

# Inflation Report

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January – March 2008



**BANCO DE MEXICO**

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APRIL 2008



*BOARD OF GOVERNORS*

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**Deputy Governors**

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*Unless otherwise stated, this document has been prepared using data available as of April 29, 2008. Figures are preliminary and subject to change.*



# CONTENTS

## Inflation Report January - March 2008

<b>1. Introduction .....</b>	<b>1</b>
<b>2. Recent Developments in Inflation .....</b>	<b>3</b>
2.1. Inflation .....	3
2.2. Producer Price Index .....	8
<b>3. Main Determinants of Inflation.....</b>	<b>9</b>
3.1. External Conditions.....	9
3.1.1. Global Economic Activity.....	9
3.1.2. General Trends of Inflation.....	10
3.1.3. Financial Markets .....	15
3.1.4. Outlook.....	20
3.2. Aggregate Demand and Supply in Mexico.....	21
3.2.1. Production by Sector.....	22
3.2.2. Aggregate Demand .....	27
3.2.3. Employment .....	32
3.2.4. External Sector.....	33
3.3. Costs and Prices .....	40
3.3.1. Wages .....	40
3.3.2. Output per Worker.....	42
3.3.3. Administered and Regulated Prices of Goods and Services .....	43
3.3.4. Food Cmmodities .....	44
3.3.5. Energy Commodities.....	49
3.3.6. Metal Commodities .....	50
3.4. Monetary and Credit Aggregates .....	51
3.4.1. Monetary Base, Net Domestic Credit, and International Assets.....	51
3.4.2. Monetary Aggregates and Financing .....	52
<b>4. Monetary Policy.....</b>	<b>60</b>
<b>5. Prospects for Inflation and Balance of Risks.....</b>	<b>71</b>

### Boxes

1. Recent Developments and Prospects for the World Oil Market.....	14
2. Weakness of Domestic Sales of Vehicles and Used-vehicle Imports .....	25
3. Recent Developments in Revenues from Workers' Remittances .....	32
4. Higher Unit Value of Mexican Imports of Agricultural Commodities and Foodstuffs .....	40

5.	World Food Inflation .....	48
6.	Non-residents' Financial Savings in M4 Instruments .....	55
7.	Percentage Increase in CPI Basket Items with Annual Price Variations Higher or Equal to 4 Percent (January 2006 - March 2008) .....	65





## 1. Introduction

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The latest information suggests that the rate of growth of the world economy slowed during the first quarter of 2008. The U.S. economy continued to perform weakly at the beginning of this year, while GDP growth in other advanced economies apparently decelerated. Timely indicators suggest that emerging market economies grew vigorously during the same period, although some of them showed signs of slowing down. In this context, forecasts for world economic growth for both 2008 and 2008 have been revised downwards, especially for advanced economies.

Despite the slower rate of growth of the world economy, inflationary pressures in both advanced and emerging economies rose during the first quarter of the year and inflation risks increased, mainly due to higher prices of food and energy. Among advanced economies, headline inflation recorded high figures in the U.S., while in the Euro Zone it reached its highest level in 16 years. Despite these pressures, long-term inflation expectations in these countries have remained well anchored. Inflationary pressures during the quarter were even more acute in many emerging market economies because, in addition to a greater participation of foodstuffs in their consumption baskets, some of them were affected by the strong growth of domestic demand. In a scenario of upside risks for inflation and downside risks for GDP growth, the challenges for monetary policy implementation worldwide have increased.

During the first months of 2008, financial markets in various advanced economies continued to be subject to pressures. The central banks of those countries faced this situation by implementing several measures, such as providing a significant volume of short-term resources, loosening their monetary policy stances, and interrupting the increases of their policy rates. In particular, the Federal Reserve implemented different measures to increase liquidity, improve the functioning of markets and reinforce the stability of the financial system. The target for the federal funds rate was also reduced significantly. These actions mitigated, to a certain extent, the turmoil in financial markets. However, uncertainty in the financial markets of the U.S. and other advanced economies continued, resulting in persistently high interbank interest rates and tighter credit conditions.

Although the turmoil in advanced economies' financial markets raised the spreads for emerging economies' debt instruments during the quarter, this increase was below that observed during previous episodes of volatility.

During the first quarter of 2008, GDP in Mexico is expected to have grown around 3 percent in annual terms and, with seasonally adjusted data, close to 4 percent. Various factors allowed the economy not to be affected to a greater extent by the decline in the rate of growth of the U.S. Among these are the recent behavior of public expenditure, and the fact that the impact of the slower rate of growth of the U.S. economy on Mexican non-oil exports has been offset by the favorable development of Mexican exports to other countries and by the increase in Mexico's automotive exports.

Nevertheless, there are certain elements that suggest that risks of a greater slowdown for the rest of the year have increased. Among these is the possibility of a deeper or more long-lived reduction in the rate of growth of the

U.S. economy, which could impact both merchandise exports and remittances' flows. Domestic risk factors also prevail, such as the slower growth of the wage bill in real terms, the slower rate of growth of job creation, the slowdown of consumer financing, and, in general, the worsening of confidence and business climate indicators.

During the same period, annual average inflation remained within the range forecasted by Banco de México, although annual headline inflation tilted upwards in March. In particular, during the last months, some of the upward risks foreseen by the central bank have materialized. Worth mentioning are, first, during the first months of 2008, the international prices of grains, energy goods, and copper and steel products continued on an upward trend; and, second, the prices of tomato and green tomato have increased considerably, and are therefore expected to affect inflation in the next two quarters. The new fiscal regime also affected the costs of some firms and might be influencing their price revision processes. As a result, higher levels of inflation are expected in the next months. Consequently, Banco de México decided to revise upwards its prospects for inflation, moving 50 basis points the interval foreseen for average quarterly inflation in each of the remaining quarters of 2008, and 25 basis points the corresponding for the first quarter of 2009. The intervals foreseen for inflation for the remaining quarters of 2009 were left unchanged. Details of this prevision are described in the last section of this Report.

Greater inflationary pressures worldwide and in Mexico, together with an environment in which risks for the Mexican economy associated with a higher probability of recession in the U.S., have created a particularly complex scenario for monetary policy conduct in Mexico. Under this context it is important to mention that, although inflation rose in March, consequently leading to an upward revision in short-term inflation expectations, both wages and longer term inflation expectations at present do not appear to have been contaminated. Banco de México will continue to monitor the balance of risks. In particular, it will monitor closely the effects on prices –in a horizon relevant for monetary policy- of external inflationary pressures, the slowdown of economic activity in Mexico, and the tighter credit (and relative monetary) conditions originated by the world financial turmoil. The aforementioned aims at achieving the convergence of inflation to its target within the expected time horizon.

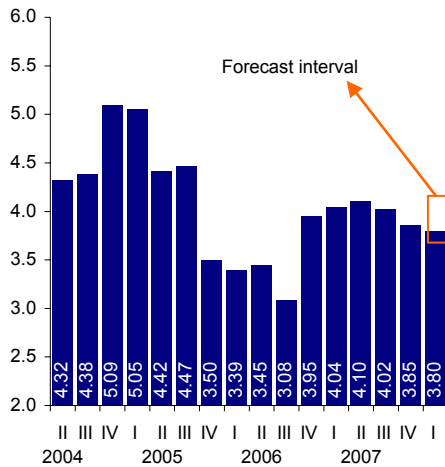
## 2. Recent Developments in Inflation

### 2.1. Inflation

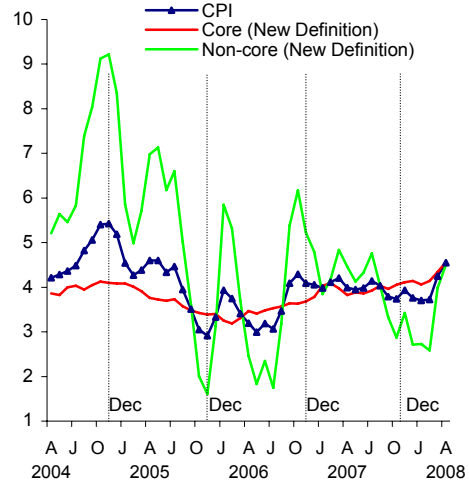
During the first quarter of 2008, annual headline inflation recorded, on average, 3.89 percent, figure within the 3.75 to 4.25 interval forecasted in the Inflation Report of October-December 2007 for the period. This result implied an increase of 0.08 percent as compared with the 3.81 percent recorded by this indicator during the fourth quarter of 2007 (Graph 1 and Table 1).

**Graph 1  
Consumer Price Index**

a) CPI and Prospects Published in the Inflation Report October-December 2007  
Average annual percentage change



b) Core and Non-core Price Indices  
Annual percentage change



In January and February 2008, annual headline inflation recorded 3.70 and 3.72 percent, respectively. In March, this indicator rebounded to 4.25 percent. In general terms, such an increase at the end of the quarter was influenced by the following factors:

- The international prices of various commodities: food-related (corn, wheat, and soy); metal-related (steel and copper); and, energy-related (natural gas, jet fuel, and fuel-oil), as mentioned in sections 3.3.4, 3.3.5 and 3.3.6 of this Report.
- The price increases in some agricultural products (tomato, green tomato, eggs, and poultry).
- The end of the discount program on various products offered by supermarkets at the beginning of the year.

In addition, the flat rate business tax (*Impuesto Empresarial a Tasa Única*, IETU) probably had an impact on the operation costs of some firms, which might be affecting their price revision processes.

**Table 1**  
**Consumer Price Index and Components**

	Annual				Average annual	
	percentage change				percentage change	
	Dec-2007	Jan-2008	Feb-2008	Mar-2008	Q-IV 2007	Q-I 2008
<b>CPI</b>	<b>3.76</b>	<b>3.70</b>	<b>3.72</b>	<b>4.25</b>	<b>3.81</b>	<b>3.89</b>
<b>Core (New definition)</b>	<b>4.14</b>	<b>4.06</b>	<b>4.14</b>	<b>4.34</b>	<b>4.10</b>	<b>4.18</b>
<b>Merchandise</b>	<b>4.52</b>	<b>4.30</b>	<b>4.39</b>	<b>4.71</b>	<b>4.51</b>	<b>4.47</b>
<b>Food products</b>	<b>7.52</b>	<b>6.90</b>	<b>7.06</b>	<b>7.66</b>	<b>7.57</b>	<b>7.21</b>
Dairy <sup>1/</sup>	11.92	12.34	12.06	11.98	12.31	12.13
Wheat-related <sup>2/</sup>	10.93	11.13	9.97	10.33	10.25	10.47
Soy-related <sup>3/</sup>	16.11	17.76	21.57	26.66	13.67	22.01
Rest of merchandise	2.26	2.32	2.35	2.46	2.22	2.38
<b>Services (New definition)</b>	<b>3.80</b>	<b>3.84</b>	<b>3.91</b>	<b>4.01</b>	<b>3.73</b>	<b>3.92</b>
Housing	3.01	3.13	3.28	3.34	3.05	3.25
Own housing	2.62	2.75	3.04	3.13	2.62	2.98
<b>Education</b>	<b>5.68</b>	<b>5.83</b>	<b>5.71</b>	<b>5.70</b>	<b>5.67</b>	<b>5.75</b>
Rest of services	3.94	3.86	3.90	4.09	3.72	3.95
Air transportation	3.46	5.69	7.29	9.50	0.25	7.48
Package travel services	2.68	1.79	2.81	2.38	0.05	2.33
<b>Non-core (New definition)</b>	<b>2.71</b>	<b>2.73</b>	<b>2.58</b>	<b>3.99</b>	<b>3.00</b>	<b>3.10</b>
<b>Agricultural</b>	<b>3.42</b>	<b>3.42</b>	<b>1.87</b>	<b>4.36</b>	<b>2.90</b>	<b>3.22</b>
<b>Fruits and vegetables</b>	<b>0.15</b>	<b>0.39</b>	<b>-2.80</b>	<b>1.07</b>	<b>-1.25</b>	<b>-0.44</b>
Tomato	4.64	12.18	-0.67	79.37	-17.65	24.12
Green tomato	-47.74	-7.27	90.00	139.27	-47.36	69.61
<b>Livestock</b>	<b>5.77</b>	<b>5.55</b>	<b>5.09</b>	<b>6.62</b>	<b>5.90</b>	<b>5.75</b>
Eggs	17.88	17.17	19.23	23.49	18.47	19.98
Beef	2.82	2.67	1.38	1.52	2.99	1.85
Poultry	7.78	6.85	6.60	10.17	8.46	7.87
<b>Administered and Regulated</b>	<b>2.37</b>	<b>2.39</b>	<b>2.93</b>	<b>3.80</b>	<b>3.06</b>	<b>3.04</b>
<b>Administered</b>	<b>3.41</b>	<b>3.35</b>	<b>3.96</b>	<b>4.90</b>	<b>4.30</b>	<b>4.07</b>
Low-octane gasoline	4.79	4.86	5.02	3.74	5.37	4.54
High-octane gasoline	5.65	5.94	6.30	5.62	7.91	5.95
Electricity	3.00	4.14	5.38	6.26	4.80	5.25
Gas for residential use	1.76	0.10	0.61	4.61	1.72	1.75
<b>Regulated</b>	<b>1.26</b>	<b>1.39</b>	<b>1.84</b>	<b>2.65</b>	<b>1.77</b>	<b>1.96</b>
<b>Core (Previous definition)</b>	<b>4.00</b>	<b>3.90</b>	<b>4.00</b>	<b>4.22</b>	<b>3.96</b>	<b>4.04</b>
<b>Services (Previous definition)</b>	<b>3.43</b>	<b>3.46</b>	<b>3.56</b>	<b>3.69</b>	<b>3.36</b>	<b>3.57</b>
<b>Non-core (Previous definition)</b>	<b>3.27</b>	<b>3.30</b>	<b>3.16</b>	<b>4.31</b>	<b>3.50</b>	<b>3.59</b>

1/CPI dairy products are: Pasteurized and whole milk, Powdered milk, Evaporated milk, Sweetened and condensed milk and breastmilk substitute, Fresh unripened cheese, Yogurt, Stretched curd/string (Oaxaca) or broiler (Asadero) cheese, Cream, Unaged *Manchego* cheese and *Chihuahua* cheese, Other types of cheeses, Ice cream, American yellow cheese, and Butter.

2/ CPI wheat products are: Sweet rolls, White bread, Tin loaf, Pastries and cakes, Soup pasta, Popular cookies, Whole-wheat tortillas, Other cookies, Wheat flour, and Cereal flakes.

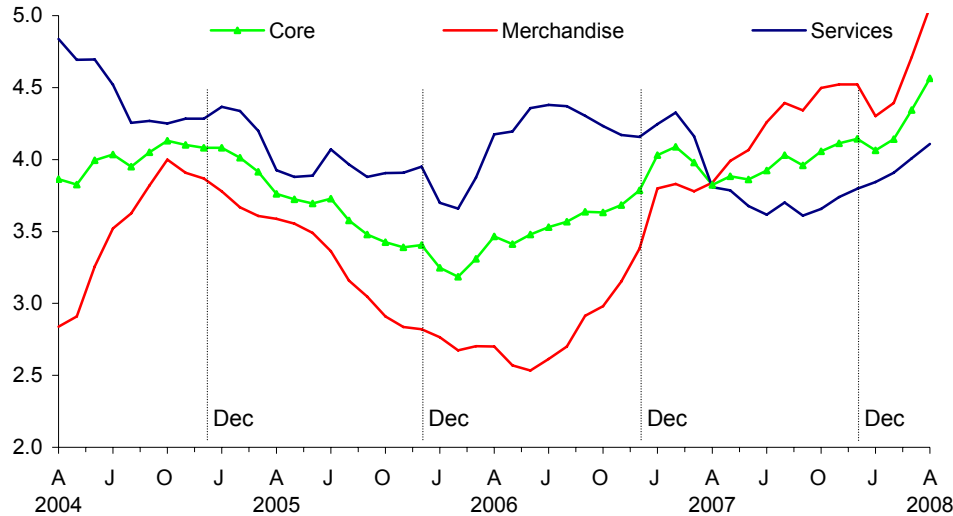
3/ CPI soy products are: Vegetable oils and fats for human consumption; Potato chips and similar products, and, Mayonnaise and mustard.

The aforementioned influenced the behavior of the core and non-core price indices (both expressed in their new definition),<sup>1</sup> which recorded higher average inflation rates than in the previous quarter.

Annual average core inflation rose from 4.10 to 4.18 percent from the fourth quarter of 2007 to the first quarter of 2008. Just as in the case of headline inflation, figures for this indicator increased on a month-to-month basis. This behavior was observed in the price subindices of services and merchandise (Graph 2).

<sup>1</sup> Banco de México adopted a new definition for core inflation in January 2008. For more details, see Inflation Report July-September 2007, Appendix 1, pp. 53-58.

**Graph 2**  
**Core Price Subindex (New Definition)<sup>1/</sup>**  
**Annual percentage change**



<sup>1/</sup> Banco de México adopted a new definition for core inflation in January 2008. See Inflation Report July-September 2007, Appendix 1, pp. 53-58.

As for the services core price subindex, its annual average variation shifted from 3.73 to 3.92 percent from the fourth quarter of 2007 to the first quarter of 2008. In particular, the housing price subindex posted an annual average rate of growth from 3.05 to 3.25 percent during the same period (Graph 3a). This result was mainly attributed to the Residential Construction Cost Index, which increased from 3.04 to 7.16 percent from December 2007 to March 2008. Construction materials recording the highest price increases were wire-manufactured products and electrical devices, with annual rates of inflation shifting from -3.76 to 22.11 percent in the former case, and from 0.52 to 15.02 percent in the latter, during the reference months (Graph 3b).<sup>2</sup>

In addition, from December 2007 to March 2008, the rest of services (non-housing/education) price subindex increased from 3.94 to 4.09 percent. To a great extent, these results were determined by the jump in airline fares, which were affected by raising jet fuel prices.<sup>3</sup> The rate of inflation of this fuel went from 44.20 percent in 2007, to 76.15 percent in March 2008. It is likely that the air transportation market might have found a new equilibrium in terms of number of participants (after new low-cost airline companies entered the market), as airline fares have not been subject to the previously-observed discounts. This situation has led to a new comparison base, with higher fares in 2008 in relation to lower air fares recorded during the previous year. As for travel-service packages, after Easter, some hotel rates, as well as airline and intercity bus fares, did not return to the price levels recorded before the holiday season (Graph 3c).

At the end of the first quarter of 2008, the merchandise price subindex recorded an annual variation of 4.71 percent (In December 2007, it was 4.52 percent). As for its components, processed foods' prices grew 7.66 percent, while

<sup>2</sup> Prices of wire and electrical devices are mainly determined by the behavior of the international prices of copper and steel. Section 3.3.6 of this Report describes the behavior of the international prices of metals during the analyzed quarter.

<sup>3</sup> Section 3.3.5 describes the behavior of jet fuel prices.

the rest of merchandise group, 2.46 percent, in March 2008 (as compared with 7.52 and 2.26 percent, respectively, at the end of 2007, Graph 4a).

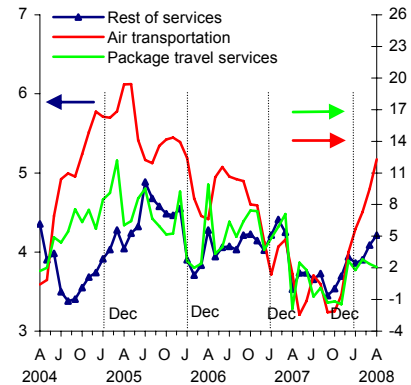
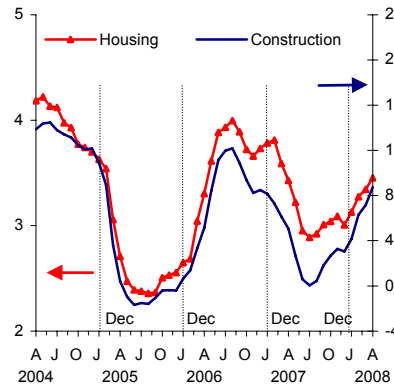
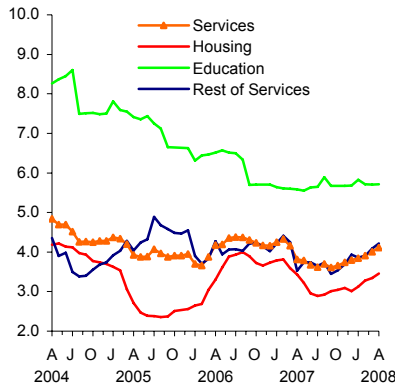
In January 2008, core food inflation decreased as compared with the previous month, mainly as a result of the lower annual variation recorded by corn-tortilla prices.<sup>4</sup> Later, the rate of change of this price subindex rose due to price revisions in dairy, soy, and wheat products (Graph 4b).<sup>5</sup> The density functions of the annual price inflations for the 67 products that make up the processed foods subindex has escalated. A comparison from January to March of the average density functions for 2007 and 2008 (Graph 5) shows that the inflation gap has widened, from 0.73 percentage points to 1.74 points in those three months.

**Graph 3**  
**Core Services Price Subindex (New Definition)<sup>1/</sup>**  
**Annual percentage change**

a) Services

b) Housing

c) Rest of Services



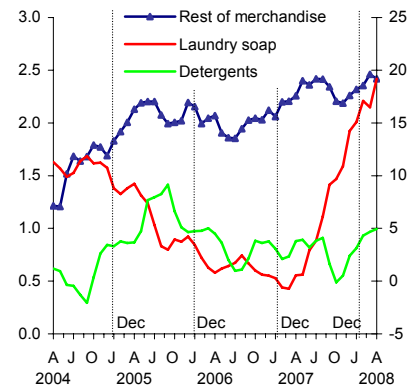
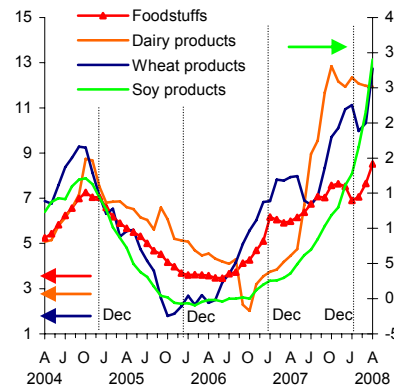
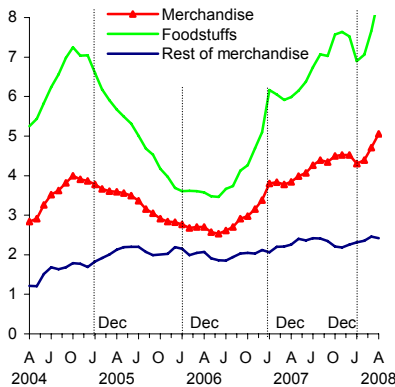
<sup>1/</sup> Banco de México adopted a new definition for core inflation in January 2008. See Inflation Report July-September 2007, Appendix 1, pp. 53-58.

**Graph 4**  
**Core Merchandise Price Subindex**  
**Annual percentage change**

a) Merchandise

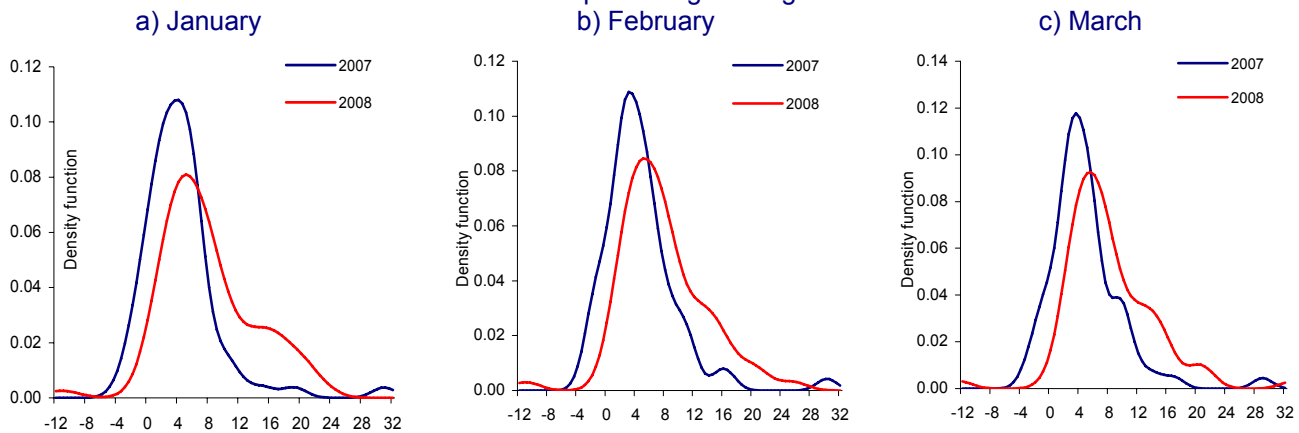
b) Foods

c) Rest of Merchandise



<sup>4</sup> Between December 2007 and March 2008, annual inflation of this product declined from 5.60 to 1.87 percent. During the same period of the previous year, this rate increased from 13.82 percent in December 2006, to 19.13 percent in January 2007 and 14.31 percent in March.  
<sup>5</sup> Section 3.3.4 describes the international price behavior of food commodities.

**Graph 5**  
**Annual Inflation Density<sup>1/</sup>**  
**of Core Food Price Subindex**  
 Annual percentage change



1/ Graphs represent density functions calculated to adjust data of annual inflation of products that make up the core food price subindex. Density functions are estimated using the non-parametric Kernel smoothing method. To construct a density function under this method, the following procedure is done: i) data of annual inflation of products from the core food price subindex are used to generate a data interval so that the highest and lowest inflation are within the upper and lower limits of such interval; ii) the referred interval is divided into a number of points (to allow for a continuous figure of the density function), which are associated with a probability; and, iii) the probability associated with each point of the interval is calculated by evaluating a Kernel function around each normal nucleus (each observation from the sample represents a nucleus). Finally, the density function is the accumulated sum of each Kernel associated with the inflation of the considered products. The density functions presented in the rest of this report were estimated using the described method.

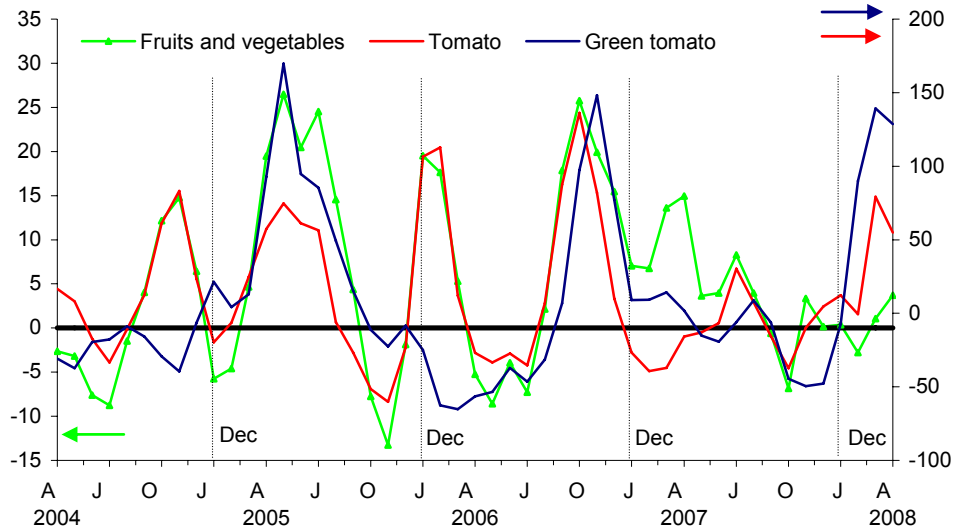
The price subindex for the rest of merchandise (non-food) recorded increasing inflation during the first three months of the year, as a result of the behavior of certain household cleaning goods like laundry soap and detergents (Graph 4c). Summing up, the price increase in merchandise was partly influenced by the international prices of commodities, and possibly by the end of the discount program offered by supermarkets at the beginning of the year, which included 51 home grocery products.

The non-core price index (new definition) posted an average annual variation of 3.10 percent during the first quarter of 2008, as compared with 3.00 percent during the previous quarter (Table 1). During the first two months of the year, this indicator exhibited a relatively lower annual rate of change, as a result of the behavior of both the agricultural price subindex and the administered and regulated price subindex. Nevertheless, this rate increased in March influenced by the behavior of the four price subindices that comprise it: fruits and vegetables, livestock products, and goods and services with administered and regulated prices (Section 3.3.2 describes the behavior of the last two subindices).

The annual rate of growth of the price subindex of agricultural products at the end of the first quarter of 2008 was 4.36 percent, 0.94 percentage points above the rate observed at the end of the previous quarter (3.42 percent). This increase is attributed to the price behavior of certain fruits and vegetables, such as tomato and green tomato (Graph 6), and was due to two factors: first, a lower base of comparison due to the lower prices recorded during the first quarter of 2007; and, second, the scattered rains and the cold weather that affected the final growth of these vegetables at the beginning of the winter harvest in Sinaloa, and a significant amount of tomatoes exported to the United States in March. Thus, tomato and green tomato recorded annual price variations at the end of the first quarter of 2008 of 79.37 and 139.27 percent, respectively, as compared with December 2007 figures (4.64 and -47.74 percent). The prices of eggs and poultry

also contributed to the growth of the non-core index in March. The latter may be associated, among other factors, to the raise in chicken-feed prices.

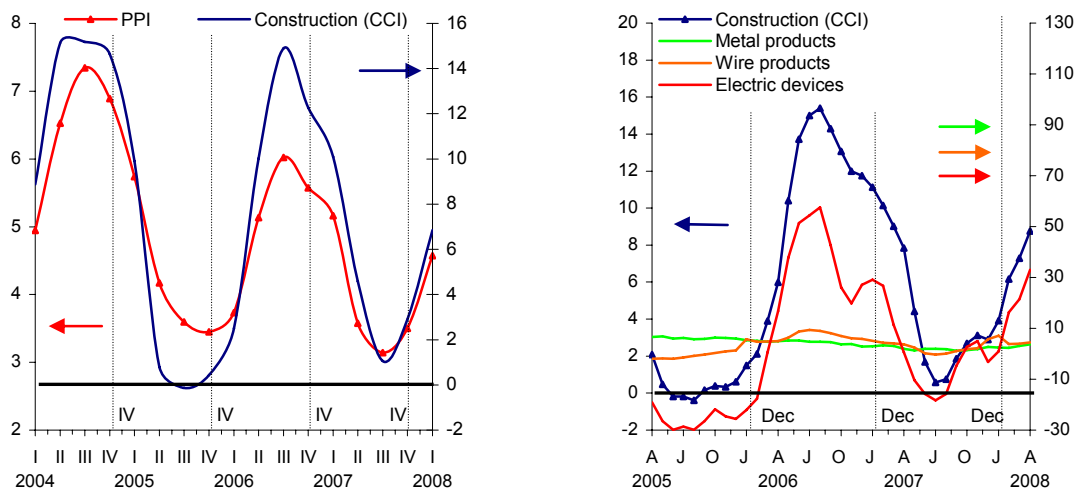
**Graph 6**  
**Fruits and Vegetables Price Subindex**  
 Annual percentage change



## 2.2. Producer Price Index

The Producer Price Index (PPI) of merchandise and finished services, excluding oil, recorded in an annual average variation of 4.25 percent during the first quarter of 2008, as compared with 3.50 percent during the previous quarter (in March 2008, this indicator recorded an annual variation of 4.59 percent, Graph 7). PPI inflation results were significantly influenced by the contribution of the higher prices of wire, metal products, and electrical devices in the Construction Cost Index (CCI).

**Graph 7**  
**Producer Price Index Excluding Oil and Selected Components**  
 a) PPI excluding Oil  
 Annual percentage change  
 b) Construction Cost Index  
 Annual percentage change





## 3. Main Determinants of Inflation

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### 3.1. External Conditions

The latest information suggests that global economic activity lost momentum during the first quarter of 2008. In particular, after the sharp slowdown observed during the last months of 2007, the U.S. economy remained weak during the January-March period. Growth in other advanced economies appears to have slowed during the first quarter. Emerging market economies continued to grow at a fast rate, although economic activity apparently has started to decelerate in some countries. Despite the slower rate of growth worldwide, inflationary pressures increased during the first quarter due mainly to the increase in the prices of foodstuffs and energy, and, in the case of various emerging market economies, to the growth of domestic demand. Uncertainty in the financial markets of various advanced economies, especially the U.S., continued during the January-March period. The Federal Reserve responded to this situation by implementing measures to increase liquidity and support the stability of the financial system. These actions mitigated the turmoil to a certain extent; however, the situation remained difficult and the outlook uncertain.

#### 3.1.1. Global Economic Activity

The rate of growth of economic activity in the U.S. declined significantly at the end of 2007. After having recorded an annualized quarterly rate of 4.9 percent during the July-September period, GDP growth declined to 0.6 percent during the fourth quarter (figures were 2.8 and 2.5 percent, respectively, in annual terms). These results are basically due to the weakness of domestic demand. Private consumption lost strength, non-residential investment slowed, and residential investment fell for the eight consecutive quarter. Consequently, from its recent high during the fourth quarter of 2005 to the end of 2007, residential investment fell by 29 percent. The adjustment in inventories also affected negatively GDP growth. On the other hand, the trade deficit decreased once more during the fourth quarter of 2007. Had the external deficit not contracted, GDP growth would have been negative.

The latest information suggests that economic activity remained weak during the first quarter of 2008. The fall in residential investment continued to influence the performance of the U.S. economy. The rate of growth of real consumer spending is expected to have decreased as a result of employment contraction, deteriorated consumer confidence, tightening credit conditions, and the impact of the real estate crisis on households' finances, among other factors. On the other hand, information on shipments and orders of capital goods, and on expenditure in non-residential construction, suggest that non-residential investment grew moderately. Information on the supply side confirms these conditions of lower economic strength. In particular, industrial production fell during the first quarter by 0.1 percent at an annualized quarterly rate, while job creation in the non-farm sector posted negative figures during the first three months of the year. The aforementioned suggests that GDP grew at a very small rate during the period January-March 2008.

In general, weak economic activity in the U.S. is expected to continue during the second quarter. According to the Federal Reserve, GDP will not grow much during the first half of 2008, and could even decline slightly. On the other hand, the economy is expected to begin to recover during the July-September period, supported by the fiscal and monetary measures implemented by the authorities. In addition to the fiscal stimulus package of around 1 percent of GDP approved by the U.S. Congress -and whose effects are expected to begin to take place in the second half the year- the Federal Reserve implemented various measures to stabilize financial markets, and reduced its Federal funds rate for a total of 200 basis points during the first quarter (see Section 3.1.3 of this Report).

In the Euro Zone, GDP's annualized quarterly rate of growth decreased to 1.6 percent (2.2 percent in annual terms) during the October-December 2007 period. For the first months of 2008, industrial and service-sector purchasing managers' indices, as well as retail sales and business and consumer confidence indicators, suggest moderate GDP growth. In contrast with other advanced economies, the Japanese economy strengthened during the last quarter of 2007, by growing at an annualized quarterly rate of 3.5 percent (2.0 percent in annual terms). However, growth apparently slowed during the January-March 2008 period, due mainly to the fall in residential investment and the adverse effects on economic activity of higher prices of energy and various inputs.

In general, economic activity in emerging market economies remained strong during the first quarter of 2008, although several countries showed signs of slower growth. After having increased 11.2 percent in annual terms during the last three months to 2007, China's GDP grew at a rate of 10.6 percent during the first quarter of 2008, partly reflecting the slower growth of Chinese exports. In India, GDP growth decreased slightly to 8.4 percent in annual terms during the fourth quarter of 2007 (8.9 percent during the third), and the latest information suggests that this trend will continue during the first quarter of 2008. In Latin America, GDP grew by 5.6 percent in 2007. Thus, during 2004-2007, the region recorded its fastest growth for a 4-year period since the seventies. Nevertheless, for 2008, the International Monetary Fund (IMF) forecasts a smaller GDP growth of around 4.4 percent.

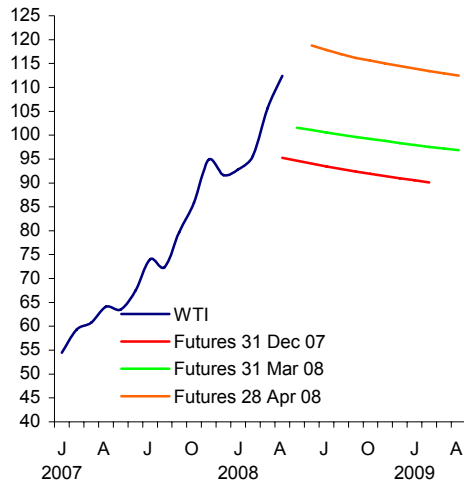
### 3.1.2. General Trends of Inflation

Crude oil prices followed an upward trend and exhibited high volatility during the first months of this year (Graph 8). After falling during January and at the beginning of February, the price of the West Texas International (WTI) crude oil resumed its upward trend, reaching 110 US dollars per barrel on March 13, and then decreased, ending the quarter slightly below 102 US dollars per barrel (around 6 US dollars above the figure recorded at the end of the previous year). Thus, the average price of the WTI during the first quarter of 2008 was 97.9 US dollars per barrel, 7.4 US dollars above the previous quarter figure. In April, crude oil prices resumed their upward trend, reaching record highs of 119.7 US dollars on April 25. Among the factors determining the significant volatility of crude oil prices are the uncertainty regarding supply and demand conditions, geopolitical factors, and a significant amount of speculative investment in futures markets

generated by the depreciation of the US dollar and by increased inflationary pressures.<sup>6,7</sup>

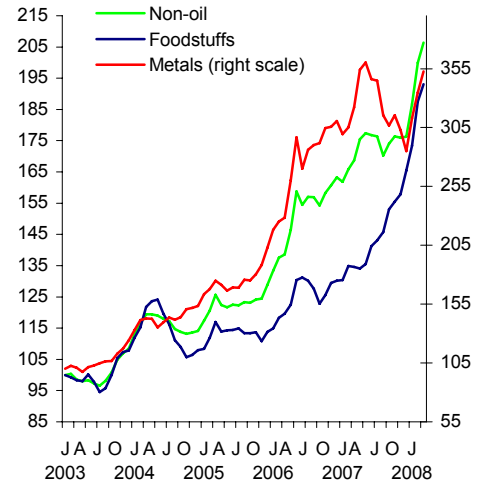
**Graph 8  
Commodity Prices**

**a) Oil Prices: Spot and Futures  
USD per barrel**



Source: Bloomberg.

**b) Commodity Prices  
Jan 03=100**



Source: IMF, Commodities Unit of the Research Department; Intereconomics, Economic Trends.

The index of non-oil commodity prices published by the IMF increased 19.5 percent in annual terms during the first quarter, a higher figure than that observed during the previous quarter (9.6 percent). The index growth continued to be mostly influenced by the behavior of the food component, whose annual growth rate rose from 24.3 percent during the fourth quarter of 2007, to 38.6 percent during the first quarter of 2008. Worth mentioning is that from September 2006 to March 2008, food prices increased by 57.2 percent. This behavior reflects to a great extent the growing demand from emerging market economies, which account for most of the higher levels of consumption of commodities in recent years. The demand related to bio-fuels production, the introduction of trade barriers in some food-producing countries, the weakness of the US dollar, and adverse weather conditions, among other factors, have contributed to the higher prices of grains. On the other hand, the international prices of metals increased 7.9 percent in annual terms during the January-March period, after having fallen 1.9 percent during the previous quarter.<sup>8</sup>

Inflation in advanced economies remained high and even rebounded in some of them during the first quarter of 2008, mainly as a result of pressures originated by the increase in food and energy prices. In the U.S., CPI inflation was 4.0 percent in annual terms in March, which compares unfavorably with the 2.0

<sup>6</sup> The depreciation of the US dollar, the reduction in interest rates in the U.S., and the greater inflationary pressures, have affected the real yield on financial assets denominated in US dollars. The latter, together with pressures in world credit markets, have made the oil futures market more attractive for investors.

<sup>7</sup> At the end of April, crude oil prices were significantly affected by the effects of a strike in a Scotland refinery, and a strike and attacks to oil facilities in Nigeria.

<sup>8</sup> In annualized quarterly terms, variations during the fourth quarter of 2007 and the first quarter of 2008 are: non-oil commodities, 6.2 and 58.4 percent, respectively; foodstuffs, 37.8 and 79.4 percent, and, metals, -23.7 and 50.2 percent.

percent recorded in August of the previous year (month in which inflation was at its lowest level in 2007). These results are mainly attributed to the significant increase in energy and other commodity prices, as well as to the effects of the US dollar depreciation on imports prices. Despite the slowdown of domestic demand and the fall in employment, core CPI inflation remained relatively high at 2.4 percent in annual terms in March 2008, the same level as that observed at the end of 2007. Under this context, uncertainty over the future path of inflation has increased, giving rise to concerns at the Federal Reserve. Nevertheless, the monetary authorities expect inflation to moderate in the next months, and long-term inflation expectations to remain anchored at a level slightly above 2.0 percent.

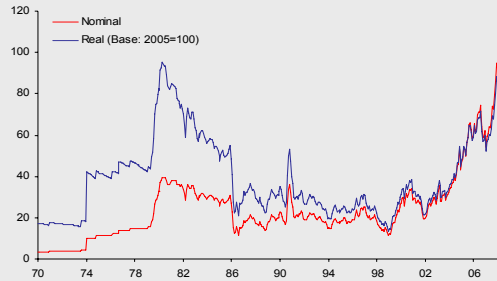
In the Euro Zone, inflationary pressures increased during the first months of this year, mainly as a result of the increases in the prices of food and energy. Headline CPI inflation was 3.6 percent in annual terms in March, the highest figure since June 1992. The European Central Bank (ECB) also considers that inflation is subject to upward risks, and that the period of high inflation will be longer-lived than originally expected. In Japan, headline consumer inflation followed an upward trend during the quarter, reaching 1.2 percent in annual terms in March 2008.

During the January-March period, emerging market economies faced higher inflationary pressures than advanced economies. Domestic demand in several emerging economies continued to expand rapidly. Moreover, food has a higher share in the consumption baskets of these countries. In China, annual CPI inflation was 8.3 percent in March, despite various measures adopted by the authorities to prevent an overheating of the economy. In India, producer prices grew at an annual rate of 7.4 percent in March, while in Russia headline consumer inflation was 13.31 percent in annual terms during that month. Many Latin American countries were also affected by the greater inflationary pressures during the quarter, and in several of them inflation was above the targets set by their central banks. In an environment of higher inflationary pressures, the central banks of many emerging market economies have tightened their monetary policy stance (Table 2).

**Box 1**
**Recent Developments and Prospects for the World Oil Market**
**Recent Developments**

Oil prices restarted a sharp upward trend since the beginning of 2007. The price of the West Texas Intermediate (WTI) reached a nominal record high of 119.7 USD per barrel by the end of April 2008. In real terms, crude oil prices surpassed their historical maximum recorded in April 1980 during the Iran-Iraq war.

**Graph 1**  
WTI Spot and Real Prices  
USD per Barrel



Sources: Bloomberg and U.S. Bureau of Labor Statistics.

The significant hike in crude oil prices in recent months has responded mainly to the restrictions faced by the balance between the supply and demand for oil. According to the International Energy Agency, the growth of world demand for oil was around 1.1 million barrels per day in 2007 (Table 1), boosted by the growth of emerging market economies. On the other hand, the world supply of crude oil remained stagnant during that year, due to reduced production from OPEC member countries.<sup>1</sup> This imbalance between world supply and demand for oil was particularly significant during the second half of 2007, making oil stocks drop considerably during that period. Oil stocks stabilized at the beginning of 2008.

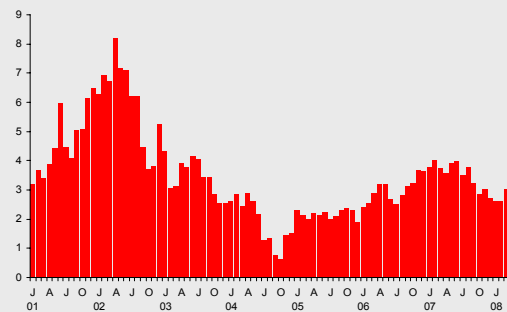
**Table 1**  
World Supply and Demand for Oil  
Growth in Million Barrels per Day

	2005	2006	2007
World Demand	1.4	1.0	1.1
World Supply	1.2	0.8	0.2
Supply Non-OPEC	-0.2	0.5	0.6
Supply OPEC	1.4	0.3	-0.4
Change in Inventories	-0.1	-0.2	-0.9

Note: Supply of non-OPEC countries excludes Angola and Ecuador.  
Source: International Energy Agency.

Crude oil prices have also been subject to pressures originated by world concerns over the continuous interruptions of oil supply related to geopolitical factors and adverse weather conditions, in a context of reduced idle capacity (Graph 2) and constant downward revisions in the projections for non-OPEC members' oil production. Financial factors such as the depreciation of the US dollar, the lower interest rates in the U.S., the greater inflationary pressures in that country, and the deterioration of credit conditions worldwide, have also stimulated a greater flow of resources to the oil futures market as an investment alternative, therefore putting more pressure on crude oil prices.<sup>2</sup>

**Graph 2**  
OPEC Idle Production Capacity  
Million Daily Barrels



Note: Excludes Angola and Ecuador.  
Source: International Energy Agency.

Many analysts consider that the slow response of the world's supply of crude oil partly responds to the challenges faced by investors to drill new oil fields, given the geological and technological complexities, and the increasing costs of oil exploration and development.

**Oil Market Outlook for the Rest of 2008**

Most oil market analysts believe that the restrictive conditions of supply and demand will ease this year. Forecasts for the increase in world demand for oil in 2008 are 1.2 million barrels per day, almost the same figure forecasted for 2007 (Table 2). Forecasts for demand have then adjusted gradually downwards in the last months, in response to the increasing prices and to risks of a greater slowdown of the world economy.

The increase in world demand for oil forecasted for 2008 continues to respond mainly to the higher growth of emerging market economies, particularly in Asia (China and India) and the Middle East (Graph 3). On the other hand, the demand for oil from OECD member countries is expected to decrease once more due to a slower economic growth and to the high prices of crude oil and its by-products, like gasoline.

<sup>1</sup> OPEC cut its production quotas by 1.2 million daily barrels since November 2006 and by 0.5 million daily barrels since February 2007. The latter cut was reverted since November 2007.

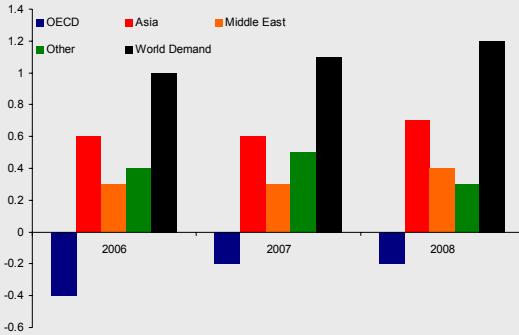
<sup>2</sup> The depreciation of the US dollar has implied also lower profits in local currency for many oil producing countries, thus contributing to increase upward pressures on crude oil prices.

**Table 2**  
**Forecasts for Growth of World Oil Demand and Supply**  
 Million Barrels per Day

	Demand			Supply Non-OPEP		
	2007	2008	2009	2007	2008	2009
IEA <sup>1/</sup>	1.1	1.2	n.a.	0.6	0.8	n.a.
EIO <sup>2/</sup>	0.8	1.2	1.3	0.5	0.6	1.5
OPEC <sup>3/</sup>	1.2	1.2	n.a.	0.5	0.9	n.a.

1/ International Energy Agency.  
 2/ Energy Information Office U.S. Department of Energy.  
 3/ OPEC.  
 n.a.: not available.  
 Sources: IEA, EIO, and OPEC.

**Graph 3**  
**Growth of World Demand for Oil**  
 Million Daily Barrels



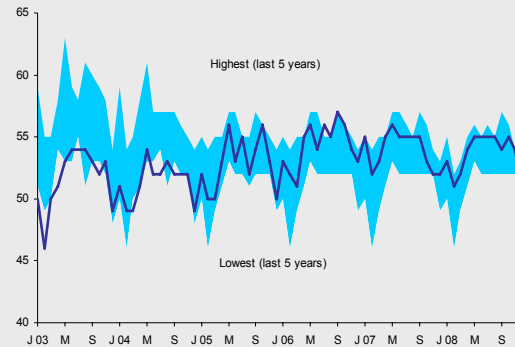
Source: International Energy Agency.

Forecasts for the increase in the supply of oil from non-OPEC countries for 2008 continue to diverge among the main analysts (between 600 and 900 thousand barrels per day). These differences, together with the continuous revisions to the projections for crude oil supply recorded in the last years, explain, to a great extent, the high level of uncertainty that prevails regarding the balance between world supply and demand for crude oil.

The coverage of OECD oil inventories is expected to grow from around 52 demand days during the first quarter of the year (Graph 4), to an average of 54-55 days for the rest of 2008. However, these calculations are based on expectations that OPEC will maintain its current production policy. In addition, this coverage could be perceived as insufficient given the risks of interruptions in the supply of oil and the low idle capacity.

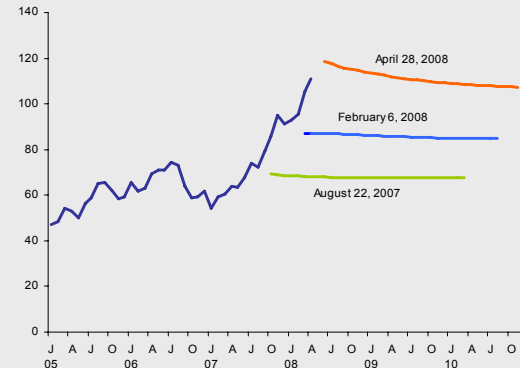
In general, analysts consider that due to the uncertainty surrounding the forecasts for world economic growth and, therefore, those for the increase in world demand for oil, the balance of risks for crude oil prices is tilted slightly downwards for the rest of 2008. Futures contracts suggest that the international prices of oil will remain high, although with a slight downward trend during the next months (Graph 5).

**Graph 4**  
**OECD Coverage of Commercial Inventories**  
 Demand Days



Source: U.S. Department of Energy.

**Graph 5**  
**WTI Spot and Futures Prices**  
 USD per Barrel



Source: Bloomberg.

Nevertheless, the possibility of a lower-than-expected increase in the supply of oil (due to geopolitical, weather, or other factors), and/or a greater inflow of financial resources to oil futures markets, could result in additional upward pressures on crude oil prices.

**Table 2**  
**Changes in the Monetary Policy Stance**

	Policy Rate			Inflation Annual and target <sup>1/</sup>	Inflation Risks	Factors influencing the balance of risks
	Level at 28/04/08	Changes 2007	Changes 2008			
<b>Canada</b>	3	=	(-) 1¼	1.4	2±1	Balanced
<b>United States</b>	2¼	(-) 1	(-) 2	4.0	d.n.a.	Balanced
<b>Norway</b>	5½	(+) 1¾	(+) ¼	3.2	≈ 2.5	Upward
<b>United Kingdom</b>	5	(+) ½	(-) ½	2.5	2	Downward
<b>Sweden</b>	4¼	(+) 1	(+) ¼	3.4	2	Upward
<b>Switzerland</b>	2¼ - 3¼	(+) ¾	=	2.6	<2	Upward
<b>Euro Zone</b>	4	(+) ½	=	3.6	<2	Upward
<b>Australia</b>	7¼	(+) ½	(+) ½	4.2	2-3	Upward
<b>New Zealand</b>	8¼	(+)1	=	3.4	1-3	Upward
<b>South Korea</b>	5	(+) ½	=	3.9	3±0.5	Balanced
<b>China</b> <sup>2/</sup>	7.47	(+) 1.35	=	8.3	d.n.a.	Upward
<b>India</b> <sup>3/</sup>	6	=	=	7.4	≈ 5.5	Upward
<b>Malaysia</b>	3½	=	=	2.8	d.n.a.	Balanced
<b>Thailand</b>	3¼	(-) 1.6875	=	5.3	0-3.5	Upward
<b>Russia</b>	10½	(-) 1	(+) ½	13.3	6-7	Upward
<b>Brazil</b>	11¼	(-) 1 ¾	(+) ½	4.7	4.5±2	Upward
<b>Colombia</b>	9¼	(+) 2	(+) ¼	5.9	3.5-4.5	Upward
<b>Chile</b>	6¼	(+) ½	(+) ¼	8.5	3±1	Balanced
<b>Peru</b>	5½	(+) ½	(+) ½	5.6	2±1	Upward
<b>South Africa</b>	11 ½	(+) 2	(+) ½	10.6	3-6	Upward

<sup>1/</sup> Unless otherwise stated, refers to the Consumer Price Index. Figures for inflation and interest rates are reported in percent. Figures for inflation correspond to March 2008.

<sup>2/</sup> The policy rate is the borrowing rate of financial institutions. The People's Bank of China increased its reserve requirements in February, March, and April 2008.

<sup>3/</sup> The Reserve Bank of India increased its reserve requirements in February, March and September and October 2007, as well as in April 2008. Figures for observed inflation and inflation target refer to the Producer Price Index.

d.n.a./ does not apply.

Source: Official websites of the referred countries.

### 3.1.3. Financial Markets

Liquidity conditions in short-term money markets improved as a result of measures implemented at the end of 2007 to face the turmoil in financial markets.<sup>9</sup> In particular, differentials between interbank rates and other low-risk rates decreased at the beginning of 2008, although remaining at high levels (Graph 9). Some banks were able to improve their balances and expanded their capital base.

Despite these efforts, the tightening credit conditions and the perception of vulnerability in financial markets continued. On the one hand, uncertainty over the magnitude and distribution of credit losses, and hence the perception over counterparty risk, prevailed throughout the first quarter. On the other hand, the balances of banks and other financial institutions continued to grow given the need to incorporate in their balance sheets the assets affected by the mortgage

<sup>9</sup> For a description on the origins and development of the U.S. financial crisis, see the Inflation Report of October-December 2007.

market crisis.<sup>10</sup> The latter, together with new losses, made the efforts to increase their capital insufficient, thereby reducing their capacity to grant credit.

Since mid-January, uncertainty began to increase, mainly as a result of the greater difficulties faced by some security insurance companies. Given the high exposure of several of these institutions to mortgage-backed securities, rating agencies lowered their credit rating in some cases while, in others, they were put under observation for a possible downgrade. Problems worsened in mid-February as a result of liquidity problems and losses faced by various financial institutions, such as government-sponsored enterprises in charge of fostering the public's access to the mortgage market and the development of this market.<sup>11</sup> This situation further deteriorated with the worsening of the financial difficulties faced by one of the major investment banks in the United States in mid-March.

In this context, the effects of the financial turmoil intensified in market segments that up to that moment had been less affected, such as those for mortgage-backed securities issued by government agencies and municipal bonds. The risk spreads for both investment grade and high yield corporate bonds also increased. Consequently, the risk of a severe impact on economic activity derived from the turmoil in financial markets escalated.

Under these circumstances, the U.S. Federal Reserve implemented various actions to increase the liquidity and improve the functioning of financial markets. Among the measures adopted were:

- In March 7, 2008 it was raised the total amount available for the Term Auction Facility (TAF), from 60 to 100 billion US dollars, and it was announced that this instrument would continue to be used for at least the following six months.<sup>12</sup>
- In March 11, the foreign exchange swap lines with the European Central Bank were increased from 20 to 30 billion US dollars, and with the Swiss National Bank, from 4 to 6 billion US dollars, in effect up to September 2008.
- On the same date, the creation of a new instrument known as the Term Securities Lending Facility (TSLF) was announced. Through this instrument, the Federal Reserve committed itself to lend up to 200 billion dollars of Treasury securities to primary dealers for a 28-day

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<sup>10</sup> Although many banks at first were not directly exposed to most of the operations dealing with subprime loans, they actively promoted these schemes via off balance sheet operations. In light of the worsening of the difficulties in the subprime mortgage market, these banks had to support the market's financial facilities, either by granting financing or other type of support or by including them in their balance sheets, in light of the subscribed contracts or to prevent reputational risk.

<sup>11</sup> Federal Home Loan Mortgage Corporation (Freddie Mac) and Federal National Mortgage Association (Fannie Mae).

<sup>12</sup> The TAF was created in December 12, 2007. This mechanism is a funds auction, with previously-announced amounts, and a borrowing rate determined in a competitive bidding process between eligible intermediaries. The same intermediaries that can access the Federal Reserve discount window have access to this mechanism. The Federal Reserve discount window is a monetary policy instrument that complements open market operations. Its objective is to provide short-term liquidity to deposit institutions which, by law, must hold reserves backing deposits from the public. There are four types of credit granted through the discount window, each one granted at different interest rates. The discount rate for primary credit is the most commonly cited.



term, instead of the usual overnight (1 day) term, accepting a wide range of instruments as collateral.<sup>13</sup>

- In March 16, an instrument was created for primary dealers (Primary Dealer Credit Facility, PDCF), which is similar to the discount window, but with access for these dealers. Loans granted through this facility are overnight and several investment-grade securities are accepted as collateral.<sup>14</sup>

During the first quarter, the Federal Reserve implemented additional actions to preserve the stability of the financial system. In particular, in mid-March, Bear Stearns, the fifth most important investment bank in the U.S., notified the U.S. authorities that in view of its deteriorated liquidity position, it would have to file for Chapter 11 protection under U.S. bankruptcy law, unless it could obtain funding from other sources. Considering that Bear Stearns has a high share in several critical segments of the financial markets, the authorities decided that the institution's bankruptcy would severely affect confidence in these markets, generating doubts on their counterparts and consequently affecting the entire economy. Thus, the Federal Reserve decided to grant JP Morgan Chase a credit line to support the purchase of Bear Stearns.<sup>15</sup>

In response to the weakness of economic activity, the Federal Reserve loosened significantly its monetary policy stance during the first quarter. During such period, the authorities reduced their target for the federal funds rate on three occasions, for a total of 200 basis points, reaching in March 2008 a level of 2.25 percent.<sup>16</sup> Since the beginning of the current process of monetary loosening in August 2007 to the end of the first quarter of 2008, the target for the federal funds rate has decreased by three percentage points.

<sup>13</sup> Primary dealers are intermediaries that operate U.S. government securities directly with the Federal Reserve Bank of New York. They are either commercial banks supervised by federal bank regulators or equity brokers registered in the Securities and Exchange Commission. Twenty primary dealers were registered by December 2007.

<sup>14</sup> The Federal Reserve responded to the problems observed in the financial markets in several stages. First, the monetary authorities reduced discount rates and increased the term for financing operations through this window. Nevertheless, banks resort to the discount window generally when they are facing difficulties, and therefore the use of these resources is perceived to generate a reputational risk. The consequent stigma limited the use of this instrument. In light of the above, during the second stage, the Federal Reserve created the TAF to support commercial banks. In order to reduce the liquidity problems in other institutions, particularly in investment banks, the authorities created, as a third stage, lending facilities specifically for primary dealers (TSLF and PDCF).

<sup>15</sup> The U.S. monetary authorities supported Bear Stearns in three stages. First, in March 14, the Federal Reserve authorized a loan through the discount window to JP Morgan so that this institution would, at the same time, grant a loan to Bear Stearns. Second, in March 16, the Federal Reserve approved financing for 30 billion US dollars to JP Morgan to acquire Bear Stearns. Third, in March 24, the agreement of March 16 was revised, and the equity price of Bear Stearns increased from 2 to 10 US dollars. The Federal Reserve authorized financing for 29 billion US dollars, with an asset portfolio from Bear Stearns valued at 30 billion US dollars as collateral payment, and JP Morgan holding responsible for any eventual losses (up to the first billion US dollars) associated with the assets financed to Bear Stearns. For more details see: Federal Reserve Board Press Release, "Federal Reserve Announces Two Initiatives Designed to Bolster Market Liquidity and Promote Orderly Market Functioning", March 16, 2008; Federal Reserve Bank of New York, Press Release, "Summary of Terms and Conditions regarding the JP Morgan Chase Facility", March 24; JPMorgan Chase, "JPMorgan Chase and Bear Stearns Announce Amended Merger Agreement and Agreement for JPMorgan Chase to Purchase 39.5% of Bear Stearns", March 24, 2008; Testimony by Chairman Ben S. Bernanke, "The Economic Outlook", before the Joint Economic Committee, U.S. Congress, April 2, 2008; Testimony by Timothy F. Geithner, President and Chief Executive Officer of the Federal Reserve Bank of New York, "Actions by the New York Fed in Response to Liquidity Pressures in Financial Markets", April 3, 2008.

<sup>16</sup> The discount rate decreased from 4.75 percent at the beginning of January to 2.50 percent at the end of March 2008. During this period, the spread between the discount rate and the target for the federal funds rate diminished from 50 to 25 basis points.

The central banks of other advanced economies have also responded to the turmoil in financial markets by providing more access to short-term funds in different ways and by cutting policy interest rates or leaving them unchanged. Thus, during the January-April period, the ECB left its reference rate unchanged despite the presence of considerable inflationary pressures and upward risks for inflation. At the same time, it announced various measures to increase liquidity. The Bank of England cut its policy rate by 25 basis points in both February and April, and the authorities announced the temporary purchase of a commercial bank to restore confidence.<sup>17</sup> In April 21, the Bank of England announced a new program to allow banks to exchange high quality mortgage-backed financial securities, in addition to other assets, for UK Treasury bonds.<sup>18</sup> In Japan, the central bank left its policy rate unchanged during the January-April period.

The adopted measures alleviated to a certain extent the turmoil in financial markets. In this context, the spread between the LIBOR rate in US dollars and the 3-month US Treasury bill rate narrowed, although remaining at high levels. Another liquidity indicator based on the overnight index swap (OIS) followed a similar pattern (Graph 9). Moreover, after having expanded significantly during the first quarter of 2008, the issuance of high-quality corporate bonds in the U.S. market increased to levels close to their record highs in April (to day 28), as market conditions and, consequently, investors' demand improved.

Interest rates for 1 to 10-year U.S. Treasury bonds decreased during the first months of 2008, apparently affected by the outlook of slower growth in the U.S., expectations of downward adjustments in the federal funds rate, and the flight-to-quality by investors to risk-free instruments. In particular, interest rates for 2 and 10-year bonds reached in March their lowest levels since 2003 (1.47 and 3.34 percent, on March 10 and 17, respectively). The 3-month T-bill interest rate, which has recorded a negative spread with respect to the effective level of the federal funds rate since the beginning of the credit problems in August of last year, plummeted to its lowest level since 1958 (0.6 percent in March 19), due to the reduction in the policy rate and to the demand for low-risk assets. In April, interest rates rebounded as uncertainty in financial markets decreased and expectations arose on the Federal Reserve ending its cycle of policy rate cuts sooner than expected. From the end of March to April 28, 2 and 10-year interest rates increased 76 and 42 basis points, respectively. By apparently continuing to face a stronger demand as short-term low risk investment, the 3-month rate recorded the lowest increase (5 basis points).<sup>19</sup>

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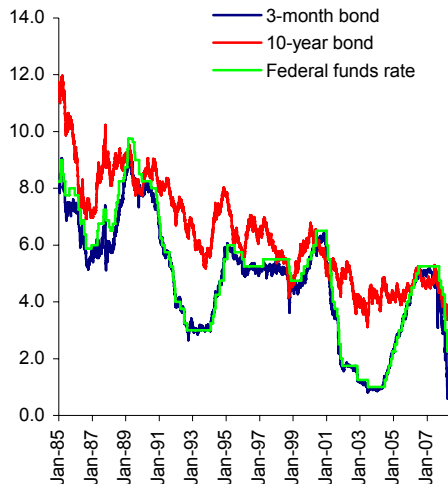
<sup>17</sup> Since its sources of liquidity had ran out, in September 2007 the English bank Northern Rock requested credit facilities from the Bank of England. In February 2008, the temporary acquisition of the bank by the government was announced.

<sup>18</sup> Assets will be exchanged for an initial period of one year, which can later be renovated for a total of three years. Banks are liable for the risk of losses associated with these assets. Assets' exchange will be limited to those existing at the end of 2007 and cannot be used to finance new loans. Banks willing to participate in the program will have six months starting April 21. The duration of the program is expected to be enough to provide banks with liquidity and increase confidence and certainty in these institutions. During the time of assets exchange, banks will have to pay a commission based on the three-month Libor rate.

<sup>19</sup> In April 28, the 3-month, 2-year, and 10-year rates were 1.38, 2.35 and 3.83 percent, respectively.

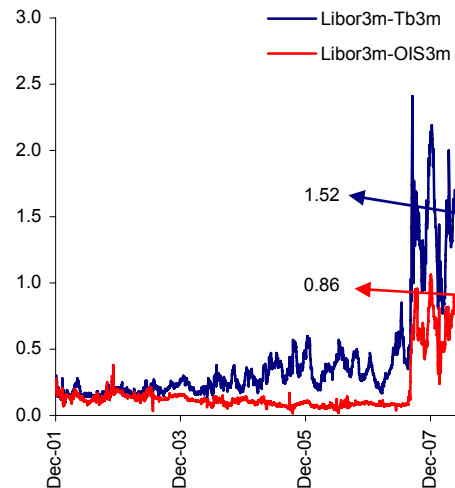
**Graph 9**  
**U.S.: Interest Rates**  
 Annual percent

a) Yield on 10-year and 3-month U.S. Treasuries, and Federal Funds Rate



Source: Bloomberg.

b) Differential between 3-month Libor and 3-month OIS <sup>1/</sup> and 3-month Treasuries <sup>2/</sup>



1/ The OIS (*Overnight Index Swap*) reflects expectations for the average of the reference rate during the next three months.

2/ To April 28, 2008.

Source: Bloomberg.

The uncertainty over the situation in the financial markets and the outlook for economic activity was reflected during the first quarter in falling stock market indices, together with high volatility. The Standard & Poor's index of the U.S. ended the January-March period with a 10 percent loss as compared to the end of 2007, while the Nikkei of Japan and the FTSE of the United Kingdom fell 18 and 12 percent, respectively. In April, when uncertainty diminished, the stock markets of these countries recovered. As of April 28, the Standard & Poor's, Nikkei, and FTSE indices increased 5.6, 10.9, and 6.8 percent, respectively, in relation to the last day of March.

The US dollar continued to depreciate during the quarter, in both real and nominal terms, as interest rate spreads with other economies widened and expectations of additional interest rate reductions in the U.S. arose. The US dollar depreciated 8.1 percent against the euro during the January-March period. Against the yen, the US dollar depreciated even more (10.8 percent).<sup>20</sup> In real effective terms, the US dollar depreciated 3.6 percent against the main currencies and 3.3 percent using the broader definition.<sup>21</sup> In April 22, the US dollar recorded a record low against the euro. However, after that date, the US dollar strengthened, appreciating in relation to the euro 0.7 percent during the month (up

<sup>20</sup> The US dollar followed a mixed trend against the other main currencies during that period. It appreciated 3.9 percent against the Canadian dollar, remained stable against the sterling pound, and fell against the Swiss franc (-12.4 percent). During the month of April (up to April 28), the US dollar depreciated against the Canadian dollar and the sterling pound by 1.3 and 0.4 percent, respectively, and appreciated against the Swiss franc by 4 percent.

<sup>21</sup> The major currencies index is a weighted average of the foreign exchange values of the US dollar against 8 major currencies. The broad index is a weighted average of the foreign exchange values of the US dollar against 26 currencies. Weights of this index are calculated based on the share of each country in U.S. total exports and imports.

to April 28). In relation to the yen, the US dollar appreciated 4.3 percent during that period.

In comparison to previous episodes of volatility, contagion of advanced economies' financial market problems to emerging market economies remained modest during the first quarter. Nevertheless, capital flows to these economies slowed, and the higher risk aversion worldwide was reflected in a further widening of sovereign risk spreads. Thus, during the January-March period, the EMBI Global composite index increased 69 basis points in relation to the end of 2007 and reached 324 points, still a low level in historical terms. In April, the EMBI Global followed a downward trend.<sup>22</sup> It is important to point out that the issuance of bonds in emerging market economies declined considerably at the beginning of 2008, as a result of the turmoil in world's financial markets. Nevertheless, conditions for issuing debt (both sovereign and corporate) improved significantly in April, as firms and governments of these countries were more willing to obtain financing in international markets.

#### 3.1.4. Outlook

Forecasts for world growth in 2008 and 2009 were revised downwards during the first quarter, affecting significantly more the advanced economies, which are expected to grow below their potential rate (Table 3). Growth in advanced and emerging market economies is expected to continue diverging. Growth in the latter is anticipated to show a moderate deceleration in 2008, but it would continue to be robust.

Downward risks for world economic activity have increased. The intensity and duration of the weakness of economic activity in the U.S., and its impact on other economies, will depend on the effects of both the financial crisis and the process of diverse sectors' debt reduction on the real economy. The recovery of households' savings in light of the loss of wealth generated by the fall in house prices is expected to lead to a long period of adjustment in the U.S. A further deterioration in financial markets, with sharper effects on economic activity should also not be discarded. A greater than expected weakening in the U.S. would impinge on other advanced economies, and would affect emerging economies through lesser trade flows, lower commodity prices, and a decline in capital flows to these countries.

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<sup>22</sup> On April 28, the EMBI Global reached 283 basis points. The spread for coverage against the risk of default (credit default swaps) for emerging economies also increased during the first quarter of 2008. This spread rose from 180 basis points in December 2007, to 282 points at the end of March 2008 and 221 points on April 28.

**Table 3**  
**IMF Forecasts for GDP Growth for 2008 and 2009**  
Percent

	2007	2008		2009	
			Rev. <sup>1/</sup>	Rev. <sup>1/</sup>	Rev. <sup>1/</sup>
<b>World</b>	<b>4.9</b>	<b>3.7</b>	<b>-0.5</b>	<b>3.8</b>	<b>-0.6</b>
<b>Advanced economies</b>	<b>2.7</b>	<b>1.3</b>	<b>-0.6</b>	<b>1.3</b>	<b>-0.8</b>
United States	2.2	0.5	-1.0	0.6	-1.2
Canada	2.7	1.3	-0.5	1.9	-0.5
Japan	2.1	1.4	-0.1	1.5	-0.2
Euro Zone	2.6	1.4	-0.2	1.2	-0.7
<b>Emerging and developing economies</b>	<b>7.9</b>	<b>6.7</b>	<b>-0.2</b>	<b>6.6</b>	<b>-0.4</b>
<b>Africa</b>	<b>6.2</b>	<b>6.3</b>	<b>-0.7</b>	<b>6.4</b>	<b>-0.2</b>
<b>Eastern Europe</b>	<b>5.8</b>	<b>4.4</b>	<b>-0.2</b>	<b>4.3</b>	<b>-0.8</b>
<b>Commonwealth of Independent States</b>	<b>8.5</b>	<b>7.0</b>	<b>0.0</b>	<b>6.5</b>	<b>-0.1</b>
Russia	8.1	6.8	0.2	6.3	-0.2
<b>Developing Asia</b>	<b>9.7</b>	<b>8.2</b>	<b>-0.4</b>	<b>8.4</b>	<b>-0.4</b>
China	11.4	9.3	-0.7	9.5	-0.5
India	9.2	7.9	-0.5	8.0	-0.2
ASEAN-5 <sup>2/</sup>	6.3	5.8	-0.2	6.0	-0.2
<b>Middle East</b>	<b>5.8</b>	<b>6.1</b>	<b>0.2</b>	<b>6.1</b>	<b>0.1</b>
<b>Latin America</b>	<b>5.6</b>	<b>4.4</b>	<b>0.1</b>	<b>3.6</b>	<b>-0.4</b>
Brazil	5.4	4.8	0.3	3.7	-0.3
Mexico	3.3	2.0	-0.6	2.3	-0.7

<sup>1/</sup> Change vs. January 2008 forecasts.

<sup>2/</sup> Includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam.

Source: IMF, World Economic Outlook, April 2008.

Despite expectations of a slower rate of growth in 2008, inflationary risks have increased, reflecting the pressures in commodity markets, the pass-through effect of at least part of the price increases in these products to core inflation and, in some countries, solid demand growth. This scenario of downside risks for economic activity and upside risks for inflation implies decisions that are particularly difficult for most central banks.

The current account deficit in the United States has narrowed significantly, from a maximum of 6.8 percent of GDP during the fourth quarter of 2005, to 4.9 percent during the same quarter of 2007. The International Monetary Fund forecasts an additional reduction (slightly above 4 percent of GDP) in 2008. Nevertheless, the imbalance remains high and risks of a sudden adjustment have not disappeared.

The persistently high current account deficit in the U.S. results from the imbalance between domestic savings and investment, and the rest of the world's willingness to finance a considerable expansion of domestic expenditure in that country. Reducing the current account deficit to sustainable levels will thus require a moderation in the growth of consumption, that allows an appropriate increase in domestic savings.

### 3.2. Aggregate Demand and Supply in Mexico

Available information on economic activity during the first quarter of 2008 suggests that GDP would have grown around 3 percent in annual terms during that period. This figure, as well as the rest of information on levels of activity, will be influenced by the Easter holiday, which this year took place in March, as compared with the previous year, when it took place in April. The same effect will influence the annual growth of production and demand, recording opposite behaviors in April, which will also affect the annual growth of these figures during the second quarter. After seasonally adjusting the figures (which

also implies adjusting for the aforementioned effect), GDP is expected to have grown during the first quarter of 2008 close to 4 percent in annual terms (Graph 10).<sup>23</sup>

These results reflected various factors that allowed the economy to not be severely affected by the reduction in the rate of growth of the U.S. economy during this period. Nevertheless, there are certain elements that, together with the previously mentioned outlook for the U.S. economy, suggest that, for the rest of the year, the risks of a greater slowdown in Mexico have increased.

### 3.2.1. Production by Sector

During the first quarter of 2008, GDP recorded positive figures in annual terms in the three sectors that comprise it, although the services sector continued to grow more than the agricultural and industrial sectors.<sup>24</sup> The industrial sector, however, grew at a higher rate than in the previous quarters. In particular, during the first two months of 2008, industrial production grew 4 percent (Graph 11), as compared with 3.1 and 1.9 percent during the fourth quarter of 2007 and during the entire 2007, respectively. The aforementioned basically reflects the improved results of manufacturing production, which increased 6.2 percent in annual terms during the first two months, as compared with 2.7 percent in annual terms during the entire 2007.<sup>25</sup> Figures for March will be affected by the effect of the Easter holiday, although once the quarterly figures are adjusted for seasonality and the referred effect, the annual growth of manufacturing activity during the first quarter will also surpass considerably the figures recorded during the previous year.

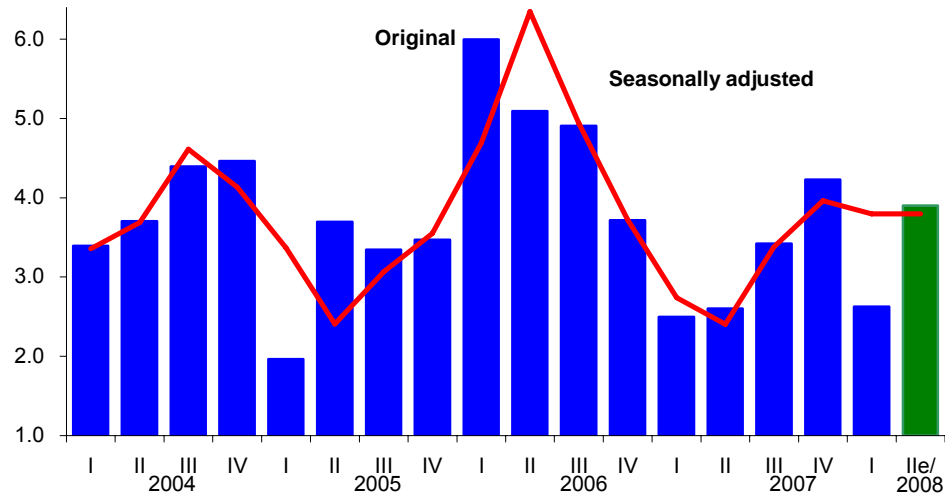
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<sup>23</sup> At the end of April, INEGI released information on the country's National Accounts with year base 2003 (previously, the base was 1993), which has been incorporated to this Report. This revision suggests that during the fourth quarter of 2007 GDP grew at a rate higher than that published previously, with year base 1993.

<sup>24</sup> The Global Indicator of Economic Activity (*Indicador Global de la Actividad Económica*, IGAE) grew at an annual rate of 4.7 percent in annual terms during the first two months of the year. This result was due to growth in the three sectors that comprise it: industrial (4 percent), services (5.3 percent), and agricultural (2.1 percent).

<sup>25</sup> Construction and Electricity grew 3.6 and 7.5 percent, respectively (3 and 7.2 percent in 2007), while Mining fell 4.1 percent in annual terms (3.4 percent decline in 2007).

**Graph 10**  
**Gross Domestic Product <sup>1/</sup>**  
 Annual percentage change



e/ Estimated.

<sup>1/</sup> Measurement based on the National Accounts Base 2003.

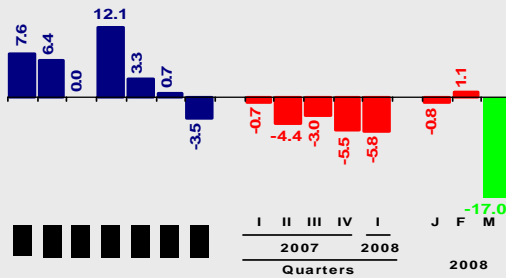
Source: INEGI and seasonal adjustments up to the first quarter of 2008 done by Banco de México.

The recent behavior of manufacturing production has been influenced significantly by manufacturing exports. Although manufacturing exports to the U.S. have grown at a lower rate, mirroring the phase of the cycle the U.S. economy is currently undergoing, the effect of this event on the dynamics of total manufacturing exports has been offset by two factors: i) manufacturing exports to other countries have grown more rapidly than those to the U.S., and ii) automotive exports have grown at higher rates, partly reflecting that some Mexican-assembled vehicles have gained share in U.S. domestic vehicle sales.

**Box 2**
**Weakness of Domestic Sales of Vehicles and Used-vehicle Imports<sup>1/</sup>**

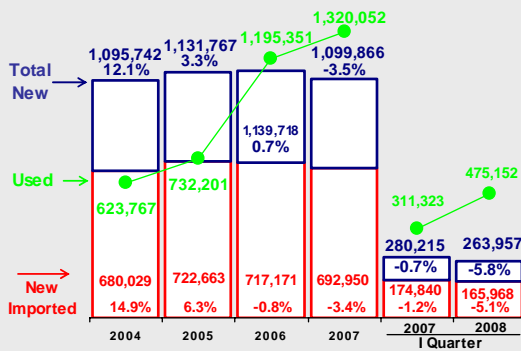
During the last years, retail sales of new vehicles in Mexico slowed markedly, by recording annual variations of 3.3, 0.7, and -3.5 percent in 2005, 2006, and 2007, respectively. The weakness of these sales continued during the first quarter of 2008, by decreasing 5.8 percent (Graph 1). The latter has responded mainly to the high level of used vehicles that have and are imported.

**Graph 1**  
Domestic Sales of Vehicles (Retail)  
Annual percentage change



The weakness of sales of new vehicles in Mexico is associated with the strong increase in imports of used units (car models 10 and 15 years old). These imports rebounded significantly since the end of 2005, when these vehicles were allowed to circulate in the entire country. In fact, during 2006, 2007, and the first quarter of 2008, the number of imported used vehicles surpassed the domestic sales of new vehicles (both, produced domestically and imported; Graph 2). The share of used vehicles in Mexico's total value of imported vehicles increased from 9 percent in 2004, 14.2 percent in 2006, to 16.5 percent in 2007, and 24.4 percent during the first quarter of 2008.

**Graph 2**  
Domestic Sales of Vehicles and Imported Used Vehicles  
Number of units and annual percentage change

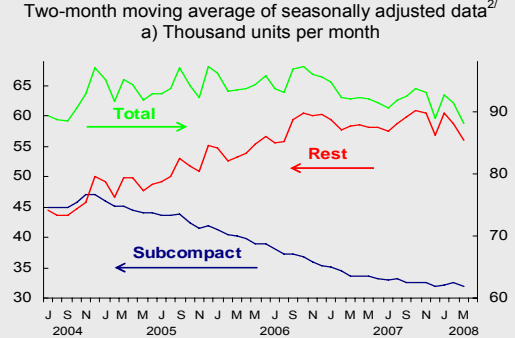


The average price of imported used vehicles has been between 1,300 and 1,700 US dollars per unit (Table 1), thus suggesting that the inclusion of imported used vehicles in the domestic market has affected mainly the domestic sales of new subcompact vehicles (low-priced vehicles). The latter recorded an annual reduction of 13, 13.2, and 7.3 percent in 2006, 2007, and during the first quarter of 2008 (Table 2). Seasonally adjusted data shows how the long-lasting fall of subcompact vehicles has affected total retail car sales. Since the end of 2007, domestic sales of the rest of vehicles have also fallen (Graph 3).

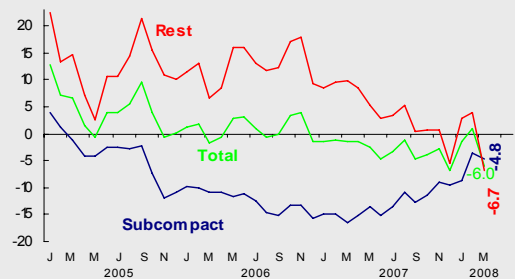
**Table 1**  
Average Price of Imported Used Vehicles  
USD per unit

	Vehicles	Pick-ups	Total
2005	1,322	1,697	1,478
2006	1,445	1,487	1,454
2007	1,622	1,602	1,617
2008			
Jan-Mar	1,661	1,635	1,654

**Graph 3**  
Domestic Sales of Vehicles  
Two-month moving average of seasonally adjusted data<sup>2/</sup>



b) Annual percentage change



**Table 2**  
Production and Domestic Sales of Vehicles (Retail)  
Annual percentage change

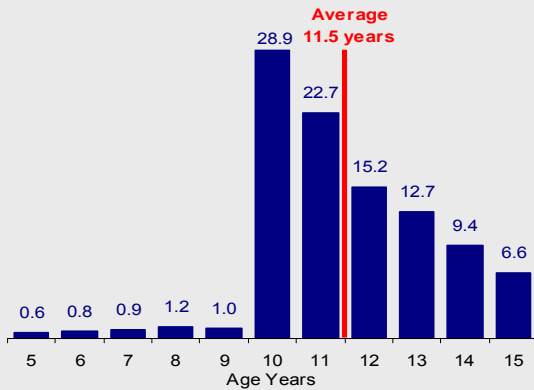
	2005	2006	2007	2008
<b>Production</b>	8.7	21.1	2.0	7.3
For domestic market	4.3	4.1	-5.5	-11.4
For external market	10.6	27.9	4.5	14.3
<b>Total Domestic Sales</b>	3.3	0.7	-3.5	-5.8
Subcompact	-5.4	-13.0	-13.2	-7.3
Rest	12.1	12.5	3.0	-4.9

Imports of used vehicles are inducing to consume more gasoline in the country, by significantly increasing the age of circulating vehicles. According to a sample of 263 thousand vehicles that were imported during the period from December 2007 to March 2008 (equivalent to 40 percent of total vehicles used during that period), which were identified by their year make, their average age was 11.5 years, concentrating highly in models 10 and 11 years old (51.6 percent of the total sample; Graph 4).

<sup>1/</sup> Information presented in this box was prepared by Banco de México with statistics from AMIA (Asociación Mexicana de la Industria Automotriz), ANPACT (Asociación Nacional de Productores de Autobuses, Camiones y Tractocamiones, A.C.), and SAT (Sistema de Administración Tributaria).



**Graph 4**  
**Age of Imported Used Vehicles**  
 December 2007 – March 2008  
 Percentage structure



The annual increases of vehicle production recorded during 2007 and during the first quarter of 2008 (2 and 7.3 percent, respectively) were the result of a higher number of units assembled for the export market and a decline in those for the domestic market (Table 2 and Graph 5). The weakness of the latter is reflecting the effects of the significant number of used vehicles that are being imported.

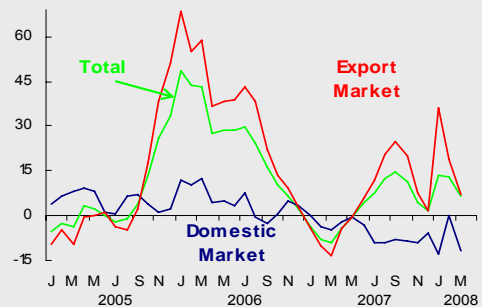
Imports of used vehicles have indeed affected negatively the domestic sales of new vehicles and, consequently, the automotive industry's production levels. These imports have also increased the age of circulating vehicles in the country, therefore affecting significantly both the levels of air pollution as well as fuel consumption efficiency. The weakness of domestic sales of subcompact vehicles (which, in general terms, consume less fuel) over the last three years is clearly reflecting the increasing number of imported used vehicles, which, due to their age, have more engine cylinder volume, and, therefore, consume more fuel. For example, in 2007 and during the first quarter of 2008, 25 and 28 percent of imported used vehicles were pick-up trucks.

All of the above has raised the existent subsidy for consumption of gasoline, as a result of the gap between its domestic price and its international references. Imports of used vehicles are also affecting the automotive industry's returns and, possibly, their investments in the country. This sector is very important for the Mexican economy, due to its production value, the jobs that it creates, and its incidence in Mexico's foreign trade (by recording a significant trade balance surplus).

**Graph 5**  
**Total Automotive Production**  
 Seasonally adjusted data and 3-month moving average<sup>3/</sup>  
 a) Thousand units per month



b) Annual percentage change



<sup>3/</sup> Except in 2008.

Since mid-March of this year a new decree went into effect, establishing that only used vehicles with year makes 10 years old at the time of import are allowed to enter the country, thus eliminating the previous 10-15 year make requirement. These vehicles are also required to comply with all environmental regulations, and those vehicles that, due to their particular features and technical characteristics, in their countries of origin are restricted or not allowed to circulate, cannot be imported. In this way, by reducing the age of used vehicles and restricting their imports to their compliance with environmental regulations, the new decree seeks to diminish the adverse impact imported used vehicles have had on air pollution and on gasoline consumption efficiency. Worth mentioning is that in the days after the referred decree went into effect, imports of used vehicles decreased significantly.

**Table 4**  
**Sales of Compact Vehicles in the United States**

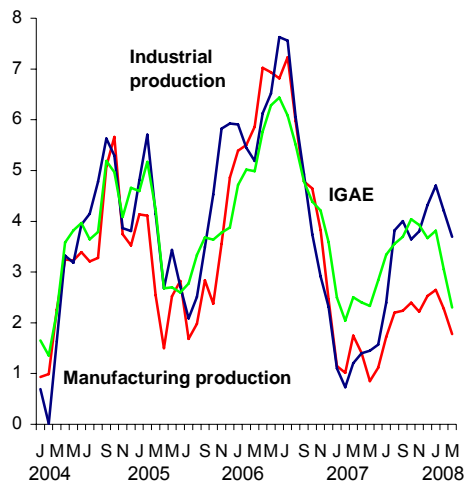
	2005	2006	2007	Quarter I		Annual Variations		Percentage Structure		
				2007		Quarter I		2005	2007	Q-I
				2007	2008	Absolute	Percentage			
<b>Total sales</b>	<b>17,036,999</b>	<b>16,562,578</b>	<b>16,145,140</b>	<b>3,889,454</b>	<b>3,578,918</b>	<b>-310,536</b>	<b>-8.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Asian-assembling companies	6,418,783	6,747,672	6,970,239	1,657,087	1,580,261	-76,826	-4.6	37.7	43.2	44.2
European-assembling companies	1,121,454	1,119,282	1,129,985	256,774	248,935	-7,839	-3.1	6.6	7.0	7.0
American-assembling companies	9,496,762	8,695,624	8,044,916	1,975,593	1,749,722	-225,871	-11.4	55.7	49.8	48.9
<b>Sales of assembled vehicles in NAFTA</b>	<b>13,619,197</b>	<b>12,814,020</b>	<b>12,344,146</b>	<b>2,981,738</b>	<b>2,725,498</b>	<b>-256,240</b>	<b>-8.6</b>	<b>79.9</b>	<b>76.5</b>	<b>76.2</b>
In the U.S. and Canada	12,638,377	11,550,054	11,140,199	2,723,423	2,450,086	-273,337	-10.0	74.2	69.0	68.5
Mexican exports to the U.S.	980,820	1,263,966	1,203,947	258,315	275,412	17,097	6.6	5.8	7.5	7.7
<b>Sales of imported vehicles outside TLCAN</b>	<b>3,417,802</b>	<b>3,748,558</b>	<b>3,800,994</b>	<b>907,716</b>	<b>853,420</b>	<b>-54,296</b>	<b>-6.0</b>	<b>20.1</b>	<b>23.5</b>	<b>23.8</b>

Source: Automotive News for U.S. sales and AMIA for Mexican exports to the U.S.

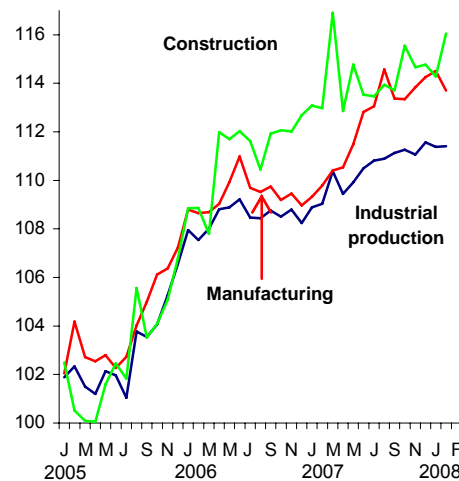
The behavior of automotive production (Graph 12), which also reflects the performance of Mexican vehicle exports, has been a determining factor in the results of manufacturing production in the last months. Indeed, manufacturing production grew 6.2 percent in annual terms during the first two months of the year, as a result of a 27.5 percent increase in production of the transport-equipment subsector, which includes mainly the terminal and autoparts automotive industries (as compared with 12.7 percent in 2007), and a 1.9 percent increase in the rest of manufacturing production (0.7 percent in 2007).

**Graph 11**  
**Production Indicators**

a) IGAE and Industrial Production  
Annual percentage change of seasonally adjusted data and 2-month moving average

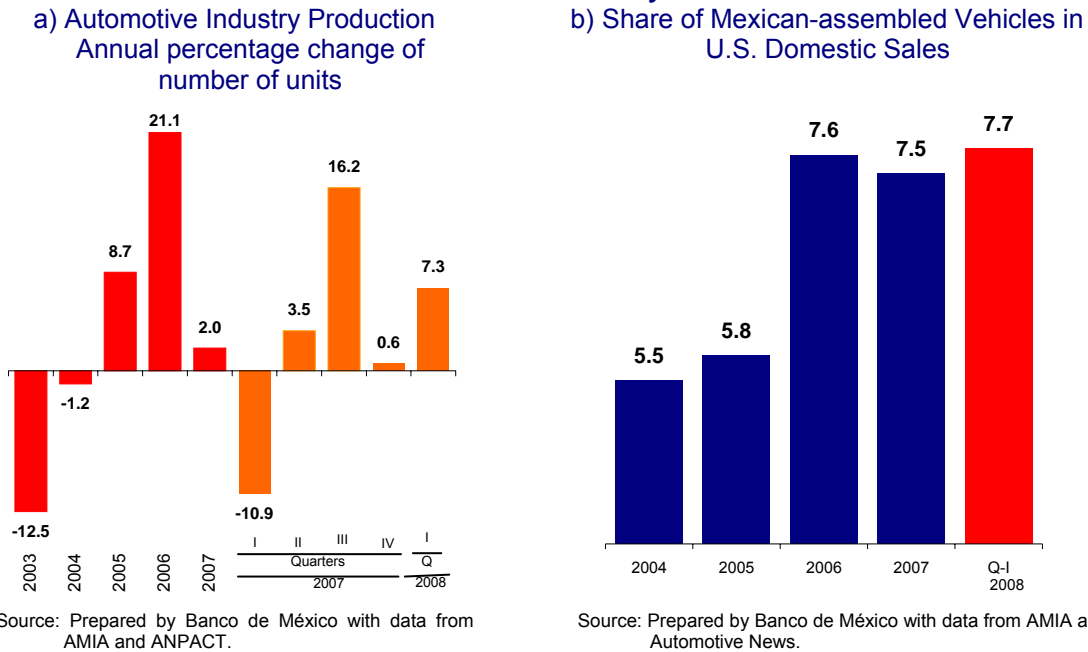


b) Industrial, Manufacturing, and Construction Output  
Seasonally adjusted series; 2004=100



Source: INEGI.

**Graph 12**  
**Automotive Industry**



### 3.2.2. Aggregate Demand

Available indicators on aggregate demand reveal that in the first quarter of 2008, domestic demand continued to grow at slower annual rates, especially mirroring the behavior of private consumption. Growth of goods and services' exports, measured in constant pesos, was close to previous quarter figures. Nevertheless, some indicators on the determinants of the different components of aggregate demand have shown in the last months a behavior that suggests the presence of significant risks of a slowdown in the next months.

As for private consumption, a leading indicator is the growth of ANTAD sales measured in real terms. With seasonally adjusted data, these sales posted an annual variation of 8.3 percent during the first quarter of 2008, as compared with 9.3 percent during the fourth quarter of 2007 and 9.8 percent for the entire 2008 (Graph 13).

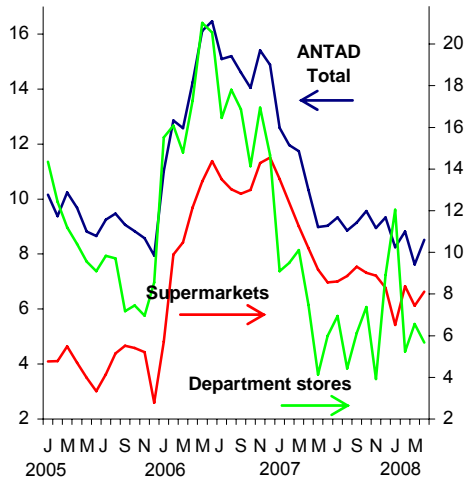
Investment has remained strong in the last months (Graph 14). During the first quarter of 2008, it is expected to have grown close to 11 percent in annual terms, as compared with 7.5 percent during the previous quarter and 6.6 percent during the entire 2007. Two aspects are worth mentioning regarding its behavior:

- i) During the referred quarter, investment was mostly influenced by a 35 percent increase in capital goods imports.<sup>26</sup> Investment in domestic machinery and construction is expected to have grown close to 3 percent in annual terms.

<sup>26</sup> The increase in capital goods' imports during the first quarter of the year mainly reflected the higher growth of Mexican mining (extractive) imports. Information of these imports is preliminary and, because of its volume growth, subject to revisions.

**Graph 13**
**Indicators of Domestic Demand: Consumption**

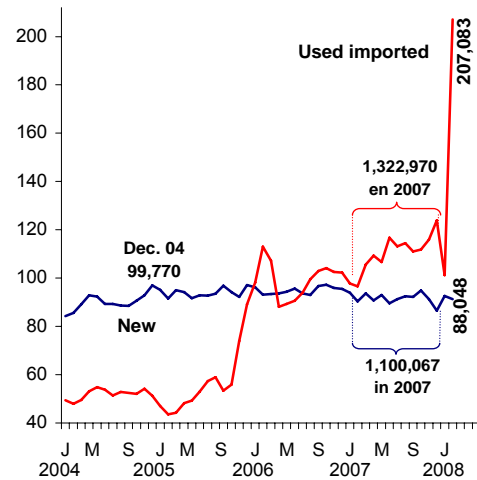
a) ANTAD, Supermarket and Department Stores Sales in Real Terms

 Annual percentage change of seasonally adjusted data<sup>1/</sup>


Source: ANTAD.

<sup>1/</sup> Seasonal adjustments by Banco de México, 2-month moving average, except for IV-quarter 2007 onwards.

b) Domestic Retail Sales of New Vehicles and Used-vehicle Imports

 Thousand units per month and seasonally adjusted data<sup>1/</sup>


Source: AMIA and ANPACT.

<sup>1/</sup> Seasonal adjustments by Banco de México, 2-month moving average, except for IV-quarter 2007 onwards.

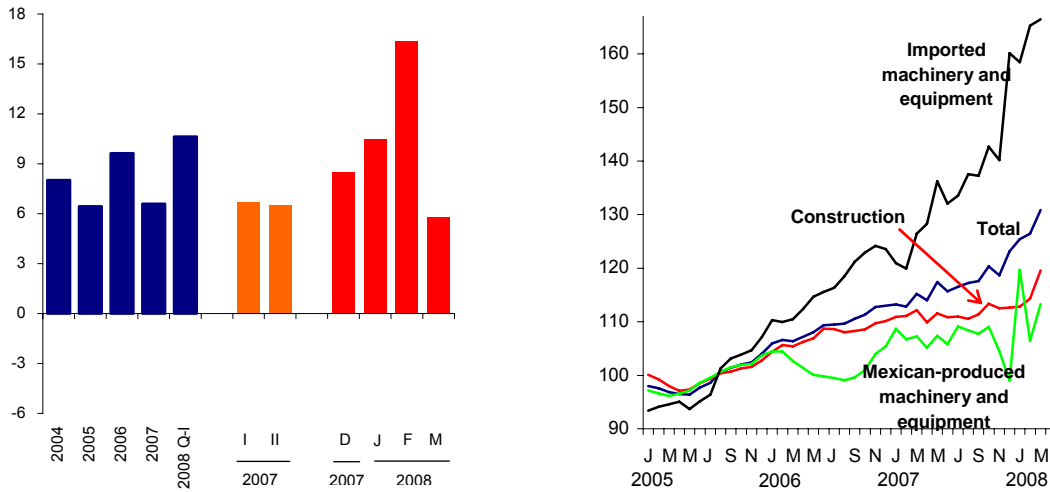
- ii) Available information suggests that during 2008 public expenditure grew considerably in annual terms, therefore contributing significantly to GDP growth. During the first two months of the year, public expenditure grew 16 percent at an annual rate in real terms, mainly boosted by expenditure in physical investment (60 percent annual growth in real terms). Financing for public expenditure has been favored by increased revenues from the higher prices of oil prevailing in international markets.

Finally, external demand has been influenced by opposite events during the quarter, which, in net terms, contributed to the solid growth of non-oil exports.

The recent behavior of both public expenditure and non-oil exports has contributed up to now to prevent the effects of the U.S. slowdown from considerably affecting the Mexican economy.

**Graph 14**
**Indicators of Domestic Demand: Investment <sup>1/</sup>**

 a) Gross Fixed Capital Formation  
Annual percentage change

 b) Gross Fixed Investment and Components  
2005=100, seasonally adjusted series and  
3-month moving average, except from 2007  
onwards


Source: INEGI.

<sup>1/</sup> Data for February, March, first quarter, and the corresponding seasonally adjusted series are estimated by Banco de México.

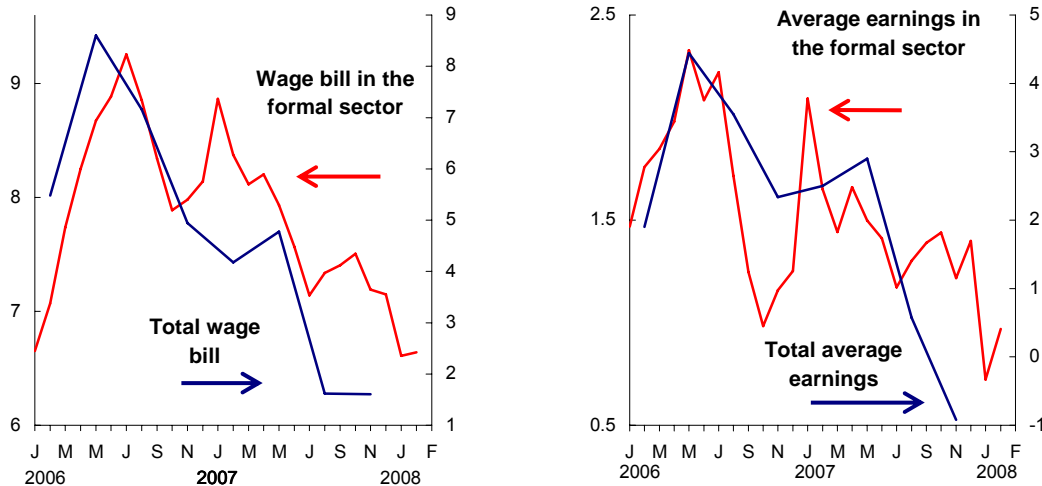
Nevertheless, there are certain elements that suggest considerable risks of a greater slowdown of aggregate demand in the next months. In particular, besides the impact of a slower rate of growth (or recession) in the U.S., the following risks must be considered:

- a) Wage bill indicators (in real terms) point to a slowdown for both the total economy and the formal sector (Graph 15). This behavior responds to the slower rate of growth of job creation and to slower annual growth in earnings in real terms.<sup>27</sup>
- b) Although still remaining high, at the margin, financing for private consumption has been growing at slower annual rates (see section 3.4.2 Monetary Aggregates and Financing of this Report).
- c) Revenues from workers' remittances have been growing at slower annual rates and, during the first quarter of 2008, recorded an annual reduction in absolute terms. These results seem to be associated with the weakening of economic activity in the U.S., particularly, of the construction industry (Box 3).
- d) The worsening outlook for the world economy has affected negatively expectations on Mexican economic growth and on business confidence

<sup>27</sup> During the first two months of 2008, the wage bill in real terms grew at an annual rate of 6.6 percent in the formal sector, after having grown 8, 7.3, and 7.2 percent in the second, third, and fourth quarter of 2007. As for the IMSS average reference wage, it grew in real terms 0.8 percent at an annual rate during the first two months of this year, as compared with 1.6, 1.2, and 1.3 percent during the second, third, and fourth quarters of 2007.

and business climate indicators, which might affect investment in the next months.

**Graph 15**  
**Total Wage Bill and Average Earnings in Real Terms**  
 Annual percentage change of seasonally adjusted data



Source: Prepared with data from IMSS (average reference wage and number of workers insured) and INEGI (Occupation and Employment Survey-*Encuesta Nacional de Ocupación y Empleo*, ENOE, using earnings per hour-worked, hours worked per week, and remunerated workers). Seasonal adjustments by Banco de México.

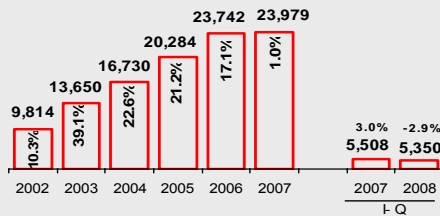
During the first quarter of 2008, and in line with the phase of the cycle the Mexican economy is undergoing, no pressures arose on the economy's production capacity:

- i) Different indicators on output gap continued to be, in general terms, close to zero.
- ii) In the particular case of manufacturing, various indicators prepared by Banco de México show that in the first months of this year, this activity did not face problems of skilled-labor shortage that would imply wage pressures (Graph 16). Also, different indicators on used installed capacity suggest that it weakened in recent months.
- iii) The moderate deficit of the current account of the balance of payments recorded during the first quarter of the year also indicates that no pressures on the demand side arose that could affect the exchange rate market or domestic prices.

**Box 3**
**Recent Developments in Revenues from Workers' Remittances <sup>1/</sup>**

Revenues from workers' remittances slowed during 2007 and more markedly during this year. In 2007, remittances to Mexico amounted to 23,979 million US dollars (annual growth of 1 percent, after having grown 17.1 percent in 2006, Graph 1). During the first quarter of 2008, remittances to Mexico totaled 5,350 million US dollars (annual reduction of -2.9 percent). In 2007, revenues from remittances fell in 11 states, and during the first quarter of 2008, in 18 states.

**Graph 1**  
**Workers' Remittances**  
Million USD



**Table 1**  
**U.S.: Mexican Migrant Workers by Sector**  
First quarter 2008 and percent

Sector	Sector distribution	Share in sector's total occupation
Primary	5.5	18.6
Industrial	37.4	8.9
Construction	21.8	13.7
Manufacturing	14.9	6.4
Mining	0.5	5.1
Electricity	0.2	0.9
Services	57.1	3.5
<b>Total</b>	<b>100.0</b>	<b>4.8</b>

Several factors have influenced the recent behavior of remittances to Mexico: i) the weakness of economic activity in the U.S., particularly, of its construction industry (Graph 2); ii) more problems Mexican-origin migrants face, due to greater surveillance by U.S. authorities at the border; iii) greater difficulties illegal Mexican-origin migrants face to find jobs, due to stricter controls by U.S. authorities in the workplace; and, iv) the end of the upward effect in remittances statistics created by an improvement in the coverage and measurement of these transactions. Workers' remittances continue to be a significant source of income for many Mexican families.

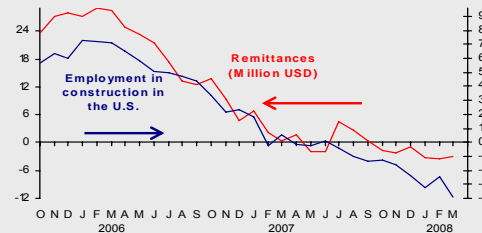
**Table 2**  
**U.S.: Unemployment Rate <sup>1/</sup>**  
Percentage of EAP\* in each group

	2007		2008	Growth
	First quarter			
<b>Total</b>	4.82	5.28	0.46	
Non-hispanic	4.65	4.98	0.33	
Hispanic	5.86	7.11	1.25	
<b>Mexican Migrants</b>	5.36	8.12	2.76	
Men	5.00	7.56	2.57	
Women	6.25	9.48	3.23	

<sup>1/</sup> Original data.  
\* Economically Active Population.

**Graph 2**  
**Workers' Remittances to Mexico <sup>1/</sup> and Employment in Construction in the U.S.**

Annual percentage change of seasonally adjusted data



<sup>1/</sup> Two-month moving average (except in 2007 and 2008).  
Source: Bureau of Labor Statistics (BLS).

The weakness of economic activity in the U.S. has been particularly significant in the construction industry. This industry employs 22 percent of Mexican migrant workers in that country (Table 1). In fact, almost 14 percent of the construction labor force is composed of Mexican migrants. One fifth of the agricultural labor force in the U.S. is also made up of Mexican migrants. Under this context, the two sources of employment that recorded higher unemployment rates at the end of March 2008 were construction and agricultural activities, which concentrate a high number of Mexican migrants.

**Table 3**  
**U.S.: Unemployment Rate by Level of Schooling**  
Individuals over 24 years and seasonally adjusted data

	2007		2008		Difference
	March				
Less than High School	6.9	8.2	1.3		
High School	4.1	5.1	1.0		
Incomplete College	3.5	3.8	0.3		
College and Higher Education	1.8	2.1	0.3		

The lesser strength of demand for labor in the U.S. has been reflected in a higher rate of unemployment, which recorded an increase of 0.46 percentage points from the first quarter of 2007 to the first quarter of 2008. During this period, the unemployment rate was very high for Mexican migrant workers (2.76 percentage points; Table 2), especially women.

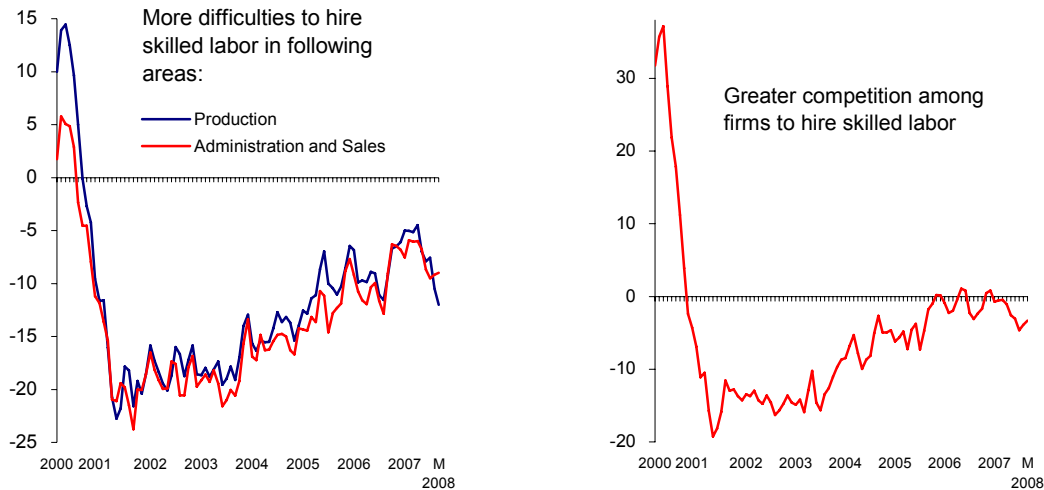
The rate of unemployment for workers with a low level of education in the U.S. is very high (Table 3). In fact, it has increased significantly. Under this context, the low level of schooling of Mexican migrant workers as compared with the rest of the U.S. labor force is a factor that has contributed to the significant increase in the rate of unemployment of Mexican migrant workers in the U.S. (Table 4).

**Table 4**  
**U.S.: Labor Force Level of Education**  
Percentage structure

	Total	Mexican migrants
Less than High School	11.0	57.3
High School	29.0	26.5
Incomplete College	28.7	10.8
College and Higher Education	31.3	5.4
	100.0	100.0

<sup>1</sup> Tables 1, 2, 3 and 4 were prepared by Banco de México, with data from the Current Population Survey, from the U.S. Census Bureau.

**Graph 16**  
**Labor Shortage in the Manufacturing Sector**  
 2-month moving average of balance of responses



Source: Results obtained from Banco de México's Monthly Survey on Manufacturing Activity. Balance of responses refers to the weighted percentage of companies mentioning having faced difficulties to hire labor (or companies mentioning an increase in the number of workers that quit their jobs in order to start working for other companies), minus those mentioning having faced less difficulties to hire labor.

### 3.2.3. Employment

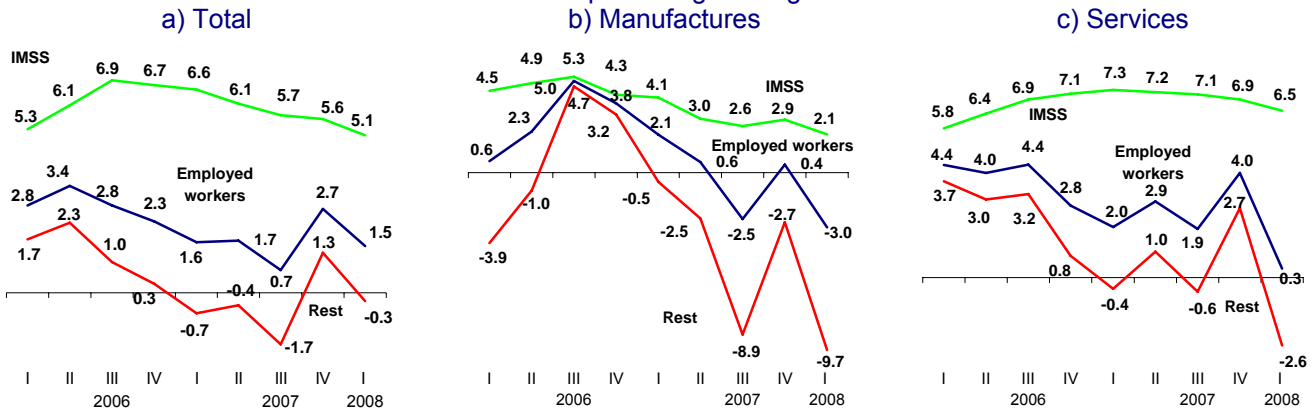
At the margin, the demand for labor in the economy slowed. The latter is evident when considering estimates from Banco de México on the results from INEGI's Occupation and Employment Survey (*Encuesta Nacional de Ocupación y Empleo, ENOE*), which includes the total labor market in the country. These estimates suggest that the number of employed workers in the country grew at a slower rate at the beginning of 2008 (Graph 17). Despite growing at an annual rate above GDP, the number of workers insured by the IMSS also slowed.<sup>28</sup>

At the end of March of this year, 14,848,205 workers were insured by the IMSS (permanent and temporary in urban areas), an annual growth of 4.4 percent and 626,370 individuals (Graph 18a). Thus, considering that at the end of 2006 and 2007 the corresponding figures were 879,533 and 756,352 workers insured (6.72 and 5.42 percent), this indicator grew at a slower rate during the first months of the year. The greater slowdown was observed in the industrial sector, particularly in the manufacturing and construction industries (Graph 18b). At the end of March, the number of workers insured by the IMSS in services grew 5.9 percent (495,413 workers) in annual terms, as compared with 6.7 percent (550,076 workers) at the end of December 2007, while in manufacturing, 1.5 percent (61,312 workers), as compared with 3 percent (119,162 workers) at the end of 2007.

<sup>28</sup> As mentioned in previous Inflation Reports, it is possible that the growth in the number of workers insured could also be reflecting IMSS greater fiscalization efforts, considering that this indicator of formal employment has grown at a significantly higher rate than GDP.



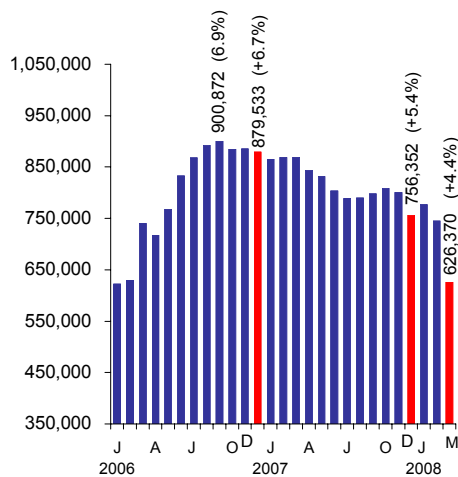
**Graph 17**  
**Total Population Employed and Workers Insured by IMSS**  
 Annual percentage change



Source: INEGI and IMSS. Data on Employed Population was obtained from INEGI's Occupation and Employment Survey (*Encuesta Nacional de Ocupación y Empleo, ENOE*) and includes the primary, secondary, and services sectors. Figures for Employed Population for the first quarter of 2008 were estimated by Banco de México. Quarterly information by IMSS corresponds to the same sectors and is presented as an average of monthly figures. The item Rest is obtained by deducting the number of workers insured by the IMSS from the employed population from the ENOE.

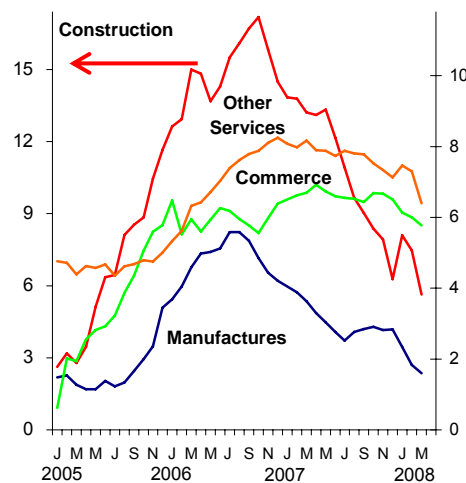
**Graph 18**  
**Workers Insured by IMSS**

a) Number of Workers Insured  
 Annual change of original data



Source: IMSS.

b) Annual percentage change of seasonally adjusted data



Source: IMSS and seasonal adjustments by Banco de México.

### 3.2.4. External Sector

The main aspects characterizing Mexico's external sector during the first quarter of 2008, were as follows:

- a) Total exports grew 16.4 percent in annual terms, as compared with 14.9 percent during the fourth quarter of 2007 and 8.8 percent during the entire 2007. This result is attributed to the growth of oil and non-oil exports (50.3 and 10.7 percent, respectively) (Graph 19).
- b) Oil exports grew at a high annual rate during the period, basically as a

result of the high level of the average price of the crude oil export Mix (82.98 US dollars), as the volume of exported crude oil decreased (by 12.4 percent). The growth in the value of oil exports allowed for offsetting the higher value of oil-product imports (54 percent in annual terms during the first quarter of the year), so the surplus of the oil trade balance (5,205 million US dollars during the first quarter) was at levels close to those recorded during the previous quarter (5,243 million), surpassing that of the first quarter of the previous year (3,588 million). Worth mentioning is that regarding foreign trade of oil-products, the value of gasoline imports during the first quarter remained high, accounting for 27 percent of the value of crude oil exports (Graph 20a, b and c).

**Graph 19**

**Merchandise Exports and Imports**

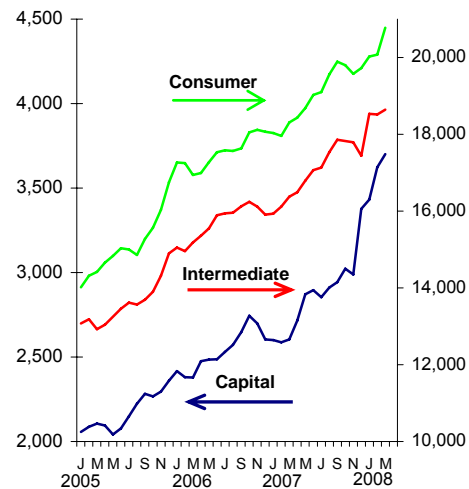
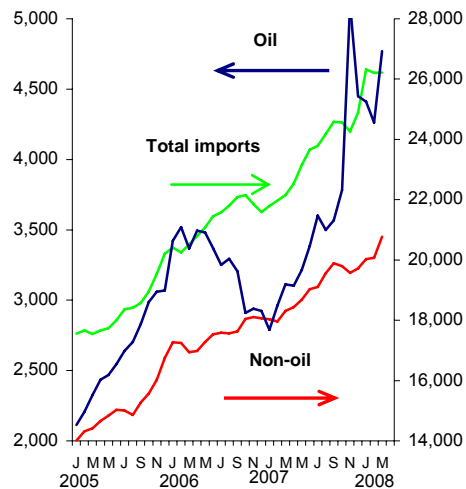
Million US dollars; seasonally adjusted data and

2-month moving average, except from the fourth quarter 2007 onwards

a) Oil and Non-oil Exports, and

b) Imports

Total Imports



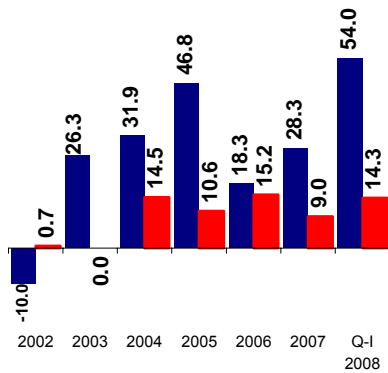
Source: Banco de México.

- c) Non-oil exports grew slightly above the rate observed during the fourth quarter of last year (10.7 percent vs. 9.2 percent). When considering seasonally adjusted data, the difference between both rates is more evident, as these exports were affected by the effect of the Easter holiday. After seasonally-adjusting the figures, non-oil exports grew 11.9 percent during the first quarter, as compared with 8.4 percent during the fourth quarter of 2007.
- d) Table 5 allows for identifying the different factors that determined non-oil exports' results. First, automotive exports grew rapidly, from 5.7 percent in 2007 to 12.8 percent during the first quarter of 2008. During the first quarter of 2008, the rest of non-oil exports grew very similarly in annual terms to 2007 (10.1 percent during the first quarter of 2008 and 9.5 percent during 2007). Therefore, the automotive sector contributed, to a great extent, to the higher rate of growth recorded by non-oil exports from 2007 to the first quarter of 2008 (Graph 21).

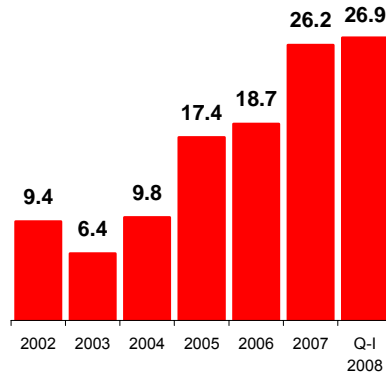
Second, exports' growth to different regions needs to be analyzed (Table 5 and Graph 22). Under this context, exports to countries other than the U.S. have grown at a significantly higher rate than those to the U.S.<sup>29</sup> Indeed, during the first quarter of 2008, exports to the U.S. grew 7.7 percent, while those to the rest of the world, 25.9 percent.

**Graph 20**  
**Oil Product Imports**

a) Oil and Non-oil Imports  
Annual percentage change

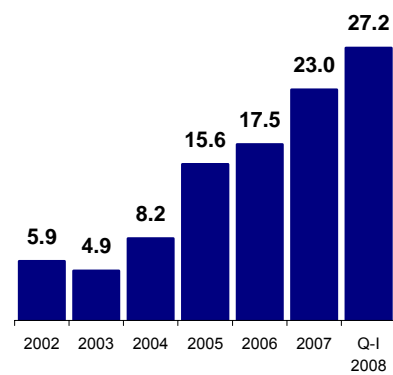


b) As a Proportion of the Value of  
Crude Oil Exports



Gasoline Imports:

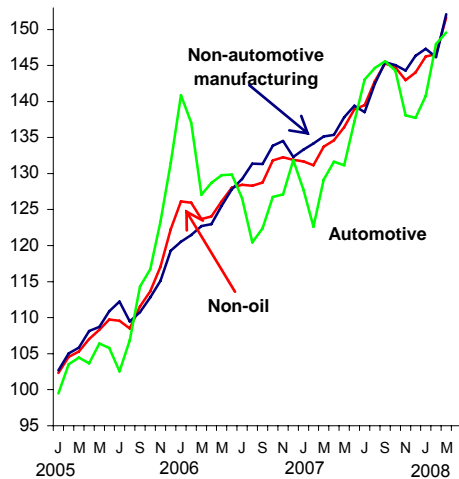
c) Share of Consumer Goods  
Imports



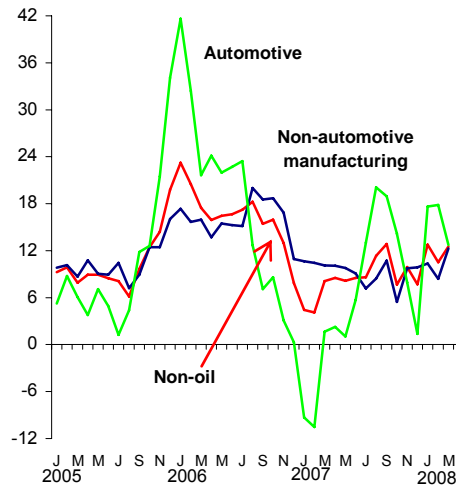
Source: Banco de México.

**Graph 21**  
**Merchandise Exports**

a) 2004=100 and seasonally adjusted data



b) Annual percentage change



Source: Banco de México.

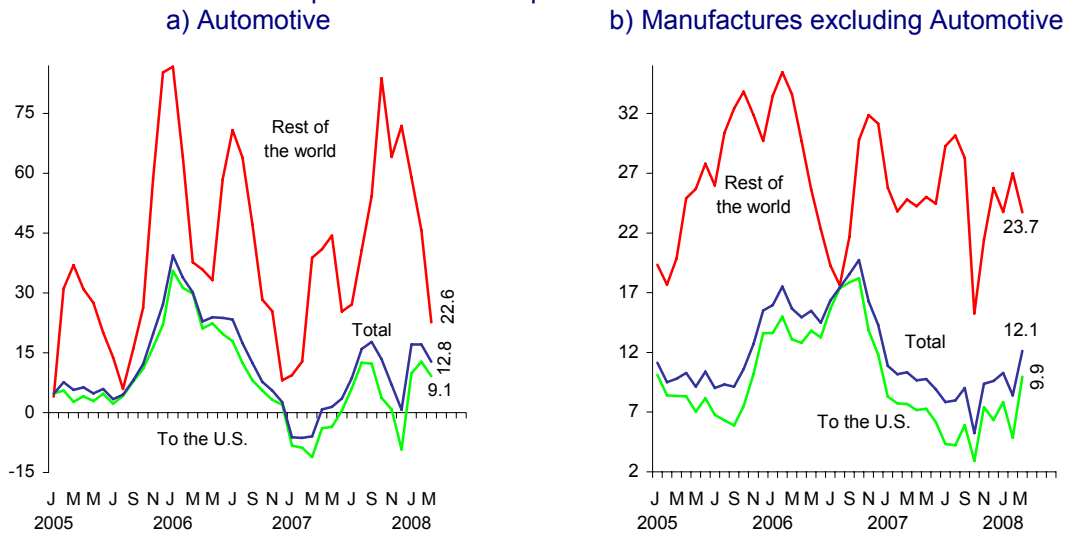
<sup>29</sup> As already discussed in the previous paragraph, even the slight rebound in exports to the U.S. during the first quarter of 2008, as compared with 2007, is solely attributed to the higher automotive sales.

**Table 5**  
**Growth of Non-oil Exports to Different Markets**  
**in 2007 and First Quarter of 2008**  
 Percent

	Share		Annual Growth			
	2007	2008	2007	2007	2008	
		Q-I		Q-IV	March	Q-I
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>8.51</b>	<b>9.22</b>	<b>8.54</b>	<b>10.72</b>
<b>United States</b>	<b>82.54</b>	<b>80.99</b>	<b>4.83</b>	<b>4.90</b>	<b>7.03</b>	<b>7.68</b>
Automotive	20.41	19.70	-0.15	-1.26	-1.94	8.11
Other	62.14	61.29	6.57	7.01	10.23	7.54
<b>Rest of the world</b>	<b>17.46</b>	<b>19.01</b>	<b>30.16</b>	<b>33.52</b>	<b>15.60</b>	<b>25.88</b>
Automotive	4.11	4.59	48.89	74.04	17.84	38.25
Other	13.34	14.42	25.30	24.18	14.87	22.39
<b>Memo:</b>						
<b>Total automotive</b>	<b>24.52</b>	<b>24.29</b>	<b>5.69</b>	<b>7.44</b>	<b>1.37</b>	<b>12.75</b>
<b>Total other</b>	<b>75.48</b>	<b>75.71</b>	<b>9.46</b>	<b>9.80</b>	<b>11.06</b>	<b>10.09</b>

Source: Banco de México.

**Graph 22**  
**Manufacturing Exports to Different Markets**  
 Annual percentage change of seasonally adjusted data and 3-month moving average,  
 Except from the fourth quarter of 2007 onwards



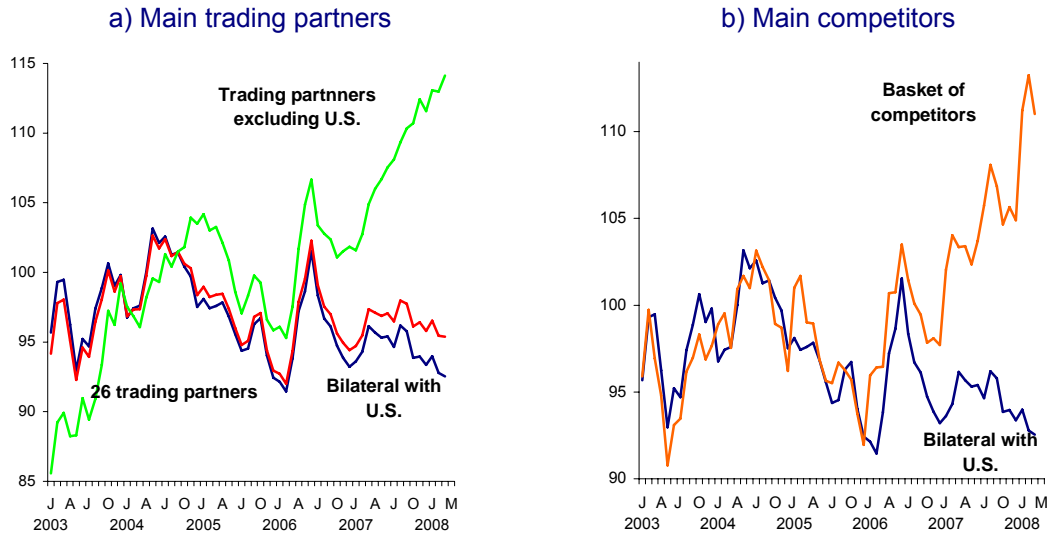
Source: Banco de México.

- e) A factor that has allowed for a greater diversification of Mexican non-oil exports destinations since 2004 has been the fact that the real exchange rate of the peso vs. the US dollar has not changed significantly, in a context where the US dollar has depreciated considerably against other currencies. These conditions have contributed to a real depreciation of the peso against non-US dollar currencies.

The latter is shown in Graph 23, where the real exchange rate of the peso against the US dollar appreciated slightly from 2004 to the first quarter of 2008 (6.9 percent). In a context of a significant depreciation of the US dollar vs. other main currencies, in real terms, from 2004 to the

first quarter of 2008, the peso depreciated by 13.4 percent as compared to the group of Mexico's 25 main trading partners (excluding the U.S.).<sup>30</sup>

**Graph 23**  
**Real Exchange Rate Indices for the Mexican Peso<sup>1/</sup>**  
 2004=100



1/ An increase in the index represents a real exchange rate depreciation.  
 Source: Banco de México.

- f) In the last two years, the peso also depreciated in real terms against the basket of Mexico's main competitors in the U.S. market (Graph 23 b).<sup>31</sup> This situation has contributed to mitigate the impact of the slower growth of the U.S. economy on the volume of non-oil exports to that country.
- g) Merchandise imports grew at a significantly annual rate in all of its three components (intermediate, capital, and consumer goods) during the first quarter of the year.<sup>32</sup> This growth partly reflects the recent development in the various components of aggregate demand. However, the value of imports was influenced upward by the referred increase in oil-product imports (whose prices have increased) and by the high growth in the average prices of a group of commodity imports, particularly, of agricultural products and selected foods (Box 4).

<sup>30</sup> To calculate the real multilateral exchange rate, Mexico's 25 main non-oil export markets (excluding the U.S.) were considered. In Graph 23a, the index pertaining to 26 trading partners includes the U.S., recognizing its specific weight in Mexican-non-oil exports.

<sup>31</sup> The basket of Mexico's 11 competitor countries in the U.S. market shown in Graph 23b includes China, the Philippines, South Korea, Thailand, Malaysia, Hong Kong, Indonesia, Hungary, Turkey, Poland, and Portugal. The methodology for determining this basket of Mexico's competitors in the U.S. market is described in Banco de México's research paper no. 2007-12 "La Ventaja Comparativa y el Desempeño de las Exportaciones Manufactureras Mexicanas en el Periodo 1996-2005" by Daniel Chiquiar, Edna Frago and Manuel Ramos Francia. The currencies of these countries were weighted based on the value of U.S. imports from each of these countries in 2006-2007.

<sup>32</sup> During the first quarter of the year, the value of merchandise imports grew at an annual rate of 17.5 percent, as a result of 13.7, 22.1 and 35 percent increases in intermediate, consumer, and capital goods' imports, respectively. When excluding oil products, total imports and intermediate and consumer imports grew at significantly lower rates (14.3, 11.5, and 9.5 percent, respectively). In the case of capital goods' imports, as mentioned in footnote 26, during the first quarter of 2008, their growth was influenced by the growth of imports of the mining industry. Figures are preliminary and subject to change.

During the first quarter of 2008, revenues from workers' remittances totaled 5,350 million US dollars, an annual fall of 2.9 percent. This result gains relevance when considering that in 2007, this source of revenues had already slowed considerably, by growing only 1 percent in annual terms (Box 3).

Based on the aforementioned, and on available information on other items of the external accounts, the current account of the balance of payments is expected to have recorded a deficit of approximately 4 billion US dollars during the first quarter of 2008 (Table 6). The capital account is expected to have recorded a surplus of nearly 10 billion US dollars (including errors and omissions) during the same quarter. This balance would be the result of the following: revenues from foreign investment flows (direct and portfolio) and external financing for Pidiregas projects; and, outflows from both public sector's payment of foreign debt and an increase in assets held abroad.<sup>33</sup> During the first quarter of 2008, Banco de México's net international reserves increased by 6,051 million US dollars, thus implying that at the end of March, the stock of international reserves was 84,042 million US dollars.

**Table 6**  
**Balance of Payments**  
Million US dollars

	2006		2007				2008
	Annual	Annual	Q-I	Q-II	Q-III	Q-IV	Q-I
<b>Current Account</b>	<b>-2,220</b>	<b>-7,281</b>	<b>-2,428</b>	<b>-1,405</b>	<b>-1,166</b>	<b>-2,282</b>	<b>-3,949</b> <sup>e/</sup>
Trade balance	-6,133	-11,100	-2,454	-2,456	-2,510	-3,681	-3,547
Exports	249,925	271,875	60,269	67,656	70,269	73,681	70,126
Imports	256,058	282,975	62,723	70,112	72,779	77,362	73,673
Non-factor services	-5,736	-6,639	-525	-1,909	-2,264	-1,941	-1,000
Factor services	-14,476	-13,894	-5,061	-3,491	-2,804	-2,538	-4,852
Transfers	24,124	24,352	5,611	6,451	6,412	5,878	5,450
Workers' remittances	23,742	23,979	5,508	6,351	6,339	5,781	5,350
<b>Capital Account</b>	<b>-2,046</b>	<b>19,633</b>	<b>4,377</b>	<b>2,616</b>	<b>5,544</b>	<b>7,097</b>	<b>10,000</b> <sup>e/</sup>
<b>Errors and Omissions</b>	<b>3,263</b>	<b>-2,066</b>	<b>-436</b>	<b>-465</b>	<b>-1,105</b>	<b>-60</b>	
<b>Change in Net International Reserves</b>	<b>-989</b>	<b>10,311</b>	<b>1,516</b>	<b>744</b>	<b>3,285</b>	<b>4,767</b>	<b>6,051</b>
<b>Valuation Adjustments</b>	<b>-14</b>	<b>-25</b>	<b>-4</b>	<b>2</b>	<b>-12</b>	<b>-11</b>	<b>0</b>

e/ Estimated figures.

Note: The capital account of the first quarter of 2008 includes errors and omissions.

Source: Banco de México.

<sup>33</sup> The increase in assets held abroad reflects the day-by-day transactions in goods and services, and financial markets of a country highly integrated to the world economy, like Mexico. These transactions include a significant flow of direct investment from Mexican firms abroad; bank deposits required by Mexican firms (exporters and importers) for their commercial and financial transactions abroad; assets of investment funds held abroad; bank deposits of the private and public sectors; and, assets of public entities held abroad.

**Box 4**
**Higher Unit Value of Mexican Imports of Agricultural Commodities and Foodstuffs**

The international prices of most agricultural commodities, as well as of a variety of foodstuffs, have followed an upward trend since 2006. This behavior has created upward pressures on the domestic prices of many economies, like the Mexican.

For countries that import these products, like Mexico, this has implied a loss of revenues. On another front, unit prices of a variety of agricultural products exported by Mexico, especially fruits, vegetables, and legumes, have followed an upward trend, although very recently and in a less marked fashion than the prices of agricultural commodities and foodstuffs that are imported.

**Table 1**  
**Foreign Trade of Agricultural Commodities and Various Foodstuffs: Annual Period (April 2007-March 2008)<sup>1/</sup>**

Imports: 127 products	Total imports	Unit values 2005=100	Higher costs due to higher unit values
<b>TOTAL</b>	<b>12,898</b>	<b>138</b>	<b>3,428</b>
<b>Cereals</b>	<b>3,283</b>	<b>172</b>	<b>1,364</b>
Corn	1,755	171	732
Wheat	947	185	435
Sorghum	269	165	101
Rice	284	142	84
<b>Dairy products</b>	<b>1,577</b>	<b>154</b>	<b>561</b>
Powdered milk	656	173	276
Cheese	343	133	79
<b>Grinding mill products</b>	<b>583</b>	<b>156</b>	<b>203</b>
Processed corn grains	374	161	142
<b>Soy</b>	<b>1,394</b>	<b>150</b>	<b>459</b>
<b>Meat</b>	<b>2,714</b>	<b>104</b>	<b>90</b>
<b>Other foodstuffs</b>	<b>1,311</b>	<b>120</b>	<b>201</b>
<b>Other products</b>	<b>2,036</b>	<b>135</b>	<b>549</b>
Cotton	480	119	75
Harvest seeds	879	145	283
Tobacco	131	170	57

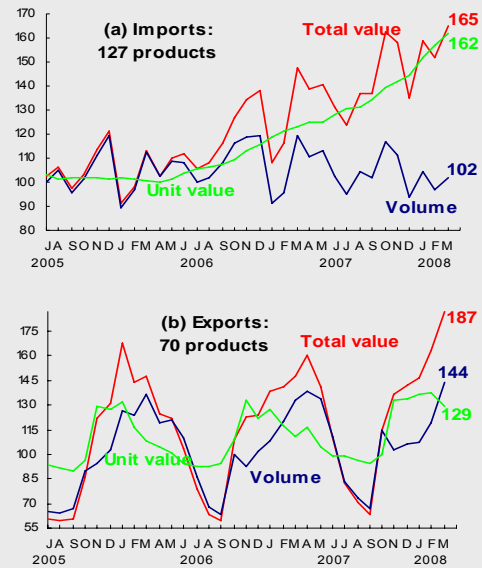
Exports: 70 products	Total exports	Unit values 2005=100	Higher revenues due to higher unit values
<b>TOTAL</b>	<b>7,994</b>	<b>109</b>	<b>642</b>
<b>Foods</b>	<b>7,856</b>	<b>108</b>	<b>620</b>
Cocoa	70	129	18
Coffee	345	113	31
Fruits	2,054	116	275
Avocado	649	134	165
Key lime	251	127	54
Cattle	448	107	31
Vegetables	3,506	105	163
Cucumber	324	110	30
Green tomato	1,187	113	140
Other foodstuffs	362	152	143
<b>Other products</b>	<b>137</b>	<b>121</b>	<b>22</b>
Cotton	62	128	13

**NET LOSS: -2,786**

<sup>1/</sup> Figures for imports and exports and for higher revenues are measured in million USD.

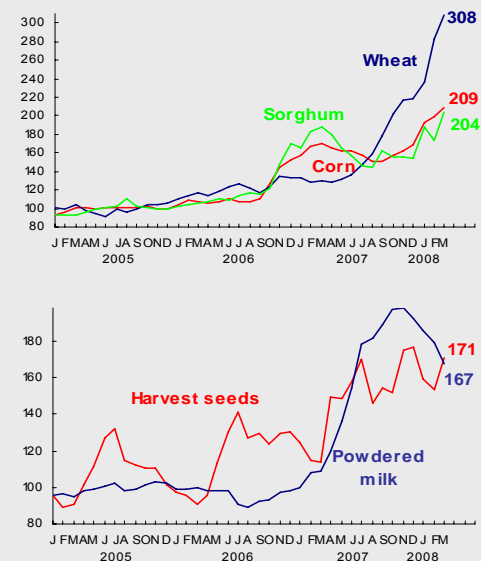
The value of Mexican imports of a group of 127 agricultural commodities and various foodstuffs totaled 3,527 million US dollars during the first quarter of 2008, 12,898 million for the annual period from April 2007 to March 2008 (Table 1). This value has increased significantly since 2006, mainly due to increases in the unit values/ average prices of that basket of products. At the end of March 2008, the unit value of that basket increased by 62 percent as compared with 2005 (Graph 1a), year in which these values exhibited significant stability. During the reference period, the level of imports remained practically unchanged, growing only 2 percent as compared with 2005 (Graph 1a). This implied, for the first quarter of 2008, an increase in the unit values of these purchases abroad, which meant additional expenditures of 1,188 million US dollars. The loss for the annual period April 2007-March 2008 totaled 3,428 million US dollars (Table 1 and Graph 4).

**Graph 1**  
**Agricultural Commodities and Various Foodstuffs**  
 Indices 2005=100

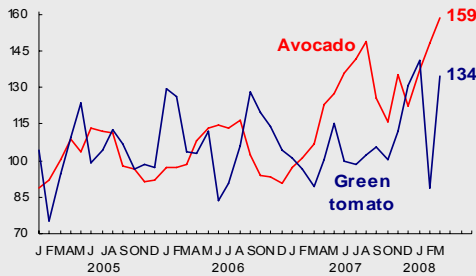


Among agricultural-related imports which, due to their price increases, have implied a significant loss for the country are corn, wheat, soy, powdered milk, and harvest seeds (Table 1 and Graph 2). Only in those five products, the consequent loss of revenues for the country during the annual period from April 2007 to March 2007 was of 2,185 million US dollars, equivalent to almost two thirds of the total increase in imports' costs the 127 agricultural-related products and foodstuffs considered.

**Graph 2**  
**Imports: Unit Value of Agricultural Commodities and Selected Foodstuffs**  
 2005=100



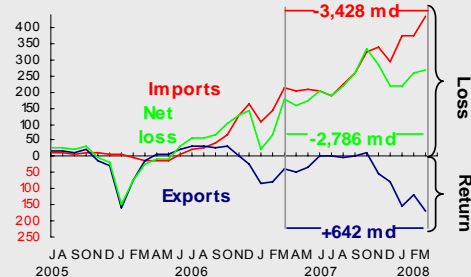
**Graph 3**  
Exports: Unit Value of Selected Agricultural Products  
2005=100



On another front, export unit values or average prices of a variety of agricultural products have increased, therefore implying revenues for the country. When considering 70 agricultural products exported by Mexico, at the end of March 2008, the unit value or average price of this basket of products increased by 29 percent in relation to the average in 2005 (Graph 1b). The latter implied 642 million US dollars in additional revenues for Mexico from April 2007 to March 2008 (Table 1). Agricultural products that have yielded significant revenues for the country due to their higher export prices are fruits and vegetables such as avocado, tomato, and key lime, among others (Graph 3).

Nevertheless, during the referred annual period these revenues were equivalent to only 18.7 percent of the loss associated with the price increases of imports of agricultural commodities and foodstuffs.

**Graph 4**  
Monthly Net Loss due to Higher Unit Value of Agricultural Commodities and Various Foodstuffs  
Million USD



To conclude, as a result of the deterioration of the agricultural sector terms of trade, during the first quarter of 2008, the country recorded a net loss of 746 million US dollars and during the 12 months considered, 2,786 million US dollars (Table 1 and Graph 4).

### 3.3. Costs and Prices

#### 3.3.1. Wages

Most recent information on wage indicators covering most of the labor sector show that they grew at a slower rate. Contractual wages, on the other hand, which cover less sectors and reflect the negotiations that will be in effect for the current year, grew at a slightly higher rate (Graph 24).<sup>34</sup>

According to the Occupation and Employment Survey (*Encuesta Nacional de Ocupación y Empleo*, ENOE), the nominal income of total remunerated workers in the country grew 2.9 percent in annual terms during the fourth quarter of 2007, as compared with 4.6 percent during the previous quarter (Table 7).

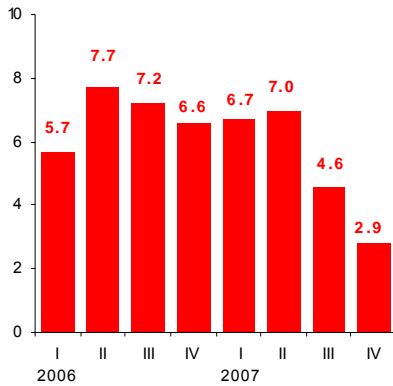
The IMSS reference wage, which includes the workers insured by the Institute, recorded an average annual variation of 4.6 percent during the January-February 2008 period, figure 0.5 percentage points below that observed during the previous quarter. This indicator thus continues the downward pattern followed since 2007 (Table 7).

<sup>34</sup> Wage indicators with the most coverage are nominal income of total remunerated workers and IMSS reference wage. The former is obtained from the Occupation and Employment Survey and includes the total monetary and in kind earnings received by workers during the reported period. As for the IMSS reference wage, it considers the daily average earned by workers insured by this institution during a certain period, and some fringe benefits (e.g. end-of-year bonuses, vacation bonuses, and commissions). Contractual wages, on the other hand, include only the direct increase to the salary rate negotiated by workers of firms under federal jurisdiction and that will be in effect for a year. The monthly composition of this indicator is based on information from firms that were engaged in wage settlements, usually during the same period of the year. For this reason, this indicator follows a seasonal behavior.

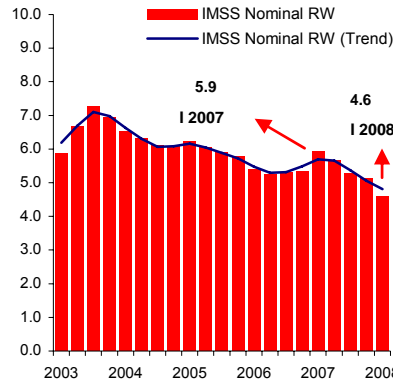


**Graph 24  
Wages Trend**

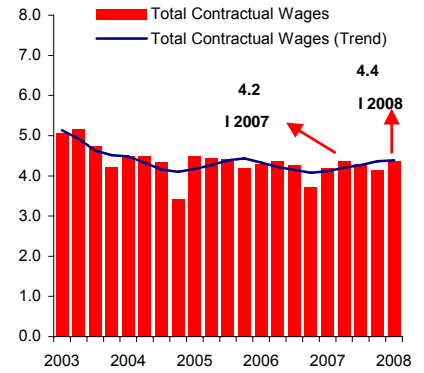
**a) Nominal Income (ENOE)<sup>1/</sup>  
Annual percentage change**



**b) IMSS Nominal Reference Wage<sup>2/</sup>  
Annual percentage change**



**c) Contractual Wages<sup>3/</sup>  
Figures in percent**



1/Coverage: total remunerated workers, which averaged 40.1 million in the four quarters of 2007.

2/ This indicator considers workers insured by IMSS. Coverage: 14.6 million workers on average in 2007, which corresponds to 36.4 percent of total remunerated workers. For 2008, information corresponds to January-February.

3/ Data includes wage negotiations in firms under federal jurisdiction. Coverage: 1.9 million workers in 2007, which corresponds to 4.6 percent of total remunerated workers.

Regarding contractual wages, during the first three months of 2008, firms under federal jurisdiction negotiated an average increase of 4.4 percent, while in the same period of the previous year, this figure reached 4.2 percent. The highest increase was obtained by publicly-owned firms, mainly of the education sector. Graph 25c presents a density function of contractual wage increases of workers in publicly-owned firms with a rightward shift in its distribution.

**Table 7  
Wage Indicators  
Annual percentage change**

	2007					2008
	I	II	III	IV	Jan-Dec	I
<b>Nominal Income (ENOE)</b>	6.7	7.0	4.6	2.9	5.3	n.a.
<b>IMSS Reference Wage<sup>1/</sup></b>	5.9	5.7	5.3	5.1	5.5	4.6
<b>Total Contractual Wages<sup>2/</sup></b>	4.2	4.4	4.3	4.1	4.2	4.4
Publicly-owned firms	3.9	4.2	4.3	4.0	4.1	4.1
Education sector	3.8	3.9	4.3	4.3	4.0	4.3
Privately-owned firms	4.3	4.4	4.3	4.4	4.3	4.4

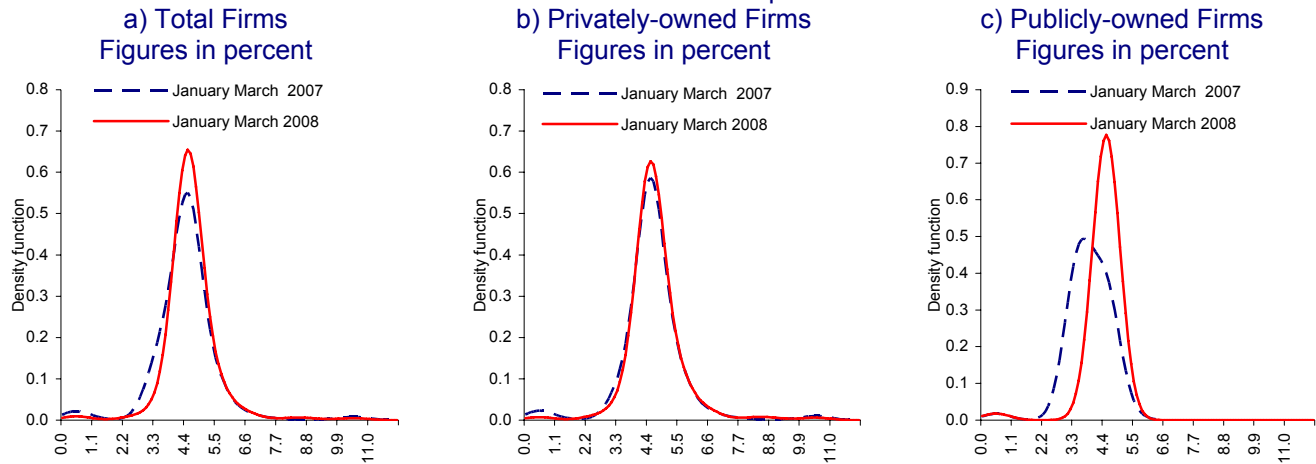
n.a./ Not available.

1/ For 2008, information corresponds to January-February period.

2/ Refers to the weighted average by the number of workers benefited during the period.

Source: Calculations by Banco de México with data from the Ministry of Labor (*Secretaría del Trabajo y Previsión Social, STPS*).

**Graph 25**  
**Distribution of Contractual Wage Increases<sup>1/</sup>**  
 Distribution of Relative Frequencies

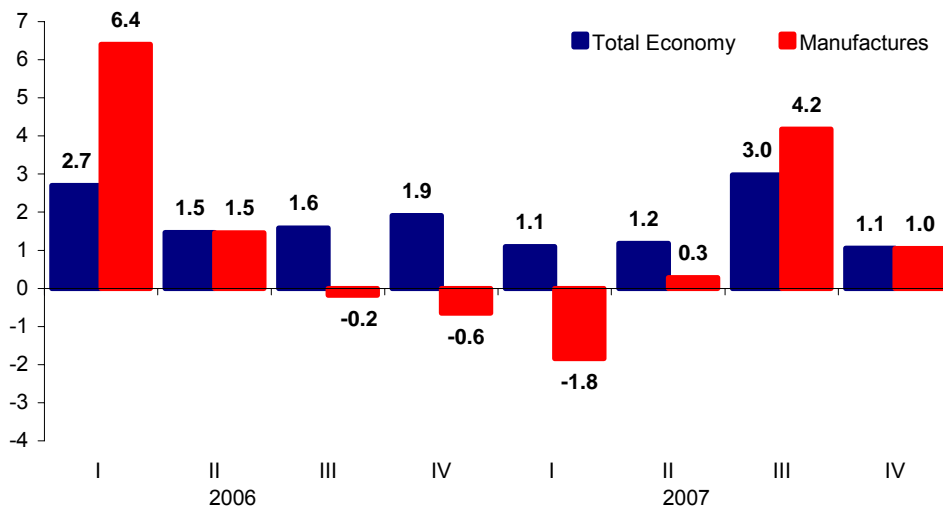


<sup>1/</sup>Graphs represent density functions calculated to adjust the data of contractual wage increases obtained by workers.

### 3.3.2. Output per Worker

According to the ENOE Survey and to information from the National Accounts, output per worker for the economy as a whole rose 1.1 percent during the fourth quarter of 2007 (the average for the year was 1.6 percent, Graph 26). In the manufacturing industry, the corresponding indicator grew 1.0 percent during the mentioned quarter and 0.9 percent on average during the year.

**Graph 26**  
**Output per Worker: Total Economy and Manufacturing Sector<sup>1/</sup>**  
 Annual percentage change

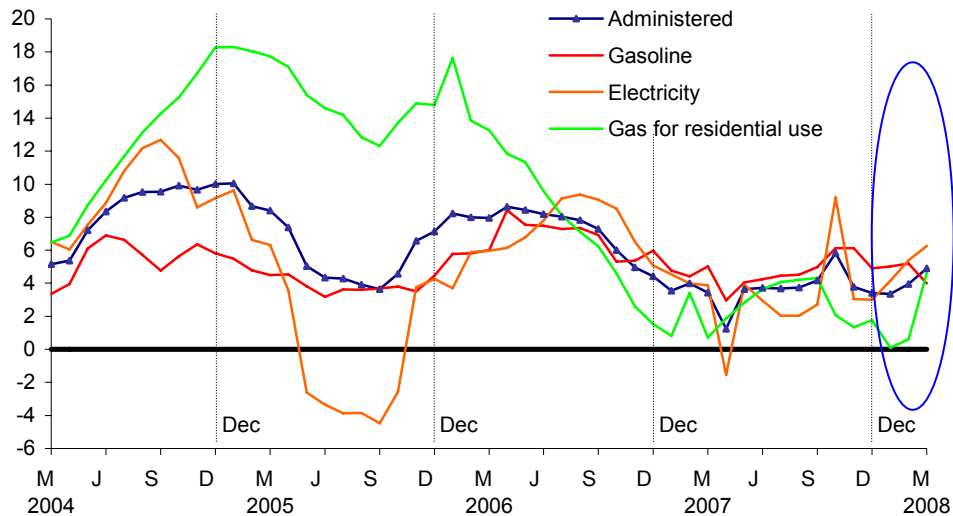


<sup>1/</sup> Average output per worker for the total economy is obtained with production data from the National Accounts and employed individuals from the ENOE survey.

### 3.3.3. Administered and Regulated Prices of Goods and Services

The subindex of administered prices reached 4.90 percent in March 2008, as compared with 3.41 percent during the previous quarter. This result is mainly explained by the increasing rates of change of tariffs on electricity and gas for residential use. The annual rate of change of electricity rose from 3.00 to 6.26 percent between December 2007 and March 2008, while that of gas for residential use, from 1.76 to 4.61 percent during the same period. The increased levels of electricity inflation were the result of the higher rate of growth of high consumption electricity tariffs (DAC), which are affected by the price behavior of various fuels.<sup>35</sup> As for gas for residential use, its increasing inflation is attributed to the behavior of natural gas prices in international markets (Table 1 and Graph 27).<sup>36</sup>

**Graph 27**  
**Subindex of Administered Prices**  
 Annual percentage change

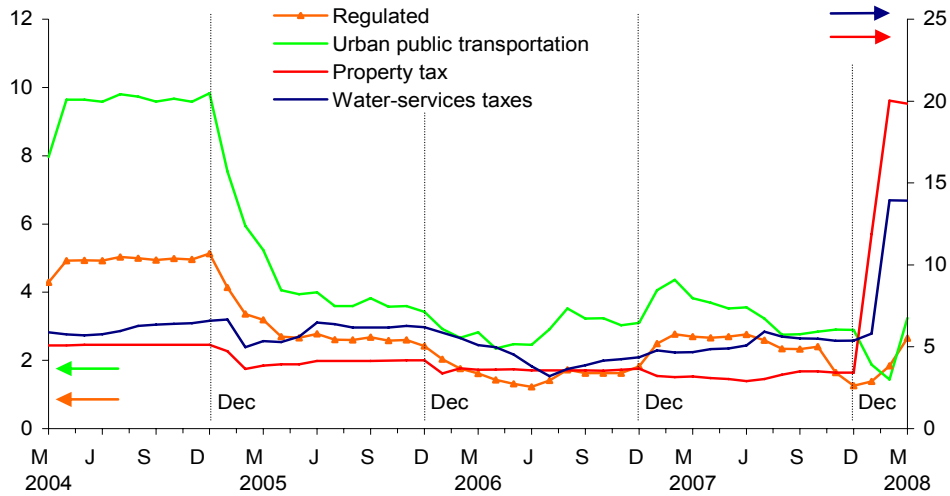


As for the subindex of regulated prices, at the end of the third quarter of 2008, its annual rate of change recorded 2.65 percent, 1.39 percentage points higher than the figure observed in December 2007 (1.26 percent, Table 1 and Graph 28). The growth in this price subindex is attributed to adjustments in both property and water-service taxes (particularly in Mexico City and surrounding areas), and to increases in urban public transportation fares in 13 of 46 facilities that provide information for the CPI. In particular, the annual rate of change of the property tax rose from 3.42 percent in December 2007 to 19.84 percent in March 2008; as for the water-service tax, it went from 5.37 to 13.93 percent; and public transportation in urban areas, from 2.90 to 3.24 percent, in the same dates.

<sup>35</sup> The new formula to calculate high consumption electricity tariffs (DAC) changed in January 2008. In the new formula, the weight of fossil fuels increased from 20 to 35 percent, and the number of PPI subindices that are used to measure the inflation updating component changed from 3 to 7 (Timber Industry; Oil, Rubber, and Plastic Chemical Industries; Non-metal Mineral Products; Basic Metal Industries; Metal Products, Machinery and Equipment; Other manufacturing Industries; and Construction).

<sup>36</sup> The international reference price of natural gas (known as TETCO, whose initial price location is Texas, U.S.) increased 29.8 percent between December 2007 and March 2008.

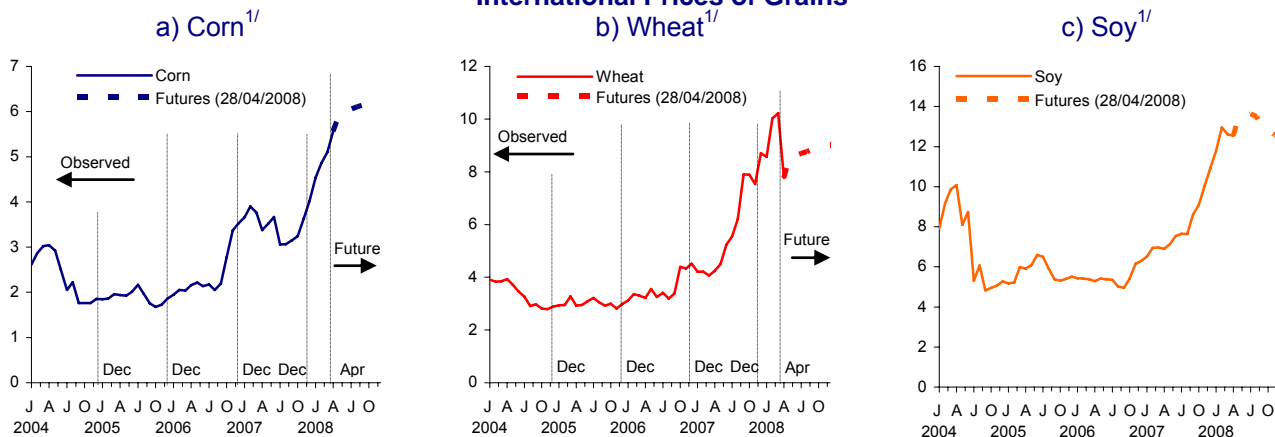
**Graph 28**  
**Subindex of Regulated Prices**  
 Annual percentage change



### 3.3.4. Food Commodities

The upward trend followed by grain prices since 2006 continued during the third quarter (Graph 29). Between the end of 2007 and March 2008, international prices of corn, wheat, and soy increased 26.87, 17.59, and 15.37 percent, respectively. These increases were, in general, above expectations on futures' market prices at the end of 2007 (Graph 30). After considering the prices of wheat, soy, and corn in December 2007 and comparing them with those negotiated in futures' markets up to April 28, for December 2008, the expected price variation would be of 3.45, 15.74 and 53.48 percent, respectively (Table 8).<sup>37</sup> Should these variations materialize, the accumulated increases between the end of 2005 and 2008 for the international prices of corn, wheat, and soy, would be of 231.72, 202.01 and 130.00 percent, respectively.

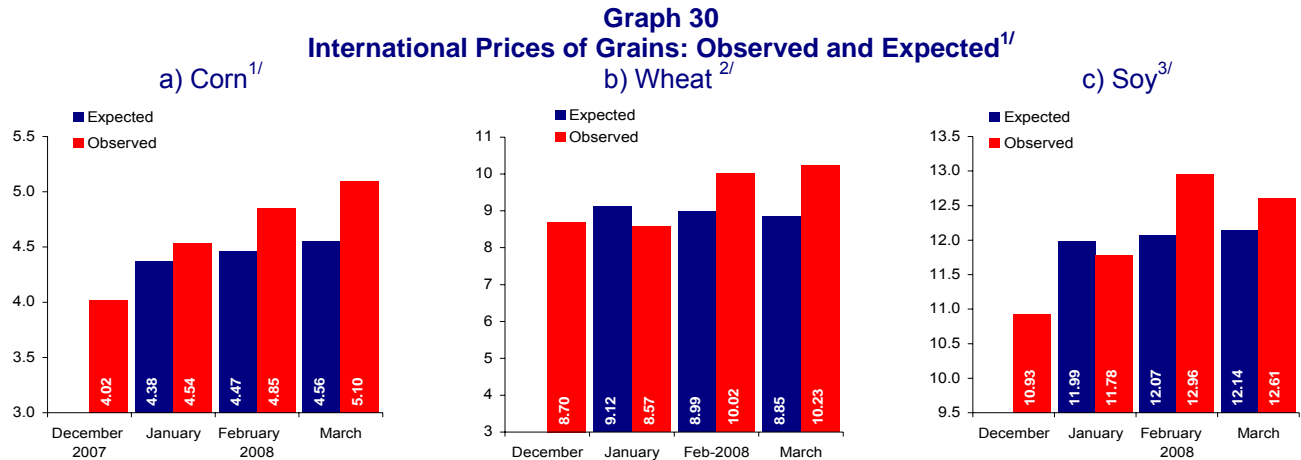
**Graph 29**  
**International Prices of Grains**



1/ USD per bushel.

Source: United States Department of Agriculture (USDA).  
 Chicago Board of Trade (CBT).

<sup>37</sup> In March 31, 2008, the U.S. Department of Agriculture informed that corn harvested land had decreased 8 percent, while that of soy and wheat had increased 18 and 6 percent, respectively.



1/Prices expected at the end of the fourth quarter of 2007 according to futures contracts for the reference month (Chicago Board of Trade, December 31, 2007). Prices observed correspond to the average of the reference month.  
 2/USD per bushel.  
 Source: United States Department of Agriculture (USDA), Chicago Board of Trade (CBT).

The increased world demand for grains has continued, for foodstuffs and prepared animal feeds, and ethanol production as well (in the case of corn). Since the international prices of commodities are set in US dollars, its depreciation has created additional pressures on these prices. The latter, together with a reduction in interest rates in the U.S., has generated a greater demand for financial instruments associated with commodities, therefore affecting their prices.

The abovementioned factors have pressured the international markets of grains. During the first quarter of 2008, and in order to protect their domestic supply of grains, some grain producing countries continued with measures to restrict their exports. In other cases, import duties on commodities like cereals and dairy products were reduced or eliminated in order to smooth the inflationary impact on their prices (Box 5). These conditions have worsened due to the low inventories of certain grains, particularly wheat and soy.

**Table 8**  
**Observed International Prices and Grains and Milk Futures**  
Figures at end of period

Date	USD per bushel			USD per pound cent	
	Corn	Wheat	Soy	Liquid milk	Powdered milk
2005	1.86	2.98	5.50	13.37	12.57
2006	3.53	4.51	6.29	12.55	12.30
2007	4.02	8.70	10.93	20.60	19.18
2008 <sup>1/</sup>	6.17	9.00	12.65	19.18	17.18
<b>Change between reference years (percent)</b>					
2006 - 2005	89.78	51.34	14.36	-6.13	-2.15
2007 - 2006	13.88	92.90	73.77	64.14	55.93
2008 - 2007	53.48	3.45	15.74	-6.89	-10.43
2008 - 2005	231.72	202.01	130.00	43.46	36.67

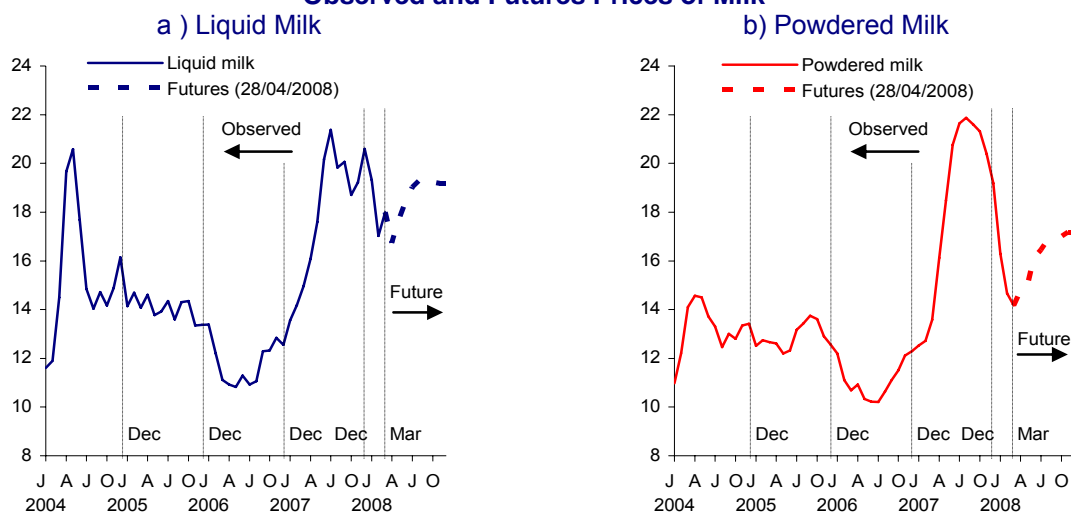
1/Price for December 2008 estimated according to futures quotes of 18/04/2008.  
 Source: United States Department of Agriculture (USDA), Chicago Board of Trade (CBT) and Chicago Mercantile Exchange (CME).

The international prices of powdered and liquid milk have followed an upward pattern since the second half of 2006, albeit partially reverting in the last

months. Despite the aforementioned, the prices of the referred goods recorded 14.27 and 30.91 percent on average in March 2008, figure above the average recorded between 2004 and 2006. The futures curves for both dairy products up to April 28, 2008 also suggest that these prices could rebound. Considering this information, in the case of powdered milk, its price could increase 21.21 percent at the end of 2008, as compared with its level in March, while the prices of liquid milk are expected to increase 6.58 percent (Graph 31).

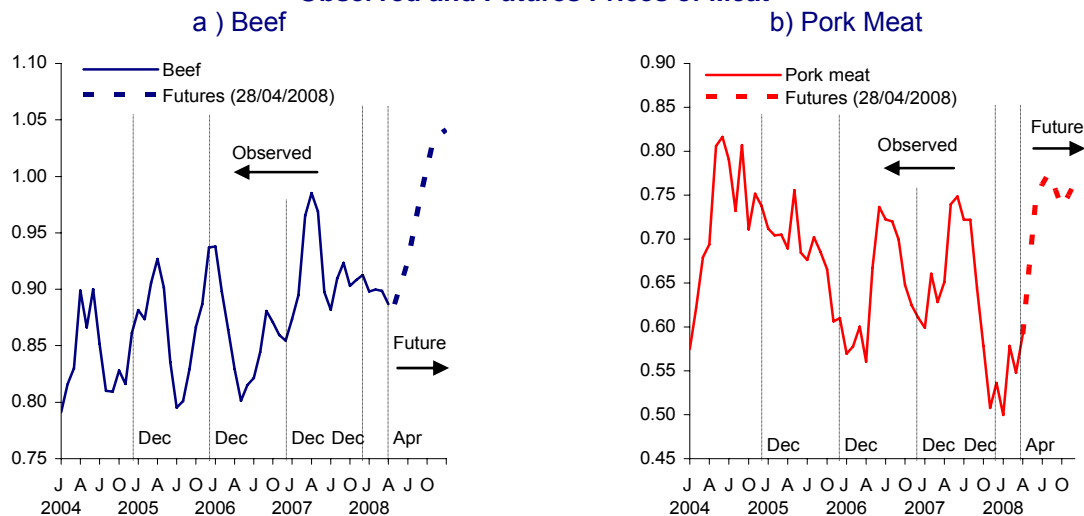
Prices of beef and pork meat remained practically stable during the first quarter of a year. Nevertheless the futures curves for these meats (April 28, 2008) suggest that their prices could increase in the next months. In particular, futures prices of beef and pork for December 2008 are 15.56 and 38.81 above their level in March (Graph 32).

**Graph 31**  
**Observed and Futures Prices of Milk<sup>1/</sup>**



1/ USD per CWT (USD/100 Lb.).  
Source: United States Department of Agriculture (USDA).  
Chicago Mercantile Exchange (CME).

**Graph 32**  
**Observed and Futures Prices of Meat<sup>1/</sup>**

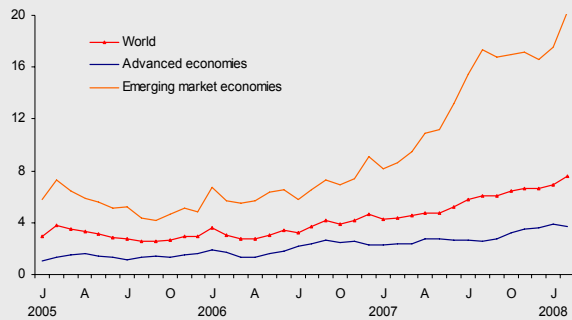


1/ USD per pound.  
Source: United States Department of Agriculture (USDA).  
Chicago Mercantile Exchange (CME).

**Box 5  
World Food Inflation**

Since 2006, the international prices of agricultural commodities, especially grains and dairy products, have followed an upward trend. These developments have raised food inflation rates worldwide (Graph 1). Food inflation prices have increased more significantly in emerging market economies, reaching, according to Banco de México estimates, an annual variation of 20 percent in February 2008, as compared to around 5 percent during 2005. In most countries, food inflation has affected lower income households because they assign higher proportions of their income to food products. This situation has generated social turmoil in these countries, leading several of their governments to undertake various policy measures. In the case of some grain-exporting countries, such policies, although offsetting the increases in domestic prices in the short term, have also restrained international supply and, in the medium term, could reduce production growth.

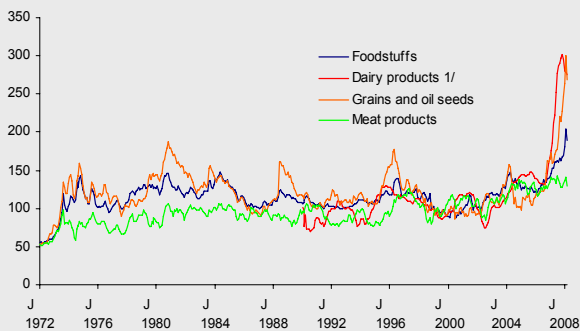
**Graph 1  
World Food Inflation**



Source: World Economic Outlook Database, IMF, and Banco de México estimates.

Price volatility of agricultural products is a well-known phenomenon. Several high price episodes have been observed in the last 35 years. However, the current conditions are characterized by the significant and simultaneous increase in the prices of a wide number of food commodities (Graph 2).

**Graph 2  
International Agricultural Prices  
(Indices, 1998-2000=100)**



Source: Commodity Research Bureau (CRB).  
1/ Price Index estimated by FAO.

The causes behind the increases observed in food commodity prices include both structural changes and temporary shocks. Structural changes include both demand and supply factors.

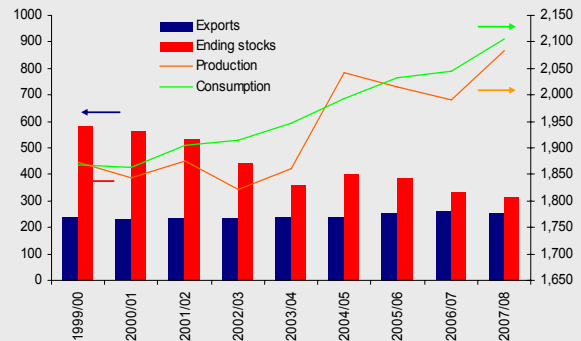
*Demand Factors*

- a) High growth rates of emerging market economies -especially of China and India- and the consequent improvement in their populations' purchasing power have raised the demand for meat and dairy products, consequently increasing the demand for grains.
- b) The greater use of bioenergy goods that use raw materials such as sugar cane, corn, oil seeds, and oils.
- c) A higher participation of investors in the international markets of food commodities, as a result of lower interest rates, the depreciation of the U.S. dollar, and expectations of prices' future trend due to the expected behavior of bioenergy goods.

*Supply Factors*

- d) The gradual decline in world inventories, particularly of cereals, due mainly to the high cost in storing non-durable goods (Graph 3).
- e) Increases in fuel prices, which have affected both production and transport costs.

**Graph 3  
World Supply, Demand and Stocks of Cereals  
Million Metric Tons**



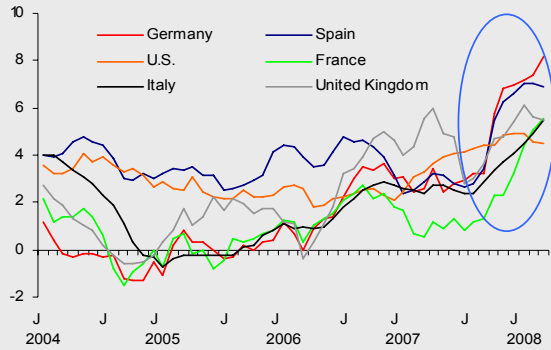
Source: U.S. Department of Agriculture (USDA).

In the last two years, several high-producing countries have faced temporary supply shocks, inherent to this sector, such as adverse weather conditions.

The aforementioned has created social turmoil in these countries, leading their governments to implement various policies to reduce the high prices of foods at the domestic level.<sup>1</sup> Some of these measures, however, have generated more pressures in the international market. On the one hand, importing countries have reduced their trade restrictions, thus pressuring international demand and, on the other, some exporting countries have imposed restrictions to trade, therefore creating a supply contraction worldwide (Graph 4 and 5).

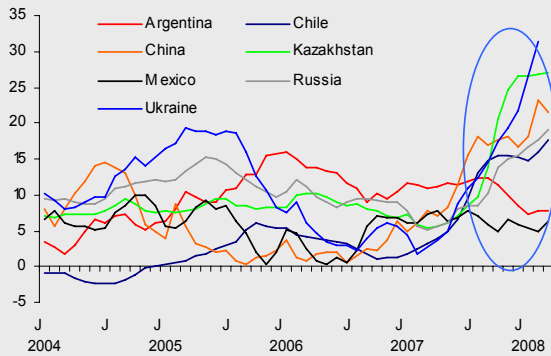
<sup>1/</sup> Countries facing greater inflationary pressures are the least developed ones such as Haiti, Egypt and Cameroon, which have recently undergone social turmoil.

**Graph 4**  
Food Inflation in Industrialized Countries



Source: Statistics agencies of each country.

**Graph 5**  
Food Inflation in Various Emerging Market Economies that are Exporters



Source: Statistics agencies of each country and Bloomberg.

Among the countries which have loosened their controls on imports of various food commodities (by reducing or eliminating import duties and authorizing import quotas) are Bangladesh, Bolivia, Ecuador, U.S., India, Indonesia, Morocco, Mexico, South Korea, Russia, Turkey, and the Euro countries. Price controls, subsidies, and/or the elimination of consumer taxes have been implemented in other countries such as Azerbaijan, Cameroon, Ecuador, Egypt, Russia, and Ukraine. Some of the main exporting countries (Table 1), especially some emerging market economies characterized by the high share that foods have in households' spending (Graph 6), have imposed trade restrictions (Table 2).<sup>2</sup>

In the medium term, the development of food prices will depend on the world supply of food commodities. According to the United Nations Food and Agriculture Organization (FAO), there are around 12 million hectares of potential sown land in Russia, Ukraine, and Kazakhstan that were abandoned during the economic/political transition period and which could be used for harvesting (Table 3).

<sup>2</sup>/ Source: Food and Agriculture Organization, FAO.

**Table 1**  
Share in World Exports of Grains in 2007

	Share (%) <sup>1</sup>				
	Corn	Wheat	Soy	Sorghum	Rice
<b>Developed</b>					
Australia		7.1%		3.2%	
Canada		13.3%	2.0%		
U.S.	66.5%	32.9%	38.8%	77.8%	13.1%
EU-27		8.5%			
<b>Emerging</b>					
Argentina	15.7%	9.0%	15.2%	14.0%	
Brazil	9.4%		35.8%	1.6%	
China	0.5%			1.6%	3.7%
India	0.7%				11.0%
Kazakhstan		8.1%			
Nigeria				0.5%	
Pakistan					10.6%
Paraguay	1.6%		6.1%		
Russia		11.9%			
South Africa	1.6%				
Thailand					32.9%
Ukraine	1.6%				
Uruguay			1.0%		
Vietnam					14.6%

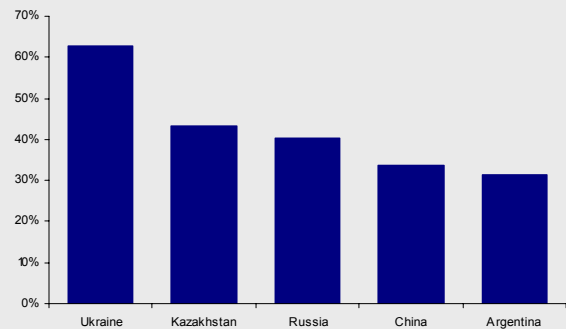
<sup>1/</sup> In relation to the 20 main world exporters.  
Source: U.S. Department of Agriculture (USDA).

**Table 2**  
Trade Policies Adopted by Some Countries to Lessen the Effect of Rising Food Prices

	Export restrictions
<b>Argentina</b>	In March 2008, the following ranges were established for duties on grain exports, as a function of spot prices in international markets: Sunflower seed 37-45% Corn 20-25% Wheat 24-30% Soy 43-49%
<b>China</b>	10% duty imposed to wheat, barley and oat exports. Duties on corn, wheat and starch flour, sorghum, millet, and soy were raised. Export quotas were also set on wheat, corn, and rice-based flour.
<b>Kazakhstan</b>	Since Autumn 2007, wheat exports are under government licenses.
<b>Russia</b>	Duties were set on grain exports since November 2000 (10% for wheat and 30% for barley). The tax on wheat was raised to 40% in January 2008, conditional to the price of this grain remaining above 105 euros per ton.
<b>Ukraine</b>	Quotas and export licenses for certain grain categories. Measure in force since Autumn 2006.

Source: *Rising Food Prices: Causes, Consequences and Policy Response*, Office of the Chief Economist (March 2008), EBRD.

**Graph 6**  
Weight of Food Products in Price Indices of Emerging Economies that are Grain Exporters



Source: World Economic Outlook (October 2007), IMF.



**Table 3**  
Current and Potential Grain Production in Kazakhstan, Russia, and Ukraine

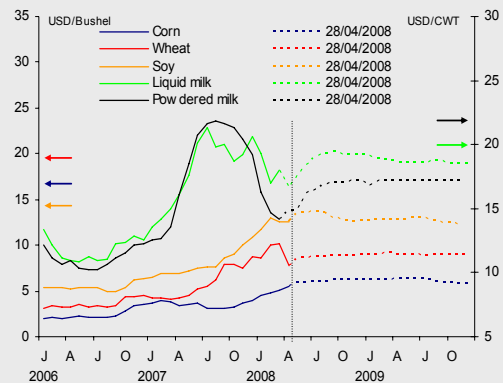
Countries	Transition period			Estimates of highest potential		
	Average 1992-1994	Average 2004-2006	% Change	Highest potential	Difference between highest potential and 2004-2006	% Change
<b>Cereals, sown land (million Ha)</b>						
Kazakhstan	21	15	-31%	19	4	27%
Russia	57	41	-29%	47	6	15%
Ukraine	13	14	13%	17	3	21%
<b>Total</b>	<b>91</b>	<b>70</b>	<b>-24%</b>	<b>82</b>	<b>12</b>	<b>18%</b>
<b>Production (million tons)</b>						
Kazakhstan	23	14	-37%	29	15	107%
Russia	93	77	-18%	126	49	64%
Ukraine	37	37	1%	75	38	103%
<b>Total</b>	<b>153</b>	<b>128</b>	<b>-16%</b>	<b>230</b>	<b>102</b>	<b>80%</b>

Source: Food and Agriculture Organization (FAO).

Under these conditions, international markets expect the international prices of agricultural commodities to stabilize during 2008 and 2009, albeit at levels significantly above those observed prior to 2006 (Graph 7).

Nevertheless, a risk factor for this scenario is the recently-observed increase in the international prices of fertilizers, which recorded an annual variation of 52.56 percent in March 2008, as a result of the strong increases in sulfur and ammonia (which posted annual variations of 520.2 and 45.6 percent, respectively). In light of these increases, new policy actions are expected to be implemented, like in China, which imposed an additional duty of 100% on fertilizer exports.

**Graph 7**  
Prices and Futures of Grains and Milk 2008-2009



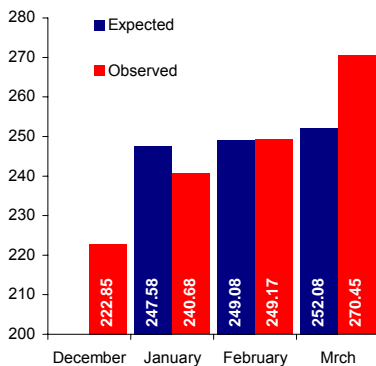
Source: United States Department of Agriculture (USDA), Chicago Board of Trade (CBT), and Chicago Mercantile Exchange (CME).

### 3.3.5. Energy Commodities

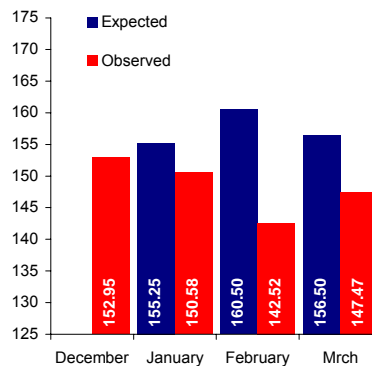
The pressure on oil spot prices continued during the first quarter of 2008. The price for the WTI crude oil rose 14.82 percent from December 2007 to March 2008. In particular, the observed prices of regular gasoline and natural gas were above those forecasted in the futures market (Graph 33). At the end of March, the gaps between domestic and international prices of gasoline, diesel, and liquid gas were 42.9, 90.0, and 27.1 percent, respectively (Graph 34).

**Graph 33**  
International Energy Prices: Observed and Expected<sup>1/</sup>

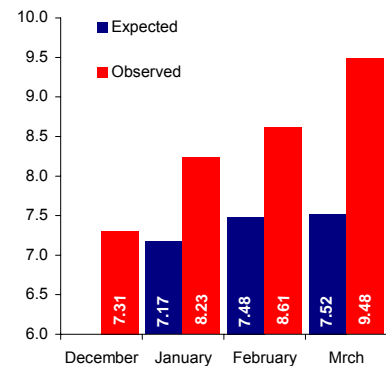
a) Regular Gasoline<sup>2/</sup>



b) Liquid Gas<sup>3/</sup>



c) Natural Gas<sup>4/</sup>



1/ Information corresponding to Futures of December 31, 2007.

2/ Texas, US cents per gallon.

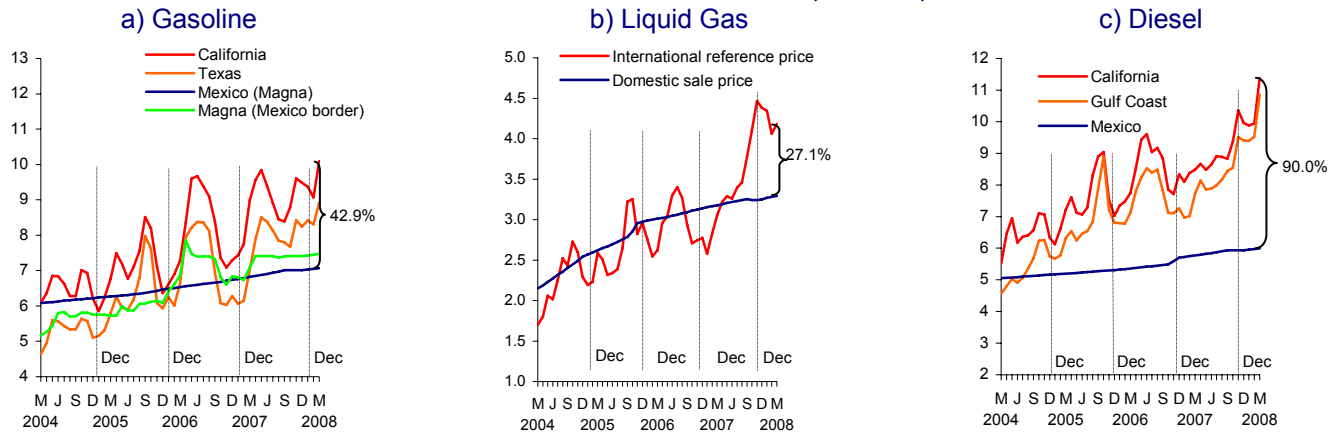
3/ Mont Belvieu, Tex. US cents per gallon.

4/ TECTCO, Tex. USD per MMBtu.

Source: Bloomberg.

New York Mercantile Exchange (NYMEX).  
Energy Information Administration (EIA).

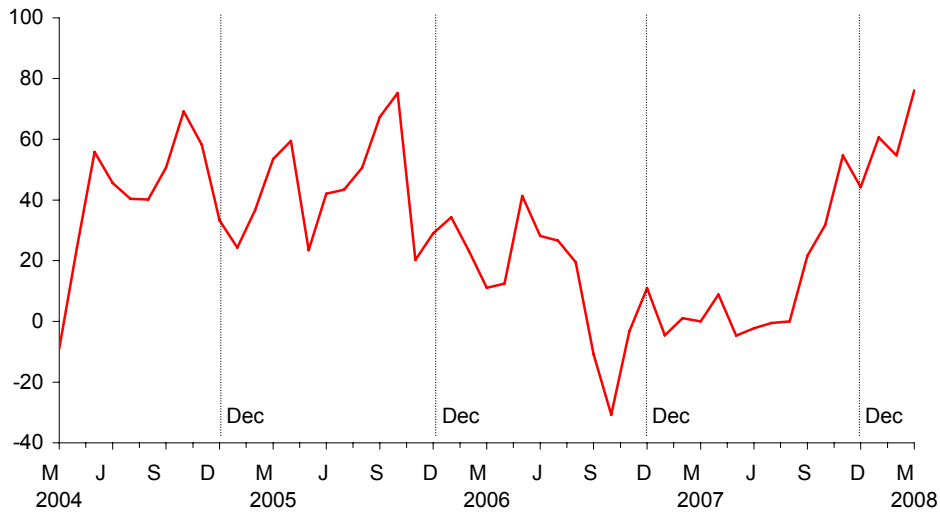
**Graph 34**  
**Domestic and International Prices of Gasoline, LP Gas, and Diesel**



1/ Mont Belvieu.  
 2/ First-hand sale average price.  
 Source: PEMEX.  
 Energy Information Administration (EIA).

Prices of jet fuel also grew considerably during the analyzed quarter, recording an annual rate of variation of 76.15 percent in March 2008. This situation has evidently affected airline businesses, which have gradually adjusted their fares.

**Graph 35**  
**Jet Fuel Producer Price Index**  
 Annual percentage change



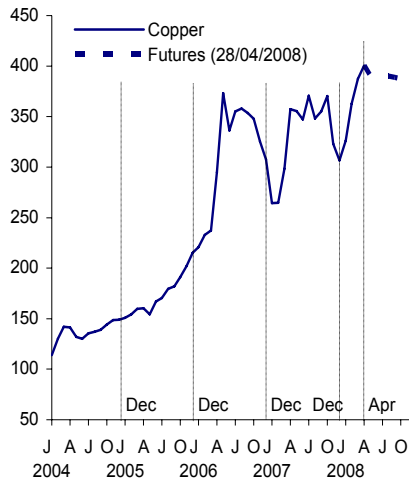
**3.3.6. Metal Commodities**

The international prices of copper rebounded during the first quarter of 2008, reaching record highs at the end of this period. From December 2007 to March 2008, these prices increased 26.27 percent. At the end of the first quarter, the international prices of copper had grown 27.30 percent above the prices negotiated in the futures market for that month at the end of 2007 (Graph 36). Prices of steel rod in Mexico increased 30.86 percent during the referred period.

The latter has been mainly attributed to price increases in inputs for this metal, such as metal scraps and fuels.

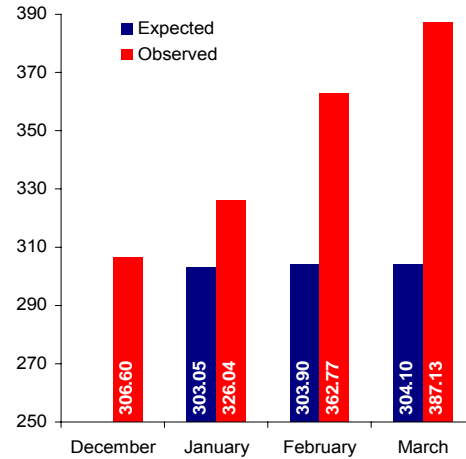
**Graph 36**  
**Copper Prices**<sup>1/</sup>

a) International Copper Prices



1/ US cents per pound.  
Source: Metal Bulletin.  
Commodity Exchange Inc. (CMX).

b) International Copper Prices: Observed and Expected<sup>2/</sup>



1/ US cents per pound.  
2/ Information corresponding to Futures of December 31, 2007.  
Source: Metal Bulletin.  
Commodity Exchange Inc. (CMX).

### 3.4. Monetary and Credit Aggregates

#### 3.4.1. Monetary Base, Net Domestic Credit, and International Assets

During the first quarter of 2008, the monetary base behaved similarly to previous quarters. During the analyzed quarter, it grew at an annual nominal rate of 11.6 percent, while in the third and fourth quarters of 2007 it grew in annual terms 11.6 and 11.1 percent, respectively (Graph 37a).<sup>38</sup> The latter suggests that the moderate process of remonetization has continued during the last months.<sup>39</sup>

In January-March 2008, net international assets increased by 3,931 million US dollars, thus reaching 91,165 million US dollars.<sup>40</sup> During the same period, the monetary base decreased 47,032 million pesos. As a result, Banco de México's net domestic credit decreased by 89,608 million pesos during the period (Table 9).

<sup>38</sup> Variations calculated based on the quarterly average of daily stocks.

<sup>39</sup> When an economy transits from an environment of high inflation that erodes the purchasing power of money and discourages its demand, to an environment of low and stable inflation, the demand for money usually increases as agents gradually replenish their bills and coins. This phenomenon is reflected in a gradual increase in the monetary base measured as a percentage of GDP and is known as remonetization process.

<sup>40</sup> For a definition of international assets and international reserves refer to the glossary of the weekly press release on Banco de México's balance sheet. Banco de México's broad credit position with the domestic market (net domestic credit) is obtained by subtracting international assets from the monetary base; i.e., financing granted or received domestically by the central bank. The international reserves definition excludes Banco de México's short-term (less than six months) foreign currency liabilities.

**Table 9**  
**Monetary Base, International Assets, and Net Domestic Credit**  
 Millions

	Stocks		Annual % change	Flows in 2008
	At 31 Dec. 2007	At 31 Mar. 2008	At 31 Mar. 2008	Accumulated by 31 Mar. 2008
(A) Monetary base (Pesos)	494,743	447,711	9.2	-47,032
(B) Net international assets (Pesos) <sup>1/ 2/</sup>	952,227	970,747	16.0	42,576
Net international assets (USD) <sup>2/</sup>	87,235	91,165	20.1	3,931
(C) Net domestic credit (Pesos) [(A)-(B)] <sup>1/</sup>	-457,484	-523,036	22.4	-89,608
(D) Gross reserves (USDs)	87,211	91,134	20.1	3,923
Pemex				4,962
Federal Government				-2,732
Sale of USD to commercial banks <sup>3/</sup>				-936
Other <sup>4/</sup>				2,628
(E) Liabilities with less than six months to maturity (USD)	9,220	7,092	6.6	-2,128
(F) International reserves (USD) [(D)-(E)] <sup>5/</sup>	77,991	84,042	21.5	6,051

<sup>1/</sup> Net international assets' cash flows in pesos are estimated based on the exchange rate applied to each transaction.

<sup>2/</sup> Net international assets are defined as gross reserves plus credit agreements with foreign central banks with more than six months to maturity, minus total liabilities payable to the IMF and credit agreements with foreign central banks with less than six months to maturity.

<sup>3/</sup> Daily sales of US dollars according to the mechanism to reduce the pace of international reserve accumulation (see Foreign Exchange Commission's Press Release of March 20, 2003).

<sup>4/</sup> Includes yields on net international assets and other transactions.

<sup>5/</sup> As defined by the Law governing Banco de México.

### 3.4.2. Monetary Aggregates and Financing

In 2007, in a context where economic activity slowed as compared to the previous year, the annual flow of financial resources in the economy accounted for 5.3 percent of GDP, figure slightly below the 5.5 percent observed in 2006 (Table 10). As for the sources of financing, the flow of domestic resources (M4) decreased from 7.0 percent in 2006 to 5.4 percent of GDP in 2007. The increased flow of foreign financial resources partly compensated the decline in the flow of domestic financial savings. In 2007, the flow of foreign financing accounted for -0.1 percent of GDP, while in the previous year, -1.5 percent.<sup>41</sup>

During the January-February 2008 period, the monetary aggregates continued to grow at similar annual rates than in the last quarter of the previous year. In February of this year, the monetary aggregate M1 grew at an annual nominal rate of 10.8 percent, thus representing an annual growth in real terms of 6.8 percent (Graph 37b). The monetary aggregate M2 (residents' financial savings in domestic assets) grew 6.6 percent in real annual terms, while the monetary aggregate M4, which includes non-residents' financial savings, recorded an annual real variation of 9.1 percent (Graph 37c). In a context where the spreads on interest rates between Mexico and the U.S. widened at the end of 2007, non-residents' financial savings have grown considerably, recording a real annual variation of 77.6 percent in February (Box 6).

<sup>41</sup> A negative flow in foreign financing implies that foreign debt payments more than compensate the acquisition of new foreign financing, i.e., it implies a net debt payment.

**Table 10**  
**Total Financial Resources (Uses and Sources)**  
**Percentage of GDP**

	Annual flows					Stock in 2007
	2003	2004	2005	2006	2007	% of GDP
<b>Total sources</b>	<b>5.4</b>	<b>5.9</b>	<b>7.8</b>	<b>5.5</b>	<b>5.3</b>	<b>71.2</b>
M4	5.5	5.4	7.5	7.0	5.4	55.0
Foreign financing	-0.1	0.5	0.3	-1.5	-0.1	16.2
<b>Total uses</b>	<b>5.4</b>	<b>5.9</b>	<b>7.8</b>	<b>5.5</b>	<b>5.3</b>	<b>71.2</b>
Public sector <sup>1/</sup>	2.6	1.7	1.4	0.9	1.3	34.0
States and municipalities	0.3	0.2	0.1	0.0	0.1	1.4
Private sector	0.9	2.0	2.8	4.4	4.1	30.7
Households	1.2	1.9	2.0	2.4	1.7	13.8
Consumption	0.5	0.9	1.2	1.2	1.0	5.1
Housing <sup>2/</sup>	0.7	1.0	0.7	1.2	0.7	8.7
Firms	-0.3	0.1	0.8	2.0	2.5	16.9
Credit granted by financial intermediaries <sup>3/</sup>	-0.3	0.2	0.2	1.3	1.7	8.0
Issue of debt instruments	0.5	0.2	0.0	0.1	0.1	1.8
External	-0.5	-0.4	0.6	0.6	0.7	7.1
International reserves <sup>4/</sup>	1.5	0.6	0.9	-0.1	1.2	8.2
Other <sup>5/</sup>	0.1	1.4	2.6	0.3	-1.4	-3.1

Note: Figures may not add up due to rounding. Annual revalued flows are expressed as a percentage of annual average GDP. The stock for 2007 is presented as a percentage of GDP at the end of the period.

1/ Public Sector Borrowing Requirements (Requerimientos Financieros del Sector Público, RFSP) and the stock as a percentage of GDP refers to Public Sector Borrowing Requirements' historical stock (SHRFSP) as reported by the Ministry of Finance (SHCP).

2/ Total portfolio of financial intermediaries and of the National Employees' Housing Fund (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores*, Infonavit). Includes debt-restructuring programs.

3/ Total portfolio of financial intermediaries including debt-restructuring programs.

4/ As defined by the Law governing Banco de México.

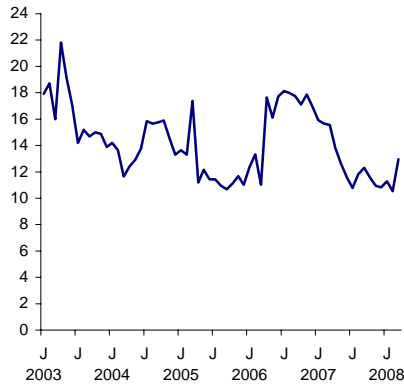
5/ A positive flow (negative) of this concept refers to a use (source) of financial resources. Thus, a negative flow of this item means that the sources of financial resources not considered in M4 and foreign financing (such as capital accounts, results and reserves, and other liabilities of Banco de México, commercial and development banks, of financial intermediaries and Infonavit) more than compensate the uses not considered in the items of financing to the public sector, financing to states and municipalities, financing to the non-financial private sector, and financing to accumulate international reserves (such as non-sectorized assets and other assets of Banco de México, commercial and development banks, financial intermediaries and Infonavit). In 2007, this item of other concepts increased to -1.4 percent of GDP, constituting a source of resources resulting from: 0.8 percent of GDP from an increase in equities and commercial banks' reserves, 0.5 points of GDP from Banco de México's accounts, and 0.1 percent of GDP from other concepts.

As for the use of financial resources, in 2007 the public sector (including states and municipalities) absorbed a flow of resources, accounting for 1.4 percentage points of GDP (0.9 percent in 2006). The flow of financing to the private sector accounted for 4.1 percent of GDP, as compared with 4.4 percent in 2006 (Table 10). This decline is explained by the lesser flow of resources channeled to financing to households, which decreased from 2.4 to 1.7 percent from 2006 to 2007, respectively. Financing to firms rose from 2.0 to 2.5 percent, therefore compensating part of the reduction in the flow of resources to finance households.<sup>42</sup>

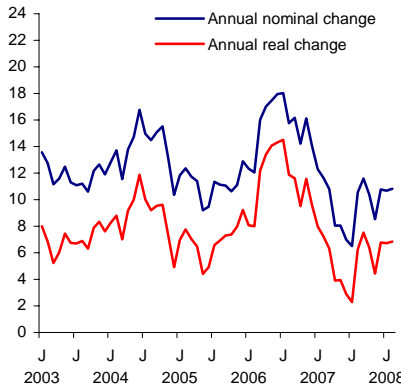
<sup>42</sup> The annual flow of financing to firms, as a percentage of GDP, rose from 2 in 2006 to 2.5 percent in 2007. The flow of financing to households during this period decreased from 2.4 to 1.7 percentage points of GDP. However, these flows are affected by a change in CNBV accounting standards, which state that since January 2007, credit statistics of commercial banks and Sofoles should reclassify bridge loans from housing construction (households) to credit to firms. Without this reclassification, resources to finance firms and households in 2007 would have been 2 and 2.2 percent of GDP, respectively.

**Graph 37**
**Monetary Aggregates**

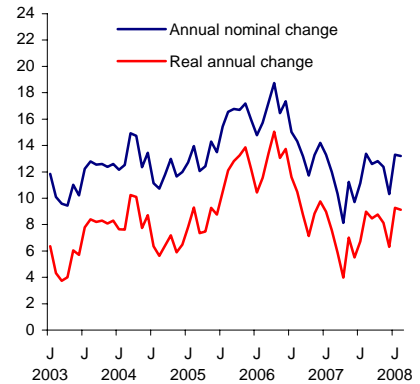
a) Monetary Base <sup>1/</sup>  
Annual nominal percentage change



b) Monetary Aggregate M1  
Annual nominal and real percentage change

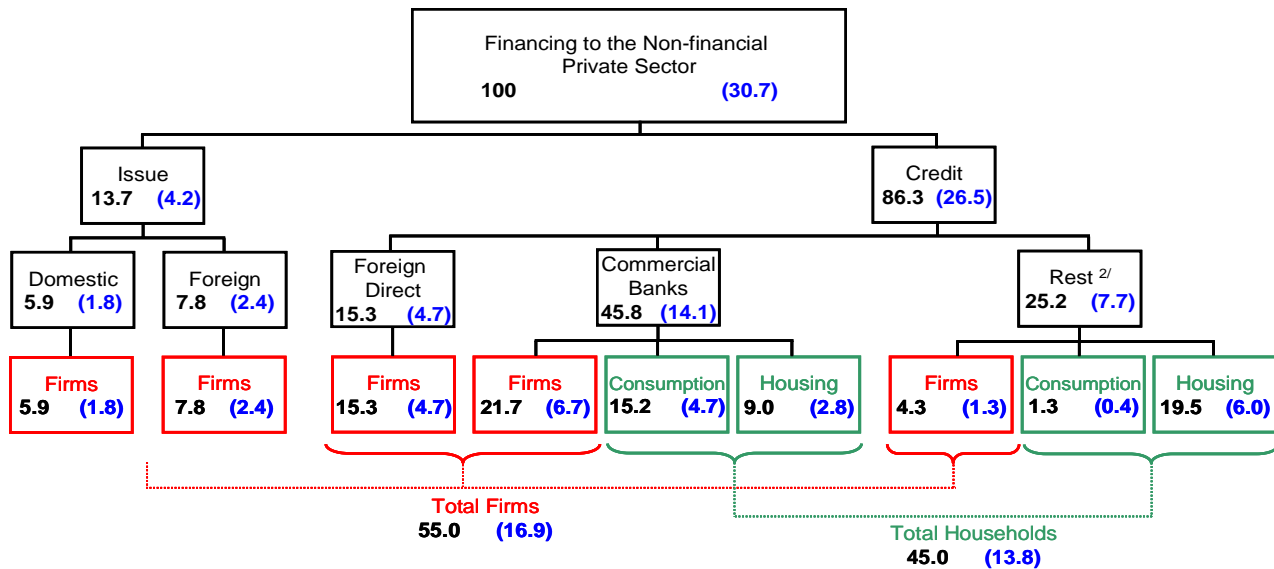


c) Monetary Aggregate M4  
Annual nominal and real percentage change



1/ Monthly average of daily stocks.

**Table 11**
**Financing to the Non-financial Private Sector: Stocks at December 2007**

 Percentage structure (and percent of GDP) <sup>1/</sup>


Note: Figures may not add up due to rounding.

1/Numbers in black correspond to the share of each item in the total stock of financing to the non-financial private sector in December 2007. Numbers in parenthesis and blue correspond to the stock at December 2007 expressed as a percentage of GDP at the end of the period.

2/Includes credit granted by Development Banks, Financial Leasing Companies, Financial Factoring Companies, Credit Unions, Sofoles, SAPs, and Infonavit.

In December 2007, the stock of total financing to the non-financial private sector accounted for 30.7 percent of GDP, figure above the 29.9 percent of GDP observed during the previous year (Table 11). During the fourth quarter of 2007, financing to the private sector posted a real annual variation of 9.6 percent, as compared with the 15.3 real annual percent variation observed during the third quarter of that year.

Debt issuance by non-financial private firms represented 13.7 percent of the stock of financing to the non-financial private sector during the last quarter of

2007 and 4.2 percentage points of GDP. The stock of securities issued in the domestic market represented 1.8 percent of GDP, while the stock of securities issued in international markets amounted to 2.4 percent of GDP (Table 11).

As for firms' financing through domestic debt securities, during the fourth quarter of 2007, the stock of non-financial private firms' securities posted a real annual average variation of 2.9 percent, as compared with 1.4 percent during the third quarter of 2007. During the fourth quarter of 2007, non-financial private firms' financing through foreign debt securities grew at a real annual rate of 13.6 percent, as compared with 12.9 percent during the previous quarter.

As shown in Table 11, most of the total financing to the non-financial private sector comes from credit granted by commercial banks. At December 2007, the stock of commercial banks' credit to the private sector accounted for 45.8 percent of total financing received by this sector and 14.1 percent of GDP. During the first two months of 2008, commercial banks' credit to the private sector continued the trend of growing at slower rates, following the pattern observed since the second half of 2007. In February 2008, commercial banks' direct performing credit to the non-financial private sector grew at a real annual rate of 25.3 percent, as compared with the annual average rate of 26.7 percent in real terms recorded during the fourth quarter of 2007.

Commercial banks' direct performing credit to households recorded a real annual variation of 20.3 percent in February 2008. Of these resources, commercial banks' performing consumer credit grew at a real annual rate of 18.3 percent (Graph 38a), while performing mortgage credit, 23.9 real annual percent (Graph 39a).

As for the cost of commercial banks' credit to households, Graph 38b presents the dispersion range for the annual percentage rate of charge (*Costo Anual Total*, CAT) for credit cards, defined using the highest and lowest CATs of a group of credit cards.<sup>43</sup> In the last months, this range has shifted upwards. The simple average of these indicators also increased, from 46.4 percent in June 2007 to 55.4 percent in February 2008.<sup>44</sup> As for the cost of mortgage credit, during the second half of 2007 and the first two months of 2008 the dispersion range of commercial banks' mortgage credit CAT had not changed significantly (Graph 39b).<sup>45</sup> The simple average of this indicator has also remained stable in the last months.<sup>46</sup>

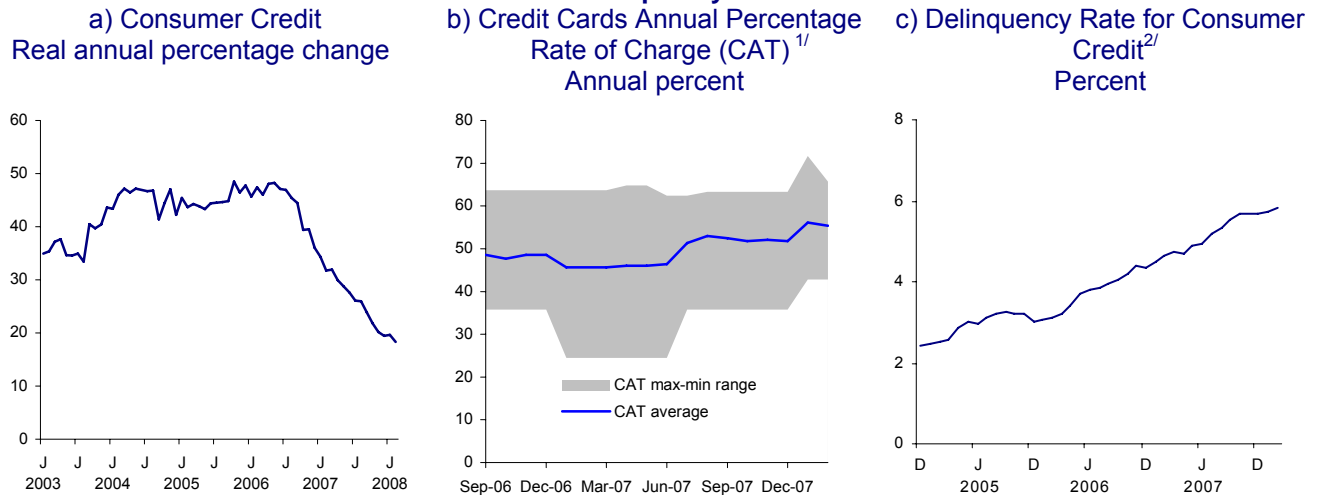
<sup>43</sup> Information on credit cards' CAT corresponds to the cost of a group of credit cards known as "classic" (*clásicas*) and is obtained from the National Commission for the Protection and Defense of Financial Services Users (*Comisión Nacional para la Defensa de los Usuarios de las Instituciones Financieras*, Condusef). The dispersion range is defined using in each point the highest and lowest CATs reported for this group of credit cards.

<sup>44</sup> It is important to point out that the simple average of the CAT for credit cards not necessarily is the best indicator to reflect the conditions for the cost of financing to this type of instrument. In the case of credit cards it is evident because not all products have the same share in total credit granted by commercial banks through this type of instrument. A more reliable indicator would therefore be an average of the respective CATs, weighted by the stock of credit associated with each product. Currently, the available breakdown related to information on credit granted by commercial banks through credit cards does not allow for estimating this type of indicator.

<sup>45</sup> The dispersion range of the mortgage credit CAT is defined using the highest and lowest indicators reported by commercial banks for a standard mortgage product in a particular month.

<sup>46</sup> In this case, the simple average of the annual percentage rate of charge (*Costo Anual Total*, CAT) for mortgage credit is presented and not the figure corresponding to the weighted average of this CAT,

**Graph 38**  
**Commercial Banks' Performing Consumer Credit, Annual Percentage Rate of Charge to Credit Cards, and Delinquency Rate**



1/ Information referring to the annual percentage rate of charge (*Costo Anual Total*, CAT) of credit cards used to calculate the simple average corresponds to the cost of a group of credit cards known as "classic" (*clásicas*) and is provided by the National Commission for the Defense of Users of Financial Services (*Comisión Nacional para la Defensa de los Usuarios de las Instituciones Financieras*, Condusef). The range of dispersion (Range max-min) is defined using in each point the maximum and minimum levels of the CAT reported for this group of credit cards.

2/ The delinquency rate of commercial banks' credit is defined as the stock of overdue credits divided by the stock of total credit.

It is important to point out that the delinquency rate of commercial banks' credit to households has continued to increase and recorded 4.7 percent in February, as compared with 3.9 percent during the previous year. In particular, in February 2008, the delinquency rate for consumer credit rose to 5.8 percent (Graph 38c), while that for mortgage credit recorded 2.6 percent (Graph 39c).<sup>47</sup>

As for commercial banks' performing direct credit to firms, during the first two months of 2008, it continued to grow at real annual rates close to 30 percent. It is worth mentioning that bank credit for the manufacturing, services, and construction sectors continues to grow at high rates (Graph 40a).<sup>48</sup>

As for the cost of credit of commercial banks to firms, Graph 40b shows that the interval of interest rates associated with this type of credit has widened since the mid-2007, mainly due to an increase in the upper part of this interval.<sup>49</sup> The aforementioned has been the result of an expansion of credit to smaller firms which, in general terms, have higher credit risk. The higher interest rates of credit to firms in the upper limit of the interval correspond mainly to higher interest rates of a reduced number of credits. These interest rates recorded a simple average of 15.7 percent in February 2008, as compared with 15.1 percent in June 2007

because there is no available information on the stock of credit for each of the mortgage credit products considered in this indicator.

<sup>47</sup> As for commercial banks' direct consumer credit, the delinquency rate of credit granted through credit cards rose from 5.7 percent in February 2007 to 7 percent in February 2008. The delinquency rate of credit for consumption of durable and other type of goods increased from 3.1 to 3.9 percent during the same period.

<sup>48</sup> In the last months, commercial banks' credit to the rest of the sectors (agricultural, mining, and other non-sector credits) has also grown at similar rates in real terms to those of manufacturing and services.

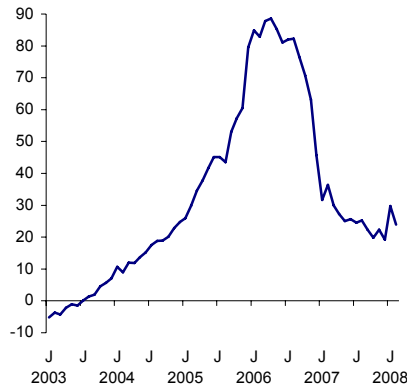
<sup>49</sup> The interval of credit to firms' interest rates is defined using the trimmed distribution of interest rates associated with each credit. The interval is therefore defined by excluding 10 percent of the observations in the upper limit of the interest rates' distribution (the lowest and the highest) in each point. The interest rates that are in the upper limits of the distribution are thus excluded.



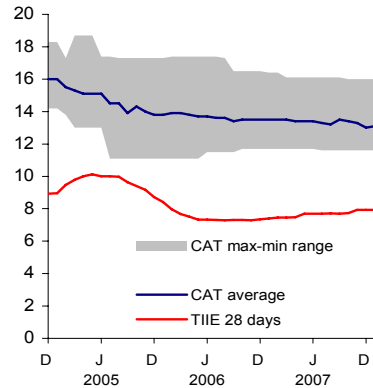
(Graph 40b).<sup>50</sup> Worth mentioning is that in February 2008, the delinquency rate of commercial banks' credit to firms was 1.1 percent, the same level recorded during the past two years (Graph 40c).

**Graph 39**  
**Commercial Banks' Performing Mortgage Credit, Annual Percentage Rate of Charge of Mortgage Credit, and Delinquency Rate**

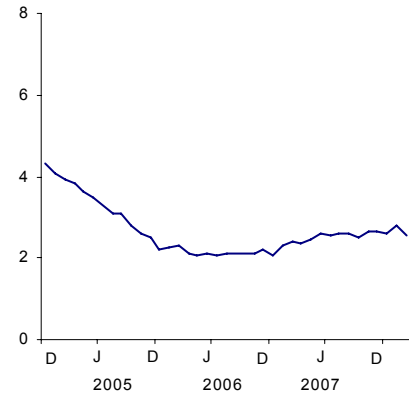
a) Mortgage Credit  
 Real annual percentage change



b) Mortgage Credit Annual Percentage Rate of Charge (CAT)<sup>1/</sup>  
 Annual percent



c) Delinquency Rate of Mortgage Credit<sup>2/</sup>  
 Percent



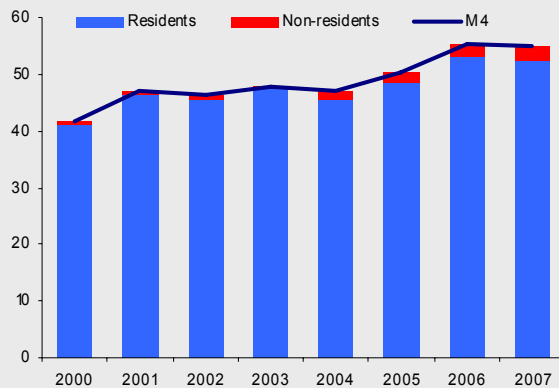
1/ Simple average. Summarizes the annual percentage rate of charge (CAT) for a standard mortgage product. The range of dispersion of the mortgage credit CAT (max-min range) is defined using the maximum and minimum indicators reported by commercial banks for the CAT for a standard mortgage product during a particular month. CAT information is obtained from Banco de México's Search Engine Simulator of Mortgage Credits.  
 2/ The delinquency rate of commercial banks' credit is defined as the stock of overdue credits divided by the stock of total credit.

<sup>50</sup> The simple average of credit to firms' interest rates is calculated considering only the observations that fall within the aforementioned interval (80 percent of the distribution's center). As mentioned, a simple average not necessarily reflects the conditions of banks' financing cost. Currently, work is being done to release a weighted average indicator of credit to firms' interest rates, where these can be weighted by the stock of each credit within the total stock of the period.

### Box 6 Non-residents' Financial Savings in M4 Instruments

In recent years, financial savings in Mexico has followed an upward trend, growing at an average annual real rate of 7.9 percent between 2000 and 2007. While the monetary aggregate M4 accounted for 41.7 percent of GDP in 2000, in 2007, it did so by 55.0 percent (Graph 1). Although the greater availability of domestic financial savings has allowed the Mexican economy to depend less on international financing, in recent years, non-residents contribution to the growth of financial savings in domestic instruments has increased.

**Graph 1**  
Monetary Aggregate M4  
Percent of GDP<sup>1/</sup>



<sup>1/</sup> Percent of GDP at the end of the period.  
Source: Banco de México.

Non-residents' financial savings in the monetary aggregate M4 instruments is a source of external resources that complements financial savings generated domestically. In recent years, the stock of M4 held by non-residents has followed an upward trend; however, its share in the economy's financial saving is still low. Between 2003 and 2007, the stock of M4 financial assets held by non-residents grew at an average annual real rate of 39.1 percent. Its share in M4 increased from 1.3 to 5 percent during the same period. During 2007, it accounted for 2.8 percent of GDP.

The composition of M4 held by non-residents has changed significantly, currently concentrating in long-term fixed rate federal government bonds. In 2000, a small share of public securities was held by non-residents, and their savings were mostly channeled to bank deposits (82.1 percent of the total). In recent years, the composition of non-residents' investment in financial instruments has changed, and in 2007, M4 held by non-residents was mainly invested in long-term fixed rate federal government Bonos M (73.7 percent of the total), while bank deposits accounted for 20.7 percent of the total (Table 1).

**Table 1**  
Non-residents' Financial Savings in M4 Instruments

	2000	2002	2004	2006	2007	2008-Feb
<b>Percent of GDP</b>						
M4	41.7	46.4	46.9	55.2	55.0	n.a.
Resident	40.8	45.8	45.7	53.2	52.3	n.a.
Non-resident	0.8	0.6	1.2	2.0	2.8	n.a.
Non-resident (% of M4)	2.0	1.3	2.5	3.6	5.0	5.9
<b>Real annual variation</b>						
M4	4.5	4.3	6.5	9.7	6.3	9.1
Resident	5.2	4.6	5.2	9.5	4.7	6.6
Non-resident	-20.5	-17.1	98.2	17.4	48.6	77.6
<b>Percentage structure</b>						
Non-resident	100.0	100.0	100.0	100.0	100.0	100.0
Bank deposits	82.1	54.7	20.6	22.3	20.7	14.9
Public securities	17.9	45.3	79.4	77.7	79.3	85.1
Federal Government	17.9	41.8	77.2	74.0	78.9	84.9
Bonos M	3.5	33.1	69.3	67.8	73.7	78.4
Rest	14.5	8.7	7.9	6.3	5.2	6.6
Other securities	0.0	3.5	2.2	3.7	0.4	0.2

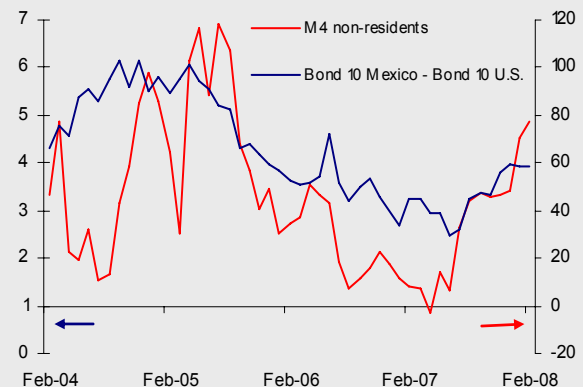
Source: Banco de México.

Recently, the rate of growth of M4 held by non-residents has increased significantly. During the first half of 2007 this aggregate grew at an average annual real rate of 7.5 percent, while during the second half, it did so by 44.3 percent and, in February 2008, its annual real rate of growth rose to 77.6 percent (Graph 2).

Due to the importance of long-term securities in the portfolio of domestic financial assets held by non-residents, the interest rate spread between Mexico's fixed government bonds in relation to similar instruments in other countries is a factor that affects non-residents' savings considered in M4. Thus, the spread between fixed-rate 10-year government bonds between Mexico and the U.S. has increased and was 2.91 percentage points on average during the first half of 2007, 3.33 points on average during the second half of the same year, and, in February 2008, 3.78 percentage points on average (Graph 2).

**Graph 2**  
Interest Rate Spread between Mexican and U.S. 10-year  
Government Bonds and Non-residents Financial Saving in  
M4 Instruments

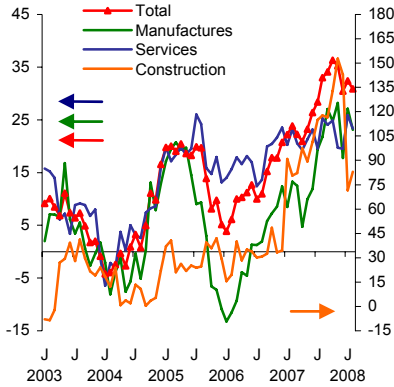
Percentage and real annual percentage change



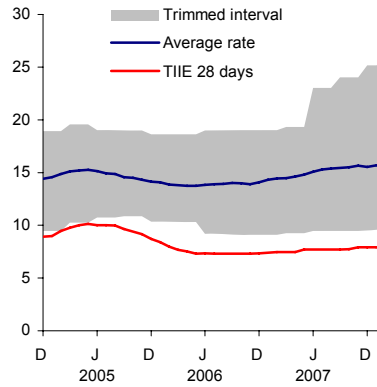
Source: Banco de México and Federal Reserve Board.

**Graph 40**  
**Commercial Banks' Performing Credit to Firms, Interest Rates of Credit to Firms, and Delinquency Rate**

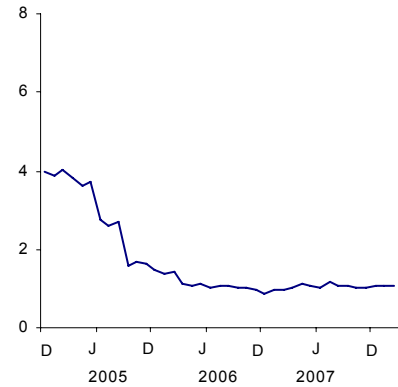
a) Credit to Firms  
 Real annual percentage change



b) Interest Rates of Credit to Firms<sup>1/</sup>  
 Annual percent



c) Delinquency Rate of Credit to Firms<sup>2/</sup>  
 Percent



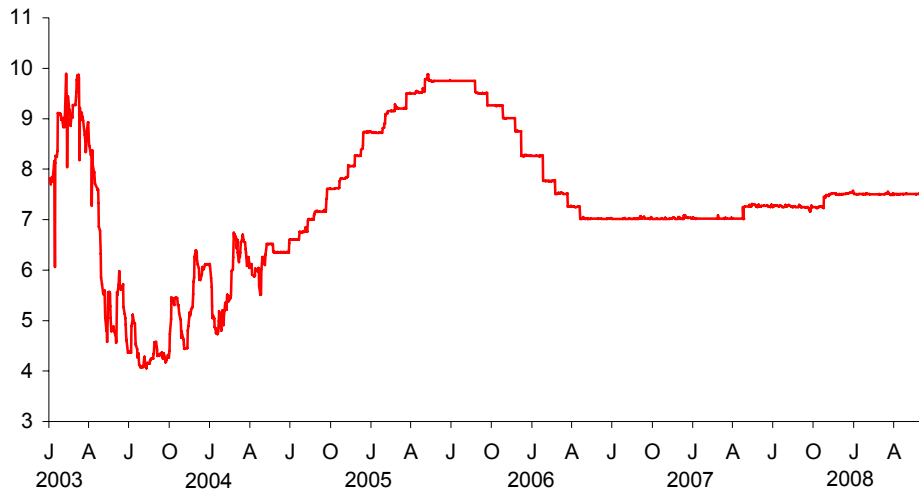
1/ Simple average of the nominal interest rate of credits granted by commercial banks to firms in pesos during the period. Information provided by CNBV. The interval of interest rates is defined using the trimmed distribution of interest rates associated with each credit. The interval is therefore defined by excluding the 10 percent of the extreme observations of the distribution (the lowest and the highest) from the interest rates in each point. The interest rates in the extreme sides of the distribution are therefore excluded.

2/ The delinquency rate of commercial banks' credit is defined as the stock of overdue credits divided by the stock of total credit.

## 4. Monetary Policy

During the first four months of the year, Banco de México's Board of Governors decided to leave the target for the Overnight Interbank Interest Rate unchanged. As a result of this measure, the target remained at 7.50 percent between October 2007 and April of this year (Graph 41).

**Graph 41**  
**Interest Rates**  
 Overnight Interbank Interest Rate  
 Annual percent



As mentioned, since 2006, the economy has been affected by significant and persistent shocks, which have generated inflationary pressures. Among these shocks are the increases in international prices of grains, which, in turn, have also prompted price increases in grain-related food products. In addition, the higher levels of inflation in the last months have been affected by the upward trend followed by the prices of other commodities like metals and energy goods during the first quarter of 2008.

As in previous Reports, following are some of the indicators used by Banco de México to analyze the determinants of the process of inflation expectations' determination and, therefore, of the process of price determination in the economy.

The first indicators that are analyzed are inflation trimmed means, which are useful to assess the recent behavior of trend inflation. Graph 42a shows that, during the first quarter of the year, the trimmed mean for annual headline inflation continued to be below headline inflation. This means that the 10 percent upper limit of the CPI's weight that concentrates those products with the highest price variations continues to have an effect on annual inflation which more than compensates the effect that the 10 percent of the lower limit's CPI weight (which concentrates those products with the lowest price variations) has on headline inflation. The trimmed mean rose from 3.50 percent in December 2007 to 3.71 percent in March 2008. This increase shows, by definition, that the price variation of the intermediate 80 percent of the total weight of the CPI (that is, excluding 10

percent of the weight in each limit), increased. This implies that the raise in the prices of certain commodities has not only affected inflation through products with higher price variations located in the upper limit, but also through increases in product prices located towards the center of the distribution.

In the case of core inflation (new definition that includes education services), its trimmed mean indicator continued to be below core inflation. Nevertheless, it also increased, from 3.57 percent in December 2007 to 3.77 percent in March 2008 (Graph 42b). This result was mainly attributed to the increases in the international prices of grains and metals and the last months, which have continually affected the prices of products included in the core price subindex (processed foods and housing maintenance). It is important to mention that although the trimmed mean of core inflation has increased, the gap between core inflation and its trimmed mean widened.

In the case of non-core inflation (new definition), the increase in its trimmed mean indicator, from 4.02 to 4.52 percent during the first quarter, reflected the adjustments in the prices of some agricultural products as well as in some products of the subindex of administered and regulated prices (Graph 42c). In this case, non-core inflation had been below its trimmed mean since September 2007. However, with the growth in non-core inflation, from 2.58 percent in February to 3.99 percent in March, the gap between non-core inflation and its trimmed mean closed. This means that in March 2008, the contribution of the 10 percent upper limit of the weight of the non-core subindex that includes those products with the highest price variations, more than compensated the effect of the 10 percent of the opposite lower limit.

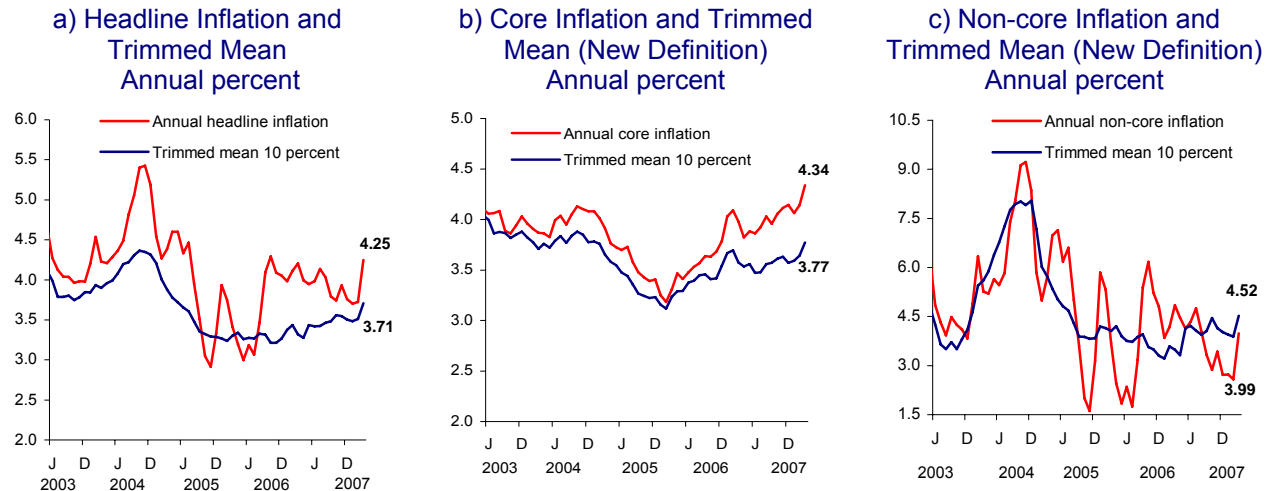
Summing up, in the three cases, the trimmed means rose during the first quarter. By construction, this implies that the average prices of those products that during this period made up the intermediate 80 percent of the weight of their respective indices increased. This reflects the persistence and large number of shocks that have affected a considerable number of products due to the significant increase in the international prices of various commodities.

Another set of indicators is obtained by calculating the proportions of both the CPI basket and the core price subindex whose annual price variations are below or equal to 2 percent, between 2 and 4 percent, and above or equal to 4 percent. Graph 43a shows that, in the case of the CPI, the proportion of the basket with prices growing above 4 percent (gray shaded area) rose from 30.3 percent to 43.2 percent between January 2006 and March 2008.<sup>51</sup> This 12.9 percentage point increase results from adding the weights of those products with annual price variations from below 4 percent in January 2006 to 4 percent or above in March 2008, and then subtracting the weights of the products that recorded annual price variations from above or equivalent to 4 percent to below 4 percent during the referred period. Considering the aforementioned, and classifying the products according to their relationship with different commodities, the 12.9 percentage points are explained as follows: 6.8 points correspond to products related with food commodities (wheat 1.2, sugar 2.0, rice 0.2, corn -1.2, soy and other seeds 1.9, dairy products 0.4, and, other foodstuffs 2.3); 1.5 points to products and services related with metals; 0.9 points to energy-related

<sup>51</sup> Since the percentage of the CPI basket with annual price variations equivalent or above 4 percent reached its minimum level in January 2006, this date is used as a reference.

products; and 3.7 points to other goods and services not related directly with foods, metal and, energy (Box 7).<sup>52</sup>

**Graph 42**  
**Headline Inflation and Inflation Indicators excluding the Contribution of Extreme Upper and Lower Trimmed Means at 10 Percent**<sup>1/</sup>



<sup>1/</sup>The trimmed mean excludes the contribution of extreme variations in certain items' prices from headline inflation. To strip these variations, the following calculations are done: i) monthly seasonally adjusted variations of CPI prices are arranged in descending order; ii) the items with the highest and lowest variation are excluded, considering up to 10 percent of the CPI basket, respectively, in each distribution tail; and, iii) with the remaining items, which, by construction, are located at the center of the distribution, the trimmed mean indicator is constructed.

As for the core price subindex (new definition), the proportion of the CPI basket with annual price variations equivalent or above 4 percent increased from 28.3 percent to 43.0 percent, between January 2006 and March 2008 (Graph 43b). A similar analysis shows that this increase is mainly attributed to the price increase in various products and services associated with the international prices of grains and metals.

<sup>52</sup> In the case of corn-related products, while Corn, with a 0.02 percent weight, moved from an interval of annual price variations below 4 percent in January 2006, to above 4 percent in March 2008, Corn-tortillas, with a 1.23 percent weight, moved from an interval of annual price variations above 4 percent to that of below 4 percent. Therefore, both products have a net contribution of -1.2 percentage points.



**Box 7**  
**Percentage Increase in CPI Basket Items with Annual Price Variations Higher or Equal to 4 Percent**  
**(January 2006-March 2008)**

Within the group of indicators that are useful to analyze the recent developments in inflation are the proportions of CPI basket products that present annual price variations at different intervals: i) below or equal to 2 percent; ii) between 2 and 4 percent; and, iii) equal or above 4 percent.<sup>1/</sup>

In a context where the international prices of various commodities have been increasing considerably since 2006, the proportion of CPI basket products whose prices have been growing above 4 percent increased from 30.3 percent in January 2006 to 43.2 percent in March 2008.<sup>2/</sup> This 12.9 percentage point increase results from adding the weights of products whose annual price variations recorded from below 4 percent in January 2006 to above 4 percent in March 2008 and, to that total, subtracting the weights of the products that recorded annual price variations from above 4 percent to below 4 percent during the referred period. Following is a description of how most of the products that explain the growth in this indicator between January 2006 and March 2008 are related to commodities whose international prices have increased significantly in the last years.

Tables 1, 2, 3 and 4 group those products that satisfy the abovementioned conditions according to their relation with different commodities. The first column presents the contribution of each product (based on its weight) as well as its annual price inflation between January and December 2007, December 2007, and March 2008. Information reveals that the 12.9 percentage points are distributed as follows:

**a) Food commodities.** The 6.8 points recorded by this group results from: 9.3 points from adding the weights of the products related with food commodities that recorded annual price variations below 4 percent in January 2006 and above 4 percent in March 2008; and 2.5 points from adding the weights of products that recorded annual price variations from above 4 percent to below 4 percent during the referred period ( $6.8 = 9.3 - 2.5$ ). The distribution of the products by type of commodity is as follows (Table 1):

- i) Wheat:** 1.2 points. From the products considered in this exercise, all of those related to wheat belong to the group that recorded annual price variations from below 4 percent to above 4 percent. Due to their weights, among these are Cereal flakes, White bread, and Packaged sliced bread.
- ii) Sugar:** 2.0 points. As in the case of wheat, all products considered in this exercise related with this commodity recorded price variations from below 4 percent to above 4 percent. Worth mentioning among these is the contribution of carbonated soft drinks.<sup>3/</sup>
- iii) Rice:** 0.2 points. The only product that belongs to this group is Rice, which recorded an annual price variation from 0.4 percent in January 2006 to 12 percent in March 2008.
- iv) Corn:** -1.2 points. While Corn (weight of 0.02) recorded annual price variations from below 4 to above 4 percent during the reference period, Corn-tortillas (weight of 1.23) behaved completely differently.
- v) Soy and other seeds:** 1.9 points. Among the products of this group that recorded annual price variations below 4 percent during the reference period, worth mentioning due to its weight is Beer, whose production process depends on yeast.

**vi) Dairy products:** 0.4 points. The products considered in this exercise, all dairy-related, recorded annual price variations, from below 4 percent to above 4 percent.

**vii) Other foods:** 2.3 points. The weights of the rest of the products, those that are not directly related with the aforementioned commodities but are included in foods (both processed and unprocessed) and recorded annual price variations from below to above 4 percent during the analyzed period, totaled 3.5 percentage points. The weights of this group's products, which exhibited an opposite behavior, recorded 1.2 percentage points.

**b) Metal-manufactured goods.** The 1.5 percentage points recorded by this group are obtained from products whose prices are associated with the price increases in international markets exhibited by metals such as copper and steel. Among these products are those related with house maintenance, as well as other metal-related products (Table 2).

**c) Energy-related goods.** From the 0.9 percentage points corresponding to energy-related products, 4.1 pertain to products that recorded annual price variations from below to above 4 percent during the analyzed period (Electricity, Urban and Inter-city transportation) and 3.2 points to the group that recorded variations from above to below 4 percent (low-octane gasoline) (Table 3).<sup>4/</sup>

**d) Goods and services not related with the aforementioned.** The 3.7 points correspond to goods and services not related directly with foods, metals, and energy (Table 4). From this group, products from the price subindex other merchandise contribute with 0.9 points; products from the price subindex other services with 1.4 points; products from the price subindex Housing-related services with 1.5 points; and, products from the regulated price subindex with 0.04 points.

Summing up, the 12.9 percentage point increase in the proportion of CPI products with annual price variations above 4 percent from January 2006 to March 2008 is explained as follows: 6.8 correspond to items related with food commodities; 1.5 points with metal-related products and services; 0.9 with energy products; and, 3.7 with other goods and services not related directly with foods, metals and/or energy goods.

1 References regarding annual price variations above 4 percent correspond to the range of variations equaling or above this figure.

2 January 2006 is used as a reference because the CPI's basket percentage with annual price variations equal or above 4 percent recorded its lowest level this date.

3 After having increased considerably during 2006 and 2007, the annual price variation of Sugar declined in the last months. The annual percentage change of sugar prices recorded 37.6 percent in October 2006. In March 2008, its annual variation recorded -12.6 percent.

4 Although the higher rate of growth in urban and inter-city transportation fares can be associated with the increase in energy prices, other factors, such as the administrative decisions of each state, could have also influenced price behavior.





**Table 1**  
Weights and Annual Price Variation of Some Food-related Products <sup>1/</sup>  
(Percent)

Weight	Product	2006		2007	2008
		Jan	Dec	Dec	Mar
<b>1.2%</b>	<b>Wheat</b>	2.0	14.0	26.0	29.0
0.26	Cereal flakes	1.2	3.2	6.0	6.3
0.22	White bread	1.7	8.9	16.5	15.7
0.18	Packaged sliced bread	2.0	6.4	15.4	13.3
0.14	Soup pasta	0.7	0.0	11.2	7.1
0.13	Pizzas	2.4	3.7	6.8	9.0
0.08	Popular cookies	2.9	4.2	8.0	9.2
0.07	Wheat tortillas	3.0	5.3	15.7	12.0
0.06	Cakes and pastries	2.0	5.4	13.5	12.1
0.05	Other cookies	1.8	2.3	7.4	7.2
0.03	Wheat flour	-0.7	5.2	20.5	20.8
<b>2%</b>	<b>Sugar</b>				
1.45	Bottled soft drinks	3.5	4.3	4.0	4.0
0.16	Bottled juices and nectars	1.2	-3.3	9.4	10.2
0.14	Other liquors	0.2	1.9	3.8	4.4
0.12	Rum	1.3	5.1	3.3	5.2
0.06	Chocolate	1.9	3.4	6.3	6.3
0.05	Candies, candy milk syrup, honey	1.9	2.6	7.1	6.7
0.03	Other canned fruits	1.2	4.6	4.9	7.8
<b>0.2%</b>	<b>Rice</b>				
0.15	Rice	0.4	10.2	7.5	12.0
<b>-1.2%</b>	<b>Corn</b>				
0.02	Corn	1.4	9.7	12.1	9.1
-1.23	Corn tortillas	5.0	13.8	5.6	1.9
<b>1.9%</b>	<b>Soy and other seeds</b>				
1.46	Beer	2.4	4.3	3.4	6.6
0.32	Edible vegetable oils	-3.2	1.2	19.6	33.3
0.14	Canned tuna and sardines	2.7	1.3	4.8	7.4
<b>0.4%</b>	<b>Dairy products</b>				
0.20	Yoghurt	-3.4	-1.6	6.7	8.0
0.10	Milk cream	2.9	2.8	7.3	9.8
0.10	Chihuahua and Manchego cheese	3.6	-0.1	21.2	20.6
0.03	American (yellow) cheese	3.1	1.6	14.9	15.6
<b>2.3%</b>	<b>Other foods</b>				
0.35	Bottled water	-1.4	-1.6	4.3	4.5
0.28	Tequila	-0.9	-4.9	4.5	4.5
0.22	Barbecued lamb and birria	2.2	3.4	3.4	4.3
0.16	Seasoned pork-sausage	2.8	4.6	4.3	4.7
0.11	Pet food	-0.5	0.6	8.0	7.2
0.05	Canned vegetables	2.4	-0.8	2.9	4.0
0.04	Other seasonings	-0.2	2.6	4.5	4.6
0.03	Other fish and seafood	0.3	0.4	9.7	7.8
0.03	Process.fruits and vegetables(baby food)	2.6	3.6	6.5	5.8
0.30	Fruits and vegetables group I*				
1.05	Sliced chicken	-0.1	8.0	8.0	9.9
0.53	Eggs	-8.4	15.8	17.9	23.5
0.15	Whole chicken	-3.3	10.9	6.6	11.9
0.09	Yellow fin <i>mojarra</i>	-1.6	-1.2	1.4	6.0
0.07	Beef cuts	2.9	-2.0	5.9	4.6
0.05	Beef liver	2.7	0.9	5.4	5.2
0.03	Red snapper	-0.9	5.0	8.0	5.0
-0.02	Other dehydrated vegetables	7.0	0.2	2.4	3.6
-0.91	Fruits and vegetables group II**				
-0.05	Other beef cuts	8.2	1.4	3.9	3.4
-0.09	Other fish	4.6	2.5	0.4	-1.9
-0.16	Beef scraps	4.3	-1.0	4.7	2.4
<b>6.8%</b>	<b>Food-related products</b>				

**Table 2**  
Weights and Annual Price Variation of Some Metal-manufactured Products <sup>1/</sup>  
(Percent)

Weight	Product	2006		2007	2008
		Jan	Dec	Dec	Mar
0.85	Home maintenance materials	3.5	5.9	3.0	4.5
0.43	Home maintenance services	2.1	4.8	3.8	4.4
0.18	Razor blades and razors	-2.7	2.5	3.0	4.0
0.05	Kitchen batteries	2.4	2.2	5.6	6.3
0.03	Other kitchen tools	-0.1	12	8.3	6.8
<b>1.5%</b>	<b>Metal-manufactured goods</b>				

<sup>1/</sup> Products' annual price variations below 2 percent, between 2 and 4 percent, and above 4 percent, correspond to shaded areas in blue, yellow, and gray, respectively. These colors are the same as those used in Graph 43 of this Inflation Report.

\* Group I fruits and vegetables includes green tomatoes (0.11), grapes (0.06), Poblano chili peppers (0.05), peas (0.05), and dried chili peppers (0.03).

\*\* Group II includes potatoes (0.23), oranges (0.14), mangoes (0.09), key lime (0.08), Serrano chili peppers (0.07), cantaloupes (0.05), watermelons (0.04), green cactus-*nopales* (0.04), grapefruits (0.03), pineapples (0.03), *chayotes* (0.03), cucumbers (0.03), guavas-*guayabas* (0.03), and green beans (0.02).

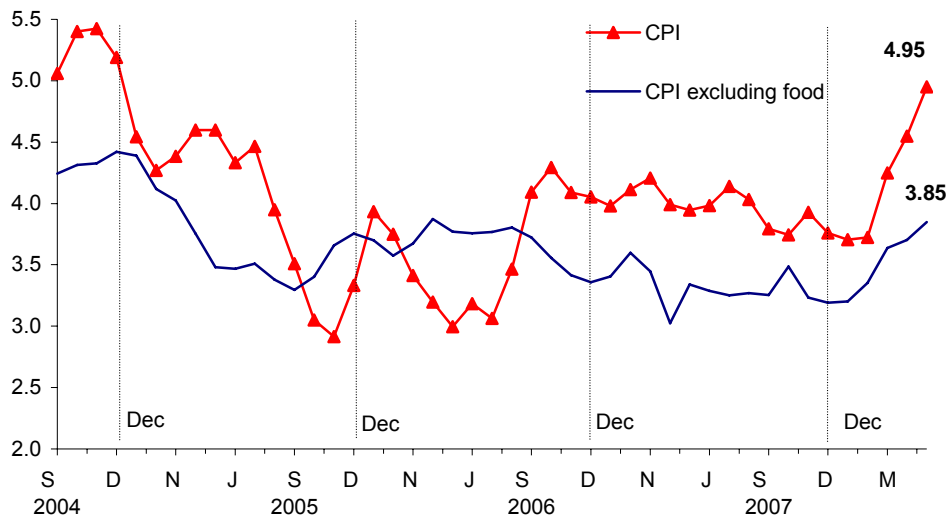
**Table 3**  
Weights and Annual Price Variation of Some Energy-related Products <sup>1/</sup>  
(Percent)

Weight	Item	2006		2007	2008
		Jan	Dec	Dec	Mar
2.27	Electricity	3.7	5.1	3.0	6.3
1.32	Urban bus services	3.6	5.9	5.6	4.1
0.50	Intercity bus services	3.0	2.5	3.7	5.5
-3.19	Low octane gasoline	6.0	5.6	4.8	3.7
<b>0.9%</b>	<b>Energy-related goods</b>				

**Table 4**  
Weights and Annual Price Variation of Some Products not related with Foods, Metals, and Fuels <sup>1/</sup>  
(Percent)

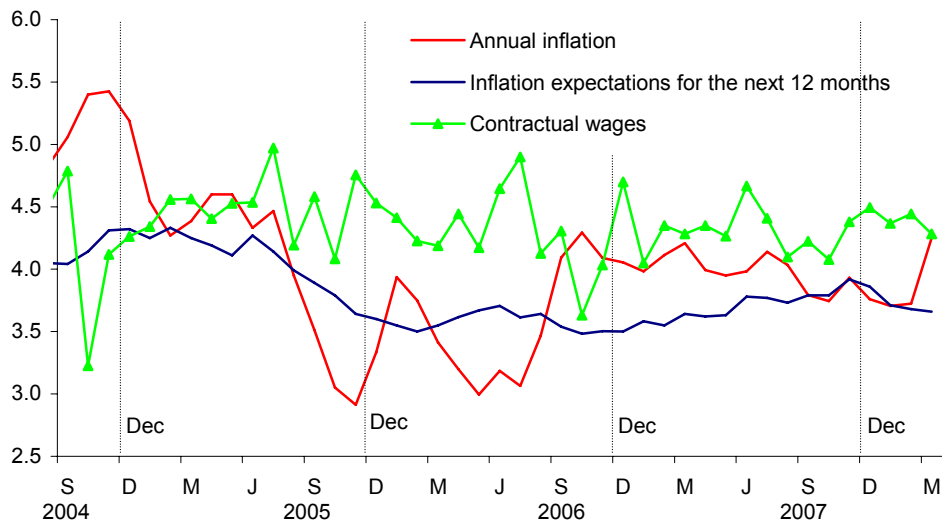
Weight	Product	2006		2007	2008
		Jan	Dec	Dec	Mar
<b>0.9%</b>	<b>Other merchandise</b>				
0.69	Notebook and binders	3.1	4.2	4.5	5.2
0.39	Toilet soap	2.7	2.8	4.3	4.1
0.15	Laundry detergent	3.4	0.5	14.2	16.5
0.13	Pens, pencils and others	2.4	0.9	4.2	4.2
0.13	Other footwear-related expenses	3.6	3.4	4.1	4.1
0.10	Bedrooms	2.5	1.6	2.8	4.3
0.07	Rooms adj. the dining room	-0.2	0.9	2.0	6.0
0.06	Other cleaning and home appliances	3.2	2.9	3.7	4.9
0.04	Matches	1.5	3.4	3.7	5.1
0.03	Storage batteries	3.2	7.4	12.0	14.5
0.02	Water heaters	3.9	3.0	3.4	5.2
-0.04	Home plastic tools	4.1	4.0	3.7	2.9
-0.06	Other spare parts	4.8	4.0	2.7	2.4
-0.07	Dental prostheses	4.0	3.1	3.9	3.5
-0.08	Paper handkerchiefs	4.4	4.0	3.4	2.8
-0.09	China and glassware	4.4	0.7	5.6	3.9
-0.09	Other medicines	9.5	8.4	2.6	2.9
-0.14	Painkillers	7.1	9.6	2.8	3.7
-0.39	Diapers	6.7	4.1	6.3	2.7
<b>1.4%</b>	<b>Other services (1.4%)</b>				
0.83	Medical consultations	3.5	4.6	5.7	5.4
0.44	Car insurance	-1.3	0.2	7.5	4.8
0.43	Haircuts	3.0	5.5	3.8	4.3
0.24	Dental cleaning	3.2	4.3	5.2	4.3
0.17	Car wash and lubrication	3.1	4.6	4.4	4.0
0.15	Car maintenance service	3.6	4.4	4.9	5.5
-0.04	Pregnancy tests	4.2	4.7	3.2	1.5
-0.07	Pregnancy medical consultation	4.1	3.4	3.3	3.5
-0.13	Sport events	5.1	4.1	1.4	2.3
-0.14	Medical tests	4.3	3.4	3.6	2.1
-0.19	Sports club	5.3	6.9	4.4	3.6
-0.28	Surgical operations	5.0	2.7	2.8	2.9
<b>1.5%</b>	<b>Home services</b>				
1.49	Cleaning and maid services	3.1	5.0	6.4	5.2
<b>0.04%</b>	<b>Items with regulated prices</b>				
0.18	Property tax	3.4	3.7	3.4	19.8
-0.14	Oil lubricants	7.0	12.5	3.7	3.8
<b>3.7%</b>	<b>Goods and services not related with foods, metals and/or energy goods</b>				

**Graph 44**  
**Non-food Inflation Indicator<sup>1/</sup>**  
 Annual percentage change



1/ The non-food inflation indicator excludes from the CPI basket the items from the group of agricultural products and the group of processed foods and beverages of the merchandise price subindex (except tobacco-related items). This indicator accounts for 77.86 percent of the CPI basket.

**Graph 45**  
**Annual Inflation, Inflation Expectations, and Annual Variation in Contractual Wages<sup>1/</sup>**  
 Annual percent



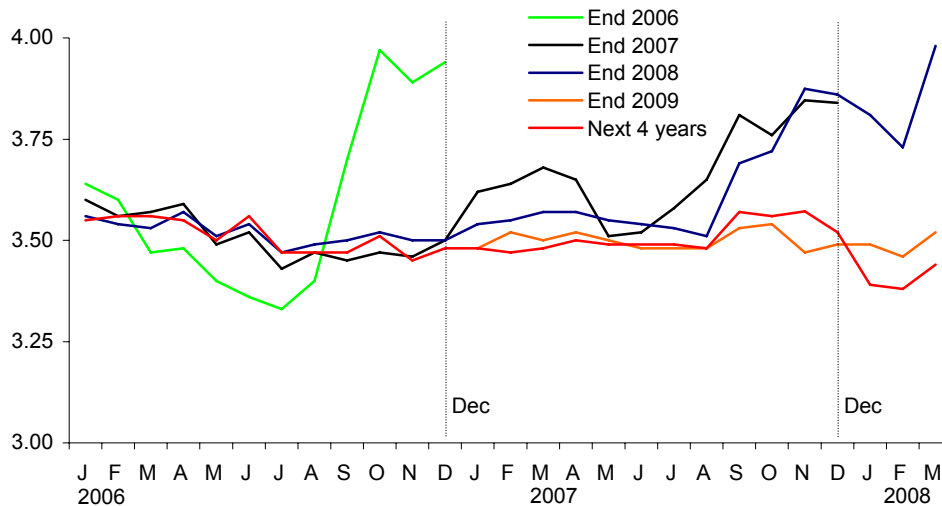
1/ Inflation expectations are obtained from Banco de México's survey.

The following group contains direct information on inflationary expectations, which are obtained on a monthly basis through Banco de México's survey conducted among private sector economic analysts. Graph 46 shows that short-term inflation expectations (end of 2008) were revised downwards in the surveys of January and February. However, after the announcement of a rebound in inflation in the first two weeks of March, in March's survey, the average of responses was 3.98 percent, 12 basis points above that reported in the December 2007 survey. It is worth mentioning that annual inflation expectations for a short-

term horizon are usually revised after an announcement on inflation that differs significantly from analysts' previsions on inflation. In this case, the adjustment in expectations for the end of the year was influenced mainly by the effect of revised monthly inflation expectations for March on calculations for expected annual inflation, given that monthly expectations for the rest of the year did not change significantly as compared with previous surveys.

Inflation expectations for the end of 2009 remained around 3.5 percent during the first quarter of 2008 (Graph 46). Long-term inflation expectations (average for the next 4 years) exhibited a stable behavior, with a slight upward revision in March that reverted part of the downward revisions that had been observed during the first two months of the year (Graph 46). In particular, in March, this indicator recorded 3.44 percent, 8 basis points below December's level.<sup>54</sup>

**Graph 46**  
**Inflation Expectations: Banco de México Survey**  
 Annual percent



An indicator that offers information that complements the average (mean) of surveyed analysts' responses is obtained by doing a proxy on a density function of surveyed analysts' responses. As for inflation expectations for the end of 2008, Graph 47a shows that between December 2007 and January 2008 there was a slight shift to the left (inflation expectations were revised downwards) in the entire density function. Nevertheless, and just like in the case of average responses (Graph 46), the referred shift reverted in the March survey, as the distribution shifted in opposite direction, even to the right of the distribution corresponding to the December survey.

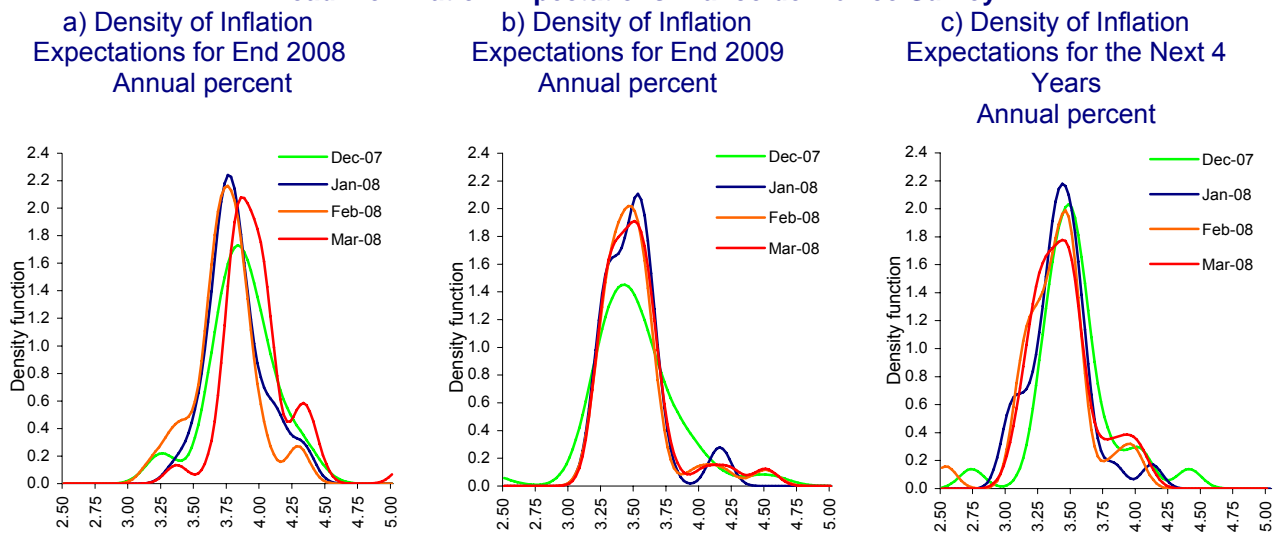
Graph 47b, on the other hand, shows that the indicator that proxies the density function of expectations for the end of 2009 did not change considerably during the first three months of the year. As for average inflation expectations for

<sup>54</sup> Inflation expectations from the Infosel survey show similar results. In April 25, those for the end of 2008 were revised at 4.21 percent, those for the end of 2009 at 3.51 percent, and those for average inflation for the next four years at 3.42 percent.

the next four years, Graph 47c shows that the density function for the March survey is slightly to the left (inflation expectations have been revised downwards) of that corresponding to the December survey.

Summing up, inflation expectations obtained from Banco de México's monthly survey show that since the release of the inflation figure for the first two weeks of March, economic analysts revised their inflation expectations upwards for the short term, that is, for the end of 2008. However, expectations for the medium and long term (end of 2009 and next four years) did not change compared to the levels recorded at the end of the fourth quarter of 2007.

**Graph 47**  
**Headline Inflation Expectations: Banco de México Survey<sup>1/</sup>**

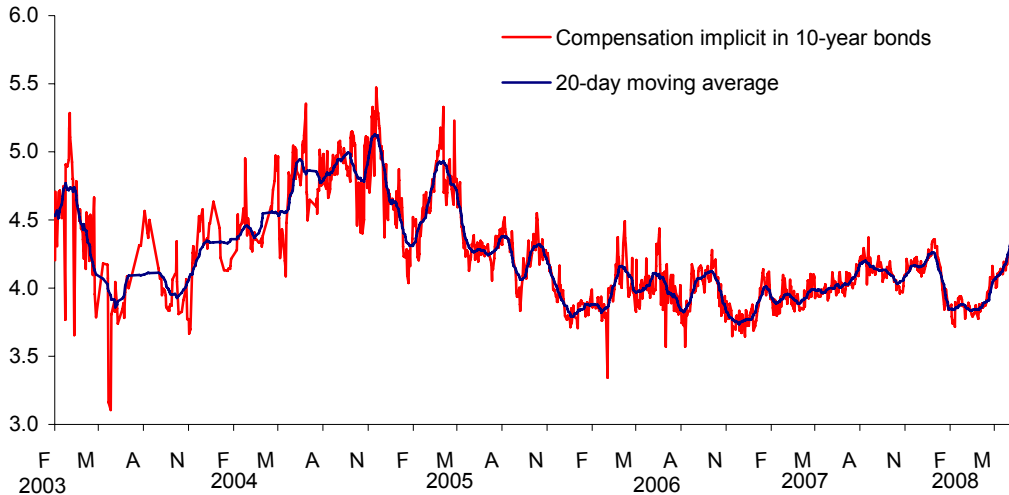


1/ Graphs represent density functions calculated to adjust inflation expectations data from Banco de México's monthly survey of private sector economic analysts.

Finally, another indicator of long-term inflation expectations is obtained from the yields on different assets in financial markets. This indicator is obtained by subtracting from the nominal yield on the 10-year bond, the real yield associated with indexed-debt instruments (*Udibonos*) with the same maturity, and therefore represents the compensation for inflation (inflation expectations plus an inflationary risk premium) that investors demand for holding peso-denominated long-term bonds. Graph 48 shows that at the beginning of the first quarter of the year, this indicator had decreased from levels above 4 percent to close to 3.90 percent, and remained at that level until mid-April. In the last weeks, this indicator has increased slightly, partly reverting the aforementioned decline.

In balance, the analysis presented suggests that, up to now, the supply shocks that have affected the prices of certain products have affected mainly short-term inflation expectations, but do not seem to have contaminated wage negotiations or the price determination process in the economy. Albeit remaining above the 3 percent target, medium and long-term inflation expectations have not been significantly affected.

**Graph 48**  
**Compensation for Inflation and Inflationary Risk on Long-term Bonds**  
 Annual percent

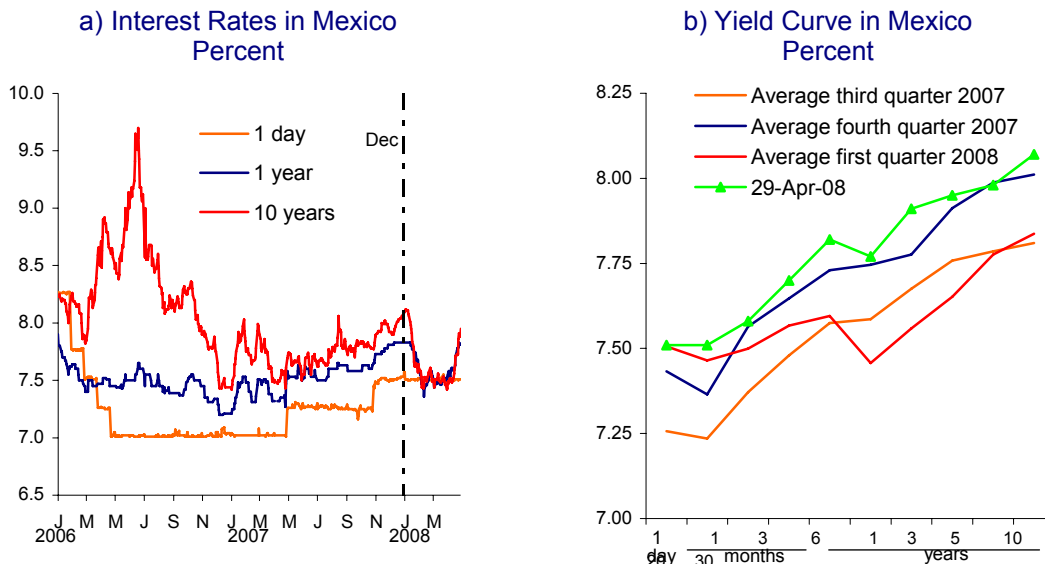


As for the behavior of interest rates in Mexico during the first quarter, in a context where U.S. interest rates have declined for all terms, those corresponding to medium and long terms in Mexico declined as compared to their levels recorded at the end of the previous quarter (Graph 49a). Short-term interest rates in Mexico did not change significantly during the first quarter. As a result, the yield curve in Mexico “flattened” during the first quarter. Nevertheless, in the last weeks, an increase in medium and long-term interest rates has reverted this “flattening”.

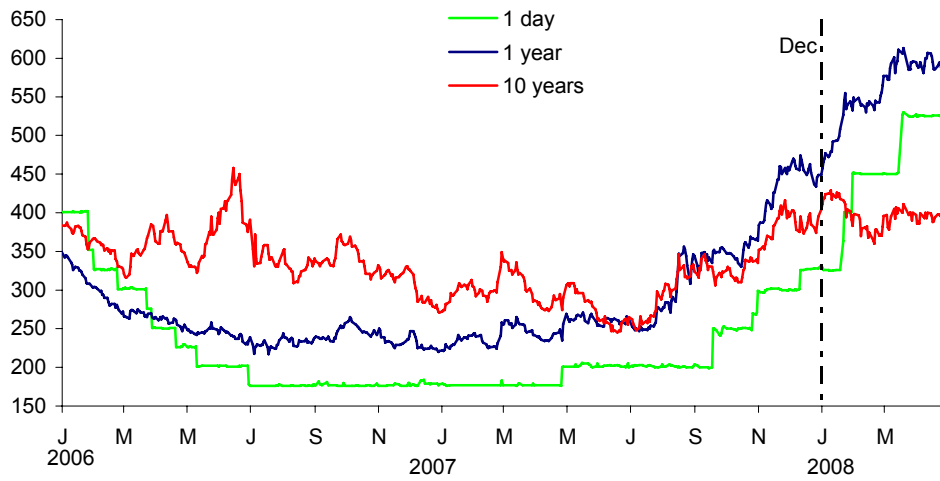
It is worth noting that the decline in long-term interest rates in Mexico during the first quarter of the year, together with a reduction in the corresponding interest rates in the U.S., created the conditions for the differential in 10-year interest rates to remain relatively stable during the quarter, recording an average of 395 basis points between January and March, 35 basis points above the average of the previous quarter (Graph 50). As for medium and long-term differentials, during the first quarter, these indicators remained on an upward trend, mainly attributed to the reduction in interest rates in the U.S. The growth in these differentials meant that 1-year interest rates increased from 410 basis points on average during the fourth quarter of 2007 to 544 basis points on average during the first quarter of 2008. The differential on 1-day (overnight) interest rates rose from 285 basis points on average during the last quarter of the previous year, to 422 basis points on average during the first quarter of 2008. In a context where interest rates in both Mexico and the U.S. have increased in the last weeks, interest rate differentials between both countries have remained relatively stable.

Increased inflationary pressures have occurred in an environment that anticipates a significant slowdown of economic activity in the U.S. Banco de México will continue to monitor the balance of risks. In particular, it will monitor closely –in a horizon relevant for monetary policy– the effects on prices of external inflationary pressures, the slowdown of economic activity in Mexico, and the tighter credit (and relative monetary) conditions originated by the world financial turmoil. These measures are intended to make inflation converge to the target within the expected time horizon.

**Graph 49  
Interest Rates**



**Graph 50  
Spread between Mexico and U.S. Interest Rates  
Basis points**



## 5. Prospects for Inflation and Balance of Risks

Banco de México's expected baseline scenario considers the following:

- i) The outlook for economic activity in the U.S. has deteriorated in recent months. In particular, the U.S. economy is expected to undergo a long period of adjustment, as households build again their savings due to the loss of wealth associated with the fall of home prices. The higher prices of energy goods, the tightening of credit conditions, and the recent weakness of employment indicators also reveal that household spending will grow slowly this year. Indeed, analysts' expectations for growth and industrial production in the U.S. for 2008 are 1.3 percent and 0.7 percent, respectively.<sup>55</sup> These levels imply significant reductions as compared with expectations of three months ago (2.0 and 1.5 percent, respectively).
- ii) Uncertainty in international financial markets is expected to continue in the next months. Therefore, a worsening of credit conditions in international markets should not be discarded.

Based on the information analyzed in this Report, Banco de México's expected scenario for the Mexican economy is as follows:

**GDP growth:** between 2.40 and 2.90 percent (in real terms) during 2008.

**Employment:** creation of 530 thousand jobs (number of workers insured by the IMSS) in 2008.

**Current account:** current account deficit of around 1 percentage point of GDP in 2008.

As mentioned in the previous Inflation Report, this macroeconomic scenario is subject to, as currently anticipated by analysts, to economic activity in the U.S. not falling sharply or for a long period. However, the risks for the Mexican economy associated with a more unfavorable scenario in the U.S. economy have increased in the last months. A deeper or long-lived recession in the U.S. would affect the Mexican economy by:

- i) The slower growth of external demand from the U.S.
- ii) Lesser remittances from Mexican workers abroad.
- iii) Greater difficulties to obtain international financing.

<sup>55</sup> These figures reflect most recent information on the forecasts of a large number of analysts. Nevertheless, in its forecasts of April 9, the International Monetary Fund estimates GDP growth of 0.5 percent in 2008.

Despite the aforementioned, several factors have offset the negative effects of the U.S. economic slowdown on the Mexican economy. Among the most noteworthy are:

- i) Federal Government's greater margin to channel spending in projects to boost the economy, due to the extraordinary revenues associated with the high price of oil.
- ii) Greater diversification of Mexican non-oil exports' destination markets, as a result, in part, of the real depreciation of the peso vs. non-USD currencies.
- iii) The peso's real exchange rate has been depreciating against the currencies of Mexico's main competitors in the U.S. market, mitigating the impact of the slower growth of the U.S. economy on non-oil exports' growth.
- iv) The share of Mexico's automotive production in total North American automotive production has increased, partly offsetting the slowdown of U.S. demand for vehicles.
- v) Despite their recent slowdown, financing to households continues to grow at high rates, while financing for private firms has remained stable in the last months, after having increased in 2007.
- vi) On this occasion, the U.S. recession originated in the real estate sector and passed on to the financial sector, and, unlike previous episodes, did not originate in the industrial sector, which is highly linked with Mexico's productive activity.

**Inflation:** As compared with the previous Inflation Report, the forecast presented in this Report was revised upwards for the last three quarters of 2008 and the first quarter of 2009. For the remaining quarters of 2009, previsions remained unchanged. Banco de México's previsions for inflation have changed as certain risks identified by the central bank in its previous Inflation Report have materialized. In this regard, two events are worth mentioning: first, prices of food, energy, and metals have grown more than originally expected; and, second, prices of tomato and green tomato have grown significantly.

As for the higher prices of international commodities, at the end of the first quarter of 2008, these reached levels significantly higher than those expected (which were already very high) in the futures market at the end of 2007. In particular, as shown in the following table, the difference between the observed price in March and the price expected with December's futures contracts for corn and wheat were 11.8 and 15.6 percent, respectively (Table 12). This could affect the production costs of various processed foods and of livestock and chicken feed. In March 2008, the international prices of copper were 27.3 percent above the futures price negotiated for that month at the end of 2007. This increase could affect the prices of various construction materials, and therefore, the price dynamics of the core housing index. In the case of natural gas, during the referred period, its international reference price was above the corresponding futures price by 26.1 percent, therefore affecting directly the domestic prices of this fuel and



high-consumption electricity tariffs, whose updating formula includes, among others, natural gas.<sup>56</sup>

**Table 12**  
**International Commodity Prices: Observed and Expected**

	March 2008				
	Expected <sup>1/</sup>		Observed <sup>2/</sup>	Differences in percent	
	31 Oct 2007	31 Dec 2007		A	B
	A	B	C	D = C/A	E = C/B
<b>Grains (USD per bushel)</b>					
Corn	3.9	4.6	5.1	29.8	11.8
Wheat	8.3	8.9	10.2	23.3	15.6
Soy	10.4	12.1	12.6	21.1	3.9
<b>Metals (US cents per pound)</b>					
Copper	349.3	304.1	387.1	10.8	27.3
<b>Energy goods (US cents per gallon)</b>					
Gasoline	238.2	252.1	270.5	13.6	7.3
LP gas	146.0	156.5	147.5	1.0	-5.8
Natural gas <sup>3/</sup>	8.5	7.5	9.5	11.8	26.1

1/ Prices expected for March 2008 according to futures contracts of October 31 and December 31, 2007.

2/ Average price observed during March 2008.

3/ USD per MMBtu.

Source: Bloomberg.

The curves of most recent futures of food commodities also suggest that, in the next months, the prices of some of these commodities could face additional pressures. Futures prices of beef and pork meat negotiated at the end of April 2008 for the same month of 2009 were 46.9 and 20.5 percent above the prices observed in international markets in April 2008. When compared with the referred prices for corn, wheat and soy, futures prices are currently above the already high spot prices by 12.9, 12.6 and 4.5 percent, respectively. Despite the aforementioned, the prices of grains are expected to undergo lesser pressures than those recorded in the past year, given that the annual price variations of corn, wheat and soy are at the end of April at 65.7, 88.6 and 80.7 percent. In the case of oil and metal-related products, futures prices suggest that these items could remain high for the next twelve months.

Summing up, although information obtained from futures contracts should be interpreted with reserve due to its volatility, in general terms, two issues regarding its recent development deserve mention: first, prices of commodities are expected to remain high for the next year; second, in annual terms, over the next months, prices of these products are expected to be subject to lesser pressures than currently.

On another front, in April 2008, prices of tomato were almost 80 percent above the level observed during the previous year and since the harvest in Sinaloa is about to end, and over the next months no significant quantity of this product is expected to enter the market, prices are expected to remain high for the next two quarters. As for green tomato, its price in April was around 150 percent higher than in the previous year, as a result of a greater-than-expected reduction

<sup>56</sup> After comparing the prices of the referred commodities in January and February with that of futures negotiated for those months at the end of 2007, the former also were above the latter in all cases, except for wheat, whose international reference price was below its corresponding future price (sections 3.3.4 to 3.3.6 of this Report).

in sown area in those states that seasonally show higher production volumes during the second and third quarters.

As the effects of the shocks recorded during 2007 disappear gradually, the path of inflation is expected to reach an inflection point during the fourth quarter of this year. Among the factors that, if materialized, would contribute to reduce inflation in that quarter are that price increases of dairy products observed during the fourth quarter of 2007 do not repeat; that the inflation rate of wheat products decreases slightly (even when additional increases in the international prices of this grain are expected in the next months, the increase anticipated by futures markets is below that observed in 2007); and, that the supply of tomato and green tomato normalizes. Should these factors materialize, they would contribute to reduce inflation during the last quarter of 2008.

Inflation is expected to follow a trend towards convergence to the 3 percent target in 2009, as the supply shocks that will take place in 2008 are absorbed by the economy. Among these shocks, worth mentioning during the first half of the year were those originated by the price increase in food commodities (soy and wheat products), and, throughout the year, those related to metals (steel and copper-manufactured materials for construction) and natural gas (besides this fuel, the price increase affects high consumption electricity tariffs). The aforementioned trend would be the result of these commodity prices growing at a slower rate in 2009 than in 2008. Especially during the first half of 2009, the reduction in the rate of growth of regulated prices (property and water-services taxes and public transportation fares), as compared with that forecasted for 2008, and the fact that the effect of the single rate business tax (*Impuesto Empresarial Tasa Única*, IETU) on inflation should be absorbed throughout 2009, are also expected to contribute to the decline in inflation in 2009.

Based on the aforementioned, the forecasted range for quarterly average inflation for the rest of 2008 was revised 50 basis points upwards, and for the first quarter of 2009, 25 basis points upwards. The forecasted ranges for the last three quarters of 2009 remained unchanged (Table 13).

**Table 13**  
**Base Scenario for Annual Headline Inflation**  
 Quarterly average in percent

Quarter	Previous Forecast	Current Forecast
2008-I	3.75 – 4.25	3.89 <sup>1/</sup>
2008-II	4.00 – 4.50	4.50 – 5.00
2008-III	4.00 – 4.50	4.50 – 5.00
2008-IV	3.75 – 4.25	4.25 – 4.75
2009-I	3.50 – 4.00	3.75 – 4.25
2009-II	3.50 – 4.00	3.50 – 4.00
2009-III	3.00 – 3.50	3.00 – 3.50
2009-IV	3.00 – 3.50	3.00 – 3.50
2010-I	—	3.00 – 3.50

<sup>1/</sup> Observed figure.

In previous Reports it has been mentioned that the prevision for inflation is subject to certain risks that, if materialized, could modify this forecast. Among

the most noteworthy risks, which could lead to higher-than-expected rates of inflation, are:

- i) Higher-than-expected increases in international commodity prices. In particular, in addition to the considerable increase in the prices of these products as a result of the growth in demand from countries like China and India, in the last months, several grain-producing countries have implemented measures to reduce their supply in external markets (Box 5). The speculation that has taken place in some cases has also raised the volatility of these prices.
- ii) Recently, international energy prices have increased more than expected. Thus, the gap between domestic and international prices of fuels has widened. This situation could affect the current setting for determining administered prices.
- iii) Prices of white corn (field corn) are expected to increase in the following months, because the anticipated buying of the next harvest in Sinaloa, which should be ready by the end of the second quarter, has been negotiated at a level 18 percent above the previous harvest from the Bajío region. This situation could exert additional pressures on the prices of corn flour and, therefore, corn tortilla.
- iv) The relatively high levels of inflation that could be observed in the next months could affect inflation expectations.

If the Mexican economy slows down more than currently forecasted, prices could grow at a slower-than-expected rate. This risk should not be underestimated, especially given the strong deterioration in the outlook for growth in the U.S.

Monetary policy currently faces a complex scenario in view that both inflationary pressures and risks for growth for the Mexican economy have increased. Banco de México will continue to monitor the balance of risks. In particular, it will monitor closely the effects on prices –in a horizon relevant for monetary policy- of external inflationary pressures, the slowdown of economic activity in Mexico, and the tighter credit (and relative monetary) conditions originated by the world financial turmoil. The aforementioned aims at achieving the convergence of inflation to its target within the expected time horizon.