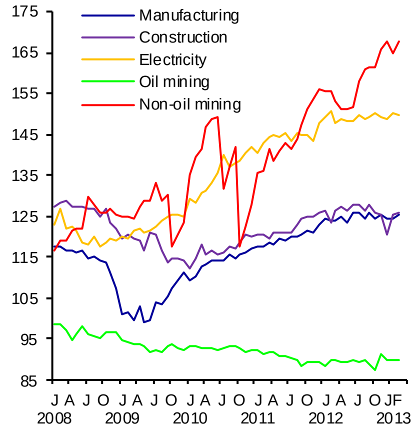
Chart 24
Indicators of Production

a) Global Economic Activity Indicator
Index 2003=100, s. a.



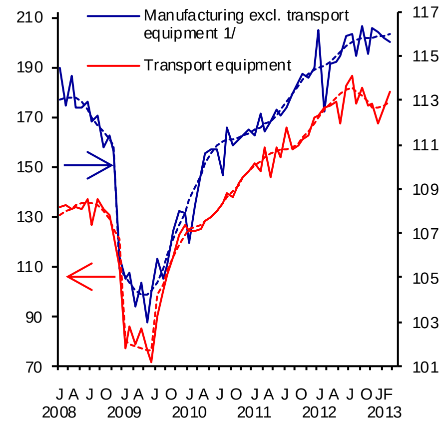
s. a. / Seasonally adjusted and trend data.
Source: Mexico's System of National Accounts, INEGI.

b) Industrial Production
Index 2003=100, s. a.



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

c) Manufacturing Production
Index 2003=100, s. a.



1/ Prepared by Banco de México with data from INEGI.
s. a. / Seasonally adjusted and trend data.
Source: Industrial Activity Indicators, Mexico's System of National Accounts, INEGI.

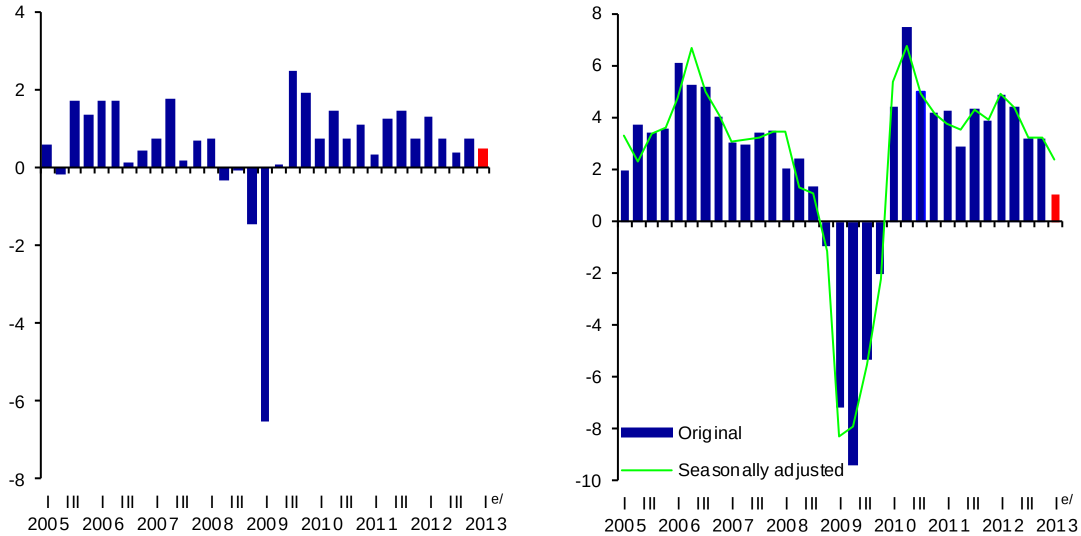
In this context, for the first quarter of 2013, a quarterly seasonally adjusted GDP growth of 0.5 percent is anticipated, which implies an annual seasonally adjusted GDP growth of 2.4 percent in the first quarter of 2013. It should be clarified that, based on data without seasonal adjustment, an annual GDP change of 1.1 percent is expected in the analyzed quarter, a figure affected downwards by the fact that the Holy Week was in March 2013, while in 2012 it was in April (Chart 25).

Finally, in the first quarter of 2013, the trade balance registered a deficit of USD 1,106 million (Chart 26a). In line with the above, the available data suggest that in the first three months of 2013 the current account presented an annualized deficit of 1.6 percent of GDP (Chart 26b). It is noteworthy that the country continued to receive resources that allowed easy financing of the current account deficit. In particular, in the first quarter of 2013, international reserves increased by USD 3,446.9 million, reaching a total of USD 166,962.3 million by the end of the quarter.

Chart 25
Gross Domestic Product

a) Quarterly Change
Percent, s. a.

b) Annual Change
Percent

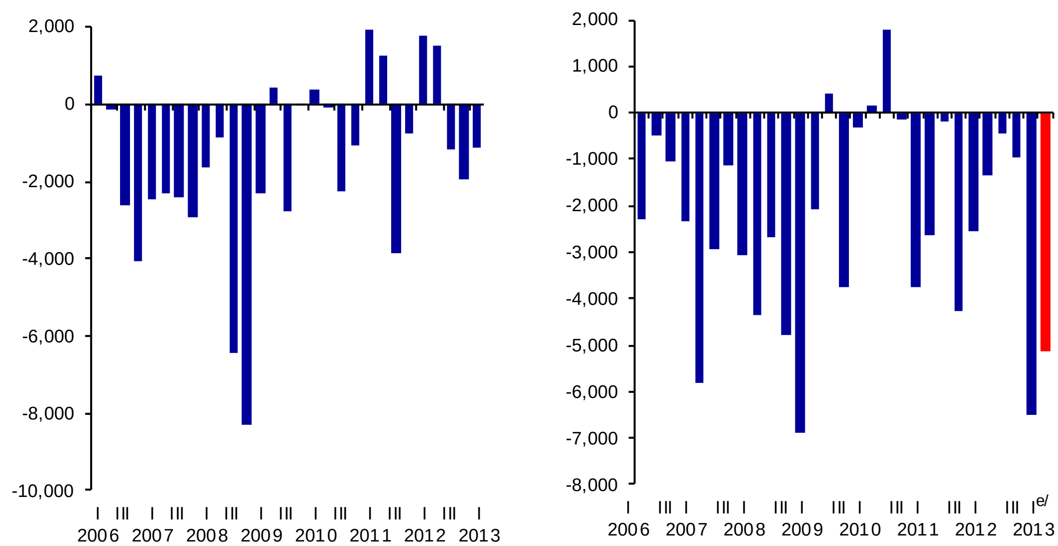


e/ Estimated by Banco de México.
s. a. / Seasonally adjusted figures.
Source: Mexico's System of National Accounts, INEGI. Seasonal adjustment up to the first quarter of 2013 by Banco de México.

Chart 26
Trade Balance and Current Account
USD million

a) Trade Balance

b) Current Account



Source: Banco de México.

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

3.2.2. Financial Saving and Financing in Mexico

In the first quarter of 2013, the total sources of financial resources and the financing to the non-financial private sector grew at a slightly higher pace with respect to the previous quarter. This expansion of the sources of financial resources was in line with the evolution of the Mexican economy during the period analyzed in this Inflation Report.

With respect to the sources of financial resources as of the fourth quarter of 2012, the annual flow was 10 percent of GDP, lower than observed at the end of the first three quarters of 2012 (Table 2).[10] This smaller figure at the end of 2012 was accounted for by a lower annual flow of domestic sources of financing. Nonetheless, this moderation in the domestic financial flows was partially offset by a higher annual flow of external sources of financing, in line with high liquidity in international financial markets.

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

	Annual flows						Stock 2012 IV	
	2011 III	**2011 IV**	**2012 I**	**2012 II**	**2012 III**	**2012 IV**	**% GDP**	**Est. %**
Total sources	**9.6**	**10.1**	**10.6**	**11.3**	**10.7**	**10.0**	**86.7**	**100.0**
Domestic sources [1/]	4.5	5.7	6.4	6.7	5.6	4.4	56.5	65.1
Foreign sources [2/]	5.1	4.3	4.3	4.6	5.1	5.7	30.2	34.9
Total uses	**9.6**	**10.1**	**10.6**	**11.3**	**10.7**	**10.0**	**86.7**	**100.0**
Public sector	3.2	3.0	3.4	3.4	3.2	3.7	40.8	47.1
Public sector (PSBR) [3/]	3.0	2.7	3.0	2.9	2.8	3.2	38.0	43.8
States and municipalities	0.2	0.3	0.3	0.5	0.5	0.5	2.8	3.2
International reserves [4/]	2.6	2.5	2.3	2.4	2.1	1.8	13.7	15.8
Private sector	3.4	3.6	3.1	3.2	3.3	3.2	33.2	38.3
Households	1.5	1.5	1.5	1.4	1.4	1.4	14.2	16.4
Consumption	0.6	0.7	0.6	0.6	0.7	0.6	4.5	5.1
Housing [5/]	0.9	0.8	0.8	0.7	0.8	0.8	9.8	11.3
Firms	1.9	2.0	1.7	1.8	1.9	1.8	19.0	21.9
Domestic [6/]	1.3	1.3	1.2	1.3	1.3	1.0	11.3	13.0
Foreign	0.7	0.7	0.4	0.6	0.6	0.8	7.7	8.9
Commercial banks' foreign assets [7/]	-0.1	-0.5	-0.3	-0.6	-0.1	-0.1	1.2	1.4
Other [8/]	0.5	1.5	2.0	2.9	2.2	1.4	-2.2	-2.6

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.

1/ 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.

2/ 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.

3/ 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.

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

5/ 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.

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

7/ It includes assets from abroad and foreign financing.

8/ 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.

Available information for the first quarter of 2013 indicates that the sources of financial resources expanded at a greater rate than at the end of 2012. In the period of January - March 2013, the stock of financial saving in the economy, defined as the monetary aggregate M4 minus the stock of banknotes and coins

[10] The information of annual flows of sources and uses of financial resources is available up to the fourth quarter of 2012.

held by the public, continued its growth trend. This was a result of higher financial saving of both non-residents and residents (Chart 27a).

Non-resident financial saving grew at a rate similar to that in the previous quarter. It continued being channeled to acquire mainly medium- and long-term government debt securities (Chart 27b). The stock of non-resident financial saving kept growing, among other factors, due to the strength of Mexico's macroeconomic framework with respect to other economies.[11] Additionally, the inflow of financial resources from abroad has been favored by an environment of ample liquidity in the international financial markets in the first months of 2013, as well as by foreign investors' search for yield in an environment of interest rates in advanced economies close to their minimum historical levels (Box 2).

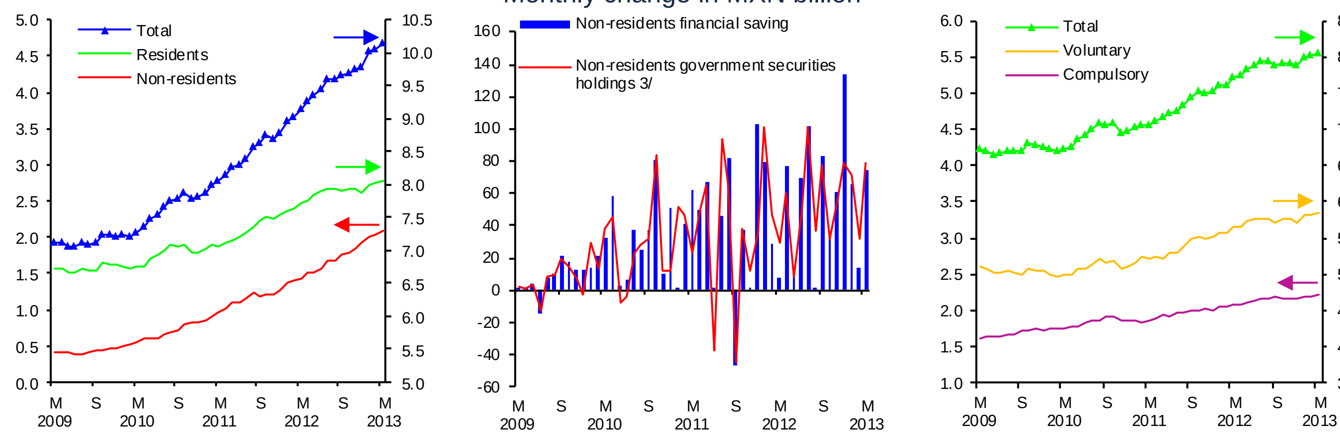
Resident financial saving seemed to resume its upward trend in the first quarter of 2013, after showing little dynamism over the second half of 2012. This was observed both in the indicator of compulsory financial saving and its voluntary component (Chart 27c).

Chart 27
Financial Saving Indicators

a) Total Financial Saving [1/ 2/]
MXN trillion as of
March 2013, s. a.

b) Financial Saving and
Non-residents' Government
Securities Holdings
Monthly change in MXN billion

c) Resident Financial Saving [1/ 2/]
MXN trillion as of
March 2013, a. e.



Source: Banco de México.
s. a. / Seasonally adjusted figures.
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.
3/ Holdings of government securities expressed in nominal value.

[11] In this regard, on March 12, 2013, the rating agency Standard & Poor's revised its outlook for Mexico's sovereign debt in the long turn from stable to positive.

Box 2
Capital Flows to Mexico and Emerging Countries

Introduction

After the international financial crisis that began in 2008, most advanced economies' conditions have been characterized by negative output gaps, a fragile fiscal situation and the need to support economic activity. In this context, monetary policy in these countries has become highly accommodative. Ample liquidity in international markets has contributed to significant increases in capital flows to emerging economies. Even though these flows resulted in considerable benefits to the recipient economies, given that they allow complementing the domestic saving with the foreign one and financing investment projects, they have also generated concern over the possible implications for exchange rates and assets' prices, and, therefore, for economic activity. Additionally, there is concern regarding possible sudden capital outflows, once the monetary stimulus withdrawal in advanced economies begins, which could affect the macroeconomic balance in emerging economies.

The purpose of this Box is to analyze the composition and features of capital flows to emerging economies and, in particular, to Mexico, highlighting these resources' destination and the challenges they represent for the national financial stability. The results indicate that, even though the capital flows represent a significant increase in the non-residents' position in debt instruments, most of them are peso-denominated and long-term. These conditions establish a more stable funding base for the country. Additionally, so far these flows do not seem to have favored imbalances' accumulation in the financial system. In any case, solid macroeconomic fundamentals and the strengthening of the regulatory framework and of the oversight of the Mexican financial system contribute to a correct intermediation of capital flows, which in turn facilitates the economic policy implementation, given an uncertain international environment.

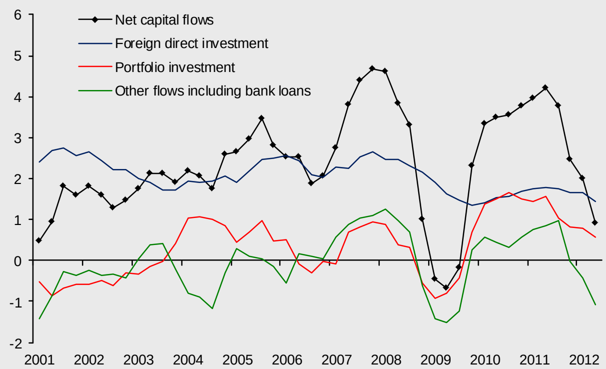
The Box consists of four sections. The first one describes the dynamics of capital flows to emerging economies in general and to Mexico in particular. The second section presents a detailed analysis of Mexico's balance of payments and of the instruments into which the non-residents have invested their resources. The third section summarizes different measures the financial authorities of Mexico have implemented to strengthen the macroeconomic fundamentals and thus to reduce the probability of a sudden capital outflow. The last section presents the final considerations.

1. Capital Flows to Emerging Countries

According to the studies cited by the International Monetary Fund (IMF), the episodes of greater increases in net capital flows to emerging countries have taken place during periods characterized by low global interest rates and by lower risk aversion.[1] Indeed, even though international financial markets have gone through a prolonged environment of uncertainty derived from the financial crisis –which still persists-, the great monetary lassitude prevailing in advanced economies and investors' search for yield have resulted in important net capital flows to emerging economies in recent years.

Although these flows' magnitude in terms of GDP is not significantly different from that observed in previous periods, a relevant characteristic of the current episode is the significant increase in portfolio flows, thus showing a greater participation in the total flows. In fact, in terms of GDP, the resources from abroad destined to this item have been the highest, at least over the last decade. In turn, the flows of foreign direct investment (FDI), which traditionally are the most important, have reduced their share of the total (Chart 1).

Chart 1
Net Capital Flows to Emerging Economies 1/ 2/
In percent of GDP



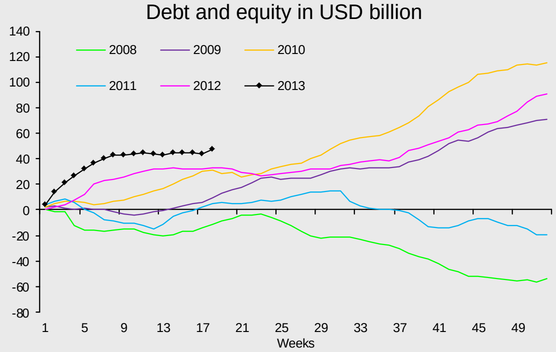
1/ Argentina, Brazil, Bulgaria, Chile, China, Colombia, Estonia, Philippines, Hungary, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Peru, Poland, Rumania, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela. Main emerging economies by their weight in world GDP, for which consistent data are available.
2/ Accumulated flows of the four previous quarters. Data available as of the second quarter of 2012.
Source: IMF.

In order to evaluate the recent performance of capital flows to emerging economies, and given that the data of portfolio investment flows, obtained from the IMF's balance of payments statistics, are available only till the second quarter of 2012, the timely information provided by "Emerging Portfolio Fund Research" (EPFR) on the weekly flows of dedicated funds in equity and debt, is

[1] International Monetary Fund (2011), "International Capital Flows: Reliable of Fickle?" *World Economic Outlook*. April, Chapter 4, pp. 125-163.

used.[2] Even though the data provided by EPFR represent a subset of portfolio investment to emerging economies, and, therefore, the reported amounts are smaller than in the balance of payments statistics, it is considered to be a timely and reliable indicator of the aggregates of the balance of payments portfolio.[3] According to this information, portfolio investment flows increased considerably since the third quarter of 2012. In particular, the accumulated flow is found to have been greater in the first months of 2013 as compared to the previous years (Chart 2).

Chart 2
Accumulated Capital Flows to Emerging Economies
Debt and equity in USD billion



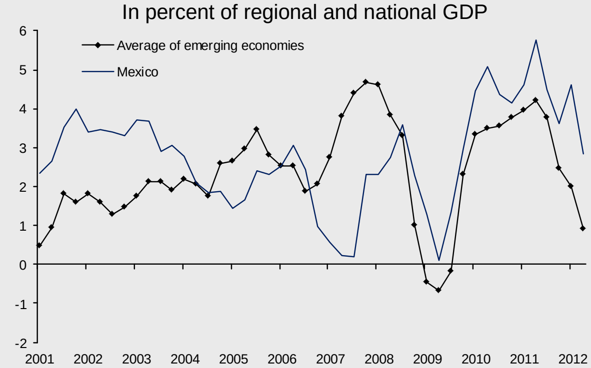
Source: EPFR.

The capital flows' performance in Mexico has generally followed the same tendencies observed in other emerging economies. Nonetheless, capital flows to Mexico have maintained above the emerging economies' average, which can be accounted for by the sound management of the economic policy during the international financial crisis, the strength of the macroeconomic framework and the environment of certainty and confidence regarding the Mexican economic outlook (Chart 3). In particular, in line with the EPFR indicator, the portfolio investment to Mexico in the first four months of 2013 has registered levels above those observed in the same period of 2012. Furthermore, these flows have generally been greater than those received by other emerging economies, as reported by the EPFR (Chart 4).

[2] This source only covers institutional investors (mainly "Mutual Funds", "ETFs", "Closed-end Funds" and "Variable Annuity Funds/Insurance linked Funds"), and a small number of emerging economies. The data in EPFR are equivalent to gross flows.

[3] In line with Miao, Y., and M. Pant (2012), "Coincident Indicators of Capital Flows", IMF Working Paper WP/12/55, there is cointegration between the flows reported by the EPFR and those stemming from the balance of payments. That is, an increase in the flows reported by the EPFR is positively and significantly associated to an increase in portfolio flows of the balance of payments.

Chart 3
Net Capital Flows to Emerging Economies [1/ 2/]
In percent of regional and national GDP

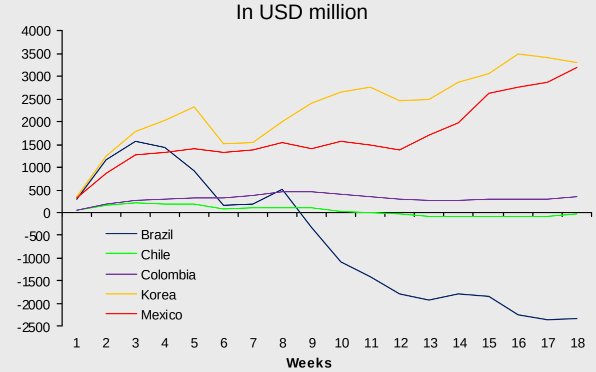


1/ Argentina, Brazil, Bulgaria, Chile, China, Colombia, Estonia, Phlipinnes, Hungary, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Peru, Poland, Rumania, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela. Main emerging economies by their weight in world GDP, for which consistent data are available.

2/ Accumulated flows of the four previous quarters. Data available as of the second quarter of 2012.

Source: IMF.

Chart 4
Difference of Accummulated Flows (Debt and Equity) in Selected Emerging Economies between 2012 and 2013
In USD million

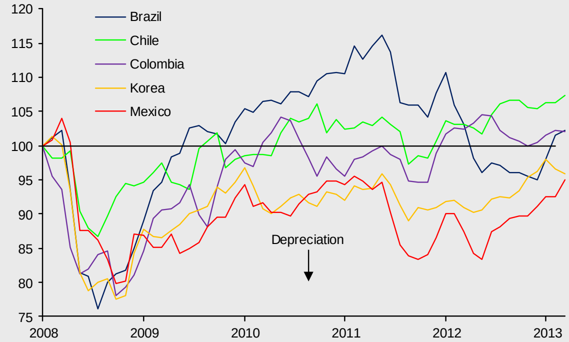


Source: EPFR.

Even though greater capital flows to Mexico have propitiated a recent appreciation of the real exchange rate, the Mexican peso has succeeded in maintaining for a longer period of time its real depreciation since 2008, to a great extent due to the prudent fiscal and monetary policies (Chart 5).

The extended period of ample liquidity, observed in the main advanced economies, has generated concern of whether different risks in the global financial system are accumulating. Indeed, the persisting low interest rates for a long period could bring about financial imbalances and excessive increases in asset prices with possible systemic implications. Therefore, it is important to analyze the destination of these capital flows in Mexico.

Chart 5
Multilateral Real Effective Exchange Rate
Index June 2008=100



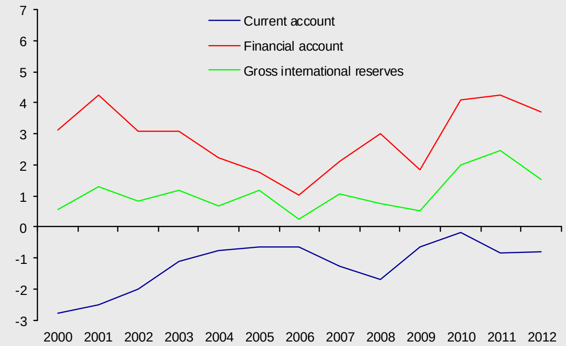
Source: Bank for International Settlements.

2. Capital Flows to Mexico

The balance of payments registers economic transactions between a country and the rest of the world over a specified time period. The identification of the type of transactions carried out and the sectors of the economy to which they have been channeled, as well as the sources of the financial resources implicit in these transactions can serve as an indicator of potential future economic vulnerabilities. Thus, given the net flows received by the country in recent years, this Section analyzes the recent evolution of different components of the balance of payments and the destination of resources from abroad.

Historically, Mexico has been a net recipient of external resources, which is reflected in a surplus in the financial account of the balance of payments. From 2010 onwards, in the abovementioned environment of ample liquidity, a greater net inflow of foreign currencies has been observed, which led to an increase in the surplus of the financial account that has averaged 4 percent of GDP over the last three years (Chart 6). Despite this increase, the most recent surpluses do not appear to be so different from those previously observed in the first three years of the last decade. However, an important difference between the two periods lies in the destination of the financial account surplus. While in the previous decades the resources where channeled to finance a relatively ample current account deficit and a low accumulation of international reserves, over the last three years the financial account surplus was channeled to further accumulation of international reserves, as well as to financing moderate current account deficits, which indicates stronger Mexican economy.

Chart 6
Balance of Payments in Mexico
Net flows in percent of GDP

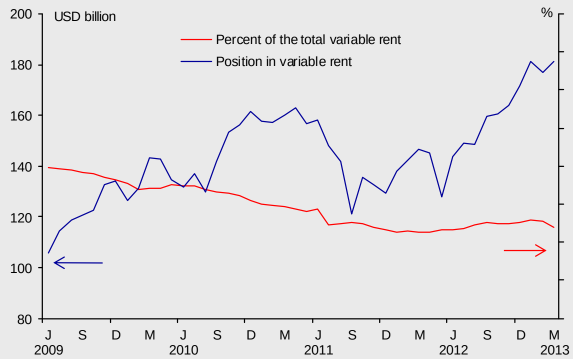


Source: Banco de México.

Additionally, a recomposition of the financial accounts' items has been observed, which reflected not only the liquidity conditions prevailing in the rest of the world, but also, on the one hand, the strengthening of the macroeconomic framework of Mexico and, on the other hand, the investment opportunities that the domestic private sector has taken advantage of abroad. Indeed, within the financial account, the resources' inflow, which was reflected in higher portfolio investment by non-residents, was accompanied by a greater residents' investment in assets abroad, mainly as foreign direct investment and other investments. This proved the Mexican firms' ability to adapt and to expand in the global economy.

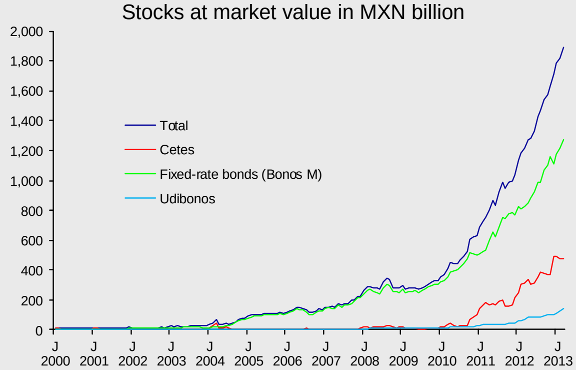
An increase in foreign currency flows, which Mexico received in portfolio investments, has been mainly destined to non-resident investment in government securities –especially those issued in the domestic market, in Mexican pesos, and in the medium and long term– and in the stock market (Chart 7 and Chart 8). In turn, this recent increase in the non-resident holdings of peso-denominated government securities is largely accounted for by: (i) the aforementioned foreign investors' search for yield in an international environment of ample liquidity; (ii) the development of the Mexican domestic securities market, a more diversified supply of government securities standing out, with a greater number of financial instruments and a variety of terms, which have allowed to attract investors with different portfolio preferences; and, (iii) solid fundamentals of the macroeconomic framework in Mexico, which were reflected in the inclusion of the fixed-rate bonds (*Bonos M*) of the Mexican Government in the World Government Bond Index (WGBI).

Chart 7
Non-resident Holdings of Variable Rent Securities
USD billion and percent of the total



Source: Banco de México, Indeval, National Banking and Securites Commission (*Comisión Nacional Bancaria y de Valores*, CNBV) and Mexican Stock Exchange (*Bolsa Mexicana de Valores*, BMV).

Chart 8
Non-residents' Holdings of Government Securities
Stocks at market value in MXN billion

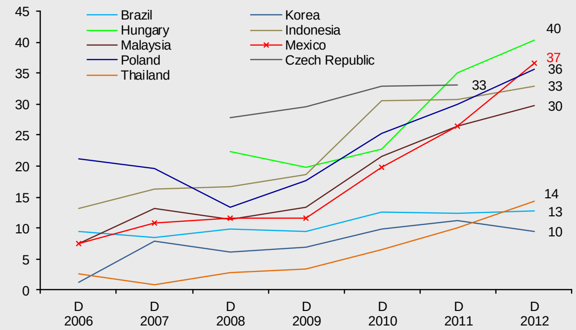


Source: Banco de México.

Greater acquisition of Mexican government securities by non-residents has translated into their higher participation in this type of assets' holdings. Thus, by the end of 2012, the share of Mexican government securities by non-residents lied at 37 percent, a level similar to that observed in other emerging economies, such as Hungary (40%), Indonesia (33%) and Poland (36%), and above levels corresponding to Brazil (13%), Korea (10%) and Thailand (14%) (Chart 9).

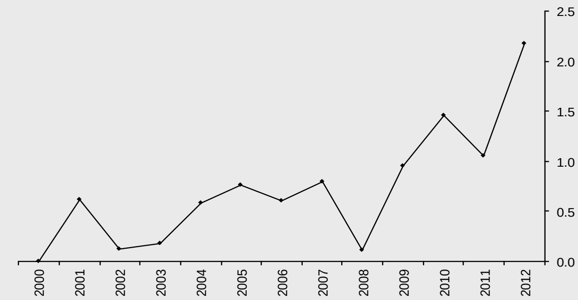
A detailed analysis suggests that external resources have not accumulated in the balance sheets of financial intermediaries of the country, reason for which they have been mainly absorbed by the private sector. As mentioned above, the evidence points to the fact that these resources are being used to fund assets acquisition abroad. In particular, over the last four years, a considerable increase in direct investment inflows of Mexicans abroad has been observed (Chart 10). Besides, it should be noted that external resources have facilitated the international reserves accumulation.

Chart 9
Non-residents' Holdings of Government Securities
Percent of the total



Source: Banco de México and web sites of the central banks and the ministries of finance.

Chart 10
Direct Investment Flow of Mexicans Abroad
Percent of GDP



Source: Banco de México.

3. Economic Policy Measures to Tackle Volatility in Capital Flows

Important capital flows to Mexico in recent years have served to finance the Mexican economic recovery and indicate confidence in the strength of its institutions and its macroeconomic fundamentals. Nonetheless, as stated before, it is necessary to remain alert in light of possible reversals of these capital flows, due to their potential adverse effects on the economic activity and financial stability. In particular, an extended period of low interest rates in international financial markets has increased concern whether different risks in the Mexican financial system could accumulate. In this context, to mitigate the risks of the capital flow reversals and their possible effects on the national economy, the Mexican financial authorities have implemented a series of measures:[4]

a) The anticipated implementation of the new Basel III regulatory framework in the banking sector, including the improvement in the minimum requirements and

[4] See Annual Report on Stability of the Mexican Financial System and on the Activities Carried out by the Financial System Oversight Council. Financial System Oversight Council, March 2013, p. 18.

the quality of the banks' capital.

b) The oversight of the market participants' financial health has been strengthened, including the quality, transparency and the information periodicity of the issuing companies, in particular regarding the use of the derived financial instruments, the incurred exchange risk and the liabilities profile.

c) An amplification and diversification strategy of the institutional investor base, which allows the Mexican government to have more stable sources of financing and with a longer-term investment horizon.

d) The Mexican government funding program that allowed to reduce costs of financing and to extend maturity.

e) A level of international reserves that ensures a greater level of confidence. This availability of foreign currencies is complemented by the IMF's Flexible Credit Line by approximately USD 73 billion.

Thanks to all these measures, the country is in a more favorable position to mitigate a possible capital outflow. Moreover, it should be highlighted that the floating exchange rate regime prevailing in the country and the interest rates' flexibility will continue to perform a central part in the absorption of shocks from abroad.

4. Final Considerations

The ample liquidity mainly originated in advanced countries, together with better growth prospects of emerging economies have accelerated capital flows to the latter.

The referred flows represent an important factor for the macroeconomic and financial dynamics of an open economy, such as the Mexican. Although they can stimulate the economic growth, they also pose risks for the financial stability, such as its currency unwanted appreciation, speculative bubbles or the possibility of disruptive capital outflows, in the case of the abrupt changes of the current conditions.

Nonetheless, in the case of Mexico there is no evidence indicating that the recent years' inflows could be harmful in terms of financial stability and/or for the evolution of asset prices. In particular the exchange rate appreciation registered so far has been congruent with the strength of the economy and the monetary policy stances between Mexico and its main trade partners. Likewise, the capital flows have directed to the government debt market and have not translated into exchange rate discrepancies in the financial intermediaries' balance sheets.

Regarding the use of financial funds, greater availability of financial resources has allowed to attend to the public and private sector borrowing requirements, as well as to fund the international reserves accumulation. In particular, in the fourth quarter of 2012, the annual flow of the use of financial funds by the public sector increased with respect to the previous quarter, given higher public sector borrowing requirements (PSBR), while financial resources to states and municipalities remained stable (Table 2).[12] The annual flow of funds to the non-financial private sector was similar to that observed in previous periods. Finally, the accumulation of international reserves grew at a lower rate with respect to previous quarters.

The most recent information indicates that, in the first quarter of 2013, the financing flows to the public sector (PSBR) have been in line with the budget approved for this year, while the financial resources to states and municipalities remained stable. Additionally, international reserves accumulation was greater than that in the last quarter of 2012.[13] In turn, the financing to the non-financial private sector continued to increase without generating upward pressures on the financing costs and the delinquency rates of credit portfolios.

Addressing this last point in more detail, domestic financing to non-financial private firms continued to expand at a similar pace with respect to the last quarter

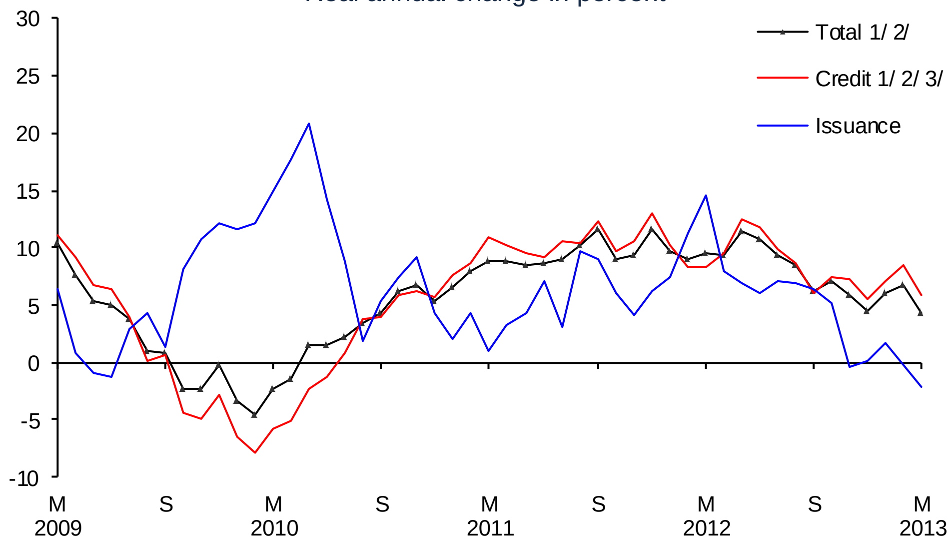
[12] The information of annual flows of sources and uses of financial resources is available up to the fourth quarter of 2012.

[13] In the first quarter of 2013, international reserves accumulation was USD 3,446.9 million, while in the period of October - December 2012 it was USD 1,633.5 million.

of 2012 (Chart 28). This was mainly due to the sustained growth path of credit portfolios, particularly that of banks. The domestic debt market continued operating normally, although the net balance of securities issuance remained stable. Thus, in the first quarter of 2013, private firms did not find any difficulties to finance their operations through the loanable funds market.

Bank credit to non-financial private firms continued to support productive activity in Mexico. The growth of commercial bank credit to non-financial private firms stabilized in the period of January - March 2013, after having experienced a mild slowdown in the second half of 2012 (Chart 29a). Development banks continued to expand their credit to non-financial private firms at relatively high rates, similar to those observed in the previous quarter (Chart 29a). This was observed for credit granted to large and small companies alike. In this environment of expanding bank credit to firms, the corresponding interest and delinquency rates of both commercial and development bank credit portfolios remained at low and stable levels (Chart 29b and Chart 29c).

Chart 28
Domestic Financing to Non-financial Private Firms
Real annual change in percent



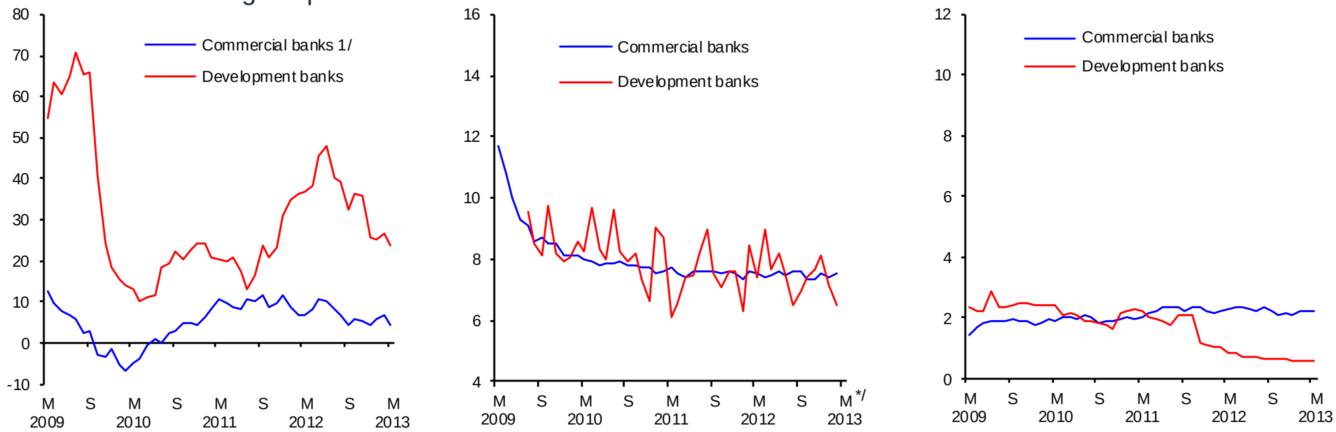
Source: Banco de México.
1/ These figures are affected by the disappearance of some non-banking financial intermediaries and their conversion to non-regulated Sofom.
2/ From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and medium-size firms (PyMES, for its acronym in Spanish) from consumer credit to credit granted to non-financial firms.
3/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as nonbank financial intermediaries.

Chart 29
Banks' Credit to Non-financial Private Firms

a) Performing Credit to Non-financial Private Firms
Real annual change in percent

b) Interest Rates of New Credits to Non-financial Private Firms 2/
Percent

c) Delinquency Rates of Credit to Non-financial Private Firms 3/
Percent



Source: Banco de México.
*/ Figures as of February 2013.
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.

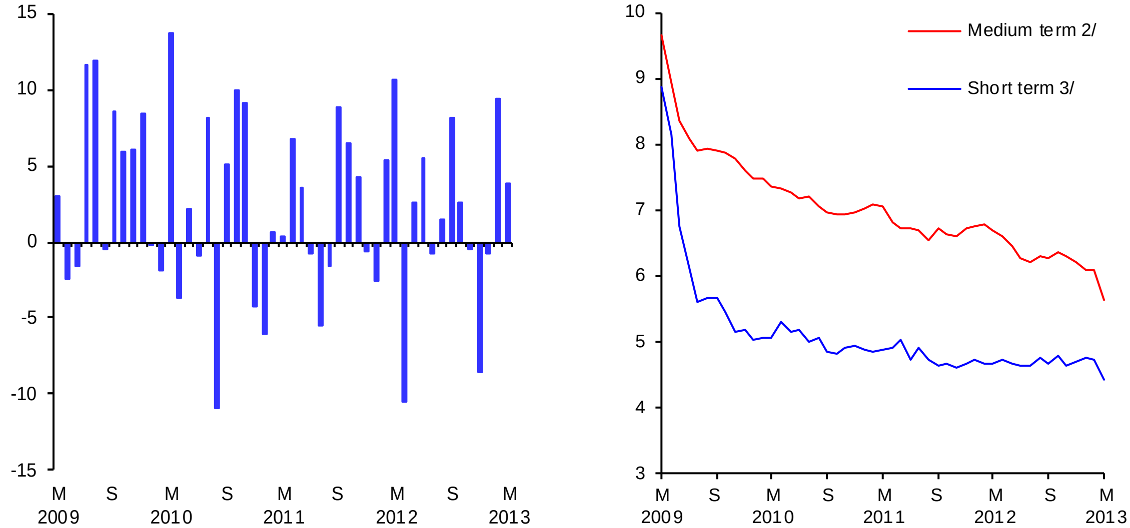
Private firms continued to recur to debt markets for financing. The issuance of securities abroad presented activity levels similar to those of the fourth quarter of 2012. The domestic debt market also continued operating normally. In fact, in contrast with the net amortization of medium-term debt securities recorded in the fourth quarter of 2012, in the first quarter of 2013 non-financial private firms observed a positive net balance of medium-term securities placements. Thus, in the period of January - March 2013, the net debt placement of medium-term issues totaled MXN 12.5 billion, which resulted from MXN 13.6 billion in gross placements and MXN 1.1 billion in amortizations (Chart 30a).

Additionally, the number of issuing companies increased, and the debt placements were carried out under favorable conditions in terms of maturity and interest rates. The number of non-financial private firms, participating in this market increased from 75 at the end of the first quarter of 2012 to 82 in the same period of 2013. The average term of new medium-term debt placements in the reference quarter remained high (over 12 years). Interest rates of medium-term securities decreased on average in March 2013 (Chart 30b), in response to Banco de México's recent reduction by 50 basis points of the target for the Overnight Interbank Interest Rate.

Chart 30
Non-financial Private Firms' Securities

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

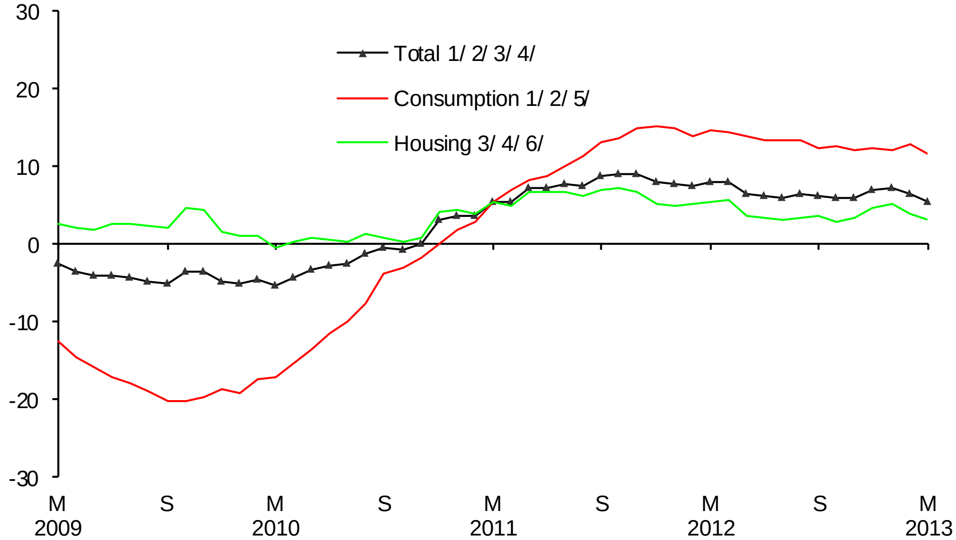
b) Securities Rates of Non-financial Private Firms
Annual percent



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.

Household credit kept an upward trend in the first quarter of 2013, maintaining the growth rate observed in the last quarter of 2012. Household credit registered an average real annual growth rate of 6.4 percent in the period of January – March 2013, while the consumer and mortgage loan components expanded at a rate of 12.2 and 4.1 percent, respectively (Chart 31).

Chart 31
Credit to Households
Real annual change in percent



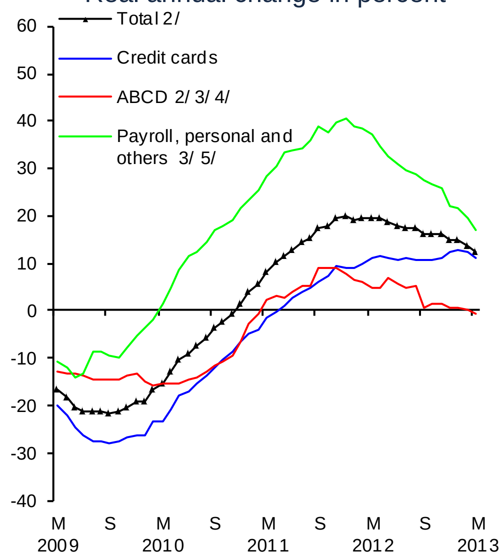
Source: Banco de México.
1/ From February 2009 onwards, figures are affected by the reclassification of credit granted to small- and medium-size firms (PyMES, for its acronym in Spanish) from consumer credit to credit granted to non-financial firms.
2/ Figures as of March 2008 include the total consumer credit portfolio of commercial banks' subsidiaries Sofom E.R.
3/ Between January and December 2007, figures are adjusted in order to avoid distortions due to the reclassification of credit granted to the business sector for housing construction.
4/ Figures are adjusted so as to avoid distortions due to the inclusion of the ISSSTE Housing Fund (*Fondo de la Vivienda del ISSSTE*, Fovisste) statistics in December 2007.
5/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as non-bank financial intermediaries.
6/ 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 in the first quarter of 2013 (Chart 31). However, the growth of the commercial bank consumer credit portfolio slowed down, as a result of lower growth rates of the payroll, personal and other loans components (Chart 32a). It is important to note that although the annual growth rates in payroll and personal loans remained relatively high, this was mainly a result of its dynamism over most of 2012, given that in recent months these portfolios' expansion moderated considerably. In contrast, the credit card portfolio continued to grow at stable rates. Thus, in the period of January - March 2013, the average real annual growth rate of commercial bank performing consumer credit was 13.6 percent, in contrast with 15.6 percent registered in the fourth quarter of 2012. Within this portfolio, the payroll, personal and other loan components increased at an average real annual growth rate of 19.4 percent in the period of January - March 2013, with respect to 24.8 percent in the last quarter of the previous year. The credit card portfolio and the durable goods portfolio (ABCD) expanded in the first quarter of the year at rates of 12.1 and 0.01 percent, respectively, compared to 11.5 and 1.1 percent in the previous quarter. In general, the growth of consumer credit has taken place in a context of stable interest rates and the corresponding delinquency rates. Even though the quality of the payroll, personal and other credit portfolios has deteriorated gradually, the latest available data suggest that this trend may be fading out (Chart 32b).

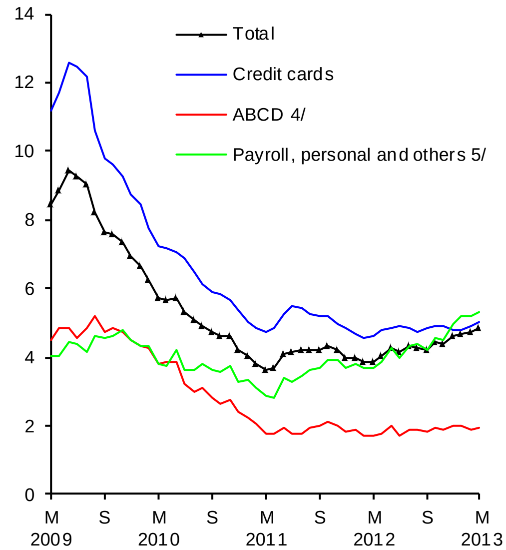
Mortgage loans continued growing during the analyzed period, with a dynamism equivalent to that observed in the previous quarters. In particular, the credit portfolios of the main mortgage market participants, the National Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit) and commercial banks, registered growth rates similar to those observed throughout 2012 (Chart 33a). The performing portfolio of the National Housing Fund expanded 5.7 percent in average real annual terms in the period of January - March, while that of commercial banks increased by 6.2 percent in the same period. The growth of mortgage credit (both by the National Housing Fund and commercial banks) has been accompanied by stable credit costs and delinquency rates (Chart 33b and Chart 33c).

Chart 32
Commercial Banks' Credit to Consumption

a) Commercial Bank Performing Consumer Credit [1/]
Real annual change in percent

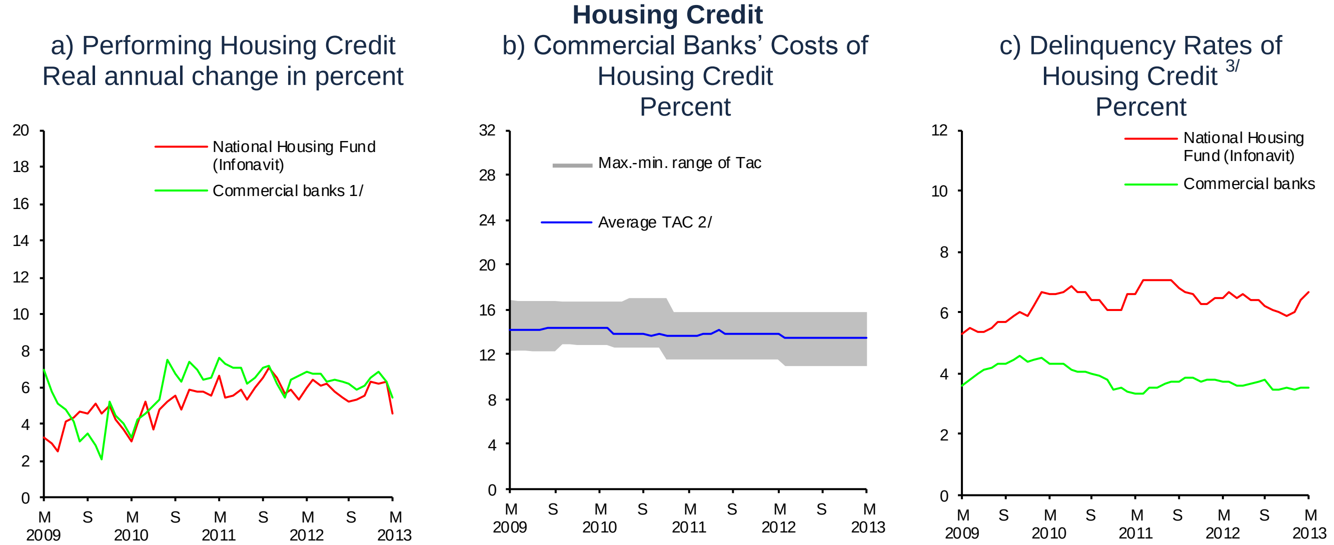


b) Delinquency Rate of Commercial Bank Consumer Credit [1/ 6/]
Percent



Source: Banco de México.
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 medium-size 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.
3/ 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.
4/ It includes credit for property acquisition and automobile credit.
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.

Chart 33
Housing Credit



Source: Banco de México.
1/ 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.
2/ Indicator's simple average resuming the total annual cost (TAC) for a standard mortgage product.
3/ The delinquency rate (*Índice de Morosidad*, IMOR) is defined as non-performing portfolio divided by total loan portfolio.

4. Monetary Policy and Inflation Determinants

The adoption since more than a decade ago of a monetary policy aimed at preserving stability of the national currency purchasing power, together with a prudent fiscal policy, have allowed to make considerable progress in curbing inflation. Among the structural improvements in terms of inflation, the following stand out:

a) The reduction in the level, volatility and persistence of inflation.

b) The lower pass-through of adjustments in relative prices (for instance, shocks to international commodity prices) and of exchange rate fluctuations to consumer prices.

c) The anchoring of inflation expectations.

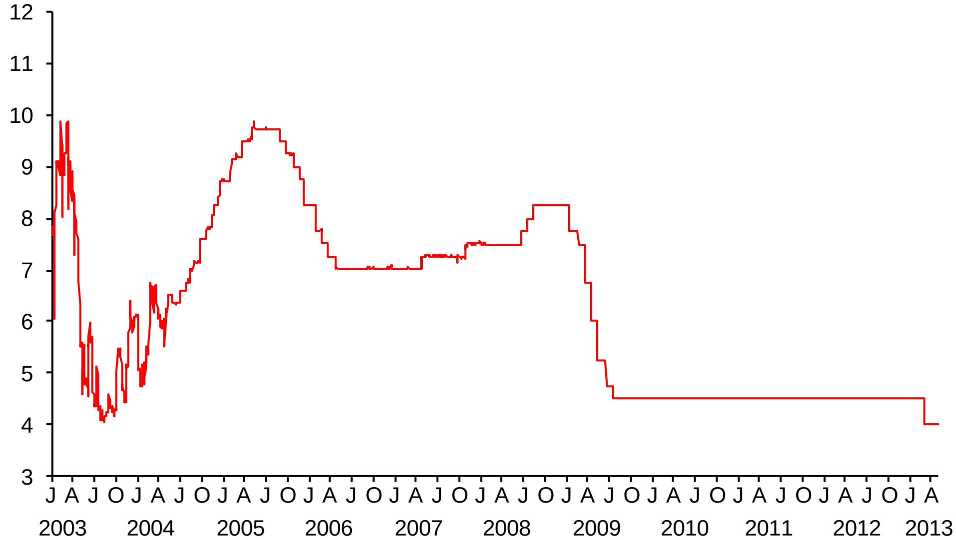
d) The considerable reduction in inflation risk premia.

In this context, inflation has displayed a process of gradual convergence towards the 3 percent permanent target.

In an environment of greater certainty due to the macroeconomic policy stance and, in particular, by the referred progress in curbing inflation, in March 2013 Banco de México's Board of Governors decided to decrease by 50 basis points the target for the Overnight Interbank Interest Rate to 4.0 percent (Chart 34). This reduction of the monetary policy reference interest rate, besides acknowledging the medium-term achievements in controlling inflation, facilitates the economy's adjustment in an environment of slower economic growth and lower inflation. The Board of Governors pointed out that this reduction is compatible with the medium-term inflation convergence towards the 3 percent permanent target. Therefore, it emphasized that this measure did not represent the beginning of a cycle of reductions in the reference interest rate. Subsequently, in its monetary policy decision of April 2013, the Board decided to maintain the target for the Overnight Interbank Interest Rate unchanged at 4.0 percent, based on the evaluation that the monetary policy stance is congruent with an outlook in which no generalized pressures on inflation are observed, and in which the expenditure growth is expected to be in line with the inflation convergence towards the 3 percent permanent target.

It is important to stress that the aforementioned macroeconomic conditions were reflected in a favorable evolution of financial markets over the period analyzed in this Inflation Report.

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



1/ The target for the Overnight Interbank Interest Rate is shown since January 21, 2008.
Source: Banco de México.

The cyclical phase the economy is currently going through indicates a growth slowdown. This has occurred in an environment of persisting slack conditions in the main input markets, which has contributed to stable medium- and long-term inflation expectations.

In this environment, the prevailing monetary conditions are not conducive to second round effects derived from the recent uptick in annual headline inflation and are congruent with the medium-term inflation trend remaining low. Likewise, in the foreseeable future, no demand-related pressures on the main input markets for production, e.g. the labor and the credit market, or on the country's external accounts are anticipated.

In particular, the following stands out:

a) The labor market continued to present slack conditions. During the first quarter of 2013 the unemployment and underemployment rates, and the informal sector's employment rate observed similar levels to those in the previous quarter, and remained above those before the crisis onset in 2008 (Chart 35a). In turn, even though the informal employment rate reduced with respect to the relatively elevated levels in the fourth quarter of 2012, it also remains at high levels as compared to the pre-crisis ones. The number of IMSS-insured workers kept growing, even though at a rate below that of people's integration to the labor force (Chart 35b).

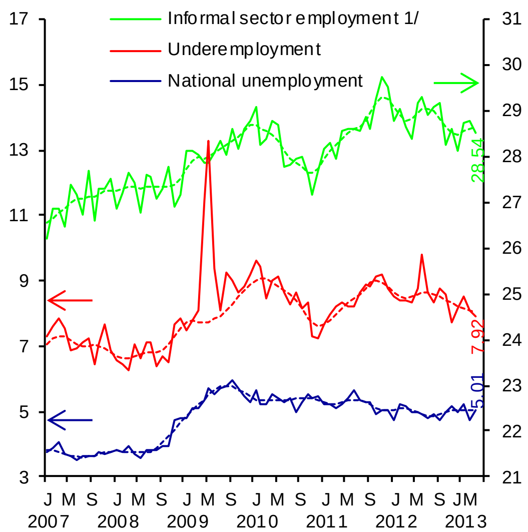
b) Different indicators suggest that wages have risen moderately (Chart 36a). In turn, even though the average labor productivity in the manufacturing industry apparently stopped increasing, it maintains at high levels with respect to those before the 2008 crisis. In this way, the unit labor costs remain low (Chart 36b).

c) The expansion of financing to the non-financial private sector has taken place in a context of stable interest and delinquency rates of the credit portfolios, which indicates the absence of overheating conditions in the sector.

d) As mentioned above, the current account deficit in the first quarter of 2013 is estimated to have maintained at moderate and fully fundable levels by the flow of resources to the financial account. Thus, no demand-related pressures on the country's external accounts are observed.

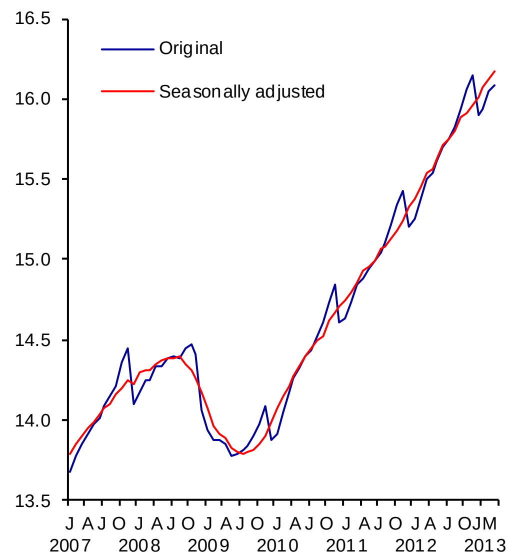
Chart 35
Labor Market Indicators

a) Unemployment and Underemployment Rates and Informal Sector's Employment Rate
Percent, s. a.



1/ Seasonal adjustment by Banco de México.
a. e. / Seasonally adjusted and trend data.
Source: National Employment Survey (*Encuesta Nacional de Ocupación y Empleo*), INEGI.

b) IMSS-insured Workers [1/]
Millions of persons

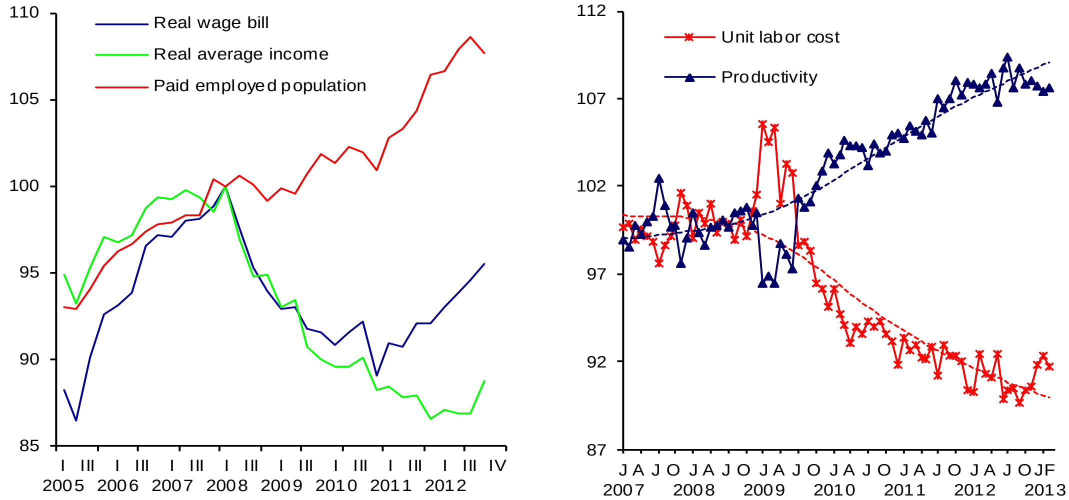


1/ Total permanent workers and temporary workers in urban areas.
Source: IMSS. Seasonal adjustment by Banco de México.

Chart 36
Wage Indicators and Productivity and Unit Labor Cost in the Manufacturing Sector

a) Real Wage Bill [1/]
Index first quarter 2008=100, s. a.

b) Productivity and Unit Labor Cost in the Manufacturing Sector
Index 2008=100, s. a.

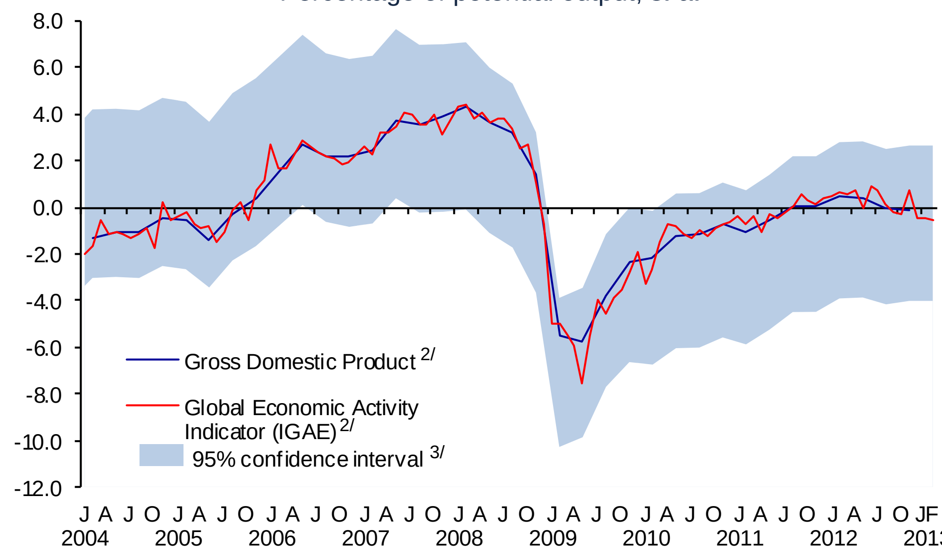


1/ Data from 2011 onwards are preliminary and are based on INEGI demographic projections.
s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from the National Employment Survey (*Encuesta Nacional de Ocupación y Empleo*, ENOE), INEGI.

s. a. / Seasonally adjusted and trend data.
Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Manufacturing Business Survey (*Encuesta Mensual de la Industria Manufacturera*) and the Indicators of the Industrial Activity of Mexico's System of National Accounts, INEGI.

The output gap displayed an incipient downward trend in recent months, but it is estimated to have continued around zero in the first quarter of 2013 (Chart 37).

Chart 37
Output Gap Estimation [1/]
Percentage of potential output, s. a.



1/ Estimated using the Hodrick-Prescott (HP) filter with tail corrections; see Banco de México (2009), "Inflation Report, April-June 2009", p.69.
2/ GDP figures up to the fourth quarter of 2012, IGAE figures up to February 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.

The described evolution of the main inflation determinants has been reflected in the performance of core inflation –as well as in that of different indicators of the headline inflation trend (see Section 2)–, which persists around 3 percent and is estimated to continue close to this level at least during 2013 and 2014.

Nonetheless, annual headline inflation increased in March and the first fortnight of April, which is expected to revert relatively fast from June 2013 onwards, as explained in Section 5. Additionally, various elements should be pointed out. First, the monetary conditions at the margin have displayed certain tightening derived from the exchange rate appreciation. Second, a considerable flattening of the yield curve is also a sign of the relative monetary conditions tightening. Third, the mentioned increases do not seem to generate a second round effect on inflation. Finally, it is important to emphasize that the time frame, in which inflation is forecast to remain at high levels, lasts for a shorter period as compared to the time period different monetary policy transmission channels require to function properly.

With regard to inflation expectations, as anticipated in light of a recent non-core inflation increase, shorter-term expectations observed a slight increase in recent months. In line with the Banco de México's survey among the private sector analysts, the mean of headline inflation expectations for the end of 2013 shifted from 3.69 to 3.90 percent between the surveys of December 2012 and April 2013.[14] This increase resulted from the performance of implicit expectations for non-core inflation, whose average rose from 4.48 to 5.80 percent, given that the average of those corresponding to core inflation even reduced from 3.45 to 3.35 percent over this period (Chart 38a).

Even more importantly, for medium- and long-term horizons the average of inflation expectations for the end of 2014 remained around 3.7 percent in the first four months of the year, while the average for the next 4 years and for the next 5-8 years remained stable around 3.5 percent over the same period (Chart 38b).[15]

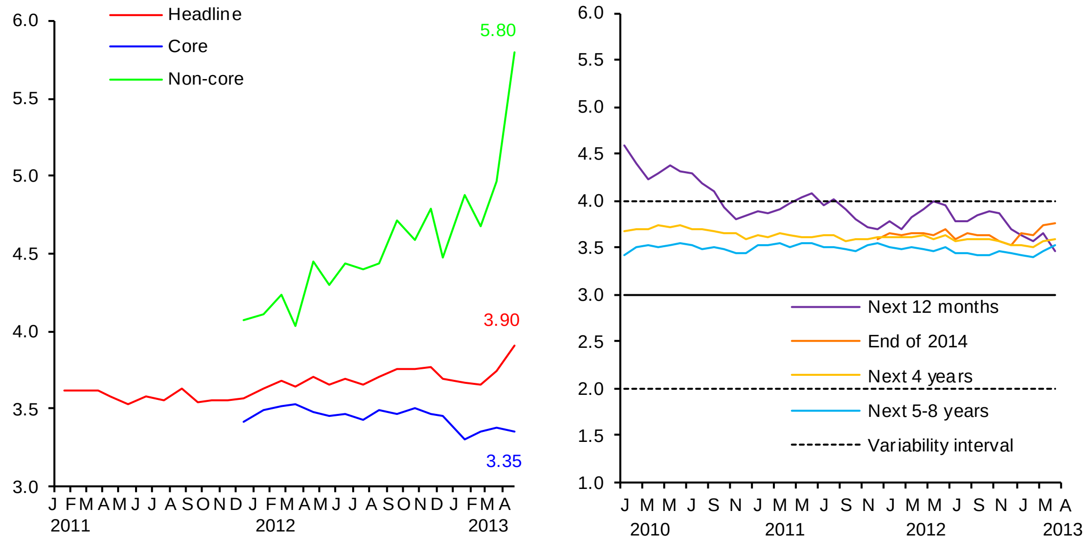
[14] Additionally, a similar evolution is observed in the medians of inflation expectations for the end of 2013 of Banco de México's Survey. The median of headline inflation expectations shifted from 3.65 to 3.90 percent between December 2012 and April 2013. This increase was due to the growth of the median of the implicit expectations of non-core inflation from 4.47 to 5.96 percent over the same period, while the median for core inflation expectations dropped from 3.40 to 3.30 percent in the referred time period. In turn, according to the Banamex Survey of Financial Market Analysts' Expectations, average expectations for headline inflation for 2013 increased from 3.73 percent in the survey of December 14, 2012 to 3.87 percent in the survey of April 22, 2013, while the median shifted from 3.75 to 3.89 percent. Implicit average expectation of non-core inflation increased from 4.75 to 5.59 percent and the median grew from 4.90 to 5.80 percent in the referred period, at the same time as average expectations of core inflation dropped from 3.42 to 3.35 percent between the survey of December 14, 2012 and the survey of April 22, 2013, and the median slipped from 3.40 to 3.31 percent between the two surveys.

[15] The median of inflation expectations for the end of 2014 of Banco de México's survey remained around 3.6 percent. In turn, according to the Banamex Survey of Financial Market Analysts' Expectations, average headline inflation expectations for 2014 also locate around 3.7 percent, while the median of the expectations lies at 3.6 percent.

Chart 38
Inflation Expectations

a) Headline, Core and Non-core Inflation Expectations as of the End of 2013
Percent

b) Headline Inflation Expectations across Different Terms 1/
Percent



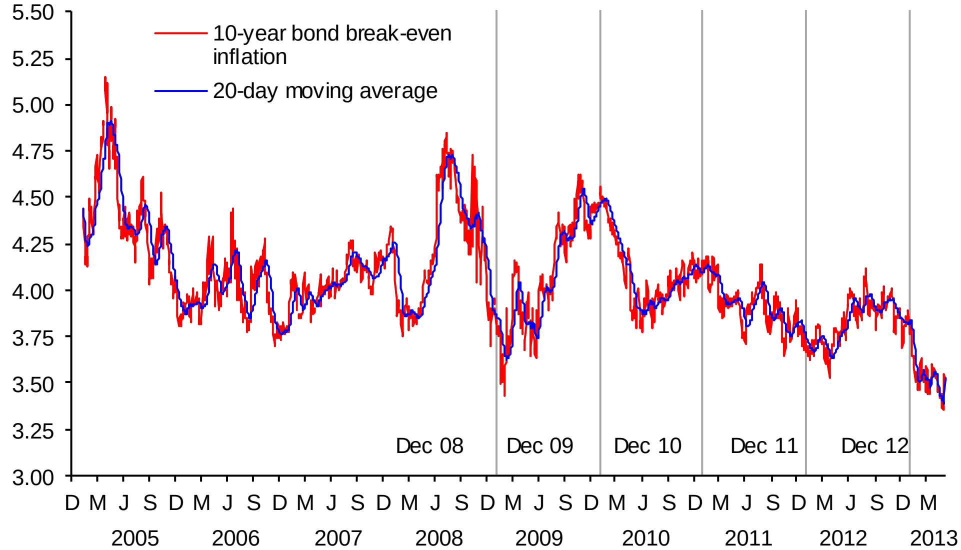
Source: Banco de México's survey.

1/ Latest available data: April 2013.
Source: Banco de México's survey.

To complement the data obtained from the surveys, the expected break-even inflation and inflation risk –indicator which corresponds to the difference between the 10-year bond nominal yield and the real yield associated to inflation-indexed debt instruments of the same term– continued to show a reduction in recent months, albeit with certain volatility. Thus, this variable diminished from 3.8 percent in late December 2012 to 3.5 percent in early May 2013 (Chart 39). Considering that the inflation risk premium has a low, but positive level, it is inferred that inflation expectations implicit in long-term interest rates are below 3.5 percent.

In sum, the structural progress in curbing inflation, the conditions prevailing in input markets in a context of the growth slowdown, as well as the marginal tightening of the monetary conditions derived from the exchange rate appreciation, have contributed to maintaining stable inflation expectations. Thus, the price formation process of the economy has not been affected by the recent change in relative prices (see Box 3).

Chart 39
Break-even Inflation and Inflation Risk [1/]
Percent



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.

Box 3
Anchoring of Medium- and Long-term Inflation Expectations in light of Adverse Supply Shocks

Introduction

The anchoring of expectations is a topic of primary importance, given that their evolution affects the inflation performance. In general terms, inflation expectations are said to be anchored when they are relatively insensitive to inflation shocks. It should be noted here that the performance of the medium- and long-term inflation expectations is relevant, given that the short-term ones invariably increase as a result of inflation shocks.[1]

The degree of anchoring of inflation expectations does not necessarily remain constant over time. When they change, the degree of this modification can be due to different factors, among which stands out the central bank's monetary policy conduction. Thus, a monetary policy oriented at procuring price stability, to the extent to which an environment of low and stable inflation is generated, can contribute to anchoring inflation expectations.

This Box analyzes the manner in which inflation expectations in Mexico have responded to supply shocks, which affected inflation.[2] In particular, three episodes in which inflation in Mexico was affected by supply shocks in the past are analyzed. They correspond to 2004, 2006-2008 and 2011-2012.[3] The description of each of these periods comprises the shocks observed, the effect on inflation and its expectations, mainly medium- and long-term, as well as the implemented monetary policy actions. The 2011-2012 period stands out because inflation expectations observed greater stability, which suggests strengthening of the credibility of the monetary authority commitment to price stability. Moreover, an econometric exercise is presented, which finds evidence in favor of the fact that the inflation expectations anchoring indeed strengthened in recent years.

1. 2004 Episode

The first episode of supply shocks analyzed in this Box corresponds to 2004, when the Mexican economy was subject to the following shocks:

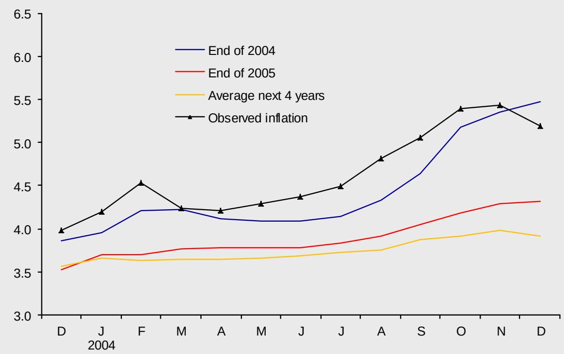
a) Increase in the international prices of different commodities, which affected the prices of goods that use these commodities as input.

b) Increases in the prices of certain goods and services managed and established by the government (gasoline prices in the borderline cities, prices of domestic gas and urban transport fares).

c) Increases in certain agricultural products' prices, such as tomato, due to climatic factors.

In this environment in early 2004 an important growth of annual headline inflation from 3.98 percent in December 2003 to 4.53 percent in February 2004 was registered (Chart 1). During the second half of the year inflation upticked again, reaching 5.43 percent in November.

Chart 1
Episode 1 Supply Shock
Inflation and its Expectations
Percent



Source: Banco de México and Banco de México Expectation Survey.

In turn, inflation expectations gathered in Banco de México's survey have been affected (Chart 1):

a) Inflation expectations for the end of 2004 increased from 3.86 percent in December 2003 to 4.20 percent in February 2004, to finally locate at 5.47 percent in December.

b) Inflation expectations for the end of 2005 shifted from 3.53 percent in December 2003 to 3.69 percent in February 2004, to eventually lie at 4.32 percent in late 2004.

c) Inflation expectations for the next 4 years went from 3.57 percent in December 2003 to 3.63 percent in February 2004, to finally reach 3.91 percent in December.

As to the monetary policy, the Central Bank increased "the short" 9 times in 2004, shifting it from MXN 25 million a day at the beginning of the year to MXN 69 million in December. Thus, the interbank funding rate increased from its lowest level registered in a year of

[1] In general terms, the expectation referring to an indicator formulated for the next 12 months or less is considered a short-term expectation.
[2] The results presented in this Box are part of the working paper Aguilar et. al. (2013).
[3] These episodes were defined in accordance with the narrative of Inflation Reports and the press releases of the monetary policy announcements.

4.73 percent on January 19, to 6.75 percent on December 31.

2. 2006-2008 Episode

The second supply shock episode corresponds to the period between the second half of 2006 and the third quarter of 2008, when the following events presented:

a) Increases in international commodity prices, that generated higher domestic prices of goods that use these commodities as input, which took place in the second half of 2006, beginning of 2007 and mainly the first half of 2008.

b) In the first half of 2006, an increase was registered in certain agricultural products' prices due to climatic conditions.

c) In September 2007 a tax reform was approved, which established new taxes, such as the Flat Rate Business Tax.

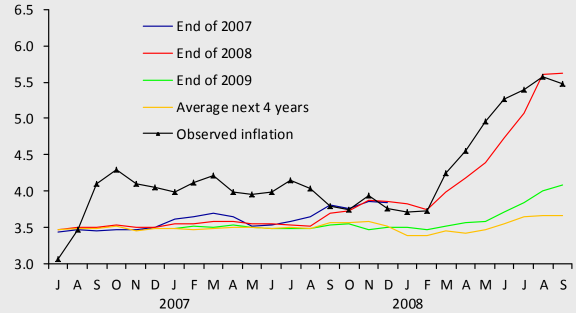
Annual headline inflation increased from 3.06 percent in July 2006 to 4.21 percent in March 2007. In the following months, annual headline inflation persisted at high levels fluctuating around 4 percent. Subsequently, it grew significantly throughout 2008 and located at 5.47 percent in September that year (Chart 2). With regard to the evolution of inflation expectations, the following was observed:

a) Expectations for less than a year deteriorated insofar as inflation rebounded. Thus, the expectations for the end of 2006 shifted from 3.36 percent in July 2006 to 3.94 percent in December that year. Those for the end of 2007 went from 3.50 percent in December 2006 to 3.84 percent in December 2007. Finally, inflation expectations for the end of 2008 increased from 3.86 percent in December 2007 to 5.63 percent in September 2008.

b) As regards inflation expectations for more than a year, during 2006 those for the end of 2007 maintained around 3.5 percent. Nonetheless, over 2007 those for the end of 2008 grew from 3.54 percent in January to 3.86 percent in December. Finally, inflation expectations for the end of 2009 increased in 2008, going from 3.49 percent in January to 4.07 percent in September.

c) Inflation expectations for the next 4 years maintained around 3.5 percent from mid-2006 to December 2007. However, in 2008 they grew and reached 3.66 percent in September that year.

Chart 2
Episode 2 Supply Shock
Inflation and its Expectations
Percent



Source: Banco de México and Banco de México Expectation Survey.

Banco de México's Board of Governors decided to restrict the monetary conditions in April and October 2007.[4] Thus, the bank funding target rate went from 7 to 7.25 percent in April and, subsequently, located at 7.5 percent from October onwards. Additionally, it decided to increase by 25 basis points the target for the Overnight Interbank Interest Rate consecutively in June, July and August 2008. Thus, the referred interest rate shifted from 7.5 percent to 8.25 percent.

3. 2011-2012 Episode

The last episode corresponds to the period from the third quarter of 2011 to the third quarter of 2012. Over this period, the Mexican economy was affected by supply shocks, mainly domestic ones:

a) The relative prices of certain agricultural goods, such as vegetables, increased due to the climatic factors.

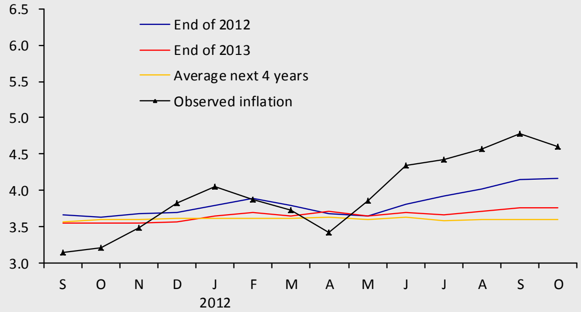
b) Increases in the prices of some agricultural products due to the sanitary factors. In particular, the avian flu outbreak in some entities of the country affected the egg price.

c) During this period, exchange rate depreciation episodes were observed, which propitiated higher merchandise prices with respect to the services prices.

Headline inflation, which located at 3.14 percent in September 2011, in June 2012 exceeded the upper bound of the variability interval established around the inflation target, locating at 4.34 percent in the referred month. Later, it continued to increase till reaching 4.77 percent in September (Chart 3).

4 It should be noted that over the period analyzed in this Section, Banco de México changed the monetary policy operational target. In particular, from January 21, 2008, Banco de México adopted the Overnight Interbank Interest Rate as an operational target, instead of the current account balance, which the banking sector maintains with the Bank itself (the "short").

Chart 3
Episode 3 Supply Shock
Inflation and its Expectations
Percent



Source: Banco de México, INEGI and Banco de México Expectation Survey.

With regard to the evolution of inflation expectations, even though the short-term ones increased, medium- and long-term inflation expectations remained relatively stable, unlike in the previous episodes (Chart 3):

a) Inflation expectations for the end of 2012 shifted from 3.66 to 4.15 percent from September 2011 to the same month of 2012.

b) In turn, those for the end of 2013, registered weaker growth in the same period, going from 3.54 to 3.76 percent.

c) Longer-term inflation expectations remained anchored within the variability interval around the inflation target. Inflation expectations for the next 4 years changed from 3.56 percent in September 2011 to 3.60 percent in September 2012.

In this context, during the period in question, the target for the Overnight Interbank Interest Rate did not change. However, both in the press releases of the monetary policy announcements, and in the Minutes, the Board of Governors stated that it would remain alert to the evolution of all inflation determinants and that it was ready to take action if necessary.

Table 1 shows the inflation expectations performance during the last supply shock, as compared to the previous episodes. Inflation expectations for the next 4 years increased less in the last episode with respect to the previous ones. The comparison between the first and the third episodes is particularly relevant, given that, even though the inflation increase was greater in the last episode with respect to the first one, the growth of inflation expectations was lower. This would suggest that presently inflation expectations are anchored better.

As regards the comparison between the second and the third episodes, it should be pointed out that the latter was shorter and that both inflation and its expectations increased less. Thus, based on this descriptive analysis, it is not clear whether the lower response of inflation expectations is a result of the more solid anchoring or of the lower impact of shocks on inflation. To that end, a more formal analysis is required; reason for which the following Section presents an econometric exercise that analyzes the evolution of the inflation expectations' anchoring in recent years.

4. Econometric Exercise

This Section presents an econometric exercise to analyze how shocks to inflation have affected short- and long-term inflation expectations in Mexico. The methodology of Mariscal, Powell and Tavella (2013) is used as a reference. Using the monthly data of the survey realized by Banco de México among the private sector analysts regarding inflation expectations for the following 12 months and for the next 4 years, the following regression was estimated:

$$E_t(\pi_{t+i}) = \alpha + \gamma E_{t-1}(\pi_{t+i}) + \delta Max\{\pi_{t-1} - \pi^*, 1\} + \epsilon_t$$

where π is the annual inflation rate, π^* is the permanent inflation target of Banco de México. The subindex *t* refers to the month in which the inflation survey is carried out and E_t refers to the expectation at the moment *t*. For example, $E_t(\pi_{t+12})$ considers the inflation expectation at the moment *t* for the following 12 months.

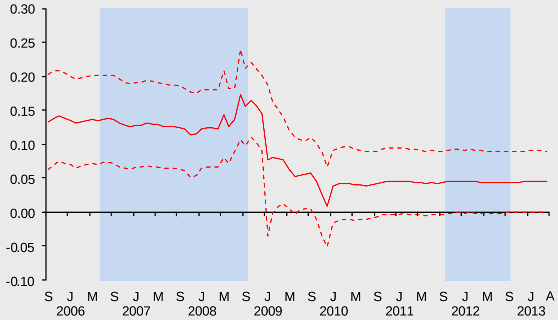
Recursive estimations were realized, expanding the sample used. That is, considering the available data regarding the expectations from September 2003 onwards, we started with a sample of 24 months, amplifying the sample by means of adding data throughout time until March 2013.

The result we expected to obtain using this exercise corresponds to the response of inflation expectations to inflation shocks throughout time. That is, we are interested in the evolution of parameter δ. In the regression equation, this parameter corresponds to the coefficient of a variable that takes the maximum value between the unit and the difference between the observed inflation in the previous period and the 3 percent inflation target. Thus, this variable captures those periods when inflation lied above the upper bound of the variability interval around the 3 percent permanent target. A positive value of this parameter suggests increases in inflation expectations associated to inflation shocks. Thus, a more solid anchoring of inflation expectations would be related to the reduction of this parameter value.

The results obtained after considering the average of inflation expectations for the next 12 months and for the next 4 years, show that the parameter δ has been decreasing over time to get close in the recent period to values not statistically different from zero (Chart 4 and 5). Likewise, as the short-term expectations correspond to inflation for the next 12 months, higher values were obtained when these were used in the regression, as compared to the longer-term ones.

Chart 4

Coefficient (δ) of 12-month Expectations 1/ 2/



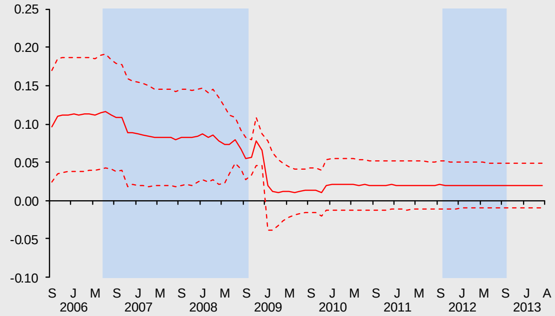
Source: Estimated by Banco de México.
1/ 10 percent confidence intervals.
2/ The blue bars correspond to the episodes of supply shocks. This chart presents the shocks corresponding to the period from July 2006 to September 2008, and the shock starting in October 2011 and concluding in September 2012.

In addition, it should be noted that for the estimation an average of inflation expectations for the following 12 months was considered, and it was found that after the second episode of supply shocks a decrease in the parameter in question was registered. In turn, as for the estimation which used the expectations for the next 4 years, after the second episode of supply shocks the reduction, which had already been indicated by this parameter, accentuated.[5]

These results seem to suggest that the fact that the price formation process of the economy has not been contaminated during the second episode of supply shocks contributed to strengthening the anchoring of inflation expectations. Therefore, they were relatively less affected in the last episode of supply shocks.

Chart 5

Coefficient (δ) of 4-year Expectations 1/ 2/



Source: Estimated by Banco de México.
1/ 10 percent confidence intervals.
2/ The blue bars correspond to the abovementioned episodes of supply shocks.

5. Final Considerations

This Box shows empirical evidence in favor of the fact that inflation expectations have recently strengthened. A descriptive analysis was presented, in which three episodes, when the Mexican economy was subject to different supply shocks, were considered. It was shown that in the episode corresponding to 2011-2012 inflation expectations increased less than in the other episodes considered. Likewise, the results of an econometric exercise suggest that inflation expectations respond increasingly less to inflationary shocks. This was made possible by the credibility of an adequate macroeconomic policy and the strengthening of Banco de México's communication strategy with the market participants and with the public in general.

6. References

[1] Aguilar A., G. Cuadra, C. Ramírez and D. Sámano. (2013). "El Anclaje de las Expectativas de Inflación ante Choques de Oferta". Mimeo.

[2] Mariscal, R., A. Powell, and P. Tavella. (2013). "On the Credibility of Inflation-Targeting Regime in Latin America". IDB working paper.

[5] The regression was also estimated using as a dependent variable the dispersion of inflation expectations, with the qualitatively equal results for the average reported here.

Table 1

Performance of Inflation and its Expectations over the Episodes of Supply Shocks

(%)

	Episode 3			Episode 2				Episode 1		
	(A)	(B)	(B-A)	(C)	(D)	(E)	(E-C)	(F)	(G)	(G-F)
Annual inflation	Sep 2011	Sep 2012	Change	Jul 2006	Mar 2007	Sep 2008	Change	Dec 2003	Nov 2004	Change
Headline	3.14	4.77	1.63	3.06	4.21	5.47	2.41	3.98	5.43	1.45
Headline inflation expectations										
Next 4 years	3.56	3.60	0.04	3.47	3.48	3.66	0.19	3.57	3.98	0.41
End of 2004								3.86	5.36	1.50
End of 2005								3.53	4.29	0.76
End of 2007				3.43	3.68					
End of 2008				3.47	3.57	5.63	2.16			
End of 2009					3.50	4.07	0.57*			
End of 2012	3.66	4.15	0.49							
End of 2013	3.54	3.76	0.22							

*E-(D)
Source: Banco de México and INEGI.

So far this year, international financial markets have been characterized by an environment of ample liquidity. This, together with the appropriate management of the fiscal and monetary policies in Mexico, as well as the prospect of a certain increase in the potential growth of the country, as a result of the implemented structural reforms, have generated higher capital flows to the country, an exchange rate appreciation and reduction in interest rates of all contract terms.

In particular, the government securities' interest rates in Mexico diminished over the period analyzed by this Inflation Report (Chart 40a). Indeed, the short-term interest rates reached levels close to their historical minimum after the Monetary Policy announcement in March, when the abovementioned adjustment in the target for the reference interest rate took place, and from then onwards they have remained stable. Particularly, the interest rate with a 3-month maturity went from levels close to 4.3 percent at the beginning of the year, to about 3.7 percent in the first days of May.

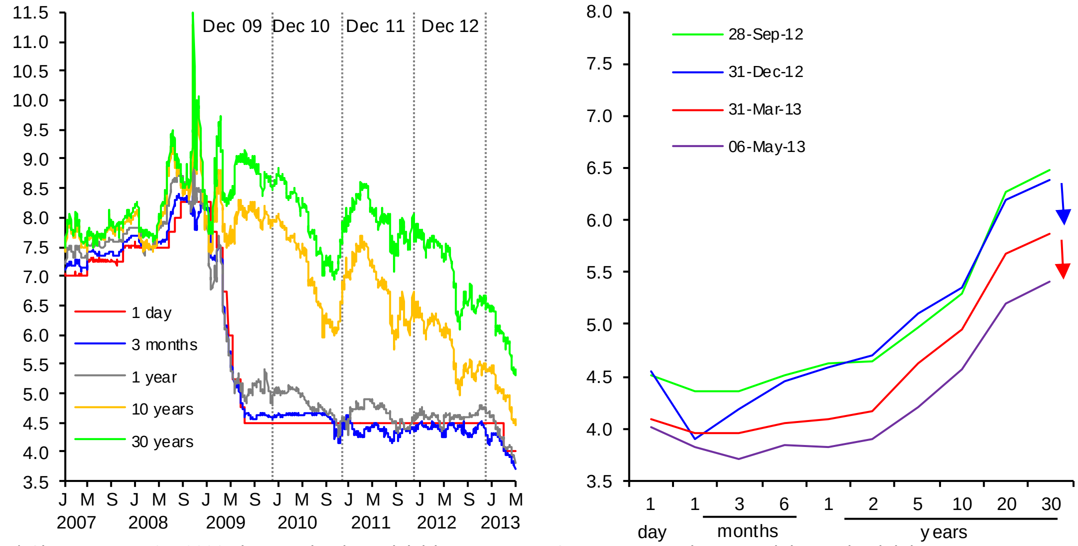
The interest rates of longer-term government bonds also reduced in the first months of 2013. Specifically, the interest rates of 10-year government bonds decreased by around 70 basis points from 5.4 percent at the end of December to levels close to 4.5 percent in early May, which has generated the referred flattening of the yield curve, so that its slope (the difference between the 10-year and 3-month interest rate) changed from 110 to 80 basis points approximately, in the above referred period (Chart 40b). This reduction in long-term interest rates shows that the recent decrease in the reference interest rate was congruent with the structural progress in curbing inflation and with lower risk premia, especially those associated to inflation risk.

Despite the abovementioned, it should be noted that even when longer-term interest rates observed a considerable reduction in the period analyzed by this Inflation Report, locating at historically low levels, long-term interest rate spreads between Mexico and the U.S. still remain above the levels before the global financial crisis in late 2008 (Chart 41).

Chart 40
Interest Rates in Mexico

a) Government Securities Interest Rates [1/]
Percent

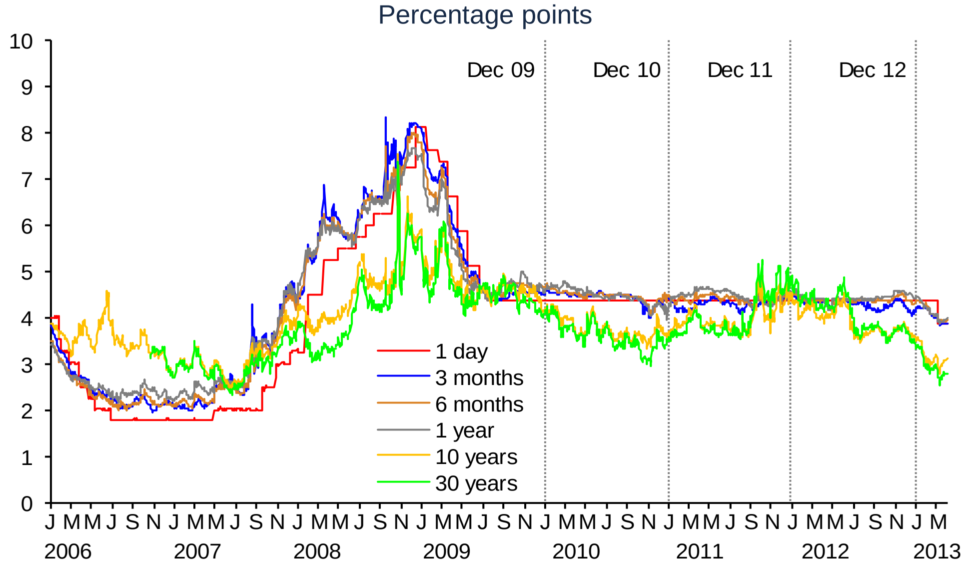
b) Yield Curve
Percent



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

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

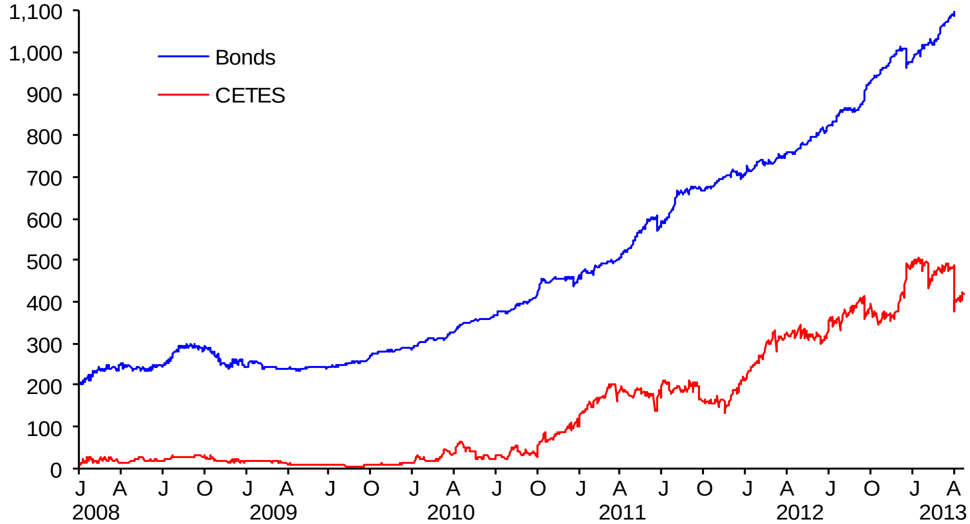
Chart 41
Interest Rate Spreads between Mexico and the U.S. [1/]
Percentage points



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. Treasury Department.

As part of the same phenomenon, government securities' holdings by foreign investors have continued to increase (Chart 42). It should be noted that this growth has been accompanied by a gradual change in the profile of investors attracted to the country. Thus, in recent years higher participation of institutional investors has been observed, whose holdings tend to be more stable, since they have longer-term planning horizons.

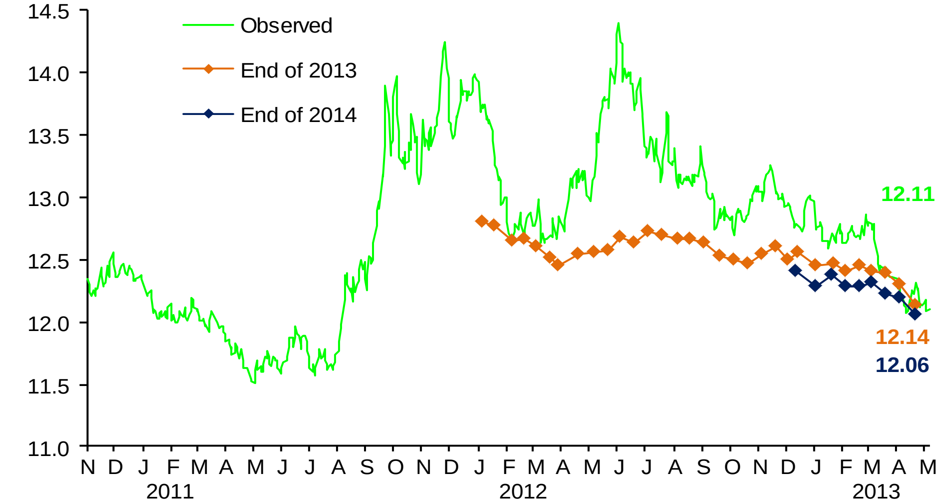
Chart 42
Government Securities' Holdings by Foreign Investors
MXN billion



Source: Banco de México.

In light of the referred flows, the Mexican peso continued to appreciate in the first quarter of 2013 (Chart 43). In this context, on April 8, 2013 the Foreign Exchange Commission decided to suspend the daily auctions for an amount of USD 400 million at a minimum exchange rate of 2 percent higher than that of the day before, from April 9, 2013 onwards. This, according to the Foreign Exchange Commission's announcement, is based on the fact that the factors motivating the referred auction of November 29, 2011 have vanished given the fact that the volatility in international and domestic financial markets has reduced. Finally, it should be pointed out that by suspending the USD sale auctions, the Foreign Exchange Commission indeed decided to reestablish neutrality regarding the rules-based market interventions by the Central Institute.

Chart 43
Exchange Rate and its Expectations for the End of 2013 and 2014 1/
MXN/USD



1/ The observed exchange rate is the monthly average of the FIX exchange rate. The latest data of the observed exchange rate correspond to May 6, 2013. For its expectations, the latest data are as of April 22, 2013.
Source: Banco de México and Banamex Expectations Survey (*Encuesta de Expectativas Banamex*).

The high degree of Mexican economic integration with the rest of the world, and a considerable additional monetary easing expected in many advanced and emerging economies, could be factors that would continue propitiating important capital flows to Mexico and a concurrent relative tightening of the monetary conditions. Besides, it should be pointed out that, given the strength of the framework of the macroeconomic policy conduction in Mexico and the solid fundamentals of the Mexican economy, currently there is a natural tendency of the exchange rate towards appreciation.

In any event, it should be pointed out that it cannot be ruled out that central banks' highly accommodative monetary policies in the main advanced economies could continue to induce massive capital flows to emerging countries, including Mexico, with the potential to generate distortions in asset prices, including the national currency (exchange rate). Therefore, it is essential for the financial authorities to remain very alert in order to prevent vulnerabilities in the financial stability in the future.

5. Inflation Forecasts and Balance of Risks

As mentioned above, the U.S. economy is experiencing a juncture in which it is difficult to accurately assess the strength of the recovery. Following a rebound in the economic activity greater than anticipated in the first months of 2013, partly accounted for by temporary factors, the most recent indicators point to a moderation of the growth rate in the second quarter. Thus, the recovery remains limited by different factors. In this context, even though the U.S. growth forecasts upon which the macroeconomic scenario for Mexico is based were revised slightly upwards for 2013 with respect to the previous Inflation Report, a considerable part of this update reflects the rebound in the expansion in the first quarter of the year and does not imply a higher anticipated expansion for the rest of 2013, nor for 2014. Furthermore, for 2014 U.S. growth expectations remain at similar or even slightly lower levels with respect to the previous Inflation Report.[16]

a) U.S. expected GDP growth rate was modified from 1.9 to 2.1 percent for 2013 and from 2.8 to 2.7 percent for 2014 as compared to the preceding Inflation Report.

b) The expectations for the growth rate of the U.S. industrial production in 2013 were revised upwards to 3.0 percent from 2.3 percent in the previous Inflation Report. For 2014, an expansion of 3.4 percent is anticipated, relative to 3.5 percent in the previous Inflation Report.

Growth of the Mexican Economy: Given the nature of the U.S. growth forecasts revision and considering the recent performance of the Mexican economy, the forecast intervals for the Mexican GDP growth remain unchanged with respect to the previous Inflation Report. Specifically, for 2013 the GDP growth rate is estimated to lie between 3.0 and 4.0 percent. Additionally, in line with the higher growth anticipated for the U.S. economy in 2014 as compared to 2013, the Mexican GDP growth rate is expected to be between 3.2 and 4.2 percent (Chart 44a). It should be noted that in both 2013 and 2014 the economic growth rate could be above expectations, depending on the structural reforms that could be approved and implemented in Mexico. Their effect is not considered in the forecasts.

Employment: In line with the growth expectations of economic activity in Mexico, the forecasts for the increase in the number of IMSS-insured workers remain unchanged with respect to the previous Inflation Report. In particular, an increase of 550 to 650 thousand insured workers and of 700 to 800 thousand workers are expected for 2013 and 2014, respectively.

Current Account: Regarding the external accounts, the expected deficits for 2013 in the trade balance and the current account amount to USD 5.0 and 17.4 billion, respectively (0.4 and 1.3 percent of GDP). For 2014, deficits in the trade balance and the current account of USD 7.9 and 20.1 billion, respectively, are

[16] Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in April 2013.

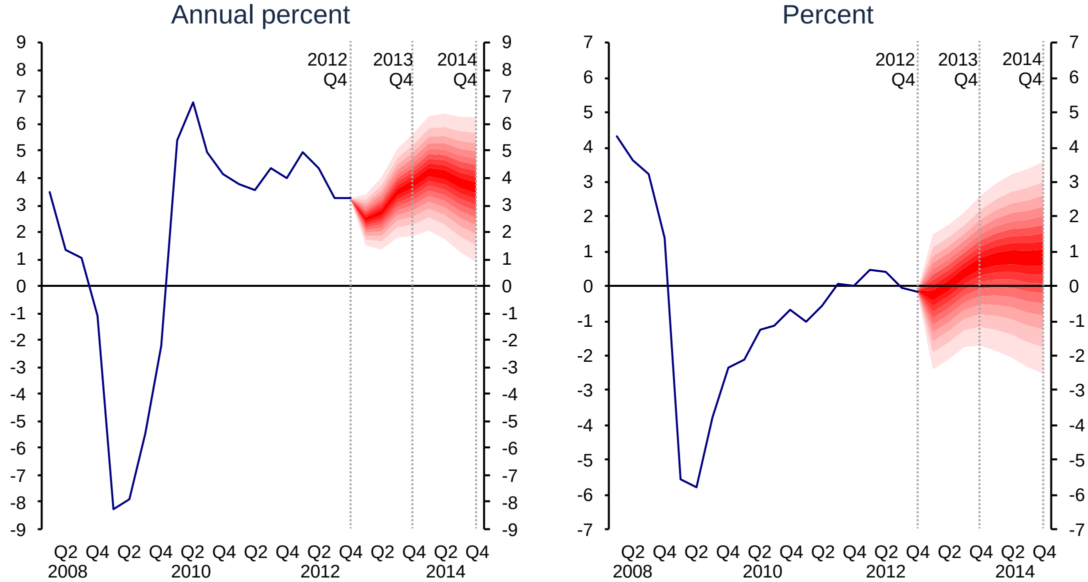
estimated (0.5 and 1.4 percent of GDP). It is noteworthy that the expected moderate current account deficits, as well as the measures taken by the Mexican federal government to finance its external debt liabilities suggest that financing these deficits will not pose a problem in the forecast horizon and that there will be no pressures on the exchange rate arising from this source.

Given these forecasts for the Mexican economy, no aggregate demand-related pressures on inflation are anticipated and the current account deficit is expected to be easily financed. Indeed, no demand-related pressures on the main production input markets are expected and the output gap is forecast to observe an upward trend, albeit still at levels not statistically different from zero, over the forecast horizon (Chart 44b). It should be noted that the estimation of the output gap is subject to a certain degree of statistical uncertainty, which could become larger in a context in which the potential GDP could be changing due to the implementation of structural reforms.

Chart 44
Fan Charts: GDP Growth and Output Gap

a) GDP Growth, s. a.
Annual percent

b) Output Gap [1/]
Percent



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

1/ Based on seasonally adjusted figures.
Source: Banco de México.

Even though financial markets observed certain improvement and the U.S. growth expectations stabilized, given the progress in solving the fiscal problems, important downward risks to the Mexican economic growth persist. In particular:

i. A less favorable evolution of the U.S. economy would generate a less supportive environment for the economic growth in Mexico.

ii. Given that the fiscal and financial problems in the Euro zone persist, the possibility that events originated in the region could generate adverse effects on the conditions in international financial markets prevails.

iii. An additional risk refers to the possibility that a monetary stimulus withdrawal in the U.S., and perhaps in other advanced countries, sooner than anticipated, could generate disruptions in the international financial markets. Even though this is not expected to occur in the short run, such a situation would entail a risk of a reversal of capital flows in emerging countries. It should be pointed out that the measures announced by the Bank of Japan partially mitigate this risk.

In contrast, insofar as the process of structural reforms continues, the growth scenario of the Mexican economy could become even more favorable than that considered in the forecast described. In this respect, the ongoing reform program is encouraging. If the reforms are able to generate a better resource allocation, then they could generate a higher sustained growth, while at the same time strengthening the environment of low and stable inflation.

Inflation: The annual headline inflation forecast displays a similar trend to the previous Inflation Report. However, given the changes in the relative prices described in this Inflation Report, it is expected to remain high through April and May, resuming a downward trend from June onwards. Thus, in the third and fourth quarters of 2013 this variable is estimated to lie between 3 and 4 percent. As a result, average annual headline inflation forecast for 2013 is higher than what was anticipated in the last Inflation Report. Nevertheless, it should be pointed out that the monetary conditions prevailing in the economy are not conducive to second round effects derived from the recent changes in the relative prices and are in line with the medium-term downward trend of inflation. For 2014 annual headline inflation is anticipated to lie very close to 3 percent, at levels slightly below those estimated in the previous Inflation Report (Chart 45).

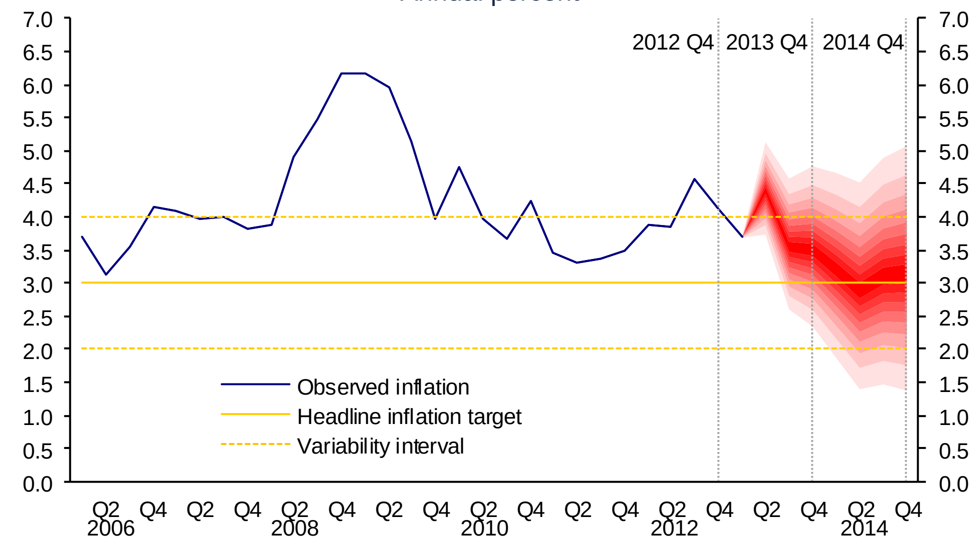
The forecasts indicate an inflation trend congruent with the convergence towards the 3 percent target over the next two years. As mentioned before, the conditions prevailing in input, services and credit markets have helped maintaining the inflation expectations stable. Likewise, they have contributed to the fact that the supply-related shocks, which recently led to a temporary rebound of annual headline inflation, do not generate second round effects that impact the general price formation process of the economy. Besides, it should be pointed out that headline inflation is expected to locate close to 3 percent in the monetary policy horizon. In this sense, the monetary policy stance is in line with the inflation convergence towards the permanent inflation target established by Banco de México.

The most likely trend of annual core inflation is expected to be slightly below that announced in the last Inflation Report. It stands out that in 2013 and 2014 it will remain close to 3 percent and even below this level over most of the referred horizon (Chart 46). This was particularly caused by a lower than expected contribution of the merchandise price subindex and the moderate growth pace of the services prices. The anticipated evolution of these subindices' annual inflation is affected by various factors, among which stand out the following: the forecast of a downward trend in commodity prices, the fading of the shocks that affected the food services' prices, as well as a forecast of low growth rates in housing and telecommunication services' prices.

The non-core inflation is expected to display a downward trajectory in the rest of 2013 and 2014, mainly affected by the performance of agricultural goods' inflation.

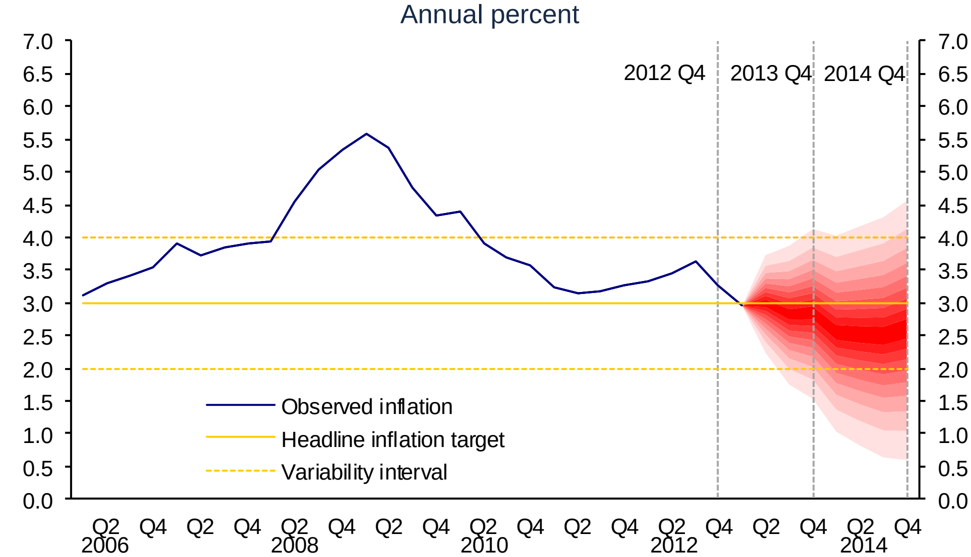
Particularly, the annual change of the non-core price subindex is anticipated to continue falling from June 2013 onwards, once the growth rate of agricultural goods' prices slows down. At the same time, in 2014 the downward trend will become more noticeable, when the production of different livestock products, affected by sanitary problems, input costs and adverse weather conditions in 2012 and early 2013, recover.

Chart 45
Fan Chart: Annual Headline Inflation [1/]
Annual percent



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

Chart 46
Fan Chart: Annual Core Inflation [1/]
Annual percent



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

In sum, the inflation forecast is based on the following factors:

I. The monetary policy stance.

II. The world environment of weak growth.

III. Absence of demand-related pressures on the Mexican economy.

IV. More intense competition in certain sectors.

V. A downward trend in international commodity prices.

VI. Fading of the shocks related to some food price increases on inflation.

The expected inflation trend could be affected by some factors. Among those with an upward impact the following stand out:

1. Even when the public transport fares have recently been revised in some entities with a high CPI weight, other entities could increase their fares.

2. The Mexican government has adopted stronger measures to prevent the spread of the avian flu virus, which affected egg and chicken production in recent months. However, new sanitary contingencies or adverse weather conditions could take place, affecting agricultural production.

On the other hand, among the downward risks associated to the inflation forecast the following should be mentioned:

1. In an environment of weak global growth, the expected downward trend in commodity prices could become more pronounced.

2. The possibility of a stronger competition in the economy in general and in the telecommunications sector in particular, in light of the proposed reforms.

Finally, it should be noted that a solid institutional framework, congruent with the macroeconomic policy conduction has allowed the creation of an environment of stability and certainty in the Mexican economy, in which a structural progress in curbing inflation stands out. In this way, a monetary policy oriented at ensuring the stability of the national currency purchasing power, together with a prudent fiscal policy, a flexible exchange rate regime and a sound and well-capitalized financial system, have contributed to reducing the level, volatility and persistence of inflation. Likewise, the anchoring of analysts' inflation expectations has been consolidated, although they still remain above the 3 percent target. Besides, a considerable reduction in the risk premia, mainly inflationary, has been observed, which led to lower interest rates in the Mexican economy. In this context, after reducing by 50 basis points the target for the benchmark interest rate in March, the Board of Governors decided to maintain the target for the Overnight Interbank Interest Rate unchanged at 4 percent in its monetary policy decision in April. The Board estimates the monetary policy stance to be congruent with the outlook in which no widespread pressures on inflation are anticipated and in which the expenditure dynamics are expected to be in line with the inflation convergence to the 3 percent permanent target. In the future, the Board will monitor the evolution of all inflation determinants. Particularly, it will remain alert so that the recent changes in relative prices do not generate second round effects on the price formation process in the economy, and will monitor the evolution of the monetary policy of Mexico relative to other economies. All of the above, in order to take action if required, so as to reach the inflation target.

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