BANCO DE MÉXICO

Quarterly Report

January – March 2014

BOARD OF GOVERNORS

Governor

AGUSTÍN GUILLERMO CARSTENS CARSTENS

Deputy Governors

ROBERTO DEL CUETO LEGASPI

JAVIER EDUARDO GUZMÁN CALAFELL

MANUEL RAMOS FRANCIA

MANUEL SÁNCHEZ GONZÁLEZ

QUARTERLY REPORT

This report analyzes the development of inflation, the economy and different economic indicators in Mexico, as well as the monetary policy implementation in the quarter January – March 2014 and, in general, the activities of Banco de México over the referred period, in the context of the Mexican and international economic environment, in compliance with Article 51, Section II of Banco de México's Law.

FOREWARNING

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

Unless otherwise stated, this document has been prepared using data available as of May 19, 2014. Figures are preliminary and subject to changes.

CONTENTS

BOXES

1. Introduction

The conduction of the monetary policy in Mexico has sought an efficient inflation convergence towards its 3 percent permanent target, i.e., at the minimum cost to society in terms of economic activity. In late 2013 and early 2014, in light of the occurrence of some supply shocks and once new fiscal measures came into force in 2014, inflation in Mexico went up. Subsequently, as anticipated, it resumed its downward trend, when the effects of some of these shocks began to dissipate. Meanwhile, medium- and long-term inflation expectations remained stable, and the price formation process of the economy has not been contaminated. Banco de México has repeatedly indicated that supply shocks or relative price shocks, in a context of well-anchored inflation expectations, only propitiate temporary inflation increments. Therefore, the referred shocks do not justify upward adjustments in the reference interest rate, since it would imply an unnecessary tightening of the monetary policy stance, as, by the moment the increase in the reference interest rate affects inflation, the transitory impact of this shock on inflation will have faded already. In view of the above, the monetary policy stance was not modified in the period covered by this Quarterly Report, even though this Central Institute remained alert, so that no second round effects are generated in the price system of the economy.

At the beginning of the first quarter of 2014, the weakness that the economic activity in Mexico registered in the last quarter of 2013 persisted, which points to a lower average growth during the analyzed quarter than anticipated some months ago. Although some aggregate demand components registered certain stagnation in early 2014, by the end of the first quarter different indicators related to them started to perform more favorably. In particular, given that some of the negative shocks that affected productive activity in the last few months of 2013 and in early 2014 seem to have been transitory and started to revert, more timely data indicate an incipient reactivation of the economy.

The referred events in Mexico unfolded in a context of moderate world economic growth in the first quarter of 2014. This expansion was mainly motivated by the dynamism observed in some advanced economies, given that the growth rate of the emerging ones decreased in the first months of the year. Although the U.S. economic activity expanded less than anticipated, largely due to the impact of winter weather conditions, by the end of the quarter it resumed greater dynamism. In this context, the Federal Reserve continued with a gradual process of normalization of the U.S. monetary policy. As a result, following the episode of high uncertainty in international financial markets in January, the referred markets performed better from February onwards. Also, capital flows to emerging markets were observed again, and those destined to the countries on the European periphery were accentuated. This was partly due to the economic policy response in some of emerging economies, but principally due to a perception of reduced uncertainty regarding the future conduction of the U.S. monetary policy. However, the possibility of new volatility episodes in international financial markets cannot be ruled out, given that this perception could present a sudden change.

It is expected that, once the effects of the temporary factors on productive activity fade, economic growth in Mexico will benefit from higher external demand and

from the fiscal and monetary impulses that are underway. Still, the economic slowdown registered in late 2013 and in early 2014 inevitably implies a downward adjustment of the growth forecast for 2014 as a whole. In particular, the forecast interval for the GDP growth rate in 2014 is revised from 3.0 to 4.0 percent to 2.3 to 3.3 percent. For 2015, a GDP growth rate between 3.2 and 4.2 percent is still anticipated. In this context, slack conditions in the economy are estimated to prevail over the forecast horizon, so that no demand-related pressures are anticipated on either inflation or the external accounts of Mexico.

The forecast for annual headline inflation remains unchanged with respect to that released in the previous Quarterly Report. Thus, in the second quarter it is expected to lie within the variability interval of plus/minus one percentage point around the 3 percent target. In the second half of 2014, due to the arithmetic effect coming from a low comparison base, as well as the volatility of the non-core component, inflation could locate above 4 percent in a few months, although it is expected to conclude the year below this level. From January 2015 onwards, annual headline inflation is estimated to significantly decrease, in particular, if just as established by the Federal Income Law 2014, from 2015 onwards gasoline prices are adjusted in accordance with the expected inflation, estimating that it will persist slightly above 3 percent for the rest of the year. Annual core inflation is forecast to lie around 3 percent in 2014 and below this level in 2015.

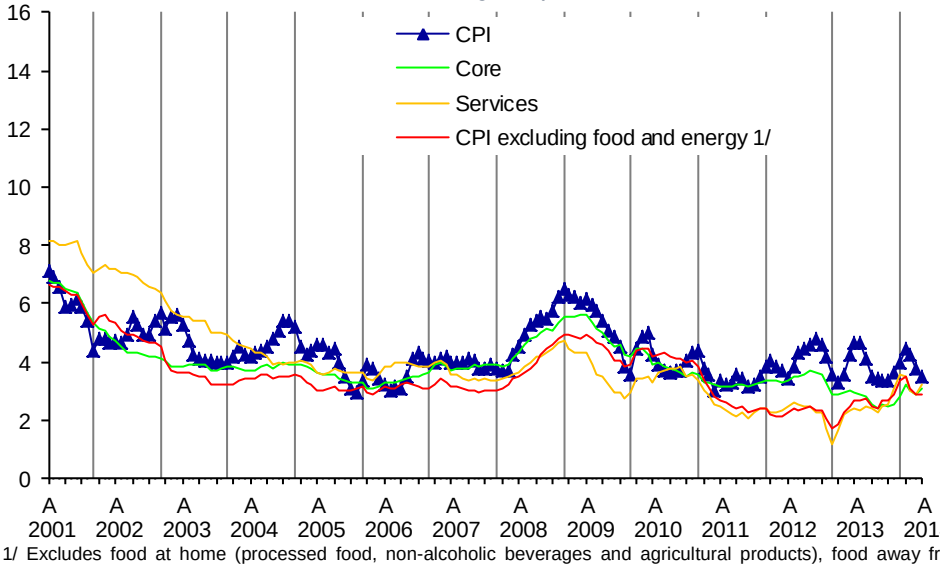
In this context, Banco de México's Board of Governors estimates that the monetary policy stance is congruent with the efficient convergence of inflation to its 3 percent target. Still, in the future it will monitor all factors that may affect inflation and its expectations in the medium and long term, particularly the evolution of the degree of slack in the economy. Likewise, it will monitor the implications of the monetary policy stance of Mexico relative to the U.S. onto the inflation outlook, so as to reach the abovesaid inflation target.

2. Recent Developments of Inflation

2.1. Inflation

Following an increase in annual headline inflation in late 2013, derived from higher public transport fares in some cities in Mexico and higher prices of some vegetables, as a result of adverse weather conditions, the entry into force of the fiscal measures caused this indicator to lie in January and February 2014 above the upper limit of the variability interval of plus/minus one percentage point around the 3 percent inflation target (Table 1 and Chart 1). However, from the second fortnight of January onwards, annual headline inflation observed a downward trend and located at levels clearly below 4 percent from the first fortnight of March onwards. The above revealed the temporary nature and the focus of the different shocks' effects onto inflation, as well as the anchoring of its expectations.

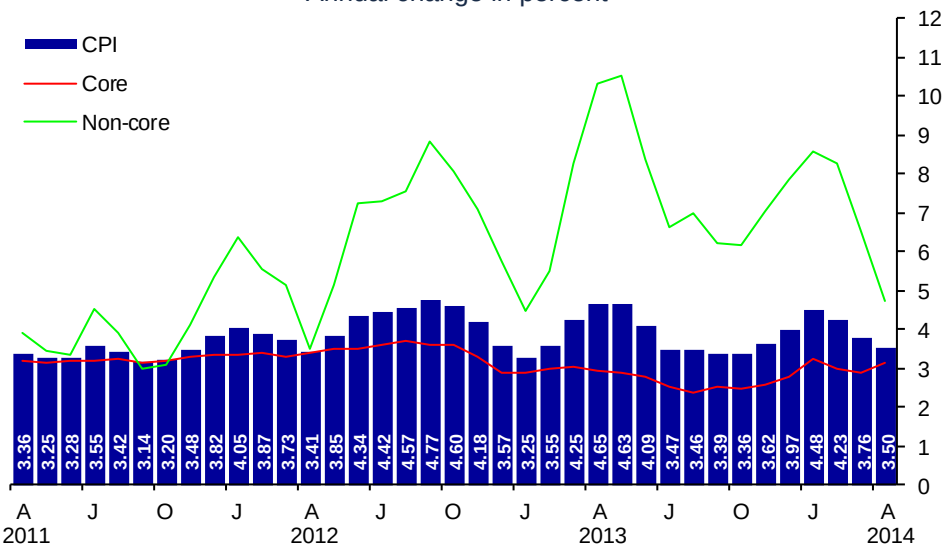
Chart 1
Consumer Price Index
Annual change in percent



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

Analyzing more in depth the abovesaid, in 2014 new fiscal changes came into force, consisting in new tax rates set on flavored drinks and high-calorie density food, the equalization of VAT in the border region to the rate prevailing in the rest of the country, as well as increments in the prices of energy products. Thus, annual headline inflation shifted from 3.97 percent in December 2013 to 4.48 percent in January 2014, with the highest figure registered in the first fortnight of January (4.63 percent). It should be noted that the inflation increase was concentrated in the group of goods and services affected by fiscal changes, without generating second round effects on the price formation process. As a consequence, annual headline inflation dropped to 3.76 percent in March. Subsequently, in April headline inflation located at 3.50 percent (Table 1 and Chart 2).

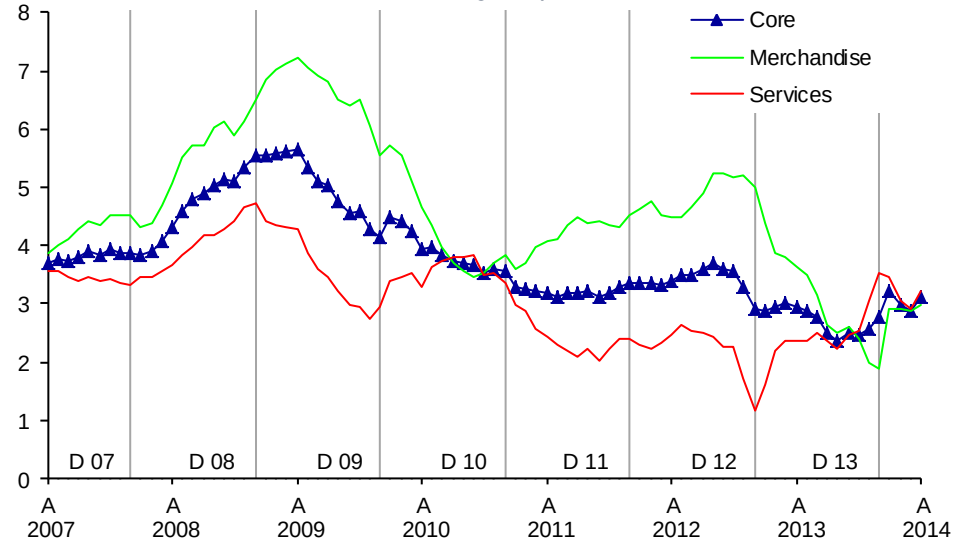
Chart 2
Consumer Price Index
Annual change in percent



Source: Banco de México and INEGI.

After remaining under 3 percent throughout most of 2013, the abovereferred fiscal changes triggered the increase of the annual change of the core price index from 2.78 percent in December 2013 to 3.21 percent in January 2014 (3.33 percent in the first fortnight of January). Still, over the following two months annual inflation of the said indicator diminished to 2.89 percent in March. Indeed, in February and March, the monthly core inflation recorded 0.28 and 0.21 percent, respectively, which represents historical minimums for the referred months, and which contributed to the good performance of annual core inflation. Later on, in April, the annual change of this indicator rebounded slightly to 3.11 percent, due to a low comparison base in the item of tourism services in 2013, given that the Holy Week was in March, and hence generating an effect that is expected to revert over the following months (Table 1, Chart 3 and Chart 4b).

Chart 3
Core Price Index
Annual change in percent

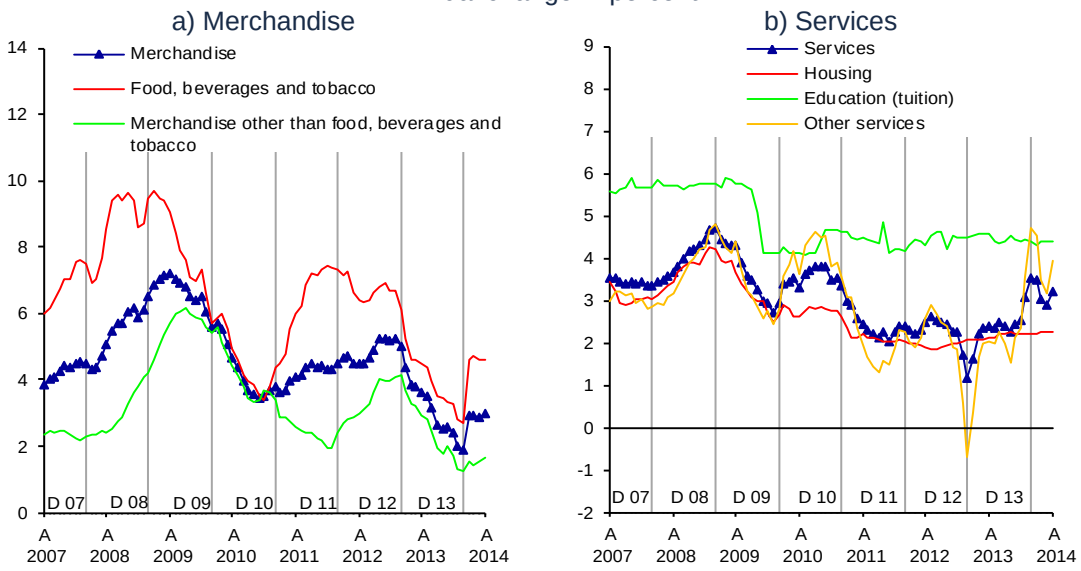


Source: Banco de México and INEGI.

Most of the impact generated by fiscal changes concentrated in the subindex of merchandise prices, which grew 1.89 percent in annual terms in December 2013, registering 2.93 percent in January 2014 and sliding to 2.88 percent in March (2.97 percent in April). In that regard, price increments of products directly affected by fiscal measures stood out at the beginning of the year, as was the case of various food merchandise products, mainly flavored drinks and sweet bread. Thus, in December 2013 the annual change of this price subindex was 2.67 percent, rising to 4.64 percent in January and to 4.73 percent in February, to subsequently slide to 4.60 percent in April. Meanwhile, the annual growth rate of the non-food merchandise shifted from 1.26 to 1.67 percent between December 2013 and April 2014 (Table 1, Chart 3 and Chart 4a). The factor that should be emphasized is that following the immediate impact of fiscal measures on inflation of the affected subindices in January, inflation did not accelerate, nor did it contaminate the prices of goods and services that had not been directly affected. The higher inflation level in the group of food merchandise will surely revert in January 2015.

In December 2013, the subindex of services' prices presented an annual change of 3.54 percent, which steadily declined over the subsequent months, reaching 2.90 percent in March 2014. The above was due to the performance of the group of services other than education and housing, whose annual change in December 2013 was 4.69 percent, and which dropped to 3.17 percent in March 2014, as a result of lower annual growth rates registered in the prices of cellular phone services and in the tourism services. The referred performance of the annual change of the cellular phone services' prices is related to the effect of a high comparison base, while the tourism services' prices reflect a calendar effect due to the occurrence of the Holy Week in March in 2013 and in April in 2014. Subsequently, as a result of this last factor, the annual change rate of the services' price subindex located at 3.23 percent in April, an increase which is expected to revert in the course of the following months (Table 1 and Chart 4b).

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



Source: Banco de México and INEGI.

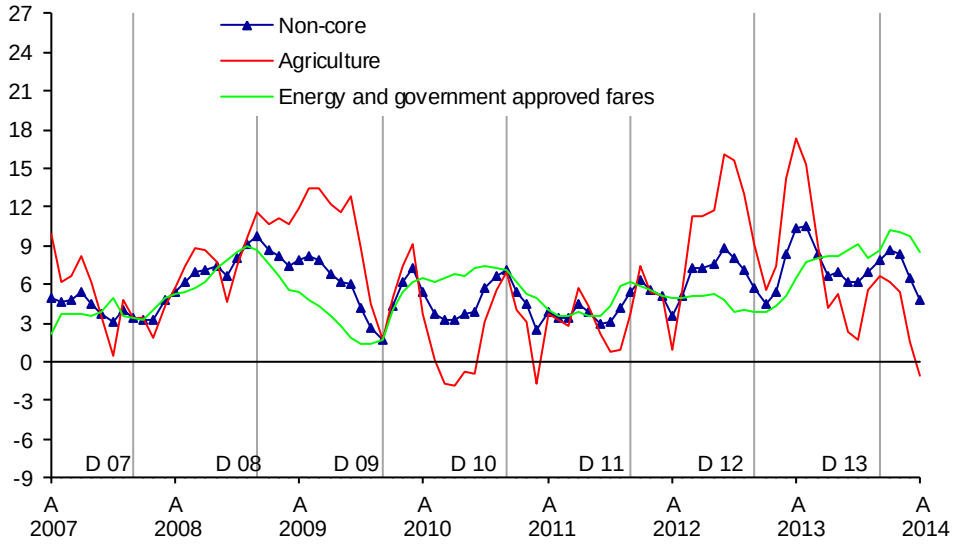
Table 1
Consumer Price Index and Components
Annual change in percent

	Annual change							Average percent	
	October 2013	November 2013	December 2013	January 2014	February 2014	March 2014	Abril 2014	Q IV 2013	Q I 2014
CPI	**3.36**	**3.62**	**3.97**	**4.48**	**4.23**	**3.76**	**3.50**	**3.65**	**4.16**
Core	**2.48**	**2.56**	**2.78**	**3.21**	**2.98**	**2.89**	**3.11**	**2.61**	**3.03**
Merchandise	**2.41**	**1.99**	**1.89**	**2.93**	**2.91**	**2.88**	**2.97**	**2.09**	**2.91**
Food, beverages and tobacco	3.28	2.82	2.67	4.64	4.73	4.58	4.60	2.92	4.65
Packaged soft drinks	3.82	3.46	3.49	16.10	17.28	17.15	16.82	3.59	16.84
Sweet bread	3.71	2.37	2.41	8.24	9.60	9.75	9.91	2.82	9.20
Non-food merchandise	1.71	1.33	1.26	1.56	1.45	1.52	1.67	1.43	1.51
Services	**2.54**	**3.06**	**3.54**	**3.47**	**3.05**	**2.90**	**3.23**	**3.04**	**3.14**
Housing	2.19	2.20	2.19	2.21	2.25	2.24	2.24	2.19	2.24
Education (tuitions)	4.42	4.43	4.42	4.32	4.38	4.39	4.39	4.42	4.36
Other services	2.34	3.54	4.69	4.53	3.50	3.17	3.94	3.52	3.73
Cellular phone services	-0.98	23.56	50.91	27.42	1.34	-1.79	-3.73	20.84	7.44
Tourist services (packages)	0.77	0.35	4.90	2.39	2.78	-2.37	13.02	2.06	0.85
Air transportation	-18.26	-18.84	0.20	-9.29	-14.09	-12.01	1.89	-12.46	-11.84
Non-core	**6.18**	**7.02**	**7.84**	**8.58**	**8.28**	**6.54**	**4.75**	**7.02**	**7.79**
Agriculture	**1.67**	**5.53**	**6.67**	**6.21**	**5.43**	**1.49**	**-1.13**	**4.62**	**4.33**
Fruit and vegetables	1.10	11.46	13.89	10.54	6.73	-2.81	-9.90	8.77	4.54
Tomato	-5.02	43.00	63.89	18.36	-9.89	-33.89	-7.34	32.37	-8.63
Tomatillo	36.25	32.96	21.83	-0.95	-29.57	-60.29	-68.85	30.07	-38.50
Zucchini	1.64	11.30	17.34	0.84	-22.19	-50.93	-48.75	9.91	-28.94
Lemon	19.41	15.15	24.98	56.55	160.18	161.98	32.89	19.90	130.71
Livestock	1.92	2.03	2.43	3.65	4.58	4.14	4.39	2.13	4.12
Beef	4.01	3.68	3.79	4.40	5.21	6.81	8.23	3.83	5.47
Pork	2.11	1.93	2.12	2.17	3.47	4.64	8.48	2.05	3.42
Energy and government approved fares	**9.07**	**8.01**	**8.65**	**10.13**	**10.12**	**9.73**	**8.52**	**8.57**	**9.99**
Energy	9.62	8.20	8.30	9.67	10.10	9.83	9.45	8.69	9.87
Gasoline	11.37	11.08	11.23	12.24	12.00	11.54	11.69	11.23	11.92
Electricity	3.45	3.72	3.63	5.06	5.69	5.66	4.11	3.61	5.47
Domestic gas	8.41	8.25	8.37	10.41	11.88	11.34	10.30	8.34	11.21
Government approved fares	7.83	7.65	9.32	11.02	10.14	9.55	6.86	8.27	10.23
Subway or electric transportation	0.79	0.79	30.97	51.20	51.20	51.20	51.01	10.85	51.20
Public transport fares	12.05	11.81	12.22	12.52	12.40	12.48	6.16	12.02	12.47
Vehicle procedures	71.05	71.05	71.06	68.11	45.56	11.54	2.76	71.05	37.66
CPI excluding food (at home and away from home) and energy [1/]	**2.68**	**2.89**	**3.35**	**3.53**	**3.06**	**2.91**	**2.85**	**2.97**	**3.17**

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

The annual change of the non-core price index lied at 7.84 percent in December 2013, rising to 8.58 percent in January and later decreasing to 6.54 percent in March and to 4.75 percent in April. The lower inflation of this index, recorded from February onwards, reflected lower growth rates of the agricultural products' subindex, the prices of which offset the high rates in the subindex of energy products and government approved fares (Table 1 and Chart 5).

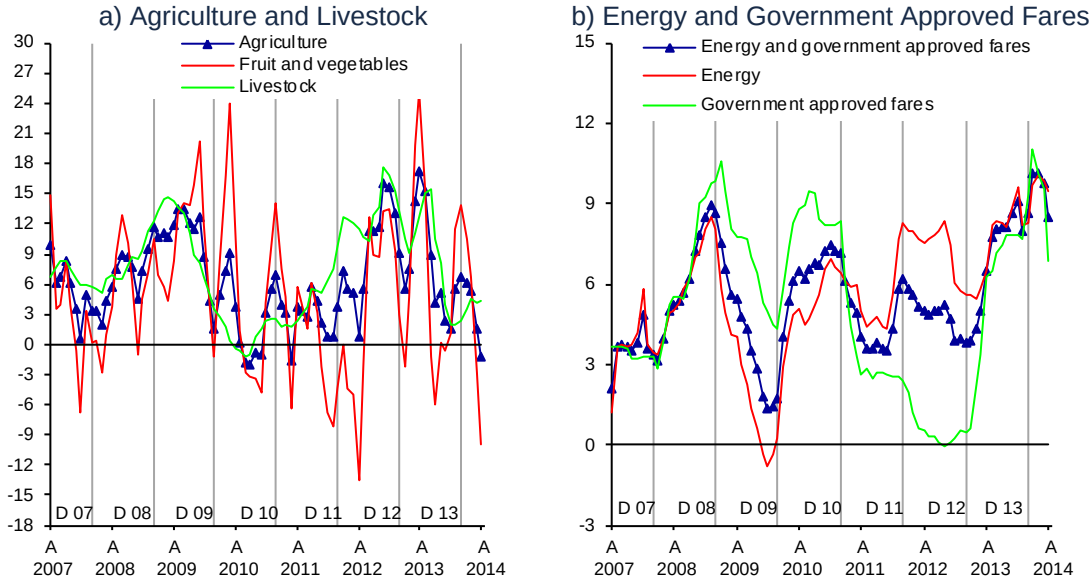
Chart 5
Non-core Price Index
Annual change in percent



Source: Banco de México and INEGI.

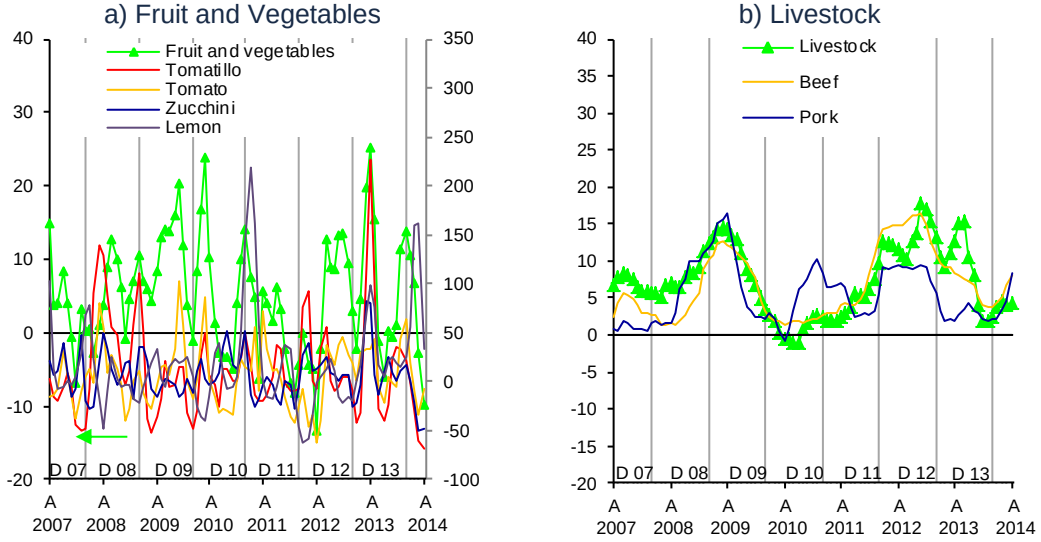
In this respect, it should be pointed out that by the end of last year, the subindex of agricultural products' prices observed increments in the prices of a reduced number of foods, as a result of weather conditions that delayed their production in the previous months, derived from which in December 2013 the annual change of this subindex lied at 6.67 percent. In the period analyzed in this Report, despite a significant rebound in the price of lemon in February and March, the reduction in the prices of various fruit and vegetables, particularly tomato, and the arithmetic effect coming from a low comparison base, contributed to lowering the annual change of this subindex, which recorded 1.49 percent in March 2014. Afterwards, in April additional decreases in the prices of different fruit and vegetables, as well as reductions in the lemon price were recorded, which offset higher growth rates observed in the prices of livestock products. Thus, the annual change of the agricultural products' prices located at -1.13 percent in April (Table 1, Chart 6a and Chart 7).

Chart 6
Non-core Price Index
Annual change in percent



Source: Banco de México and INEGI.

Chart 7
Agricultural Price Index
Annual change in percent

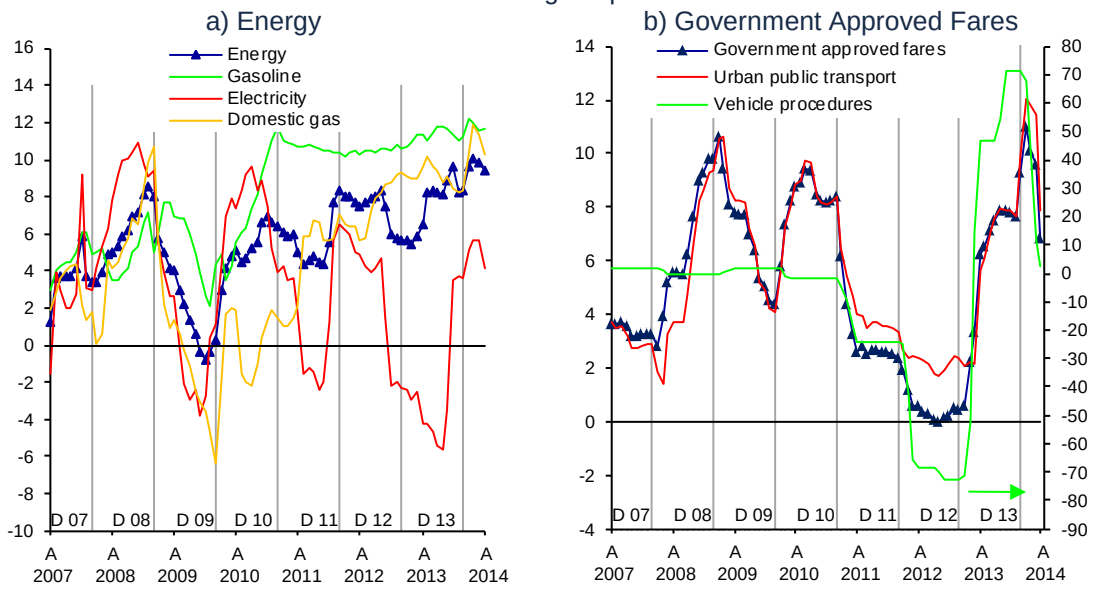


Source: Banco de México and INEGI.

The subindex of energy prices and government approved fares keeps exhibiting high annual growth rates. In December 2013, it presented an annual change of 8.65 percent, which went up to 9.73 percent in March, to later go down to 8.52 percent in April. This dynamics resulted from a series of adjustments in public fares and prices, which affected both components of this subindex. The annual change of energy products rose from 8.30 percent in December 2013 to 9.45 percent in April, derived from higher increments in gasoline prices, the equalization of VAT in the electricity tariffs in the border region and higher prices

of domestic gas. It is noteworthy that the referred increments were attenuated by the lower price of natural gas in March and April, which, in turn, was reflected in lower annual growth rates of the electricity tariff. Meanwhile, the group of government approved fares shifted from an annual growth rate of 9.32 percent in December 2013 to 6.86 percent in April. This was consequent on the fact that the increments in the public transport fares and taxi fares in Mexico City, which took place in April 2013, did not occur again (Table 1, Chart 6b and Chart 8).

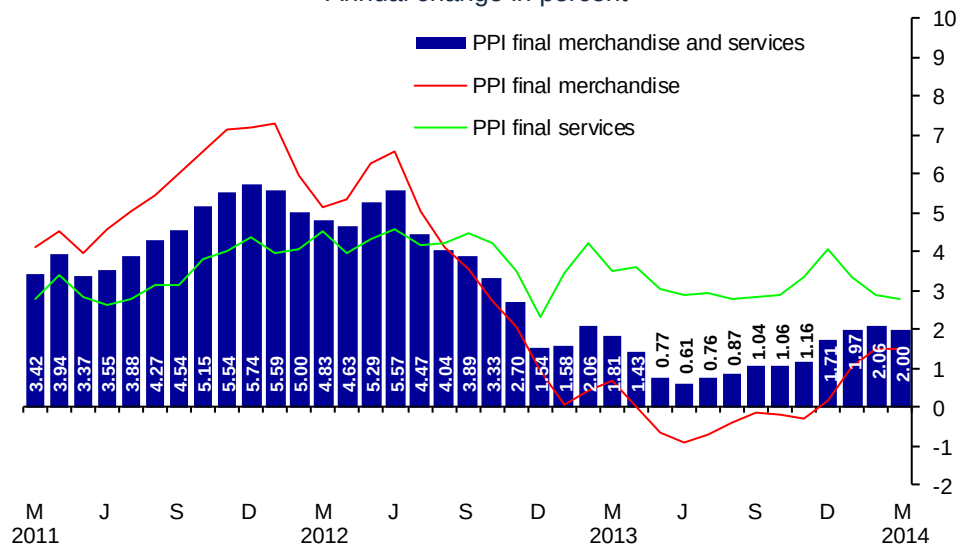
Chart 8
Non-core Price Index
Annual change in percent



Source: Banco de México and INEGI.

Meanwhile, in March 2014 the Producer Price Index (PPI) of finished merchandise and services, excluding crude oil, observed an annual change rate of 2.00 percent, while in December 2013 it was 1.71 percent (Chart 9). This higher annual change rate basically reflects the evolution of the merchandise price subindex, the annual change rate of which shifted from 0.13 percent in December 2013 to 1.48 percent in March of the current year. In contrast, the annual change rate of the services' price subindex dropped from 4.04 to 2.77 percent between December 2013 and March 2014.

Chart 9
Producer Price Index
Annual change in percent



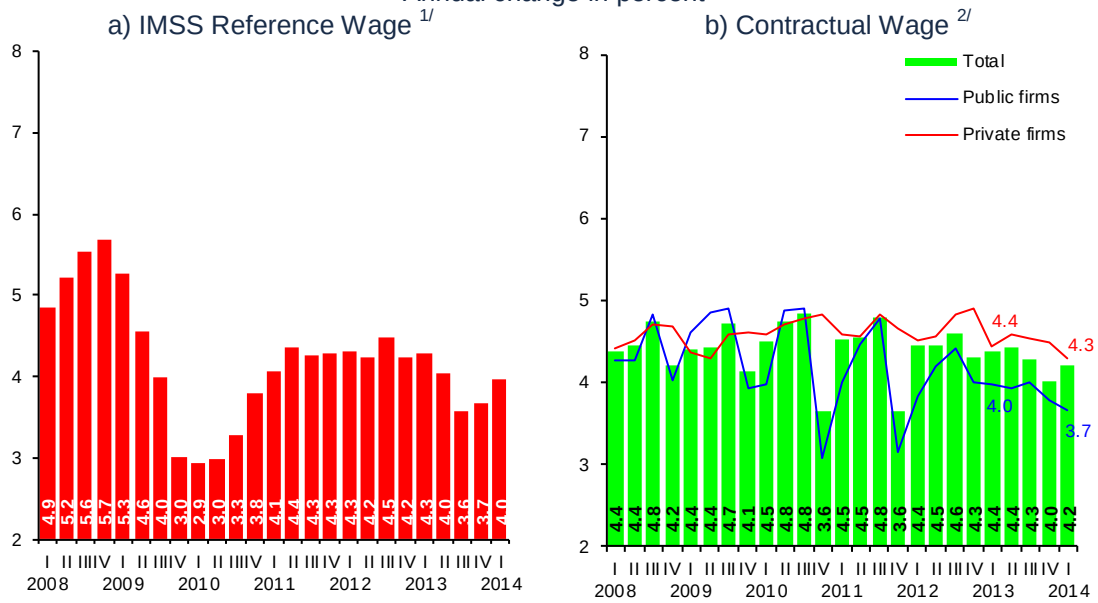
Source: Banco de México and INEGI.

2.2. Wages

The evolution of the main wage indicators in the first quarter of 2014 suggests that labor costs still do not represent an element generating inflationary pressures. The annual change rate of the reference wage of IMSS-insured workers increased from 3.7 percent in the fourth quarter of 2013 to 4.0 percent in the first quarter of 2014. Despite this, it should be stated that this indicator still lies below the levels registered in the first half of 2013 (Chart 10a).

The increment in the contractual wage negotiated by firms under federal jurisdiction was 4.2 percent in the first quarter of 2014, a figure lower than in the same quarter of the previous year (4.4 percent). This difference was due to lower changes in contractual wages of both public and private firms. In particular, public firms negotiated an average increase of 3.7 percent from January to March 2014 (4.0 percent in the same quarter of 2013), while private firms negotiated an increase of 4.3 percent (4.4 percent in the same quarter of last year, see Chart 10b).

Chart 10
Wage Indicators
Annual change in percent



Source: Calculated by Banco de México with data from IMSS and STPS.
1/ During the first quarter of 2014 an average of 16.7 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.

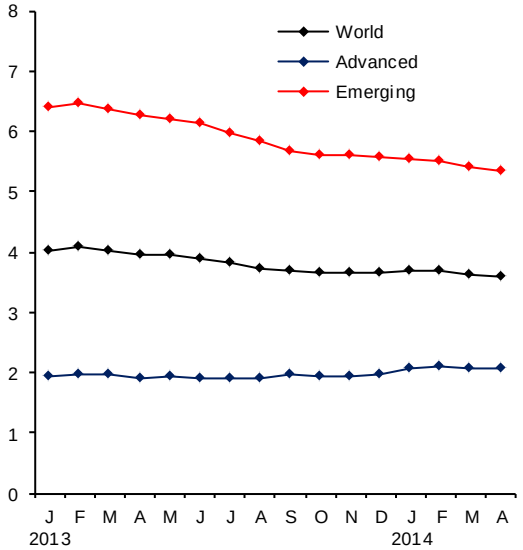
3. Economic and Financial Environment

3.1. International Environment

The world economy recovered moderately in the first quarter of 2014, mostly driven by greater dynamism of some advanced economies, the growth outlook of which has improved, backed by the strengthening of the balance sheets of the public and the private sectors, and by still accommodative economic policies. In contrast, in emerging economies, growth has generally been lower than expected (Chart 11). In an environment of uncertainty regarding the process of monetary policy normalization in the U.S., and given some concern over the soundness of some emerging economies' macroeconomic fundamentals, volatility in international financial markets rebounded at the beginning of the quarter. Nonetheless, from February onwards, conditions in these markets began improving, partly due to the economic policy response of some emerging economies, but principally due to the perception of a more gradual process of monetary policy normalization in the U.S. and the Federal Reserve's efforts to make the adjustment more predictable. Structural problems in some emerging economies, together with the fact that Japan and Europe have not managed to achieve stable and sustained growth, imply that, even though world economic growth outlook has improved, downward risks still prevail.

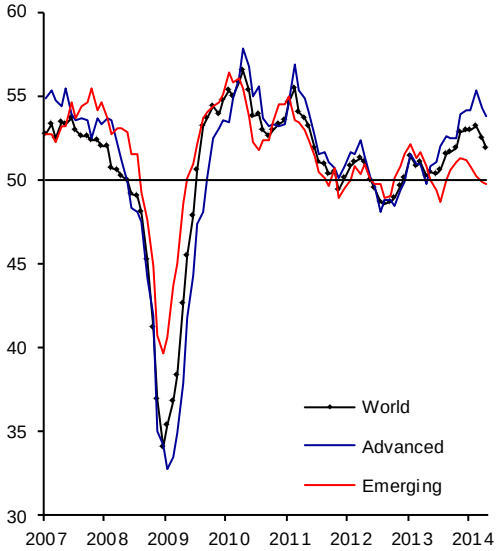
Chart 11
Indicators of Advanced and Emerging Economies

a) Evolution of GDP Growth Expectations for 2014 [1/]
Annual change in percent



1/ Calculated as a weighted average using each country's GDP, based on the purchasing power parity with respect to the world total GDP in the corresponding year.
Source: Prepared by Banco de México with data from the IMF and from Consensus Forecasts.

b) Purchasing Managers' Index of the Manufacturing Sector
Diffusion index, s. a.



s. a. / Seasonally adjusted figures.
Source: Prepared by Banco de México with data from the IMF, ISM and Markit.

3.1.1. World Economic Activity

In the U.S., economic activity significantly decelerated in early 2014, mainly as a reflection of adverse weather conditions, even though by the end of the first

quarter signs of improvement were recorded. Still, on average, in the reference quarter the economic activity had a weak performance. In accordance with the initial estimate, the U.S. GDP grew at an annualized quarterly rate of only 0.1 percent in the first quarter of 2014, as compared to the growth of 2.6 percent in the fourth quarter of 2013. However, the indicators of March and April began to recover considerably, suggesting faster growth for the rest of the year. The recovery estimated for 2014 is a consequence of both the improved private domestic demand and the lower fiscal restraint.[1]

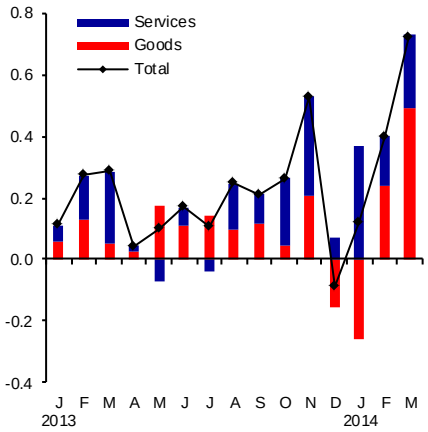
Growth of private domestic expenditure in that country moderated in the first quarter of 2014, reflecting principally a drop in private investment. Although investment in equipment contracted, partly due to the expiration of fiscal benefits for its depreciation, it showed some signs of recovery by the end of the first quarter. Residential investment decreased for the second consecutive quarter, although less than observed in the previous one. Meanwhile, private consumption, after being affected by adverse weather conditions at the beginning of the year, from February onwards expanded significantly, supported by higher expenditure on healthcare, as a result of the increased coverage of healthcare programs, such as Medicaid (Chart 12a). In turn, net exports contributed negatively to GDP growth.

Labor market in the U.S. kept improving, even though most indicators still do not reach pre-crisis levels. Non-farm payroll recovered from February onwards, after being affected by adverse weather conditions. Thus, employment expanded by 222 and 203 thousand jobs in February and March, respectively, compared to only 144 thousand jobs in January. This recovery persisted in April, with the employment growth of 288 thousand jobs. In turn, the unemployment rate has not changed significantly between December 2013 and March 2014, locating at 6.7 percent in the latter month, but in April it dropped to 6.3 percent, mainly due to a fall in the labor participation rate (Chart 12b).

[1] According to the International Monetary Fund (IMF) estimates, the negative effects of fiscal consolidation on the GDP growth will decrease in 2014, from an interval of 1.25 to 1.5 percentage points in 2013 to an estimate of 0.25 to 0.5 percentage points in 2014. This is partly due to the reductions in automatic cuts in public expenditure, passed by the U.S. Congress last December.

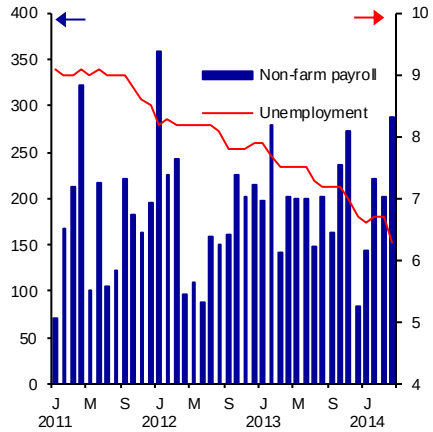
Chart 12
U.S. Economic Activity

a) Contribution to Growth of Real Private Consumption
Monthly change in percentage points, s. a.



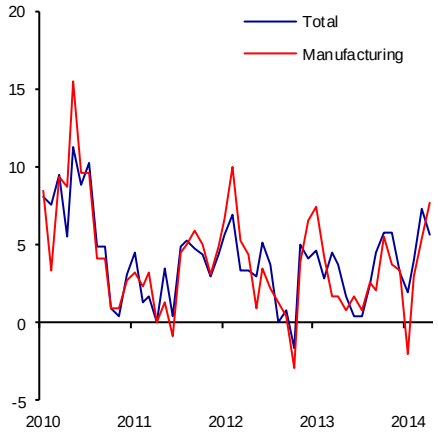
s. a. / Seasonally adjusted figures.
Source: BEA.

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



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

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



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

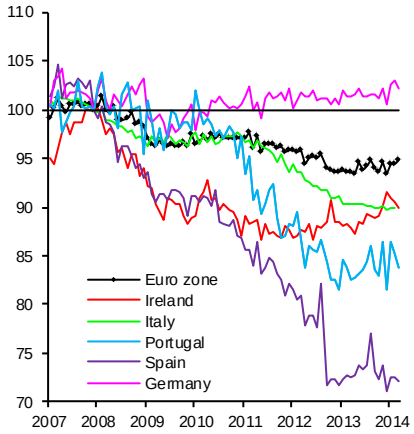
Industrial production, including manufacturing, decelerated in early 2014, which was caused by an adjustment in the level of inventories and a temporary shutdown of manufacturing plants, as a result of adverse weather conditions. Still, industrial activity improved from February onwards (Chart 12c), while the outlook of the sector, measured by means of the purchasing managers' index, points to greater production growth, sustained by an expansion of private demand in the U.S.

In this environment, the Federal Reserve modified its communication strategy in March, by adopting a more qualitative approach in its forward guidance for the reference interest rate. As further described below, the change in the communication strategy, in an environment of expected inflation persisting at low levels, allowed the Federal Reserve to convey to the markets its intention to maintain a highly accommodative monetary policy for an extended period of time.

In the Euro zone, the economic activity growth in the first quarter of 2014 was similar to that registered in the previous quarter. Some indicators, such as the low level of retail sales and a high unemployment rate, suggest that this recovery remains weak (Chart 13a and Chart 13b). In fact, the purchasing managers' index and the household confidence index persist at a level consistent with a continued, but weak expansion of the economy (Chart 13c). The ample slack in the labor market, the considerable idle capacity and a continuous strengthening of the balance sheets of the public and private sectors are anticipated to keep limiting the recovery rate of the region. Nonetheless, the decrease in sovereign risk premia, especially in the countries of the periphery, and an improved situation of banks' funding could relax credit conditions for businesses and households over the next months.

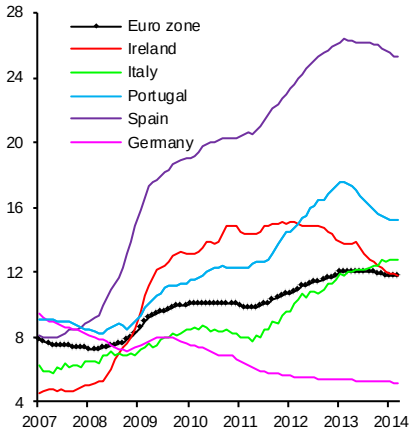
Chart 13
Euro Area Economic Indicators

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



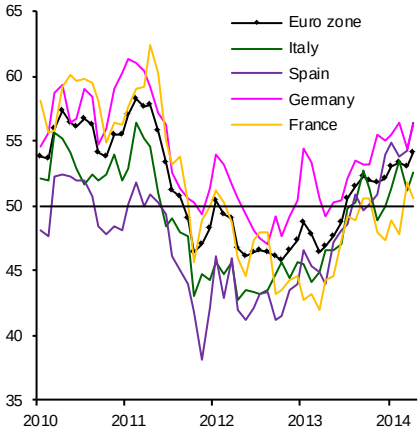
s. a. / Seasonally adjusted figures.
1/ Excluding car sales.
Source: Eurostat.

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



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

c) Purchasing Managers' Index in the Manufacturing and Services Sector
Index, s. a.



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

It should be noted that sustained growth in the Euro zone requires the implementation of structural reforms, as well as the establishment of a Banking Union that would foster confidence and stability of the financial market. In late March 2014, the European Parliament and the Council of the European Union reached a provisional agreement regarding the legislative proposal of one of the fundamental elements of the Banking Union, the Single Resolution Mechanism (SRM).[2]

Meanwhile, economic activity in the United Kingdom recorded robust growth in the first quarter of the year. Household expenditure strengthened, while industrial production expanded despite adverse weather conditions at the beginning of the year. Likewise, housing prices and housing credit improved. In Japan, different indicators observed greater dynamism over the first quarter of 2014, after lower than expected growth in the last three months of 2013. Thus, at the beginning of the year, industrial production registered robust growth and retail sales increased at their highest annual rate over the period of more than one year, while the business expectations' indices presented a positive trend. The increase in the tax on consumption, which came into force in April, is expected to affect the evolution of household expenditure in the following months.

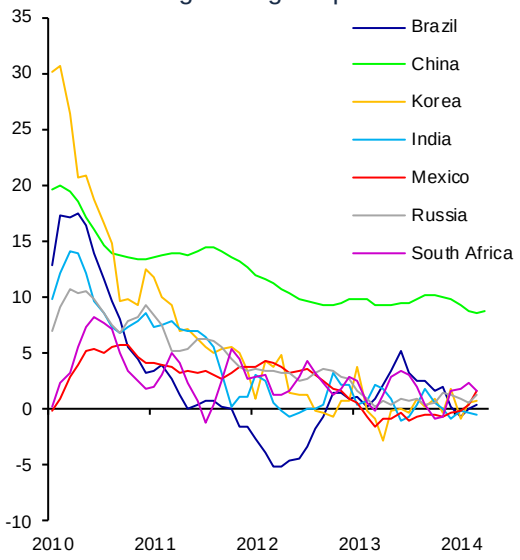
Activity in emerging economies decelerated in the first quarter of the year. Industrial production observed lower dynamism, investment registered low growth rates and the purchasing managers' index recorded low levels, especially in China (Chart 14a). Additionally, exports of main emerging economies decelerated in the quarter, in some cases even reverting part of the increment observed in the

[2] This legislation, approved by the European Parliament in mid-April, establishes new rules for restructuring the European Union (EU) banks in crisis and for revisions to the deposit insurance. The SRM will complement the Single Supervisory Mechanism (SSM, for its acronym in English), in which the European Central Bank will supervise banks in the Euro area, which decide to join the Banking Union.

second half of 2013 (Chart 14b). However, stronger external demand in advanced economies is expected to support growth in emerging economies over the following quarters.

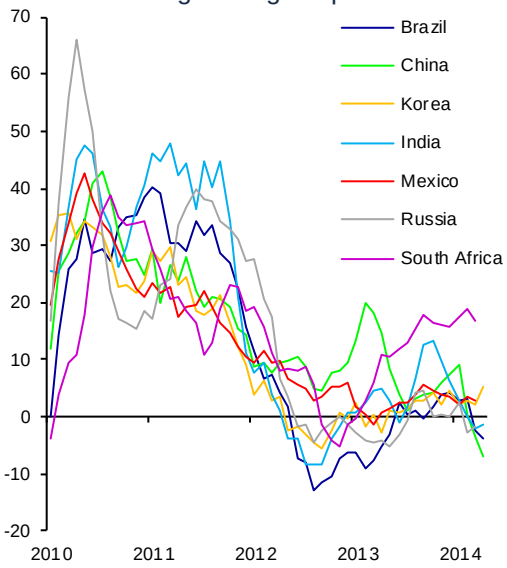
Chart 14
Economic Activity in Emerging Economies

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



Source: Haver Analytics.

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



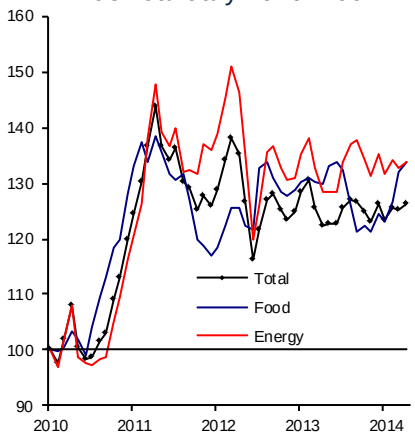
Source: Haver Analytics.

3.1.2. Commodity Prices

International commodity prices presented a mixed trend over the analyzed period (Chart 15a). Crude oil prices were volatile, due to geopolitical risks and a larger oil supply by the Organization of the Petroleum Exporting Countries (OPEC) (Chart 15b). In turn, corn and wheat prices maintained their upward trend, mainly due to concern over the possible effects of droughts on harvests in the U.S. producing regions, although these prices still remain at levels below those achieved in early 2013. As regards the wheat price, the geopolitical risks related to the Ukraine crisis were reflected in its greater volatility (Chart 15c). Finally, the prices of industrial metals dropped, as a result of concerns over a lower demand in China.

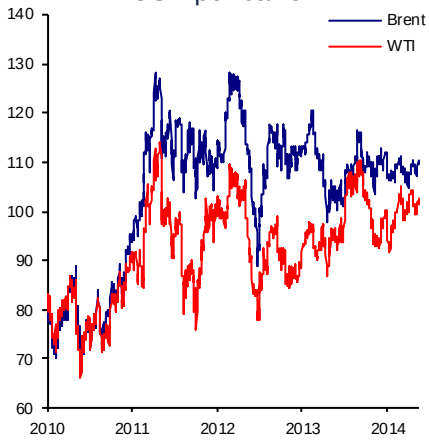
Chart 15
International Commodity Prices

a) Commodities
Index January 2010=100



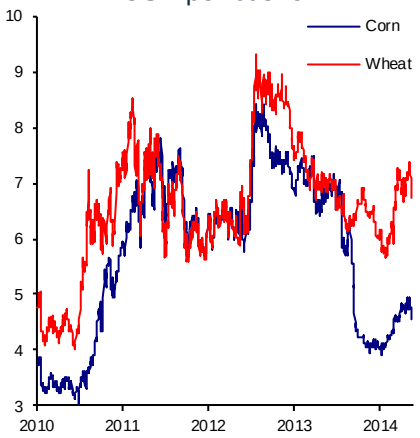
Note: Monthly figures as of April 2014.
Source: International Monetary Fund.

b) Crude Oil [1/]
USD per barrel



1/ Spot prices.
Source: Bloomberg.

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



1/ Spot prices.
Source: Bloomberg.

3.1.3. World Inflation Trends

World inflation remained at reduced levels in the first quarter, as a result of a considerable slack in advanced economies and the deceleration of various emerging economies (Chart 16). In fact, in some of the main advanced economies, despite the accommodative monetary policy, risks related to low inflation levels emerged, particularly in the Euro zone. Thus, world inflation is expected to remain under control in an environment of relatively stable commodity prices and a persistent slack in most economies.

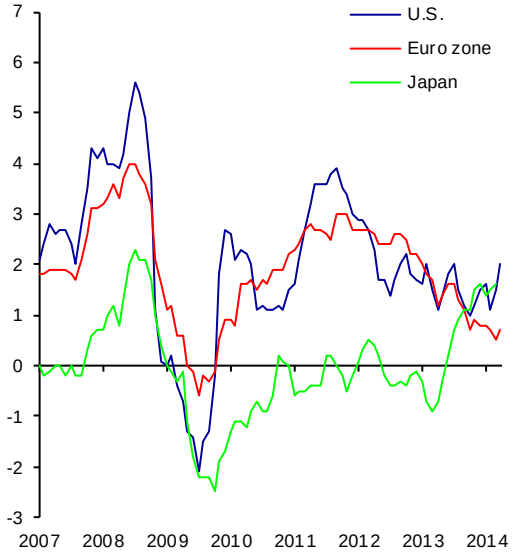
In the U.S., annual headline inflation was 2.0 percent in April, while core inflation located at 1.8 percent. In turn, the annual change of the personal consumption expenditure deflator was 1.1 percent in March, which was below the long-term Federal Reserve target of 2 percent, and its core measure was 1.2 percent.

In the Euro zone, inflation kept presenting a downward trend in the first quarter of the year, even observing deflation in some countries of the region. Hence, annual headline inflation lied at 0.7 percent in April, while core inflation was 1.0 percent in the same month, well below the European Central Bank target of a figure below but close to 2 percent in the medium term. Even though inflation is expected to increase insofar as the economic activity recovers, it is anticipated to remain at a low level for an extended time period.

In Japan, annual inflation lied at 1.6 percent in March, while core inflation was 0.7 percent (excluding food and energy products). Over the next months, inflation may rebound due to the increase in the tax on consumption from 5 to 8 percent in April.

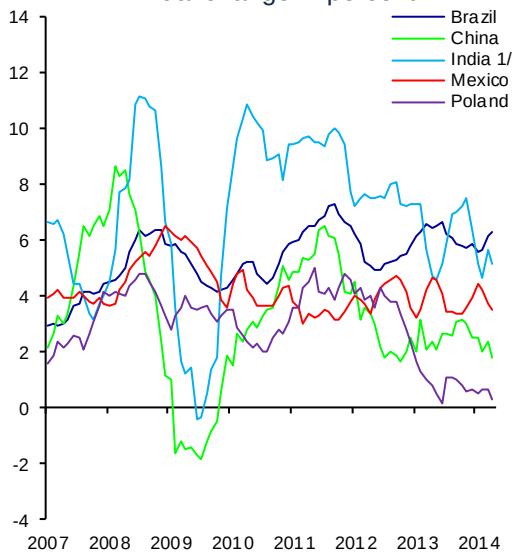
Chart 16
Headline Inflation in Advanced and Emerging Economies

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

In an environment of slack conditions in advanced economies, the deceleration in the emerging ones and lower inflation at the global level, monetary policy in most advanced and emerging economies is anticipated to remain accommodative for a prolonged period of time. In the medium term, it is expected to start normalizing, as in fact it has been gradually happening in the U.S. However, a differentiated withdrawal of the monetary stimulus among advanced economies is expected, depending on the different stages of the business cycle they are going through.

In its monetary policy meetings of December 2013, and January, March and April 2014, the Federal Open Market Committee (FOMC) announced reductions of USD 10 billion in its monthly asset purchases, taking effect in the month following the announcement. Thus, the monthly purchases dropped from USD 85 billion in December 2013 to USD 45 billion in May 2014. Furthermore, the Committee ratified that its decisions regarding the rate of purchases will not follow a predetermined pattern and will depend on the outlook for the labor market and inflation, as well as the cost-effectiveness analysis of the referred purchases. Likewise, the Committee decided to maintain unchanged the target range of the federal funds' rate between 0 and 0.25 percent.

Additionally, in its March monetary policy meeting the Federal Reserve changed its communication strategy. Specifically, as regards the forward guidance for the federal funds rate, it dropped reference to the explicit threshold, regarding the unemployment rate and the expected inflation established in December 2012, so as to focus on the qualitative assessment of the progress of a broad range of economic indicators. This assessment will include labor market conditions, the indicators of inflation pressures and inflation expectations, as well as the evolution of financial markets. In addition, the Federal Reserve noted that the target for its

reference rate will remain within its current interval for a considerable period of time, once the program of asset purchases is concluded. Moreover, it mentioned that, if the economic conditions call for it, the reference rate will persist below the levels considered as normal in the long term, even if the unemployment and inflation levels are close to those congruent with the mandate. Also, in the minutes of this meeting, the need to provide the public with additional information regarding the possible evolution of short-term interest rates was discussed, once the first increment in the target for its reference rate takes place. Thus, the new communication strategy has allowed the Federal Reserve to better convey its intention to the markets to maintain a highly accommodative monetary policy for an extended period of time.

The European Central Bank maintained unchanged its reference interest rates and strengthened its forward guidance of the monetary policy during the analyzed period. After having adopted a series of measures in recent years to attenuate the risks to the financial stability in the Euro zone, the ECB faces new challenges derived from the heterogeneity in the growth rates and inflation among different countries of the region. In its last meeting, the Governing Council of this central bank indicated its disposition to use different monetary policy instruments to effectively tackle the risk of an extended period of very low inflation.

In turn, over the referred period, the Bank of Japan (BJ) left unchanged its programmed levels of asset purchases, at an annual rate of JPY 60 and JPY 70 trillion, in order to achieve its 2 percent inflation target over a period of approximately two years. The BJ emphasized that the increase in the tax on consumption in April will produce a negative impact on domestic demand.

Emerging economies kept registering important differences in their monetary policy conduction. On the one hand, both inflation levels and the inflation forecast higher than its target, caused the central banks of Brazil, India, Indonesia, Russia, South Africa and Turkey to raise their interest rates, so as to attenuate the inflationary pressures, stemming mostly from a sharp depreciation of their currencies in the previous months. In contrast, slack conditions in the economy and low inflation with well-anchored expectations have allowed some countries of Emerging Europe and Latin America to maintain unchanged their monetary policy stance, and, in some cases, even to lower their reference rates to support the economic activity.

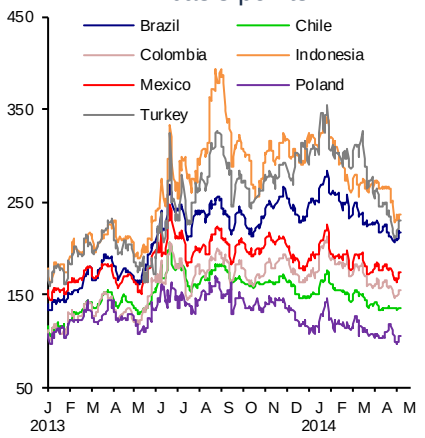
In this context, financial markets registered higher volatility at the beginning of the year, due to the uncertainty over the process of the U.S. monetary policy normalization. This was also contributed to by concern over the weakness of some emerging economies' macroeconomic fundamentals. However, from February onwards greater stability in international financial markets was observed, which was reflected in resumed capital flows to emerging markets and in intensified flows to the countries on the European periphery. This was due to the perception that the Federal Reserve will adjust its monetary policy stance in a gradual and more predictable manner, and due to adjustments in the macroeconomic stances of some emerging economies so as to address concerns over their vulnerability.

Derived from the abovesaid, a partial correction of the deterioration registered by different financial variables in emerging economies in 2013 and in early 2014 was seen. From February onwards, the prices of emerging economies' financial assets recovered, with appreciations in most of their currencies, reductions in the interest

rates of their government securities and gains in their stock market indices (Chart 17). Thus, in some cases, these increments managed to reverse the losses registered in the first weeks of the year.

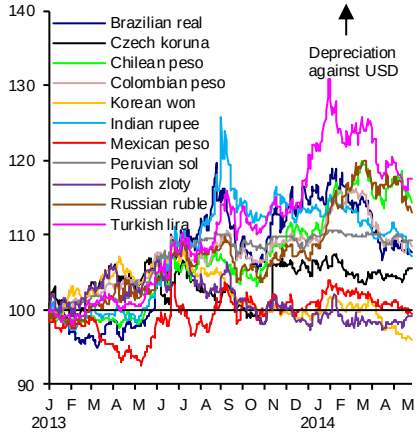
Chart 17
Financial Indicators of Emerging Economies

a) Sovereign Spreads
In basis points



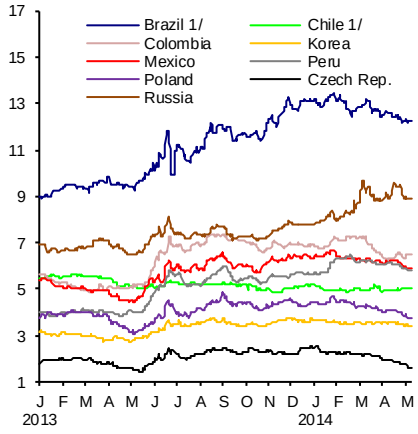
Source: Bloomberg.

b) Exchange Rate
Index 01/01/2013=100



Source: Bloomberg.

c) 10-year Bond Rates
Percent

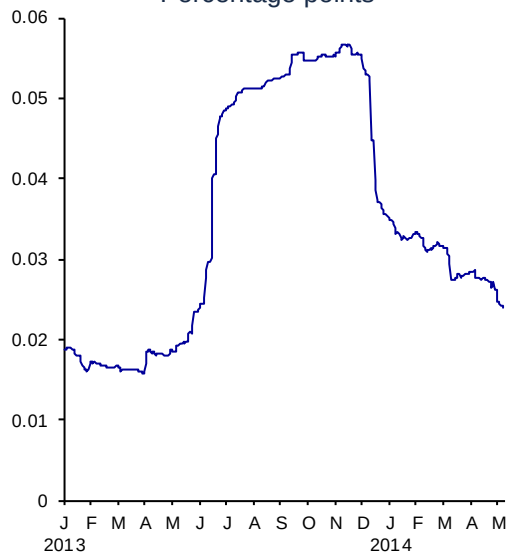


1/ It refers to 9-year bonds.
Source: Bloomberg.

Better conditions were also reflected in a significantly decreased volatility of some financial asset prices in emerging economies (Chart 18). In this context, there has been a renewed interest in constructing carry trade in those currencies, whose economies are characterized by higher interest rates with lower exchange rate volatility, as is the case of many emerging ones. It should be pointed out that it is during these episodes of apparent stability when the search for yield in financial markets can generate higher capital flows to emerging economies, an inadequate risk assessment and an asset price misalignment with respect to their fundamentals. In this context, new episodes of correction, which propitiate a disorderly adjustment in capital flows to emerging economies, cannot be ruled out, in particular in the economies with weaker macroeconomic fundamentals. Thus, in some of these economies the size and the structure of the external debt represent an important risk factor. Given this, the need to maintain the macroeconomic policy that would ensure robust growth with stable prices and that would at the same time reduce external financial requirements should be highlighted.

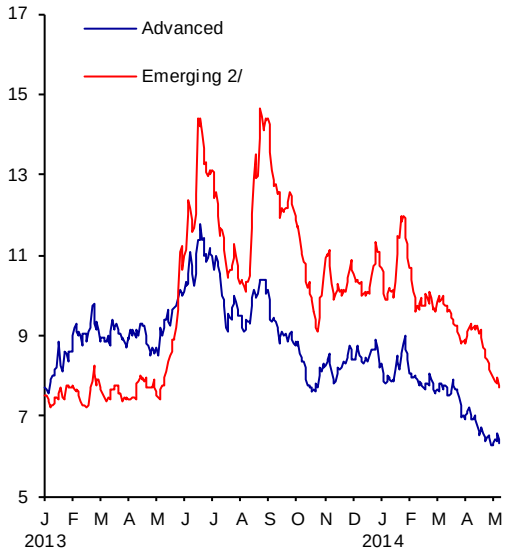
Chart 18
Financial Indicators of Emerging Economies

a) Volatility in Sovereign Bond Yields [1/]
Percentage points



1/ Moving standard deviation in past 180 days of daily changes in the Global Diversified EMBI yield.
Source: Prepared by Banco de México with data from Bloomberg.

b) Volatility in Exchange Markets [1/]
Percent



1/ Refers to implied volatility derived from 1-month options.
2/ Refers to the simple average of exchange rate options of Brazil, Chile, Korea, India, Mexico, Peru, Poland, South Africa and Turkey.
Source: Bloomberg.

3.2. Developments of the Mexican Economy

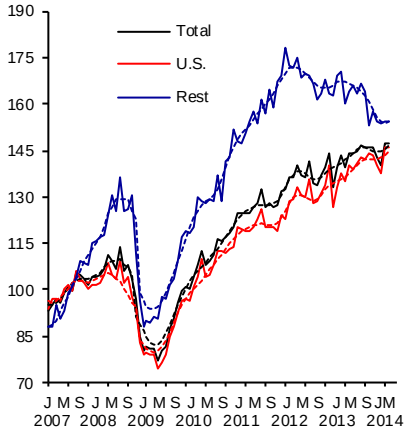
3.2.1. Economic Activity

By the end of 2013 and early 2014, the Mexican economy decelerated, mainly due to temporary factors. These factors seem to have started to reverse, so that by the end of the first quarter of the current year some indicators of the economy started to improve. This has been more evident in external demand and incipient in some domestic demand-related indicators. However, given the low dynamism of the economy at the beginning of the year, for the analyzed quarter it is expected to have expanded less than anticipated in the previous Report.

On further analysis, even though manufacturing exports presented a monthly seasonally adjusted decrease in January, mostly as a result of adverse weather conditions in the U.S., in February and March an improvement was observed in these exports. In particular, this performance reflects greater dynamism registered by exports to the U.S. in these months, especially automobile exports (Chart 19). In that regard, it should be noted that despite volatility in manufacturing exports to the U.S. in recent months, and, therefore, certain weakness in the Mexican manufacturing sector as compared to the U.S., evidence suggests that it is due to transitory factors and that the close link between the manufacturing sectors of Mexico and the U.S. has not been structurally affected (see Box 1).

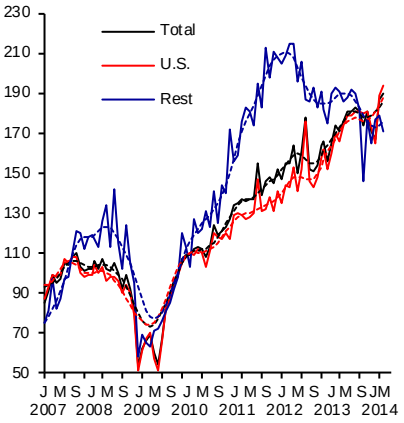
Chart 19
Indicators of Manufacturing Exports
Index 2007=100, s. a.

a) Manufacturing Exports by Region of Destination



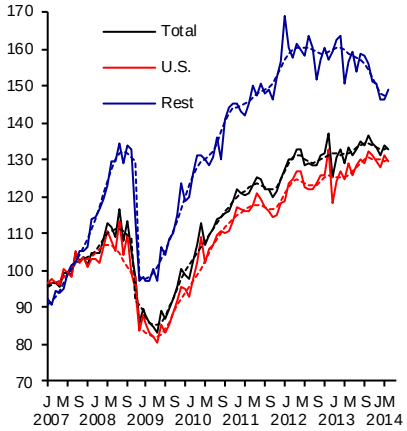
s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Banco de México.

b) Automobile Manufacturing Exports



s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Banco de México.

c) Non-automobile Manufacturing Exports



s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Banco de México.

Even though weakness of domestic demand, registered in late 2013, persisted at the beginning of the first quarter of 2014, by the end of the same quarter an incipient improvement was recorded in some of its indicators.

i. In particular, although the contraction of private consumption in January implied that ANTAD sales contracted in the quarter as a whole, it is noteworthy that these sales tended to increase in February and March (Chart 20a). In turn, although commercial establishments' wholesale and retail sales stagnated in recent months, the trend of the monthly indicator of private consumption in the domestic market, which also includes the purchase of services, has recovered slightly (Chart 20b and Chart 20c).

Box 1
Synchronization of Economic Activity between Mexico and the U.S.

1. Introduction

Since the signing of the North American Free Trade Agreement (NAFTA), Mexico and the U.S. have presented highly synchronized economic cycles. In particular, the Mexican economy has presented a tendency to closely follow the U.S. economy throughout the economic cycle, both when it expands and when the productive activity in the U.S. decreases. This seems to be a consequence of the greater trade and productive integration between the two countries, as a result of which the respective manufacturing sectors share both a common long-term trend and the same cyclical component. This Box presents evidence of the referred synchronization.

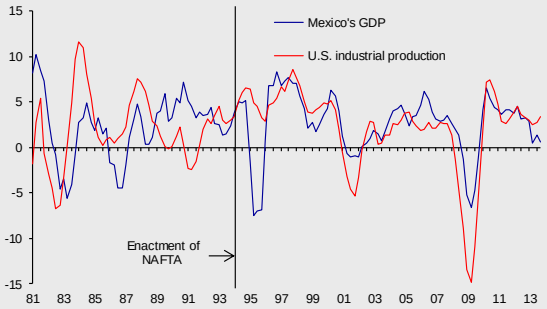
Despite the above mentioned, in recent months concern has surged regarding the apparent weakening of the economic link between the two countries. In this context, it will also be shown that, although recently the Mexican economy indeed seems to have expanded below what would be expected considering the performance of the U.S. economy, this apparent dissociation could have been caused by transitory factors, and not necessarily by a permanent structural change in the relation between these two countries' economies. Thus, the economic cycles of Mexico and the U.S. are still anticipated to remain synchronized.

2. Integration of the Mexican and the U.S. Economies

From 1996 onwards, after the immediate effects of the 1995 crisis faded, the U.S. industrial production and Mexico's GDP have recorded similar growth rates and a very similar dynamic throughout the economic cycle (Chart 1). This contrasts with the performance prior to NAFTA, when the correlation between the economic cycles of Mexico and the U.S. was clearly lower.[1]

Although the commercial links between Mexico and the U.S. were evident even prior to NAFTA, the implementation of the treaty reinforced them. Indeed, this agreement consolidated trade of manufactured goods, which has predominantly been intra-industry trade and has derived from different agreements of shared production between these countries. In particular, NAFTA has allowed to further exploit the comparative advantages of each country in different processes throughout the production chain. This vertical integration led to an increased trade between these two countries, to a similar response of the manufacturing sectors of both countries to demand shocks on manufactured goods, and to stronger ties between these sectors throughout the productive chain. In turn, as a result of these, after signing the agreement, a common long-term trend emerged in the manufacturing sectors of Mexico and the U.S. (Chiquiar and Ramos Francia, 2005).

Chart 1
Mexico's GDP and U.S. Industrial Production
Annual change in percent, s.a.



s.a./ Seasonally adjusted data.
Source: INEGI, Federal Reserve Board and Banco de México's calculations.

Below, evidence is presented suggesting a link between these economies at a higher frequency than previously documented. In particular, the reported econometric estimation shows that not only is there a long-term relation between the manufacturing activities of Mexico and the U.S., but also that the economic cycles of these countries have been more synchronized since 1996. That is, it is observed that after signing the NAFTA, the structural association of the Mexican economy with the U.S. economy has increased, both at the low frequency and at the frequency of the economic cycle.

To illustrate the above, the methodology of Vahid and Engle (1993) was used, which allows conducting synchronization tests, as well as estimating the parameters that describe the relations between the studied variables, which in this case are the manufacturing production in Mexico and in the U.S. This methodology is an extension of the vector autoregression model (VAR) with restrictions on long- and short-term relations between the variables included in the VAR. The test is carried out in two stages.

First, it is analyzed if there is a long-term relation (cointegration) between the variables included in the VAR, for which Vahid and Engle suggest applying the Johansen trace test (1991). This test consists in determining, in the particular case of series with a unit root (I(1)), if there is at least one linear combination of

[1] Between 1981 and 1993 the correlation between the annual growth rates of Mexico's GDP and the U.S. industrial production was 0.14, while that corresponding to the period from 1994 to 2013 is 0.64.

these series in levels without a unit root. Thus, it is possible to determine if there is a common trend between the variables included in the VAR and what the coefficients' vector that reflects this relation is.

Afterwards, once the cointegration between the series has been proved, Vahid and Engle propose a test of "common cycles". In statistical terms, a series is considered to present a cyclical behavior, if it has a given pattern of serial autocorrelation. In this context, it is stated that there is a common cycle between two series if a linear combination of the referred series, expressed in first differences (stationary) is identified, so that this combination no longer shows the serial autocorrelation pattern shown by the series individually.

The methodology of Vahid and Engle was applied to a VAR, which includes the logarithms of Mexico's manufacturing GDP and the U.S. manufacturing production, using quarterly seasonally adjusted data for the period from 1996-I to 2013-IV.[2] The first two lags of each variable were included in the VAR, which was determined based on the Schwarz Bayesian criterion. The results of the applied cointegration test indicate that the null hypothesis of no-cointegration is rejected at the 1 percent significance level (Table 1). Thus, the previous results suggest that there is a long-term relation between the manufacturing production in Mexico and in the U.S. in the analyzed period.

On the other hand, the null hypothesis that the number of common cycles is greater than zero cannot be rejected at the 1 percent significance level, while the hypotheses that the number of common cycles is above one is rejected at the same significance level (Table 2). In this way, the Vahid and Engle test suggests the presence of a common cycle between the manufacturing production of Mexico and that of the U.S. Thus, the evidence shown points to the existence of a significant synchronization between these two variables, both at a low frequency (long-term trend) and throughout the economic cycle. It should be noted that the abovedescribed tests were also carried out for the samples that began before the enactment of NAFTA. No evidence of either a long-term relation or common cycles was found, which reinforces the perception that a close link between the manufacturing production of Mexico and that of the U.S. occurred above all after the signing of the referred agreement.

The strengthening of the structural relation between the manufacturing sectors of Mexico and the U.S. since the signing of NAFTA, in turn, led to a greater synchronization of the Mexican economy with the U.S. industrial sector at a more aggregated level. Indeed, using an analysis similar to the one described above, evidence was found that for the period 1996-2013 total GDP of Mexico shows both a significant cointegration relationship and a common cycle with the U.S. total industrial production. On the other hand, the results of the analysis for samples starting before the implementation of NAFTA suggest that this close link is only observed after the introduction of the treaty.

Table 1
Cointegration Analysis between Manufacturing GDP of Mexico and U.S. Manufacturing Production
1996-I to2013-IV

Null hypothesis on the number of cointegrating vectors:	Trace statistic	1% Critical value 1/
None	20.01*	19.94
Maximum 1	2.90	6.63
	y1	y2
Cointegrating vector:	1	-1.02

* Rejects the null hypothesis at the 1 percent significance level.
Where:
y1 is the logarithm of the real manufacturing GDP of Mexico, seasonally adjusted figures.
y2 is the logarithm of the U.S. manufacturing production index, seasonally adjusted figures.
1/ Critical values taken from MacKinnon et al. (1999).

Table 2
Common Cycle Analysis between Manufacturing GDP of Mexico and U.S. Manufacturing Production[1/]
1996-I to 2013-IV

Null hypothesis on the number of common cycles:	Common cycle test statistic	1% Critical value 2/
More than 0	10.76	13.28
More than 1	102.48*	23.21
	Δ(y1)	Δ(y2)
Common cycle vector	1	-0.94

* Rejects the null hypotheses at the 1 percent significance level.
Where:
Δ is the change with respect to the previous period in the logarithm of the variable in parenthesis.
y1 is the logarithm of the real manufacturing GDP of Mexico, seasonally adjusted figures.
y2 is the logarithm of the U.S. manufacturing production index, seasonally adjusted figures.
1/ Suggested by Vahid and Engle (1993).
2/ Critical values obtained from the χ^2 distribution with degrees of freedom computed, according to Vahid and Engle (1993).

3. Recent Evolution of the Relationship between the Economies of Mexico and the U.S.

From the second half of 2012 onwards, the Mexican economy experienced a deceleration that was more pronounced than anticipated, given the performance of the U.S. economy. This can be observed in the evolution of seasonally adjusted annual rates at the end of the sample of Mexico's GDP, as compared to those of the U.S. industrial production (Chart 2a). The divergence at the end of the sample is more evident when the growth rates of the industrial activity indices of both countries are analyzed (Chart 2b), which has

[2] This analysis is an extension of that performed in Herrera (2004), which was carried out to analyze the economic synchronization at the GDP level of Mexico and the U.S.

generated concern regarding a possible dissociation between the economies of Mexico and the U.S.

Chart 2

a) Mexico's GDP and U.S. Industrial Production

Annual change in percent, s.a.

b) Industrial Production of Mexico and the U.S.

Annual change in percent, s.a.

s.a./ Seasonally adjusted figures.
Source: INEGI and Federal Reserve Board.

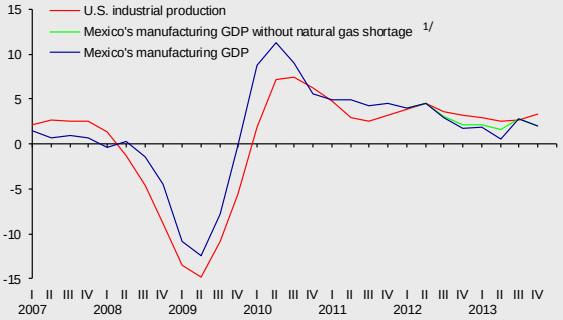
Despite this, the apparent dissociation recently presented between the economies of Mexico and the U.S. could be caused by the fact that specific temporary shocks, such as those described in the last Quarterly Reports, negatively affected only the performance of the Mexican economy. These factors could have affected growth of the industrial production in Mexico in the short term, without necessarily implying a rupture in the structural integration of productive chains between Mexico and the U.S.

For example, the negative trend in the construction sector observed throughout the last economic cycle led to greater weakness of Mexico's industrial production, in terms relative to the performance of the domestic manufacturing activity. Once this negative factor is controlled for and attention is drawn to the manufacturing sector, the growth rates of this sector's production and of the U.S. industrial production indicate a very close dynamics, even though the weaker dynamism of the economic activity in Mexico is still observed as compared that in the U.S. (Chart 3). However, it is relevant to recall that, in early 2013, and above all in the second quarter of that year, the production of the manufacturing sector in Mexico was limited due to a problem of natural gas shortage (see Box "Impact of the Natural Gas Shortage on the Economic Activity" in the Inflation Report July – September 2013). Once this effect is controlled for as well, using the reported estimates of the referred Box, an even closer performance between the series of the U.S. industrial production and the manufacturing production of Mexico is observed (Chart 3). Other temporary shocks that, to a lesser extent, may also have affected the recent performance of the economic activity in Mexico, in terms relative to the U.S., is a delay in public expenditure during 2013 and the reduced consumer confidence at the end of last year and at the beginning of the current one.

Chart 3

Mexico's Manufacturing GDP and U.S. Industrial Production

Annual change in percent, s.a.



1/ Estimate based on the Box "Impact of the Natural Gas Shortage on the Economic Activity" in the Inflation Report July - September 2013.
s. a./ Seasonally adjusted figures.
Source: INEGI, Federal Reserve Board and Banco de México's estimate.

Thus, the referred domestic factors seem to largely account for the apparent dissociation between the two economies, recently observed. Below, a more detailed analysis is presented to evaluate if there is evidence of a dissociation in the productive chains of both countries, which may imply or not a structural change. For that, in addition to considering the relation between the manufacturing production of Mexico and the U.S. as a whole, the relation at the level of each manufacturing sector in particular was also analyzed. The analysis is based first on a descriptive exercise of the relations between the evolution of Mexican exports and the U.S. manufacturing production, and, afterwards, on statistical tests of the rupture in the relation of cointegration at the end of the sample, using the methodology of Andrews and Kim (2006).

In particular, first the correlations between the annual variations of Mexico's manufacturing exports to the U.S. by sector and those of the U.S. manufacturing production of the corresponding sector were calculated.[3] Furthermore, the correlations between total Mexican manufacturing exports to the U.S. and total manufacturing production of that country were estimated. Likewise, the correlation between these two items excluding the automobile sector was calculated. The correlations were calculated for a sample covering from the first quarter of 2008 to the second one of

[3] Seasonally adjusted data were used. To classify exports in accordance with the North American Industry Classification System (NAICS) and to link them to U.S. industrial production data, "the Correlation Table between the General Imports and Exports Tariff (TIGIE) and the North American Industrial Classification System (NAICS)" was used, which is the bridge between the two referred classifications. In addition, export data were deflated by the U.S. consumer price index to express them in real terms.

2012, before the signs of the presented dissociation.[4] Second, the same correlations were calculated, but extending the sample until the first quarter of 2014, the last period with available data.

As can be seen in Table 3, it stands out that the correlation between the growth rates of Mexico's manufacturing exports to the U.S. and the U.S. manufacturing production practically did not change between the two considered periods. This evidence points to the fact that the synchronization between Mexico and the U.S. has persisted. Once the results by sector are analyzed, a slight reduction in the correlation of some of them is observed. However, this decrease is relatively small and may still be affected by short-term events, reason for which below a more formal analysis of the long-term relation between the manufacturing sectors of Mexico and the U.S. is conducted.

In particular, to formally evaluate a hypothesis of a possible dissociation between these sectors, the Andrews and Kim test (2006) was used. The aim of this test is to identify possible ruptures in the cointegration between two series at the end of the sample. Based on a cointegartion relation between two variables in most of the sample, the test consists in verifying that such relationship can be sustained for the data at the end of the sample. For that, the statistical properties of the residuals of the relation between the variables subject to analysis are used. The test verifies that there is no significant change in the parameters of the cointegrating relation in the part of the sample before the period in which a structural change is presumed to have possibly taken place in relation to the rest of the sample, based on a comparison of the performance of residuals before and after the point in which a possible structural change is presumed.

The test was implemented to verify that the cointegrating relationship between Mexico's manufacturing exports to the U.S. and the U.S. industrial production, at the level of each sector, did not undergo a structural change from October 2013 onwards. As shown in Table 4, only in 3 sectors, indicated in red, evidence is found of a possible breakdown of the relation of cointegration over the last six months of the sample. Such subsectors are: the plastic and rubber industry, the nonmetallic mineral non-metal products' manufacturing, and the furniture and related products' manufacturing. It should be noted that these subsectors as a total represent 4 percent of the Mexican manufacturing exports to the U.S. in 2013. Therefore, the results suggest that for the sectors that represent 96 percent of Mexico's manufacturing exports to the U.S., no evidence of a structural change in its long-term relation with the U.S. manufacturing production is found. In accordance with this, a rupture in its cointegrating relationship with the U.S. manufacturing production in the total manufacturing exports over the last six months is not identified either.

[4] A precise classification of exports according to the NAICS can only be obtained from 2007 onwards.

Table 3
Correlation between Mexico's Manufacturing Exports to the U.S. and U.S. Manufacturing Production*

Subsector	Percentage of total manufacturing exports in 2013	From 2008:I to 2012:II	From 2008:I to 2014:I
Total manufacturing	**100.00**	**0.83**	**0.78**
Manufacturing excl. motor vehicles and their comp.	**68.73**	**0.69**	**0.60**
Motor vehicles and their components	31.27	0.94	0.93
Communications, computer and other equip.	24.79	0.50	0.46
Accesories and electric power generation equip.	8.87	0.78	0.75
Machinery and equipment	8.66	0.80	0.78
Primarly metal industry	3.51	0.86	0.70
Food, beverage and tobacco industries	3.51	-0.19	-0.35
Fabricated metal products	3.36	0.95	0.94
Other manufacturing industries	2.92	0.62	0.46
Plastic and rubber industry	2.18	0.91	0.88
Apparel	2.09	0.94	0.84
Transportation and aerospace equipment	2.02	0.65	0.62
Chemicals	2.02	0.69	0.58
Oil and coal	1.47	-0.45	-0.21
Nonmetallic mineral products	1.12	0.89	0.89
Textile inputs manufacturing	0.72	0.86	0.85
Furniture and related products	0.71	0.76	0.79
Paper	0.46	0.68	0.61
Printing and related industries	0.15	0.68	0.61
Wood products	0.15	0.85	0.80

* Correlations between the annual percentage change rate of the seasonally adjusted quarterly series of Mexican manufacturing exports to the U.S. and that corresponding to the U.S. manufacturing production are reported.

Table 4
End of Sample Cointegration Breakdown Tests between Mexico's Manufacturing Exports to the U.S. and U.S. Manufacturing Production

Subsector	P-Value*		Percentage of total manufacturing exports in 2013
	Pc	Rc	
Total manufacturing	47.37	51.32	
Motor vehicles and components	22.37	23.68	31.27
Communications, computer and other equip.	63.16	52.63	24.79
Accessories and electric power generation equip.	34.21	30.26	8.87
Machinery and equipment	69.74	61.84	8.66
Primarly metal industries	72.37	73.68	3.51
Food, beverage and tobacco industry	86.84	71.05	3.51
Fabricated Metal products	35.53	31.58	3.36
Other manufacturing industries	82.89	57.89	2.92
Plastic and rubber industry	7.89	6.58	2.18
Apparel	96.05	100	2.09
Transportation and aerospace equipment manufacturing	31.58	19.74	2.02
Chemicals	39.47	28.95	2.02
Oil and coal	67.11	89.47	1.47
Nonmetallic mineral products	9.21	9.21	1.12
Textile inputs	31.58	23.68	0.72
Furniture and related products	2.63	3.95	0.71
Paper	53.95	53.95	0.46
Printing and related industries	51.32	52.63	0.15
Wood industry	34.21	23.68	0.15

* P-value for each test is reported in percent. For P-values over 10 the null hypothesis sustaining that the cointegrating relatioship is the same for the whole sample is not rejected.

4. Conclusions

This Box shows, though an econometric exercise, that there is a long-term relationship between Mexico's productive activity and the U.S. industrial sector, and

that these countries' economic cycles tend to be synchronized. In this context, although in recent months a divergence has been registered between the growth rates of GDP and of the manufacturing sectors in the referred countries, this could be a temporary event. Indeed, it was argued that this performance is congruent with the presence of different temporary shocks that affected exclusively the performance of the Mexican economy in the short term. In fact, evidence of stability in the long-term relation at the end of the sample between Mexico's manufacturing exports to the U.S. and the U.S. manufacturing production was presented. Thus, it is anticipated that, in the absence of new domestic shocks, greater dynamism of the U.S. economy could be translated into a greater impulse to the growth of Mexico's manufacturing sector.

However, the long-term relation and the synchronization of the economic cycles of Mexico and the U.S. cannot be taken for granted in the future. If changes in the composition of the U.S. manufacturing production are to occur, in particular with a greater bias towards activities of highest technology in which Mexico could have a less close relation, or towards a rupture in the vertical integration due to a change in the U.S. production structure, which would reduce the importance of processes intense in the labor factor, weakening of the link between the two countries could occur. Another element to consider is that Mexico could remain connected in sectors that in the long run have tended to observe a reduction in their participation within the U.S. industrial activity, such as the case of, for example, the textile and apparel industry. In this context, the importance of advancing with structural reforms in Mexico, that can boost productivity and the allocation of resources towards their most productive uses stands out. In this way, in addition to generating domestic sources of growth, the reallocation of resources towards the sectors in which comparative advantages persist, despite the changes in the productive composition of the main trading partner of the country, could be facilitated.

References

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

[2] Chiquiar, D. and M. Ramos Francia, (2005), "Trade and business-cycle synchronization: evidence from Mexican and U.S. manufacturing industries", North American Journal of Economics and Finance 16 187–216.

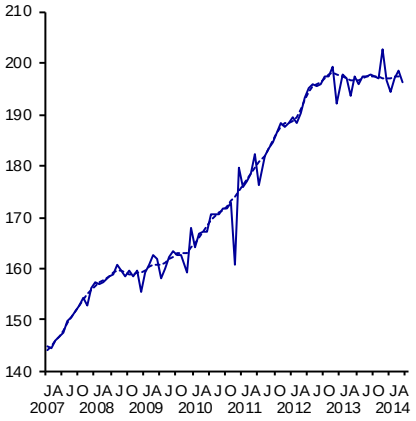
[3] Herrera, J., (2004), "Business cycles in Mexico and the United States: Do they share common movements?" Journal of Applied Economics VII (2): 303-323.

[4] Johansen, S., (1991), "Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models," Econometrica 59: 1551-1580.

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

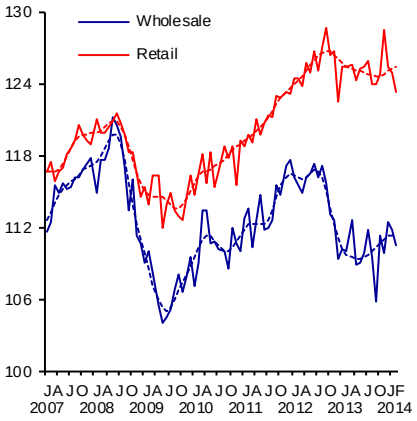
Chart 20
Consumption Indicators

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



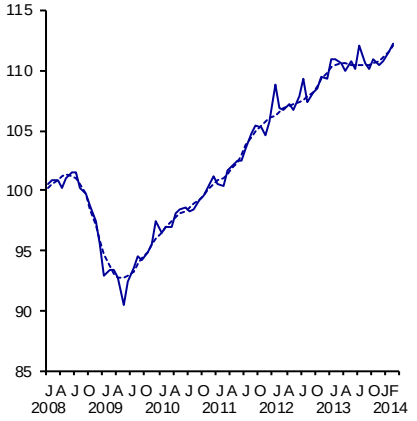
s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Prepared by Banco de México with ANTAD data.

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



s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Monthly Survey of Commercial Establishments, INEGI.

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

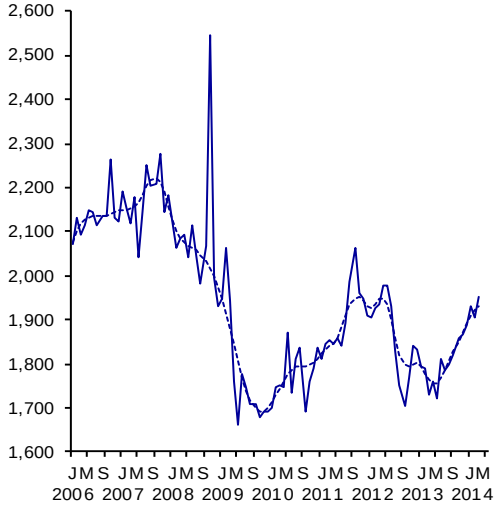


s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: INEGI.

ii. Furthermore, in recent months the performance of some consumption determinants improved incipiently, as is the case of workers' remittances (Chart 21a). In turn, the consumer confidence index rebounded in the period of February-April 2014, albeit from the low levels registered after the decreases of December and January (Chart 21b).

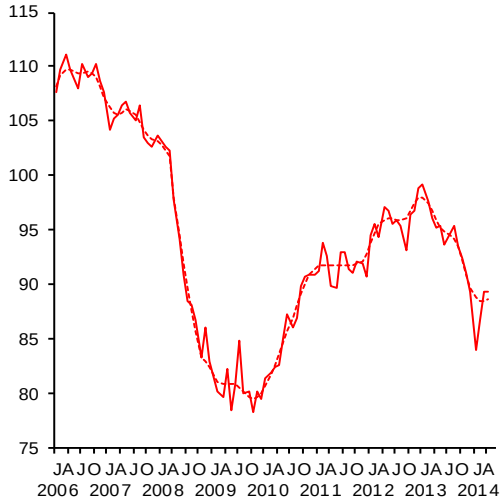
Chart 21
Consumption Determinants

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



s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Banco de México.

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

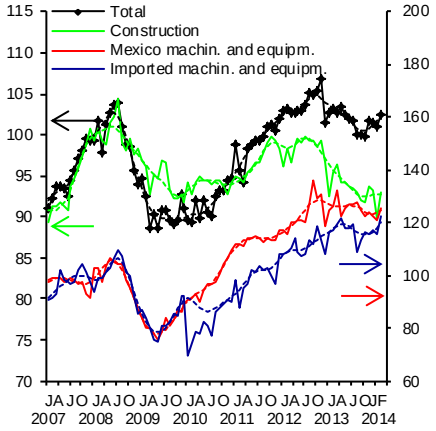


s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: National Consumer Confidence Survey (ENCO), INEGI and Banco de México.

iii. Some gross fixed investment indicators started to observe a favorable change in trend, although still an incipient one. In particular, imports of capital goods have presented a positive trend since late 2013, while investment in housing construction has not registered a negative evolution since November 2013 (Chart 22).

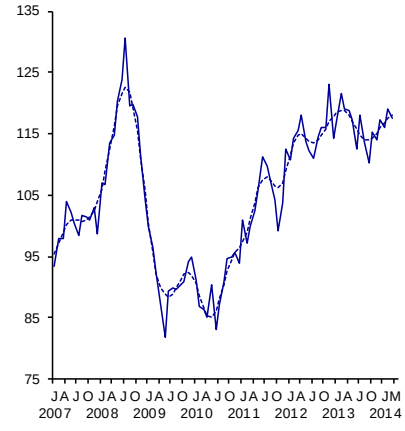
Chart 22
Indicators of Investment

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



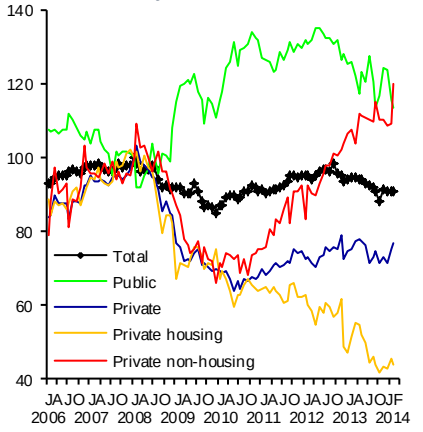
s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Mexico's System of National Accounts, INEGI.

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



s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
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 data. For public and private construction (housing and total private non-housing), the seasonal adjustment was prepared by Banco de México with data from INEGI.
Source: INEGI.

iv. During the first quarter of 2014, public expenditure was exercised in line with the original program, registering high annual growth rates. In particular, higher expenditure on public investment and higher subsidies and transfers, which encompass the Mexican government social programs, are noteworthy.

Based on the described evolution of external and domestic demand, the main components of productive activity remained weak in the analyzed quarter as a whole, even though by the end of this quarter a modest reactivation was observed (Chart 23a). In particular,

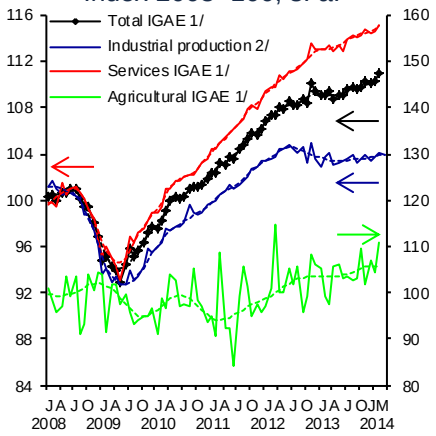
- Over the first months of the year, industrial production improved moderately, even though it was observed after the contraction of December 2013. This evolution largely reflected the reactivation of the manufacturing industry as compared to the low levels registered in late 2013. On the other hand, the construction sector does not seem to present a negative trend any longer (Chart 23b).
- Although the services' sector stagnated in January, principally derived from the contraction in domestic demand-related services, such as professional services, corporate services and business support services, and recreation services and other, in February this sector as a whole registered a rebound. This improvement reflected, in line with the

recovery of the manufacturing exports in February 2014, greater dynamism of external demand-related services (Chart 23c).

- The positive trend of the agricultural activity in the first quarter of 2014 largely derived from a higher crop yield of the autumn-winter cycle. Notably, as a consequence of heavy rainfall in September 2013 due to the hurricanes "Ingrid" and "Manuel", the country's main dams reached high storage levels, which led to both a greater cultivated area and to higher crop yields.

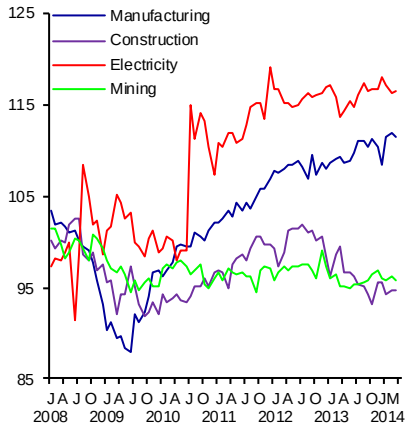
Chart 23
Indicators of Production

a) Economic Activity Indicators
Index 2008=100, s. a.



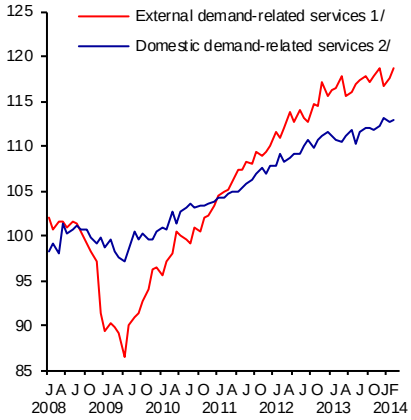
1/ Data as of February 2014.
2/ Data as of March 2014 of the Indicator of Industrial Activity.
s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: Mexico's System of National Accounts, INEGI.

b) Industrial Activity
Index 2008=100, s. a.



s. a. / Seasonally adjusted data.
Source: Indicators of Industrial Activity (Mexico's System of National Accounts, SCNM), INEGI.

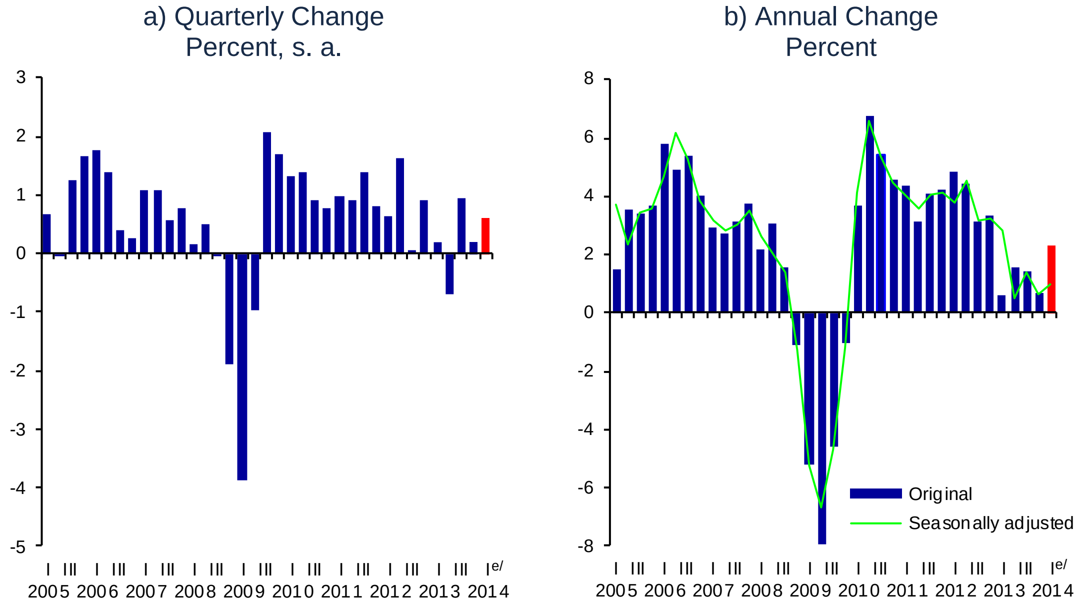
c) IGAE of the Services Sector
Index 2008=100, s. a.



1/ It includes commerce, transport, mail and warehousing, and mass media services.
2/ It includes the remaining sectors of tertiary activities.
s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from Mexico's System of National Accounts, INEGI.

As a result of the abovesaid, for the first quarter of 2014 Mexico's GDP is estimated to have registered a quarterly seasonally adjusted growth around 0.6 percent, a figure that is compared to the growth of -0.69, 0.95 and 0.18 percent in the previous three quarters (Chart 24a). An annual seasonally adjusted GDP growth of about 1.0 percent is estimated for the first quarter of 2014, as compared to 0.5, 1.4 and 0.6 percent observed over the last three quarters, respectively. It should be clarified that, based on data without seasonal adjustment, an annual GDP growth of 2.3 percent is anticipated in the quarter, a figure that is positively affected by the fact that the Holy Week took place in April, while in 2013 it was in March (Chart 24b). For the same reason, the annual GDP growth without seasonal adjustment will tend to be affected negatively in the second quarter of the year.

Chart 24
Gross Domestic Product

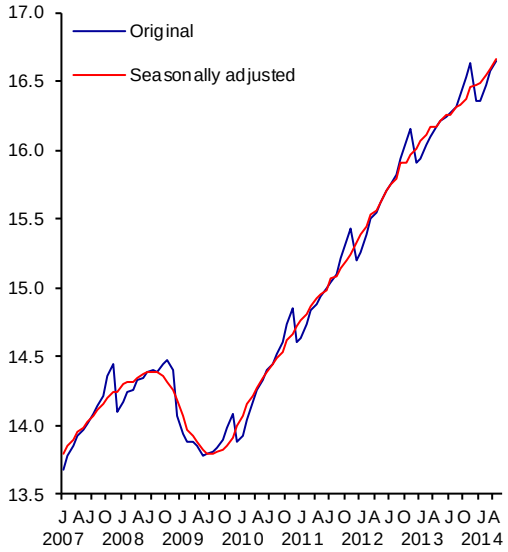


s. a. / Seasonally adjusted data.
e/ Estimated by Banco de México.
Source: Mexico's System of National Accounts, INEGI. Seasonal adjustment up to the first quarter of 2014 by Banco de México.

In this context, available data suggest that ample slack conditions persist in the labor market. Indeed, although the number of IMSS-insured workers maintained an upward trend (Chart 25a), the national and urban unemployment rates are at higher levels with respect to the pre-crisis ones, and there was even a rebound at the end of the first quarter (Chart 25b). The output gap is still negative, reflecting an ample slack in the economy as a whole. Hence, no inflationary pressures are anticipated over the following months, derived from the expected evolution of aggregate demand.

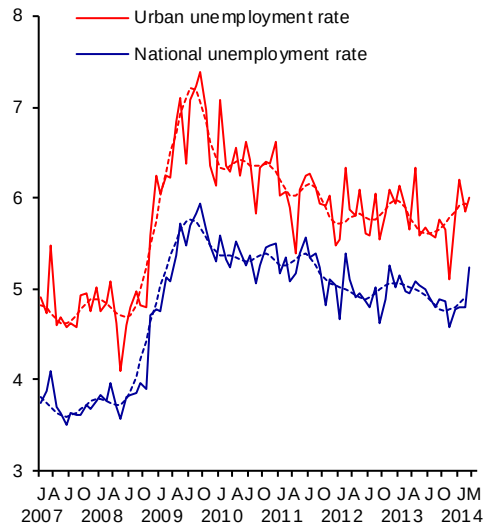
Chart 25
Labor Market Indicators

a) IMSS-insured Workers [1/]
Millions of workers



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

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

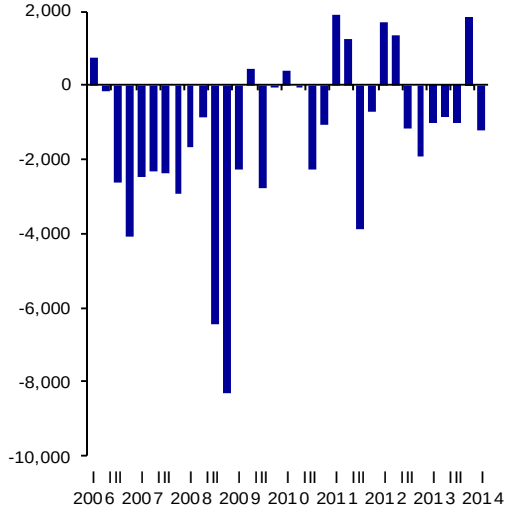


s. a. / Seasonally adjusted series and trend series. The former is represented with a solid line and the latter, with a dotted line.
Source: National Employment Survey (ENOE), INEGI.

Finally, as regards the external accounts, in the first quarter of 2014 the trade balance recorded a deficit of USD 1,192 million (Chart 26a). Available data suggest that in this period the current account will have observed a moderate deficit and that the country continued receiving capital flows via the financial account, sufficient to allow an easy financing of the referred deficit (Chart 26b).

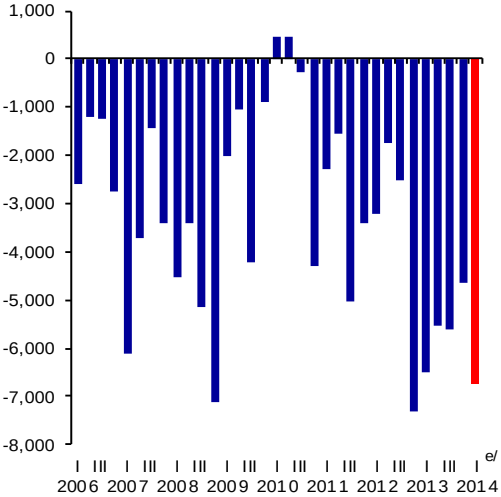
Chart 26
Trade Balance and Current Account
USD million

a) Trade Balance



Source: Banco de México.

b) Current Account



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

3.2.2. Financial Saving and Financing in Mexico

In the first three months of the year, the monetary base presented an average annual nominal rate of change of 9.6 percent, which was above the 6.8 percent rate observed in the last quarter of 2013.[3] This was mainly due to the fact that the monetary base expansion in 2013 was impacted by a reversal of the greater demand observed in 2012 as a result of the electoral period.

In the first quarter of 2014 the sources of financial resources of the economy continued increasing at a similar rate to that observed in the previous quarter. This expansion was observed in both domestic and external sources of resources (Table 2). With regard to the domestic sources, the domestic financial saving –defined as the monetary aggregate M4 minus the stock of currency held by the public– expanded at an annual rate similar to that of the previous quarter (Chart 27a). This resulted from sustained growth in voluntary financial saving (Chart 27b). In contrast, the stock of compulsory financial saving continued to show a low expansion rate in real annual terms. This is largely a result of the significant increase in medium- and long-term interest rates that has been taking place since May 2013, which implied lower valuations of public debt instruments held by pension funds.

[3] The monetary base is defined as the sum of currency in circulation plus bank deposits in Banco de México.

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

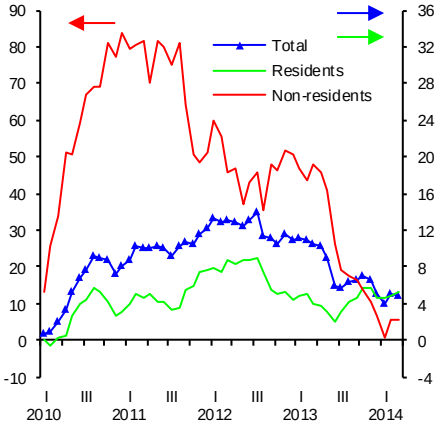
	Annual flows						Stock 2014 I e/	
	2012 IV	2013 I	2013 II	2013 III	2013 IV	2014 I e/	% GDP	Est. %
Total sources	**10.0**	**10.2**	**7.2**	**7.9**	**8.5**	**8.8**	**93.7**	**100.0**
Domestic sources 1/	4.4	4.4	3.3	4.3	4.8	5.1	60.0	64.0
Foreign sources 2/	5.6	5.8	3.9	3.7	3.7	3.7	33.7	36.0
Total uses	**10.0**	**10.2**	**7.2**	**7.9**	**8.5**	**8.8**	**93.7**	**100.0**
Public sector financing	3.7	3.1	3.3	3.6	3.4	3.9	43.7	46.7
Public Sector Borrowing Requirements (PSBR) 3/	3.2	2.7	2.9	3.3	3.0	3.6	40.7	43.4
States and municipalities	0.5	0.4	0.4	0.4	0.4	0.3	3.0	3.3
International reserves 4/	1.8	1.4	0.8	0.8	1.0	1.3	14.6	15.6
Private sector	3.1	2.9	3.0	3.2	3.9	4.0	36.2	38.6
Households	1.4	1.3	1.2	1.2	1.1	1.2	15.0	16.0
Consumption	0.6	0.6	0.6	0.6	0.5	0.5	4.8	5.1
Housing 5/	0.8	0.6	0.6	0.6	0.6	0.7	10.3	11.0
Firms	1.7	1.7	1.8	2.1	2.8	2.8	21.2	22.6
Domestic 6/	1.0	1.0	1.0	1.0	1.3	1.0	12.0	12.8
Foreign	0.8	0.7	0.8	1.1	1.5	1.7	9.2	9.8
Commercial banks' foreign assets 7/	-0.1	0.0	0.0	-0.3	0.0	-0.1	1.2	1.3
Other 8/	1.5	2.8	0.1	0.5	0.2	-0.3	-2.1	-2.2

Source: Banco de México.
Note: Figures may not add up due to rounding. Preliminary figures expressed in percent of average GDP of the last four quarters. The information on (revalued) flows is stripped from the effect of exchange rate fluctuations.
e/ Figures estimated based on available data for the first quarter of 2014.
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, 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.

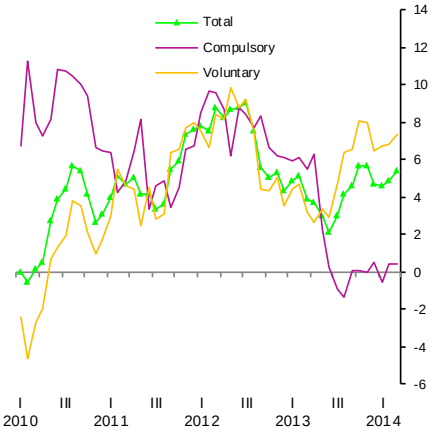
As regards external sources of resources, the increase in the stock of non-resident financial savings was primarily accounted for by greater holdings of medium- and long-term government securities (Chart 27c). It is worth emphasizing that –despite the uncertainty prevailing in financial markets at the beginning of the year– a favorable perception of macroeconomic policy in the country, expectations about the potential impact of the structural reforms approved in recent months, and the upgrading of Mexico's credit rating by Moody's from Baa1 to A3, three credit ratings above the minimum investment threshold, contributed to mitigate the deterioration of financial market conditions in the country. Subsequently, improvements in international financial markets from February onwards were also reflected in domestic markets.

Chart 27
Financial Saving Indicators

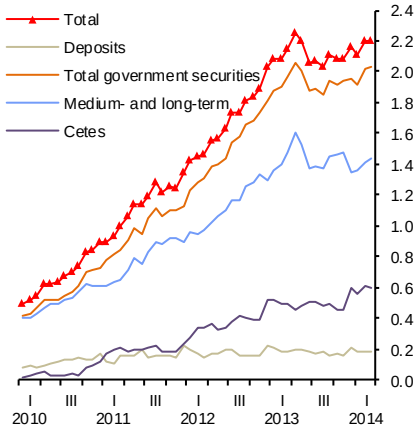
a) Total Financial Saving [1/]
Real annual change in percent



b) Resident Financial Saving [1/]
Real annual change in percent



c) Non-resident Financial Saving
MXN trillion as of March 2014



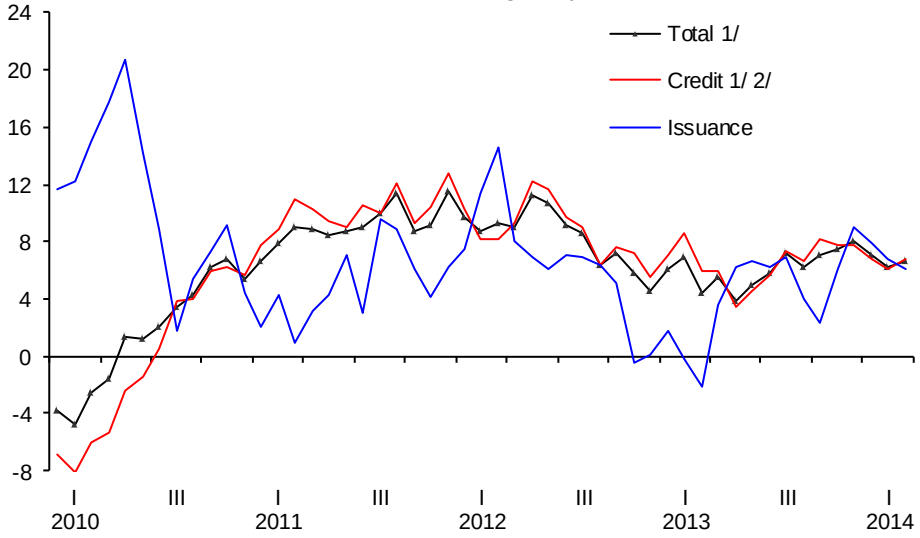
Source: Banco de México.
1/ Defined as the monetary aggregate M4 minus the stock of currency held by the public.

Regarding the use of financial resources in the economy, in line with the annual target established in the economic package approved for 2014, in the first quarter of the current year, Public Sector Borrowing Requirements (PSBR) exceeded those recorded in the previous quarter. This implied a higher annual flow of financing to the public sector with respect to that registered in the last quarter of 2013 (Table 2). On the other hand, the annual flow of financing to states and municipalities was similar to that registered in the period of October-December 2013. The use of resources from the accumulation of international reserves amounted to a figure higher than in the last quarter, as a result of higher sales of U.S. dollars by Pemex to Banco de México. Finally, total financing to the non-financial private sector decelerated at the margin, in agreement with the low dynamism of economic activity.

About the latter, in the first quarter of the year, financing to non-financial private firms presented a slight drop in its real annual rate of growth. This stemmed from a moderation in the expansion of commercial bank credit, as well as a lower volume of corporate placements in the domestic debt market (Chart 28). Foreign financing, especially through the issuance of debt securities in international markets, was also less vigorous compared to the previous quarter.

In the domestic credit market, commercial bank credit to non-financial private firms moderated its growth pace (Chart 29a). The above was the result of the lower dynamism of credit granted to large firms, given that the credit portfolio of small and medium-sized enterprises continued expanding at high rates. Interest and and delinquency rates of commercial bank credit to firms remained stable in the first quarter (Chart 29b and Chart 29c). Meanwhile, development bank credit to non-financial private firms presented growth rates similar to those observed in the previous quarter (Chart 29a). In the context of this portfolio expansion, the corresponding interest rates did not present any major changes, while delinquency rates remained at stable levels (Chart 29b and Chart 29c).

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



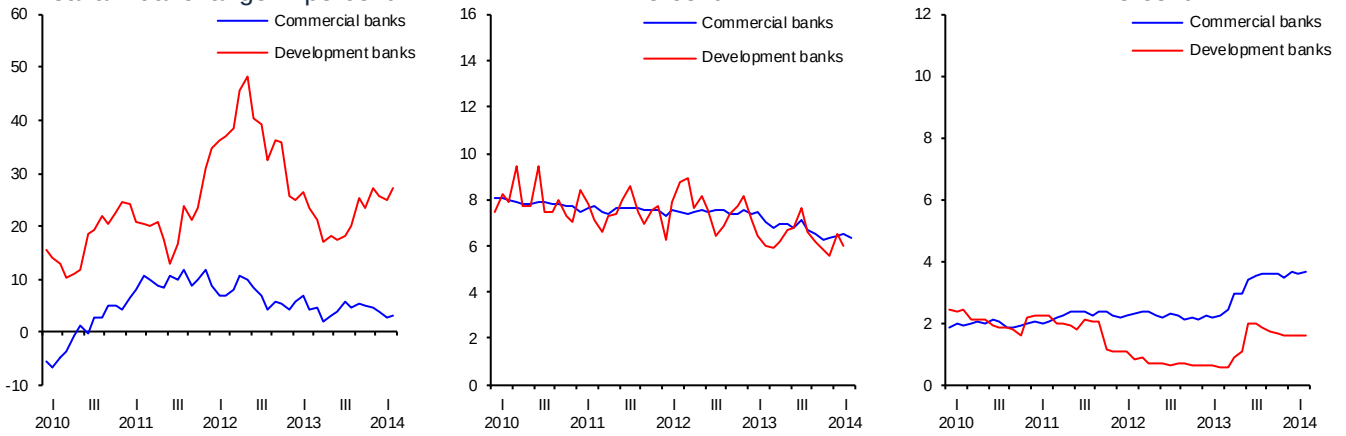
Source: Banco de México.
1/ These figures are affected by the disappearance of some non-banking financial intermediaries and their conversion to non-regulated Sofom.
2/ It refers to the performing and non-performing portfolio, and includes credit from commercial and development banks, as well as nonbank financial intermediaries.

Chart 29
Bank 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 [1/]
Percent

c) Delinquency Rates of Credit to Non-financial Private Firms [2/]
Percent



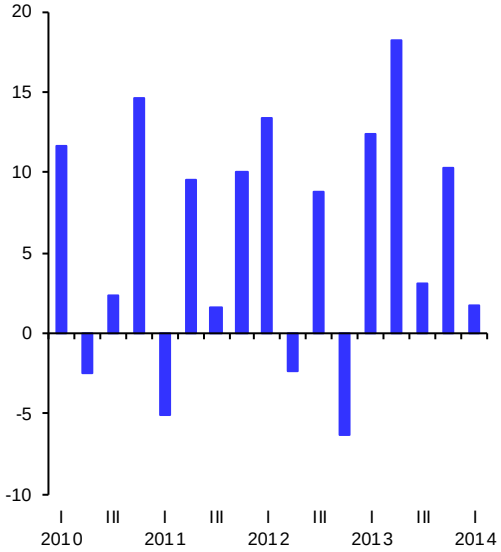
Source: Banco de México.
1/ It refers to the interest rate of new bank credits to non-financial private firms, weighted by the associated stock of the performing credit and for all credit terms requested.
2/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

In debt markets, non-financial private firms continued to issue securities both in the international and in the domestic market, although issuance was lower as compared to the fourth quarter of 2013. The lower activity in domestic debt markets in the first quarter of 2014, in particular, was reflected in the net issuance of medium-term debt of MXN 1.7 billion, lower than the net issuance of MXN 10.2 billion, recorded in the previous quarter (Chart 30a). These securities continued to

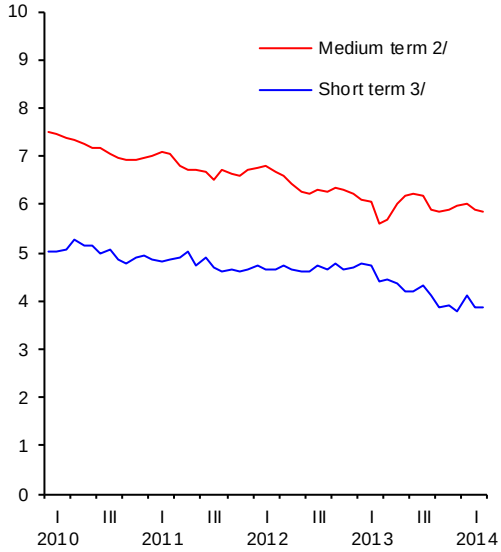
be issued amidst favorable conditions in terms of maturities and interest rates. The average maturity of medium-term securities issued by private firms was around 8 years. Interest rates of securities issued by private firms registered similar levels to those in the previous quarter, both in the case of medium- and short-term issuances (Chart 30b).

Chart 30
Domestic Market Securities of Non-financial Private Firms

a) Net Placement of Medium-term Securities Issued by Non-financial Private Firms 1/
MXN billion



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



Source: Banco de México, with data from Valmer and Indeval.
1/ Placements excluding amortizations in each month (securities and prepayments).
2/ Placements of more than one year.
3/ Placements of up to one year.

Credit to households granted by commercial banks, public entities that issue credit for home bying and other non-bank financial intermediaries continued expanding in the first quarter of the year, although at lower rates as compared to those observed by the end of 2013. This was principally due to the deceleration registered in the consumer credit portfolio.

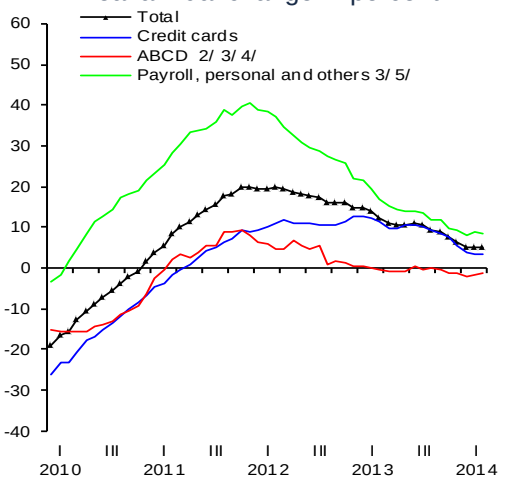
In particular, commercial bank consumer performing credit increased in the period of January-March 2014 at an average rate of 5.1 percent, a figure below the 7.6 percent recorded in the fourth quarter of last year (Chart 31a). This slowdown was generalized, and was more pronounced in the segments of credit cards and personal credit. In this environment, the corresponding interest rates and delinquency rates did not observe significant changes. Still, in line with the current cyclical phase of the economy, the adjusted delinquency rate –which takes into account bad debt write-offs accumulated in the last twelve months– has deteriorated gradually (Chart 31b).

In turn, mortgage loans showed a mixed performance. In the first quarter of 2014, the performing mortgage loan portfolio of commercial banks and sofomes saw an average annual growth rate similar to the previous quarter, of around 6.0 percent,

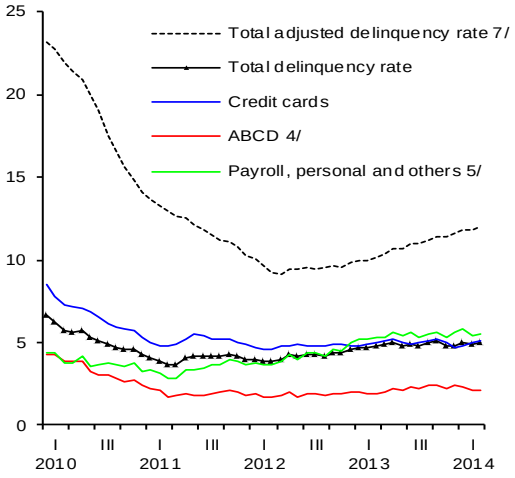
albeit displaying certain volatility during the quarter.[4] This occurred in a context of stable interest rates and delinquency rates of this credit portfolio. Separately, the performing credit portfolio of the National Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit) continued to present low dynamism, recording a real average annual growth rate of 2.2 percent in the period of January-March of the present year, below the 2.9 percent observed in the period of October-December 2013 (Chart 32a), while the respective delinquency rate displayed a modest deterioration (Chart 32b).

Chart 31
Commercial Bank Consumer Credit

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



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

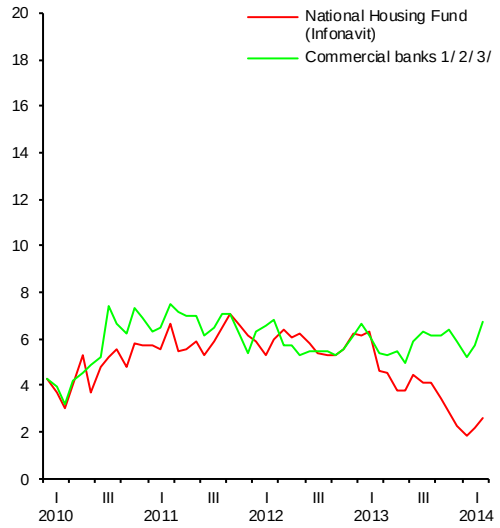


Source: Banco de México.
1/ It includes loans by credit card-regulated sofomes: Tarjetas Banamex, Santander Consumo, Banorte-Ixe Tarjetas and Sociedad Financiera Inbursa.
2/ Between June 2010 and May 2011, figures are adjusted in order to avoid distortions due to the purchase of one banking institution's automobile loan portfolio.
3/ From July 2011 onwards, figures are adjusted in order to avoid distortions due to the reclassification from durable goods (ABCD) to other consumer 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 is defined as the stock of non-performing loans divided by the stock of total loans.
7/ The adjusted delinquency rate is defined as a non-performing portfolio plus punishments accumulated over the last 12 months divided by total portfolio plus punishments accumulated over the last 12 months.

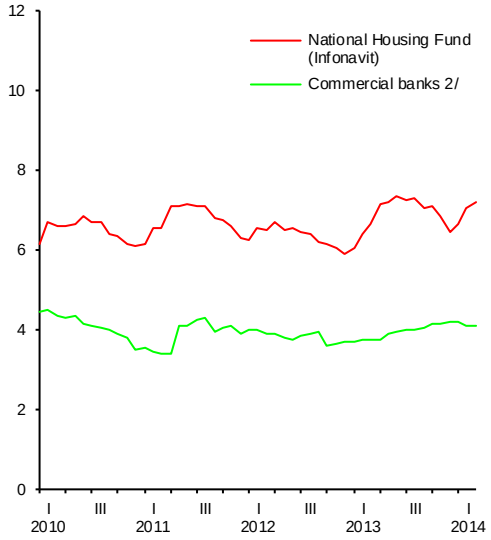
[4] These growth rates consider the incorporation of a new sofom to mortgage loans' statistics, as a result of its conversion from an unregulated sofom to a regulated sofom.

Chart 32
Housing Credit

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



b) Delinquency Rates of Housing Credit [4/]
Percent



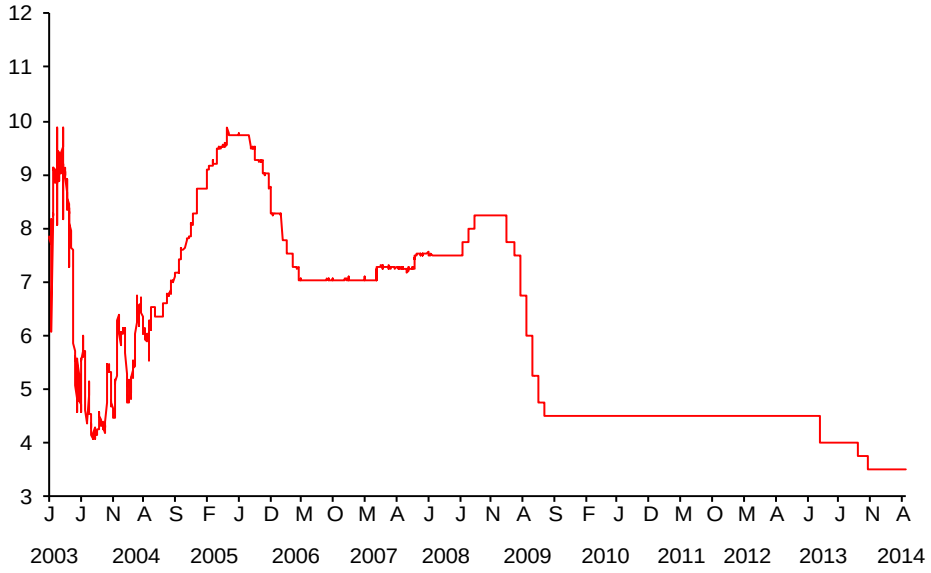
Source: Banco de México.
1/ Figures are adjusted in order to avoid distortions by the pass-through effect of the UDIS trust portfolio to the balance sheet of commercial banks and by the reclassification of credit in direct portfolio to ADES.
2/ Included to commercial banks' sofomes.
3/ Figures are adjusted to avoid distortions of regulated sofomes to the bank credit statistics.
4/ The delinquency rate is defined as the stock of non-performing loans divided by the stock of total loans.

In sum, the deceleration of total financing to the non-financial private sector is congruent with the current cyclical phase of the economy. Indeed, both firms and households have signaled a lower appetite for financing, thus reflecting the mixed performance of the aggregate demand components. Insofar as the country's productive activity observes a more favorable evolution, credit and debt markets are expected to exhibit greater dynamism.

4. Monetary Policy and Inflation Determinants

The monetary policy implemented by Banco de México has fostered the process of efficient convergence of inflation to its 3 percent permanent target. Thus, although some shocks of relative prices propitiated an inflation increase in late 2013 and early 2014, it resumed its downward trend insofar as the effects of the referred shocks started to dissipate, just as anticipated. Medium- and long-term inflation expectations remained stable, so that the process of price determination of the economy was not contaminated. Thus, the evolution of inflation and its expectations over the period covered by this Quarterly Report did not require adjustments in the target of the monetary policy reference interest rate. Therefore, Banco de México's Board of Governors maintained the target for the Overnight Interbank Interest Rate at 3.5 percent in its monetary policy meetings of January and March, as well as in its first meeting of the following quarter (Chart 33).

Chart 33
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.

Among the elements taken into account for the monetary policy conduction over the period covered in this Quarterly Report, the following stand out:

a) That ample slack conditions persist, both in the labor market and in the economy as a whole, and that no aggregate demand-related inflationary pressures are anticipated in the horizon over which monetary policy operates.

b) That, as expected, even though headline inflation rebounded in the period from the end of 2013 till the first fortnight of January 2014, it resumed its downward trend from the second fortnight of January onwards, to reach levels well below 4 percent from the first fortnight of March and it is expected to continue gradually converging to the 3 percent target.

c) That in February and March, the increase that core inflation had registered reversed and it is expected to remain around 3 percent over the rest of 2014 and at a level below it in 2015.

d) That the evolution of inflation and its expectations confirmed that no second round effects on the price formation process in the economy were observed, as a result of the referred changes of relative prices, including those derived from the fiscal measures in force since January 2014.

e) That lower uncertainty in international financial markets, following the period of turbulence in January 2014, has contributed to the fact that adjustments in domestic financial markets continue taking place in an orderly manner and even that the adjustments in prices of different financial assets, which had been registered in the first weeks of the year, reversed.

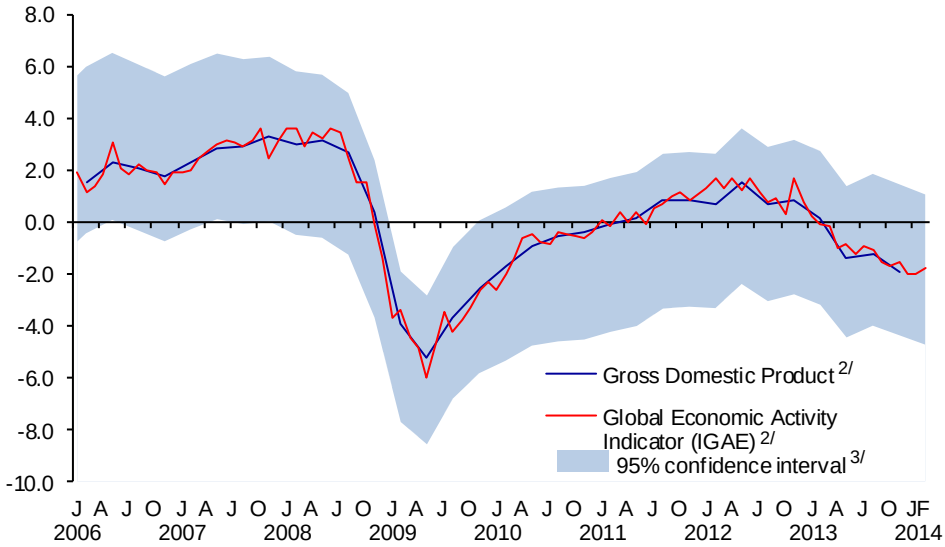
The recent performance of inflation and its expectations is largely a result of the credibility achieved in recent years regarding Banco de México's commitment to ensure, above all, price stability. In particular, this Central Institute has reaffirmed that inflation shocks, such as those recently observed, are adjustments in relative prices that, in a context of well-anchored inflation expectations, only affect inflation in a transitory manner and do not contaminate the price formation process of the economy. This is what indeed occurred. Of course, during the period covered by this Quarterly Report, Banco de México's Board of Governors remained alert so that this process would indeed take place.

The slowdown of the economic activity in late 2013 and in early 2014, as well as the slack conditions that persist in the main input markets of the country, indicate that no demand-related pressures either on prices or on external accounts are currently observed. In particular:

a) As a result of the recent evolution of the economy, the output gap remained at negative levels and in fact widened with respect to the previous quarter (Chart 34).[5]

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

Chart 34
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 2013, IGAE figures up to February 2014.
3/ Confidence interval for the output gap calculated with an unobserved components' method.
s. a. / Prepared with seasonally adjusted figures.
Source: Prepared by Banco de México with data from INEGI.

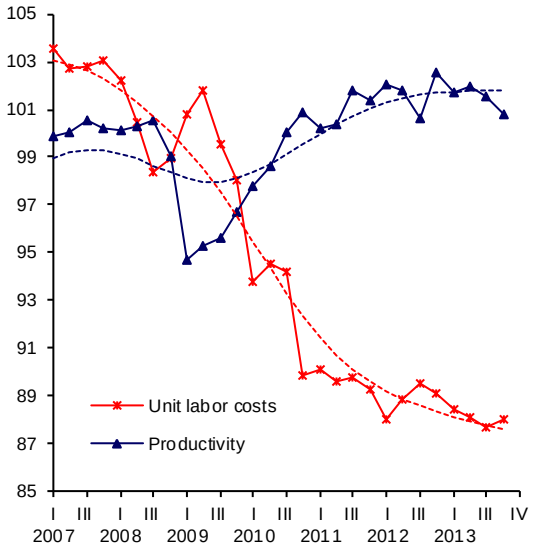
b) Ample slack conditions prevail in the labor market (see Section 3.2.1).

c) In the first quarter of 2014, the main wage indicators continued increasing moderately. As a result of this and the tendency of the average labor productivity, the unit labor costs located at low levels (Chart 35).

d) As compared with the second half of 2013, the domestic financing to the non-financial private sector and to households registered a lower growth rate in the first months of the year.

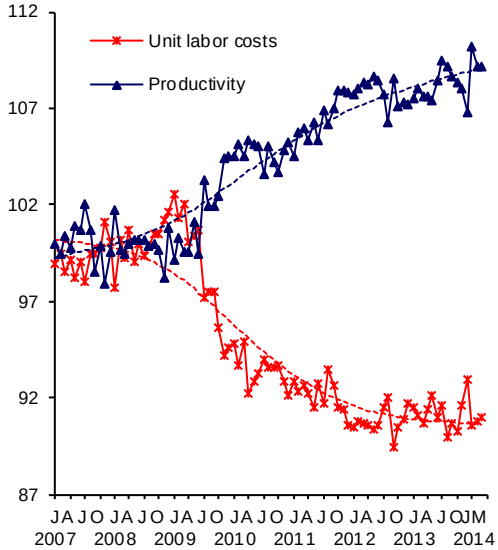
Chart 35
Productivity [1/] and Unit Labor Cost

a) In the Economy
Index 2008=100, s. a.



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

b) In the Manufacturing Sector
Index 2008=100, s. a.



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

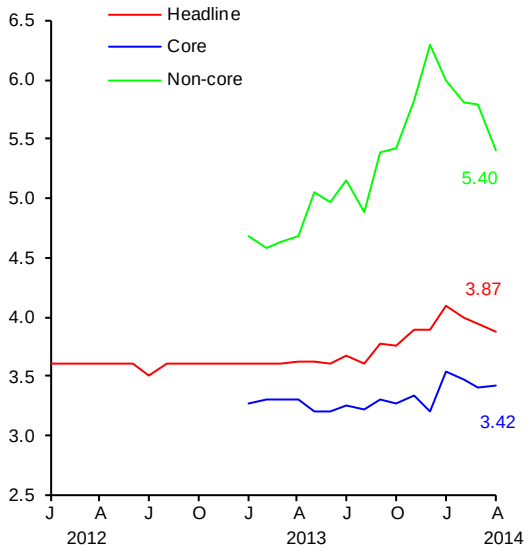
In line with Banco de México's expectation survey among private sector analysts, the median of headline inflation expectations for the end of 2014 increased from 3.90 percent in December 2013 to 4.10 percent in January of the current year. Afterwards, when inflation in January and February turned out lower than expected by these analysts, the median of the referred expectations was revised downwards to 3.87 percent in April.[6] The median of core inflation expectations for the end of 2014 recorded a similar performance, going up from 3.20 to 3.55 percent between December 2013 and January 2014, to later gradually diminish till 3.42 percent in April. The non-core inflation expectation implicit in the previously mentioned medians progressively decreased from 6.30 to 5.40 percent in the period from December 2013 to April 2014 (Chart 36a). It should be noted that not only the median of inflation expectations for the end of 2014 has been decreasing, but also the dispersion related to them. This lower dispersion reflects the environment of greater certainty regarding the inflation evolution this year, despite the above referred relative price shocks (Chart 36b). Meanwhile, longer-term

[6] According to Banamex Survey of Financial Market Analysts' Expectations, the median of headline inflation expectations for the end of 2014 presented a similar performance, lying at 3.90 percent in the survey of December 17, 2013, to later increase to 3.97 percent in the survey of February 20, 2014 and to gradually decline to 3.90 percent in the surveys of April 22 and May 6, 2014.

inflation expectations remained stable around 3.50 percent over the period analyzed by this Quarterly Report (Chart 37a).[7]

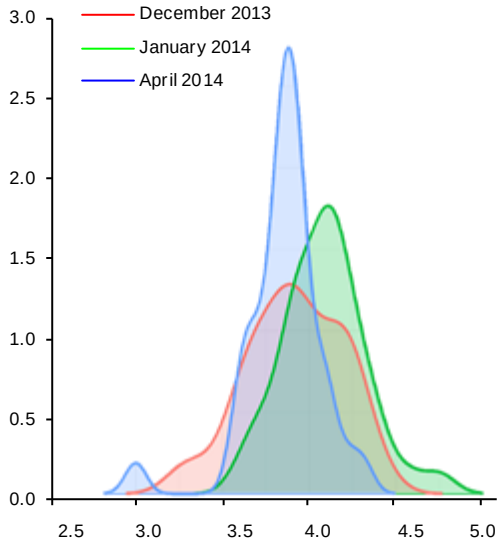
Chart 36
Inflation Expectations

a) Medians of Headline, Core and Non-core Inflation Expectations as of End of 2014
Percent



Source: Banco de México's Survey.

b) Distribution of Headline Inflation Expectations as of End of 2014
Percent



Source: Estimated based on Banco de México's Survey.

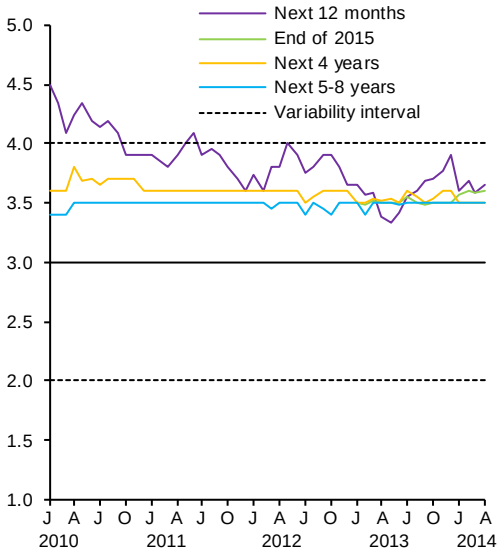
Besides inflation expectations directly collected by surveys, there are those implicit in the market pricing of instruments at nominal and real rates, based on which the break-even inflation can be estimated (the difference between long-term nominal and real interest rates). In the first months of the year, this break-even inflation dropped from an average level of 3.75 percent in December 2013 to a level of 3.43 percent in April 2014, close to historical minimum levels. This reduction reflects that nominal instrument holders demanded a lower future inflation coverage, because of a lower related perceived risk. This derived from the fact that inflation expectations implicit in these instruments remained relatively stable around 3.2 percent between December 2013 and April 2014, while the inflationary risk premia dropped from approximately 55 to 20 basis points over the same period (Chart 37b).[8] It is noteworthy that these inflation expectations are not observed directly, but rather they are estimated using different econometric methods. Stemming from daily financial data, they incorporate information faster than the expectations obtained from analysts' surveys and reflect positions in investors' portfolios. While the median of long-term inflation expectations remained stable at 3.5 percent in recent years, the expectations calculated using long-term market-based instruments gradually decreased to 3.2 percent.

[7] This figure coincides with the results of the Banamex survey, whose median of long-term inflation expectations (period 2016-2020) remained at 3.48 percent in the survey of January 7 and of May 6, 2014.

[8] For a description of the estimate of long-term inflation expectations, see the Box "Decomposition of the Break-even Inflation" in the Quarterly Report October-December 2013.

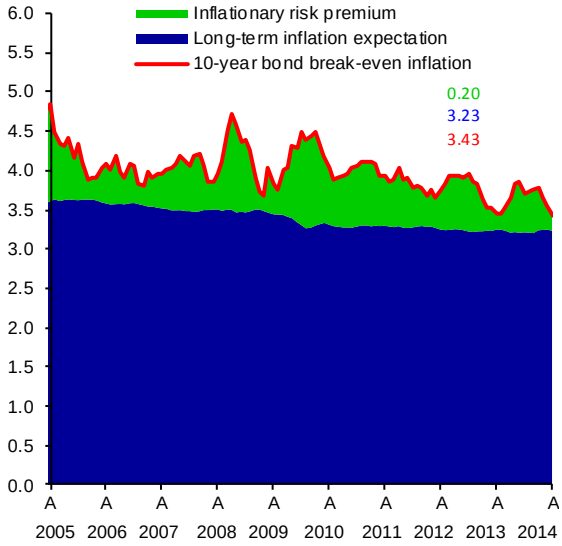
Chart 37
Inflation Expectations

a) Medians of Headline Inflation Expectations across Different Terms [1/]
Percent



1/ Latest available data: April 2014.
Source: Banco de México's survey.

b) Decomposition of Break-even Inflation
Percent



Source: Estimated by Banco de México.

This confirms that the unexpected adjustments in relative prices in late 2013, as well as the fiscal changes, moderately affected inflation and did not generate second round effects. Thus, it is confirmed that inflation expectations become increasingly less responsive to the changes in relative prices, which contributed to strengthening the credibility of Banco de México's monetary policy conduction.[9]

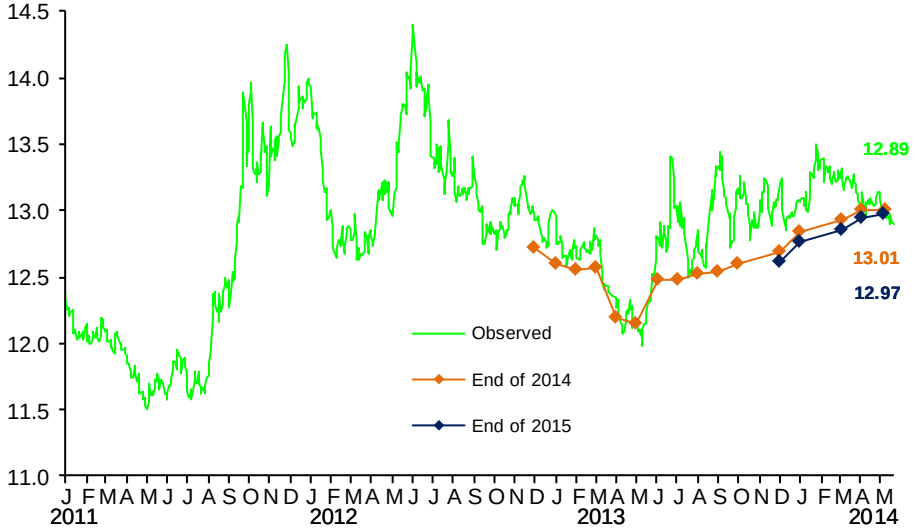
Between December 2013 and January 2014, the exchange rate depreciated, as the average MXN/USD exchange rate shifted from 13.06 to 13.36, with a high volatility. Later on, from February onwards an appreciation was registered, when it lied below MXN 13 over the first weeks of May, as well as a considerable reduction in its volatility. Therefore, in the period covered by this Report, the MXN appreciated slightly, although with certain volatility (Chart 38). It should be recalled that the depreciation of other emerging economies' currencies in 2013 was significantly higher (10.62 percent on average in 2013) than the depreciation of 0.9 percent registered by the Mexican currency over the same period.[10]

[9] For a study on strengthening the anchoring of inflation expectations see the Box "Anchoring of Medium- and Long-term Inflation Expectations in light of Adverse Supply Shocks" in the Inflation Report January-March 2013.

[10] The depreciation of other emerging economies' currencies considers the average performance of the currencies of Brazil, Chile, Colombia, India, Peru, Czech Republic, Russia, Thailand and Turkey against the USD and is calculated with Bloomberg data.

Chart 38
Nominal Exchange Rate and Exchange Rate Expectations as of End of 2014 and 2015 [1/]

MXN/USD



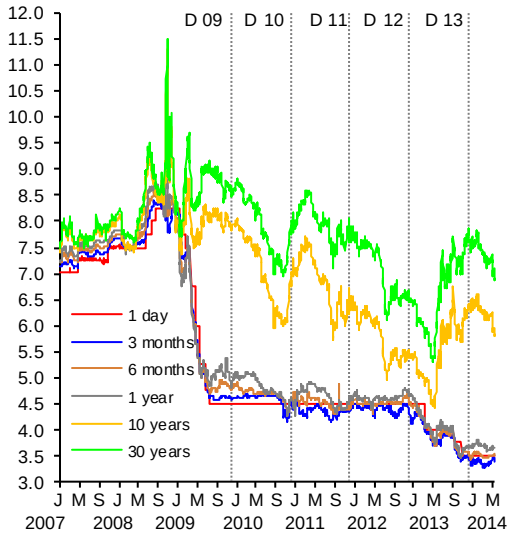
1/ The observed exchange rate is the daily datum of the FIX exchange rate. The latest datum of the observed exchange rate corresponds to May 19, 2014. For its expectations, the latest datum corresponds to the survey of April 2014.

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

In turn, following a widespread increase in long-term interest rates as a result of the decompression process of risk premia in international financial markets, registered from May 2013 onwards, and after a period of high volatility in the first weeks of 2014, medium- and long-term interest rates of Mexico decreased from February onwards. In particular, the interest rate of 10-year government bonds reached a level of around 6.6 percent in early February to later fall to 5.8 percent in mid-May. These levels are even below those registered at the end of 2013 (6.4 percent). Thus, in the period covered by this Quarterly Report this rate dropped 60 basis points, even though with certain volatility. On the other hand, short-term interest rates remained stable in line with the monetary policy reference rate. In particular, the interest rate of 3-month government securities continued unchanged around 3.4 percent in the period analyzed by this Report. In light of this evolution of interest rates, the slope of the yield curve (the difference of 10 years and 3 months) flattened, shifting from 300 to 240 basis points from the end of 2013 to mid-May 2014 (Chart 39). This favorable performance of the yield curve reflects the fact that the monetary policy has contributed to anchoring inflation expectations, despite the recent changes in relative prices and the orderly functioning in domestic financial markets. Thus, both monetary and financial conditions have supported the economy, given the current phase of the economic cycle it is going through.

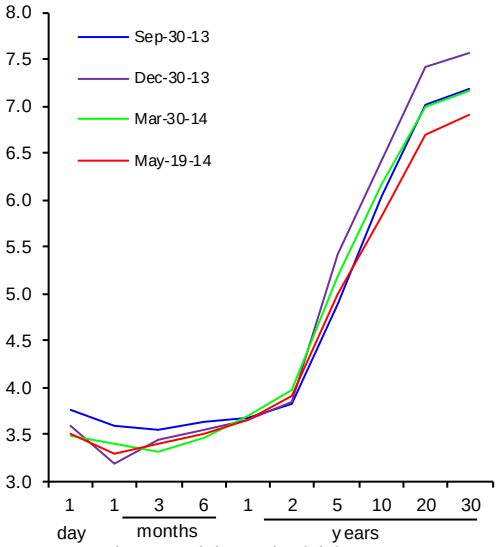
Chart 39
Interest Rates in Mexico

a) Government Securities Interest Rates [1/]
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).

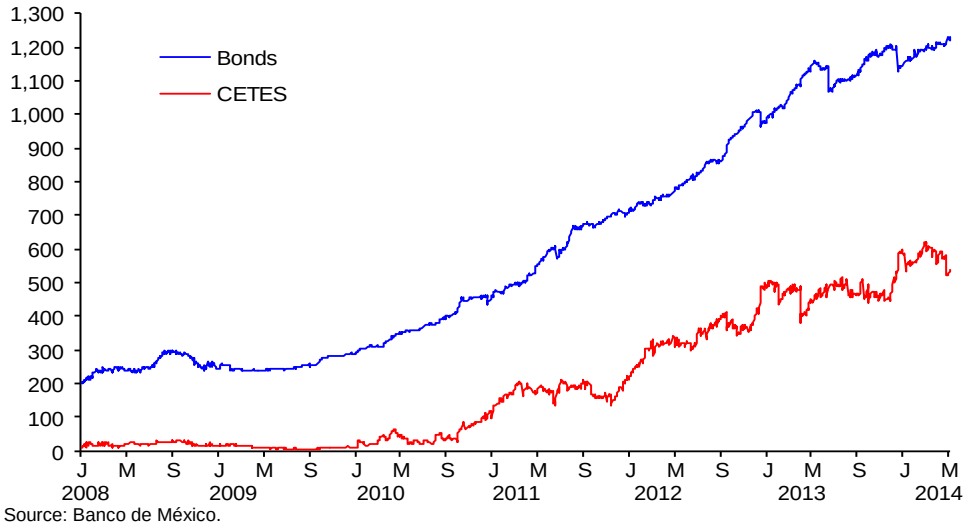
b) Yield Curve
Percent



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

It should be pointed out that an additional factor that contributed to the favorable performance of fixed-income and exchange rate markets in Mexico is the current higher sovereign credit rating of the country. As a result, the Mexican peso-denominated financial assets were relatively more attractive to international investors. In particular, as mentioned in Section 3.2.2, during the first quarter of 2014, Mexico continued receiving resources from abroad for the acquisition of financial instruments at a similar pace to the one registered in the last quarter of 2013. In this regard, it stands out that, even though the short-term government securities' holdings tended to stabilize, the holdings of medium- and long-term government securities increased and remained at high levels in recent weeks (Chart 40).

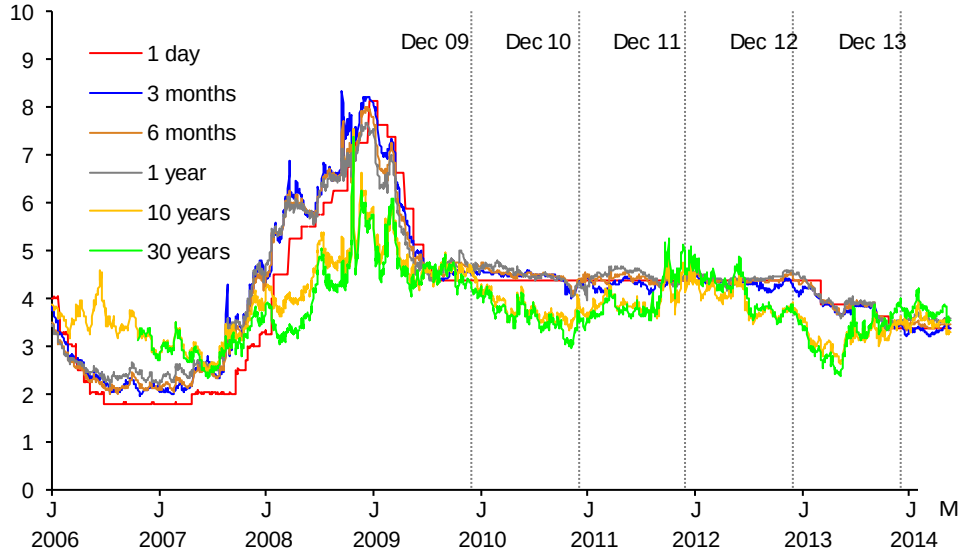
Chart 40
Government Securities' Holdings by Foreign Investors
MXN billion



Source: Banco de México.

As a result of the above, long-term interest rate spreads between Mexico and the U.S. increased in the first weeks of the year, shifting from 350 to 370 basis points between the end of 2013 and the beginning of February 2014. Subsequently, they dropped to 330 basis points, below the levels registered at the end of last year (Chart 41).

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. Department of the Treasury.

Below, the evolution of long-term interest rates in Mexico is analyzed in further detail by means of the evolution of their components: a) the short-term interest rate (the reference interest rate); b) the expected short-term interest rates, which

consider medium- and long-term inflation expectations; and c) the risk premia. In general, it stands out that:

a) The overnight interbank interest rate, which is the reference rate for the monetary policy, remained at 3.5 percent over the period covered by this Quarterly Report.

b) In light of slack conditions prevailing in the economy and given the stable medium- and long-term inflation expectations, the expected short-term interest rates also remained unchanged. In particular, in line with Banco de México's survey among private sector analysts, the median of the expectations for the 28-day Cetes interest rate as of end of 2014 persists at 3.5 percent. A similar message is inferred from the evolution of these expectations, obtained from the prices of the market-based instruments. Thus, the interest rates of government securities of up to one year locate around 3.5 percent.

c) The evolution of different risk premia in Mexico has been supported by the improved credit rating and greater confidence in the economy. Thus:

   i. Although different indicators of sovereign risk premium for Mexico presented certain volatility over the period covered by this Report, by mid-May 2014 they located close to 80 basis points, 10 basis points below those observed in late 2013 (see Box 2).[11]

   ii. The inflationary risk premium maintained its downward trend over the first months of the year, once the recent evolution of inflation and its expectations confirmed the prevision that the inflation increase in early 2014 was temporary and did not generate second round effects. In particular, so far this year, this premium has reduced by around 35 basis points as compared to the end of 2013 (Chart 37b).

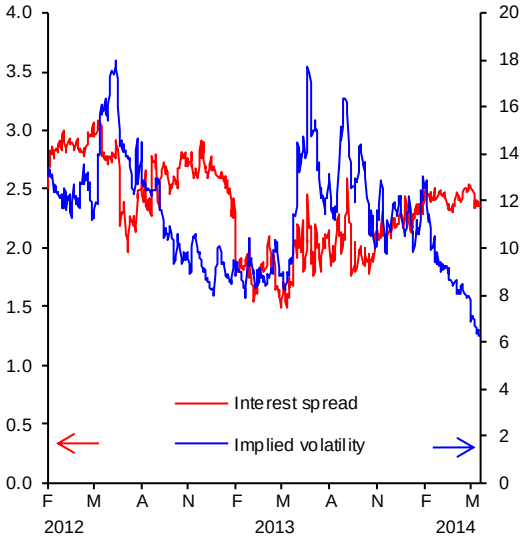
   iii. As regards the performance of the exchange rate risk premium, which is estimated through the spread between the 10-year government bond interest rate issued in Mexican pesos and the government bond of the same term issued in U.S. dollars, it has remained around 2.5 percentage points. This level is located close, but still slightly above the level of 2.4 percentage points observed in late 2013 (Chart 42a).

   iv. As stated in the previous Reports, given the decompression process of risk premia, which started in May 2013 in the U.S., the term premium (measured as the difference between the 10-year and the 2-year interest rates) in this country increased, leading to an increment in the term premium in Mexico. Thus, the higher long-term interest rate in Mexico from this date onwards mainly resulted from the evolution of the term premium in the U.S. With respect to the recent performance, between the end of 2013 and mid-May 2014, it dropped by approximately 70 basis points, declining from 2.6 to 1.9 percentage points (Chart 42b).

[11] It refers to a 5-year Credit Default Swap.

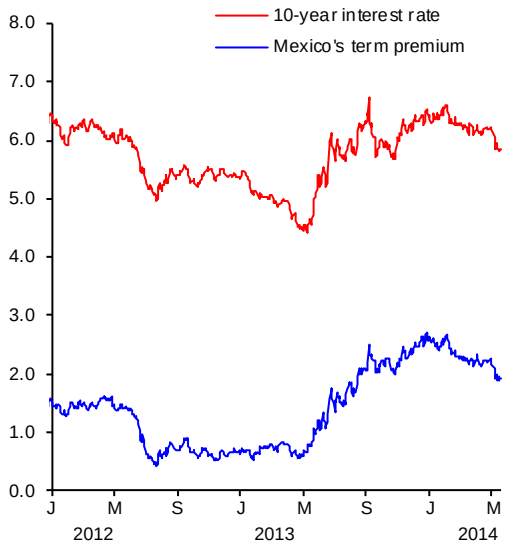
Chart 42
Risk Premia

a) Spread between the 10-year Bond Rate in MXN and in USD, and Implied Volatility in Exchange Rate Options [1/]
Percentage points, percent



1/ Volatility implied in exchange rate options refers to options with a monthly term.
Source: Bloomberg, *Proveedor Integral de Precios* and Valmer.

b) Interest Rate in Mexico of the 10-year Government Bond and the Term Premium [2/]
Percentage points, percent



2/ The term premium refers to the difference between the 10-year and the 2-year interest rate.
Source: Banco de México.

In sum, for the case of Mexico it stands out that the performance of long-term interest rates can be mainly attributed to the evolution of term premium, given that the sovereign risk premium has remained stable and the expectations for short-term interest rates remained practically unchanged, given the anchoring of inflation expectations. The above contrasts with the case of other emerging economies, in which the short-term interest rate, the expectations of the referred rates and other risk premia different from the term premium have contributed to the upward trend in their long-term interest rates. A detailed analysis of these differences is presented in Box 2.

In this sense, the solid framework of the macroeconomic policy is expected to continue supporting the orderly adjustment in domestic financial markets. Furthermore, it is important to note that, if the progress in the secondary legislation and the implementation of the recently approved structural reforms in the country continues, investors' confidence in the Mexican economy is estimated to keep consolidating, which would contribute to an additional reduction in the risk premia, with a consequent effect on interest rates in Mexico.

Box 2
Recent Evolution of Long-term Interest Rates in Emerging Market Economies

1. Introduction

Over the last year, emerging market economies (EMEs) faced a complicated external environment. In May 2013, news of the possible reduction in the pace of the large-scale asset purchases by the Federal Reserve generated an environment of high volatility in international financial markets, which prevailed over the rest of 2013 and the beginning of 2014. Despite the recent decrease in this volatility, the normalization process of the U.S. monetary conditions generated important effects on the prices of financial assets through different channels. Among these, the decompression of term premium, which led to increases in long-term interest rates in the U.S. and other advanced and emerging countries, is noteworthy.[1,2] In particular, these rates in the EMEs have registered average increases of approximately 170 basis points since May 2013.[3]

This Box briefly describes the performance of financial markets in the EMEs since 2013. Afterwards, the evolution of some of the components of long-term interest rates for a group of EMEs is analyzed, such as the observed short-term interest rate and its expectations, as well as different risk premia, so as to understand what components contributed to higher long-term interest rates. The analysis shows that, in contrast to other EMEs, the performance of these rates in Mexico is mainly accounted for by the evolution of the term premium.

2. Recent Performance of Financial Markets

In the referred context of high volatility, global risk aversion increased, which triggered significant adjustments in international investor's portfolios, who reduced their EMEs asset holdings affecting hence EMEs asset's valuation. This generated a considerable increase in the volatility of exchange rate and debt markets in these countries.

Although this evolution of financial markets was widespread across EMEs, there were differences among them. The countries that accumulated significant macroeconomic imbalances, such as high fiscal and current account deficits, as well as a considerable credit expansion, were more affected during these volatility episodes.[4] An example of this is the performance of the exchange rates in EMEs during 2013, which greatly depreciated in the economies with weaker macroeconomic fundamentals.[5]

3. Evolution of Long-term Interest Rates of some EMEs and their Components

From May 2013 onwards, there was a generalized increment in long-term interest rates of most EMEs (Chart 1). It should be noted that these rates were stable during the first months of 2013, and even decreased, which was the case of Mexico. Even though the initial adjustment was abrupt and of a considerable magnitude in all cases, the total accumulated increase from May 2013 up to date has been differentiated. In particular, the cases of Brazil, Peru, Turkey and South Africa stand out, where the referred rates increased by over 200 basis points.

Below, the evolution of the components of long-term interest rates of the considered economies is analyzed. In particular, one way in which these rates can be decomposed is given by the following expression:

$$i_t^{LT} \approx i_t^{MP} + E_t i_{t+1}^{MP} + \cdots + E_t i_{t+N-1}^{MP} + \rho_t^{\pi} + \rho_t^{credit} + \rho_t^{term} + \rho_t^{other}$$

in which the long-term nominal interest rate, i_t^{LT}, is approximated via the performance of the monetary policy interest rate, i_t^{MP}, the expectation in time t regarding the monetary policy interest rates in the period $t+i$ with $i = 1, \ldots, N-1$, where N is the number of periods over which the long-term investment is active, $E_t i_{t+i}^{MP}$, and various risk premia, among which the following stand out: the inflationary risk premium, ρ_t^{π}; the sovereign risk premium, ρ_t^{credit}; the term premium ρ_t^{term}; and where ρ_t^{other} represents other risk premia (e.g. liquidity).

[1] The term premium is an additional yield demanded by investors to maintain a long-term asset instead of investing consecutively in short-term assets with the same characteristics. It is approximated as the difference between 10-year and 2-year government bond interest rates. Given that both instruments are issued by the same country and in nominal terms, the difference between their rates is not affected by inflationary risk premia and sovereign risk premia.

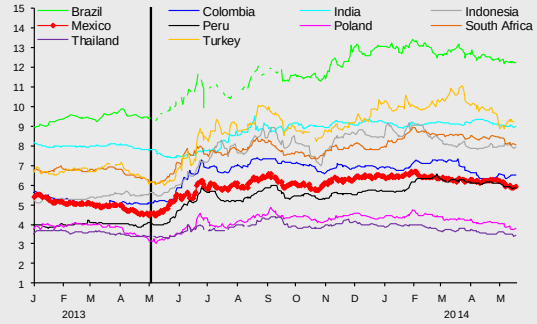
[2] See Box "Process of Risk Premia Decompression and its Effect on Longer-term Interest Rates in the U.S. and the Rest of the World" in the Inflation Report April-June 2013.

[3] The EMEs considered are: Brazil, Colombia, India, Indonesia, Mexico, Peru, Poland, South Africa, Thailand and Turkey.

[4] The World Economic Outlook of April 2014 and the Federal Reserve Monetary Policy Report of February 2014 present studies on the EMEs facing greater macroeconomic vulnerabilities.

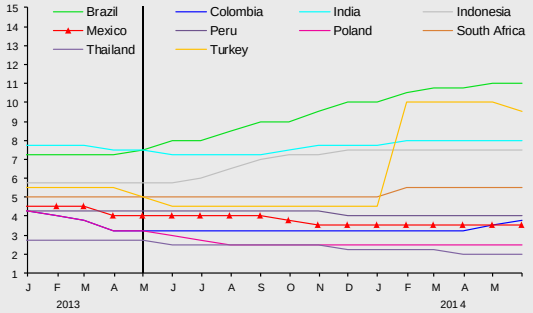
[5] An analysis of the effects of uncertainty in international financial markets on the exchange rates in EMEs with weaker macroeconomic fundamentals was presented in the Quarterly Report October-December 2013.

Chart 1
10-year Government Bond Rates [1/]
Percent



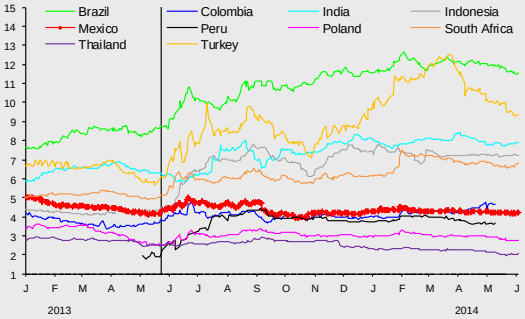
1/ All charts show a vertial line corresponding to May 22, 2013, the date of the onset of discussions of the possible normalization process of the U.S. monetary policy with the statements of the President of the Federal Reserve.
Source: Bloomberg.

Chart 2
Monetary Policy Interest Rates
Percent



Source: Bloomberg.

Chart 3
Fixed Rate Agreed in
2-year Interest Rate Swaps [1/ 2/]
Percent



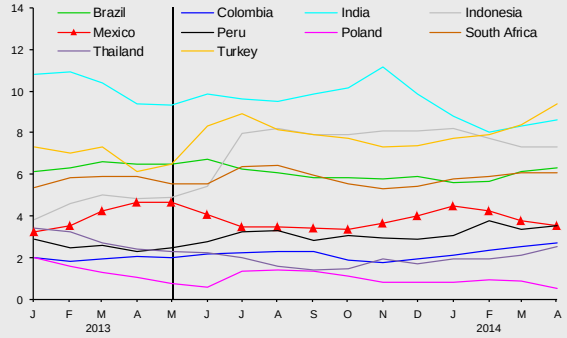
1/ It referes to the "fixed leg" agreed in this instrument for the exchange of cash flows.
2/ For Indonesia and Peru, the interest rate of 2-year instruments was used.
Source: Bloomberg.

The monetary policy interest rates (Chart 2) remained stable in most EMEs, except for those with greater vulnerabilities. In the latter group, the central banks increased their reference rates so as to counteract the capital outflows and the consequent depreciation of their currencies, and, thus, to contain the possible pass-through to inflation. This was the case of Brazil, Turkey, South Africa, Indonesia and India. As a consequence, in these economies, the expected short-term interest rates, approximated by the 2-year interest rate swaps, registered an increase of between 140 to 420 basis points from May 2013 up to date. Nonetheless, after the referred increments in their reference rates, the expectation of additional increases in their short-term interest rates moderated (Chart 3).

In turn, the favorable world inflation outlook was reflected in relatively stable inflation expectations in general terms for EMEs. Still, the depreciations of the currencies in India, Turkey and Indonesia were translated in considerably higher inflation rates (Chart 4) –deviating from their respective targets– and in higher inflation expectations (Chart 5). Likewise, when analyzing an approximate measure of the inflationary risk premium, such as the expected inflation gap, it has remained stable but at positive levels in most EMEs, and in the case of those with weak fundamentals, it has recently stabilized after registering increments in the previous months.

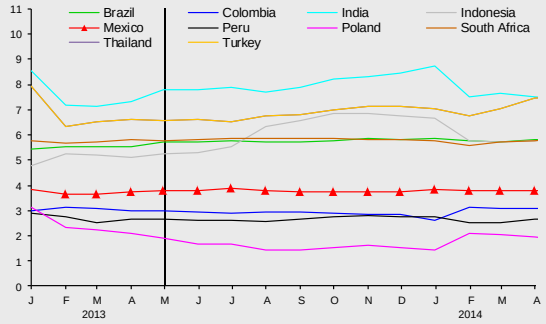
On the other hand, the sovereign risk premia presented a generalized increase in EMEs after May 2013. This can be observed in the evolution of market indicators that measure the sovereign credit risk (Chart 6). Notably, in the case of Mexico, they have been decreasing over the recent months and even located at levels similar to those observed in early 2013. Indeed, Mexico received an upgrade in the sovereign debt rating by two rating agencies in December 2013 and February 2014 reflecting Mexico's solid macroeconomic fundamentals and a favorable outlook with respect to the possible impact of the progress regarding the structural reforms.

Chart 4
Observed Inflation
Percent



Source: Bloomberg.

Chart 5
Expected Inflation [1/]
Percent

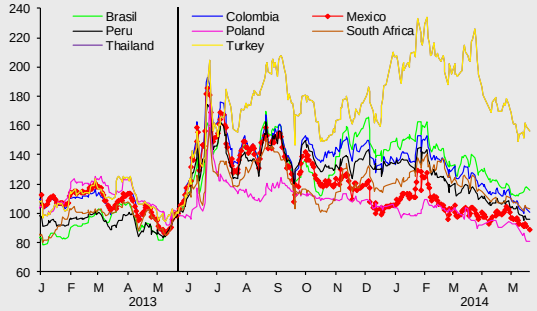


1/ For each country, expected inflation for the next 12 months is estimated as an average of inflation expectations at the end of the current year and at the end of the following year.
Source: Consensus Forecasts.

Finally, as a result of a high degree of liquidity in international financial markets, the term premia of this group of economies, measured as the difference between the interest rates of 10- and 2-year government bonds, located close to their historical minimum levels in early 2013 (Chart 7). However, from May 2013 onwards, the decompression process of this premium in the U.S. led to higher term premia for other economies, including the emerging ones. In this respect, the considerable increment in the term premium of Mexico is notable.

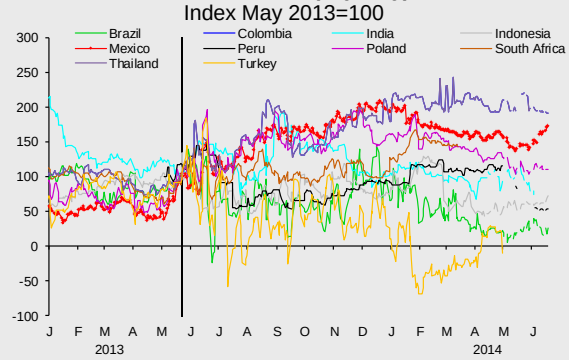
Thus, in the analysis of the components of long-term interest rates, it stands out that the increase in Mexico has largely derived from the decompression process of the U.S. term premium, given that the evolution of the rest of the components of this rate remained relatively stable in the reference period.

Chart 6
Credit Default Swaps [1/]
Index May 2013 = 100



1/ 5-year Credit Default Swap.
Source: Bloomberg.

Chart 7
Term Premium (10y – 2y)
Index May 2013=100



Source: Bloomberg.

4. Final Remarks

In the present world economic environment, EMEs have faced important challenges. The normalization process of monetary conditions in the U.S. has generated volatility in international financial markets, mainly those of EMEs, as well as a widespread increase in medium- and long-term interest rates. In this context, the heterogeneity of the EMEs has been evident, mainly in light of the macroeconomic vulnerabilities of some of them.

The analysis of the evolution of the components of long-term interest rates for a group of EMEs presented in this Box shows that the increase in their long-term interest rates reflects increments in their different components. In particular, it is found that for the case of Mexico, the adjustments in long-term interest rates are principally accounted for by the evolution of the term premium, since other components, such as the short-term interest rate and their expectations, as well as the inflationary risk premia, remained stable.

5. Inflation Forecasts and Balance of Risks

As indicated above, the Mexican economy decelerated at the end of 2013 and early 2014. In particular, at the beginning of 2014 the economic activity was mainly affected by transitory factors, such as the decrease in the U.S. external demand, given the adverse weather conditions in that country. However, insofar as these factors have been reverting, the economy began to observe greater dynamism. For the rest of the year, it is anticipated that a more dynamic external demand, improvement in the housing construction sector, higher public expenditure and the monetary policy will positively impact the economic activity. Hence, GDP is estimated to register a favorable trend throughout 2014. Still, the economic slowdown registered in late 2013 and in early 2014 inevitably implies a downward adjustment of the growth forecast for 2014 as a whole, although the positive growth trend is expected to continue in 2015.

The expectations regarding the U.S. economic activity, which represent the basis for Mexico's macroeconomic framework, are the following:[12]

a) The U.S. expected GDP growth is reduced from the 2.9 percent considered in the previous Quarterly Report to 2.4 percent. For 2015, the forecast for this indicator's growth rate remains at 3.0 percent.

b) U.S. industrial production is anticipated to grow 3.7 and 3.6 percent in 2014 and 2015, respectively. These figures compare to the forecast of 3.6 and 3.5 percent for 2014 and 2015, in the same order, reported in the previous Quarterly Report.

Growth of the Mexican Economy: Considering the performance of GDP in Mexico in recent months, as well as the expectations of the economic growth determinants, in particular growth expectations in the U.S., the forecast interval for the GDP growth rate of Mexico in 2014 is revised from 3.0 to 4.0 percent in the previous Report, to 2.3 to 3.3 percent (Chart 43a). For 2015, a GDP growth rate between 3.2 and 4.2 percent is still anticipated.

Employment: The expected increase in the number of IMSS-insured workers (permanent workers and temporary workers in urban areas) in 2014 is revised downwards, in accordance with the adjustment in the economic growth expectations. In particular, an increment of 570 to 670 thousand IMSS-insured workers is estimated for 2014, as compared to an expected increase of 620 to 720 thousand workers in the previous Report. For 2015, an increment of 620 to 720 thousand IMSS-insured workers is still anticipated.

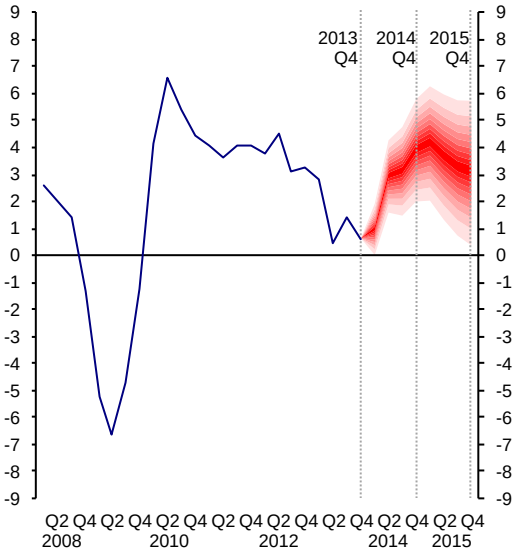
Current Account: For 2014, deficits in the trade balance and the current account of USD 4.9 and 25.4 billion are estimated, respectively (0.4 and 2.0 percent of GDP, in the same order). For 2015, deficits in the trade balance and the current

[12] Expectations for the U.S. economy are based on the consensus of analysts surveyed by Blue Chip in May 2014.

account are expected to amount to USD 6.9 and 28.5 billion, respectively (0.5 and 2.1 percent of GDP, in the same order).

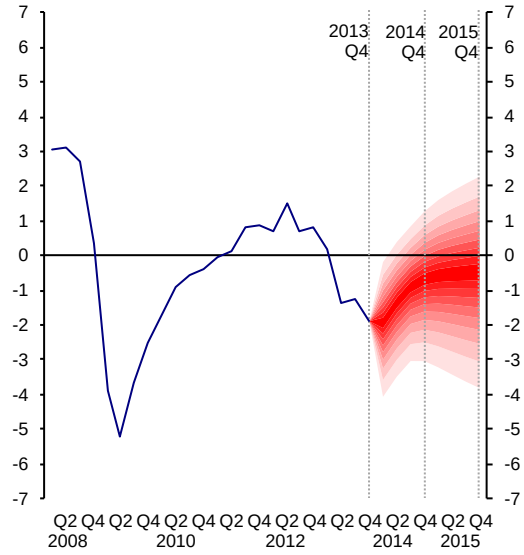
Chart 43
Fan Charts: GDP Growth and Output Gap

a) GDP Growth, s. a.
Annual percent



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

b) Output Gap Estimate, s. a.
Percentage of potential GDP



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

Given the recent performance of the Mexican economy, as well as the above referred estimates, no aggregate demand-related pressures on either inflation or the external accounts are anticipated. In particular, the output gap is estimated to remain negative in the forecast horizon, even though gradually narrowing over time (Chart 43b).

In this environment, there are risks to the growth scenario for 2014 and 2015. Among the main downward risks the following stand out:

i. That consumer and producer confidence do not improve fast enough, and, therefore, that private sector expenditure does not recover at the rate foreseen in the central scenario.

ii. That the process of the monetary policy normalization in the U.S. does not take place in an orderly manner.

Despite the abovesaid, it should be pointed out that, along with the improved world economic outlook, the perceived vulnerability in most emerging economies has been reduced, due to their stronger macroeconomic stances and, especially, due to lower uncertainty regarding the normalization of the U.S. monetary policy. Hence, considering that certain advanced economies have been consolidating their recovery and that the perception of vulnerability in some emerging ones has decreased, the forecast for the Mexican economy is also subject to upward risks. Particularly, the possibility that the recovery of the U.S. economic activity accelerates is noteworthy.

Inflation: With respect to annual headline inflation forecasts, as pointed out in the previous Quarterly Report, in the second quarter of 2014 it is expected to remain below the upper bound of the variability interval around the 3 percent target. For the second half of the year, due to the arithmetic effect coming from a low comparison base, as well as the volatility of the non-core component, headline inflation could locate above 4 percent in a few months, although it is expected to conclude the year below this level. From January 2015 onwards, annual headline inflation is estimated to significantly decrease and to remain at levels slightly above 3 percent for the rest of the year (Chart 44). This expected inflation performance will be consequent on the fact that in 2015 no fiscal measures, that could impact prices as they did in 2014, are anticipated to be taken. Additionally, it was considered that the gasoline price adjustment will be determined from January 2015 onwards, based on the expected inflation, just as established by the Federal Income Law 2014.

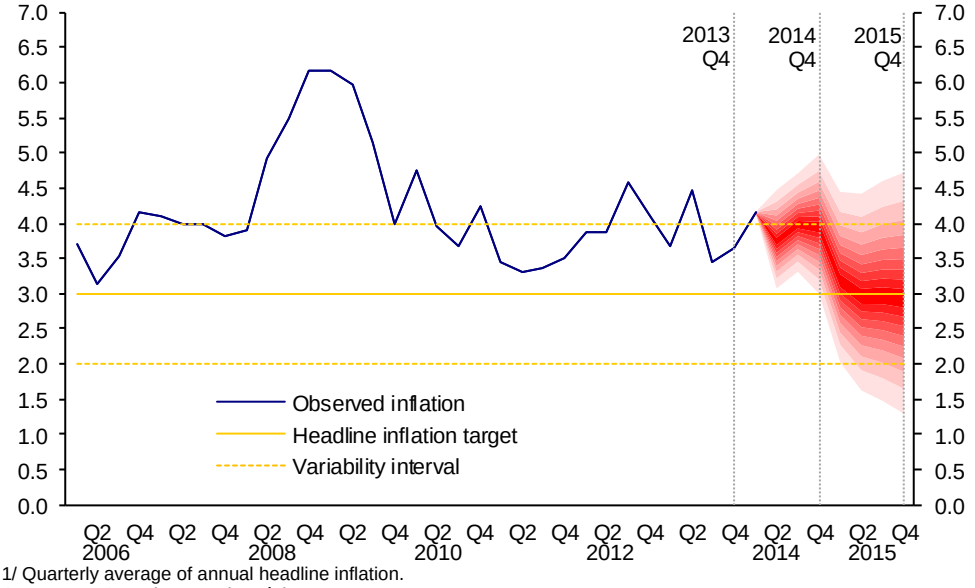
According to the estimates of annual core inflation, it will remain at levels around 3 percent in 2014 and below this level in 2015 (Chart 45). As regards non-core inflation, it is expected to plunge in early 2015, when gasoline prices are adjusted in accordance with the referred Federal Income Law, even though its other components could register volatility during the year.

The inflation outlook is not risk-free:

i. An upward risk refers to exchange rate adjustments as a result of high volatility in international financial markets or other factors. However, in such case, the impact on inflation is anticipated to be transitory and moderate, given a low pass-through of exchange rate fluctuations onto prices, even more so if the output gap is considered to remain negative.

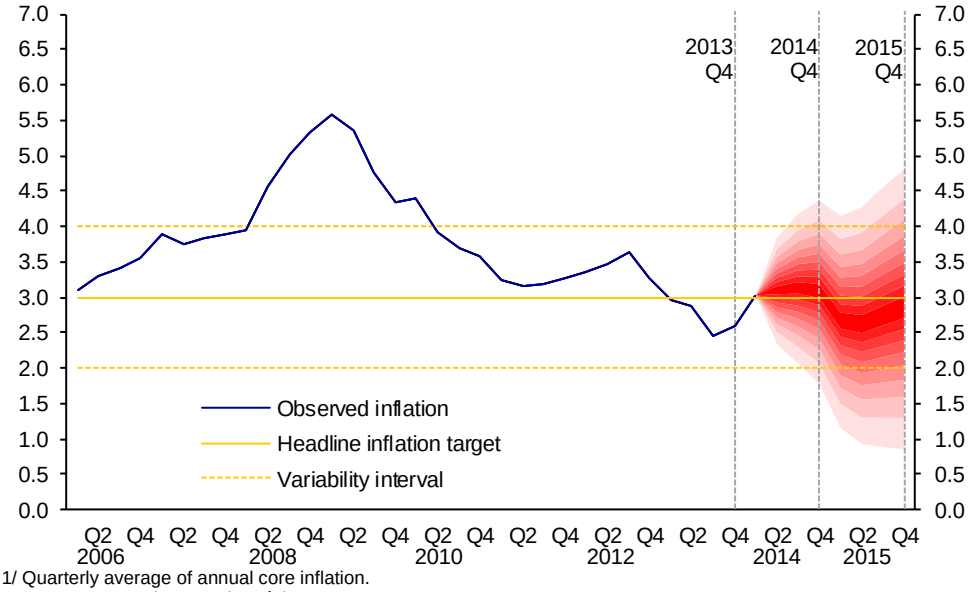
ii. A downward risk that still prevails is a lower than anticipated economic activity recovery.

Chart 44
Fan Chart: Annual Headline Inflation [1/]
Percent



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

Chart 45
Fan Chart: Annual Core Inflation [1/]
Percent



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

Banco de México's Board of Governors has estimated that the monetary policy stance has so far been congruent with the efficient convergence of inflation to its 3 percent target. Therefore, it has maintained the Overnight Interbank Interest Rate at 3.5 percent in its Monetary Policy meetings of January, March and April 2014. Still, in the future it will monitor all factors that may affect inflation and its expectations in the medium- and long term, particularly the evolution of the degree of slack in the economy. Likewise, it will monitor the implications of the monetary policy stance of Mexico relative to the U.S. onto the inflation outlook, so as to reach the abovesaid inflation target.

Finally, the juncture the Mexican economy is going through is propitious to reflect on the importance of strengthening the domestic sources of growth over the coming years. In this regard, it is important to keep in mind that, from a long-run perspective, the economic growth of Mexico has been unsatisfactory. One of the main reasons behind the reduced growth that Mexico has been presenting for decades is the low growth rate of productivity. It should be noted that for a country to significantly increase its productivity, thus leading to persisting increments in its growth rates, a comprehensive transformation process of the national life is required, which can take a long period of time to be implemented, given that, in turn, this process generally requires deep changes in the institutions governing the economic activity. The historical evidence of numerous countries supports this statement. This suggests that achieving higher productivity and stronger potential growth in Mexico poses a considerable challenge. In this context, it is encouraging that structural reforms aimed at increasing productivity are being carried out. Indeed, among other reforms, the amendments to the Constitution, which have been approved recently in the areas of telecommunications, economic competition, energy and education, represent a crucial step in the process of structural change required by the country. Nevertheless, it is imperative that this progress is backed by secondary legislation that preserves the spirit of the

constitutional amendments. Likewise, for the reforms to unlock their full potential onto productivity growth, and, therefore, on economic activity and welfare, it is also necessary to ensure that they are adequately put into practice in the course of the following years.

BANCO DE MÉXICO

May 2014

www.banxico.org.mx