

Inflation Report

July – September 2008



BANCO DE MEXICO

OCTOBER 2008

BOARD OF GOVERNORS

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Unless otherwise stated, this document has been prepared using data available as of October 28, 2008. Figures are preliminary and subject to change.

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1. Introduction

During the third and the beginning of the fourth quarters of 2008, the world economy has been affected by the most severe financial crisis since the 1930s. The crisis has affected both the functioning of financial markets and global economic activity. Economic growth in the U.S. declined significantly and production may have even contracted during the third quarter. Furthermore, lingering uncertainty, combined with additional factors, has been reflected in the economic activity of other countries. The latest information suggests that both Euro and Japanese economies, which had contracted during the second quarter of the year, continued to exhibit weak growth during the July-September period. Emerging economies also slowed down during such period, although growth remained strong in some of them.

Although world inflation continued at high levels during the third quarter, inflationary pressures, especially in advanced economies, have subdued due to reduced global economic activity and declines in the international prices of oil and other commodities. Meanwhile, in several emerging economies, upward pressures on prices continued, mainly in response to the still relatively dynamic growth of domestic demand, the weaker anchorage of inflation expectations, and a slower pass-through from falling commodity prices possibly associated with the lower level of competition within the industries of those countries. Nevertheless, expectations for headline inflation began to be revised moderately in some of these economies.

Problems in international financial markets worsened during the third and the beginning of the fourth quarters of 2008. Such deterioration stemmed from doubts regarding the solvency of government-sponsored enterprises in the U.S. as well as difficulties faced by investment banks and some insurance companies in that country together with worsening problems in European and other regions' financial institutions. A generalized deterioration of confidence prevailed, a significant increase in risk aversion, and a considerable rise in the volatility of the main financial variables.

The above mostly responded to the fact that the difficulties suffered by many commercial banks led to a substantial increase in the perception of counterparty risk in the interbank market. As is well known, lending between banks is a normal part of their daily activity and when uncertainty regarding the financial condition of their counterparties in the daily interbank funding market increased, financial institutions reacted by showing a high degree of reluctance to continue granting them credit. This phenomenon expanded significantly and has led to a generalized tightening of credit conditions. It is important to mention that this process was highly influenced by the lack of clarity surrounding financial institutions' disclosure of their exposure to high risk products. Institutions' balance sheets did not adequately reflect their exposure to risk and this led to doubts over their real financial situation. The lack of transparency as well as regulatory and supervisory bodies' forbearance for such behavior, are among the factors that explain the outbreak of the financial crisis.

From a general perspective, the volatility observed in international financial markets has responded to the need to begin a significant global

deleveraging process intended to reduce the world economy's indebtedness to sustainable levels. As should be remembered, the latter mainly stemmed from changes in the origination and distribution of risk in international financial markets amid an environment where financial supervision and regulation did not adjust to the changing circumstances. The referred deleveraging process will need to be accompanied by a considerable reduction in global expenditure growth. Indeed, it is from this fact that the deteriorating outlook for world economic growth originates.

The U.S. authorities and those of other advanced economies have responded to the situation by implementing or announcing measures which include the capitalization of some financial institutions, purchasing toxic bank assets as well as coordinating efforts to provide liquidity, cutting reference interest rates, injecting capital to banks, and supporting interbank credit, among others. However, despite the measures implemented, uncertainty in financial markets still persisted at the end of October.

Under such context, financial conditions in the markets of both emerging and advanced economies have continued to tighten. The deterioration in risk perceptions has also led to a generalized fall in the demand for emerging economies' assets. As a consequence, sovereign risk spreads on such countries' bond issues have widened significantly, stock markets of these countries have fallen, and their exchange rates have also depreciated considerably, all of which has been accompanied by a significant increase in volatility. In view of the likelihood of a long-lasting deleveraging process in international financial markets, the outlook for world economic growth has deteriorated markedly.

The volatility of international financial markets, particularly during September and October, together with the deterioration and uncertainty surrounding forecasts for the world economy and, specifically, those for the U.S. have generated a scenario which is adversely affecting the Mexican economy. This scenario suggests that risks of a more severe economic downturn have risen considerably.

Thus, the reduction in the growth rate of economic activity in Mexico during the first half of 2008 sharpened during the third quarter. Such phenomenon was observed in indicators for both production and aggregate demand, particularly in their private consumption and external demand components.

During the third quarter of 2008, annual headline inflation in Mexico rose in line with forecasts stated in the previous Report. Both core and non-core components greatly influenced such an increase. The core inflation path mainly resulted from price increases in some goods and services whose cost structures were affected by various factors, among which previous increases in commodity prices and the greater tax burden some firms have faced this year are noteworthy. Meanwhile, the higher contribution of headline inflation's non-core component responded to three factors: first, a rise in the rate of adjustment of gasoline and LP gas prices; second, the revisions of public transportation fares in some cities; and, third, price increases in livestock products.

The outlook for inflation in Mexico for the following quarters remains unchanged from forecasts made at the end of the second quarter given that factors which might have an upward impact on inflation will be offset by others



which have the opposite effect. The most outstanding of the former are the exchange rate depreciation which took place in October and the faster adjustment of administered and regulated prices of goods and services. Among the latter, worth mentioning is the fall in some commodity prices and expectations of slower economic activity.

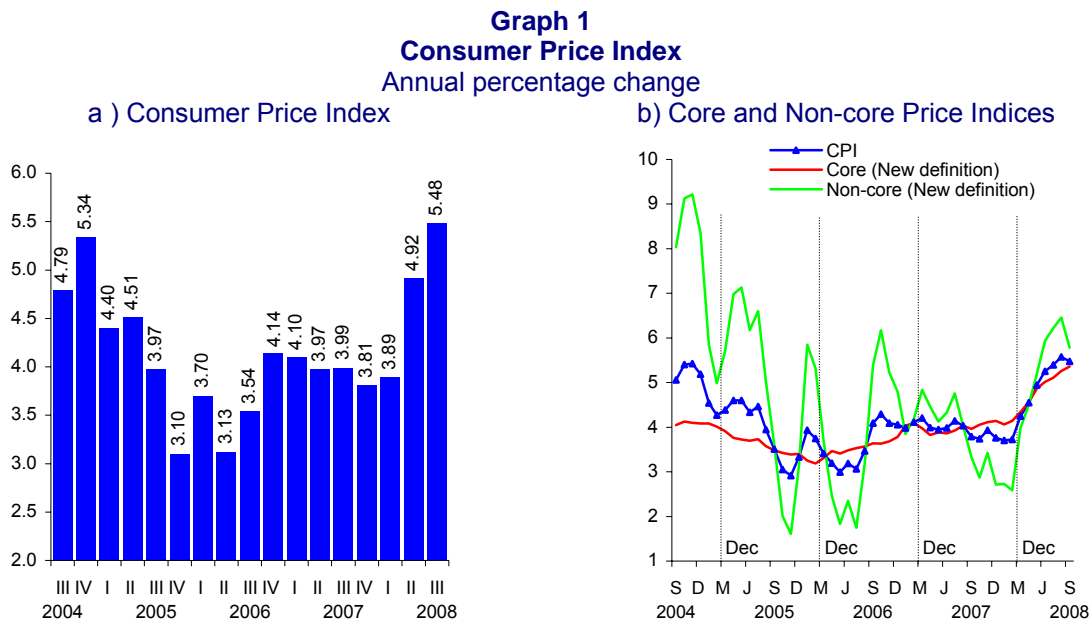
According to article 2 of the Law governing Banco de México, one of the central bank's goals is to encourage the sound development of the financial system. In the present environment where the world is undergoing the worst global financial crisis in decades, the fact that the Mexican economy is financially integrated with the rest of the world has meant that part of the turmoil in international financial markets has translated into volatility in Mexico's financial markets. Under such context, Banco de México's actions have focused on encouraging the smooth functioning of markets. Indeed, various measures implemented by the central bank and other financial authorities during recent weeks have been designed to provide liquidity to financial institutions in Mexico. Meanwhile, actions by the Foreign Exchange Commission, in line with article 18 of the aforementioned Law, aim to reduce the high volatility observed in the exchange market, which could have a negative effect on both economic activity and price stability.

It is important to underline that the smooth functioning of the financial system is essential for the sound development of the economy, while it also fosters a favorable environment for achieving price stability. In response to the uncertainty characterizing the current world financial situation, Banco de México's Board of Governors will remain attentive to developments in financial markets as well as to their impact on economic activity and the factors that could have an effect on the expected path of inflation and its convergence with the 3 percent target.

2. Recent Developments in Inflation

2.1. Inflation

During the third quarter of 2008, average annual headline inflation was 5.48 percent, 0.56 percentage points above the 4.92 percent registered during the second quarter of the year (Graph 1 and Table 1).



The rise in headline inflation during the analyzed period originated from both its core and non-core components. In this regard, the following events deserve to be mentioned:

- I. Processed food prices continued to grow, despite the fact that grain spot prices fell during the third quarter (23.66, 23.96 and 21.27 percent respectively for corn, wheat and soy from the end of June to the end of September).
- II. The higher contribution of non-food merchandise prices to headline inflation. This result could be associated to, among other factors, greater cost-related pressures stemming from the development of international commodity prices during the first half of 2008.
- III. Core services inflation rose mainly in response to increases in airfares and in the prices of travel packages and food services.
- IV. Within the non-core component, the subindices of administered and regulated prices and livestock prices contributed significantly to the rise in headline inflation.
- V. The greater tax burden faced by some firms during 2008 might have generated additional pressures as they carried out their price revision processes (Box 1).



**Table 1
Consumer Price Index and Components**

	Annual Variation				Average Annual Variation	
	Percent				Percent	
	Jun-2008	Jul-2008	Aug-2008	Sep-2008	Q-2 2008	Q-3 2008
CPI	5.26	5.39	5.57	5.47	4.92	5.48
Core (new definition)	5.02	5.11	5.26	5.36	4.81	5.24
Merchandise	5.72	5.72	6.01	6.11	5.42	5.95
Foods	9.59	9.43	9.62	9.40	9.17	9.48
Beverages and tobacco ^{1/}	7.63	7.53	8.00	8.23	7.56	7.92
Other grocery products ^{2/}	6.66	7.48	8.37	8.94	5.48	8.26
Prepared foods ^{3/}	6.79	7.08	7.12	7.26	6.46	7.15
Corn products ^{4/}	4.18	5.00	5.54	6.14	3.63	5.56
Rice	52.92	62.28	62.60	61.60	36.69	62.16
Remaining merchandise	2.74	2.85	3.22	3.55	2.56	3.21
Services (new definition)	4.38	4.54	4.57	4.67	4.25	4.60
Housing	3.80	3.90	3.88	3.84	3.64	3.87
Own housing	3.76	3.84	3.78	3.66	3.57	3.76
Education	5.63	5.72	5.71	5.76	5.68	5.73
Remaining services	4.53	4.82	4.91	5.19	4.39	4.97
Travel packages	3.20	7.60	6.88	8.78	2.78	7.74
Air transportation	16.49	16.34	15.74	16.35	14.97	16.14
Food-related services ^{5/}	4.98	5.13	5.46	5.83	4.88	5.48
Non-core (new definition)	5.94	6.22	6.46	5.79	5.21	6.15
Agriculture (Farm)	8.88	8.71	7.72	4.61	7.31	6.97
Fruits, vegetables and legumes	12.78	10.12	6.31	-0.95	8.25	4.92
Tomatoes	26.75	13.86	-3.46	-40.33	29.08	-13.68
Green tomatoes	54.95	47.65	10.24	-4.31	93.85	14.03
Oranges	-25.49	-34.05	-39.69	-40.73	-19.47	-38.28
Livestock	6.58	7.84	8.62	8.46	6.71	8.31
Eggs	21.84	27.04	30.68	27.07	22.06	28.27
Pork meat and entrails	6.13	7.68	9.92	9.93	3.56	9.18
Administered and regulated	4.52	5.00	5.83	6.39	4.18	5.74
Administered	5.84	6.19	6.99	7.19	5.38	6.79
Low-octane gasoline	3.52	3.87	4.72	5.02	3.34	4.53
High-octane gasoline	5.74	5.89	6.62	7.28	5.51	6.60
Electricity	9.90	10.02	10.39	10.87	8.92	10.43
Residential gas	5.14	5.72	6.80	6.53	4.56	6.35
Regulated	3.21	3.82	4.69	5.60	2.98	4.70
Core (previous definition)	4.96	5.05	5.22	5.32	4.74	5.20
Services (previous definition)	4.14	4.32	4.35	4.46	3.98	4.38
Non-core (previous definition)	5.88	6.12	6.32	5.78	5.30	6.07

1/ CPI products related to drinks and beverages are: Bottled water; Beer, Tequila; Other spirits; Rum; Brandy; Bottled wine; and Cigarettes.

2/ CPI products related to other groceries are: Ham; Sausages, Highly-seasoned sausage (*Chorizo*); Other cold cuts; Dried meat; Bacon, Canned tuna and sardines; Other preserved fish and sea food; Other dried vegetables; Processed chili peppers; Canned/Bottled vegetables; Tomato paste and Canned soup; Processed vegetable and fruit baby food; Instant coffee; Grain coffee; Chicken and Salt concentrates; Other seasonings; Concentrates for soft drinks; and, Powdered gelatin.

3/ CPI products related to prepared foods are: Other cooked foodstuffs; Deep-fried pork (*Carnitas*); Roasted chicken; Barbecued goat meat and *Birria*; and, Pizzas.

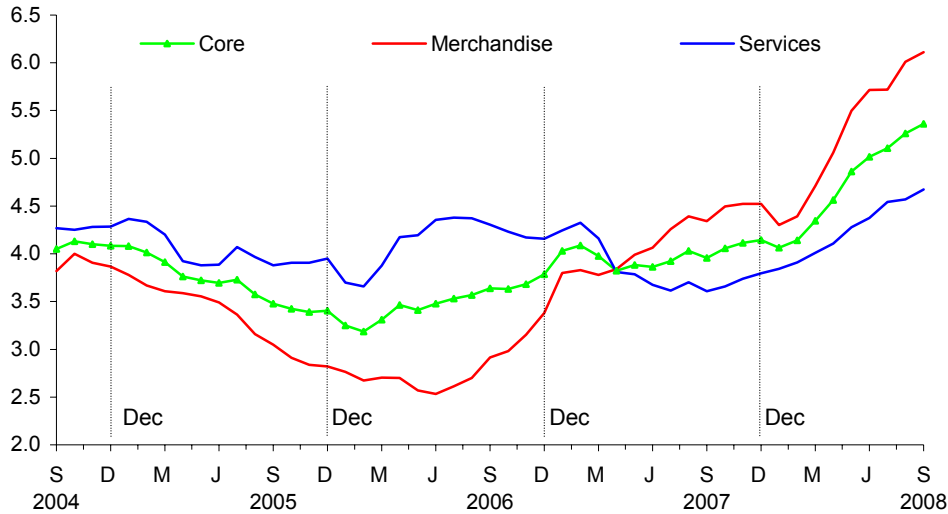
4/ CPI corn products are: Corn tortillas; Corn dough and flour; and, Corn.

5/ CPI food services are: Diners/Snack bars; Restaurants, Bars; and, Coffee shops.

Core inflation remained on the same upward path it had been following during the third quarter, growing on average from 4.81 to 5.24 percent in annual terms from the second to the third quarter of 2008. The price subindices of merchandise and services rose on a month-to-month basis during the analyzed quarter (Graph 2).

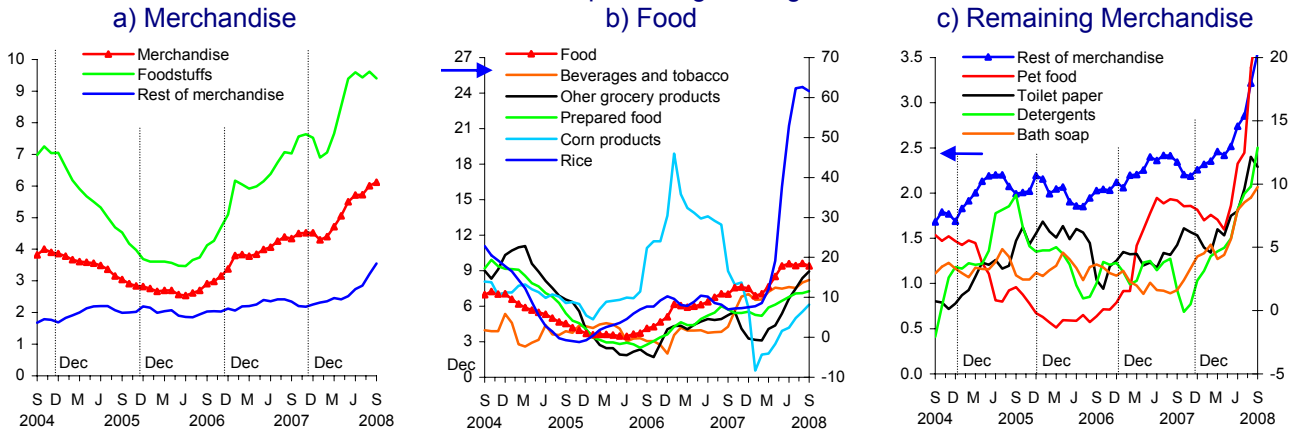
From July to September 2008, the core merchandise price subindex grew on average 5.95 percent in annual terms as compared to 5.42 percent during the previous quarter (Graph 3a). Although the two components of this subindex rose during the quarter, the remaining products of the merchandise price subindex recorded the highest average annual growth, from 2.56 to 3.21 percent from the second to the third quarter. On another front, the food price subindex jumped from 9.17 to 9.48 percent during the same period.

Graph 2
Core Price Subindex (New Definition)^{1/}
 Annual percentage change



1/ 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 3
Core Merchandise Price Subindex
 Annual percentage change



Box 1
Effect of the Flat Rate Business Tax (*Impuesto Empresarial a Tasa Única, IETU*) on the Price Formation Process

In order to identify the possible effect of the flat rate business tax (*Impuesto Empresarial a Tasa Única, IETU*) on price formation in 2008, Banco de México conducted two surveys on firms from the secondary and tertiary sectors.

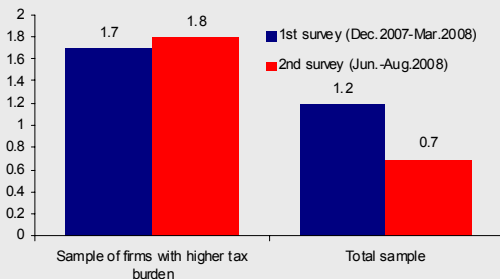
The first of these surveys was conducted between December 2007 and March 2008, while the second, between June and August 2008. The firms interviewed in both surveys were randomly-selected representative samples from the firms registered in the 2007 Mexican Company Information System (*Sistema de Información Empresarial Mexicano, SIEM*). A number of 504 firms participated in the first survey and 514 in the second. The surveys have a 95% confidence level and 5% error margin.

The most important results were as follows:

- a) Businessmen believe the flat rate business tax (IETU) has affected significantly price revisions.** At the beginning of 2008, firms mentioning the IETU would raise their tax burden estimated that this tax would affect price increases forecasted for 2008 by 1.7 percentage points. After weighting this result with the remaining firms' responses, for the total sample, the IETU would have a 1.2 percentage point impact on price revisions.

In the second survey, IETU's estimated incidence on price revisions in 2008 was 1.8 percentage points in firms with a higher fiscal burden and 0.7 percentage points for the total sample.

Graph 1
IETU Contribution to Expected Growth in Producer Prices for 2008
Percentage points

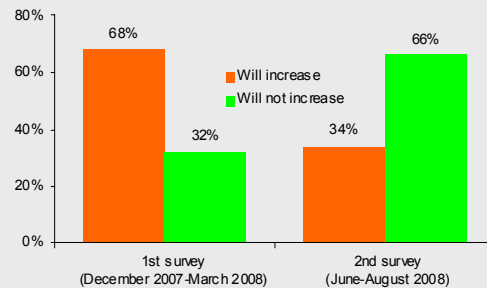


- b) The IETU increased the tax burden of a considerable number of firms, therefore affecting their cost structure.** The results of the first survey indicate that 68 percent of firms believe their tax burden will increase during 2008, while 32 percent consider it will remain unchanged.

In the second survey, after becoming more familiar with the new fiscal regime, firms' perception of the IETU changed. In particular, 38 percent of firms believed their tax burden would increase and 62 percent that it would not be affected (Graph 2). Among the factors that might explain this change in perception are:

- Firms paid more income tax (*Impuesto Sobre la Renta, ISR*) than IETU. Since this difference was far above what they had initially expected, their tax burden did not change.
- Samples from both surveys are independent from each other and include firms with different IETU experiences.

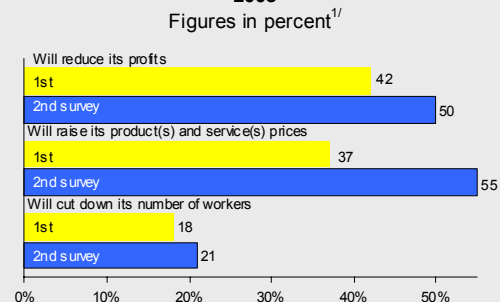
Graph 2
Firms that Consider their Tax Burden will Increase in 2008 due to IETU
Figures in percent



- c) The greater fiscal burden originated by the IETU affects both firms and consumers.** In the first survey, 42 percent of firms mentioned that the higher tax burden will reduce their profit margins, 37 percent that it will lead to increases in their product and services prices, and the remaining 18 percent, that it will make them cut down their number of employees and working hours.

In the most recent survey, 50 percent of firms responded that the IETU would lower their profit margins, 55 percent that it will lead to price increases, and 21 percent that it would lead them to cut down their number of employees (Graph 3).

Graph 3
Actions to be taken by Firms due to Greater Tax Burden in 2008
Figures in percent^{1/}



^{1/} Since this question allowed for choosing more than one option, percentages may not add to 100.

- d) Inflationary pressures associated with the IETU prevail because the effect of this tax has not been fully transmitted to prices.** In the survey conducted at the beginning of the year, 58 percent of firms mentioned that price adjustments would take place during the first half of 2008. The remaining 42 percent responded that price increases would occur in the second half of 2008.

In the second survey, 26 percent of firms mentioned that they raised their prices during the first half of 2008, 25 percent that they would do so during the second half of 2008, and 16 percent that part of the planned increase took place during the first semester while the rest would be done during the second semester of the year. The remaining 22 percent responded that they will postpone price revisions until 2009.

The results of these surveys are mainly qualitative. A complimentary approach to identify quantitatively the impact of the IETU on prices is to use econometric techniques. However, due to the information available on collection (total and by sectors) and on prices affected up to now, it is still difficult to estimate the effect of the IETU using this type of techniques. The reason is that the IETU has been in force

for a relatively short time and little information is available in order to distinguish with a reasonable degree of certainty the specific impact of this tax from the effect of other shocks on different prices. The aforementioned is particularly relevant considering that some prices are highly volatile in the short term.

Inflation of processed foods continued to increase during the analyzed quarter. This result responded to the upward trajectory followed by the prices of beverages and tobacco, prepared foods, corn and rice products, and other groceries (Graph 3b). During the third quarter of 2008, prices of wheat and soy products recorded an average annual variation similar to that observed during the previous quarter (Table 2).

Table 2
Price Subindex of Processed Foods

	Weight	Annual Variation						Average Annual Variation	
		Percent						Q-II 2008	Q-III 2008
		Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08		
CPI	100.00	4.55	4.95	5.26	5.39	5.57	5.47	4.92	5.48
Core (new definition)	74.77	4.56	4.86	5.02	5.11	5.26	5.36	4.81	5.24
Merchandise	37.03	5.06	5.50	5.72	5.72	6.01	6.11	5.42	5.95
Processed foods	14.67	8.52	9.40	9.59	9.43	9.62	9.40	9.17	9.48
Beverages and tobacco ^{1/}	3.15	7.57	7.48	7.63	7.53	8.00	8.23	7.56	7.92
Other grocery products ^{1/}	1.65	4.38	5.39	6.66	7.48	8.37	8.94	5.48	8.26
Prepared foods ^{1/}	1.36	6.13	6.45	6.79	7.08	7.12	7.26	6.46	7.15
Corn products ^{1/}	1.29	2.80	3.91	4.18	5.00	5.54	6.14	3.63	5.56
Rice	0.15	19.17	37.66	52.92	62.28	62.60	61.60	36.69	62.16
Dairy products ^{2/}	3.00	11.94	11.83	10.21	8.09	8.11	6.96	11.32	7.71
Sugar products ^{3/}	1.96	2.41	2.29	2.10	2.17	1.97	2.25	2.26	2.13
Wheat products ^{4/}	1.61	12.74	14.80	15.52	15.45	15.09	13.76	14.35	14.76
Soy products ^{5/}	0.51	34.02	39.60	40.96	40.37	39.74	38.44	38.22	39.50

1/ Items of each group are mentioned in Table 1.

2/ CPI dairy products are: Pasteurized and whole milk, Powdered milk, Evaporated milk, Sweetened and condensed milk and breast milk 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.

3/ CPI sugar products are: Sugar; Bottled juices and nectars; Other fruit preserves; Bottled soft drinks; Chocolate; and, Candies, Milk Caramel, and Honey.

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

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

Core inflation of the remaining merchandise price subindex rose from July to September as a result of price increases in personal and household cleaning products, as well as in cellulose and steel based products. Pet food prices also rose sharply in August (Graph 3c). The aforementioned increases could respond to, among other factors, the accumulated cost-related pressures originated by both the increase in commodity quotes (food, energy and metals) during the first half of the year and, possibly, the higher tax burden some firms have faced.

The average annual inflation of the services price subindex rose from 4.25 to 4.60 percent from the second to the third quarter of 2008 (Graph 4a). This result mainly stemmed from the greater contribution of non-housing/non-education service prices, which grew, on average, from 4.39 to 4.97 percent in annual terms during the referred period mainly due to the pattern followed by air fares, travel package and food service prices. Jet fuel prices also remained high, while the number of air routes and airline companies has decreased. As a result, the annual

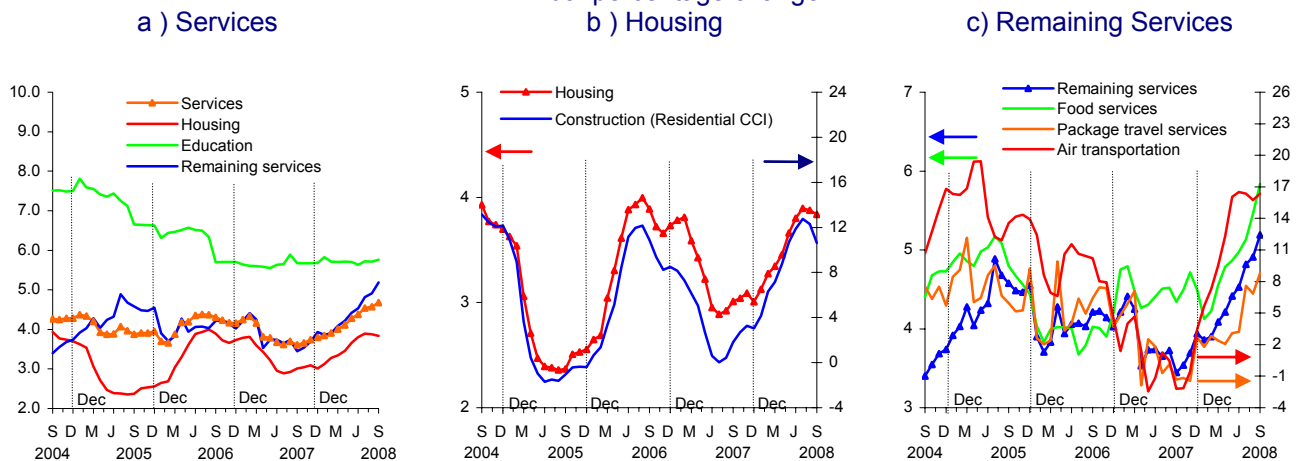
average growth rate of travel package prices escalated from 2.78 to 7.74 percent during the referred period. Furthermore, in 2008, national independence festivities (September 15 and 16) fell on a weekday, leading to a long vacation period (4 days), as compared with 2007, when both days fell on a weekend. The aforementioned caused a seasonal effect on airline fares and hotel service prices. Finally, average annual inflation of food service prices, which have a higher weight in the CPI, moved from 4.88 to 5.48 percent from the second to the third quarter of 2008 (Graph 4c).¹

The housing price subindex grew on average 3.87 percent in annual terms during the analyzed quarter, 23 basis points above the figure observed during the second quarter of 2008 (Graph 4b). The Construction Cost Index (CCI) influenced these results, by recording an annual average inflation that rose from 10.45 percent during the second quarter to 11.89 percent during the third partly in response to the development of cement, concrete and steel product prices.

During the third quarter of 2008, private education fees grew on average 5.73 percent in annual terms, 5 basis points more than in the previous quarter. This result suggests that the disinflation process for school fees has stagnated (Graph 4a).

The quarterly average inflation of the non-core price index rose from 5.21 to 6.15 percent from the second to the third quarter of 2008. The average annual variation of livestock product prices and of administered and regulated prices also did so throughout the third quarter (Section 3.3.3 details the developments in the administered and regulated price subindex). In the former case, the pattern followed by egg and pork meat prices accounts for such an increase. In contrast, prices of fruits and vegetables declined, from an annual average of 8.25 percent during the second quarter to 4.92 percent during the third quarter of 2008 (Graph 5).

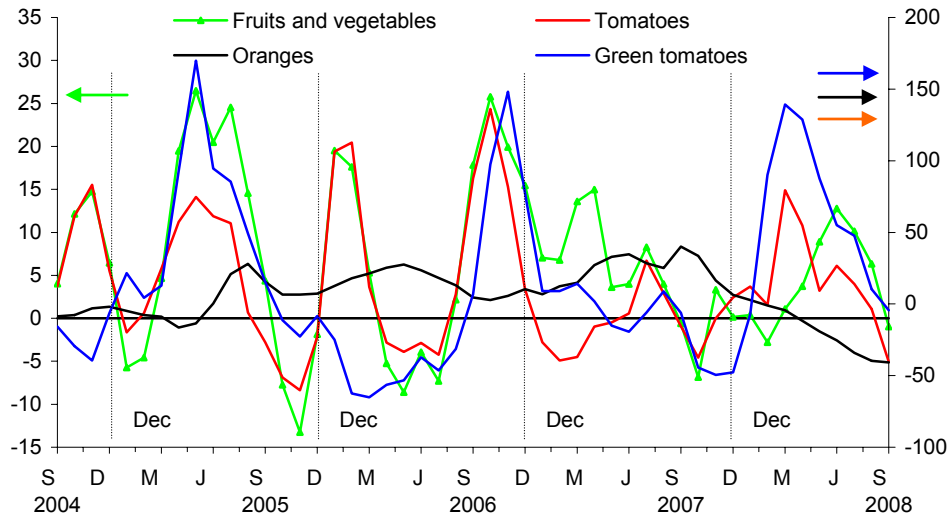
Graph 4
Core Services Price Subindex (New Definition)^{1/}
Annual percentage change



1/ Banco de México adopted a new definition for core inflation since January 2008. See Inflation Report July-September 2007, Annex 1, pp. 53-58.

¹ Food services' weight in the CPI is 6.51 percent.

Graph 5
Fruits and Vegetables Price Subindex
 Annual percentage change

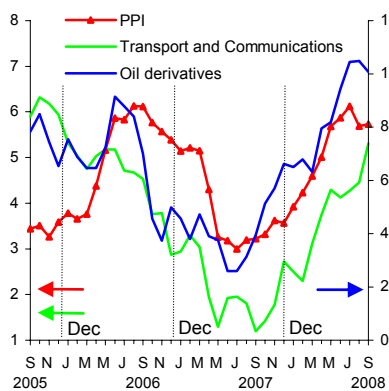


2.2. Producer Price Index

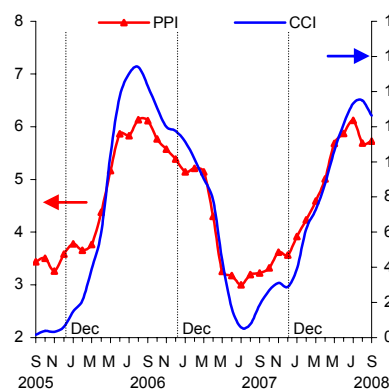
During the third quarter of 2008, the Non-oil Producer Price Index (PPI) grew on average 5.85 percent in annual terms, as compared with 5.52 percent observed during the previous quarter. PPI inflation was significantly influenced by the contribution of the higher prices of the construction sector, particularly, those related to metal products, asphalt and cement. Prices of both oil derivatives and the communications and transportation sector also contributed to the rise in PPI inflation during the period (Graph 6).

Graph 6
Producer Price Index Excluding Oil and Selected Components
 Annual percentage change

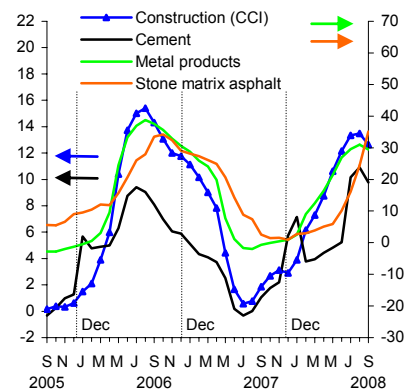
a) PPI, Oil products, and Transport



b) PPI and CCI



c) CCI



3. Main Determinants of Inflation

3.1. External Conditions

The world economy has recorded a significant downturn during 2008, which probably intensified during the third quarter of the year. Some advanced economies appear to have gone into or have been on the verge of recession in that quarter, due to the worsening financial crisis, mortgage market problems, and the high prices of commodities. Economic growth in the U.S. declined sharply and might even have turned negative during the third quarter. Most recent information also suggests that economic activity in the Euro zone and Japan remained weak, while economic growth in emerging economies slowed, although it remained at high levels in several of them. The slower economic growth worldwide and the decline in international prices of oil and other commodities reduced inflationary pressures. Nonetheless, upward inflationary risks persisted, particularly in emerging economies. The turmoil in international financial markets rose considerably during the third quarter and the beginning of the fourth. This development can mainly be explained by high counterparty risk perceptions in the interbank market in a context of lack of transparency regarding financial institutions' high risk assets. In general terms, the recent problems in financial markets are the result of the need for a global deleveraging process, which is necessary to correct the excess levels of indebtedness encouraged by the originate-to-distribute model of lending and the distribution of risk prevailing in international financial markets in recent years. This new episode of turbulence has significantly contaminated emerging economies through several channels, and was reflected in sharp falls in their stock markets and strong pressures on their exchange rates.

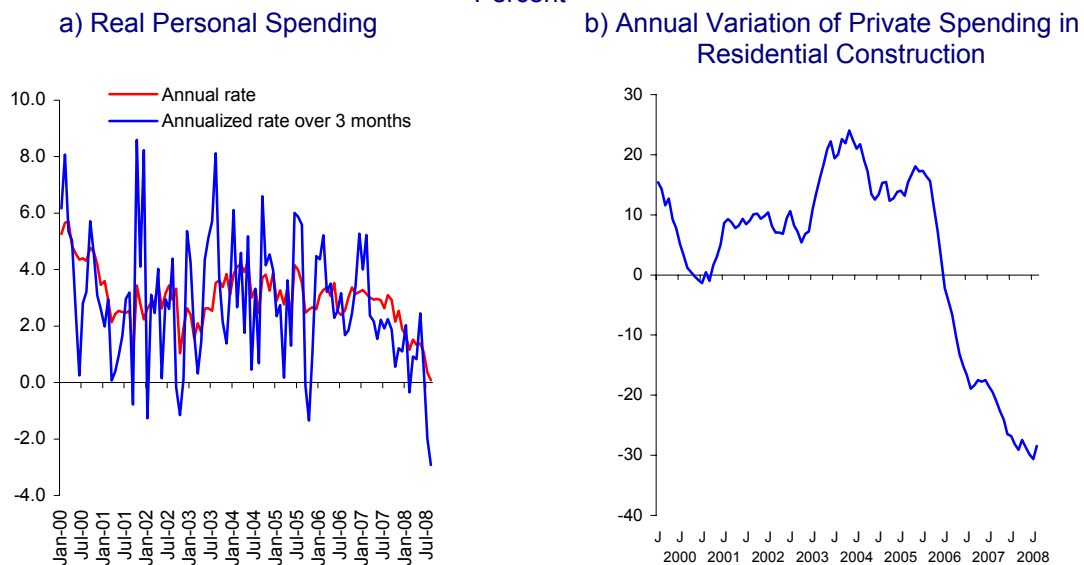
3.1.1. World Economic Activity

The U.S. economy grew 2.8 percent at an annualized quarterly rate during the second quarter of 2008 (2.1 percent in annual terms). Such result was stronger than that observed during the previous two quarters and mainly responded to the pattern followed by net exports, whose contribution to economic growth (2.9 percentage points) was the highest since the third quarter of 1980. Domestic demand remained weak. Private consumption grew only 1.2 percent in quarter-over-quarter annualized terms despite the stimulus from tax returns. Fixed investment contracted 1.7 percent, mainly as a result of a tenth consecutive fall in residential investment (-13.3 percent). Another factor which contributed to the weak development of domestic demand was the negative contribution of the change in inventories (-1.5 percentage points), the worst observed since 2005.

The latest information points to a sharp downturn in U.S. economic activity during the third quarter of 2008. Private consumption seems to have contracted significantly as the effects of the fiscal stimulus package have dissipated. Worsening problems in financial markets, tighter credit conditions, the weak labor market, and the fall in households' net wealth have also been reflected in low consumer confidence levels (Graph 7). Meanwhile, figures for housing construction expenditure and other indicators suggest that this sector once again

had a negative impact on economic growth. This effect was probably smaller than during previous quarters, partly as a result of the reduction of the relative importance of this sector. The recent behavior of shipments and orders of capital goods points to weak investment in equipment and software. The external sector is expected to contribute significantly—although less than during the second quarter- to GDP growth despite the recent recovery of the US dollar. In general, analysts believe the U.S. economy will remain weak for the rest of this year and the start of the next, and then gradually recover during the second half of 2009. Nevertheless, this scenario faces significant downside risks, particularly considering the problems in U.S. financial markets.

Graph 7
U.S.: Real Personal Consumption and Private Expenditure in Residential Construction
 Percent



Source: BEA.

Source: Census Bureau.

During the April-June period of 2008, the Euro Zone recorded negative growth (-0.7 percent at an annualized quarterly growth rate) for the first time since 1996. This result stemmed from both a decline in personal consumption and a fall in investment, while the strength of the euro also affected the contribution of net exports to GDP growth. Different timely indicators such as retail sales and business and consumer confidence indicators suggest that the downturn in economic activity deepened during the third quarter. The Japanese economy contracted by 3.0 percent at an annualized quarterly growth rate during the second quarter due to the fall in both consumption and investment. This weakness seems to have continued during the July-September period in response to lower export growth, the stagnation of housing investment, and the adverse effect of sluggish income growth and high energy prices on consumption.

Economic activity in emerging market economies has decelerated, although growth still remains strong in several of these countries. After having increased over 10.1 percent in annual terms during the second quarter, China's GDP grew 9 percent during the third quarter of 2008. In India, GDP grew 7.9 percent in annual terms during the second quarter, the lowest figure since the fourth quarter of 2004. The latest indicators suggest the Indian economy will decelerate further during the July-September period. In Latin America, economic

growth improved slightly during the second quarter as compared to the previous quarter, while forecasts for growth during 2008 have remained stable in recent months at around 4.5 percent. Nonetheless, some external factors which had been driving growth in the region showed signs of deterioration. In particular, the price increases of commodities, which had benefited the terms of trade of the countries in the region that export such products, reverted considerably.

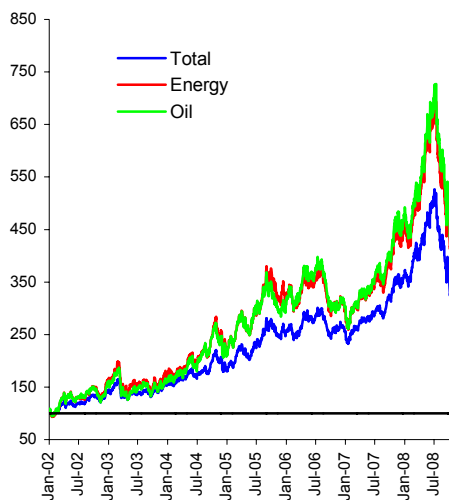
3.1.2. Inflation Trends

Commodity prices dropped sharply during the third quarter of 2008, although they remained at high levels (Graph 8). The price of the West Texas Intermediate (WTI) crude oil declined from a record level of 145 US dollars per barrel on July 14 to 91 US dollars per barrel on September 16. This downward trend was followed by a period of high volatility. Thus, after having risen to 100.64 US dollars per barrel on September 30, the WTI price fell to 63.22 US dollars per barrel on October 27. Meanwhile, non-oil commodity prices also followed a downward trend.² The latter, together with the global economic downturn and expectations that it would worsen, have contributed to alleviate pressures on consumer prices. In this context, many central banks have modified their balance of risks and despite the presence of relatively high rates of inflation in several countries, monetary policy efforts have been geared more towards market stabilization and the need to alleviate the economic slowdown. As a result, the central banks of a large number of industrialized countries have decided to cut their policy interest rates, while, after a period of increases, central banks of many emerging economies have maintained their reference interest rates unchanged and some of them have even lowered them.³

**Graph 8
Commodity Prices**

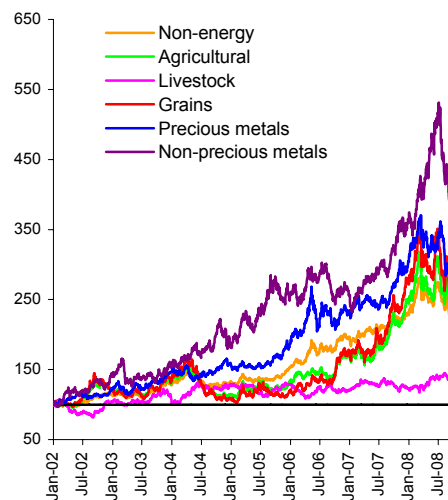
Index January 2, 2006 = 100

a) Commodity Prices: Total and Energy



Source: Thomson Financial.

b) Non-energy Commodity Prices



Source: Thomson Financial.

² For a more detailed description on the development of commodity prices, see sections 3.2.4, 3.2.5 and 3.2.6 of this Report.

³ On the other hand, it is worth to point out that in an attempt to stabilize the value of the forint, Hungary raised its reference interest rate by 300 basis points on October 22.

In the U.S., annual CPI inflation rose from 3.9 percent in April to 5.6 percent in July, mainly as a result of increases in energy prices. During the same period, core inflation shifted upwards, albeit more moderately, from 2.3 to 2.5 percent. Nonetheless, the deceleration of economic activity and the decline in the prices of oil and other commodities have helped to revert this trend. In August, monthly headline CPI inflation decreased as compared to its level during the previous month, while in September it remained unchanged. This moderation caused annual inflation to decline to 4.9 percent in the latter month. The economic downturn and the reduction in commodity prices have also relieved upward pressures on inflation expectations. Based on the aforementioned, the Federal Reserve considers that the risks for inflation have diminished.

In the Euro Zone, after having reached a peak of 4 percent in June, annual headline CPI inflation declined to 3.6 percent in September. This result was influenced by weaker domestic demand and reductions of energy and other commodity prices. Nonetheless, inflation is predicted to remain above the authorities' target (slightly below 2 percent) for some time. After having registered its highest level since March 1998 (2.3 percent) in July, annual headline inflation in Japan declined to 2.1 percent in August (inflation excluding food and energy was zero). The central bank of Japan expects consumer prices' growth in annual terms to remain around the current levels for the next few months, and then decrease as the prices of energy and foodstuffs decline.

Inflationary pressures continued in emerging economies during the July-September period. This partly reflects the greater weight of food prices in these economies' consumer baskets. In many of these countries core inflation also rose. There is a certain asymmetry in the pass-through effect of increases in commodity prices to inflation in advanced and emerging countries. Although in both of them increases are swiftly reflected in inflation, decreases have less of an impact in emerging economies due to, among other reasons, the presence of less competitive markets. In Russia, headline CPI inflation grew 15.0 percent in annual terms in September. Inflation in the Latin American economies generally continued to be above the official targets. Meanwhile, the decline in commodity prices began to influence some emerging economies' inflation indices. For instance, annual CPI inflation in China was 4.6 percent in September, 2.5 percentage points below the figure observed at the end of the previous quarter, mainly in response to the lower growth of food prices. In India, wholesale prices fell from 12.5 percent in July to 11.1 percent in annual terms during the second week of October.⁴ Inflation is also foreseen to decrease in many emerging economies throughout 2009.

3.1.3. Financial Markets

Uncertainty in the U.S. and other advanced economies' financial markets increased considerably during the third and the beginning of the fourth quarter of 2008. In July, the deterioration of the credit portfolios of Government Sponsored Enterprises (GSEs) raised doubts about their solvency.⁵ As a result,

⁴ Indian authorities consider that the wholesale price index is a more reliable indicator for inflation in this country. This index is calculated on a weekly basis.

⁵ Federal Home Loan Mortgage Corporation (Freddie Mac) and Federal National Mortgage Association (Fannie Mae).

the U.S. Treasury Department and the Federal Reserve Bank introduced a series of measures designed to strengthen these institutions.⁶

Despite the actions adopted, investors' concerns over the financial health of GSEs rose as their mortgage assets deteriorated and economic activity weakened. Given the unfeasibility of achieving a sufficient increase of capital in these institutions and in order to avoid adverse effects on the financial system, on September 7 the U.S. Treasury Department announced, among other measures, the conservatorship of Fannie Mae and Freddie Mac (Box 2).

The situation in U.S. financial markets became more complex amid rising uncertainty about the viability of some of its most important investment banks in light of their substantial exposure to subprime mortgage instruments, high leverage, and low capitalization levels.⁷ These risks materialized when, on September 15, the bankruptcy of Lehman Brothers and the sale of Merrill Lynch to Bank of America were announced. The turmoil escalated when difficulties at the world's largest insurance company, American International Group (AIG), worsened. Considering the prevailing market conditions and the size and composition of AIG's liabilities, the Federal Reserve Bank, with the support of the U.S. Treasury Department, decided to provide emergency funding to this insurance company to allow it to solve its problems in an orderly manner (Box 2).

Although a combination of factors led to higher uncertainty, Lehman Brothers' bankruptcy was a turning point in the crisis by becoming the fundamental factor behind the general loss of confidence. Stock markets plummeted, the cost of credit rose sharply, and in many markets liquidity dried up (Graph 9). In this context, counterparty risk perceptions in the interbank market increased and on October 10 the spread between the LIBOR and the Overnight Index Swap (OIS) rate reached 3.64 percentage points, its highest level on record.⁸ Furthermore, the losses in some money market mutual funds led to significant withdrawals from several of them.⁹

⁶ For more information, see Inflation Report of April – June 2008.

⁷ These institutions were subject to looser regulation and supervision by the authorities.

⁸ The Libor rate is the interest rate banks charge each other for loans in the London interbank market and is widely used as an international reference. As counterparty risk has increased, this rate has shifted upwards as compared to the Federal Reserve's policy rate, which is not affected by risk perceptions.

⁹ Money market funds are funds invested in fixed rate short-term securities and similar products. Problems in this market began as difficulties emerged in the Reserve Primary Fund due to its large stake in Lehman Brothers. As Lehman Brothers collapsed, the share value of this fund plummeted, making it difficult for it to meet obligations with its clients.

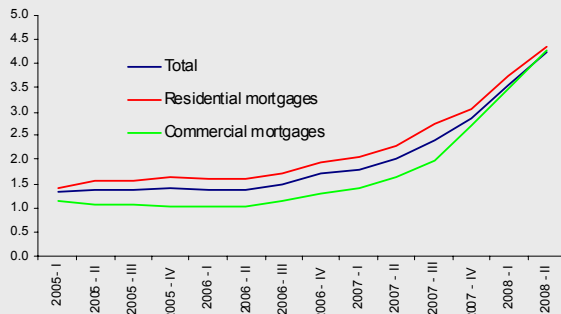
Box 2

Turmoil in International Financial Markets

The crisis in international financial markets worsened during the third and the beginning of the fourth quarter of 2008, despite the actions taken by financial authorities since the previous year to restore liquidity and confidence in the U.S. and other advanced countries' financial systems.

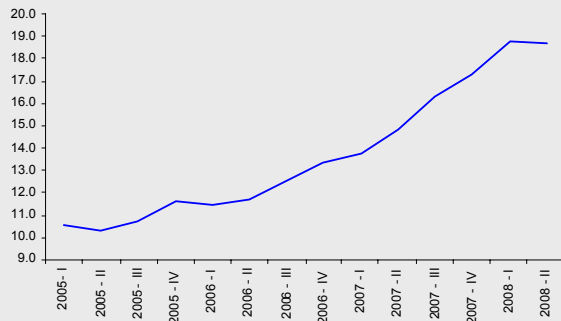
Amid growing difficulties in the U.S. mortgage market, in July 2008 doubts emerged concerning the solvency of the main government-sponsored mortgage enterprises (GSEs).¹ This motivated authorities to authorize both financing to these institutions through the Federal Reserve Bank of New York as well as the purchase of their stocks or debt by the Treasury Department (for further details see Inflation Report April-June 2008).

Graph 1
Overdue Mortgage Loans
Percentage of mortgage portfolio



Source: U.S. Federal Reserve.

Graph 2
Overdue Subprime Mortgage Loans
Percentage of total subprime loans



Source: Mortgage Bankers Association.

Despite these efforts, declining home prices and rising spreads on mortgage interest rates continued, leading to additional increases in past due mortgage portfolios (Graphs 1 and 2). These pressures worsened GSEs financial problems, pushing their share prices down.

Finally, on September 7 the U.S. Treasury Department announced extraordinary measures to support Freddie Mac and Fannie Mae:

- a) Conservatorship, which gives the Federal Housing Finance Agency (FHFA) the power to take decisions in issues relating

to the business model, while daily operations would be conducted by the institutions themselves but under new management.

- b) The U.S. Treasury Department would purchase up to 100 billion US dollars of preferred shares in each of the mortgage agencies. In return, the Treasury would receive a 79 percent stake in each company for a term of 20 years, an initial payment of one billion US dollars in preferred stock, and a dividend of 10 percent on stocks purchased after 2010.
- c) The Treasury Department would purchase mortgage-backed securities (MBS) issued by GSEs.
- d) Finally, a line of credit was established in the Federal Reserve Bank of New York. Funding granted through this window will be guaranteed by the MBS issued by GSEs, paying an interest rate equal to the LIBOR plus 50 basis points.

It is important to emphasize that the measures taken by the Treasury do not limit GSEs mortgage-backed operations. However, they do impose curbs on investment portfolios held by these agencies, as well as on their levels of indebtedness.

Although the measures to support Fannie Mae and Freddie Mac alleviated instability in the U.S. financial market, the environment of scarce liquidity in the money market continued and, in general, uncertainty did not decrease. In this context, the collapse of American International Group (AIG) shares and, particularly, the bankruptcy announcement of Lehman Brothers (LB) represented a turning point in the crisis. These events led to a generalized loss of confidence and the start of a period of turmoil in financial markets, which was more pronounced than those observed during previous stages of the crisis.

U.S. authorities reacted to the financial difficulties of Lehman Brothers and AIG in two different ways. In the case of Lehman Brothers, after having attempted a market solution with executives of other private financial institutions,² the authorities decided against using public funds to support the investment bank. The Treasury indicated that this institution did not have sufficient guarantees to assure repayment of a loan from the Federal Reserve, and that the Treasury did not have the legal authority to absorb Lehman's losses. Thus, on Monday September 15, Lehman Brothers formally filed for bankruptcy, throwing financial markets into substantial turmoil.

On the same day, as LB filed for bankruptcy, Bank of America announced it was buying Merrill Lynch (ML) for 50 million US dollars in stock. The transaction was carried out at a price of 29 US dollars per share, down 61 percent from their value in the previous year.

On September 16, the U.S. authorities revealed they were granting a loan for up to 85 billion US dollars to insurer AIG, whose shares had lost 83 percent of their value since the beginning of September. In exchange, the government would receive 79.9 percent of AIG's stock with which it would effectively take over the institution. The loan would be granted at the 3-month LIBOR rate plus 850 basis points.

The Federal Reserve stated that the purpose of this measure was to avoid the collapse of AIG, which would have represented a serious risk for global financial stability and, thereby, for the U.S. economy. AIG plays an important role in the credit default swaps market, through which the insurer compensates different

¹ Federal Home Loan Mortgage Corporation (Freddie Mac) and Federal National Mortgage Association (Fannie Mae).

² It was hoped that a group of private firms would buy or recapitalize Lehman.

financial institutions when their debtors do not fulfill their obligations.

The collapse of AIG would have forced numerous investors around the world to adjust the prices of their insured assets, incurring in severe capital losses as they had to raise provisions on these assets.

Additional measures implemented by the U.S. and other countries' authorities during the third quarter

As a result of the bankruptcy of Lehman Brothers, the U.S. authorities unveiled measures to counter potential risks in the financial system. In order to boost liquidity and increase the flexibility of the money market, various actions were taken, among which the following are noteworthy:

1. The number of instruments that can be used as guarantees for loans granted under the Federal Reserve Bank's Primary Dealer Credit Facility (PDCF) was increased. As a result, a large variety of assets are now accepted as guarantees, unlike those originally accepted in the PDCF, which could only be high-investment grade instruments.
2. The type of guarantee eligible for financial support under the Term Security Lending Facility (TSLF) for category 2 auctions was widened to include all types of investment grade instruments. The amount offered was also increased from 125bn USD to 150 bn USD.¹
3. On September 18, the Federal Reserve Bank together with the Bank of Canada, the Bank of England, the European Central Bank, the Bank of Japan, and the Swiss National Bank announced coordinated measures to address the lack of liquidity in the short-term US dollar-denominated money market.

In particular, the Federal Open Market Committee (FOMC) authorized currency exchange swap lines for 180 bn USD with the aforementioned central banks.
4. On September 19, the Department of the Treasury unveiled a 50bn USD guarantee program for money market mutual funds. At the same time, the Federal Reserve approved loans for financial institutions to finance the purchase of high quality securities backed by assets held in money market funds.
5. On September 24, the Federal Reserve extended its foreign exchange swap facility to include the central banks of Australia, Denmark, Norway, and Sweden.

As part of its efforts to strengthen the financial system, on September 21, the Federal Reserve approved the applications of Goldman Sachs and Morgan Stanley to become bank holding companies. This change would give them access to deposits from the public and the deposit insurance program, while subjecting them to greater regulation and supervision by the authorities.

On another front, deposit withdrawals from Washington Mutual, the U.S.'s largest saving and loan institution, which began in mid-September, started to increase as rating agencies downgraded its credit rating. On September 25, the Office of Thrift Supervision (OTS) announced the intervention and sale of Washington Mutual to JPMorgan.

The international dimensions of the financial turmoil were evidenced on September 29, when the governments of the Netherlands, Belgium and Luxembourg announced their joint

¹ The TSLF includes two types of auctions. Category 1, which is carried out every two weeks for a total of 50 bn USD and category 2, which will now be carried out twice a week for up to 150 bn USD.

intervention in the European bank Fortis. Each of these governments took a 49 percent stake in the Fortis group subsidiaries in their countries. In England, the nationalization of Bradford & Bingley's, a large commercial bank, was announced. The savings business of this institution was taken over by Banco Santander, which will allow savers deposits to be protected, while the government acquired its remaining business including that of mortgages.

Actions taken in October

The measures taken during the third quarter proved insufficient to alleviate financial market tensions. The situation worsened at the end of September when the U.S. Congress rejected the first version of the rescue package proposed by the country's financial authorities.

After various changes, the plan was passed by the U.S. Senate on October 1 and by Congress on October 3.

The main characteristics of the plan to restore liquidity and solvency in the U.S. financial system were:

- Resources for up to 700bn USD were made available through the Troubled Assets Relief Program (TARP), to enable the Department of the Treasury to purchase mortgages (and other types of assets) which had lost their liquidity in the market from different financial intermediaries operating in the U.S., and to provide guarantees and inject capital to financial institutions.
- The establishment of an oversight board to supervise and make recommendations regarding actions taken by the Office of Financial Stability, an agency created by the Department of the Treasury to implement the TARP.
- Access to the 700bn USD will be phased. 250bn will be for immediate use and then, after previous presidential certification, an additional 100 bn in funds will be available for use by the Department of the Treasury. The remaining 350bn will be subject to Congressional approval.
- The Department of the Treasury is authorized to manage and, if necessary, sell financial assets acquired through the TARP. Any profit made from the sale of assets will be used to pay the domestic debt.

The plan approved by Congress also includes supports for taxpayers, the most important of which are:

- The Department of the Treasury should implement programs to reduce home foreclosures via credit guarantees and changes to the terms of mortgage loans.
- The expansion of homeowner programs to increase the number of persons eligible for such programs and reduce home foreclosures.
- The obligation that in 5 years, the President must send a plan to Congress to recover any losses caused to taxpayers from the financial industry.
- The limits to deposit protection provided by the Federal Deposit Insurance Corporation (FDIC) and the National Credit Union Insurance Fund, were raised from 100 thousand to 250 thousand US dollars. This program will remain in force until December 31, 2009.
- Taxes due from homeowners who have had mortgage debt forgiven as part of a foreclosure or the

- renegotiation will be canceled. Previously, mortgage debt canceled or forgiven during foreclosure was considered income – and taxed as such.

Given that purchases of money market securities, particularly those for longer terms, continued to fall sharply, on October 7 the Federal Reserve announced the creation of the Commercial Paper Funding Facility (CPFF). On October 27, the Department of the Treasury made a deposit in the Federal Reserve Bank of New York for the launch of a special-purpose financing vehicle (SPV) to administer the purchase of secured and non-secured 3-month commercial paper.

On October 8, the U.S. Federal Reserve cut its key federal funds lending rate by 50 basis points in a coordinated move with the Bank of Canada, the Bank of England, the European Central Bank, the Bank of Sweden and the Swiss National Bank. By announcing this measure, these central banks highlighted the worsening financial crisis and the increased risks for economic growth. They also underlined that the moderation of inflationary pressures had allowed them to take the decision to loosen monetary policy conditions.

On October 12, authorization was given to Wells Fargo's acquisition of Wachovia, the U.S.'s fourth largest commercial bank.

Despite all of the above mentioned measures, the financial system remained highly volatile and liquidity continued to freeze. Furthermore, concrete actions for implementing the TARP approved at the beginning of the month had still not been defined.

Under this context, on October 14 the Department of the Treasury unveiled a new set of measures to stabilize the financial system. The approval of the emergency package by Congress granted the Treasury the authority to supply capital to financial institutions. As a result, the government decided to use 250bn USD to capitalize commercial banks, credit unions, savings associations and some financial controllers in exchange for preferred stocks. So far, the participation of nine large banks has been announced, which altogether will receive 125bn USD. The rest will be channeled to regional banks and other small financial institutions.

As part of the recapitalization plan, limits were imposed on the salaries of participating banks' chief executives, while the government would receive a 5 percent annual dividend for the first five years of stock purchase and of 9 percent after the fifth year.

A further measure announced on October 14 was the temporary protection of all preferred shares of FDIC-insured institutions, as well as an unlimited guarantee on funds in non-interest bearing transaction accounts (mainly checking accounts widely used by small businesses for their daily operations). The protection limit for savings account deposits remains at the increased limit of 250 thousand U.S. dollars. The guarantee on the newly issued senior debt of financial institutions will cease on June 30, 2009 and extensions to deposit guarantees will end on December 31, 2009 when the amount insured will return to the original limit of 100 thousand US dollars.

In order to alleviate liquidity problems in the money market, on October 21 the Federal Reserve announced the creation of a new financing facility for mutual funds. Under this facility a series of special purpose vehicles (SPVs) were created to finance the purchase of eligible assets (U.S. dollar denominated certificates of deposit and commercial paper issued by highly rated financial institutions and with remaining maturities of 90 days or less) from eligible investors (U.S. money market mutual funds).

Measures taken recently in other industrialized and emerging economies

Countries in Europe and other regions reacted gradually to the crisis, with governments taking individual and specific responses. The measures adopted focused on boosting confidence in the capacity of banks to meet their obligations and on avoiding liquidity problems in these institutions. Some of the most important measures taken were:

- The Irish government announced a guarantee on all deposits, senior and subordinated debt instruments, and bonds deposited in eleven Irish banks. The guarantee will be granted at a charge to the institutions involved and will be in effect from September 29, 2008 until September 28, 2010.
- The Greek government announced guarantees on all bank deposits, although it did not specify if there would be a change in legislation to back these guarantees. The government also mentioned it would grant guarantees on newly issued medium-term bank debt for up to 15 billion euros.
- The German government intervened Hypo Real Estate financial group and announced the guarantee of all deposits in the banking system, as well as all new bank refinancing instruments with maturities of up to 36 months for a maximum of 400 bn euros.
- The British government raised the deposit protection limit from 35 thousand to 50 thousand pounds sterling, and announced a plan to inject up to 50 billion pounds sterling directly into the country's main banks. Furthermore, various types of newly issued debt were also guaranteed for up to 250 bn pounds sterling.
- The Danish government and commercial banks established in that country agreed to create a common fund to guarantee savers' deposits. The fund will be financed by these banks for the following two years until it reaches a maximum of 35 billion Danish kroner (approx. 6.4 bn USD).
- In Sweden, the insurance limit for deposits in commercial banks was doubled to 500 thousand Swedish kroner (approx. 70 thousand US dollars).
- In Netherlands, the government announced its intervention in Fortis bank's subsidiary in that country.

In light of persisting bank financing problems and the growing effect of the financial crisis on the real economy, Euro area countries unveiled joint measures to boost liquidity, smooth bank funding, supply additional capital to financial institutions, and improve coordination among European countries. Thus:

- On October 13, the European Central Bank, the Bank of England, and the Swiss National Bank announced new US dollar swap lines with the Federal Reserve. These institutions may request unlimited sums if they provide the necessary guarantees in line with the terms and conditions of each central bank. Meanwhile, the Bank of Japan also announced it would implement similar measures and that currency swap lines established with the Federal Reserve would not have pre-established limits.
- On the same date, several European countries announced coordinated actions to increase the protection of savers' deposits, provide guarantees on newly issued debt, and a plan to supply banks with

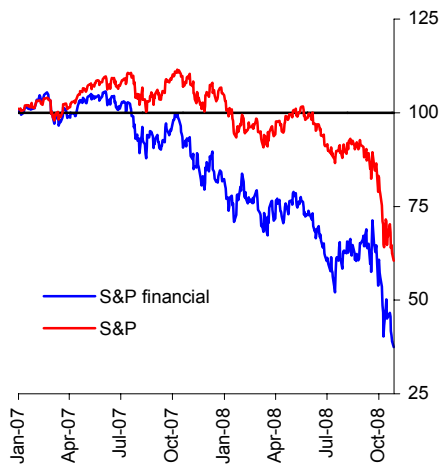
- capital. Thus, the German government will guarantee interbank lending for up to 400bn euros and will inject up to 80 bn euros to recapitalize the banking system. France said it will channel up to 320 bn euros to its guarantee program and up to 40bn to its recapitalization plan. The British government announced the start of the program unveiled on October 8 to inject up to 50bn pounds sterling to recapitalize its main banks. Austria, Spain, Netherlands, Italy, Norway, and Portugal decided to commit a total of up to 481 bn euros to guarantee commercial banks' newly issued debt. The Dutch government also announced its plans to supply 10 bn euros of capital to ING.

On October 16, the Swiss authorities announced a rescue package based on the creation of a special vehicle to purchase and later sell toxic assets of the Swiss bank UBS. In return, UBS will provide up to 6 bn euros to this fund and will transfer 9 percent of its equity to the Swiss National Bank. On October 20, the Swedish government announced a financial stabilization plan that guarantees more than 200 bn USD of bank liabilities and also includes capital injections to commercial banks. On October 27, the Belgian government made public the injection of 3.5 bn euros to the KBC banking and insurance group in return for shares in the institution.

The global financial crisis has had side effects in the financial systems of numerous emerging countries, which have been affected by capital outflows and the reduction of credit lines from foreign banks. One of the most noteworthy cases is that of Iceland, which nationalized its three largest banks (that accounted for over 90 percent of its banking sector) and which has entered into negotiations to obtain a credit line from Russia. The country is also waiting for the approval of a 2.1 bn USD loan from the International Monetary Fund. Other countries that have been seriously affected are Hungary, Ukraine, and Russia. In Latin America, liquidity conditions have deteriorated leading the central banks of, among others, Brazil, Chile and Colombia to carry out US dollar auctions to satisfy the demand for currency. Several Asian emerging economies such as Hong Kong, India, Indonesia, and South Korea have also been forced to take measures to bolster their financial systems. The South Korean government announced it would guarantee up to 100 bn USD of newly issued local bank foreign debt and pump a further 30bn USD directly into the banking sector.

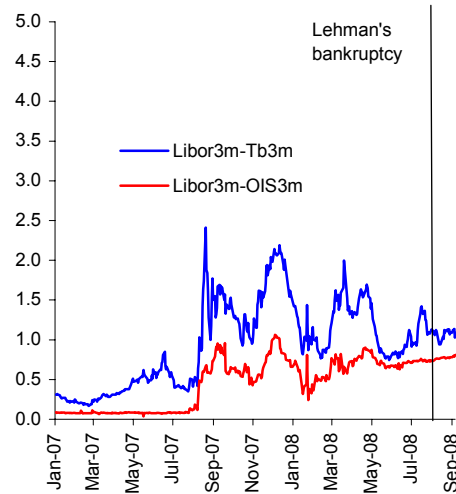
Graph 9
U.S.: Stock Indices and Interest Rate Spreads
Percentage points and index

a) Stock Exchange in the U.S. by Sector^{3/}



^{3/} As of October 27, 2008.
Source: Bloomberg.

b) Differential in USD between 3-month Libor and 3-month OIS^{1/} and 3-month U.S. Treasuries^{2/}



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

^{2/} As of October 27, 2008.
Source: Bloomberg.

Under these circumstances, the U.S. authorities implemented various actions to increase liquidity and stabilize financial markets (Box 2):

- I. In order to alleviate financing restrictions in the interbank market, the Federal Reserve substantially increased auction amounts and loosened collateral requirements on available facilities to support banks and primary dealers.¹⁰
- II. To solve US dollar funding problems in various markets, swap agreements with the European Central Bank (ECB) and the Swiss National Bank (SNB) were expanded, while new swap lines were established with other central banks.
- III. The Federal Reserve and the Treasury Department announced several initiatives to support money market mutual funds that were facing significant withdrawals and to alleviate liquidity problems in commercial paper markets. The Treasury announced an up to 50 billion US dollar temporary money market guarantee program and the Federal Reserve unveiled a temporary facility designed to provide banks with funding to purchase high quality asset-backed commercial paper from money market mutual funds.
- IV. On October 3, the U.S. Congress passed a legislative package with funds of up to 700 billion US dollars. The Troubled Assets Relief Program (TARP), approved as part of the legislative package, allowed the Treasury Department to purchase toxic assets from any financial institution, grant guarantees, and inject capital into the financial system. The package also includes some taxpayer relief measures, such as the establishment of programs designed to reduce the number of foreclosures and increase the limits of deposit insurance.
- V. On October 7, the Federal Reserve Bank announced the start of a facility allowing it to purchase commercial paper directly from issuers facing liquidity problems.
- VI. On October 8, the Federal Reserve, the European Central Bank and the central banks of Canada, the United Kingdom, Sweden and Switzerland decided jointly to cut their policy interest rates.¹¹

Other countries, particularly in Europe, also implemented actions to ameliorate the impact of the financial crisis on their economies. At the end of September, the Central Bank of Ireland decided to grant a blanket guarantee for all deposits, debt instruments and bonds deposited in the most important banks. On October 8, the British government announced, among other measures, an increase in bank deposit guarantee limits, the granting of guarantees on financial institutions' new debt issues and the injection of up to 50 billion pounds sterling to recapitalize its main banks. In Germany and Greece, measures were announced to strengthen the guarantees on savings deposited in the banking system and banks' new debt issues. Banks in Belgium, the Netherlands and Luxembourg were also intervened. These actions add to the provisions of liquidity in US dollars

¹⁰ 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.

¹¹ Policy interest rates were cut 50 basis points in all cases. In its monetary policy meetings of August and September, the U.S. Federal Reserve had decided to maintain the federal funds rate unchanged at 2 percent. The central banks of other advanced economies, including the ECB, the Bank of Japan, and the Bank of England also maintained their reference interest rates unchanged during the referred quarter.

carried out by the European Central Bank, the Swiss National Bank, the Bank of England, the National Bank of Denmark, the Bank of Norway, the Bank of Sweden, and the Bank of Japan.

Despite the measures adopted, the situation in financial markets continued to deteriorate. It therefore became evident that a case-by-case approach would not be enough to overcome the crisis. Actions taken weeks before in Ireland and the U.K. had a considerable impact in financial markets. In particular, the British government's decision to inject substantial sums of capital into the banking system significantly influenced ideas on the best way to address the crisis. As a result, the European and U.S. authorities announced various policies designed to provide a comprehensive and coordinated response to the financial crisis:

- i) On October 13, several European countries unveiled a series of simultaneous measures to facilitate interbank credit and increase their commercial banks' capital.
- ii) On the same date, the U.S. Federal Reserve agreed to extend unlimited US dollar funding to the ECB, the Bank of England, the Bank of Japan and the Swiss National Bank.
- iii) On October 14, in the context of the emergency plan approved by Congress at the beginning of that month, the U.S. Treasury allocated 250 billion US dollars to recapitalize various banks by purchasing non-voting stock.¹² It also announced, among other measures, the temporary protection of the preferred stock of institutions covered by the Federal Deposit Insurance Corporation (FDIC) and guarantees on all non-interest bearing accounts.

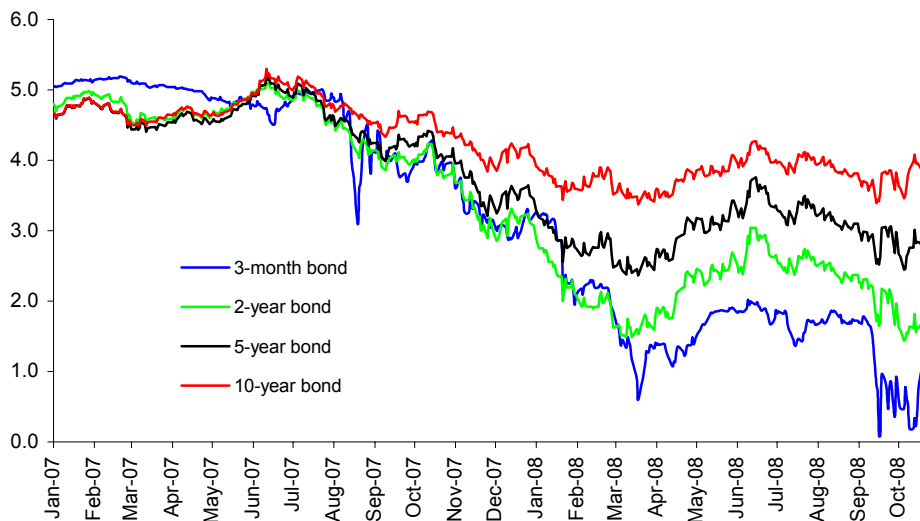
After these actions, the Federal Reserve unveiled the creation of a new financing facility for money market mutual funds. This facility is intended to solve the problems mutual funds have faced to sell assets and meet their clients' cash demands.

The adopted measures, especially those made public in mid-October, have provided some relief to the money market turmoil. However, high levels of volatility and uncertainty were still present at the end of October.

Interest rates for U.S. Treasury bonds for all maturities decreased slightly until mid-September, partly as a result of deteriorating economic growth forecasts for that country (Graph 10). Later, in the face of worsening problems in financial markets, investors rapidly looked for lower risk instruments. This caused interest rates for all terms to fall sharply, although the fall was particularly severe for 3-month and 2-year bonds. In this context, on September 17, the 3-month T-bill interest rate fell to its lowest level on record (0.03 percent).

¹² Citigroup, JP Morgan Chase, Bank of America and Wells Fargo will receive 25 billion US dollars each; Goldman Sachs and Morgan Stanley 10 billion per institution, and Bank of New York Mellon and State Street between 2 and 3 billion. The remaining 125 billion will be distributed among medium and small sized regional banks.

Graph 10
Yield on 10-year, 5-year, 2-year, and 3-month U.S. Treasuries
 Annual percent



Source: Bloomberg.

As explained previously, the policies implemented by the U.S. authorities have alleviated some of the tensions in money markets. Thus, since mid-October there have been, with fluctuations, increases in interest rates for various terms, particularly short-term rates. Meanwhile, the spread between the LIBOR and both the OIS and the yield on Treasury bonds has narrowed considerably. These trends have been accompanied by greater concerns over the effects the crisis might have on the real economy, which has influenced stock markets' results, among other variables.

During the third quarter, the stock markets of advanced economies recorded losses and high volatility as a result of fluctuating energy prices and the new stage of the financial crisis. In the U.S., the S&P-500 index dropped 8.9 percent, while Japan's Nikkei index tumbled more than 16 percent amid fears about the effects of the U.S. downturn on Japanese exports. The stock markets of the U.K., France and Germany fell 12.9, 9.1 and 9.2 percent, respectively. Despite the coordinated efforts of various countries to support stock markets, steep losses were recorded in October, first in response to the worsening financial crisis and then as a result of the reemergence of global recession worries. From October 1 to 27, the S&P-500 fell 26.9 percent, while the stock markets of Japan, the U.K., France, Germany and Canada did so by 37.0, 22.3, 24.3, 25.3 and 27.1 percent, respectively.

The US dollar appreciated until the middle of the third quarter in response to environmental factors and the demand for lower risk assets. As problems in U.S. financial markets worsened, this appreciation reverted slightly. On balance, during the third quarter the US dollar appreciated 11.8 percent, 11.9 percent and 4.2 percent, against the euro, the pound sterling and the Canadian dollar, respectively, and depreciated 0.1 percent against the yen. In nominal effective terms, the US dollar appreciated 7.3 percent against the main currencies

and 5.8 percent using the broader definition.¹³ The US dollar continued to appreciate against other currencies in October, mainly supported by lower risk perceptions on US dollar-denominated government assets. From the end of the third quarter to October 27, the nominal effective US dollar exchange rate appreciated 9.6 percent in its broad definition and 10.9 percent in relation to the main currencies.

Although in its initial stages the international financial turbulence did not seriously affect emerging economies, the worsening of the crisis at the end of September had a significant impact on these economies through both real and financial channels.¹⁴

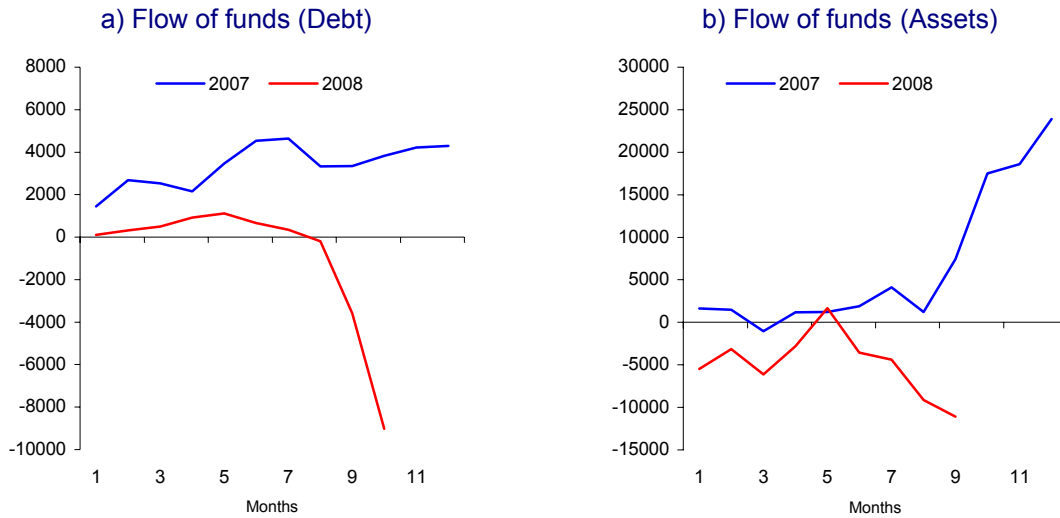
On the real side, the deceleration of economic activity in advanced countries has brought about reductions in emerging economies' exports of manufacturing goods and commodities, besides deteriorating their terms of trade. At the same time, these economies have also suffered a reduction in revenues from workers' remittances and a deterioration of investor and consumer confidence.

On the financial side, the substantial increase in the perception of global risk has led foreign investors to sell their positions in foreign exchange and sovereign debt markets of emerging economies. This behavior has in turn led to capital outflows from these countries, to sudden depreciations of their exchange rates and to wider sovereign risk spreads on their bond issues (Graphs 11 to 14). This has restricted emerging economies' access to foreign financing and raised its cost. Tighter credit conditions have also affected domestic debt markets, even in economies with larger and more liquid financial markets. This situation has worsened, particularly in countries with significant foreign investment in their banking systems, by the fact that some foreign banks' head offices have required financial support from their subsidiaries abroad. Numerous emerging economies' financial systems have therefore been severely affected by the market turmoil. It is important to point out that, although contagion has spread widely to all emerging economies, problems have been worse in countries with less sound economic fundamentals.

¹³ The major currencies index is a weighted average of the foreign exchange value of the US dollar against 7 major currencies. The broad index is a weighted average of the foreign exchange value 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.

¹⁴ See also section 3.3 of this Report.

Graph 11
Accumulated Flow of Funds to Emerging Markets
 Million USD

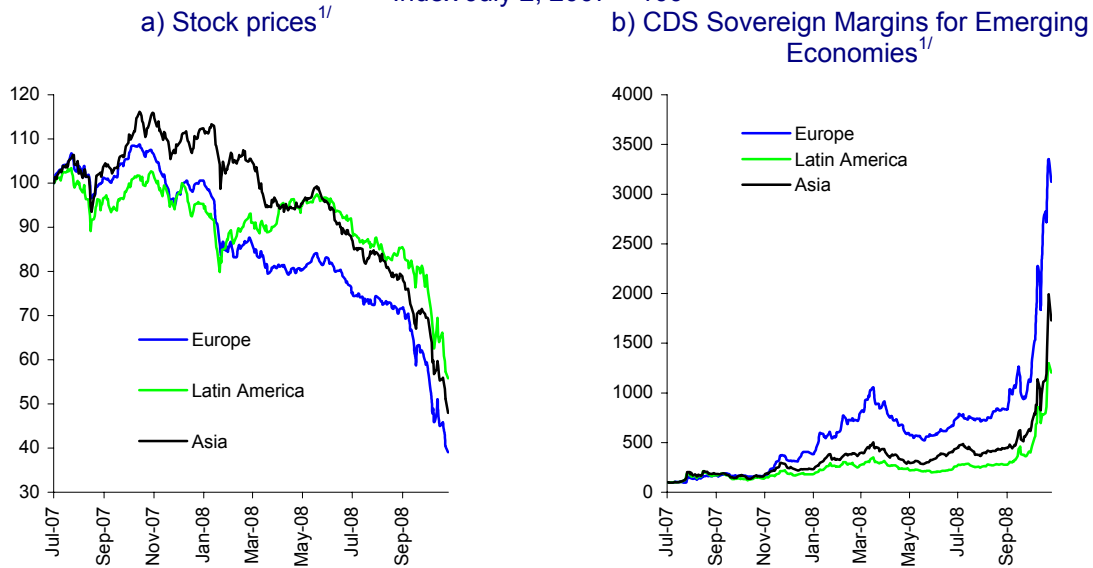


Source: Emerging Portfolio Fund Research.

Source: Emerging Portfolio Fund Research.

The international financial crisis affected significantly the prices of emerging economies' assets (stocks, currencies, debt, and risk coverage) during the third quarter, and worsened during October amid expectations of a world economic downturn. The aforementioned was accompanied by a marked increase in the volatility of these prices. Stock market falls and increases in the cost of credit default swaps were generally greater in Europe's emerging economies (Graph 12).

Graph 12
Stock Markets and Default Swaps for Emerging Markets
 Index July 2, 2007 = 100



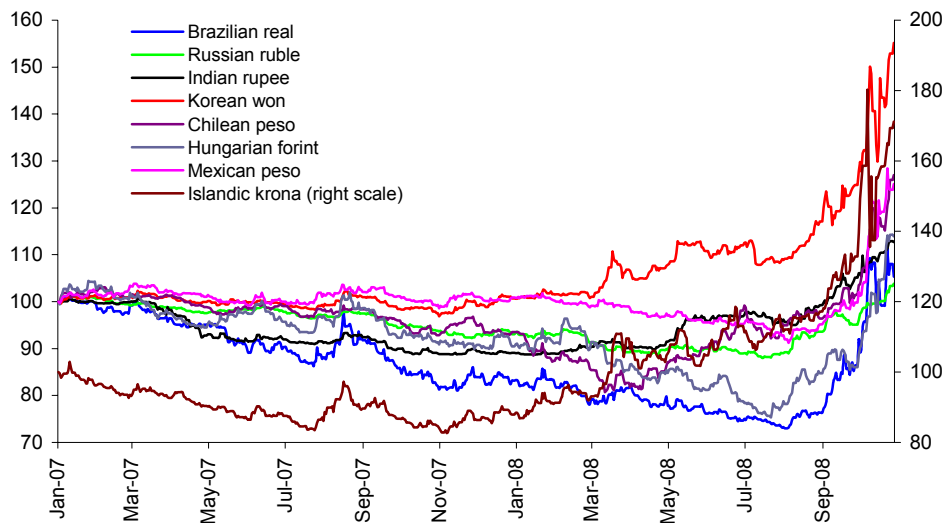
^{1/} Sample of 23 emerging economies.
 Source: Bloomberg.

^{1/} Sample of 23 emerging economies.
 Source: Bloomberg.

During the July-September period, the stock markets of Argentina and Brazil contracted by more than 20 percent, while those of Russia fell 47.4 percent, Mexico's 15.3 percent, and China's 36.6 percent. The Icelandic stock exchange dropped 20.3 percent; the Hungarian, 7.4 percent; the Ukrainian, 52 percent; and the Korean, 13.5 percent. Stock markets slid even further in October. Thus, from October 1 to 27, the Argentinean stock market fell 47.7 percent; the Brazilian, 40.9 percent; the Mexican, 32.8 percent; the Chinese, 31.6 percent; the Russian, 53.8 percent; the Icelandic, 71.7 percent; the Hungarian, 43.9 percent; the Ukrainian, 40.8 percent; and the Korean, 34.3 percent.

Emerging economies' exchange rates against the US dollar were under considerable strain since the beginning of September due, among other factors, to greater risk aversion and increased demand for US dollars from firms who had used structured finance (Graph 13). From the beginning of September to October 27, the Brazilian real depreciated 36.4 percent; the Chilean peso, 31.5 percent; and the Mexican peso, 30.8 percent. In the emerging economies of Europe, the Icelandic krona, the Turkish lira, the Hungarian forint and the Polish zloty depreciated 44.9, 37.4, 32.9, and 31.2 percent, respectively. In Asia, the Korean wong depreciated 29.3 percent.

Graph 13
Exchange Rate of Selected Countries
 Index, January 2, 2007 = 100



Source: Bloomberg.

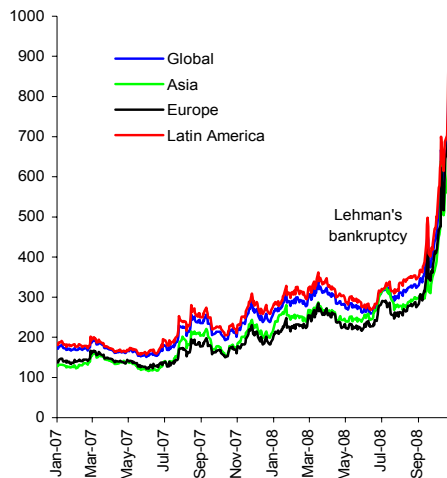
Emerging economies' sovereign debt spreads were affected by the deterioration of economic and financial conditions, the search for risk free assets and the weakening prices of commodities. Sovereign spreads widened even further after Lehman Brothers filed for bankruptcy (Graph 14). Compared to the end of the previous quarter, the EMBI Global composite index increased 134 basis points, reflecting the deterioration of the indices of Latin America (157 basis points), Eastern Europe (134 basis points), and Asia (66 basis points). Amid the financial turmoil, in October EMBIs rose even more, taking the global index to levels unseen since 2002. The EMBI Global composite index rose 431 basis points between September 30 and October 27, to a level of 874 basis points, while spreads for Latin America, Europe and Asia widened 399, 508, and 422 basis points during the referred period. Meanwhile, credit default swap spreads for

emerging economies remained relatively stable in July and August prior to rebounding in September. As a result, spreads increased 84 basis points during the third quarter as a whole. Credit default swap spreads continued to widen in October, rising 632 basis points from the end of the third quarter to October 27.

Emerging economies' authorities have implemented a wide range of policies in an attempt to curb the effects of the financial turmoil. Among the most widely used has been intervention in the foreign exchange market to avoid even sharper exchange rate depreciations and the opening of special windows to cover short-term funding markets' liquidity requirements. Many countries have fallen back on different programs designed to supply US dollars to the local market. The case of Brazil is particularly noteworthy. On October 23, its central bank announced its willingness to participate in currency swaps for amounts of up to 50 billion US dollars. Other commonly used measures include loosening monetary policy, either by reducing reserve requirements (India, Brazil) or lowering interest rates (Russia, China). Measures implemented to support the financial system included raising bank deposit insurance coverage (Bulgaria, Czech Republic, Iceland, Korea, Malaysia, the Philippines, Rumania, Russia, Singapore and Turkey, among others), bank capitalization or the purchase of bank assets (Korea, Kazakhstan, Malaysia, United Arab Emirates), and direct interventions in the banking system (Iceland), among others. Several countries have also used different mechanisms to support non-financial firms (Korea, China).

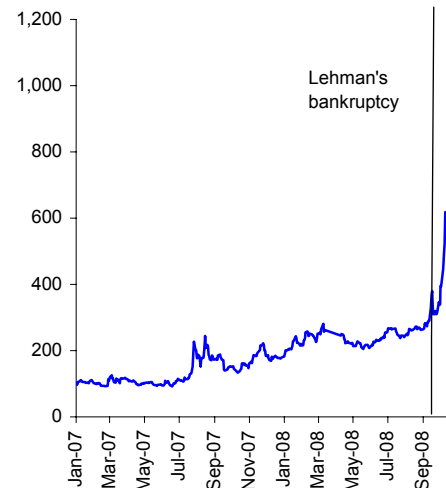
Graph 14
EMBI Global and Cost of Default Swaps
 Basis points

a) Sovereign Spreads for Emerging Countries



Source: Bloomberg.

b) CDS Spreads for Emerging Countries



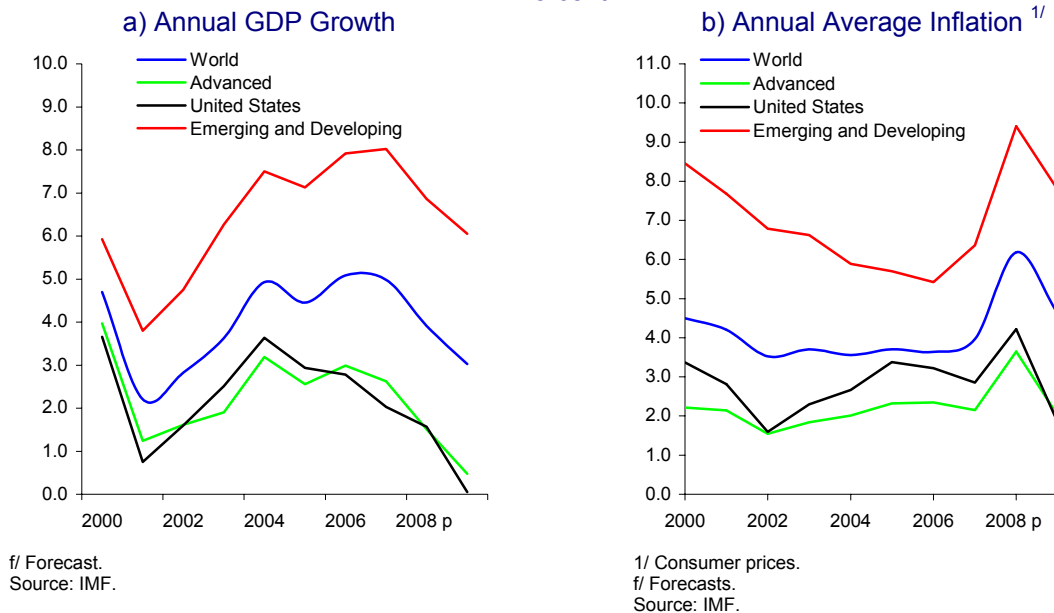
Source: Bloomberg.

3.1.4. Outlook

The world economy is expected to weaken significantly during the second half of 2008 and deteriorate even further in 2009 (Graph 15). Analysts consider that advanced economies will suffer most from the downturn in economic activity. Lower growth, in many cases below trend, is also forecasted for emerging economies. Global economic activity is expected to start to recover during the second half of 2009, although it is generally accepted that this will take place more gradually than during previous business cycles.

However, even the above scenario is exceptionally uncertain and faces significant downside risks, particularly given the jitters in international financial markets. The deleveraging process is expected to be prolonged and bank credit in advanced economies will continue to be tight. Furthermore, lingering uncertainty, weak employment, and high levels of household indebtedness are expected to limit the expansion of private consumption over the medium term, particularly in the U.S. Emerging economies will face more difficult external financing conditions as the crisis in international financial markets persists.

Graph 15
Developments and Outlook for GDP Growth and Inflation
 Percent



As for the inflation outlook, the combination of slower economic growth and the decline of commodity prices are expected to allow consumer price growth in advanced economies to decline during 2009 to levels similar to those observed in 2007. In emerging and developing economies, forecasts also point to a decrease in inflation during 2009, although above both the figures recorded in 2007 and the targets of many of these countries' central banks. Although upward risks for inflation have lowered, they still persist, above all in emerging economies, given the slower pass-through effect of the fall in commodity prices to consumer prices in those countries.

Concerns over potential problems which could stem from the high level of the U.S. current account deficit have diminished. In particular, the problem resulting from low levels of saving and the consequent growth of consumption to above long-term sustainable levels is expected to be corrected by the deleveraging process that began recently. The adjustment of domestic demand which has accompanied this process should contribute to significantly reduce the current account deficit. However, worries continue about risks originating from the need to recycle the high surpluses of oil exporting countries, as well as the likely emergence of protectionist pressures since trade negotiations under the Doha development round have stalled.

3.2. Costs and Prices

3.2.1. Wages

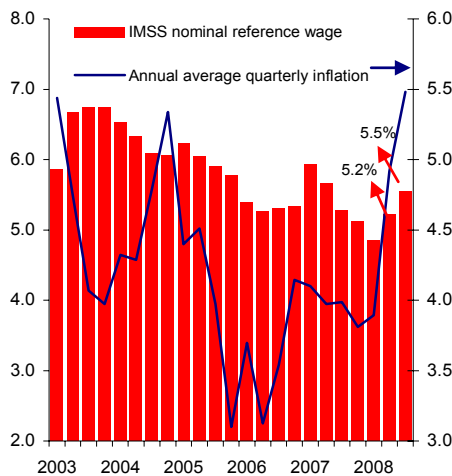
The IMSS reference wage and contractual wages for federal jurisdiction firms grew 0.3 percentage points during the third quarter of 2008, while average annual inflation during the quarter and expectations for inflation for the next 12 months did so by 0.6 and 0.5 percentage points, respectively (see more details in Section 4).¹⁵

During the third quarter of 2008, the IMSS reference wage increased on average 5.5 percent in annual terms and in the previous quarter, 5.2 percent (Graph 16). Wages grew at a higher rate in all three sectors of economic activity (Table 3).

As for contractual wages, during the third quarter of 2008, firms under federal jurisdiction negotiated an average increase of 4.7 percent. The highest raise was obtained by workers in publicly-owned firms (4.8 percent during the third quarter). Workers in privately-owned firms obtained a 4.6 percent increase during the same period. In both types of firms wage adjustments were higher than those observed during the same quarter of the previous year. The raise obtained in publicly-owned firms was significantly influenced by wage negotiations in the oil-related industry (Table 3).

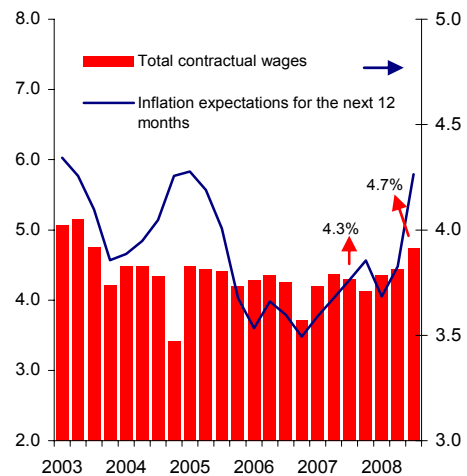
Graph 16
Wages Trend

a) IMSS Nominal Reference Wage^{1/}
Annual percentage change



^{1/} Based on workers insured by IMSS. Includes 14.4 million workers on average during the first nine months of 2008, which corresponds to 35.5 percent of total paid workers.

b) Contractual Wages^{2/}
Figures in percent



^{2/} Based on wage negotiations in firms under federal jurisdiction. Includes 1.9 million workers in 2007, which corresponds to 4.6 percent of total paid workers during that year.

¹⁵ The first indicator considers the daily average wage earned by workers insured by the IMSS during a certain period and some benefits (e.g. end-of-year bonuses, vacation bonuses and commissions). Contractual wages, on the other hand, include only direct salary increases 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 engaged in wage settlements, usually during the same period of the year. For this reason, this indicator follows a seasonal behavior. The development of contractual wages must therefore be analyzed by making annual comparisons of the same periods.

Table 3
Wage Indicators
Annual percentage change

	2007						2008			
	I	II	III	IV	Jan-Sep	Jan-Dec	I	II	III	Jan-Sep
IMSS reference wage	5.9	5.7	5.3	5.1	5.6	5.5	4.9	5.2	5.5	5.2
Primary	15.7	10.5	4.4	3.6	10.2	8.5	3.3	4.4	5.7	4.4
Secondary	7.7	8.1	7.3	6.5	7.7	7.4	6.6	7.6	7.7	7.3
Tertiary	5.0	4.7	4.7	4.6	4.8	4.7	4.2	4.7	5.0	4.6
Total contractual wages ^{1/}	4.2	4.4	4.3	4.1	4.3	4.2	4.4	4.4	4.7	4.5
Publicly-owned firms	3.9	4.2	4.3	4.0	4.1	4.1	4.1	4.2	4.8	4.5
Hydrocarbons	d.n.e	d.n.e	4.3	d.n.e	4.3	4.3	d.n.e	d.n.e	4.8	4.8
Privately-owned firms	4.3	4.4	4.3	4.4	4.3	4.3	4.4	4.5	4.6	4.5
Annual average quarterly inflation	4.1	4.0	4.0	3.8	4.0	4.0	3.9	4.9	5.5	4.8
Inflation expectations for the next 12 months (quarterly average)	3.6	3.7	3.8	3.9	3.7	3.7	3.7	3.8	4.3	3.9

d.n.e/ No wage revisions for hydrocarbon-related activities are available for the reference period.

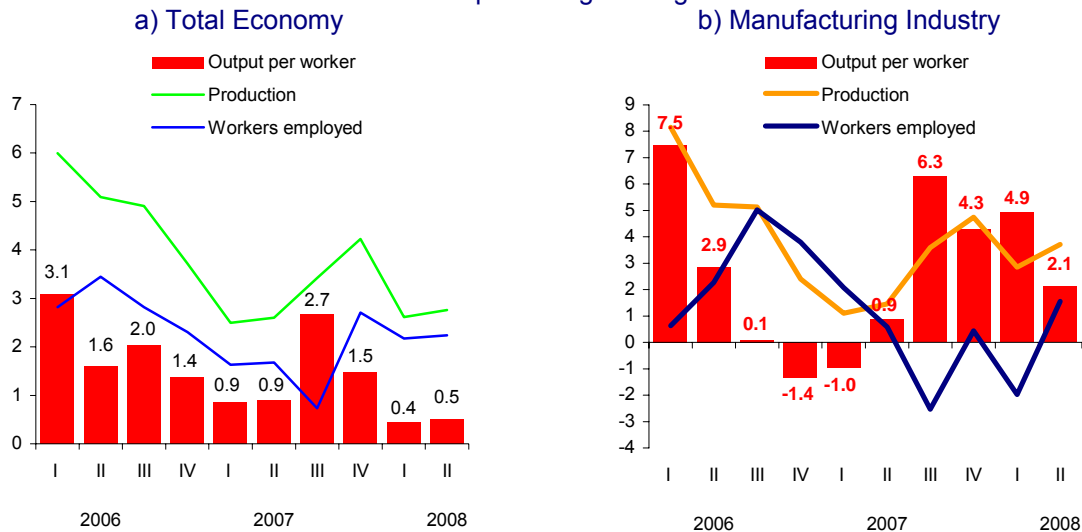
^{1/} Weighted average by the number of workers benefited during the period.

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

3.2.2. Output per Worker

According to the ENOE Survey and to National Accounts' data, average output per worker for the total economy rose 0.5 percent during the second quarter of 2008, figure similar to that observed during the previous quarter (0.4 percent). In the manufacturing industry, the corresponding indicator contracted, from 4.9 to 2.1 percent from the first to the second quarter of 2008 (Graph 17).

Graph 17
Output per Worker: Total Economy and Manufacturing Sector^{1/}
Annual percentage change

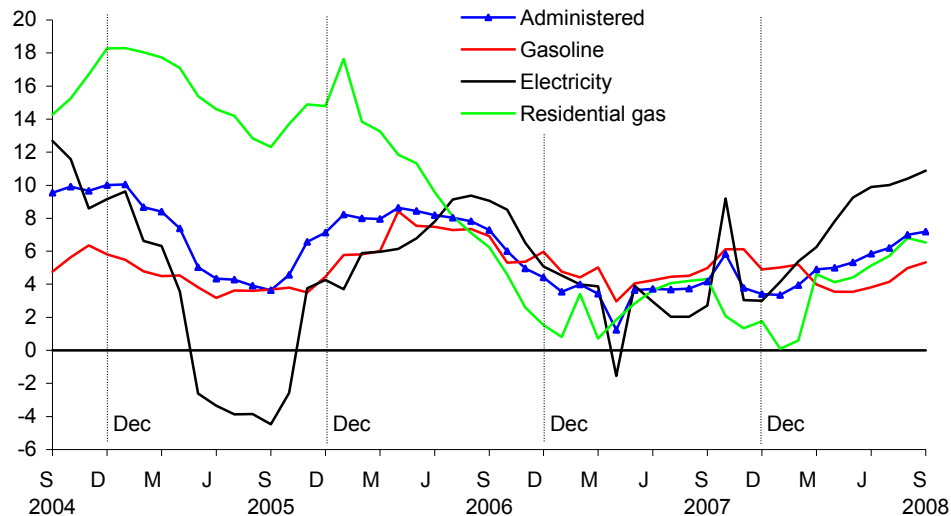


^{1/} Average output per worker for the total economy is calculated considering production data from the National Accounts and employed individuals from the ENOE survey.

3.2.3. Administered and Regulated Prices of Goods and Services

During the third quarter of 2008, the administered prices' subindex grew on average 6.79 percent in annual terms, as compared with 5.38 percent during the previous quarter. This result is attributed to price increases in all components of this subindex throughout the referred quarter (Table 1 and Graph 18).

Graph 18
Subindex of Administered Prices
 Annual percentage change



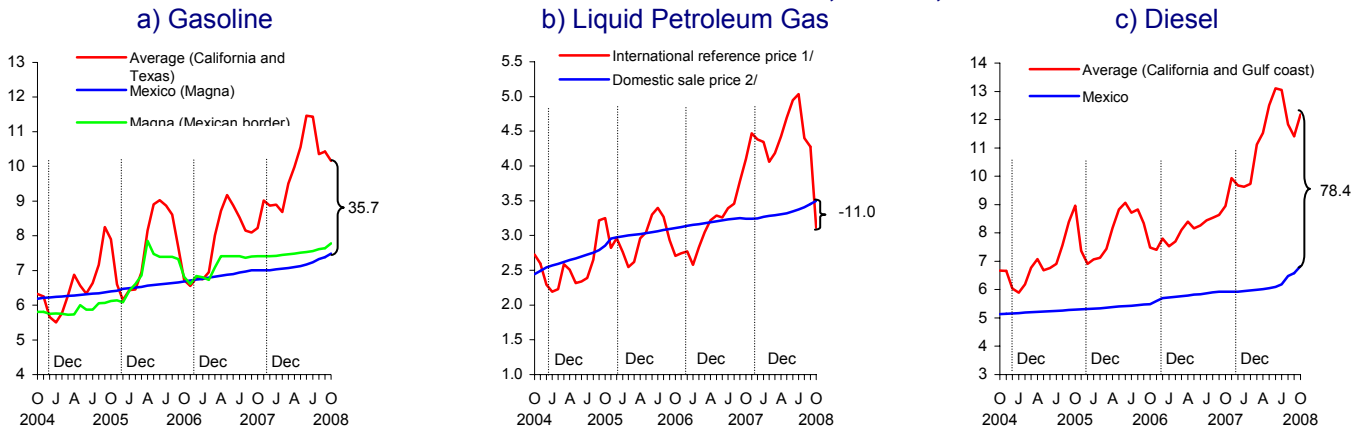
During the analyzed period, prices of *Magna* and *Premium* gasoline changed considerably as part of a fiscal policy aimed at reducing energy subsidies and bringing domestic prices in line with their international references. Between July and September, prices of *Magna* gasoline rose 9 times for a total of 25 cents, while those of *Premium* gasoline did so 10 times for a total of 30 cents during the quarter. During the third quarter, both *Magna* and *Premium* gasoline prices grew on average 4.53 and 6.60 percent in annual terms, respectively, as compared with 3.34 and 5.51 percent during the previous quarter (Table 1).

As for residential gas, after having remained the monthly price increase at 6 cents between June and July 2008, it was raised to 7 cents in August and to 9 cents in September. As a result, the price of this fuel grew on average 6.35 percent in annual terms, as compared with 4.56 percent during the previous quarter. Electricity tariffs rose on average 10.43 percent in annual terms during the third quarter, as compared with 8.92 percent during the second quarter. The growth in high consumption electricity tariffs (DAC) accounts for the higher levels of electricity inflation during the period. The formula for calculating DAC tariffs considers the prices of fuels used for generating electricity as well as some steel-related PPI items.

The recent developments of international energy prices together with the revision of the program to control domestic prices of these fuels have contributed to narrow the gap between domestic and international energy prices. However, these differences are still considerable, except in the case of LP gas, the domestic price of which is now lower than its international reference. The recent exchange

rate adjustment has partly offset the fall in international energy prices. Thus, at the end of October 2008 the gap between domestic and international prices of gasoline, LP gas, and diesel was 35.7, -11.0 and 78.4 percent, respectively (in June such figures were 70.7, 47.9, and 122.2 percent, Graph 19).

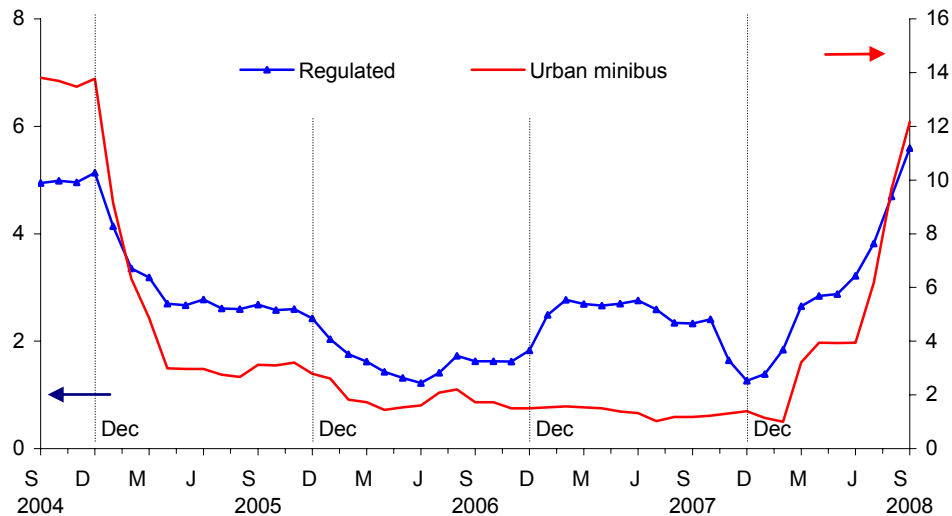
Graph 19
Domestic and International Prices of Gasoline, LP Gas, and Diesel



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

As for the regulated prices subindex, its average quarterly variation rose from 2.98 to 4.70 percent from the second to the third quarter of 2008 (Table 1). This increase was mainly attributed to adjustments in urban public transportation fares in the following cities: Mexico City Metropolitan Area, Puebla, Matamoros, Tlaxcala, and Guadalajara (Graph 20).

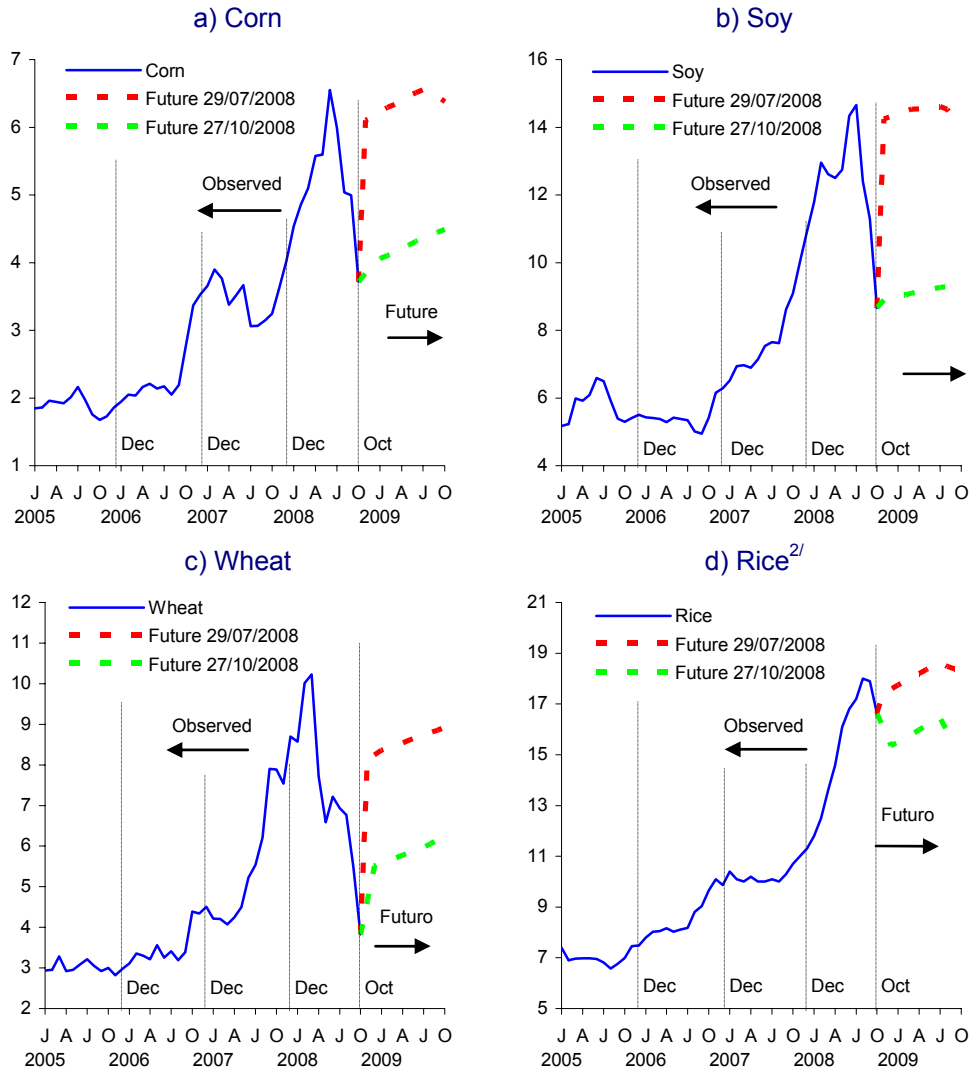
Graph 20
Subindex of Regulated Prices
Annual percentage change



3.2.4. Food Commodities

Except for rice, the upward trend followed by grain prices in international markets reverted during the third quarter of 2008. Between June and September 2008, prices of corn, wheat and soy decreased 23.66, 23.96 and 21.27 percent, respectively, while that of rice rose 6.55 percent (Graph 21). At the end of October, futures curves for these grains for the next 12 months were below the levels registered at the end of July.

Graph 21
International and Futures Prices of Grains^{1/}



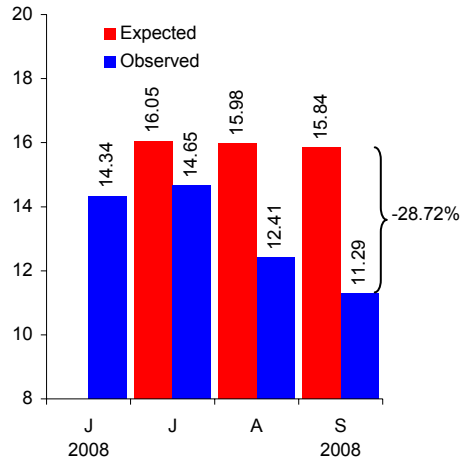
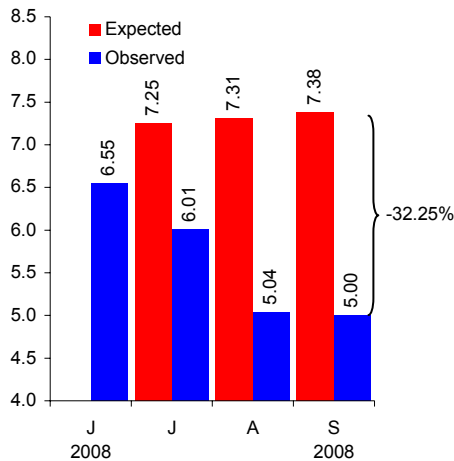
^{1/} USD per bushel.

^{2/} USD per CWT (USD/100Lb).

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

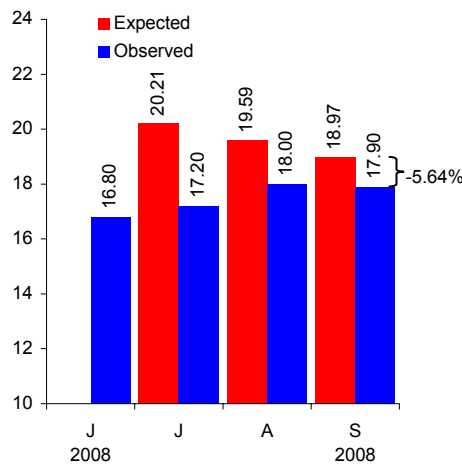
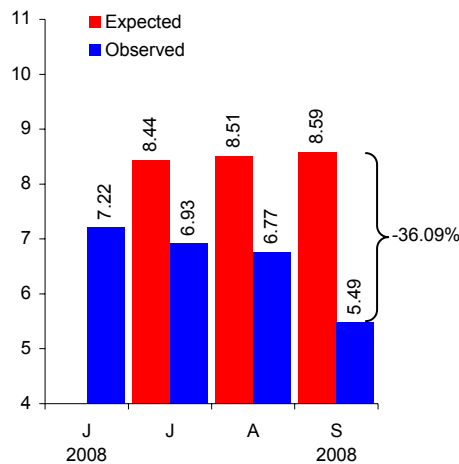
The fall in grain prices was motivated by expectations of higher production due to more abundant observed and forecasted harvests. The differences between corn, soy, wheat, and rice prices observed throughout September and those forecasted for that month in futures markets in June 30 2008 were -32.25, -28.72, -36.09 and -5.64 percent, respectively (Graph 22).

Graph 22
International Prices of Grains: Observed and Expected^{1/}
 a) Corn^{2/} b) Soy^{2/}



c) Wheat^{2/}

d) Rice^{3/}



^{1/} Expected prices at the end of the second quarter of 2008, according to price quotations for futures contracts for the reference month (Chicago Board of Trade, June 30, 2008). Observed prices correspond to the average for the reference period.

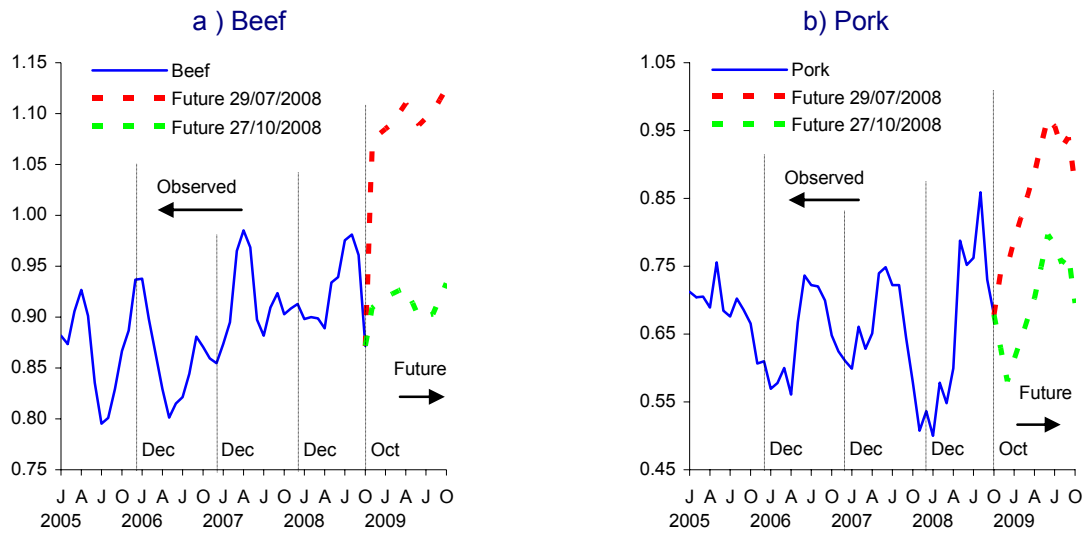
^{2/} USD per bushel.

^{3/} USD per CWT (USD/100Lb).

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

In June and September 2008, beef and pork price quotes rose 2.13 and -2.67 percent, respectively. General trends in futures markets indicate that quotes of beef are expected to increase in the last months of 2008, although futures curves at the end of October suggest that price increases will be below those forecasted at the end of July. Pork meat prices are expected to decline in the last quarter of the year, although they could rebound in 2009 due to falling U.S. production (Graph 23).

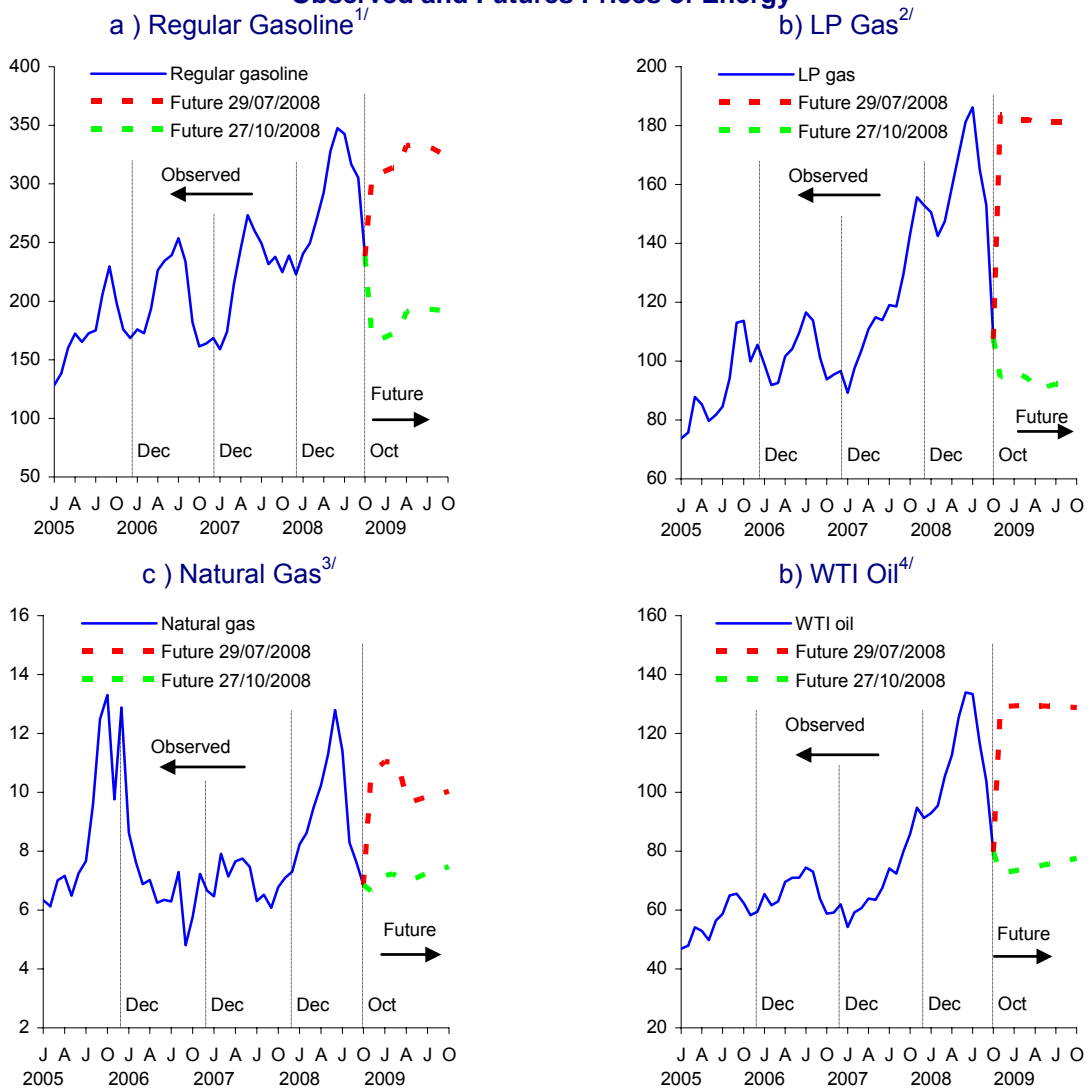
Graph 23
Observed and Futures Prices of Meat ^{1/}



3.2.5. Energy Commodities

International prices of oil and oil derivatives decreased during the third quarter of 2008. Between June and September, prices of WTI crude oil, gasoline, LP gas, and natural gas registered variations of -22.39, -12.12, -15.60 and -40.34 percent, respectively (Graph 24). The fall in oil prices is due to both supply and demand factors. On the one hand, OPEC raised its production, while on the other, both observed demand and the expected growth of world demand for oil declined, particularly in OECD member countries (Table 4). These developments are mainly a consequence of the deteriorating world economic growth. Looser conditions in the world oil balance were reflected in the decline of oil price futures curves.

Graph 24
Observed and Futures Prices of Energy



1/ Texas. US cents per gallon.

2/ Mont Belvieu. Tx. US cents per gallon.

3/ TETCO. Tex. USD per MMBtu.

4/ USD per barrel.

Source: Bloomberg, Energy Information Administration (EIA), and New York Mercantile Exchange (NYM).

Table 4
World Supply and Demand for Crude Oil
 Daily million barrels

	2007	2008 ^{1/}	2009 ^{1/}
Demand			
OECD	49.2	48.1	47.5
North America	25.5	24.6	24.2
Europe	15.3	15.2	15.1
Rest of countries	8.3	8.3	8.2
Non-OECD members	36.9	38.4	39.7
China	7.5	8.0	8.4
Total	86.1	86.5	87.2
Supply			
Non-OPEC member countries ^{2/}	49.6	49.8	50.4
Former Soviet Union	12.8	12.8	13.0
OPEC ^{3/}	35.9	37.4	36.8
Total	85.6	87.2	87.4
OPEC demand for crude oil ^{4/}	31.7	31.7	30.9
Inventory accumulation ^{5/}	-0.5	0.7	0.2

1/ Forecasts.

2/ Figures exclude Angola and Ecuador.

3/ Figures include Angola and Ecuador. The forecast for 2008 refers to the average production during the first three quarters of the year. An average cut in oil production of 0.6 million barrels per day is assumed for 2009.

4/ Equivalent to world demand for crude oil less supply from non-OPEC members (excluding Angola and Ecuador) and liquid natural gas supplied by OPEC members.

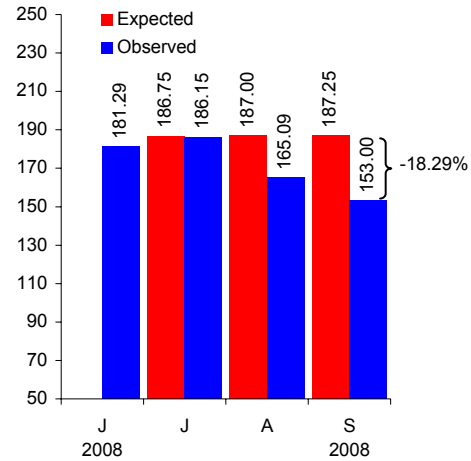
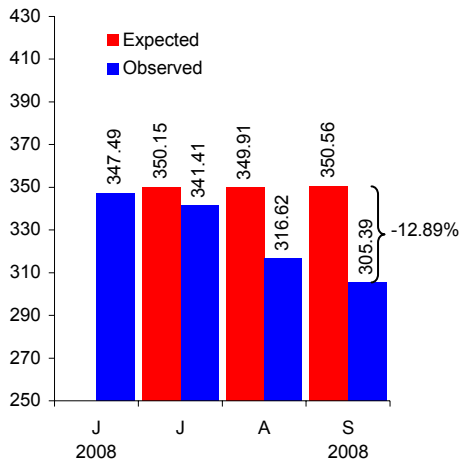
5/ A negative sign equals a decline. Includes adjustments for other items.

Source: International Energy Agency, Oil Market Report, October 2008, and Banco de México.

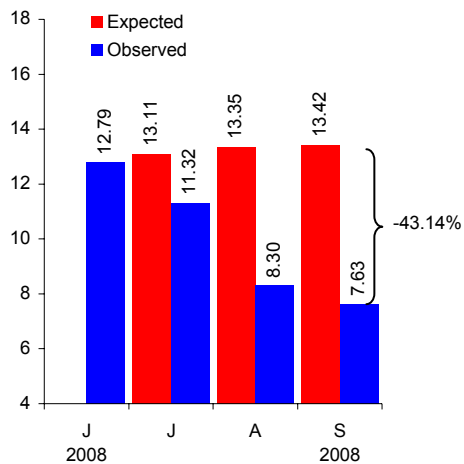
During the analyzed period, international energy prices declined more sharply than those forecasted at the end of the second quarter of 2008 (Graph 25).

Although international energy prices have fallen, uncertainty prevails about their development during the next months, thus suggesting they could remain highly volatile. On the one hand, if global economic activity slows down more than expected, forecasts for oil demand could be overestimated. On the other hand, OPEC's announcement of production cuts since November (1.5 million barrels per day as compared to its current quota of 28.8 million barrels per day) might help reestablish the world oil balance. Geopolitical conflicts which could possibly jeopardize production also continue in Iraq, Nigeria, Russia and Iran, while the latent threat of global adverse weather conditions continues to influence short-term market expectations.

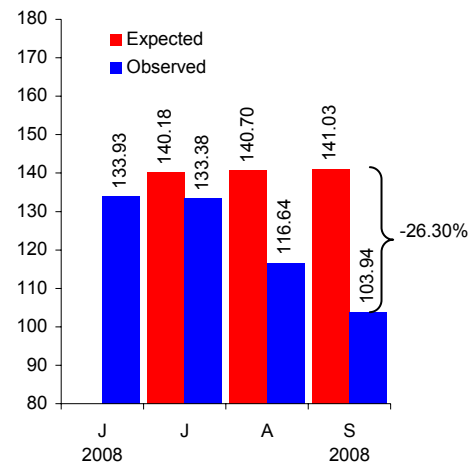
Graph 25
International Prices of Energy: Observed and Expected^{1/}
 a) Regular Gasoline^{2/} b) LP Gas^{3/}



c) Natural Gas^{4/}



b) WTI Oil^{5/}



1/ Prices expected at the end of the second quarter of 2008 according to price quotations for futures contracts for the reference month (New York Mercantile Exchange, June 30, 2008). Observed prices correspond to the average for the reference period.

2/ Texas, US cents per gallon.

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

4/ TETCO, Tex. USD per MMBtu.

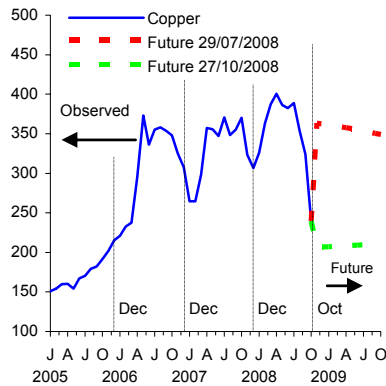
5/ USD per barrel.

Source: Bloomberg, New York Mercantile Exchange (NYMEX), and Energy Information Administration (EIA).

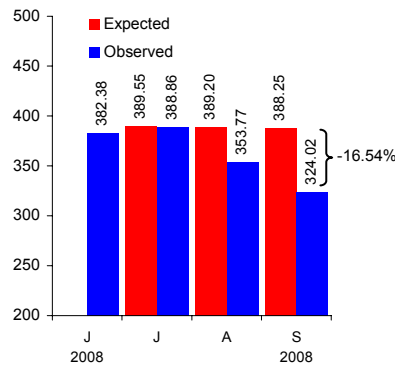
3.2.6. Metal Commodities

After having rebounded briefly in July 2008, international prices of copper decreased in the following two months. Between June and September, the price of copper thus fell 15.26 percent, while the spread between the price observed in September and futures prices at the end of the second quarter of the year turned out to be 16.54 percent lower (Graph 26). Copper prices are expected to continue to decline during the last quarter of 2008. After having increased continuously in the first seven months of the year, steel prices also followed a downward trend in August and September.

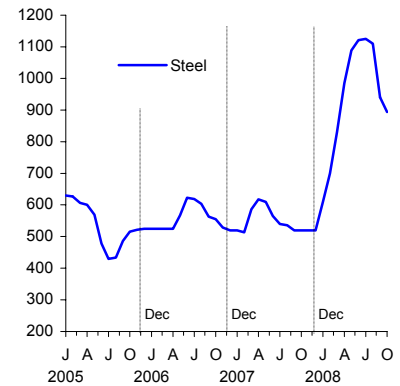
Graph 26
Prices of Copper and Steel

 a) International Prices of Copper^{1/}


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

 b) International Prices of Copper^{2/}
(Observed and Expected)^{3/}


2/ US cents per pound.
3/ Information corresponding to futures of June 30, 2008.
Source: Metal Bulletin, Commodity Exchange Inc. (CMX).

 c) International Prices of Steel^{4/}


4/ USD per short ton.
Source: Metal Bulletin.

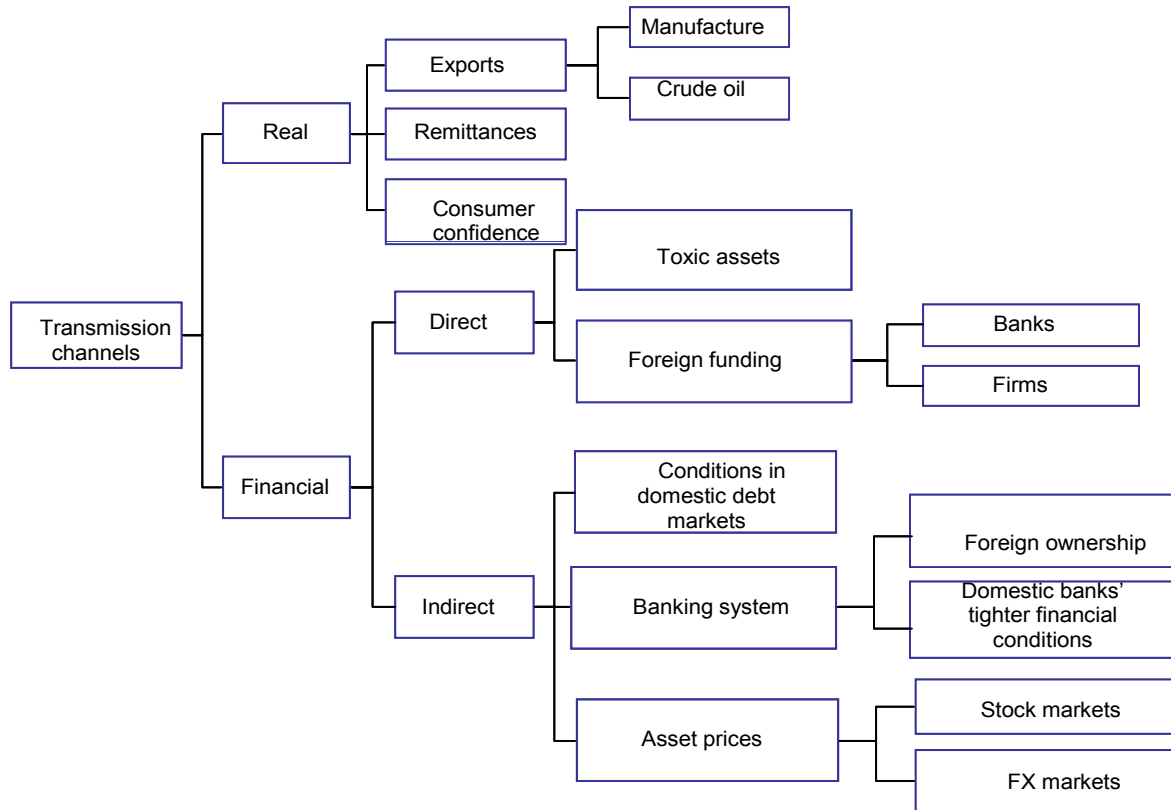
3.3. Developments in the Mexican Economy

The international financial crisis and its impact on growth in the world's major economies, as well as on prices of oil and other raw materials, are having repercussions in emerging economies. Mexico's economic growth has been slowing in line with the current phase of the economic cycle. Under such context, in order to analyze the economic situation in Mexico, it is important to identify the channels through which external conditions can affect economic activity and the domestic financial system.

Table 5 classifies some of the possible transmission channels through which the world economic environment can affect an economy. The purpose of this classification is to organize the discussion in the following sections of this document and does not imply that, either in the particular case of Mexico or any other emerging economy, all of these channels are operating simultaneously or, if they are, if it is with the same intensity.

Once the above is taken into consideration, two types of channels can be identified, those that are real and those that are financial. On the one hand, in the face of the generalized economic slowdown in advanced countries, there are real channels which directly affect conditions of supply and demand in an economy, as well as its levels of employment. On the other, there are also transmission mechanisms operating through financial markets. As can be seen in Table 5, transmission through financial markets can then be divided into direct and indirect channels. Of course, the contagion of external conditions to the economy through these channels also ends up having an impact on economic activity.

Table 5
World Economic Environment Transmission Channels to the Mexican Economy

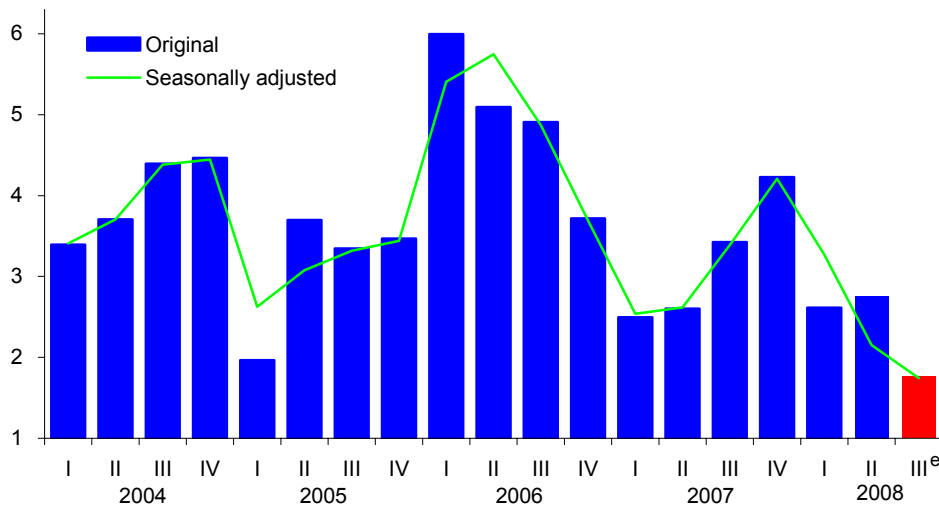


The following sections analyze the recent developments in the Mexican economy. Section 3.3.1 shows the development of economic activity and describes the impact of real channels. Section 3.3.2 analyzes financial saving and financing in the Mexican economy, with special emphasis on several transmission channels that operate through the financial system.

3.3.1. Economic Activity

The slowdown of economic activity during the first half of 2008 intensified during the third quarter. These developments included all indicators: domestic and external demand, output and employment. Business confidence and business climate indicators also weakened further during this period. During the third quarter, annual GDP grew modestly and below first semester figures. Based on available information, annual GDP growth is estimated to have been around 1.7 percent during the third quarter (Graph 27), after having been 2.7 percent during the first half of the year (2.6 and 2.8 percent during the first and second quarters).

Graph 27
Gross Domestic Product^{1/}
 Annual percentage change



e/ estimated.

^{1/} Calculations based on the National Accounts base year 2003.

Source: INEGI. Seasonal adjustments up to the third quarter of 2008 by Banco de México.

Aggregate demand slowed down considerably, particularly regarding its private consumption and external demand components. In the latter case, during the third quarter, while demand from the U.S. decelerated sharply, that from non-U.S. markets also slowed down.

The deterioration of the world economy in recent months has been reflected in a lack of stability of international financial markets and in weakening prospects for the global economy, particularly those for the U.S. economy. This environment is having a negative impact on the Mexican economy and can therefore be expected to contribute to extend the economic slowdown in Mexico for the following quarters. This scenario also suggests that risks of an even greater economic downturn have increased.

3.3.1.1. Production by Sector

The modest annual expansion of GDP during the third quarter of 2008 resulted from positive growth in the agricultural and services sectors, while the industrial sector contracted after having increased slightly during the first two quarters of the year (Graph 28a).¹⁶ The annual growth of the services sector also lost strength, mainly in response to slower private consumption.

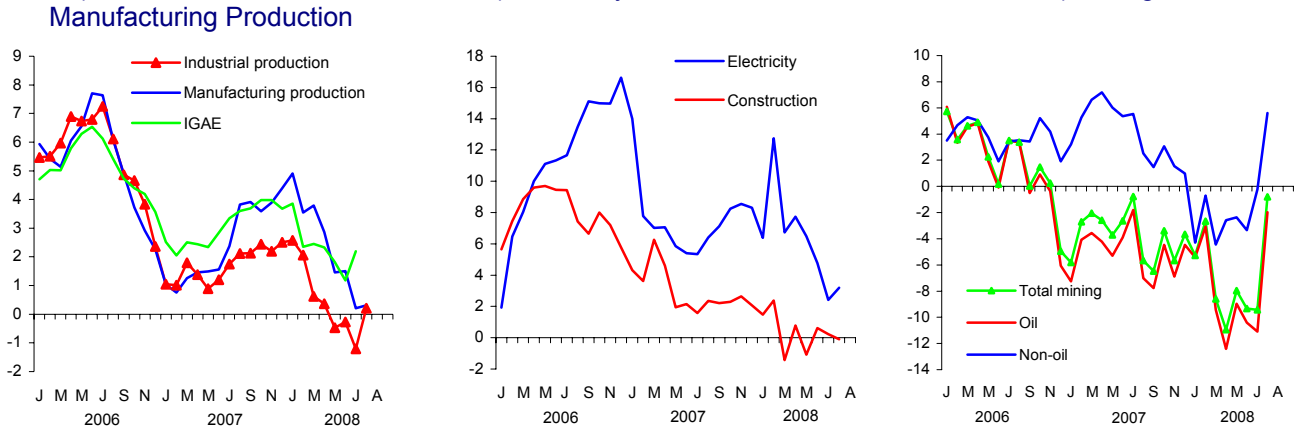
The weak performance of industrial production during the third quarter responded to: i) a contraction in mining; ii) reduced annual growth in the manufacturing sector; iii) a significant slowdown in electricity (Graph 28b), an

¹⁶ During the July-August period, industrial production declined at a real annual rate of 1 percent, thereby accumulating four consecutive months of decline at the end of August. This result stemmed from the substantial annual fall of 5.3 percent in mining and modest reductions in construction and manufacturing (0.6 and 0.3 percent, respectively). The fall in mining resulted from a combination of a 6.8 percent drop in oil-mining and an increase of 2.6 percent in non-oil mining. The electricity, water and gas supply sector registered a slight increase of 2.8 percent.

activity which had grown considerably during the first half of the year;¹⁷ and, iv) a slight fall in the annual expansion of construction.

Graph 28
Production Indicators

Annual percentage change of seasonally-adjusted data and 2-month moving average, except in 2008



Source: INEGI.

By the end of the third quarter, mining had accumulated eight consecutive quarters of negative growth. This result has responded to a combination of modest increases in non-oil mining and persistent falls in oil mining, resulting from the decreasing volume of crude oil extraction (Box 3). In this context, it is important to mention that oil mining accounts for 86 percent of the value of Mexico's mining industry. Meanwhile, although there has been a significant amount of investment projects in the non-oil mining industry during recent years, this activity has been affected by labor problems which have limited its production growth.

Manufacturing production weakened further during the third quarter. While the developments of this sector continued to be significantly influenced by external demand, but differences in its behavior were observed as compared to the first half of the year. During the third quarter, automobile sector exports (vehicles and auto parts) to the U.S. market contracted substantially in annual terms, while remaining manufacturing production maintained a positive annual growth. Although manufacturing exports to the non-U.S. market continued to grow significantly in annual terms, they followed a clear downward trend, particularly those of the automobile sector.

At this point it is worth remembering the automobile industry's considerable importance in the Mexican economy, due to the value of its production, its share in the country's manufacturing sector, the employment it generates, the amount it exports, and the size of the surplus in its trade balance. Indeed, the latter actually surpassed the oil trade balance during the first three quarters of 2008.¹⁸ After having grown 7.9 and 8.7 percent during the first and

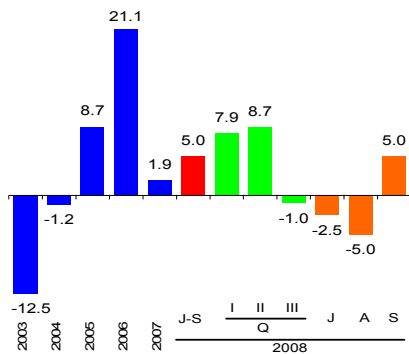
¹⁷ During the first eight months of this year the electricity sector grew 6.1 percent in annual terms, mainly in response to the strength of contractor and hydroelectricity generation. Both of these segments have higher value added coefficients to gross production than state thermoelectric generation. Nonetheless, seasonally adjusted electricity sector production levels started to lose strength during the second quarter and even more during the third.

¹⁸ During the first eight months of this year, the value of transport equipment subsector production accounted for 23 percent of Mexico's manufacturing output. During the January-September period the value of automobile exports was 42.520 billion US dollars, figure higher than that for crude oil exports

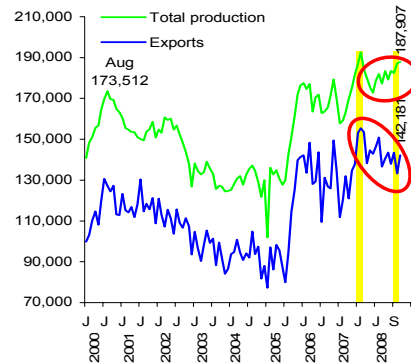
second quarters, vehicle production in Mexico fell 1 percent in annual terms during the third quarter (Graph 29a). These results reflected the decline in production for exports (Graph 29b), mainly resulting from the contraction of domestic vehicle sales in the U.S., the final market for seven out of ten vehicles exported by Mexico. The aforementioned is also reflected in national accounts statistics, which show that, according to seasonally adjusted figures, during the July-August period, the transport equipment subsector grew 5.1 percent in annual terms (Graph 30), as compared with 25.6 and 14.4 percent during the first and second quarters of the year. Meanwhile, manufacturing production excluding transport equipment weakened further in recent months, considering that during the July-August period such production contracted 0.9 percent in annual terms, thereby accumulating seven consecutive months of annual decline at the end of August.

Graph 29
Automobile Industry

a) Automobile Industry Production
Annual percentage change of number of units



b) Vehicle Production and Exports
Monthly units, seasonally adjusted data

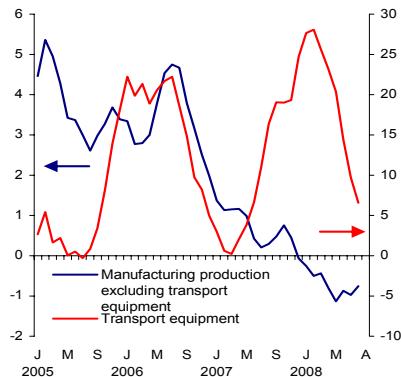


Source: Prepared by Banco de México with data from AMIA and ANPACT.

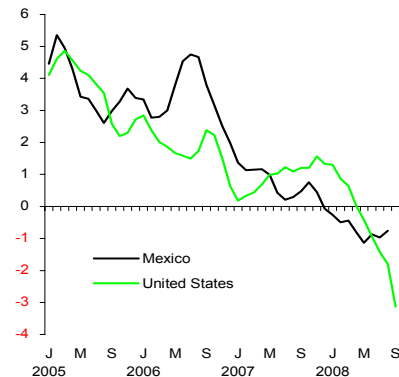
Graph 30
Manufacturing Production

Annual percentage change of seasonally adjusted data^{1/}

a) Production of Transport Equipment and Remaining Manufactures



b) Manufacturing Production in Mexico and the U.S.^{2/}



Source: INEGI.

1/ Three-month moving average.

Source: INEGI and U.S. Federal Reserve.

2/ The series for Mexico exclude transport and that for the U.S. excludes both the automobile industry and high technology.

(37.669 billion). During the same period the trade balance surplus of the automobile industry amounted to 16.689 billion US dollars, slightly above the trade balance surplus of oil products (15.044 billion).

Box 3

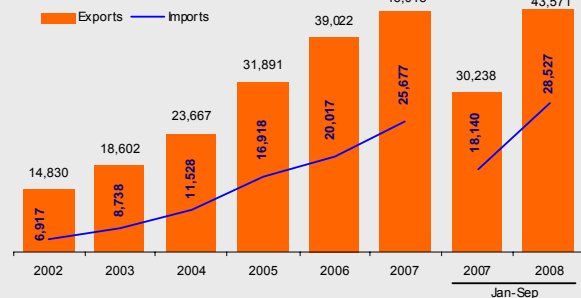
Recent Developments in Crude Oil Production and Exports

Mexico's oil industry has undergone significant changes in recent years, which have been characterized by the following: a) a reduction in oil extraction levels, particularly in the last three years; b) a fall in oil export volumes; c) a significant rise in the value of oil exports in response to increases in international prices of the Mexican crude oil export mix; and, d) a substantial increase in the value of gasoline imports.

Crude oil production has dropped significantly in Mexico in the last three years. For instance, average production during the January-September 2008 period was 2.822 million barrels per day (m.b.d.), 16 percent less than the average level of 3.358 m.b.d. observed during the period 2004-2005 (Graphs 1 and 2). These developments to a great extent reflect the significant fall in extraction from the Cantarell oil field, the most important for the country's oil production.

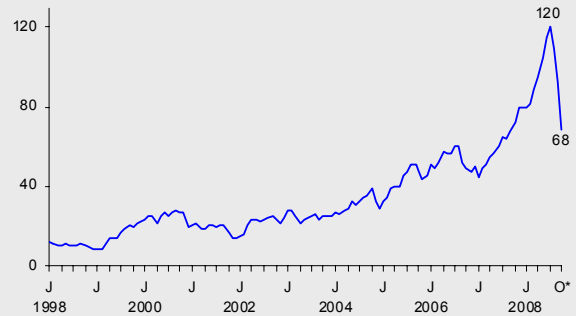
The strength of domestic consumption of oil products, coupled with slower extraction, has implied a reduction in the volume of oil exports. Indeed, during the first nine months of 2008 the average crude oil export platform was 1.398 m.b.d., after it had been 1.870 m.b.d. in 2004 (Graph 1).

Graph 3
Value of Oil Product Exports and Imports
Million USD



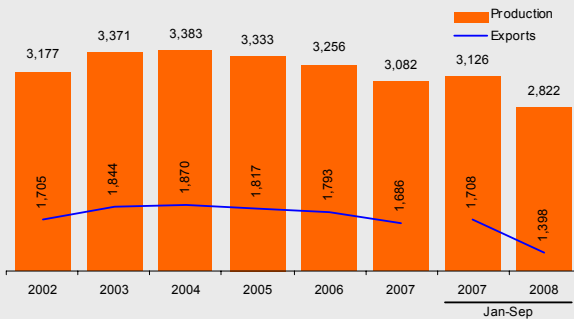
Source: Banco de México.

Graph 4
Price of the Mexican Crude Oil Export Mix
USD per barrel



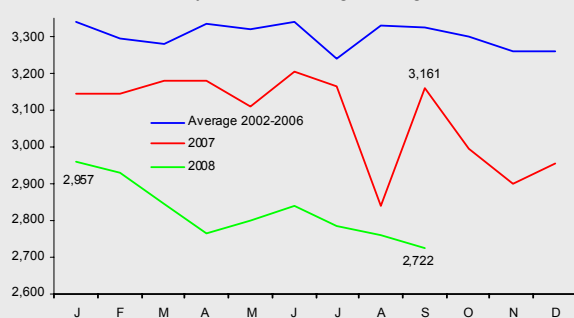
*Average price (October 1-27).
Source: PEMEX.

Graph 1
Crude Oil Production and Exports
Thousand daily barrels; average during the year



Source: PEMEX.

Graph 2
Crude Oil Production
Thousand daily barrels; average during the month

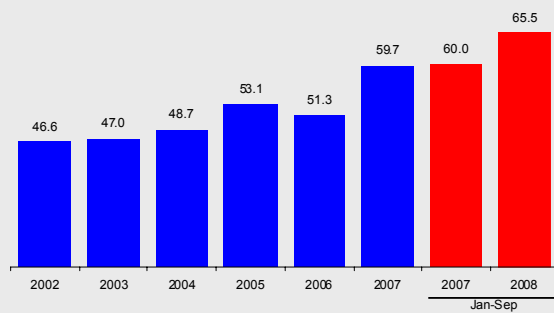


Source: PEMEX.

During the 2002-2008 period, the value of oil exports followed an upward trend (Graph 3), which up to 2004 reflected both increases in export volumes and prices of the Mexican crude oil export mix. Prices of this fuel continued rising until July this year (Graph 4), after which they fell sharply in response to weak world economic activity, which has reduced the demand for oil.

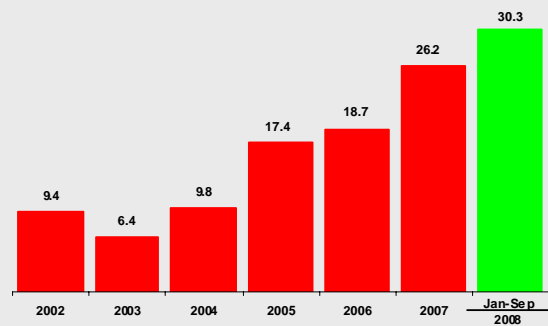
The substantial increase in the share of oil imports in the foreign trade of this fuel in recent years has been noteworthy. During the January-September 2008 period, imports of oil products totaled 28.527 billion US dollars (Graph 3), while exports of these goods amounted to 43.571 billion. The coefficient of oil imports to exports of these products has risen considerably in recent years (Graph 5), from 46.6 percent in 2002 to 53.1 percent in 2005, to 59.7 percent in 2007 and 65.5 percent during the first nine months of 2008.

Graph 5
Ratio Oil-product Imports to Oil-product Exports
Percent



Source: Banco de México.

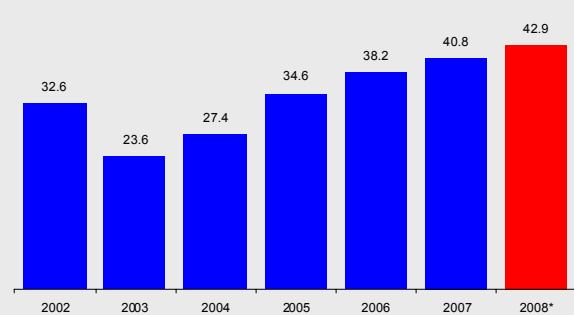
Graph 6
Gasoline Imports as a Proportion of Crude Oil Export Value
Percent



Source: Banco de México.

One item of oil imports which has shown significant growth in recent years is gasoline. In the first nine months of 2008, imports of this fuel equaled 30.3 percent of crude oil exports (Graph 6). Domestic consumption of gasoline imports has been growing considerably. Indeed, during the January-September period of this year these imports accounted for 42.9 percent of domestic gasoline consumption (Graph 7).

Graph 7
Share of Gasoline Imports in Domestic Consumption of Gasoline
Percent



* January-September.
Source: PEMEX.

Finally, the performance of Mexico's oil sector in recent years puts into perspective the need for a reform of the energy sector that allows for improving significantly both the levels of oil extraction and the production of oil products.

3.3.1.2. Aggregate Demand

During the third quarter of 2008, aggregate demand continued to slow in annual terms in response to the reduced dynamism of both its external and domestic components. The latter resulted from the reduced growth of private consumption.

Private consumption indicators suggest that, during the third quarter, such expenditure registered modest annual growth, below that observed during the first and second quarters of the year (4 and 3.2 percent, respectively). This slowdown was evident in various indicators of private consumption, such as ANTAD sales (Graph 31a), vehicle retail sales (Graph 32a) and consumer goods imports (excluding oil products; Graph 32b).¹⁹ During the third quarter, measured at constant prices and using seasonally adjusted figures, ANTAD sales grew in annual terms 5 percent, its lowest rate since the fourth quarter of 2002. Although, the slowdown in sales included all different product lines, as could be expected, it was much sharper in durable goods such as furniture, linens, electronic goods, and major household appliances (Graph 31b). As for imports of consumer goods excluding oil products, measured in US dollars, they grew 4.4 percent in annual

¹⁹ During the first three quarters of 2008, domestic vehicle sales fell 2.1 percent in annual terms, therefore maintaining the weakness exhibited during 2006 and 2007 (annual variations of 0.7 and -3.5 percent, respectively).

terms during the third quarter, as compared with 7.2 percent in the first half of the year (Graph 32b). When analyzing private consumption during the third quarter it is important to consider the following:

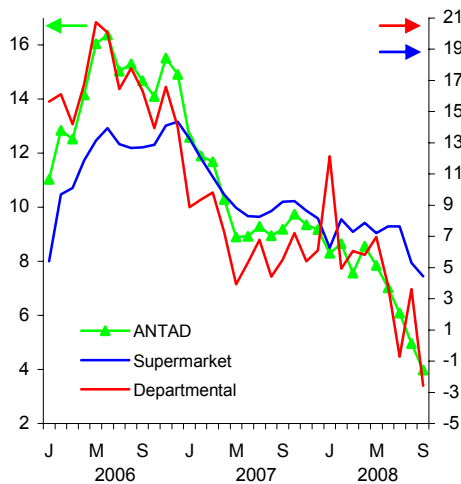
- I. Some of its determinants, such as the real wage bill, revenues from workers' remittances and financing for private consumption and housing, declined significantly during the first half of 2008 and even further in the third quarter. Workers' remittances fell 6.5 percent during the third quarter, after having declined 3.4 and 1.1 percent during the first and second quarters. The downward path followed by consumer confidence indicators also intensified during the third quarter.
- II. The slower growth of the wage bill in real terms during the referred quarter significantly contributed to mitigate private consumption expenditure. This slowdown reflected both weaker job creation in the economy as a whole and in the formal sector, as well as lower real wage increases. (Graph 33).²⁰
- III. Private consumption spending was also affected by the increases in food prices which took place during the first three quarters of the year.²¹

Graph 31

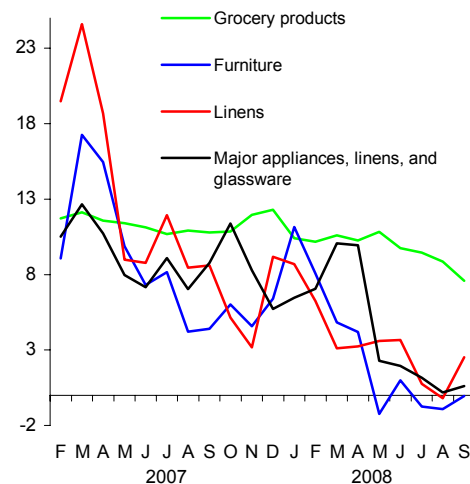
Domestic Demand: Consumption

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

Annual percentage change of seasonally adjusted data ^{1/}



b) ANTAD Sales of Different Products
Annual percentage change of seasonally adjusted data



Source: ANTAD.

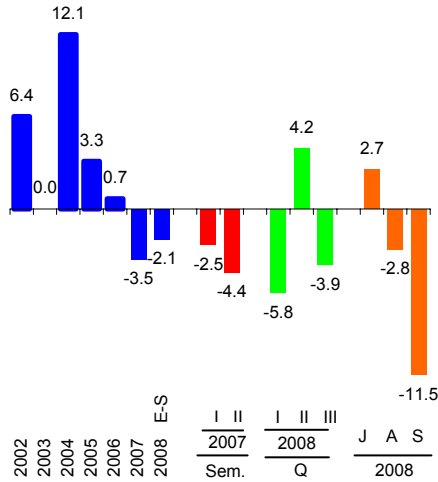
^{1/} Seasonal adjustments by Banco de México. Two-month moving average, except in 2008.

²⁰ During the third quarter, the wage bill in real terms grew at an annual rate of 1.9 percent in the formal sector, after having grown 4.3 and 3.1 percent during the first and second quarters of 2008. As for the IMSS average reference wage, it grew in real terms 0.1 percent at an annual rate during the third quarter, as compared with 0.9 and 0.3 percent during the first and second quarters.

²¹ Food inflation has reduced households' real income particularly that of lower income households due to the fact that foods represent a higher proportion of their expenditure.

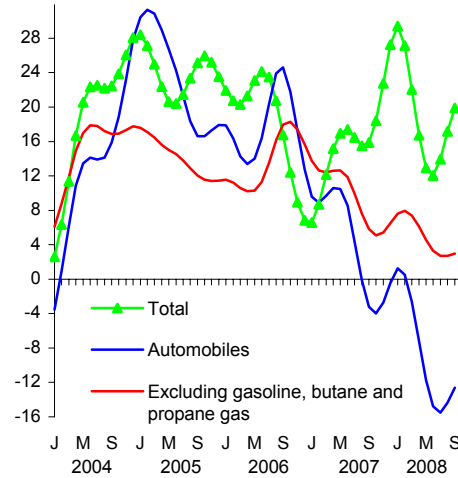
Graph 32
Domestic Demand: Consumption
Annual percentage change

a) Domestic Retail Sales of New Vehicles



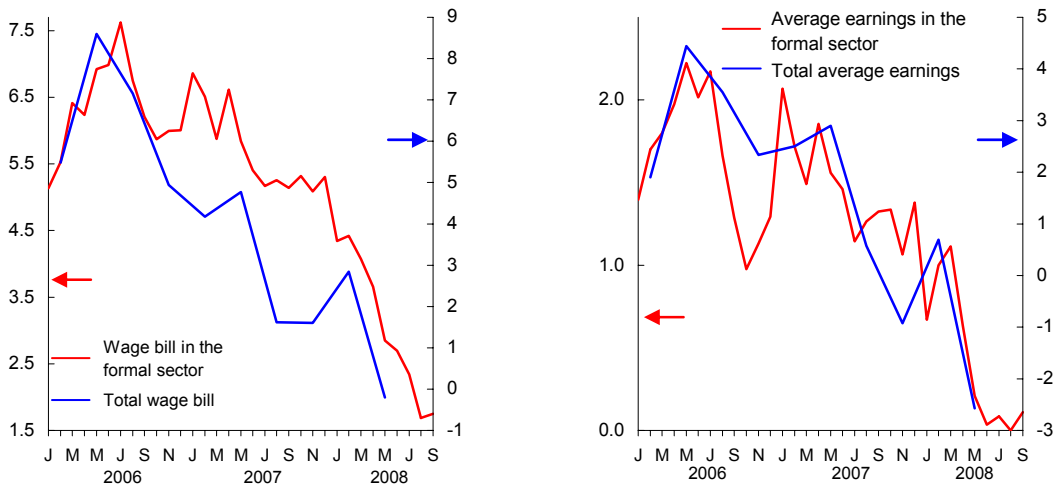
Source: AMIA.

b) Consumer Goods Imports
 Trend series



Source: Banco de México.

Graph 33
Total Wage Bill and Average Earnings in Real Terms
Annual percentage change



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 paid workers).

Investment has exhibited slower annual growth since the second half of 2006. This decline sharpened during 2007 and the first few months of 2008. Nonetheless, during the second and third quarters of the year, growth of this component improved in response to larger increases in capital goods imports (Graph 34).²² These acquisitions were mainly carried out by a specific group of

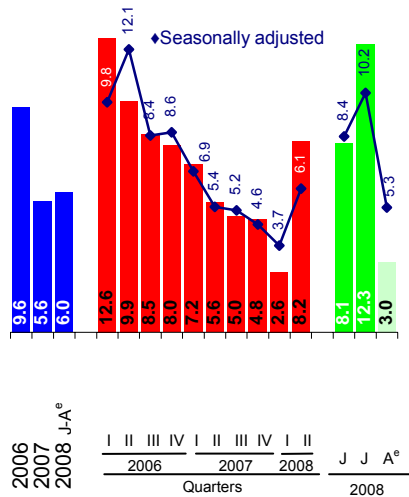
²² During the July-August period, gross capital formation, measured with seasonally adjusted figures, is expected to have risen 7.7 percent in annual terms, as compared with 3.7 and 6.1 percent, during the first and second quarters, respectively. The corresponding figures for 2006 and 2007 were 9.7 and 5.5 percent.

companies with investment projects in specific sectors such as the steel industry, the automobile industry, mining, telephony, electricity and the electronics industry (Graph 35). In contrast, capital goods imports by the remaining firms were weak.

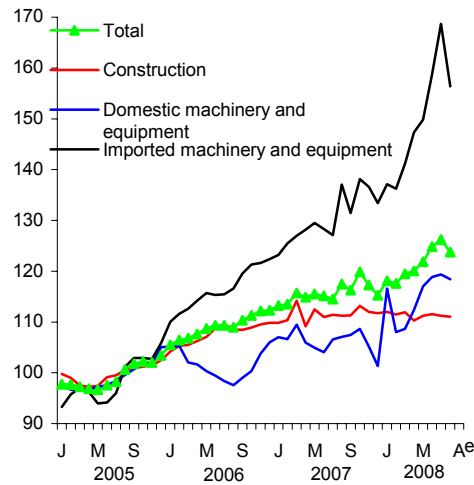
Graph 34

Domestic Demand: Investment ^{1/}

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



e/ Estimated.

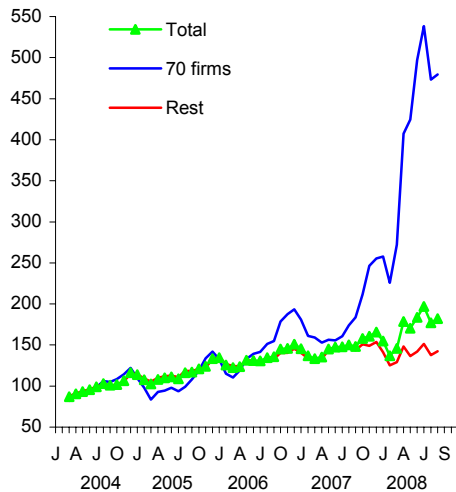
Source: INEGI.

^{1/} Data for August 2008 and seasonally adjusted series are estimated by Banco de México.

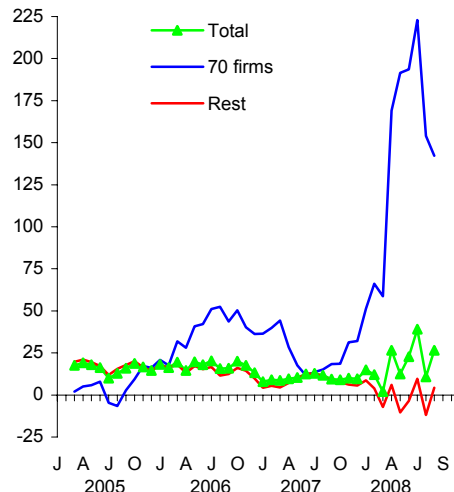
Graph 35

**Capital Goods Imports: 70 Firms Recovering in 2008 and Remaining Firms
3-month moving average, except in 2008**

a) Índice 2004=100



b) Annual percentage change



Source: Banco de México.

Another factor which could have contributed to investment spending and production during the third quarter is the fact that financing to firms continued to grow at high annual rates, although below those recorded at the beginning of the

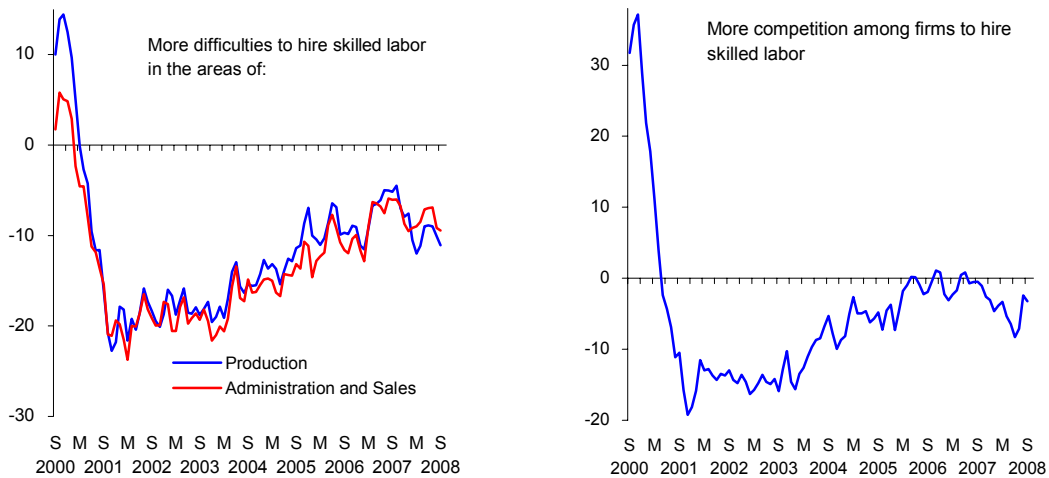
year. Several factors have limited the expansion of investment of firms in Mexico including:

- i) Growth of firms' profits has slowed down during 2008. As a result, these resources have contributed less to investment financing. Such is the case of non-financial firms listed in the Mexican stock exchange. Their profits have been influenced by the slower sales and increased costs associated with sales coupled with higher operating costs. The latter partly reflects increases in both inputs and commodities prices.
- ii) Business confidence and business climate indicators have fallen significantly, particularly during the second and third quarters of 2008. In this context, the deterioration of the external environment –reflected in the lack of stability of international financial markets, the global economic downturn and the weaker outlook for growth, particularly in the U.S.- has adversely affected the prospects of firms in Mexico and this has probably had negative implications for their investment spending.

The generalized slowdown of aggregate demand and economic activity in Mexico during the third quarter meant the economy's production capacity was not subject to pressures that could have constituted a source of inflation:

- a) Different indicators on output gap continued to be, in general terms, close to zero.
- b) In the manufacturing industry, various indicators on installed capacity suggest that its use has declined throughout the current year. Also, different indicators prepared by Banco de México show that in recent months, this activity has not faced problems of skilled-labor shortage that would imply wage pressures (Graph 36). In fact, as will be detailed in the following section (3.3.1.3. Employment), the demand for labor lost strength in most sectors.
- c) Finally the moderate deficit of the current account of the balance of payments during the first three quarters of the current year also indicates that no pressures on the demand side arose that could affect the exchange rate market or domestic prices.

Graph 36
Manufacturing Sector Labor Shortage
 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 more difficulties to hire labor (or companies mentioning more competition in hiring skilled labor), minus those mentioning having faced less difficulties to hire labor.

3.3.1.3. Employment

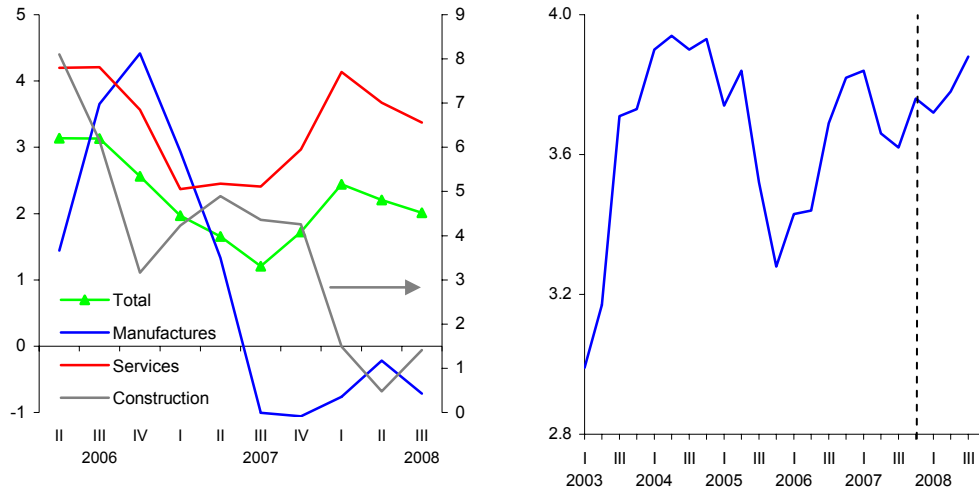
The lower growth of GDP during the first three quarters of 2008, as compared to 2007, was accompanied by a smaller growth rate of demand for labor. The latter was observed in estimates made by Banco de México based on the results of the Occupation and Employment Survey (*Encuesta Nacional de Ocupación y Empleo*, ENOE) from INEGI, which covers the total labor market in the country. These estimates suggest that the number of employed workers in the country continued to exhibit sluggish growth during the third quarter of 2008 (Graph 37a). On another front, the formal employment indicator, represented by the number of workers insured by the IMSS, also declined significantly.

The slowdown in the demand for labor during 2008 has led to rising unemployment in Mexico. Seasonally adjusted figures from ENOE show that during the first three quarters of the year, the unemployment rate followed a slight upward trajectory (Graph 37b).

At the end of September of this year, 14,440,764 workers were insured by the IMSS (permanent and temporary in urban areas); this figure represents an increase of 1.64 percent and 233,085 individuals more in annual terms (Graph 38a). This figure is composed of 183,365 permanent workers (1.45 percent) and 49,720 temporary workers (3.16 percent; Graph 38b). This formal employment indicator continued to lose strength, since in the first and second quarters it had recorded annual variations of 405,082 and 372,855 workers (2.93 and 2.66 percent), respectively.

Graph 37
Total Employed Population and National Unemployment Rate

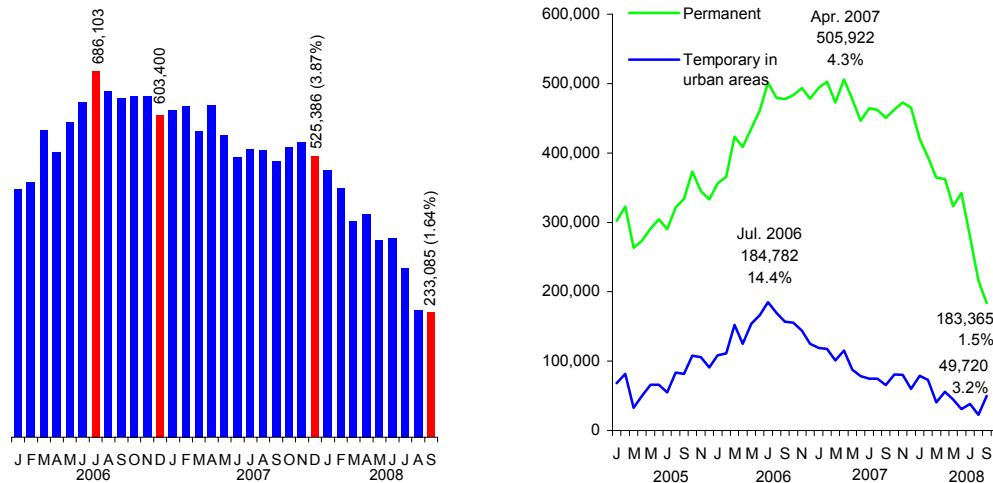
- a) Employed Population
Annual percentage change and 2-quarter moving average
- b) National Unemployment Rate
Percent and seasonally adjusted data



Source: IMSS. The employed population is obtained from INEGI's Occupation and Employment Survey (*Encuesta Nacional de Ocupación y Empleo, ENOE*) and includes the three sectors: primary, secondary, and services. Figures for employed population of the third quarter of 2008 are estimated by Banco de México.

Graph 38
Workers Insured by IMSS

- a) Number of Workers
Annual percentage change of original data
- b) Permanent and Temporary Workers in Urban Areas
Annual change in absolute terms



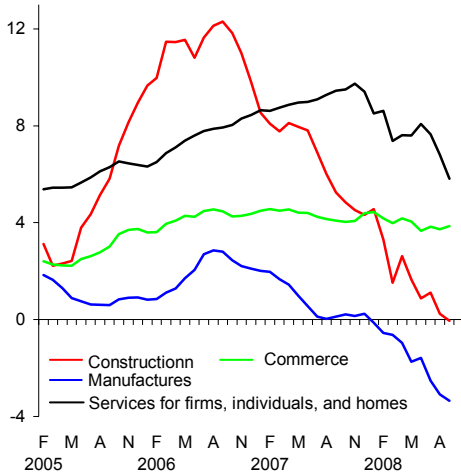
Source: IMSS.

The loss of strength of formal employment has been more severe in the industrial sector, particularly in manufacturing and construction (Graph 39a). At the end of September, formal employment in the construction sector declined slightly by 0.6 thousand workers (-0.1 percent) in annual terms and by 133.1 thousand (-3.4 percent) in the manufacturing sector. Formal employment in the latter has registered negative annual growth since January of this year, while in the tertiary sector it also followed a clear downward trend. Finally, the slower

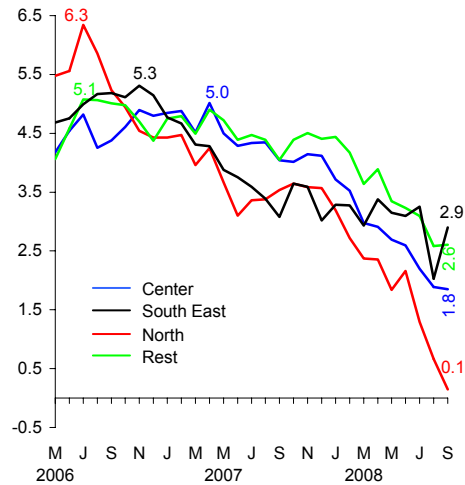
growth of insured workers has included all the different regions of the country, although it has been more evident in the North where the industrial sector has a greater share in employment (Graph 39b).

**Graph 39
Formal Employment**

a) Workers Insured by IMSS by Sector^{1/}
Annual percentage change



b) Workers Insured by IMSS by Region
Annual percentage change



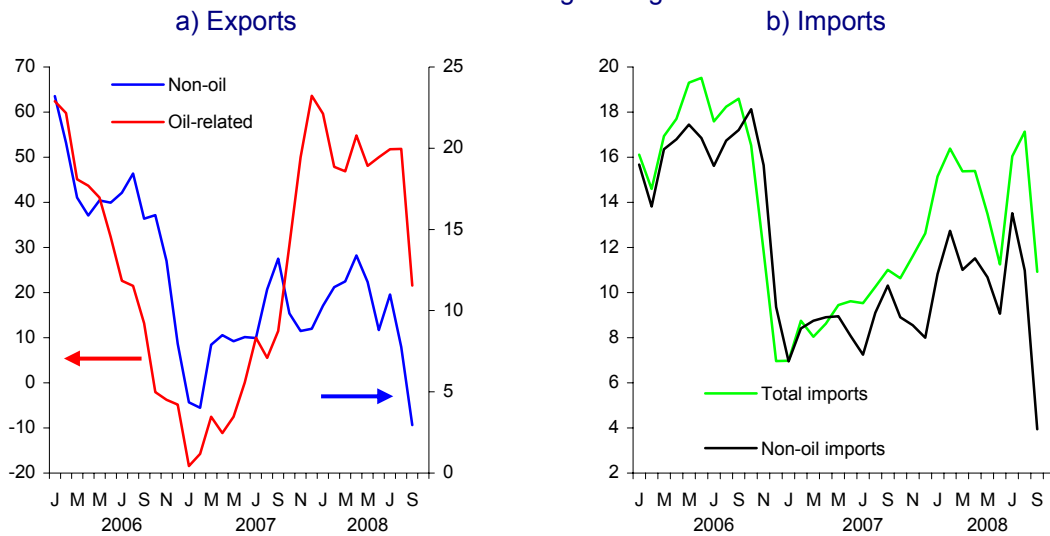
^{1/} Three-month moving average, except in 2008.
Source: IMSS. Estimates by Banco de México.

3.3.1.4. External Sector

The outstanding aspects characterizing Mexico's external accounts during the third quarter of 2008 were the high value of oil exports and the slowdown of non-oil exports in response to weaker external demand. The main aspects characterizing Mexico's external sector during the third quarter of 2008 were as follows:

1. Total exports grew 12.1 percent in annual terms, a lower rate when compared with 16.6 and 17.5 percent during the second and third quarters, respectively. This result is attributed to the slower growth of both oil and non-oil exports. The former grew 32.3 percent (51.8 and 50.9 percent during the first and second quarters), while non-oil exports expanded at a rate of 8.2 percent, as compared with 10.7 and 11.6 percent during the first and second quarters (Graph 40a).

Graph 40
Merchandise Exports and Imports
 Annual percentage change of seasonally adjusted data and
 2-month moving average



Source: Banco de México.

2. The significant increase in oil exports during the third quarter continued to mirror the still high average price of Mexico's crude oil export mix, despite the fact that this price followed a downward trend throughout the quarter. During the third quarter of 2008, the average price of Mexico's crude oil export mix was 108.43 US dollars (65.01 US dollars in the same period of 2007), while the exported volume decreased substantially in annual terms (23.8 percent). Once again, the annual growth of the value of oil exports (32.3 percent) was surpassed by the growth of imports of such goods (74 percent). The latter implied a reduction in the oil trade balance surplus, from 6.183 billion US dollars during the second quarter to 3.529 billion US dollars during the third.

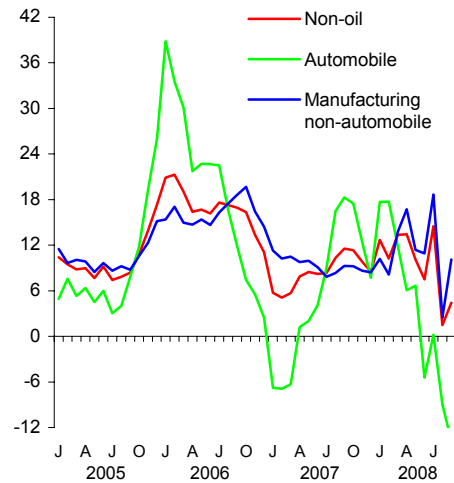
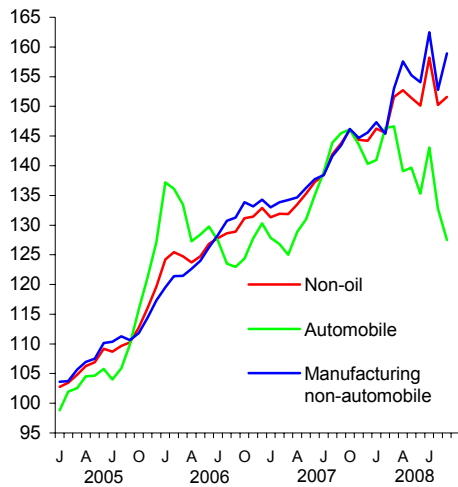
3. The smaller growth of non-oil exports during the third quarter responded to an annual decline in automobile exports and slower growth in the remaining non-oil exports (Graph 41). Automobile exports fell 7.1 percent during the third quarter, after having increased 12.8 and 3.9 percent during the first and second quarters (Table 6), respectively. Remaining non-oil exports grew 13.3 percent, figure slightly below the annual growth of 14.2 percent recorded during the second quarter.

**Graph 41
Merchandise Exports**

Three-month moving average, except in 2008

a) 2004=100 and seasonally adjusted data

b) Annual percentage change



Source: Banco de México.

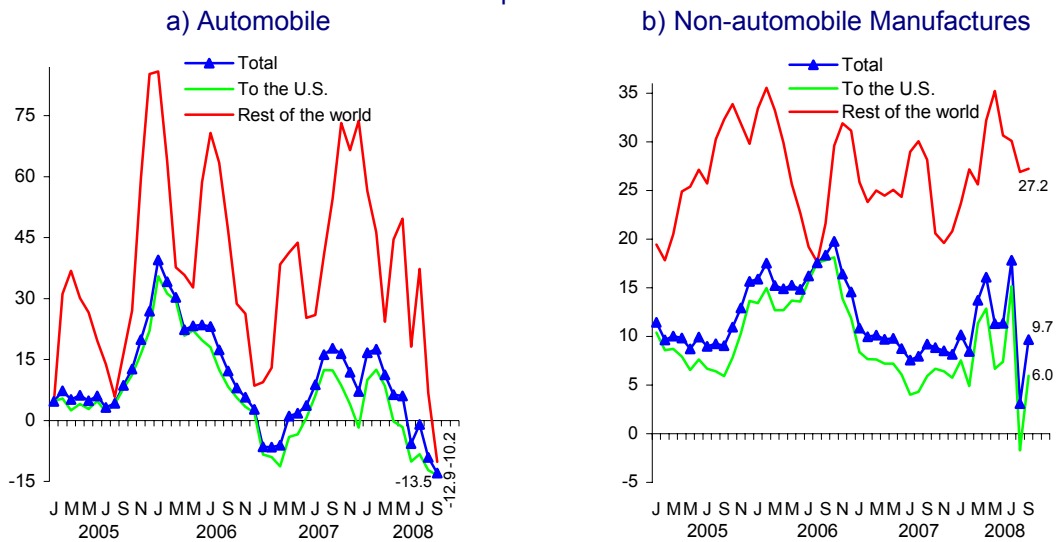
**Table 6
Growth of Non-oil Exports to Different Markets
Percent**

	Share			Annual Growth				
	2004	2007	2008 III-Q	2007	2008			
					I-Q	II-Q	III-Q	Jan-Sept
Total	100.00	100.00	100.00	8.51	10.73	11.61	8.19	10.14
United States	88.65	82.54	79.18	4.83	7.69	6.57	4.32	6.13
Automobile	22.95	20.40	17.03	-0.15	8.11	-2.08	-10.68	-2.02
Other	65.70	62.14	62.15	6.57	7.55	9.53	9.35	8.85
Rest of the world	11.35	17.46	20.82	30.16	25.88	36.88	25.94	29.56
Automobile	2.08	4.12	4.57	48.89	38.25	38.22	9.28	26.68
Other	9.27	13.34	16.25	25.30	22.39	36.50	31.59	30.43
Memo:								
Total automobile	25.02	24.52	21.60	5.70	12.75	3.85	-7.08	2.60
Total other	74.98	75.48	78.40	9.46	10.09	14.18	13.32	12.61

Source: Banco de México.

4. Table 6 shows the influence of different markets on the performance of non-oil exports from a regional perspective. First, the larger deceleration of those to the U.S., mainly as a result of a sharper fall in automobile exports (Graph 42). This weakness responds to the strong contraction of vehicle sales in that country during 2008. On another front, although non-oil exports to non-U.S. markets continued to grow significantly in annual terms during the third quarter, the non-automobile and automobile sectors did so but at considerably slower rates. Indeed, the latter fell in annual terms during September.

Graph 42
Manufacturing Exports to Different Markets
 Annual percentage change of seasonally adjusted data and 3-month moving average, except in 2008



Source: Banco de México.

5. Merchandise imports grew 16.8 percent in annual terms during the third quarter, figure slightly above those observed in the first and second quarters (14.4 and 14.8 percent). This result was determined by the increase in oil imports which partly reflected the high prices of such products. Excluding the latter, remaining imports grew in annual terms in line with the recent performance of the different components of aggregate demand.²³

During the third quarter of 2008, revenues from workers' remittances fell further. After having fallen 3.4 and 1.1 percent during the first and second quarters, revenues from remittances declined 6.5 percent in annual terms, therefore implying an accumulated fall of 3.7 percent during the first nine months of 2008.²⁴ The weakness of revenues from workers' remittances responds to various factors, such as: i) the prolonged slowdown of economic activity in the U.S. which has adversely affected job opportunities in the country, including those for Mexican immigrants; ii) the referred weakening of economic activity has been worse in sectors that employ more Mexican immigrants such as the construction industry and the manufacturing sector; iii) Mexican illegal migrants have also faced more difficulties in finding work as a result of stricter controls by U.S. authorities in the workplace and even residential zones; and, iv) the greater

²³ During the third quarter of 2008, non-oil imports grew 11 percent in annual terms, as compared with 11.9 percent during the second quarter. Imports of consumer goods excluding oil products grew 3.8 and 4.4 percent in annual terms during the second and third quarters, figures below the 10.8 percent observed during the first quarter. Imports of non-oil intermediate goods grew 9.8 percent in annual terms during the third quarter, as compared with 11.3 and 11.7 percent during the first and second quarters. In contrast, imports of capital goods grew at higher annual rates during the second and third quarters (20.4 and 24.9 percent, respectively) than during the first quarter (9.5 percent). However, these higher purchases reflected acquisitions associated with specific investment projects in certain sectors and not a generalized increase in the capital expenditure of firms in Mexico.

²⁴ During the third quarter, revenues from workers' remittances totaled 5.925 billion US dollars, implying a 6.5 percent reduction in annual terms (falls of 6.9 and 12.2 percent, respectively, in July and August and an annual increase of 0.2 percent in September). Workers' remittances thus totaled 17.526 billion US dollars during the first nine months of 2008.

problems Mexican workers face to migrate to the U.S. due to increased surveillance by U.S. authorities at the border.

Based on the above, 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 5.1 billion US dollars during the third quarter of 2008 (Table 7). The current account is estimated to have accumulated during the first nine months of 2008 a deficit of 8.4 billion US dollars, accounting for one percentage point of GDP. During the third quarter of 2008, the capital account is expected to have recorded a surplus of around 2.8 billion US dollars (including errors and omissions). This balance would be the result of the following: revenues from foreign direct investment flows and external financing for Pidiregas projects; and, outflows mainly from public sector and commercial banks' payment of foreign debt. During the third quarter of 2008, Banco de México's net international reserves decreased by 2.359 billion US dollars, thus implying that at the end of September, the stock of international reserves was 83.313 billion US dollars.

Table 7
Balance of Payments
Million US dollars

	2007					2008			
	Annual	I-Q	II-Q	III-Q	Jan-Sep	I-Q	II-Q	III-Q	Jan-Sep
Current account	-5,813	-2,360	-1,511	-999	-4,870	-1,361	-1,896	-5,145^{e/}	-8,402
Trade balance	-10,074	-2,454	-2,308	-2,395	-7,157	-1,500	-767	-6,113	-8,380
Exports	271,875	60,269	67,656	70,269	198,194	70,258	79,514	78,783	228,555
Imports	281,949	62,723	69,964	72,664	205,351	71,759	80,281	84,896	236,936
Non-factor services	-5,940	-525	-1,909	-2,264	-4,698	-970	-2,057	---	---
Factor services	-14,121	-4,992	-3,744	-2,752	-11,488	-4,305	-5,470	---	---
Transfers	24,322	5,611	6,450	6,412	18,473	5,415	6,398	6,053	17,866
Workers' remittances	23,970	5,508	6,351	6,339	18,198	5,320	6,281	5,925	17,526
Capital account	18,640	5,093	2,487	3,319	10,899	5,755	4,428	2,786^{e/}	12,969^{e/}
Errors and omissions	-2,541	-1,221	-231	953	-499	1,646	-903	0	743
Change in net international reserves	10,311	1,516	744	3,285	5,545	6,051	1,629	-2,359	5,321
Valuation adjustments	-25	-4	2	-12	-14	-11	0	0	-11

e/ Estimated figures.

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

Source: Banco de México.

3.3.2. Financial Savings and Financing

3.3.2.1. Monetary Base, Net Domestic Credit, and International Assets

During the third quarter of 2008, the monetary base grew at an average annual nominal rate of 12.3 percent, as compared with 11.6 and 9.9 percent during the first and second quarters of the year, respectively.^{25,26} In September 2008, the stock of monetary base was 458,616 million pesos, 36,128 million pesos less than the figure registered in December 2007.

²⁵ Variations calculated based on the quarterly average of daily stocks.

²⁶ During the third quarter of 2008, the stock of bills and coins in circulation grew 10.2 percent in annual terms, while cash held by banks, 29.7 percent.

At September 2008, Banco de México's stock of international reserves totaled 83.312 billion US dollars, 5.322 billion US dollars higher than their level in December 2007. In January-September 2008, net international assets increased by 11.653 billion US dollars, thus reaching 98.887 billion US dollars. Such increase, combined with a reduction of monetary base resulted in a decrease of 157,747 million pesos in Banco de México's net domestic credit during the period (Table 8).

Table 8
Monetary Base, International Assets, and Net Domestic Credit
 Millions

	Stocks		Annual % change	Flows in 2008			Accumulated at 30 Sep. 2008
	At 31 Dec. 2007	At 30 Sep. 2008		At 30 Sep. 2008	I	II	
(A) Monetary base (Pesos)	494,743	458,616	11.2	-47,032	-97	11,001	-36,128
(B) Net international assets (Pesos) ^{1/ 2/}	952,227	1,085,923	20.9	42,576	29,824	49,219	121,619
Net international assets (USD) ^{2/}	87,235	98,887	20.3	3,931	2,911	4,811	11,653
(C) Net domestic credit (Pesos) [(A)-(B)] ^{1/}	-457,484	-627,307	29.1	-89,608	-29,921	-38,218	-157,747
(D) Gross reserves (USD)	87,211	98,863	20.3	3,923	2,912	4,818	11,652
Pemex				4,962	5,830	8,598	19,390
Federal government				-2,732	-650	-3,269	-6,651
Sale of USD to commercial banks ^{3/}				-936	-1,760	-800	-3,496
Other ^{4/}				2,628	-508	289	2,409
(E) Liabilities with less than six months to maturity (USD)	9,220	15,551	73.9	-2,128	1,282	7,177	6,331
(F) International reserves (USD) [(D)-(E)] ^{5/}	77,991	83,312	13.8	6,051	1,629	-2,359	5,322

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

2/ 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.

3/ 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).

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

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

The accumulation of international reserves during the third quarter of 2008 was influenced by the Federal Government's decision on July 25, 2008 to purchase 8,000 million US dollars of international reserves for the advanced coverage of its foreign currency requirements for the following months. In order to offset the decrease in the stock of international reserves resulting from this operation, the Exchange Commission decided to suspend the mechanism to slow international reserve accumulation until further notice.²⁷ The mechanism was suspended as of August 1 2008, the last day of the current period of sale, leaving the announcement of July 15 on the daily sale of US dollars for the August-October without effect.²⁸

Later, at the beginning of October this year, in an environment of considerable risk aversion and high volatility in international financial markets, the exchange market was affected by a strong demand for US dollars. These pressures responded to a flight- to-quality process in asset markets that affected a large number of emerging economies, as well as the demand from some firms to meet their financial positions in US dollars. In light of the volatility in the foreign exchange market, the Exchange Commission decided to reactivate the mechanism of daily auction up to 400 million US dollars at an exchange rate two percent higher than that of the previous day. At the same time, the Exchange Commission also carried out extraordinary auctions to reestablish the orderly

²⁷ Auctions of US dollars according to Newsletter-Telefax 18/2003 and 18/2003 Bis.

²⁸ See Exchange Commission's press release of July 25, 2008.

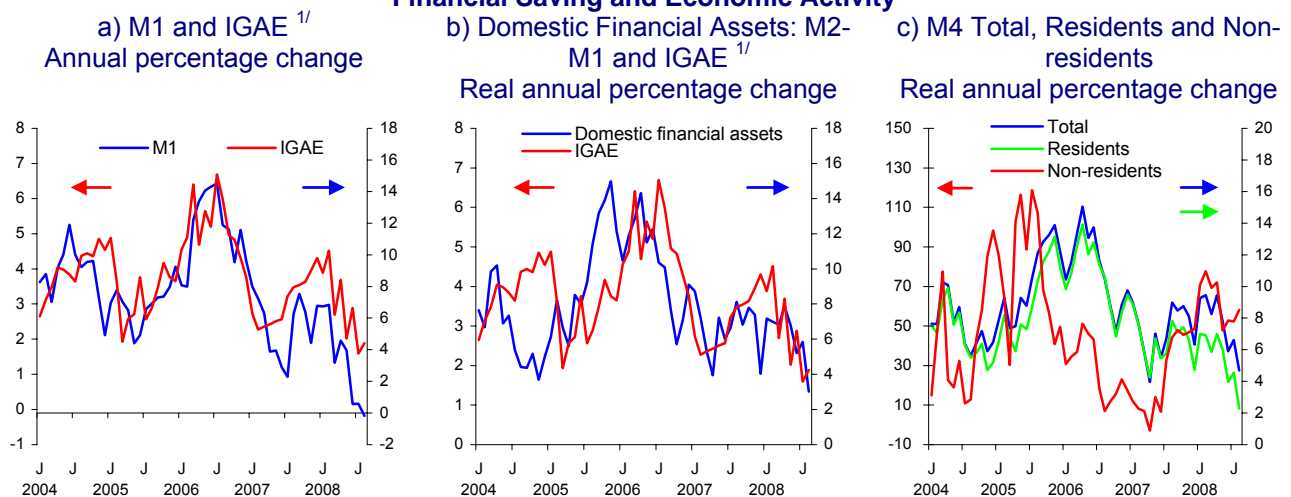
functioning of the exchange market (see Box 4).²⁹ Meanwhile, on October 14 the stock of international reserves increased by an amount of 4 billion US dollars as a result of a Federal Government’s sale of US dollars to Banco de México.

3.3.2.2. Financial Saving

The private sector’s liquidity and saving decisions -which determine the levels of the monetary aggregates - depend, among other factors, on the variables that measure economic activity and private sector’s income. Slower economic activity implies a reduction of economic transactions and a lower demand for liquid assets. Thus, in the context of a severe economic downturn, there has been a decline in the real growth of monetary aggregates in recent months. During the period of July-August 2008, the monetary aggregate M1 grew at a real annual rate of 0.2 percent, as compared with 3.0 percent during the second quarter (Graph 43a). Meanwhile, residents’ holdings of domestic financial assets (the difference between M2 and M1), grew at a real annual rate of 4.4 percent (6.6 percent during the second quarter) (Graph 43b).

During the July-August period, the broad monetary aggregate M4, which includes residents and non-residents’ savings in domestic financial instruments, grew 5.7 percent in real annual terms (Graph 43c). Up until August, non-resident’s savings in domestic instruments still exhibited significant growth (58.1 percent in real annual terms).

Graph 43
Financial Saving and Economic Activity



1/ Three-month moving average.

The sources of financial saving are expected to continue to be affected by the performance of economic activity and the prevailing conditions in international financial markets. Regarding the former, the outlook for slower economic activity will tend to reduce the sources of financial saving for households and firms. As for non-residents’ demand for domestic assets, although the spreads between interest rates in Mexico and the U.S. remain high, growing risk aversion and uncertainty generated by the exchange rate volatility could shift

²⁹ The mechanism to auction 400 million US dollars daily is similar to that implemented by Banco de México between February 19, 1997 and July 2, 2001 to reduce the volatility of the exchange rate (See Newsletter-Telefax 10/97 and Newsletter-Telefax 18/2001).

these economic agents' preference for lower risk assets, possibly in advanced economies' markets.

3.3.2.3. Financing

During the third quarter, financing conditions faced by the public and private sectors deteriorated. Furthermore, according to the latest information of some October indicators, these conditions are expected to worsen even further during the next two or three quarters.

Turmoil in international financial markets, reduced liquidity and tighter financial conditions will imply a sharp deterioration of possibilities to obtain financing in international markets. As for Mexico's domestic debt markets, in recent weeks there has been a significant contraction of financing, a reduction in the maturity of new debt issues, and an increase in their cost. In an environment of slowing economic activity and tighter domestic conditions for granting credit, the growth of financing to the non-financial private sector has slowed down. In particular, the growth of credit granted by commercial banks to households has decelerated in the last few months, while the cost of financing in most markets has increased throughout the year.

Financing conditions under the current environment mainly depend on the effects that the international financial crisis may have on Mexico's financial system. As previously mentioned, Table 5 (page 42) presents some of the different channels through which this transmission to emerging economies could occur.

The worsening international financial environment could affect domestic financial conditions directly via two main channels: i) the possibility that financial intermediaries are exposed to assets of dubious credit quality or those whose quality has deteriorated as a result of the crisis; and, ii) the reduced availability and higher cost of funding in international financial markets.

Domestic commercial banks' exposure to U.S. subprime mortgage assets has been practically nil. Exposure to assets issued by financial institutions which have experienced difficulties during 2008 has also been small, especially in the case of those institutions that filed for bankruptcy (Lehman Brothers). Thus, to date, this transmission channel has not been a relevant source of contagion for the Mexican financial system.

As a consequence of the international financial turmoil and the reduced appetite for risk, the public sector, private firms, and commercial banks in emerging countries have faced greater restrictions to access credit and higher costs of financing in international financial markets. In such conditions, refinancing and liquidity risks could increase for debt with short residual maturity. In addition, sectors with high levels of external debt could face significant increases in their financial burden.

As for the sources of financing, the Mexican economy has decreased its dependency on foreign liabilities from 22.8 percent of GDP in December 2003 to 13.7 percent in June 2008. This result is mainly the consequence of a reduction in public sector's external debt, which, as measured by the Historic Balance of Public Sector Borrowing Requirements (*Saldo Histórico de Requerimientos*

Financieros del Sector Público, SHRFSP), fell from 14.7 to 7.3 percent of GDP during the referred period. Commercial banks' foreign debt has remained at low levels and during the analyzed period it declined from 0.5 to 0.3 percent of GDP. It is worth mentioning that current regulation penalizes commercial banks' short-term US dollar funding by demanding liquidity reserves in foreign currency for a proportion of their liabilities with maturities of less than 60 days.³⁰ Additional regulations limit commercial banks' exchange risk by setting upper limits for uncovered foreign currency positions in their balances.³¹

As for non-financial private firms, their foreign liabilities declined from 7.6 percent of GDP in December 2003 to 6.1 percent in July 2008. Nonetheless, firms' foreign liabilities make up a significant proportion of their total debt. In June 2008 these liabilities were around 70 billion US dollars, representing 39 percent of firms' total liabilities. The growth of firms' financing via direct credit and the issuance of securities in international markets have slowed recently (Graph 44a). During the second quarter of 2008, US dollar financing through securities issuance in international markets recorded an annual percentage change of 2.3 percent, as compared with 9.9 percent during the previous quarter. Regarding the cost in these markets, indicators for spreads between interest rates on these corporate securities and risk free rates have increased (Graph 44b and c).³² Among these spreads, those corresponding to non-financial private firms have widened the most (Graph 44c).

³⁰ See Newsletter 2019/95 M.13 Liability and Investment Regimes for Foreign Currency Operations.

³¹ The foreign exchange risk position is defined as the difference between total assets exposed to exchange risk which increase their value in pesos and those liabilities that reduce theirs after an exchange rate depreciation (long position), and total assets that lose value in domestic currency and liabilities that raise their value during an exchange rate depreciation against other currencies (short position). Current regulations allow commercial banks to maintain a foreign exchange risk position at the close of operations each day, which, either as a total or as a currency, does not exceed 15 percent of their basic capital (See Newsletter 2019/95 M.6. Foreign Exchange Risk Positions M.6).

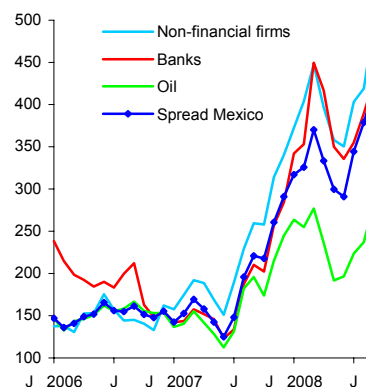
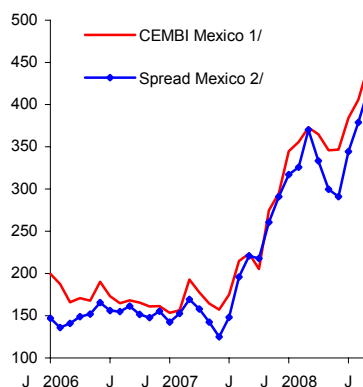
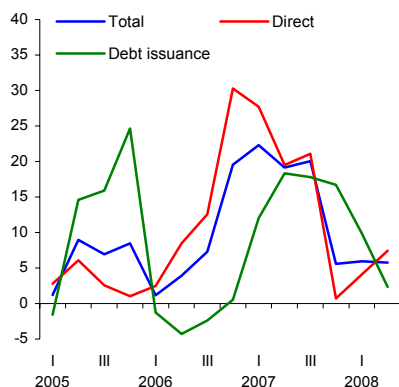
³² JP Morgan publishes a Corporate Emerging Markets Bond Index (CEMBI Broad). This index is calculated for a basket of liquid emerging market corporate bonds and is expressed in terms of the spread (in basis points) considering a U.S. risk free benchmark rate. JP Morgan publishes aggregate indicators for each country, such as the CEMBI México, which includes bonds from three sectors: oil, financial firms, and non-financial firms. In order to obtain an indicator for the cost of financing of international bond issues, which would allow the cost to non-financial private firms to be estimated, an index was calculated (spread Mexico) which, in general terms, follows the same methodology employed in JP Morgan's CEMBI.

Graph 44
Foreign Financing to Non-financial Private Firms and Spreads of Non-resident Corporate Securities

a) Foreign Financing in USD to Resident Non-financial Private Firms
Annual percentage change

b) Interest Rate Spread of Non-resident Corporate Securities
Basis points

c) Interest Rate Spread of Non-resident Corporate Securities by Sector^{2/}
Basis points



1/ Source: JP Morgan.

2/ Source: Prepared by Banco de México with data from Bloomberg.

As has been mentioned, strain in international financial markets can also have indirect effects on money and domestic debt markets as well as on commercial banks' credit granting conditions.

The money and debt markets of countries more affected by the international financial crisis have been characterized by substantial liquidity problems. Central banks of such countries have opened special windows to ensure liquidity in their short-term funding markets. It is important to mention that, to date, commercial banks in Mexico have covered their liquidity requirements through the interbank market and the traditional liquidity facilities provided by Banco de México. Nonetheless, in order to enhance certainty among financial system participants and ensure an orderly functioning of the payment systems, Banco de México established a new liquidity facility in order to have institutional mechanisms to provide liquidity when necessary (Box 4, page 82).

Regarding the prevailing conditions in the private sector domestic debt market, up to the third quarter of 2008, financing expanded considerably by growing at a real annual rate of 25.9 in September (Graph 45a). This market is composed of debt issued by non-bank financial institutions and by non-financial private firms which, in September 2008, accounted for 39.8 and 60.2 percent of the total stock of debt in this market, respectively. Debt issuance by non-financial private firms exhibited greater dynamism since the beginning of 2008 (Graph 45a). While between 2004 and 2007 the non-financial private firms' securities market had grown at a real annual rate of 2.7 percent, during the first three quarters of 2008 it grew at a real annual rate of 12.4, 17.2, and 28.3 percent, respectively (Graph 45a). As for the maturity structure of these liabilities, medium-term securities account for a large amount of the total stock of firms' securities (Graph 45b). However, in a context of greater risk perception, the issuance of short-term securities grew significantly in 2008. As a consequence, the share of short-term debt in the total stock of securities issued by non-financial firms rose from 5.9 percent in December 2007 to 12.8 percent in September 2008.

The cost of domestic debt issued has also increased for both the non-bank financial sector and non-financial firms. During the third quarter, the average weighted interest rate on medium and long-term securities placed in pesos was 9.8 percent for the non-bank financial sector and 9.4 percent for non-financial firms, levels above those observed during the second quarter of the year (9.1 and 8.6 percent, respectively). Meanwhile, the average interest rate on short-term securities was 8.7 for the financial sector and 8.4 percent for firms (8.4 and 7.8 percent, respectively, during the second quarter) (Graph 45c).³³

Given the reduced liquidity and greater risk aversion prevailing in financial markets, this type of financing is likely to tighten in the future. The latest information on this market, as of October 24, indicates more restrictive conditions for initial placements in this market, both in terms of a reduction in the amounts issued and higher interest rates. Regarding short-term securities, a comparison between the average weekly placement during January-September 2008 and the weekly average from October 6 to 24 shows that the average amount placed fell from 8.2 to 3.6 thousand million pesos and the average placement term decreased from 69 to 35 days. As for the cost of such financing, the average interest rate on new issues during October was 10 percent, implying a spread as compared with the 28-day Interbank Equilibrium Interest Rate (*Tasa de Interés Interbancaria de Equilibrio*, TIIE) of 133 basis points. During the January-September period of this year this spread had been close to zero. As for medium-term securities, there have been no new issuances in October.

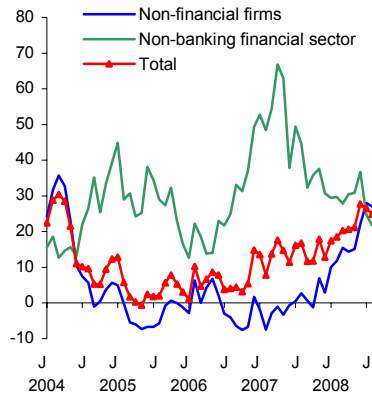
In order to reduce the restrictions faced by the participants in this market to obtain refinancing, the Federal Government announced, as part of and complementary to the Program to Foster Growth and Employment (*Programa para Impulsar el Crecimiento y el Empleo*, PICE), additional resources to increase lines of credit and funding from development banks. Several of the aforementioned programs are designed to ensure the refinancing of non-financial firms and other intermediaries. On the one hand, Nafinsa and Bancomext will support the refinancing of securities through guarantees for up to 50% of such issues (with a maximum term of 180 days) to allow the issuers to meet the maturities they will face for the rest of 2008. On the other hand, the Federal Mortgage Corporation (*Sociedad Hipotecaria Federal*, SHF) will extend guarantees and credit lines to non-bank financial intermediaries in the housing sector for around 20 thousand million pesos in order to support the maturities these intermediaries will face in the following months. The SHF will continue fostering the purchase and sale of mortgage-backed bonds in order to supply liquidity to the market.³⁴

³³ Indicators of the cost of financing from the issuance of securities in the domestic market refer to the average interest rate weighted by the stock of securities in circulation calculated by Banco de México using information from the Mexican Stock Exchange and Valmer. For short-term interest rates, 28-day yield curve placement rates were used, while yield to maturity was used for medium and long-term rates.

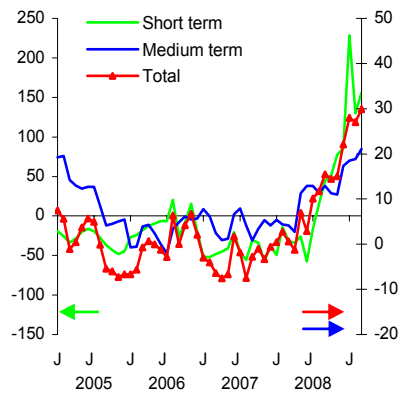
³⁴ See Ministry of Finance Press Release of October 20, 2008 and Nafin Press Release of October 22, 2008.

Graph 45
Domestic Market of Private Securities

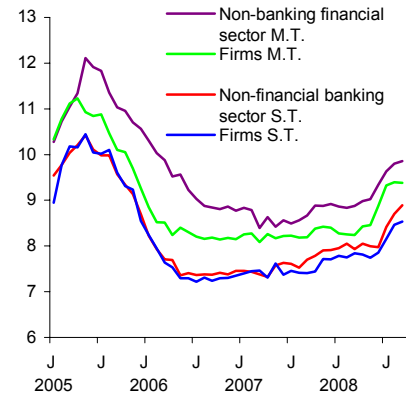
a) Private Securities
Real annual percentage change



b) Non-financial Private Firms' Securities
Real annual percentage change



c) Weighted Average Interest Rate of Short and Medium-term Private Securities
Percent



Regarding the possible effects of the international crisis on the Mexican banking system, two additional channels can be identified. The first is related to the participation of foreign capital in the Mexican banking system and the second to the general conditions for granting credit.

The current financial crisis differs from previous crises on its global nature and because it originated and initially spread out in advanced economies. In this context, it is generally recognized that there are two possible transmission channels to emerging economies resulting from the participation of foreign capital in their banking systems. In an environment of prevailing global financial instability, international banks' headquarters commonly take risk decisions based on their global business and this could lead to a greater tightening of financial conditions. Meanwhile, these parent banks might also request liquidity support from their branches. These two factors could have an adverse impact on the supply of credit in emerging economies. However, in the case of Mexico, regulations limit the operations of bank branches with their parent banks and the latter's subsidiaries in other countries for deposit operations or for credit, loans or discount with related individuals or firms, including the institution's net credit positions from derivatives operations and investments in securities other than stocks.³⁵ To date, there is no evidence that these channels of contagion have significantly contributed to the tightening of financial conditions in Mexico.

In recent months, the growth of commercial bank credit has started to weaken. These developments are related, on the one side, to the phase of the business cycle the Mexican economy is currently undergoing and, on the other, to the fact that opportunities to extend banking services to new sectors of society have been decreasing. Nonetheless, international financial conditions could lead to a sharper slowdown in the expansion of credit. First, expectations of slower economic growth will translate into a reduction of households and firms' demand for credit, while higher risk aversion, greater preference for liquid assets, and higher financing costs around the world will affect the availability and cost of

³⁵ These operations could represent a maximum of 50 percent of the institution's basic capital. See Article 73 of the Credit Institutions' Law.

domestic bank credit. Finally, there is the perception of a higher level of risk associated with commercial banks' credit activity, particularly regarding consumer credit. Under such context, the private sector is facing more astringent credit conditions which are expected to adversely affect commercial bank credit and economic activity.

The real growth of commercial banks' consumer credit has continued to fall in recent months, while interest rates on such credit have increased and the quality of this portfolio has deteriorated. During July-August of 2008, direct performing consumer credit posted a real average annual increase of 4 percent (Graph 46a).³⁶ Regarding the cost of consumer financing, lending rates on most credit cards have increased.³⁷ The simple average of these rates has followed an upward trend, reaching 41.5 percent during the third quarter of 2008 (Graph 46b). This increase reflects both tighter conditions for granting credit as well as the deterioration of this portfolio during recent months (Graph 47a and Graph 47b).

The decline in the annual growth of commercial banks' mortgage credit has been more modest than that of consumer credit, while indicators for the cost of this type of financing (Annual Percentage Rate of Charge or CAT, for its acronym in Spanish) have remained stable. During the July-August period of 2008, commercial banks' direct performing mortgage credit grew at a real annual rate of 12.4 percent (Graph 46a). As for the cost of this type of financing, the simple average of the CAT did not change significantly during the third quarter (13.3 percent during the July-August period) as compared with the previous quarter (Graph 46b).³⁸

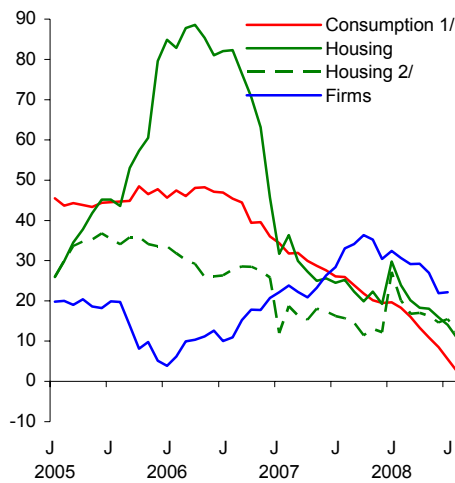
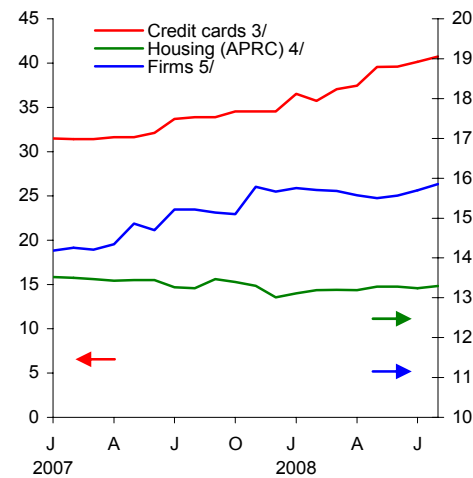
The expansion of commercial banks' credit to firms declined, while lending rates associated with this type of credit rose slightly. During the July-August period of 2008, commercial banks' direct performing credit to non-financial firms recorded a real average annual growth of 21.1 percent (Graph 46a). In the same period, the simple average of commercial banks' lending rates on this type of financing was 15.8 percent, figure slightly above the average during the second quarter (Graph 46b).³⁹

³⁶ As of March 2008, these figures include the consumer credit portfolio of Sofomes E.R. commercial bank subsidiaries.

³⁷ Information on credit card interest rates corresponds to the rates of a group of credit cards 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).

³⁸ The cost presented is the simple average of the mortgage credit CAT and not the weighted average, because no information is available on credit granted for each of the mortgage products considered in this indicator.

³⁹ As mentioned previously, the simple average does not necessarily reflect the cost of bank financing. An indicator for interest rates on financing to firms weighted by the stock of credit associated with each product is currently being prepared.

Graph 46
Commercial Banks' Performing Credit and Interest Rates
a) Commercial Banks' Performing Credit
 Real annual percentage change

b) Commercial Banks' Credit Interest Rates
 Annual percent


1/ Includes credit portfolio from commercial bank subsidiaries' Sofomes E.R.

2/ Excludes commercial banks' purchase of mortgage Sofoles portfolio.

3/ Information referring to interest rates of credit cards used to calculate the simple average and the min-max range corresponds to the interest rates of a group of credit cards reported 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).

4/ Simple average, which summarizes the annual percentage rate of charge (*Costo Anual Total del Crédito*, 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.

5/ Simple average of nominal interest rate for performing credits granted by commercial banks to firms in pesos during the period. Information obtained from CNBV. The trimmed mean (10 percent) for interest rates related to credit to firms is defined considering the trimmed distribution of interest rates associated with each credit. The range (interval) is defined by excluding the 10 percent of extreme upper and lower observations of the distribution from the interest rates in each point. The interest rates that are in the upper and lower part of the distribution are therefore excluded.

Regarding delinquencies on commercial banks' credit to the private sector, Graph 47 shows two indicators: the delinquency rate (*Índice de Morosidad*, IMOR) and the adjusted delinquency rate (*Índice de Morosidad Ajustado*, IMORA). The IMOR, defined as the ratio of non-performing portfolio to total portfolio is one of the indicators most used to measure credit portfolio risk (Graph 47a).⁴⁰ However, this indicator can lead to misleading interpretations of debtor delinquency rates because it is also affected by, among other factors, some commercial banks' decisions regarding their non-performing credit portfolio. The sale and write-offs of non-performing portfolio allows for a reduction in the delinquency rate without affecting the situation of debtors. For this reason, an adjusted delinquency rate for commercial banks' credit to households and private non-financial firms is also reported. This indicator is defined as the stock of overdue credits plus charges or losses acknowledged by banks during the twelve previous months divided by the sum of total credit plus charges or losses aforementioned. This indicator reflects more accurately the deterioration of debtor liabilities (Graph 47b).⁴¹ The non-performing portfolio that has not been penalized is properly provisioned according to current regulation.

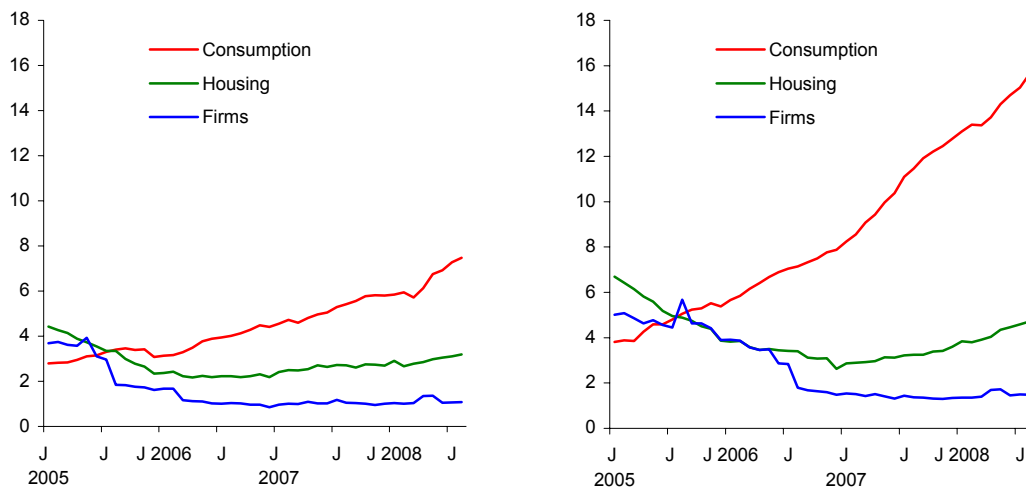
⁴⁰ See Box 21 of the Financial System Report 2007.

⁴¹ The IMOR is obtained from statistics on commercial banks' balances reported by the National Banking and Securities Commission (*Comisión Nacional Bancaria y de Valores*). The IMORA is obtained from credit statistics on commercial banks' balances published by Banco de México which reclassify some credits, adjusting them to the definition of each sector.

Within commercial banks' credit to the private sector, the portfolio which has deteriorated the most is that of consumer credit. The IMORA on consumer credit is high as a result of, among other factors, the policy of some banks to grant credit to segments of the population with no previous credit history and which therefore have a higher credit risk. In August 2008, the adjusted delinquency rate for commercial banks' consumer credit was 15.6 percent. Meanwhile, commercial banks' mortgage portfolio recently followed an upward trend and the IMORA for this type of credit was 4.7 percent in August 2008. The IMORA for commercial banks' credit to firms has remained stable in recent quarters, reaching 1.50 percent in August of this year (Graph 47b).⁴²

Graph 47
Delinquency Rate of Commercial Banks' Credit

a) Credit Delinquency Rate^{1/} Percent b) Adjusted Credit Delinquency Rate^{2/} Percent



1/ The delinquency rate is defined as the stock of overdue credits divided by the stock of total credit. Figures from March 2008 include consumer credit granted by commercial banks' subsidiaries Sofomes E.R. Source: CNBV.

2/ The adjusted delinquency rate is defined as the stock of overdue credits plus charges or losses acknowledged by banks during the twelve previous months divided by the sum of total credit plus charges or losses aforementioned. Figures from March 2008 include commercial banks' subsidiaries Sofomes E.R. Source: Banco de México and CNBV.

In recent years, the conditions of ample liquidity in international markets, macroeconomic stability and the development of the Mexican financial system have fostered the growth of sources of financing for the economy, particularly the sources of domestic financial saving. This has allowed for an increase in financing to the non-financial private sector, both households and firms. Nonetheless, the changes in international financial conditions which have taken place since the middle of 2007 coupled with forecasts for reduced economic growth in Mexico and the world allow for expecting tighter financial conditions in Mexico during the following quarters.

On the one hand, the turmoil in international financial markets and the deleveraging process of banks and other international financial institutions which are predicted to take place during the rest of this year and in 2009 imply that credit will be scarce in these markets for some time. Regarding the domestic sources of

⁴² The adjusted delinquency rate is defined as the stock of overdue credits plus charges or losses acknowledged by banks during the twelve previous months, divided by the sum of total credit plus charges or losses aforementioned. The credit portfolio used for this indicator is obtained from commercial banks' balances published by Banco de México.

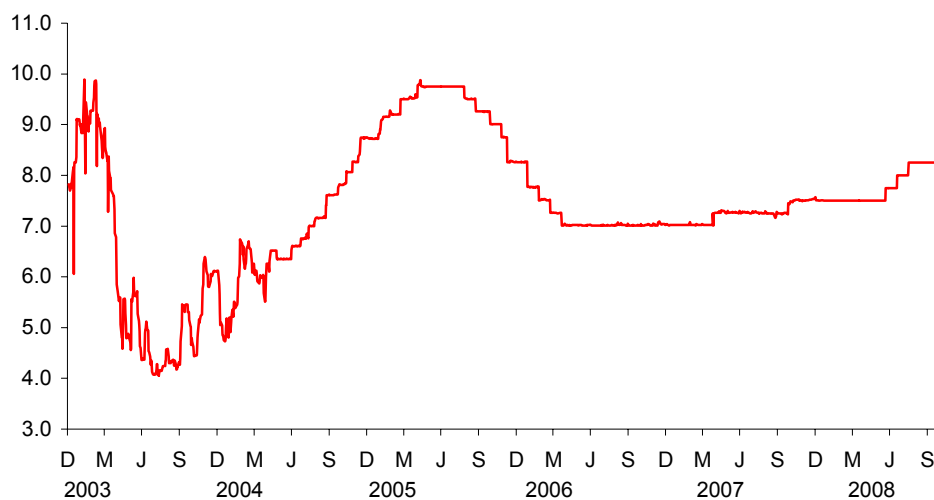
financing, the weakening of economic activity in Mexico will contribute to reduce the strength of domestic financial saving. Amid an environment of greater risk and reduced liquidity, domestic funding and securities markets can be expected to be subject to tighter financial conditions during the following quarters. However, the continuance of economic policies designed to maintain macroeconomic stability and the adoption of measures to preserve the stability of the financial system will allow for a recovery of the economy's sources of financing.

4. Monetary Policy

During July and August of 2008, Banco de México's Board of Governors decided to tighten the monetary conditions by 25 basis points in each of these two months. The Overnight Interbank Interest Rate therefore rose from 7.75 percent to 8.25 percent (Graph 48). Such actions were designed to prevent the observed rebound in inflation from affecting the anchorage of medium-term inflation expectations and, thereby, the economy's price formation process.

As mentioned previously in this Report, during September and October there was a substantial increase in risk aversion in international financial markets which translated into high levels of volatility in emerging economies' financial markets, including that of Mexico. Taking into account that the orderly operation of financial markets is essential for the stability of the financial system, the Board of Governors decided to leave the target for the Overnight Interbank Interest Rate unchanged at 8.25 percent during September and October, despite the worsening outlook for economic activity in Mexico.

Graph 48
Overnight Interbank Interest Rate^{1/}
 Annual percent



^{1/}The target for the overnight interbank interest rate is shown since January 21, 2008.

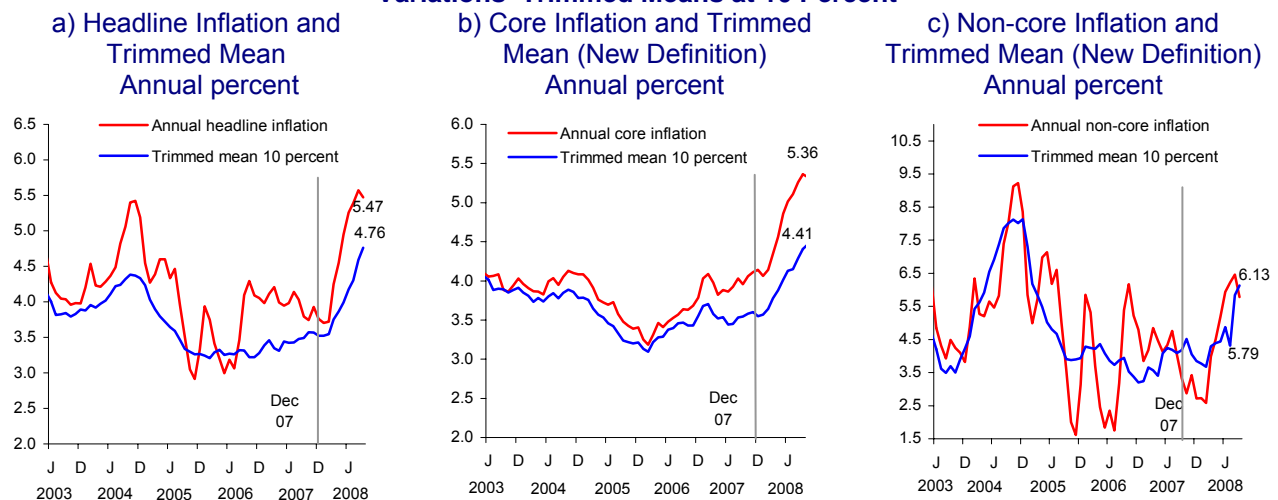
During the third quarter, various indicators which provide information on the recent development of inflation continued to deteriorate mainly in response to increases in the international prices of different commodities during the first half of the year. Nevertheless, no inflationary pressures from aggregate demand have been identified.

The outlook for inflation is presented below using various indicators which allow for a deeper analysis of both the conditions that have been affecting inflation (backward-looking indicators) and economic agents' prospects for inflation (forward-looking indicators).

Among the backward-looking indicators, the first to be analyzed are the trimmed means of inflation. Graph 49 shows the trimmed means of headline

inflation, core inflation (new definition which includes the education price subindex) and non-core inflation (new definition excluding education). In the first two cases, the trimmed means followed an upward trend during the third quarter, although they continued at levels below the corresponding inflation indicators. This development illustrates the effect that increases in the international prices of diverse commodities during the first half of the year have had on the prices of some products located in the middle of the distribution. The trimmed mean of non-core inflation also increased during the third quarter. In September, non-core inflation was below its trimmed mean mainly as a result of the decline in the prices of some agricultural products.

Graph 49
Headline Inflation and Inflation Indicators excluding the Contribution of Extreme Upper and Lower Variations' Trimmed Means at 10 Percent^{1/}

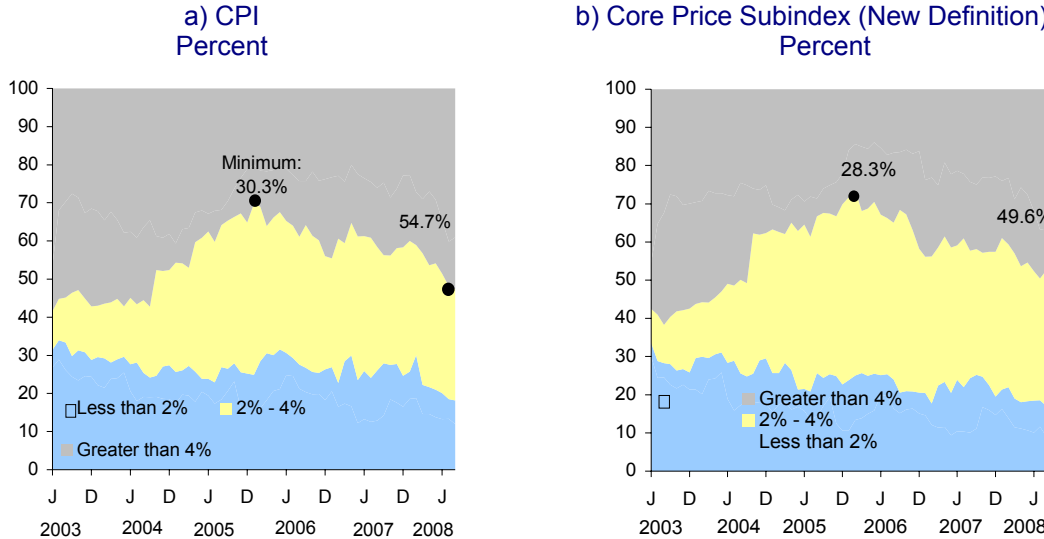


1/ The trimmed mean excludes the contribution of extreme variations in certain items' prices from headline inflation. To strip these variations, the following calculations are done: i) monthly seasonally adjusted variations of CPI prices are arranged in descending order; ii) the items with the highest 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.

Another set of indicators that offers information on the recent path of inflation is obtained by calculating the proportions of both the CPI basket and the core subindex items whose annual price variations are below or equal to 2 percent, between 2 and 4 percent, and above or equal to 4 percent. Graph 50 shows that, in the case of both the CPI and the core subindex (new definition), the proportion of the basket with prices growing annually above 4 percent rose during recent months (gray shaded area). Meanwhile, the proportion of the basket with annual price variations below 2 percent (blue shaded area) decreased during the third quarter. As in the previous exercise, these results mainly reflect the effect of increases in the prices of some commodities during the first half of the year on the prices of various products.

Graph 50

Share of Items in the CPI and in the Core Price Subindex with Annual Price Variations within a Range^{1/}

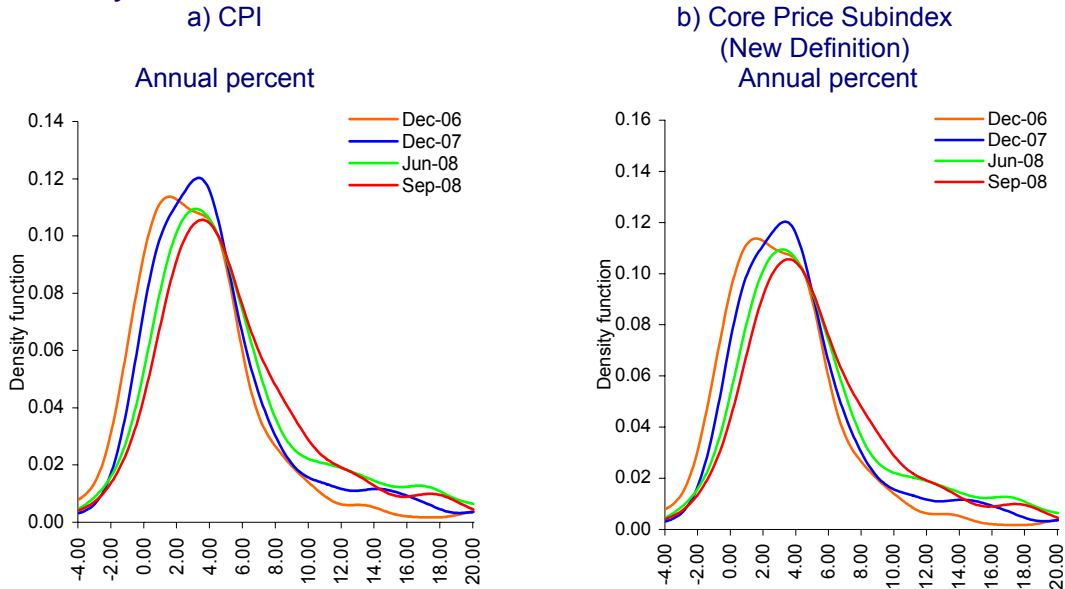


1/ The share of a price index's basket whose annual price variations fall within a range is calculated as follows: i) interest ranges are defined; ii) annual inflation of each of the items of the price index is calculated; iii) items are classified in the interest ranges according to their annual inflation; and, iv) the weights of the items in each range are added.

One indicator that complements the above information and shows the deterioration of inflation during the last two years is the density function of annual price variations of CPI products. Graph 51a shows that the referred density has shifted to the right (higher inflation). In fact, the prices of an increasingly larger number of products have registered higher annual increases. The same pattern can also be seen for products included in the core price subindex (Graph 51b).

Graph 51

Density of Annual Variations in the Price of CPI and Core Price Subindex Items



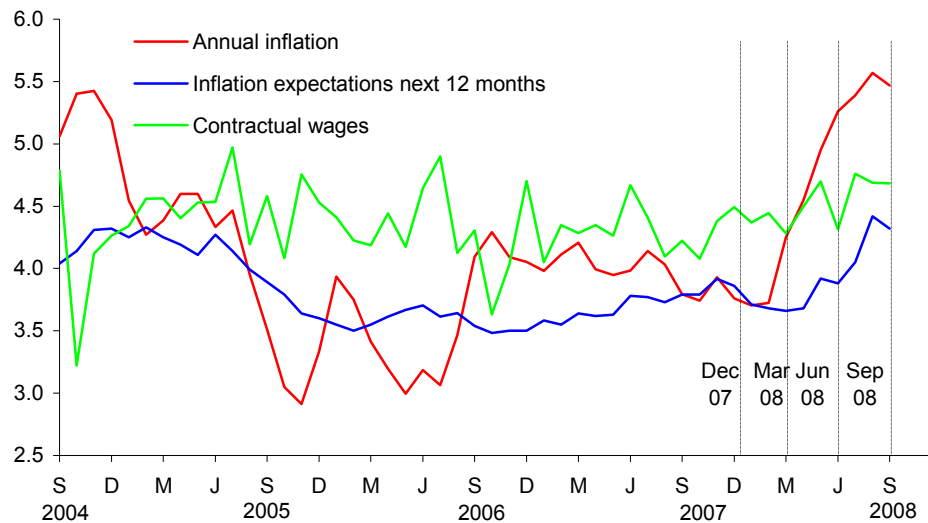
Summing up, the recent performance of backward-looking indicators shows that inflation and several of its components continued to deteriorate during the third quarter of 2008. In this regard, it is important to mention that the pass-through effect of increases in international commodity prices to consumer

prices in Mexico is not immediate. Although such prices started to decline during the third quarter of the year, the impact of previous rises is still being reflected in the price increases of some products in Mexico.

In order to complete the analysis on the outlook for inflation, a second group of indicators must be used, which reveal information on economic agents' prospects for inflation. These indicators are also useful to study the risks associated with the economy's price determination process.

The first set of indicators from this second group corresponds to wages. As shown in Graph 52, the indicator for the annual variation in contractual wages of firms under federal jurisdiction is characterized by certain volatility, which has increased during the last two quarters. However, between March and September this year, this increase has been below that registered during the same period by both annual inflation and inflation expectations for over a 12-month horizon.

Graph 52
Annual Inflation, Inflation Expectations and Annual Variation of Contractual Wages^{1/}
 Annual percent



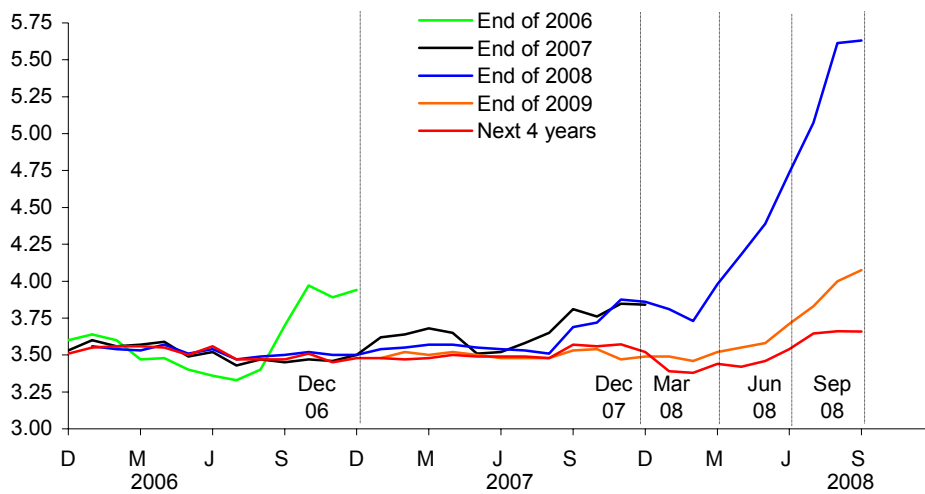
^{1/} Inflation expectations are obtained from Banco de México's Survey.

The following indicators contain information on economic agents' inflation expectations obtained directly by Banco de México from its monthly survey of private sector economic analysts. Graph 53 shows that, as a result of the trajectory followed by inflation during the third quarter, indicators for annual inflation expectations for the end of 2008 continued to be revised upwards (their average rose from 4.74 percent in June to 5.63 percent in September). The density function of such forecasts has shifted to the right (higher inflation expectations) in the last few months (Graph 54a). Meanwhile, the average increase of inflation expectations for the end of 2009 has been much lower. Such indicator rose from 3.71 percent in June to 4.07 percent in September (Graph 53),

while the rightward shift of its density function has also been more modest (Graph 54b).⁴³

As for medium-term expectations for annual headline inflation, Graph 53 shows that the mean of those corresponding to the average for the following 4 years increased slightly during the third quarter, from 3.54 to 3.66 percent between June and September.⁴⁴ However, the density function for these expectations shows that, unlike in the previously mentioned cases, in recent months their distribution has not shifted to the right, i.e. the increase in their average does not seem to reflect a generalized upward revision in analysts' expectations.

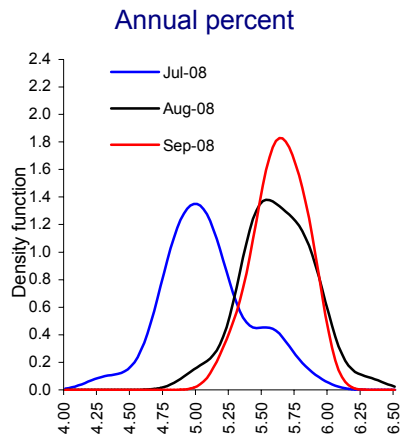
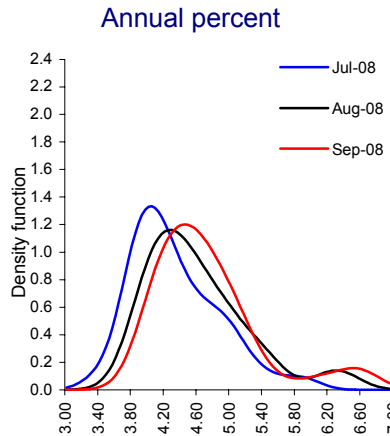
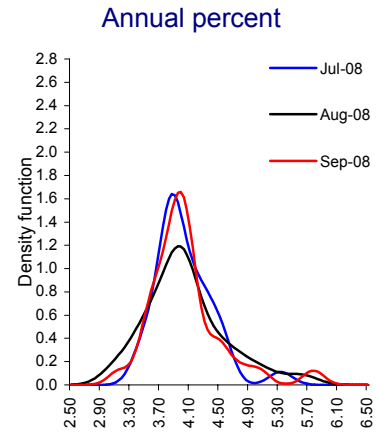
Graph 53
Inflation Expectations: Banco de México Survey
 Annual percent



⁴³ Inflation expectations from the Infosel survey for the end of 2008 rose from 4.77 on June 27 to 5.76 percent on October 24. Meanwhile, those corresponding to the end of 2009 increased from 3.65 on June 27 to 3.93 percent on October 24.

⁴⁴ Expectations for average annual headline inflation included in the Infosel survey for the next 4 years also increased slightly from 3.51 percent on June 25 to 3.60 percent on October 24.

Graph 54
Expectations for Annual Headline Inflation: Banco de México Survey

 a) Density of Inflation
Expectations for the End of
2008

 b) Density of Inflation
Expectations for the End of
2009

 c) Density of Inflation
Expectations for the Average for
the Next 4 Years


1/ The graphs represent density functions to adjust for inflation expectations data obtained from Banco de México's monthly survey on private sector economic analysts' expectations.

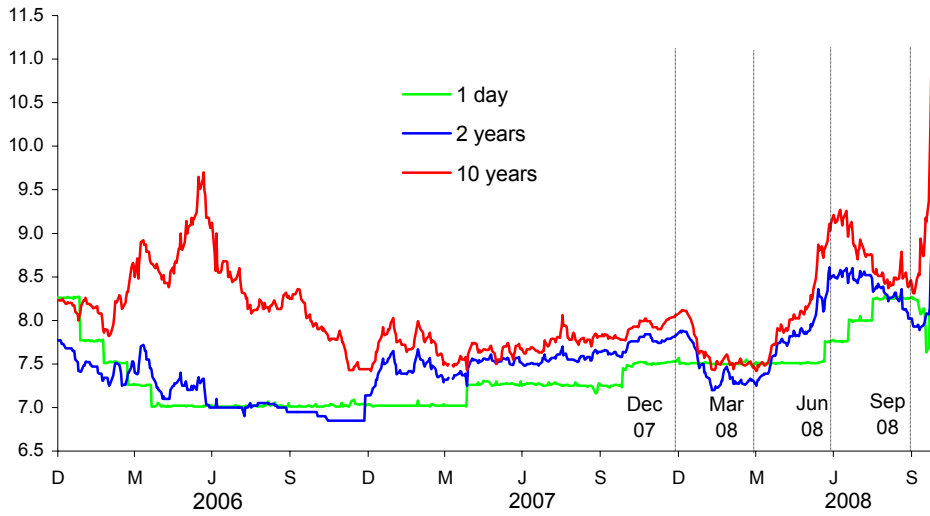
Summing up, the recent developments of those indicators which offer information on prospects for inflation show that, as expected, given the deterioration of inflation, indicators for short-term horizons continued to worsen during the quarter. However, those for the medium term have remained relatively well “anchored”.

The pattern of expectations for both inflation and economic activity, and the monetary policy actions previously mentioned have been reflected in the yield curve dynamics on government debt instruments during recent months (Graph 55 and Graph 56).

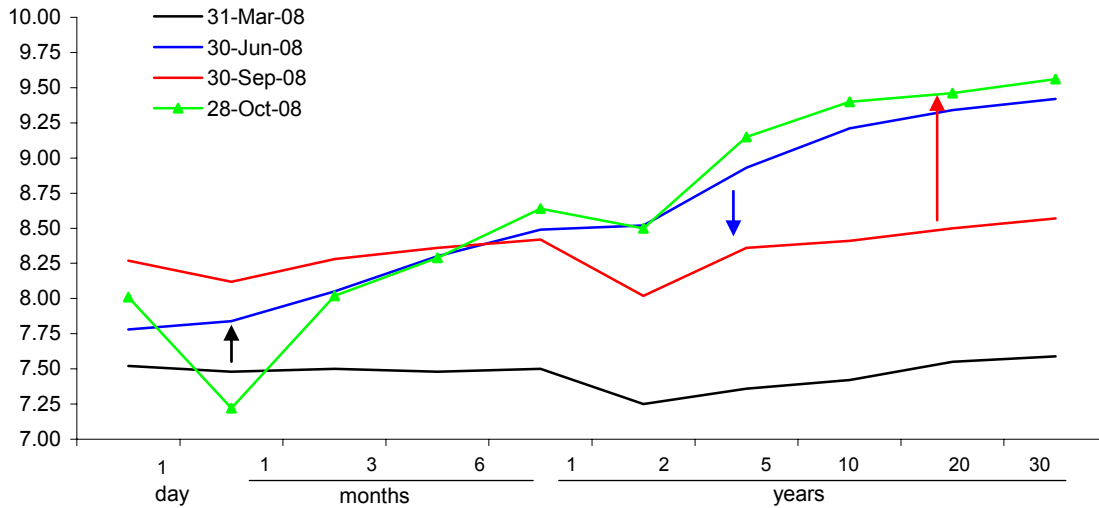
In particular, in an environment where medium and long-term inflation expectations have remained reasonably well “anchored”, the volatility and sharp steepening of the yield curve during the last weeks responds to the higher risk aversion in international financial markets. As has been mentioned throughout this report, the higher risk aversion reflects the need to carry out a significant global deleveraging process. This process has led many investors to sell their positions in emerging markets (debt as well as exchange), which, in turn, has contributed to the increase in volatility in the referred markets.

In the case of Mexico, some investors have sought, on the one hand, safety by purchasing short-term government debt, thus leading to a fall in these rates. On the other hand, they have been reducing their exposure to risk by selling, among others, long-term bonds. This has led to a rise in interest rates on longer-term instruments. In some cases, purchases of short-term government paper are made with resources obtained from the sale of longer-term instruments. In other cases, resources from the sale of long-term government paper have been transferred to external markets.

Graph 55
Interest Rates in Mexico
 Percent

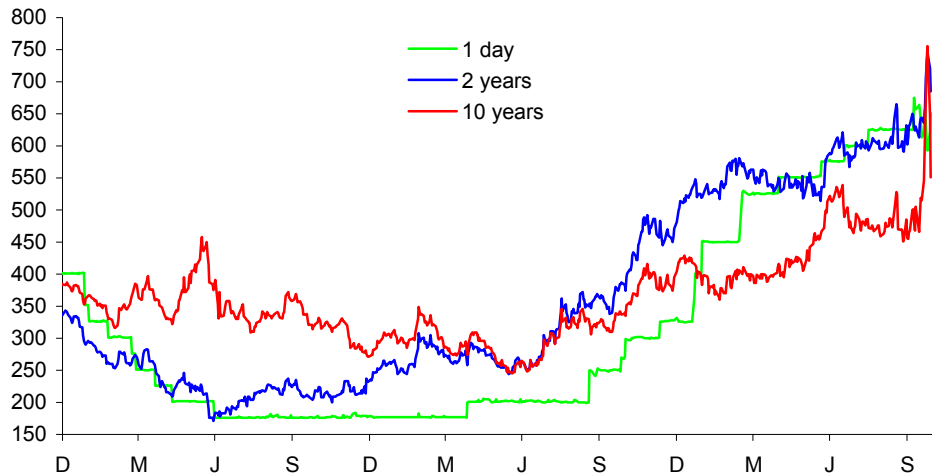


Graph 56
Interest Rates Yield Curve in Mexico
 Percent



As for the differentials between interest rates on government debt in Mexico and the U.S., as Graph 57 shows, increases in longer term interest rates in Mexico during recent weeks have prompted the differentials for these terms to widen considerably.

Graph 57
Spread between Mexico and U.S. Interest Rates
 Basis points



Up to now, interbank financing in Mexico's bank funding market has been functioning normally. However, in light of the possibility that illiquid conditions could arise, just like in other economies (both advanced and emerging), on October 13, Banco de México introduced a new facility to provide liquidity for all banking institutions. This new facility -additional to the existing ones- is designed to solve any temporary illiquidity problems commercial banks might face (Box 4).

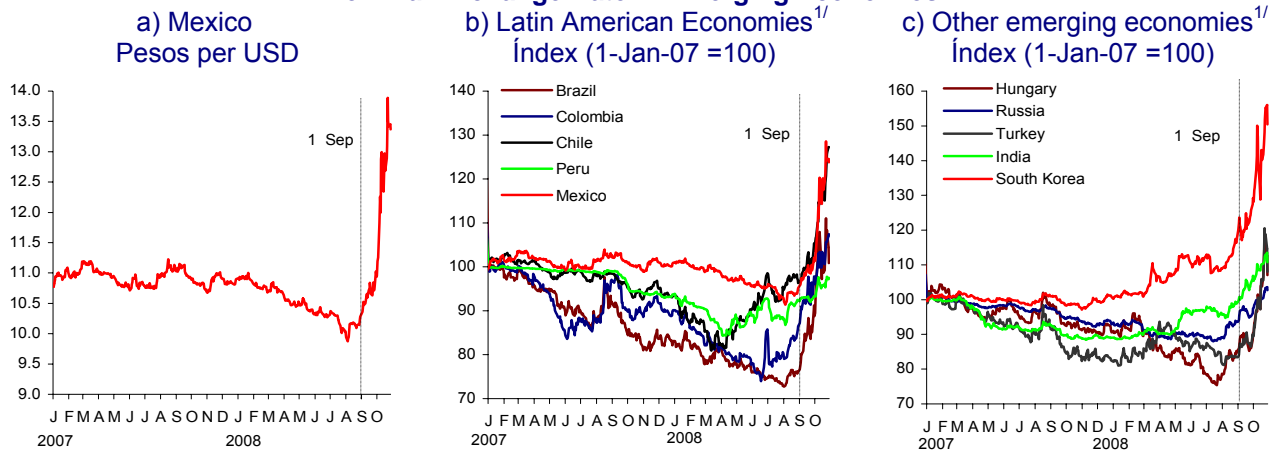
Although monetary conditions in an economy are to a large extent determined by the development of short-term interest rates, the exchange rate also influences them. By monetary conditions we mainly refer to those which fundamentally determine the development of aggregate demand in an economy. Indeed, both real interest rates and the real exchange rate affect the different components of expenditure.⁴⁵

Practically all emerging economies have been severely affected by the international environment described in this report. In particular, the sharp slowdown in advanced economies and the greater astringency in international financial markets, have led to a significant increase in long-term yields in various emerging economies (Graph 59) and to substantial exchange rate depreciations in many of them (Graph 58). In other cases, the effects of these shocks have worsened due to the slowdown in revenues from workers' remittances, the reversal of the favorable shocks to the terms of trade some emerging economies had enjoyed in recent years, and the use of certain structured operations by a large number of firms in emerging economies and that later turned out to be highly loss making. The latter has played a particularly relevant role in the significant increase of volatility in the exchange markets of several of these countries, including Mexico.

⁴⁵ The real exchange rate refers to the relative behavior of prices in Mexico compared to the evolution of prices in other countries. The performance of relative prices in Mexico compared to other countries' prices is determined by various factors such as the terms of trade, credit flows, relative growth prospects, etc.

In the case of some emerging economies, firms and institutions which carry out part or all of their operations in foreign markets can usually use the hedge market or other markets to protect themselves against sudden fluctuations in currency (or in other goods or assets), according to their expectations about its future pattern. In Mexico's case (and in other countries such as Brazil and Korea), in October, liquidity in the foreign exchange market declined significantly as a result of the robust demand for US dollars from some firms and institutions which, under the recent volatility of the peso, had to meet demands at the margin or cover their financial positions. As a consequence, during the referred period, the volatility of the nominal exchange rate rose considerably to levels unseen in more than a decade. Obviously, sharp increases in exchange rate volatility can be extremely ponderous and disruptive for the production process and for the orderly operation of financial and goods markets, above all considering that such an increase in volatility does not correspond to or reflect what is happening in the real economy.

Graph 58
Nominal Exchange Rate in Emerging Economies



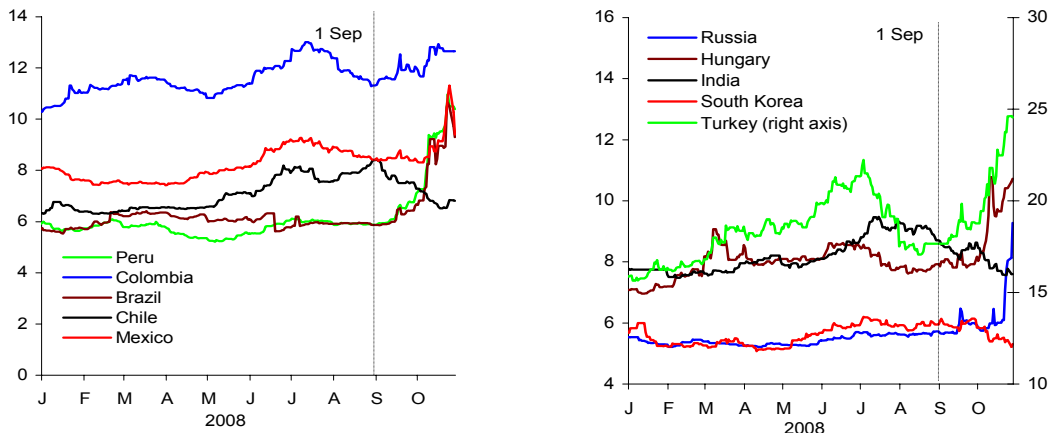
^{1/} Exchange rate local currency vs. US dollar. An increase equals depreciation.

^{1/} Exchange rate local currency vs. US dollar. An increase equals depreciation.

Graph 59
Long-term Interest Rates in Local Currency in Emerging Economies

a) Latin American Countries^{1/} Percent

b) Other Emerging Economies^{1/} Percent



^{1/} Interest rate of 10-year bonds in local currency, except for Colombia (15-year bonds).

^{1/} Interest rate of 10-year bonds in local currency, except for Turkey (5-year bonds).

Box 4
Measures Implemented by the Federal Government and Banco de México to Preserve Financial Stability

The uncertainty characterizing the development of international financial markets rose during the second half of the year. This situation worsened after Lehman Brothers filed for bankruptcy in mid-September, bringing along greater global risk aversion among investors. In this context, financial instability, which had basically been limited to the U.S. and the most advanced European economies, spread rapidly to various emerging economies.

The environment of extreme risk aversion and the fact that a lesser number of financial institutions were operating on a global level, led to a sharp fall in liquidity in practically all of the world's financial markets at the same time many market participants sought to sell their investments. As liquidity declined and the bias towards liquidating positions rose, markets ceased to function normally, thus affecting prices. Prices of financial assets have fallen in foreign exchange markets where most currencies have depreciated sharply against the U.S. dollar. The currencies of emerging economies have also depreciated considerably.

The following table shows the depreciation rates for the currencies of emerging economies most affected by the financial turmoil since the end of July. The depreciation trend has been continual and has included countries from all over the world.

Accumulated Depreciation of Emerging Market Currencies
 Percentage change v.s. exchange rate of July 31, 2008

Country (Currency)	Reference Date	
	September 12, 2009	October 24, 2009
South Africa (Rand)	8.2%	34.4%
Island (Corona)	11.6%	34.2%
Brazil (Real)	12.1%	32.2%
Poland (Zloti)	12.1%	32.1%
Turkey (New Turkish Lira)	6.1%	31.2%
Hungary (Forint)	10.1%	31.1%
South Korea (Won)	8.7%	28.8%
Mexico (Peso)	5.3%	25.0%

Source: Bloomberg.

In response to the instability in Mexico's financial markets, the Federal Government and Banco de México recently implemented a series of measures to help reestablish the smooth functioning of these markets in as short time as possible and, thereby, preserve financial stability.

Banco de México's measures are as follows:

1. Interventions in the foreign exchange market

Given the volatility of the exchange rate and the lack of liquidity in the foreign exchange market, the Exchange Commission (composed of officials from the Ministry of Finance and Banco de México) decided to intervene in this market for the first time since September 1998. The Commission decided to use U.S. dollars from the international reserves to offset the prevailing imbalance between currency inflows and outflows originated by the sudden rise in the price of the U.S. dollar.¹ Interventions have been carried out through large scale and repeated supply of U.S. dollars channeled to the market via auctions in order to avoid the structural damage a disorderly and illiquid foreign exchange market would have on the Mexican economy.

The Exchange Commission's actions are not intended to support any predetermined exchange rate or to prevent a "speculative

attack" on the Mexican peso. They have been implemented to provide liquidity to satisfy the unusual demand brought about by exchange rate fluctuations. In this regard, the demand from some large Mexican companies that maintained risk positions in complex financial instruments has been outstanding. These instruments had been reasonably profitable when the exchange rate was relatively stable; however, in the event of a depreciation of the peso, as that of October, they lead to substantial losses.

Banco de México's actions implemented in the exchange market under the Exchange Commission's instruction were:

- The sale of U.S. dollars through extraordinary auctions. These auctions aim at supplying the market with the necessary liquidity to meet the exceptional demand for currency.

Extraordinary auctions

Date	Amount Tendered (mdd)	Amount Allotted (mdd)	Exchange Rate ^{1/} (Pesos per USD)
08-Oct.	2,500	998	12.0159
09-Oct.	1,502	1,502	12.0794
10-Oct.	3,000	3,000	12.7561
10-Oct.	3,000	3,000	12.8623
16-Oct.	1,500	1,500	12.9565
23-Oct.	1,000	1,000	13.1877
Total	12,502	11,000	12.6921

^{1/} Weighted average of offers allotted in the corresponding auction.

- The sale of U.S. dollars through daily auctions. On October 9, the Exchange Commission reintroduced the mechanism to sell U.S. dollars which had been implemented from February 1997 to June 2001. This mechanism provides liquidity when the peso fluctuates significantly (when it depreciates more than 2 percent). Banco de México carries out three auctions per day for a total of 400 million U.S. dollars at a minimum price of 1.02 times the FIX exchange rate on the day prior to the auction. When bids of this type of auction are allotted on a particular day, the minimum price for the next bank business day is determined by multiplying the average weighted exchange rate of the auction by 1.02.

Daily Auctions

Date	Amount Tendered (mdd)	Amount Allotted (mdd)	Exchange Rate ^{1/} (Pesos per USD)
08-Oct.	400	0	N/A
10-Oct.	400	400	12.9599
13-Oct.	400	0	N/A
14-Oct.	400	0	N/A
15-Oct.	400	400	12.7800
16-Oct.	400	400	13.1888
17-Oct.	400	0	N/A
20-Oct.	400	0	N/A
21-Oct.	400	400	13.0414
22-Oct.	400	400	13.4355
23-Oct.	400	98	13.7069
Total	4,400	2,096	13.1098

^{1/} Weighted average of bids allotted in the corresponding auction.

¹ According to article 18 of the Law governing Banco de México, Banco de México will hold reserves of international assets to foster the stability of the Mexican currency by offsetting any imbalances of inflows and outflows of currency in the country.

2. Creation of new liquidity facilities²

Based on the experience of other countries which have recently faced situations where banks have encountered difficulties in accessing money market funding, and as a preventive measure to foster the smooth functioning of both financial markets and payment systems, Banco de México decided to implement additional liquidity facilities.

These liquidity facilities add to those already operating, through which commercial banks can obtain financing from Banco de México at a rate twice the overnight interbank interest rate or can make non-interest bearing deposits in the central bank. The purpose of these facilities is to support monetary policy by encouraging institutions with excess liquidity to transfer it to those that lack it. This incentive is in line with the daily operations Banco de México carries out to manage liquidity and ensure all banks end the day with a zero position. The new liquidity facilities are designed to alleviate commercial banks' temporary liquidity problems.

These new liquidity facilities provide the country's commercial banks access to Banco de México's funding for the amount they require, as long as it is backed by eligible assets provided as collateral. In order to access financing from liquidity facilities, which is automatic, institutions must sign a contract with Banco de México and provide a letter signed by their Chief Executive Officer detailing their liquidity problem.

In operating terms, the conditions for financing via liquidity facilities are as follows:

- Term: one banking business day, automatically renewed until the institution communicates lending has been settled or Banco de México decides to cancel it.
- Interest rate: 1.2 times Banco de México's current overnight target rate.
- Collateral: monetary regulation bonds that the borrowing institution holds at Banco de México, in which case funding will be documented as credit, or eligible securities for which a repo agreement is made. Eligible securities include:
 - a. Government securities, BPAs and BREMs.
 - b. Foreign currency-denominated bonds issued by the federal government.
 - c. Securities issued by credit institutions included in the National Securities Registry until October 10, 2008.
 - d. Domestic currency-denominated bonds with at least a AA rating and issued by public firms, municipal and state governments, non-financial firms residing in Mexico, financial firms, and trusts which securitize mortgage portfolio.
- Valuation: Eligible securities are valued according to prices and discount factors determined by Banco de México.

In a coordinated move, on October 27, the Ministry of Finance and Banco de México unveiled a package of measures to improve the functioning of domestic financial markets. These measures are part of a joint strategy to reduce liquidity problems and reestablish the smooth functioning of domestic financial markets in as short time as possible. The measures announced are:

I. Changes to Government Security Auctions Programmed for the Fourth Quarter of 2008

The Ministry of Finance adjusted programmed allotments in such a way as to keep total net domestic financing unchanged. These adjustments reduce the amount auctioned as long-term fixed rate bonds (both peso- and UDI-denominated) which will be compensated by an increase in the amount of Cetes for all terms to be auctioned.

II. Changes to IPAB Security Auctions Programmed for the Fourth Quarter of 2008

For the rest of the year, the IPAB will reduce the amount auctioned weekly through all three types of Savings Protection Bonds, from a total nominal value of 3,850 million pesos to 1,850 million. The reduction in funding for IPAB implied by this measure will be offset with operations to obtain financing from commercial banks.

III. Savings Protection Bond Repo Auctions

As of next November 4, Banco de México will begin a program to repurchase securities issued by IPAB for up to 150 thousand million pesos. These repos will be carried out through auctions and will be open to all IPAB securities currently in circulation.

IV. Interest Rate Swap Auctions

Banco de México will establish a program of interest rate swaps for 50 thousand million pesos in order for participants to be able to reduce the sensitivity of their long-term fixed rate investments to yield curve fluctuations. This reduction in exposure to interest rate risk will be carried out by swapping long-term fixed rate flows for short-term floating rate flows, for which Banco de México will hold auctions where bidders announce the fixed rates they are willing to pay for the terms offered by the central bank.

V. Program of Borrowing from Multilateral Financial Organisations

The federal government will increase borrowing from that originally planned for 2008 and 2009 with Multilateral Financial Organisations such as the Inter-American Development Bank and the World Bank for up to 5,000 million US dollars, in line with foreign debt limits forecasted in each year's Federal Revenue Law. Financing from multilateral institutions is particularly attractive in present market conditions because its cost does not depend on the credit conditions prevailing in international financial markets. This measure will allow greater flexibility to use other sources of financing.

VI. Regulatory Facilities for Mutual Funds

The Banking and Securities Commission will issue regulations to temporarily allow financial institutions to carry out purchases and sales of government securities with mutual funds of the same financial group. The purpose of these regulations is to provide institutions with greater flexibility to recompose their portfolios according to price transfer best practices.

The federal government, in addition to its Program to Foster Growth and Employment, has announced a series of capital market support programs. These programs will be managed by development banks and include the following segments of the market:

² Liquidity facilities are subject to regulations outlined in newsletters 48 and 49/2008 published by Banco de México on October 13 and 17, respectively.

A. Securities from the Financial and Non-Financial Private Sectors

Nafin and Bancomext will grant support for refinancing securities from the business sector and the non-bank financial sector for up to 50 thousand million pesos with guarantees to assure access to financing. These guarantees will cover up to 50 percent of the amount issued, maintaining private investors interest in this market. This program is designed to enable issuing firms to settle their maturities for the remainder of 2008. The resources are additional to the 35 thousand million pesos in new funding for small and medium-sized firms already included in the Program to Foster Growth and Employment.

B. Debt Instruments issued by Financial Intermediaries in the Housing Sector

The Federal Mortgage Corporation (*Sociedad Hipotecaria Federal*, SHF) will support financial intermediaries in the housing sector to meet their refinancing needs and meet the sector's growth with funds of over 40 thousand million pesos.

The Federal Mortgage Corporation will also implement the following actions:

- It will establish collateral on securities issued by non-bank financial intermediaries in this sector to allow them to meet maturities totaling 22 thousand million pesos for the next few months. It will also grant special credit lines to meet these maturities. These resources could amount to 20 thousand million pesos.
- To sustain growth in the sector, the Federal Mortgage Corporation will grant credit lines of medium-term bridge loans and long-term financing for individual credits. It will also continue its traditional operations to foster growth in the sector. It will destine over 20 thousand million pesos for these activities.
- The Federal Mortgage Corporation will continue to support the purchase and sale of mortgage-backed bonds in order to supply liquidity to the market. Furthermore, primary dealers will benefit from the International Finance Corporation (IFC), which could acquire up to 15 percent of these issues, while the Inter-American Development Bank is also considering a similar share.

In response to the significant increase in volatility in many emerging economies' foreign exchange markets during October, authorities have decided to use part of their international reserves to curb this volatility and gradually reestablish the orderly functioning of these markets.

In Mexico, in view of the risks to the financial system's stability due to a highly volatile foreign exchange market, the Exchange Commission implemented various measures (Box 4). On the one hand, in order to reduce volatility in the foreign exchange market, the Commission reintroduced the mechanism to auction US dollars on a daily basis at a minimum exchange rate of 2 percent higher than the previous business day's exchange rate. The maximum daily amount for these auctions was fixed at 400 million US dollars. Up until October 24, 2.096 billion US dollars had been auctioned through this mechanism. On the other hand, extraordinary auctions were carried out for a total of 11 billion US dollars in order to reestablish the smooth functioning of the foreign exchange market and thus avoid the aforementioned periods of volatility, which would otherwise affect the stability of financial markets and be very costly for economic activity. To date, a total of 13.096 billion US dollars have been sold through these auctions.

As mentioned previously, preserving the normal functioning of financial markets is essential for the proper performance of an economy. The smooth functioning of markets should therefore be understood from an integral point of view, given the strong ties under which they currently operate. Indeed, nowadays it is difficult to think of one market being affected by something that does not have an impact on other markets. For instance, an investor could finance a long position in a certain type of security and a certain currency by issuing another type of security in a different currency. Problems arising in some of these markets could pass on to other markets. Such examples illustrate how events in credit markets can affect the foreign exchange market and vice versa. For this reason it is important to preserve, at all times, the smooth functioning of the financial system from an integral point of view as contagion between markets can be of a large magnitude and take place very rapidly. For this reason, Banco de México,



jointly with the other financial authorities, will at all times remain attentive to preserve the orderly operation of the financial system.

5. Prospects for Inflation and Balance of Risks

Banco de México's expected macroeconomic scenario is based on the following external conditions:

- I. The outlook for economic activity in the U.S. has deteriorated substantially in recent months. In general, the U.S. economy is expected to undergo a long period of adjustment, while consumption spending reaches sustainable levels in the medium term. At present, the consensus among analysts' expectations for U.S. economic growth in 2008 is 1.5 percent and, in the case of industrial production, -0.2 percent. Most analysts foresee GDP growth in 2009 to be between 0.0 and 0.5 percent, and industrial production, between -1.3 and -0.5 percent.
- II. Available information indicates that uncertainty will prevail in international financial markets in the next few months and conditions for access to international financing will continue to tighten.

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

GDP growth: around 2 percent (in real terms) during 2008 and between 0.5 and 1.5 percent in 2009. It is important to mention that, given the high levels of uncertainty that prevail, a wider forecast interval (one percentage point) was used than that previously employed (half a percentage point).

Employment: Around 230 thousand jobs (number of workers insured by the IMSS) are expected to be created in the formal sector in 2008. For 2009, from 150 to 250 thousand additional jobs are expected to be created in this sector.⁴⁶

Current Account: Current account deficit of around 1.4 percent of GDP in 2008 and between 1.6 and 2.0 percent in 2009.

The recent deterioration of growth forecasts for the Mexican economy is mainly due to the external environment, which affects the performance of economic activity in Mexico through various channels. Summing up, the most important aspects discussed in this Report regarding the prospects for economic activity are:

- i) The recent performance of the U.S. economy and financial markets has affected growth forecasts for that country and the rest of the world. These developments are expected to have a negative impact on economic growth in Mexico through a smaller expansion of manufacturing exports to different markets. It is worth remembering that, during the first half of the year, manufacturing exports to non-U.S. markets had remained strong. However, this trend weakened during the third quarter and is predicted to slow even further in the following quarters.

⁴⁶ Formal employment figures correspond to annual variations at the end of 2008 and 2009. If average annual figures are considered, estimates show a larger variation in 2008 than in 2009.

- ii) The slowdown of economic activity in the U.S. implies less job opportunities for Mexican workers in that country. Indeed, the presence of Mexican workers is greater in the sectors that are most affected by a weaker U.S. economy. This is being reflected in a fall in revenues from workers' remittances with its resulting adverse impact on private consumption spending in Mexico.
- iii) Expectations of slower global economic growth have been reflected in lower demand for fuels which could imply additional and persistent reductions in the price of Mexico's crude oil export mix. The aforementioned affects revenues from Mexican net exports of this type of products (exports less oil product imports), particularly in a context where the level of crude oil export rigs has decreased.
- iv) Greater astringency and less liquidity in international financial markets has reduced the availability and raised the cost of external financing, and has also led to tighter domestic financial conditions in emerging economies. In Mexico, the cost of financing has increased for firms as well as households, and the criteria for granting credit has become more restrictive. It is therefore likely that financial conditions in Mexico continue to tighten significantly during the following quarters, thereby, reducing spending in the Mexican economy.

This macroeconomic scenario is conditional to the current consensus among analysts concerning the referred performance of the U.S. economy. Nevertheless, uncertainty surrounding developments in that economy and in the rest of the world, as well as the volatility prevailing in international financial markets suggest that the risks of deterioration for economic activity in Mexico might have even increased.

Inflation: The forecasted path for annual headline inflation for the following two years remains unchanged in relation to that published in the previous Inflation Report (Table 9 and Graph 60). However, current CPI forecasts differ in structure from previous ones due to several factors operating in opposite directions:

- a) Two outstanding factors suggest lower inflationary pressures. First, the predicted downturn of economic activity is expected to curb global and local demand which will reduce price growth of both goods and services. Second, the observed and forecasted path of grains and other commodities' international prices is expected to lead to smaller increases in the domestic prices of processed foods and other CPI categories.
- b) If the exchange rate depreciation that occurred during October is seen as being permanent, it could lead to upward revisions in certain prices, particularly of internationally traded merchandise. Furthermore, administered prices of goods and services are expected to grow at higher average annual rates in the short run. The aforementioned is due to the faster revisions in gasoline and LP gas prices that have taken place in recent months in order to reduce the gap between their domestic and international reference prices, and to the federal government's suspension during the last quarter of 2007 of fuel price

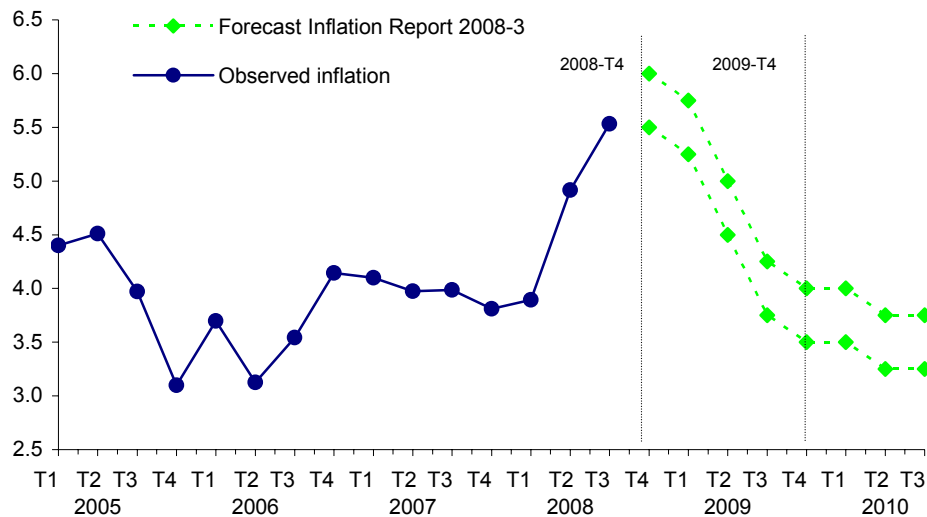
increases included in the administered prices' subindex. The latter affects calculations for the annual variation of the referred subindex for the fourth quarter of 2008 due to a smaller comparison base. Nonetheless, the significant decline in international energy prices during October reduced the gap with their corresponding domestic prices, which suggests that the growth of administered prices could slow down some time soon. Under the current conditions, this factor does not constitute additional pressures on headline inflation in the medium term.

Table 9
Base Scenario for Annual Headline Inflation
 Quarterly average in percent

Quarter	Forecast	Forecast
	Inflation Report	Inflation Report
	2008-2	2008-3
2008-II	4.92 ^{1/}	4.92 ^{1/}
2008-III	5.25 - 5.75	5.48 ^{1/}
2008-IV	5.50 - 6.00	5.50 - 6.00
2009-I	5.25 - 5.75	5.25 - 5.75
2009-II	4.50 - 5.00	4.50 - 5.00
2009-III	3.75 - 4.25	3.75 - 4.25
2009-IV	3.50 - 4.00	3.50 - 4.00
2010-I	3.50 - 4.00	3.50 - 4.00
2010-II	3.25 - 3.75	3.25 - 3.75
2010-III	-----	3.25 - 3.75

^{1/} Observed figure.

Graph 60
Annual Headline Inflation and Forecast for Base Scenario
 Quarterly average in percent



Among the most noteworthy risks that might influence the expected path of inflation are:

1. As economic agents start to perceive the exchange rate depreciation as permanent, a greater impact on prices is expected as the transfer of this

cost is carried out. However, the size and speed of the pass-through effect of this shock to consumer prices are highly uncertain.

2. Although commodity prices have fallen in recent months, these products have recorded considerable volatility in response to both supply and demand side factors. Latent risks are therefore still present in external markets, particularly for foodstuffs and energy.
3. Uncertainty prevails regarding the size and speed of the pass-through of the higher tax burden to prices.

Although the abovementioned factors constitute risks for inflation, in a context of reduced global economic activity, the cyclical phase of the Mexican economy significantly mitigates the pressures and risks inflation faces at present.

The development and orderly functioning of the financial system are essential to preserve macroeconomic stability, economic growth and the population's wellbeing. On the one hand, financial development fosters productivity growth through various channels such as reducing transaction costs and allowing a greater diversification of risks involved in production projects. Furthermore, this development allows for a more efficient allocation of resources over time by mobilizing savings and allocating them to more productive uses. Longer term and larger scale investment projects, which are generally more beneficial to investors and society, can thus be financed. On the other hand, when households have access to the financial system, they can achieve more stable patterns of consumption and acquire housing and other consumer durables.

The Law governing Banco de México defines fostering the sound development of the financial system as one of the central bank's objectives. The attainment of this goal contributes to the smooth functioning of financial markets and of the total economy. The aforementioned, together with a prudent management of public finances, promotes an appropriate environment for achieving price stability.

The extraordinary uncertainty characterizing the present situation and the high levels of volatility in our financial markets could substantially disrupt economic activity and thus adversely affect the economy's price formation process. Consequently, Banco de México's Board of Governors jointly with other financial authorities will remain attentive to preserve the orderly functioning of these markets and will continue to closely monitor the balance of risks in order to meet the 3 percent inflation target.

6. Monetary Policy Announcements and Publication of Inflation Reports

Calendar for 2009		
Month	Monetary Policy Announcements	Inflation Report
January	16	28 ^{1/}
February	20	
March	20	
April	17	29
May	15	
June	19	
July	17	29
August	21	
September	18	
October	16	28
November	27	

^{1/} Includes Monetary Program for 2009.

The calendar includes eleven dates, one each month, except in December, for monetary policy announcements. Nevertheless, Banco de México, as in previous years, reserves its right to modify the monetary policy stance in dates different than those pre-established in the calendar, in the case of extraordinary events that would require the central bank's intervention.