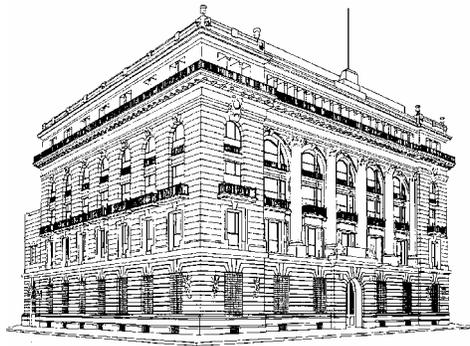


# Inflation Report

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July – September 2004



BANCO DE MEXICO

OCTOBER 2004

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*BOARD OF GOVERNORS*

**Governor**

GUILLERMO ORTIZ MARTÍNEZ

**Deputy Governors**

EVERARDO ELIZONDO ALMAGUER

GUILLERMO GÚÉMEZ GARCÍA

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## ***FOREWARNING***

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*Unless otherwise stated, this document has been prepared using data available as of October 25, 2004. Figures are preliminary and subject to change.*



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## I. Introduction

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The world economy continued to recover during the third quarter of the year, albeit at a lower rate than that at the end of 2003 and the beginning of 2004. Most recent information suggests that the U.S. economy rebounded, after having undergone an unexpected slowdown in the second quarter. Most economic analysts anticipate the U.S. economy to continue growing in 2004 and 2005, albeit at lower rates than those recorded in most recent quarters. Therefore, the world economy, particularly that of the U.S., is expected to have already experienced the highest growth rates associated with the current economic cycle.

Under such conditions, inflation pressures, associated with the expansion phase of the economic cycle, have apparently eased throughout the world. In particular, expectations of a gradual easing of aggregate demand growth in the U.S. have reduced long-term interest rates significantly with respect to those observed at the end of the second quarter of the year. Furthermore, such expectations have also added to the perception that the Federal Reserve will withdraw the monetary stimulus more slowly and with less intensity than anticipated a few months ago.

The above scenario suggests that the relative slack in liquidity conditions in international markets will prevail in the following months. This has fostered a significant flow of capital resources to the emerging economies to obtain higher yields.

Under such setting, during the third quarter of 2004, the development of the external environment had a significant effect on the Mexican economy, concerning both growth and inflation.

Regarding the former, aggregate expenditure benefited from a greater availability of foreign financial resources as well as a considerable amount of oil revenues and workers' remittances. Regarding external demand, crude oil and non-oil exports remained robust. As for domestic demand, consumption remained vigorous while investment began to increase. Such developments fostered the recovery of industrial and manufacturing production, which also led to higher job creation.

The external environment also had a significant effect on domestic inflation. Although it is true that cyclical inflation pressures have eased worldwide, in the last years the world economy has undergone structural changes in production and

demand for inputs, which have affected inflation in many countries. Given the rapid integration of some large economies like the Chinese and the Indian to the international trade of goods and services, relative prices have changed significantly worldwide. In particular, there has been a significant increase in several commodity prices in relation to those of manufactured goods.

The Chinese economy has played a key role in such process by using energy goods and metals intensively and, at the same time, by increasing significantly its food imports. As a large economy, its demand has contributed, since mid-2003, to raise the prices of this type of goods in international markets.

Such phenomenon has affected inflation in Mexico significantly because the Mexican economy, a small open economy, cannot affect world prices of such goods. In particular, increases in several commodity prices have influenced production costs considerably (supply shocks). These shocks have been transmitted to different items of the Consumer Price Index, mostly to its non-core component and to the food item of the core merchandise subindex. Regarding the former, prices of livestock and administered goods have risen the most. As for the latter, a wide range of food items has been affected. Such developments worsened after the downward trend followed by fruits and vegetables' prices in the first half of the year reverted in the third quarter, mostly due to weather problems that affected crops. As a result, the fruits and vegetables' subindex stopped mitigating the upward effect on prices of the referred external shocks.

Supply shocks to the CPI have been more numerous and stronger than those expected at the beginning of the year, affecting more components of the CPI than in previous years. Given their nature, these shocks should only have a temporary effect on inflation. However, due to the high level of CPI inflation, they had a negative impact on inflation expectations. The current phase of the Mexican economic cycle has probably facilitated such deterioration.

Since observed inflation and its expectations are currently above Banco de México's inflation target, the Central Bank has adopted several measures to tighten its monetary policy stance in order to prevent any contagion on wage negotiations and on the entire price determination process. In addition, it has announced that monetary policy will maintain a restrictive stance as long as pressures on inflation and its expectations continue. Through these actions, the Board of Governors of Banco de México reiterates its intention to make inflation converge to its 3 percent target as soon as possible.

## II. Inflation Report July-September 2004

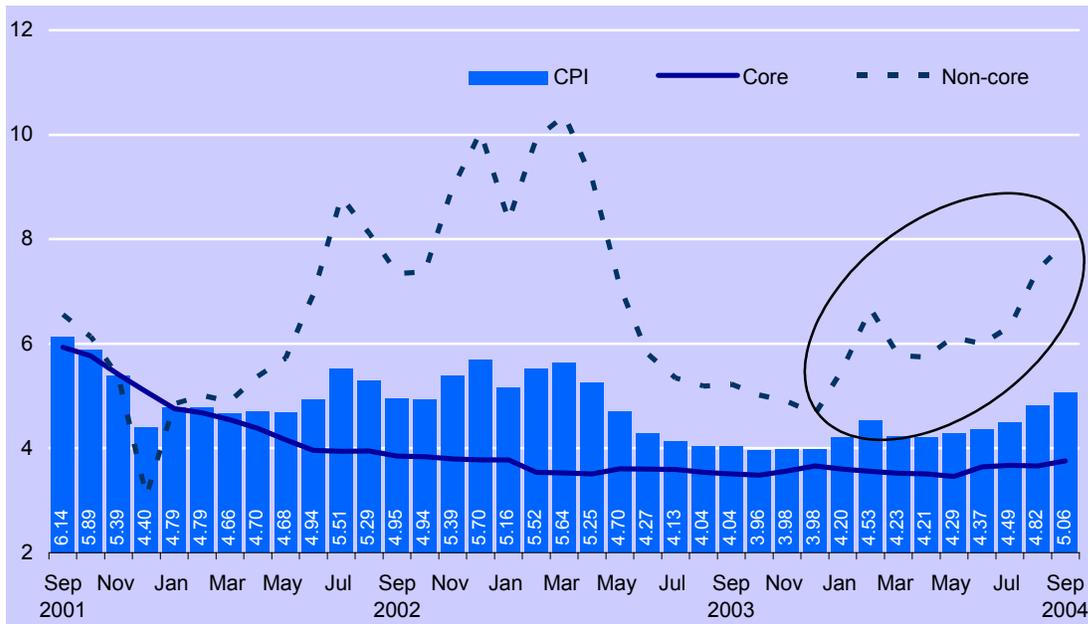
### II.1. Recent Developments in Inflation

In September 2004, annual CPI inflation was 5.06 percent, 1.08 percentage points above that in December 2003. During the same period, annual core inflation was 3.76 percent, 0.10 percentage points above that at the end of 2003 (Graph 1).

Graph 1

#### CPI, Core and Non-core Price Indexes

Annual percentage change



Throughout the year, CPI inflation has been subject to continuous pressures from its non-core component; however, these heightened during the third quarter. The 1.08 percentage point difference between annual CPI inflation in September 2004 and at the end of 2003 is explained in 92.6 percent (1 percentage point) by the higher annual growth rate of the non-core component (Table 1). During that period, the agriculture price subindex contributed with 0.51 percentage points to the increase in inflation, while the subindex of administered and regulated prices did so with 0.53 points. The core component contributed with only 0.08 percentage points to the inflation increment.

During the year, the most significant inflation pressures have been originated by the increase in many commodities' international prices (Box 1). This situation worsened during the third quarter when prices of fruits and vegetables reverted the downward trend recorded in the first half of the year. In this regard, the following should be considered: i) the increase in commodity prices has led to higher inflation in many countries; and ii) the possibility of a significant increase in fruits and vegetables' prices in Mexico was anticipated in the previous Inflation Report, given that such prices had recorded unusual negative monthly variations for six consecutive months.

Food, energy, and metal commodity prices have been pressured upward significantly mainly because of the increased demand for this type of goods worldwide, and the fact that the supply of these goods expands slowly.

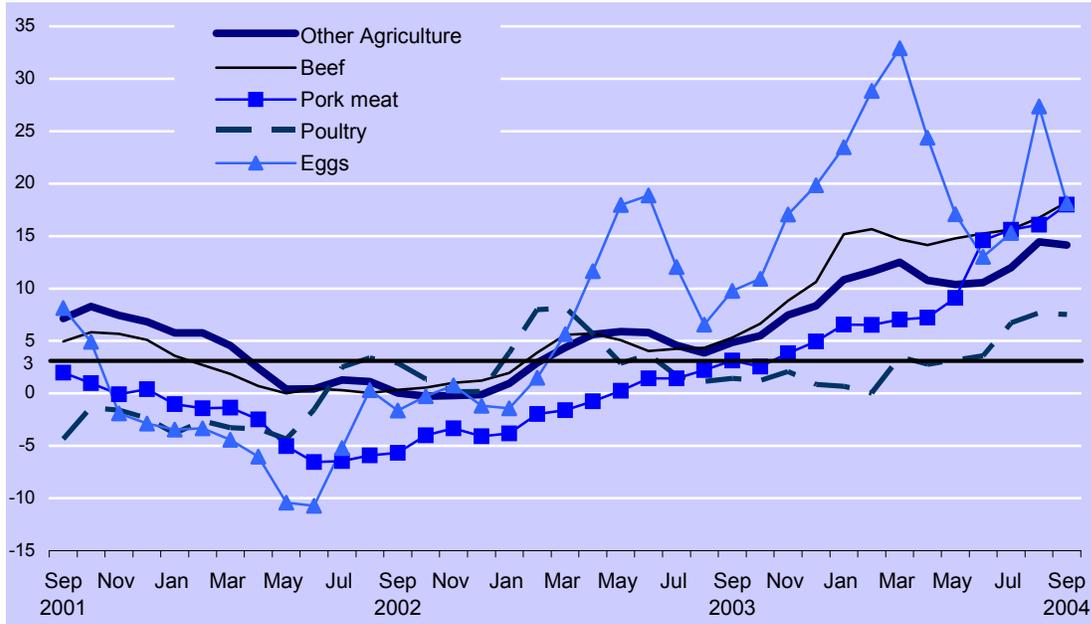
Although the possibility that some commodity prices would eventually stabilize was pointed out in the previous Inflation Report, only the prices of certain commodities (grains and cereals) decreased during the third quarter. Nonetheless, in Mexico such effect has still not translated into a slowdown in the prices' growth rate of this type of commodity-based foods.

## **II.1.1. Non-core Inflation**

### **II.1.1.1. Agriculture Price Subindex**

Price increases in beef, pork meat, poultry and eggs accounted for most of agriculture's subindex contribution to CPI inflation in 2004 (Graph 2). International prices of meat products have increased significantly due to a larger world demand for such products. Moreover, beef prices were affected by a considerable decline in beef world production due to the phytosanitary measures imposed in the main international markets. This measure created an upward effect on pork prices due to the substitution effect between both types of meat. In addition, prices of grain forage for cattle, hogs and poultry, which rose significantly throughout the year, have begun to ease just recently. Such behavior implied a cost pressure over the prices of pork meat, beef and eggs (Graph 3).

**Graph 2** **Agriculture Price Indexes**  
Annual percentage change



**Table 1** **Price Subindexes' Contribution to Annual CPI Inflation**  
Percentage points

	Sep-2003	Dec-2003	Mar-2004	Jun-2004	Sep-2004	Difference <sup>1/</sup>
	Sep-2002	Dec-2002	Mar-2003	Jun-2003	Sep-2003	(e-b)
	(a)	(b)	(c)	(d)	(e)	(e-b)
<b>CPI</b>	<b>4.04</b>	<b>3.98</b>	<b>4.23</b>	<b>4.37</b>	<b>5.06</b>	<b>1.08</b>
<b>Core</b>	<b>2.43</b>	<b>2.51</b>	<b>2.42</b>	<b>2.52</b>	<b>2.59</b>	<b>0.08</b>
<b>Merchandise</b>	<b>0.83</b>	<b>0.95</b>	<b>1.00</b>	<b>1.18</b>	<b>1.38</b>	<b>0.43</b>
Food	0.59	0.68	0.74	0.85	1.02	0.34
Other	0.24	0.27	0.26	0.33	0.36	0.09
<b>Services</b>	<b>1.59</b>	<b>1.56</b>	<b>1.41</b>	<b>1.33</b>	<b>1.21</b>	<b>-0.35</b>
Housing	0.79	0.73	0.71	0.74	0.70	-0.03
Other	0.80	0.83	0.70	0.59	0.51	-0.32
<b>Non-core</b>	<b>1.61</b>	<b>1.47</b>	<b>1.82</b>	<b>1.85</b>	<b>2.47</b>	<b>1.00</b>
<b>Agriculture</b>	<b>0.44</b>	<b>0.31</b>	<b>0.54</b>	<b>0.26</b>	<b>0.82</b>	<b>0.51</b>
<b>Fruits and Vegetables</b>	<b>0.21</b>	<b>-0.09</b>	<b>-0.07</b>	<b>-0.25</b>	<b>0.14</b>	<b>0.22</b>
Tomato	0.22	0.00	-0.07	-0.08	0.07	0.07
Other <sup>2/</sup>	-0.01	-0.09	0.00	-0.17	0.06	0.15
<b>Other Agriculture</b>	<b>0.23</b>	<b>0.40</b>	<b>0.61</b>	<b>0.51</b>	<b>0.68</b>	<b>0.29</b>
Beef	0.12	0.23	0.33	0.34	0.40	0.17
Poultry	0.02	0.01	0.04	0.04	0.09	0.08
Egg	0.06	0.12	0.19	0.08	0.11	0.00
Other <sup>3/</sup>	0.04	0.04	0.05	0.06	0.08	0.04
<b>Administered and Regulated Prices</b>	<b>0.69</b>	<b>0.69</b>	<b>0.83</b>	<b>1.12</b>	<b>1.22</b>	<b>0.53</b>
<b>Administered</b>	<b>0.51</b>	<b>0.51</b>	<b>0.44</b>	<b>0.67</b>	<b>0.76</b>	<b>0.25</b>
Low-octane gasoline	0.09	0.14	0.10	0.21	0.13	-0.01
High-octane gasoline	0.02	0.01	0.02	0.04	0.04	0.03
Electricity	0.08	0.20	0.18	0.21	0.29	0.09
Propane Gas	0.33	0.16	0.13	0.22	0.30	0.14
<b>Regulated</b>	<b>0.18</b>	<b>0.18</b>	<b>0.39</b>	<b>0.45</b>	<b>0.45</b>	<b>0.28</b>
Fixed-route/fare bus	0.01	0.02	0.19	0.24	0.24	0.23
Taxi	0.02	0.02	0.04	0.05	0.05	0.03
Other <sup>4/</sup>	0.15	0.14	0.16	0.17	0.16	0.02
<b>Education</b>	<b>0.48</b>	<b>0.47</b>	<b>0.45</b>	<b>0.47</b>	<b>0.44</b>	<b>-0.03</b>

1/ Totals may not add up due to rounding.

2/ Includes other fruits and vegetables.

3/ Includes fish, pork meat, and other meats.

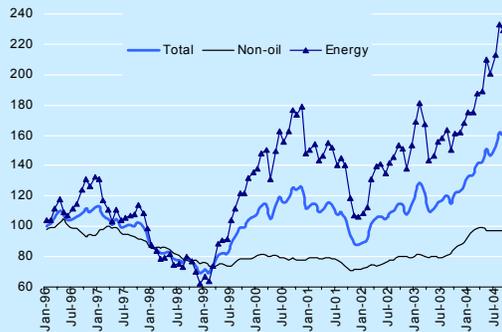
4/ Includes water supply rights, property taxes, telephone services, oils and lubricants, inter-state and city transportation, license fees, parking lots, electric transportation, automobile taxes, and toll roads.

**Box 1**

**Recent Developments in Primary Commodity Markets**

Prices of primary commodities have increased significantly since 2003, as reflected by the upward trend exhibited by energy prices. IMF's primary commodity price index, excluding energy prices, increased markedly from the second half of 2003 to April 2004. During the last months, such index has stabilized at a level similar to that observed seven years ago. Nonetheless, its recent behavior does not allow for identifying the differences among its items. Moreover, after comparing such items with the same period of the previous year, non-oil commodity prices continue growing at high rates. The higher global demand for such commodities, particularly from China and other Asian countries, has raised primary commodity prices.

**Graph 1**  
Primary Commodity Price Indexes  
Index 1995=100



Source: IMF, Commodities Unit of Research Department.

**Table 1**  
Primary Commodity Price Indexes  
Percentage change

	I-2004	II-2004	III-2004
<b>Total (100.0)</b>			
Annual change	9.3	30.2	34.7
Annualized quarterly change	45.4	34.3	35.5
<b>Energy (47.8)</b>			
Annual change	4.0	34.5	42.7
Annualized quarterly change	44.3	53.7	60.6
<b>Total Non-oil (52.2)</b>			
Annual change	19.6	22.9	20.2
Annualized quarterly change	47.4	5.4	-3.3
<b>Food (21.7)</b>			
Annual change	16.1	21.4	15.8
Annualized quarterly change	35.0	12.9	-20.6
<b>Beverages (3.1)</b>			
Annual change	-6.4	-1.6	7.8
Annualized quarterly change	30.6	-16.3	27.2
<b>Agriculture Commodities (11.3)</b>			
Annual change	5.1	8.2	8.3
Annualized quarterly change	10.1	3.1	9.0
<b>Metals (16.1)</b>			
Annual change	40.3	39.9	36.7
Annualized quarterly change	100.1	0.7	11.5

Figures in ( ) correspond to primary commodity price index items' weights.  
Source: IMF, Commodities Unit of Research Department.

During the third quarter of 2004, the primary commodity price index continued to increase, due mainly to oil price increases. The primary commodity price index excluding energy decreased slightly compared with its previous quarter value. Nonetheless, such results did not include all items from such subindex. The behavior of food prices, which has mirrored the significant crop production in the U.S., explains such decline. During the third quarter, prices of some foods, such as livestock goods, continued to grow at high rates.

**Table 2**  
Prices of Primary Commodities: Foods  
Percentage change

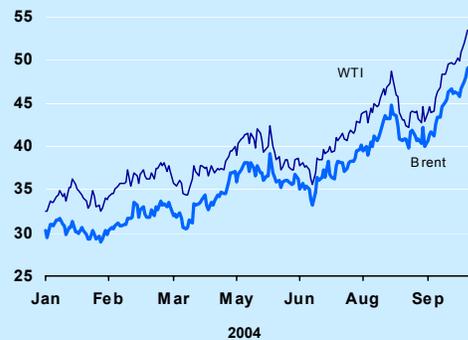
	I-2004	II-2004	III-2004
<b>Foods stuff (41.5)</b>			
Annual variation	16.1	21.4	15.8
Annualized quarterly variation	35.0	12.9	-20.6
<b>Cereals (11.6)</b>			
Annual variation	10.6	18.2	6.3
Annualized quarterly variation	31.9	14.9	-38.9
<b>Vegetable oils (9.9)</b>			
Annual variation	37.8	28.6	8.5
Annualized quarterly variation	49.8	-20.3	-51.0
<b>Meat (7.0)</b>			
Annual variation	17.3	26.7	27.5
Annualized quarterly variation	14.6	54.2	30.5
<b>Fish and seafood (7.3)</b>			
Annual variation	-0.4	5.7	14.3
Annualized quarterly variation	21.7	11.8	-11.6
<b>Other (5.7)</b>			
Annual variation	3.1	23.2	31.7
Annualized quarterly variation	59.4	45.3	29.2

Figures in ( ) correspond to primary commodity price index (excluding oil) items' weights.

Source: IMF, Commodities Unit of Research Department.

Prices of other non-oil primary goods have continuously escalated. The low level of inventories and robust demand contributed to raise metal prices in the last months. Given that the upward movement in many non-oil primary goods' prices is mainly explained by Chinese demand's robust growth, should expectations of an economic slowdown in this country materialize, pressures over such goods' prices would be expected to decline.

**Graph 2**  
Oil Prices in 2004 \*/  
US dollars per barrel



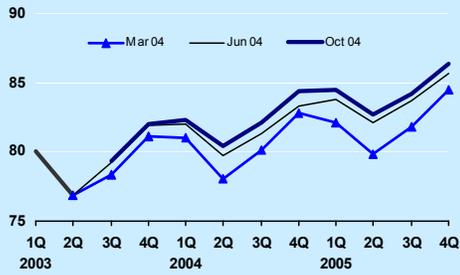
\* / Up to October 21, 2004.  
Source: Bloomberg.

The most significant issue characterizing primary goods' markets in the third quarter of 2004 was the trajectory of oil prices. Oil prices reached new historically high levels (in nominal terms), despite the sharp increase in OPEC's production. The WTI reached 50 USD per barrel at the end of the third quarter, 13 USD above the level observed at the end of the second quarter and 17 USD above that recorded at the end of 2003.

Such behavior was due to many factors. On the one hand, the demand for oil, especially from China, India and the U.S., has expanded significantly. Oil prices have also been affected recently by supply side factors. OPEC's June decision to raise its production quotas by 2.0 million barrels per day in July, 0.5 million more in August, up to 26.0 million barrels per day, reduced the upward trend followed by oil prices. Although OPEC's production was above those levels, such decision enabled market participants to perceive OPEC's willingness to

maintain higher production levels in order to meet demand growth and allow oil and gasoline inventories to recover gradually.

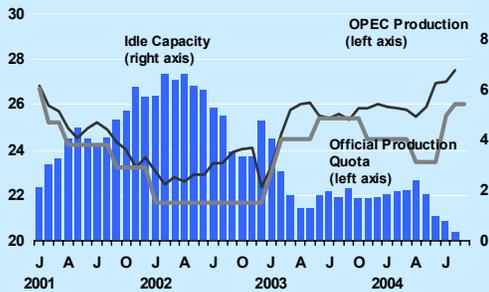
**Graph 3**  
Estimates of World Demand for Oil  
Million barrels per day



Source: Short-term Outlook, December 2003 and March, June and October 2004. U.S. Department of Energy.

Oil prices surged once more in mid-June, due partly to fears regarding a likely oil shortage because of a reduction in OPEC's idle production capacity. According to the International Energy Agency, such capacity (excluding Iraq) was nearly 0.3 million barrels per day (equal to less than 1 percent of expected world demand for oil in 2004) in August, below that recorded at the beginning of 2002 (more than 6 million barrels per day). The effects of the reduction in OPEC non-members' (U.S. and Great Britain) oil production levels, and new geopolitical turmoil in some oil producing countries, such as Iraq, Nigeria, Venezuela and Russia added to the abovementioned results.

**Graph 4**  
OPEC: Idle Capacity \*/  
Million Barrels per Day

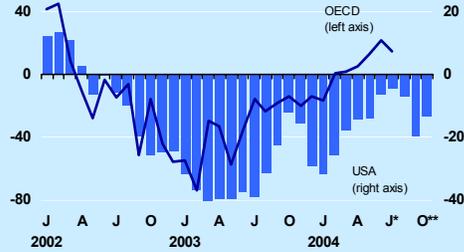


\*/ Excluding Iraq. Source: International Energy Agency.

The gradual recovery of crude oil inventories in OECD countries and the significant growth in gasoline inventories in the U.S. market diminished concerns regarding oil shortages, therefore making oil prices decrease temporarily at the end of August and beginning of September. Such trend was favored by a contraction in non-commercial agents' net long positions.<sup>1</sup> Nonetheless, oil prices began to recover in mid-September as a result of a new fall in U.S. crude oil inventories and production as a result of, among other factors, the temporary closing of operations due to several hurricanes that struck the Gulf of Mexico. In order to bring certainty to markets, the OPEC announced in mid-September that it would raise its oil production quota from 1 million barrels per day in that month to 27.0 million in November.

<sup>1</sup> Net long position contracts moved from 83 thousand in August 17, 2004 to nearly 61 thousand in October 19 of the same year. Nonetheless, the maximum historically high level was reached in March 23, 2004 (nearly 136 thousand contracts).

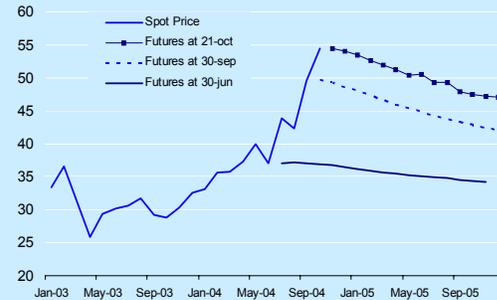
**Graph 5**  
Crude Oil Inventories  
Deviation in Regards with its Average of Previous Five Years  
Million Barrels



\*/ OECD data- estimates. \*\*/ U.S. data is up to October 15, 2004. Source: U.S. Department of Energy and OECD.

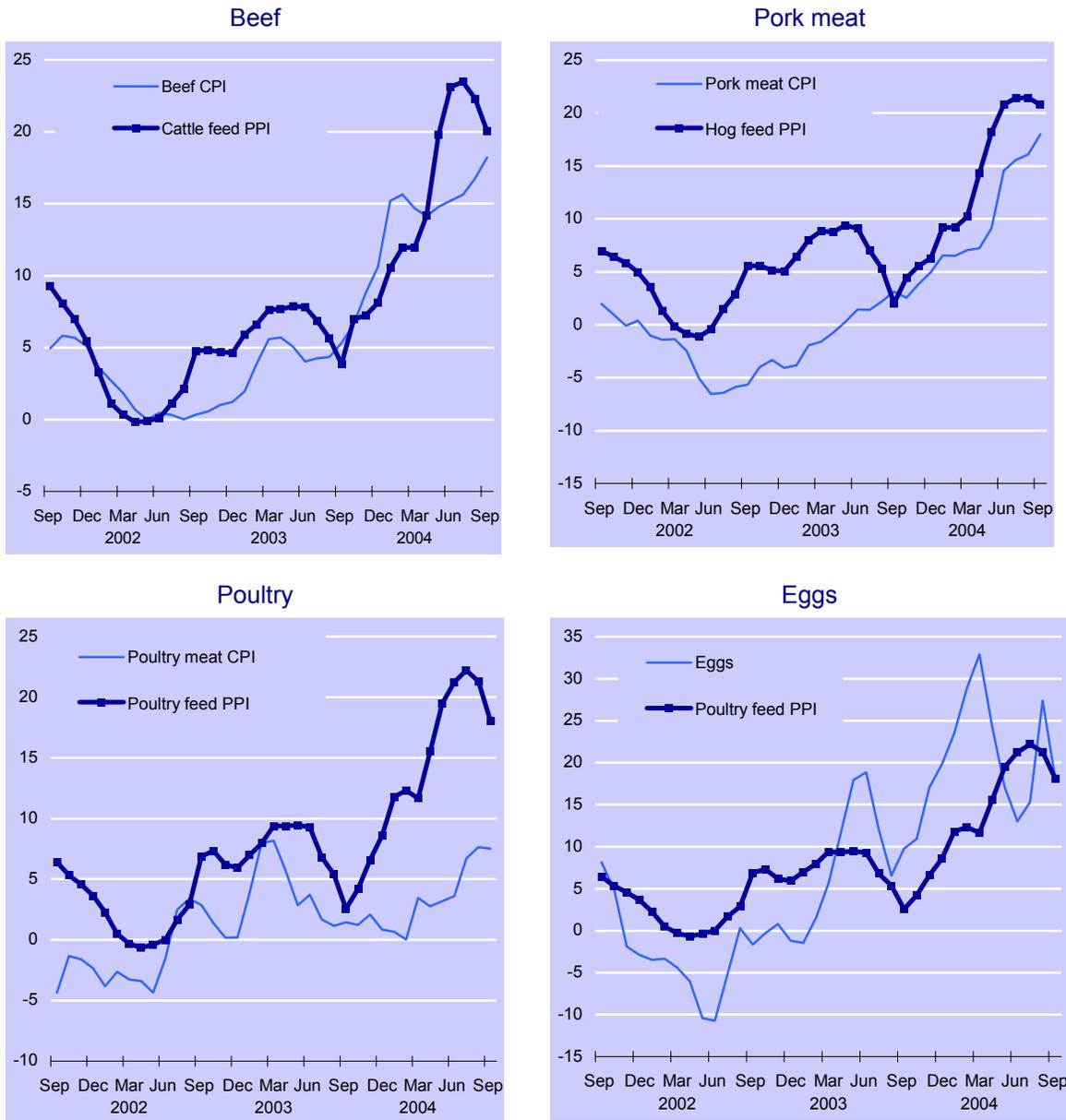
Futures' markets continue to suggest that oil prices will remain high throughout 2004 (above 50 USD per barrel for the WTI) given that no significant increase in idle capacity is foreseen, risks regarding supply interruptions due to world's difficult geopolitical conditions exist, and uncertainty regarding demand prevails. Although OPEC expects its production capacity will increase by nearly 1 million barrels per day for the remainder of 2004 (due mainly to the expansion of oil projects in Saudi Arabia, Kuwait and United Arab Emirates), idle capacity could continue to be low due to the seasonal higher demand that usually is observed in the last quarter of the year.

**Graph 6**  
WTI Oil Prices  
USD per Barrel



Source: Bloomberg.

**Graph 3 Livestock Price Indexes (Selected Items)**  
Annual percentage change



**II.1.1.2. Subindex of Prices Administered and Regulated by the Public Sector**

The upward trend followed by the annual growth rate of the subindex of prices administered and regulated by the public sector during the year is an additional factor that has affected the path of CPI inflation significantly in 2004:

- (a) Regarding regulated prices, the increase in public transportation fares in D.F. and in Estado de México

during the first quarter of the year (Graph 4 and Graph 5) accounted for most of regulated prices' contribution to CPI inflation.

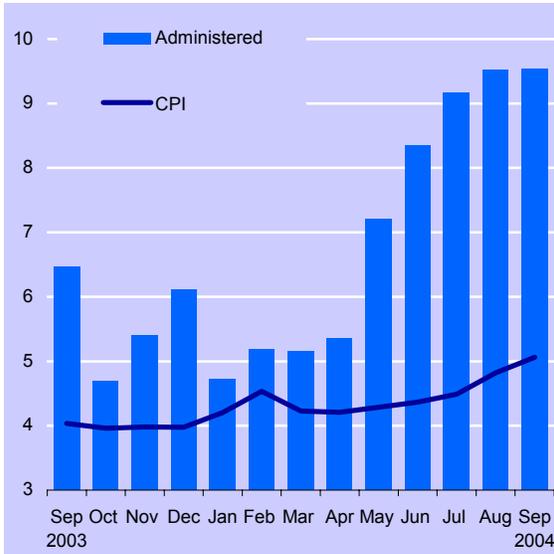
- (b) Regarding administered prices, the increase in electricity and gas prices stands out, given that their annual growth rates rose from December 2003 to September 2004 by 5.64 and 6.53 percentage points, respectively, (Graph 6). As for electricity prices, the high consumption (unsubsidized) rates, which are updated according to references associated indirectly with energy and steel international prices.<sup>1</sup> The rest of the residential rates have also risen considerably, 0.469 percent (monthly) during the year. During the same year, gas prices rose at an average monthly rate of 1.37 percent.
- (c) The high level of energy prices in the international markets not only has affected the prices of goods and services administered by the public sector, but also the prices of certain goods and services that use energy goods as inputs. In particular, the increase in jet fuel prices has affected air transportation costs (at the end of 2003 these exhibited an annual variation rate of 5.61 percent; at September 2004 such variation had risen to 10.66 percent).

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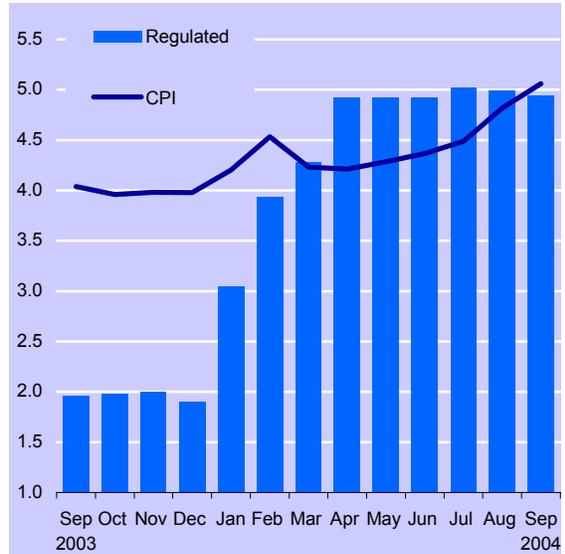
<sup>1</sup> Electricity rates for the high consumption bracket are updated every month according to factor:  $F = 0.8 \cdot \text{TIP} + 0.2 \cdot \text{TCC}$ . The first item from the equation (TIP) is made up of 3 arithmetically- averaged subindexes from the Producer Price Index (PPI): Machinery and Equipment, Basic Metal Industries, and other Manufacturing Industries. The second item (TCC) represents the cost of fuels for electricity-generation such as imported and domestic fuel oil, natural gas, industrial diesel, and imported and domestic coal.

**Graph 4 Subindex of Prices Administered and Regulated by the Public Sector**  
Annual percentage change

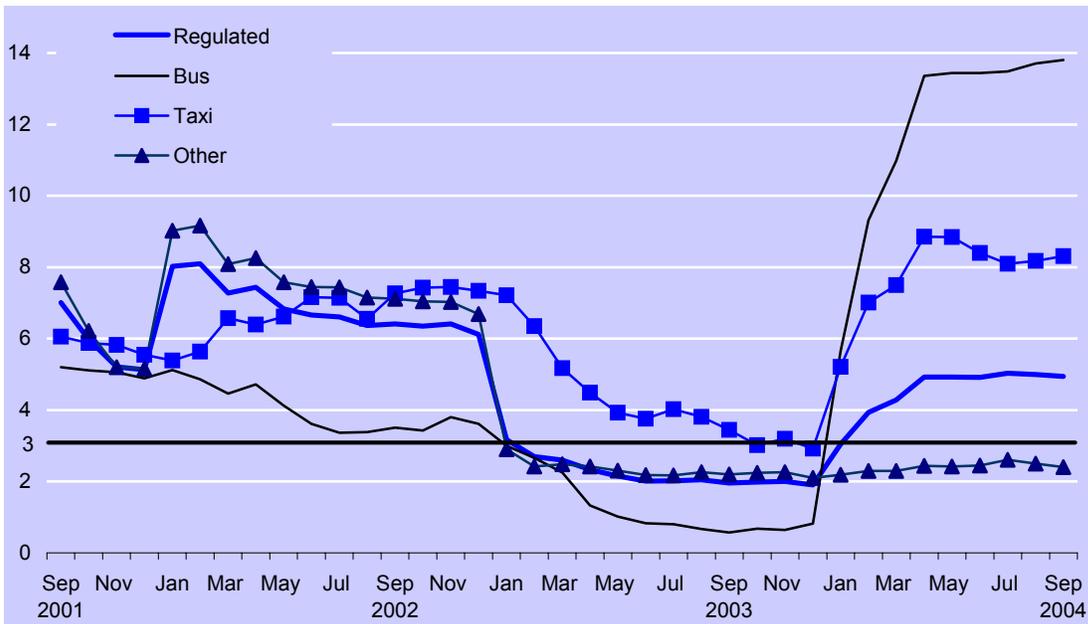
a) Administered



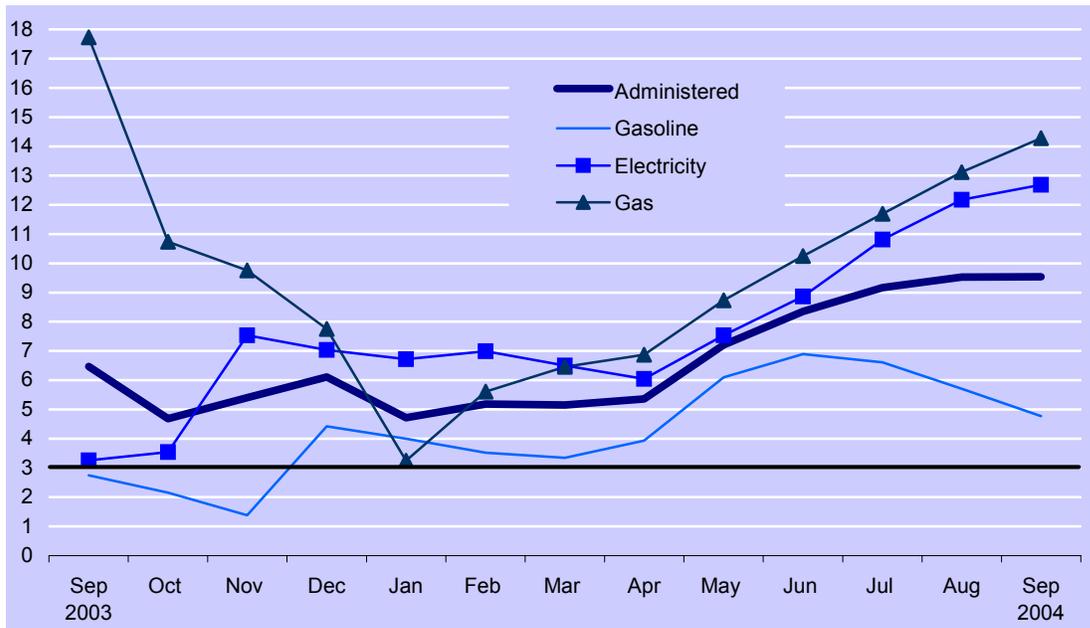
b) Regulated



**Graph 5 Index of Regulated Prices (Components)**  
Annual percentage change



**Graph 6** **Index of Administered Prices (Components)**  
Annual percentage change



#### II.1.1.3. Further Considerations

Summing up, during 2004, non-core inflation has been subject to many supply shocks, which have been recurrent and significant in magnitude (Table 2). Given their nature, inflation pressures should be temporary; i.e. as commodity international prices stabilize, as it has already been observed in the case of some grains, inflation pressures on the CPI should start to ease.

#### II.1.2. Core Inflation

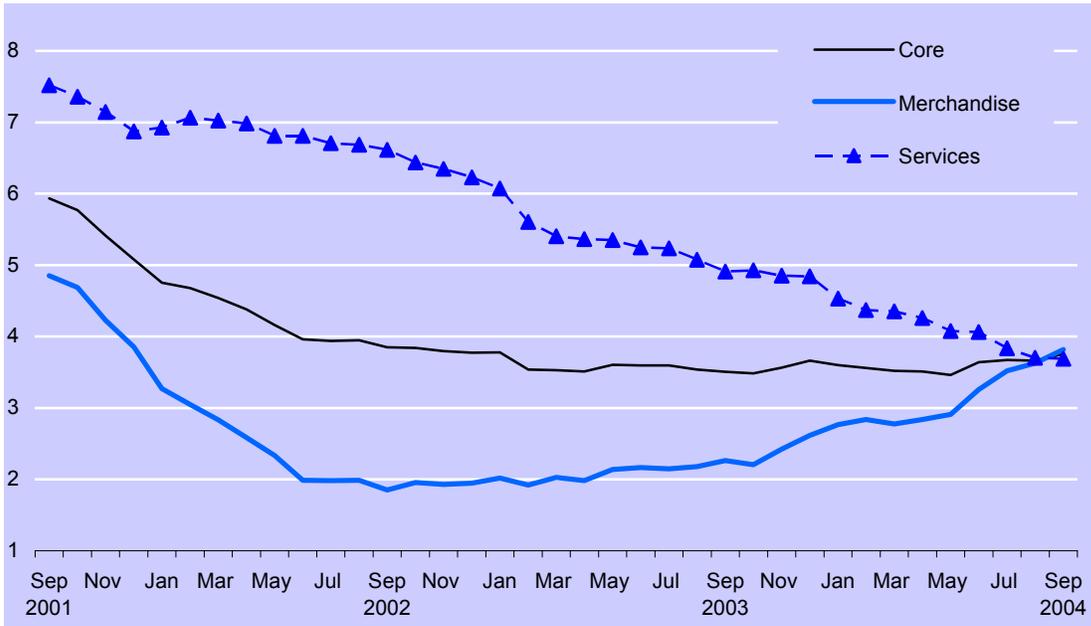
Annual core inflation rose by 0.10 percentage points from December 2003 to September 2004. Such upward movement mainly took place in the third quarter of 2004. Such result was due to two opposite factors: i) the increase in the annual variation of the core merchandise subindex, mostly due to the increase in the international references of different commodities which are used as inputs in many processed foods; and, ii) the decline in the annual variation of the core services' subindex, which partially offset the increase in the merchandise subindex (Graph 7). Other countries have experienced the same phenomenon (Box 2). The food core subindex contributed with 0.34 percentage points to the growth in CPI inflation between the end of 2003 and the third quarter of 2004. In contrast, during the same period, core services subindex's contribution to CPI inflation declined by 0.35 points. Services other

than housing exhibited the lowest annual variation. As for housing services, these reduced their contribution but at a lower rate due to the higher construction costs during the first half of the year, which were particularly associated with the increase in metal product prices (Graph 8).

**Table 2** **Supply Shocks that Affected the Non-core Price Index during 2004**

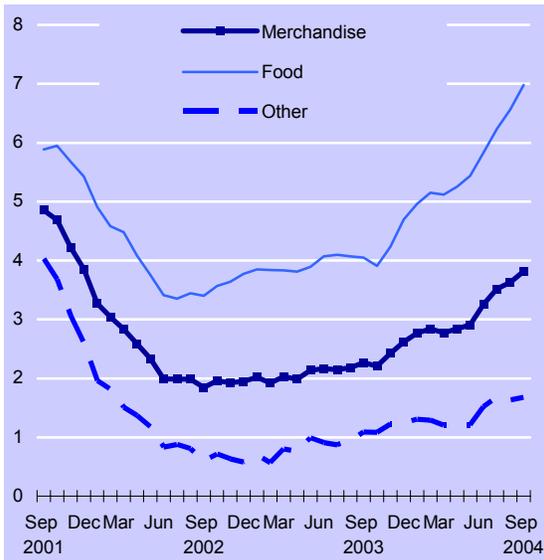
January	<ul style="list-style-type: none"> <li>• Trade restrictions to beef imports due to the outbreak of the mad cows' disease in the U.S.</li> <li>• Increase in property taxes in several cities.</li> <li>• Increase in water supply taxes in several cities.</li> <li>• Increase in bus and taxi fares in D.F.</li> <li>• Monthly increase in propane gas prices above the inflation target.</li> <li>• Significant increase in high-octane gasoline prices. The cycle of price increases in border cities, which prevails during the first half of the year, begins.</li> </ul>
February	<ul style="list-style-type: none"> <li>• Trade restrictions on imports of both fertile and consumable eggs, due to the outbreak of avian influenza in the U.S.</li> <li>• Increase in steel international prices.</li> </ul>
March	<ul style="list-style-type: none"> <li>• Increase in bus and taxi fares in Estado de México.</li> </ul>
April	<ul style="list-style-type: none"> <li>• Increase in high consumption (unsubsidized) electricity rates, whose updating depends partially on certain PPI subindexes associated with steel, with a 2-month lag.</li> </ul>
May	<ul style="list-style-type: none"> <li>• Increase in pork meat prices associated with a substitution effect with beef prices, and to price increases in feed for cattle and hogs.</li> <li>• Further price increases in propane gas monthly variation that prevailed until September.</li> </ul>
June	<ul style="list-style-type: none"> <li>• Additional and significant increase in high-octane gasoline prices.</li> </ul>
July	<ul style="list-style-type: none"> <li>• The fruits and vegetables' subindex begins to exhibit positive monthly variations, after having recorded negative rates during the entire first half of the year.</li> </ul>
August	<ul style="list-style-type: none"> <li>• Sharp increase in egg prices due to higher production costs.</li> <li>• Increase in tomato prices due to bad crops associated with weather conditions.</li> </ul>
September	<ul style="list-style-type: none"> <li>• Price increases in tomato intensify due to the persistence of adverse weather conditions; onion and orange crops were also affected.</li> </ul>

**Graph 7** **Core Price Index**  
Annual percentage change

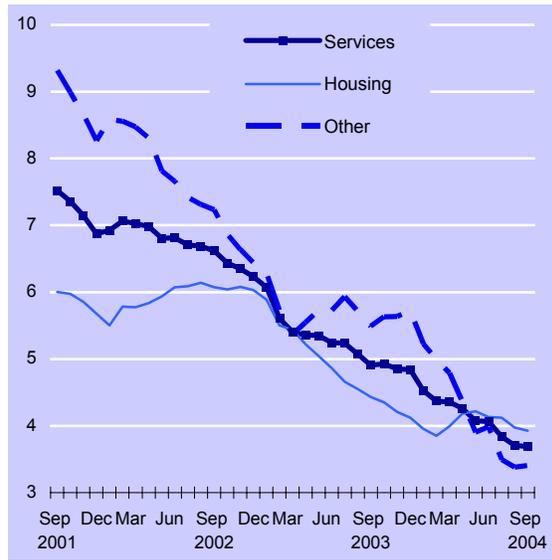


**Graph 8** **Core Price Index (Merchandise and Services)**  
Annual percentage change

a) Merchandise



b) Services

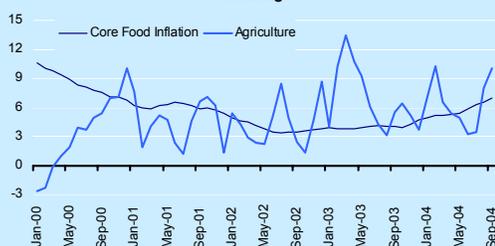


**Box 2**

**Food Price Inflation in Mexico and the U.S. and Nominal Exchange Rate**

From 2003 up to date, variation of food prices in Mexico, measured both through the growth rate of the core food price subindex and of the non-core agriculture price subindex, exhibited a positive trend (see Graph 1). Given that foods are traded between Mexico and the U.S., international arbitration should allow the “law of one price” for such products to apply; i.e. prices in Mexico (in pesos) should equal those of the same products in the U.S. (in USD) and the nominal exchange rate. Thus, in the long term, food price inflation in Mexico should respond one to one to both variations in food price inflation in the U.S. and to fluctuations in the peso’s depreciation rate.

**Graph 1**  
Annual Variation of Food Prices in Mexico  
Percentage



Source: Banco de México.

Nonetheless, the law of one price may not apply strictly for different reasons. Among others, transportation costs, the fact that consumer goods in each country are usually made up of certain non-tradable goods and services, and that some goods could have market power. The incidence of some of these factors could change in time and, therefore, make food price inflation in Mexico respond to changes in world inflation of such goods or to the peso’s depreciation rate differently than previously mentioned. Nonetheless, even if that should be the case, in the long term, food price inflation in Mexico is expected to be mainly determined by both the international prices of such products and the nominal exchange rate.

**Graph 2**  
Annual Variation of Food Prices in the U.S.  
Percentage



Source: Bureau of Labor Statistics.

Under such context, the recent developments of food inflation in Mexico could be mirroring the higher world inflation of this type of goods or an increase in the exchange rate’s depreciation rate. As shown in Graphs 2 and 3, in 2003 and 2004 food price inflation in the U.S. rose while the peso depreciated at a higher rate. In principle, both phenomena could have affected food prices in Mexico.

**Graph 3**  
Annual Depreciation of Peso/USD Exchange Rate  
Percentage



Given the abovementioned, in order to identify the relative contribution of each of these two shocks in the recent behavior of food price inflation in Mexico, a more formal analysis needs to be conducted. An econometric model describing the relationship in time among food prices in Mexico, food prices in the U.S., and the nominal exchange rate was estimated.<sup>1</sup> Such analysis included the core food subindex and an index that includes the food core price subindex and the non-core agriculture price subindex (with its respective weights in the CPI). Based on such model, between 2001 and 2004, four factors contributed to food price inflation in Mexico as follows: i) shocks that occurred prior to 2001; ii) nominal exchange rate fluctuations; iii) the development of food price inflation in the U.S.; and iv) others not explained by this model.

Table 1 summarizes the analysis’ results by presenting the contribution of each factor (in points of annual inflation and in percentage) to annual average food price inflation observed from 2001 up to date. Graphs 4 and 5 show factors’ contribution to annual food price inflation during such period.

**Graph 4**  
Contribution of Different Shocks to Annual Core Food Inflation in Mexico  
Annual Inflation (Points)



<sup>1</sup> Cointegration analysis based on estimated autoregressive vectors with error-correction mechanisms for such variables. The analysis reveals the long term and short-term dynamics between such variables, which allows for identifying the relative impact the shocks to both food price inflation in the U.S. and the nominal exchange rate have had on the recent developments in food price inflation in Mexico.

**Graph 5**  
**Contribution of Different Shocks to Annual Food Price Inflation in Mexico (including Agriculture Goods)**



Results show that food inflation in the U.S. has been the most significant factor affecting the recent behavior of food price inflation in Mexico. In particular, external inflation contributed by nearly 75% to core food inflation in Mexico in 2002-2004 and with more than half of the growth of the index that includes the prices of the core food index and the core agriculture index during the same period. In fact, the recent behavior of world food price inflation seems to explain to a great extent the rise in food price inflation in Mexico throughout 2004. The higher exchange rate depreciation apparently explains part of the increase in food price inflation in Mexico during 2003. Nonetheless, the results indicate that exchange rate behavior contributed between one and one and a half points maximum of annual food price inflation in Mexico, while its contribution has apparently increased in 2004. In fact, as shown in Graphs 2 and 3, while food price inflation in the U.S. continued to escalate in 2004 with respect to the previous year, in 2004, the nominal exchange rate depreciated at a lower rate than that observed in 2003 (the peso/USD exchange rate depreciated 11.7% on an annual average in 2003 and 5.8 % on an annual average from January to September 2004).

Summing up, the increase in food price inflation in Mexico during 2004 seems to be mostly attributed to the observed increase in world food price inflation.

**Table 1**  
**Contribution of Nominal Exchange Rate Depreciation and U.S. Inflation to Food Price Inflation in Mexico**

Annual Core Food Price Inflation in Mexico					
Absolute contribution (points of inflation)					
	Shocks prior to 2001	Exchange rate	U.S. prices	Residuals	Annual inflation
2001	4.69	-0.02	1.06	0.23	5.97
2002	1.11	-0.14	3.26	-0.29	3.95
2003	0.15	1.21	2.65	0.00	4.01
2004 (Jan-Sep)	0.02	1.12	4.52	0.07	5.73

Relative contribution (percentage)					
	Shocks prior to 2001	Exchange rate	U.S. prices	Residuals	Annual inflation
2001	78.57	-0.31	17.83	3.90	100.00
2002	28.12	-3.52	82.67	-7.28	100.00
2003	3.74	30.22	65.97	0.07	100.00
2004 (Jan-Sep)	0.42	19.58	78.85	1.15	100.00

Annual Food Price Inflation in Mexico (including agriculture prices)					
Absolute contribution (points of inflation)					
	Shocks prior to 2001	Exchange rate	U.S. prices	Residuals	Annual inflation
2001	4.81	-0.06	0.75	-0.05	5.45
2002	1.87	-0.02	2.60	-0.13	4.31
2003	0.72	1.56	2.37	0.29	4.92
2004 (Jan-Sep)	0.31	1.47	3.91	0.27	5.96

Relative contribution (percentage)					
	Shocks prior to 2001	Exchange rate	U.S. prices	Residuals	Annual inflation
2001	88.28	-1.05	13.72	-0.95	100.00
2002	43.28	-0.50	60.27	-3.06	100.00
2003	14.52	31.59	48.07	5.82	100.00
2004 (Jan-Sep)	5.17	24.66	65.59	4.58	100.00

### II.1.3. Aggregate Demand Considerations

Domestic expenditure has been fueled by two concurring factors: a greater availability of resources due to the favorable financial environment, and the considerable amount of oil revenues and workers' remittances. Expenditure growth could likely generate inflation pressures. This phenomenon could arise at different stages throughout the economy's cyclical recovery, depending on the pace at which the slack in different sector's production capacity narrows. An environment where aggregate demand grows vigorously enables supply shocks to affect the formation of inflation expectations.

## **II.2. Inflation Indicators**

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### **II.2.1. Annual Inflation**

During the third quarter of 2004, CPI inflation rose by 0.69 percentage points due mainly to a 1.94 percentage point increase in the annual growth rate of the non-core subindex. Thus, such subindex accounted for 91.3 percent of CPI inflation's variation. Such results were significantly influenced by the increase in agriculture prices. Core index's contribution to the raise in CPI inflation was 0.12 percentage points during the quarter. Such upward movement was mainly driven by the higher annual growth rate of the processed foods' item of the core index (Table 3).

The agriculture subindex explains 81.2 percent of annual CPI inflation's variation during the quarter. The annual rate of variation of such subindex rose 6.75 percentage points during the referred period (Table 3). Fruits and vegetables' corresponding rate increased 11.64 points. In contrast, during the first half of the year, prices of fruits and vegetables exhibited a negative variation, which translated into very low prices that afterward reverted once weather problems affected crop production (Graph 9). In particular, tomato, orange and onion prices rose significantly.

Increases in commodity prices continued to affect livestock prices. The annual growth rate of such prices rose from 10.55 percent in June 2004 to 14.4 percent in September 2004.

Prices administered by the public sector continued to be affected by the increase in energy prices in international markets. The annual rate of variation of gas and electricity prices rose by 14.28 and 12.68 percent, respectively, at the end of the third quarter of 2004.

**Table 3** **Price Indexes**  
Annual variation and contribution (percent)

	Jun-2004/ Jun-2003 Variation	Jun-2004/ Jun-2003 Contribution <sup>3/</sup>	Sep-2004/ Sep-2003 Variation	Sep-2004/ Sep-2003 Contribution <sup>3/</sup>	Contribution Difference <sup>3/</sup>
<b>CPI</b>	<b>4.37</b>	<b>4.37</b>	<b>5.06</b>	<b>5.06</b>	<b>0.69</b>
<b>Core</b>	<b>3.64</b>	<b>2.52</b>	<b>3.76</b>	<b>2.59</b>	<b>0.07</b>
<b>Merchandise</b>	<b>3.26</b>	<b>1.18</b>	<b>3.82</b>	<b>1.38</b>	<b>0.19</b>
Food	5.83	0.85	6.98	1.02	0.16
Other	1.52	0.33	1.68	0.36	0.03
<b>Services</b>	<b>4.07</b>	<b>1.33</b>	<b>3.69</b>	<b>1.21</b>	<b>-0.13</b>
Housing	4.13	0.74	3.93	0.70	-0.04
Other	3.98	0.59	3.40	0.51	-0.09
<b>Non-core</b>	<b>5.99</b>	<b>1.85</b>	<b>7.93</b>	<b>2.47</b>	<b>0.63</b>
<b>Agriculture</b>	<b>3.24</b>	<b>0.26</b>	<b>9.99</b>	<b>0.82</b>	<b>0.56</b>
Fruits and vegetables	-7.60	-0.25	4.04	0.14	0.39
Tomato	-17.32	-0.08	12.44	0.07	0.16
Onion	-14.73	-0.02	15.85	0.02	0.04
Orange	-29.38	-0.05	-8.56	-0.01	0.04
Other <sup>1/</sup>	-3.94	-0.10	2.19	0.05	0.15
<b>Other Agriculture</b>	<b>10.55</b>	<b>0.51</b>	<b>14.14</b>	<b>0.68</b>	<b>0.17</b>
Beef	15.22	0.34	18.23	0.40	0.07
Poultry	3.59	0.04	7.52	0.09	0.04
Egg	13.01	0.08	18.10	0.11	0.03
Other <sup>2/</sup>	6.55	0.06	9.69	0.08	0.03
<b>Administered and Regulated Prices</b>	<b>6.51</b>	<b>1.12</b>	<b>7.09</b>	<b>1.22</b>	<b>0.10</b>
<b>Administered</b>	<b>8.35</b>	<b>0.67</b>	<b>9.54</b>	<b>0.76</b>	<b>0.10</b>
Low-octane gasoline	6.68	0.21	4.24	0.13	-0.07
High-octane gasoline	8.26	0.04	8.34	0.04	0.00
Electricity	8.86	0.21	12.68	0.29	0.09
LP Gas	10.25	0.22	14.28	0.30	0.08
<b>Regulated</b>	<b>4.92</b>	<b>0.45</b>	<b>4.94</b>	<b>0.45</b>	<b>0.00</b>
<b>Education</b>	<b>8.45</b>	<b>0.47</b>	<b>7.51</b>	<b>0.44</b>	<b>-0.03</b>

1/ Includes other fruits and vegetables.

2/ Includes fish, pork meat, and other meats.

3/ Partial figures may not add up due to rounding.

The third subindex of the non-core subindex (education) exhibited an annual growth rate of 7.51 percent in September, 0.94 percentage points below that observed in June. Nonetheless, even after considering such reduction, the growth rate of such subindex is still high (2.45 percentage points above that of annual CPI inflation).

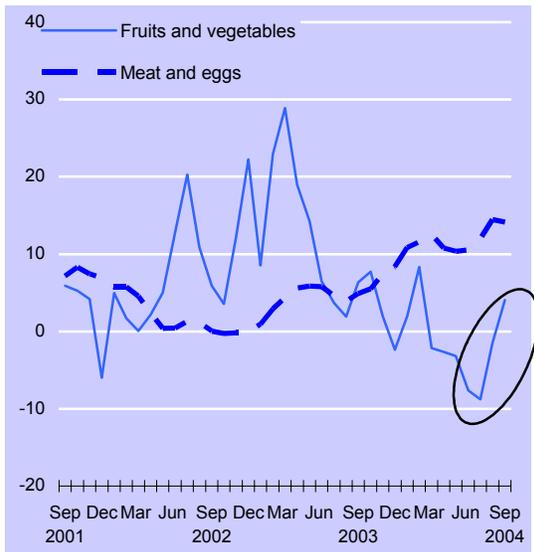
During the third quarter of 2004, annual core inflation rose 0.12 percentage points, therefore contributing significantly less than the non-core component to the increase in annual CPI inflation during such period. The item with the highest impact on core inflation was merchandise, an effect which has been partially offset by the decline in the growth rate of the services' subindex. During the reference period, the annual variation of the housing subindex fell due to the reduction in some prices of construction materials. The annual growth rate of the other services' prices

declined even further, from 3.98 percent in June to 3.40 percent in September (Table 3).

**Graph 9 Agriculture Price Index**

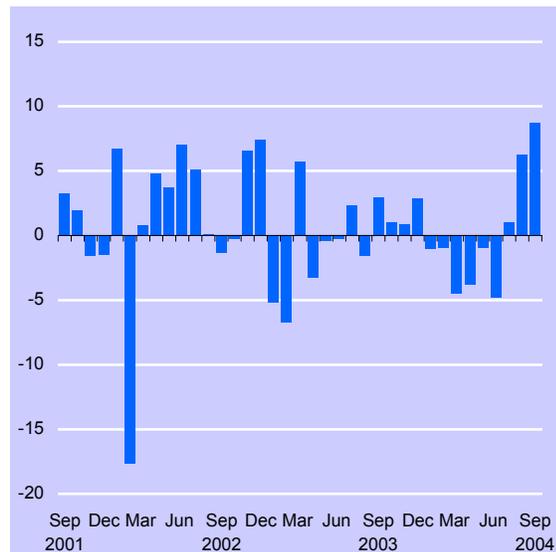
a) Agriculture Goods

Annual percentage change



b) Fruits and vegetables

Monthly percentage change



### II.2.2. Monthly Inflation

CPI inflation exhibited monthly variations of 0.26, 0.62 and 0.83 percent in July, August, and September 2004, respectively. During August and September, the non-core index usually exhibits high monthly variations due to school fee increments at the beginning of the school year. Nonetheless, such variations were above private sector economic analysts' forecasts published at the end of the second quarter. During the last two months, the difference between observed and forecasted inflation has widened considerably. Such increase was mainly due to the significant upward movement in the non-core index during those months, particularly in agriculture goods, and in administered prices.

**Table 4 Monthly Inflation (Observed and Forecasted)**  
Percent

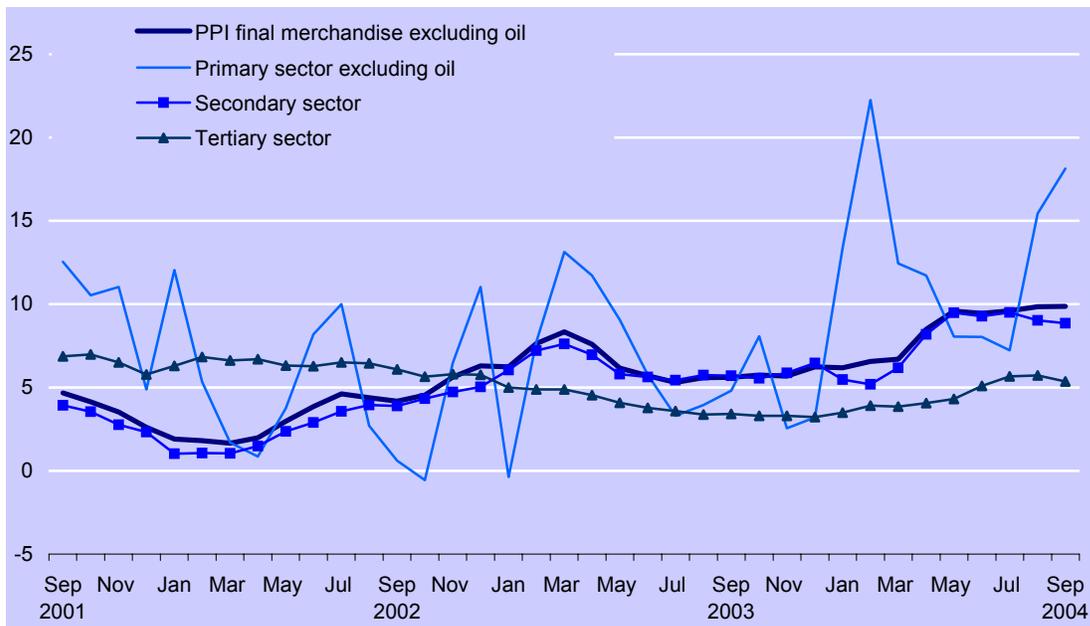
Month	2003				2004			
	Observed			Expected <sup>1/</sup>	Observed			Expected <sup>1/</sup>
	Non-core	Core	CPI	CPI	Non-core	Core	CPI	CPI
July	0.16	0.14	0.14	0.27	0.46	0.17	0.26	0.18
August	0.45	0.23	0.30	0.33	1.48	0.22	0.62	0.29
September	1.56	0.17	0.60	0.53	2.06	0.26	0.83	0.53

<sup>1/</sup> Inflation forecasted at the end of the previous quarter according to Banco de México's Survey of Private Sector Economic Analysts' Forecasts.

### II.2.3. Producer Price Index (PPI)

In September 2004, the annual variation of the merchandise and services' PPI excluding crude oil was 7.27 percent, 0.33 percentage points above that exhibited at the end of the previous quarter. After analyzing the upward movement in such index by type of final merchandise and services, the primary sector, particularly agriculture, forestry and fishing, recorded the highest price increases (Graph 10).

**Graph 10 Producer Price Index**  
Annual percentage change



## **II.3. Main Determinants of Inflation**

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### **II.3.1. International Environment**

The world economy exhibited a favorable behavior during the third quarter of 2004, despite the increase in crude oil prices. Available indicators suggest that the reduced dynamism of economic activity in some industrialized countries (especially in the U.S.) during April-June was temporary. In addition, the emerging economies, particularly those of Asia, seem to exhibit strong growth. Nonetheless, such economies are expected to grow at a slower rate than that observed in the second half of 2003 and at the beginning of 2004. Thus, it seems that the world economy's recovery is past its peak. Expectations regarding a slower rate of growth, together with moderate inflation pressures in the main world economies have led to a reduction in their long-term interest rates. Such developments have taken place despite the increase in primary commodity prices (Box 3) originated by the recent changes in worldwide patterns of production and demand for inputs. In this context, emerging economies have benefited from more favorable conditions in international financial markets. However, the risks surrounding world economic performance have intensified due to the unexpected prevalence of high crude oil prices.

#### **II.3.1.1. Oil Prices**

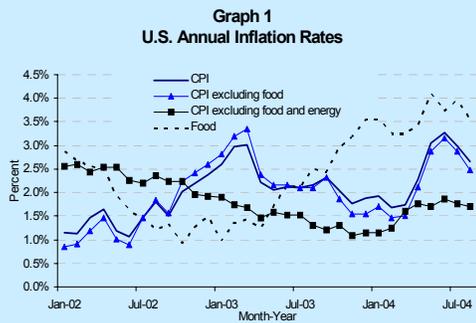
After moderating their upward trend in June, crude oil prices rose sharply once more during July-September. This was the result of the persistently high demand for crude oil, the reduction in OPEC's idle production capacity, and risks of supply interruptions due to turmoil in the Middle East and in other oil-producing regions. In such an environment, fluctuations in inventories, particularly in the U.S., have affected crude oil prices since mid-September (Box 1). The average price of the West Texas Intermediate (WTI) oil jumped from 38.43 US dollars per barrel in the second quarter to 43.81 in July-September. The price of the Mexican crude oil mix was 33.27 US dollars per barrel in the third quarter; i.e. 3.2 US dollars above the average price in April-June.

### Box 3 Developments in World Inflation

The recent changes in world's structure of relative supply and demand of inputs and processed goods have affected international relative prices significantly. As mentioned in this Inflation Report, prices of many inputs and foods have increased since 2003, while relative prices of manufactured goods have decreased.

Such readjustment of relative prices has translated into a significant growth in primary, energy and food prices. Moreover, it has also affected the consumer price indexes of many countries. As depicted in this box's graphs, the rise in CPI inflation in 2004 has apparently been a common development in different regions throughout the world; nonetheless, it still remains at moderate levels.

The relevance of price realignment must be fully appraised for the recent behavior of world inflation. The rise in CPI inflation has taken place parallel to the cyclical recovery of the world economy. Thus, it becomes necessary to determine to what extent the behavior of inflation has reflected price increases in certain goods and services (supply shocks) or is mirroring generalized pressures to overall price levels originated by the recovery of aggregate demand (demand shocks).

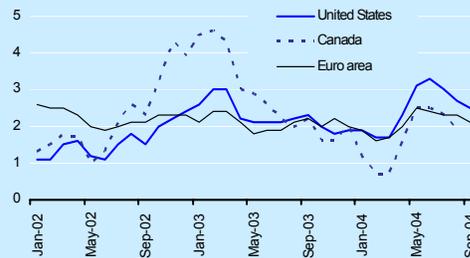


Source: Bureau of Labor Statistics.

For example, in the case of the U.S., evidence suggests that, up to now, the rise in CPI inflation has been mainly due to supply shocks. As observed in Graph 1 (which shows annual inflation of the different U.S. CPI indexes), the increase in CPI inflation in the first half of 2004 is clearly associated with the increase in energy and food prices. In a similar fashion, the development of energy and food international prices has affected other world regions like Canada and the Euro area (see Graph 2).

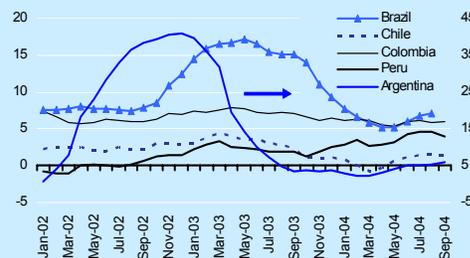
The abovementioned suggests that changes in relative prices have been a key factor in the recent development of world inflation. Under such context, the impact of such environment on inflation in each country depends on the latter's productive structure and, particularly, on where it stands within the value chain. For example, countries which are net exporters of commodities, such as some Latin American countries, tend to improve their terms of exchange, which, in turn, reduces any pressures on their currencies. Consequently, in such countries, inflation's impact originated by the changes in relative prices can be partially offset (see Graph 3). In contrast, the terms of exchange in countries which are importers of commodities and fuels for production and export of manufactured goods, tend to worsen. In such case, the inflation effect of relative prices' variations may be stronger (see Graphs 4 and 5).

**Graph 2**  
CPI Annual Inflation Rates in Some Advanced Economies



Sources: Bureau of Labor Statistics, Bank of Canada and Eurostat.

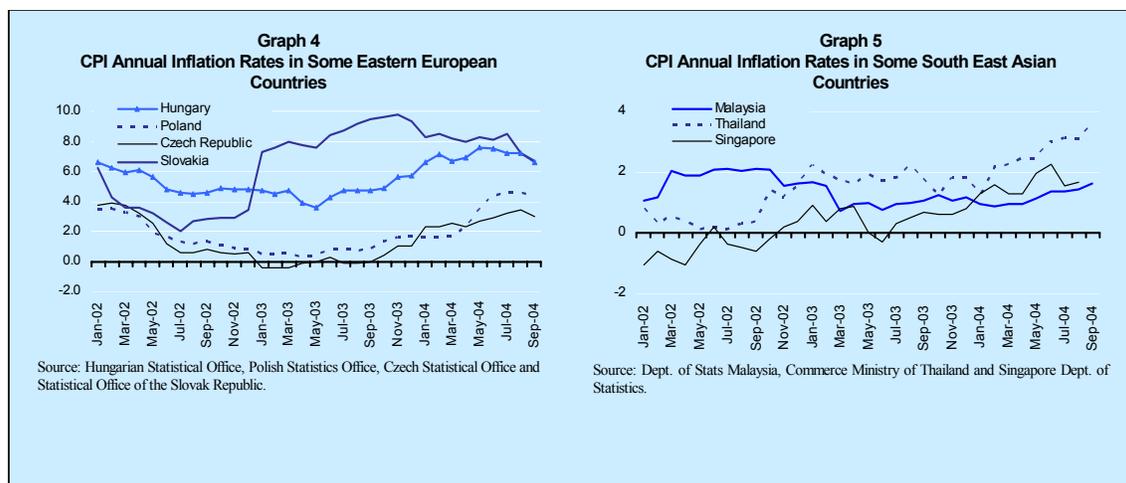
**Graph 3**  
Annual Inflation Rates in Some Latin American Countries



Source: Instituto Brasileiro de Geografia e Estatística, Banco Central de Chile, Banco de la República de Colombia, Banco Central de Reserva del Perú, and Instituto Nacional de Estadísticas y Censos de Argentina.

As previously mentioned, changes in relative prices have implied supply shocks and, therefore, caused inflation pressures in different world regions. Nonetheless, their effects on inflation have been different in each region:

- a) Inflation in the more advanced economies has been subject to significant shocks, mainly originated by fuel price increases. Although such economies have also been affected by food price increases, food accounts for a smaller share of total expenditure in such economies.
- b) In contrast, developing economies have been more affected by shocks to food prices because their populations spend more in food as part of their total expenditure. Nevertheless, the effect of these shocks on CPI inflation has depended on developing countries own production-specialization patterns. In countries specializing in exports of primary goods and fuels due to their natural resources or to their level of relative development, the impact of such shocks on inflation has been partially offset. However, developing economies that have achieved a higher level of industrialization have been more affected by the change in relative prices and, therefore, the effect of supply shocks to inflation has been more significant.



### II.3.1.2. Developments in the U.S. Economy

Growth in the U.S. slowed in the second quarter of 2004. GDP's annualized quarterly growth rate fell from 4.5 percent in January-March (5.0 percent at an annual rate) to 3.3 percent during the second quarter (4.8 percent at an annual rate). Such slowdown was due mainly to the negative effect of the higher crude oil prices on demand. The uncertainty about the pace of recovery of the labor market and the end of the stimulus from both the tax cuts of previous years and mortgage refinancing flows also added to such results. Consequently, private consumption's contribution to GDP growth declined significantly during the quarter. Furthermore, the fast recovery of profits boosted non-residential investment, which became the main engine for growth. The external sector had a marked negative contribution to GDP growth.

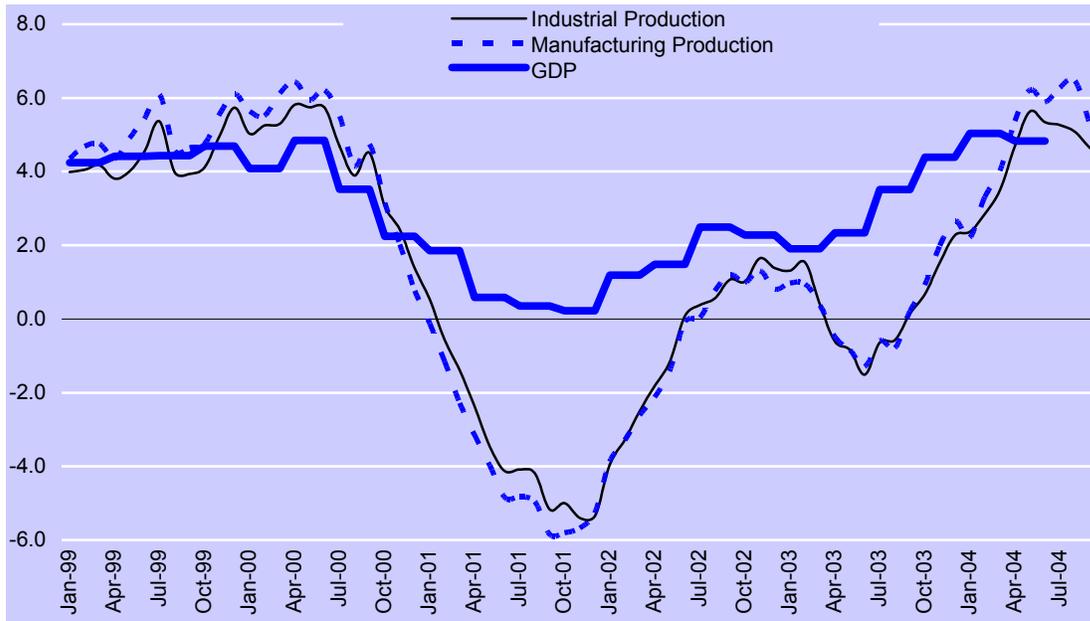
According to available information, the U.S. economy gained strength during the third quarter. In this sense, although certain risks prevail, the observed slowdown during April-June deemed to be temporary.

The increase in personal disposable income strengthened consumption expenditure in July-August as compared with the previous quarter. As for investment, figures for shipments of capital goods and production of investment goods suggest capital expenditure grew vigorously during the third quarter. The downward trend followed by the trade deficit moderated during the first two months of the quarter. In real terms, the trade deficit in goods rose by 6.0 billion US dollars between the second quarter and July-August; i.e. at a slower pace than that observed between the first and second quarters (34.9 billion US dollars). Should this pattern prevail, the external sector would affect GDP growth less negatively than in April-June.

Expansion of industrial production has eased gradually throughout the year. Consequently, industrial production growth declined in the third quarter as compared with the first and second quarters.<sup>2</sup> Manufacturing production's growth rate fell in July-September as compared with the second quarter, thus suggesting that, like GDP (although with some lag), industrial production has surpassed the highest phase of the current cycle (Graph 11).

In contrast with the development of indicators for domestic demand, job creation was significantly lower during the third quarter: 309,000 non-farm jobs were created as compared with 628,000 during the second quarter. Furthermore, manufacturing employment fell in September, after having expanded in six of the seven previous months. Although employment might have been affected in the third quarter by temporary factors, the recent behavior of the labor market is a risk for sustained growth in consumption expenditure.

**Graph 11** **U.S. GDP, and Industrial and Manufacturing Production**  
Annual percentage change



Source: BEA and Federal Reserve Board.

According to available information, private sector economic analysts expect GDP to have grown 3.8 percent at an annualized quarterly rate (3.9 percent at an annual rate) during the

<sup>2</sup> At an annualized quarterly rate, industrial production growth fell from 6.6 percent in the first quarter (2.9 percent at an annual rate), to 4.9 percent in the second (5.2 percent at an annual rate), and 2.9 percent in the third (5.0 percent at an annual rate).

third quarter of 2004 and 4.4 percent at an annual rate for the year 2004 as a whole. Forecasts for industrial production growth are more favorable: 3.9 percent at an annualized quarterly rate in the third quarter (5.2 at an annual rate) and 4.7 percent on average for 2004 (Table 5).

Private sector analysts and international organizations continue to forecast a rapid pace of growth of the U.S. economy for 2005, albeit below that observed in 2004. The most recent survey of analysts by Blue Chip points to U.S. GDP growth of 3.5 percent in 2005. Forecasts for GDP and industrial production growth were revised downward in recent months, due partly to the persistently high crude oil prices, which constitute an additional risk for growth.

Table 5

**U.S. GDP Growth and Industrial Production in 2004**

Annual and annualized quarterly percentage change

	PIB			
	At the end of the second quarter		Most recent information	
	III-2004 <sup>1/</sup>	2004 <sup>2/</sup>	III-2004 <sup>1/</sup>	2004 <sup>2/</sup>
Consensus Forecasts <sup>3/</sup>	4.1	4.7	3.6	4.4
Blue Chip Economic Indicators <sup>4/</sup>	4.1	4.7	3.8	4.4
	Industrial Production			
Blue Chip Economic Indicators <sup>4/</sup>	5.7	5.0	3.9	4.7

1/ Annualized quarterly change (seasonally adjusted series).

2/ Annual percentage change.

3/ *Consensus Forecasts* (June 14, September 13, and October 11, 2004).

4/ Blue Chip Economic Indicators (June 10 and October 10, 2004).

Inflation, which had rebounded in the second quarter mostly because of energy price increases, began to decline in July. This mostly reflects the falling prices in the energy component of the CPI (mainly gasoline) during July and August. The annual growth rate of consumer prices fell from 3.2 percent in June to 2.5 percent in September. Core inflation remained at relatively moderate levels; however, it increased slightly in September, reaching an annual variation of 2.0 percent in such month (Graph 12). Unit labor costs have also increased slightly.

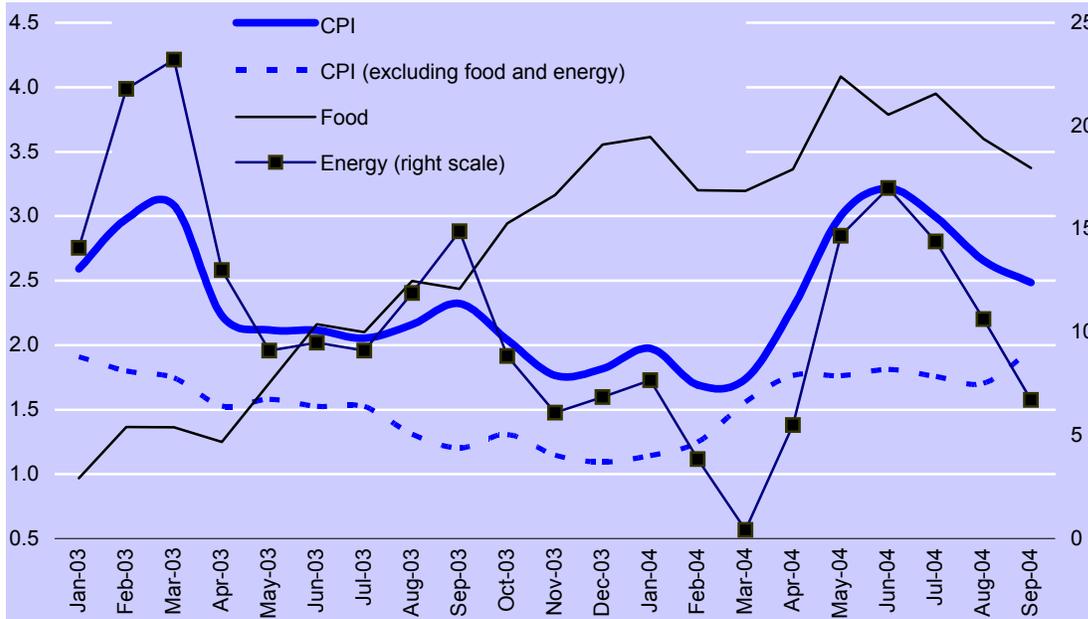
In light of the perception that the economic weakness observed by mid-year had only been temporary, and in a context of less inflation pressures, the Federal Reserve adjusted interest rates at a measured pace, as announced in May. After increasing the federal funds interest rate target at the end of June, the Federal Open Market Committee (FOMC) raised the target rate in August and again in September. Such rate has been adjusted 75 basis points during the year. In contrast, long-term interest rates have

followed a downward trend during the quarter due to reduced inflation pressures and, particularly, to the perception that the economy would be less resilient than previously expected.<sup>3</sup>

Graph 12

## U.S. CPI

Annual percentage change



Source: BLS.

During the reference period, stock markets declined<sup>4</sup> while the US dollar exhibited mixed results by depreciating 2.0 percent vs. the euro and 5.7 percent vs. the Canadian dollar, and appreciating 0.4 percent vs. the pound sterling and 1.2 percent vs. the yen. During the same period, the nominal broad effective exchange rate depreciated 1.7 percent.<sup>5</sup>

## II.3.1.3. Developments in the Rest of the World

During the second quarter of 2004, euro area GDP rose 2.0 percent at an annualized quarterly rate (2.2 percent at an annual rate). Such marginal slowdown with respect to January-March was

<sup>3</sup> From January to September the yield on 10-year T-bills decreased by nearly 49 basis points: from 4.60 percent (June 30) to 4.11 percent (September 30). From the end of September to October 22, 2004 such yield declined by 11 basis points.

<sup>4</sup> During the third quarter, the Dow Jones Index fell by 3.4 percent while the NASDAQ did so by more than 7.4 percent. In October, such trend reverted as the NASDAQ moved up 2.6 percent while the Dow Jones fell by an additional 2.2 percent with respect to the end of the previous month (data available up to October 22).

<sup>5</sup> The broad effective exchange rate is a weighted average of the US dollar against the currencies of the 26 main trading partners of the U.S. From the end of September to October 15, 2004, the nominal broad effective exchange rate depreciated 0.4 percent.

due to a slowdown in domestic demand. Thus, growth was driven almost entirely by the external sector. The performance of the euro area economies has differed: while Spain and France have exhibited a strengthening of domestic demand in recent quarters, Germany, Italy and the Netherlands have recorded a slump in consumption and investment. According to the European Commission's forecasts, the euro area will grow in the second semester of 2004 at a pace similar to that of the first half of the year.

The Japanese economy slowed significantly: from a growth rate of 6.4 percent during the first quarter to 1.3 percent (annualized quarterly rate) during April-June. Although some analysts consider that the upward phase of Japan's business cycle has ended, the recovery of consumer confidence and higher household income have supported private consumption in the last months. At the same time, higher corporate gains have favored investment. Available information suggests the economy rebounded slightly during the third quarter (Table 6).

Table 6

**GDP Growth Forecasts for Other Main Advanced Economies in 2004**

Annual and quarterly percentage change (annualized)

	At the end of the second quarter		Most recent information	
	III-2004 <sup>1/</sup>	2004 <sup>2/</sup>	III-2004 <sup>1/</sup>	2004 <sup>2/</sup>
Canada	4.9	2.9	3.2	3.0
Euro area	1.6	1.7	1.6	1.9
Japan	2.4	4.1	3.2	4.3
United Kingdom	2.8	3.1	2.4	3.3

1/ Annualized quarterly change (seasonally adjusted series).

2/ Annual percentage change.

Source: *Consensus Forecasts* (For annual forecasts: June 14 and October 11, 2004. Annualized quarterly rates are derived from quarterly percentage change forecasts published in June 14 and September 13, 2004).

Although Chinese economic activity has remained strong, its rate of growth has slowed in the last months. Annual GDP growth declined from 9.8 percent in the first quarter, to 9.6 percent in the second, and to 9.1 percent in the third. Thus, China's growth rate has declined for three quarters in a row. Chinese authorities have stated that policy measures to cool the economy implemented in the last months will continue as a result of inflation pressures, restrictions in the supply of energy, and the likelihood of a new rebound in investment, among other factors. Although there is a lack of consensus among economic analysts, most of them continue to expect a gradual reduction in the Chinese economy's growth rate. According to economists surveyed by Consensus Forecasts, GDP is expected to grow at a rate of 9.1 and 8.0 percent in 2004 and 2005, respectively (9.1 percent in 2003). Inflation has

remained relatively high: in September, the CPI rose at an annual rate of 5.2 percent.

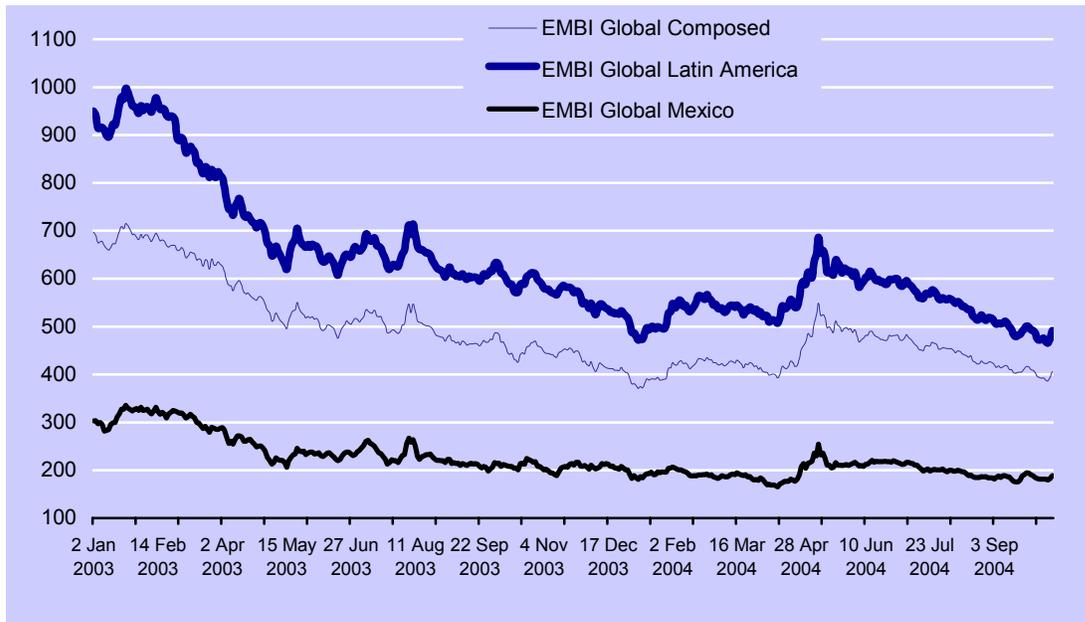
Forecasts for Latin American growth in 2004 have been revised upward to 5.3 percent. Although economic activity in the region has expanded, there are significant differences among countries. In Argentina, growth declined during April-June (7.0 percent at an annual rate). Thus, the Argentine economy has probably started a phase of moderate growth. In Brazil, economic expansion has been above analysts' forecasts. In the second quarter, GDP grew at an annual rate of 5.7 percent due to the recovery of domestic demand, and particularly, of investment. In Chile, GDP grew at an annual rate of 5.1 percent in the second quarter, mainly driven by the boost in its external sector and in private investment.

After having deteriorated in April and May, emerging markets' conditions for access to international capital markets improved in the third quarter (Graph 13). After having undergone an initial negative impact during those months, sovereign spreads (JP Morgan Emerging Markets Bond Index Global, EMBIG) followed, in general terms, a downward trend during the third quarter.<sup>6</sup> This was due, among other factors, to markets' perception that U.S. interest rates would increase gradually, the improved economic conditions in many emerging economies, and investors' search for higher yields. It was in this context that, according to available information, the pace of gross issue of bonds by emerging markets reached its highest level in years. In fact, many emerging economies have already begun to cover their external financing requirements for 2005. Nonetheless, such scenario could vary rapidly given that the risk of deterioration in external financing conditions prevails, particularly since the perception regarding the pace at which the U.S. monetary stimulus will be withdrawn may suddenly change.

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<sup>6</sup> EMBIG spreads reached 409 basis points in September 30, 2004, i.e. 140 points below their annual maximum level, reached in May. From the end of September to October 21, 2004 the EMBIG fell two basis points.

**Graph 13** Sovereign Spreads for Emerging Economies and Latin America  
Basis points



Source: J.P. Morgan.

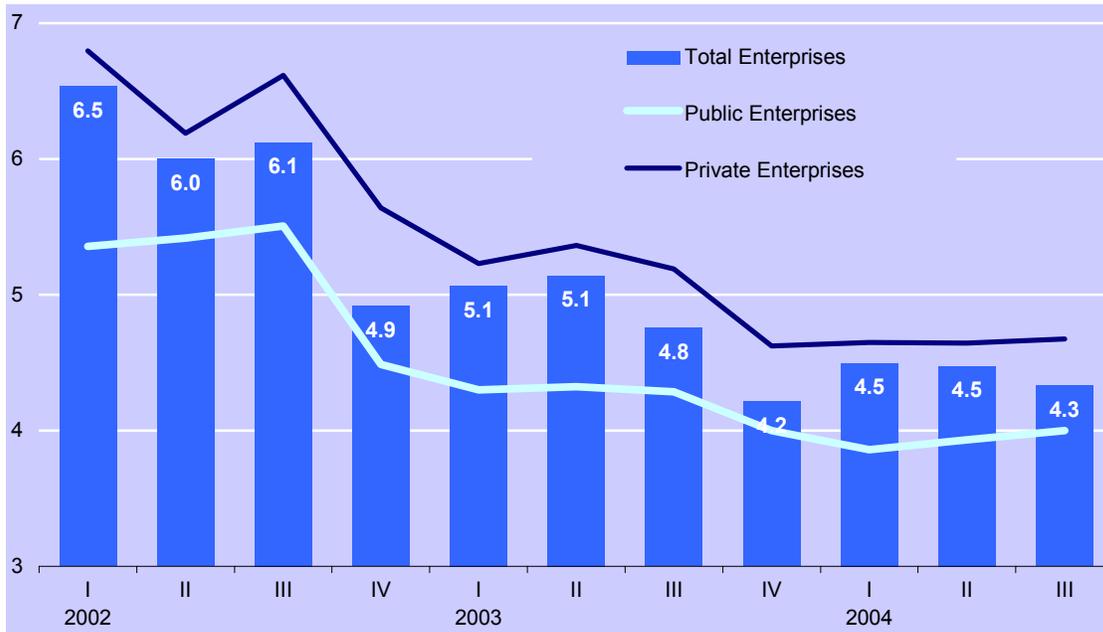
### II.3.2. Earnings and Employment

During the third month of 2004, nominal contractual wages recorded an average variation below that observed in the previous quarter. *Maquiladora*, *non-maquiladora*, and retail unit labor costs exhibited negative annual variations mainly because such industries' labor productivity recorded significant gains, which more than compensated the increase in real average earnings.

#### II.3.2.1. Contractual Wages

During the third quarter of 2004, contractual wages negotiated by employees and workers in enterprises under federal jurisdiction recorded an average increase, weighted by number of workers, of 4.3 percent, i.e. 0.2 percentage points below that observed in the previous quarter (Graph 14). During such period, nearly half of workers negotiating wage revisions labored in public enterprises, a factor that contributed to contractual wages' reduced growth. The gap between contractual wage increases in private and public enterprises was 0.7 percentage points on average (Table 7).

**Graph 14 Contractual Wages**  
Percent



Source: Banco de México and Ministry of Labor.

**Table 7 Contractual Wage Increases and Number of Workers Benefited by Type of Enterprise**  
Percent

	2003					2004						
	Average <sup>1/</sup>					Average <sup>1/</sup>						
	I	II	III	IV	Jan-Dec	I	II	III	Jul	Aug	Sep	
<b>Contractual Wage Increase (percent)</b>												
<b>Total</b>	5.1	5.1	4.8	4.2	4.7	4.5	4.5	4.3	4.1	4.5	4.8	
<b>Public Enterprises</b>	4.3	4.3	4.3	4.0	4.1	3.9	3.9	4.0	4.0	4.0	-	
<b>Private Enterprises</b>	5.2	5.4	5.2	4.6	5.2	4.6	4.6	4.7	4.7	4.5	4.8	
<b>Workers Benefited (percentage share)</b>												
<b>Total</b>	100	100	100	100	100	100	100	100	100	100	100	
<b>Public Enterprises</b>	19	22	49	67	41	20	21	48	79	7	0	
<b>Private Enterprises</b>	81	78	51	33	59	80	79	52	21	93	100	

<sup>1/</sup> Average weighted by number of workers benefited during the period.

Source: Prepared by Banco de México with data from the Ministry of Labor.

During the first nine months of 2004, contractual wage increases in private enterprises were between 4 and 4.9 percent. Nonetheless, wage increases' differentials widened during the quarter; thus, the ratio of workers negotiating in the interval of five percent or more increased. This is partly due to the fact that enterprises entering into wage negotiations during such period usually grant higher wage increases (Table 8).

**Table 8** **Number of Workers Benefiting from Contractual Wage Revisions by Interval Increase**

Percentage distribution

Period	Private Enterprises				Public Enterprises				Total Enterprises			
	Interval Increase (%)				Interval Increase (%)				Interval Increase (%)			
	Up to 3.9	From 4 to 4.9	5 and more	Total	Up to 3.9	From 4 to 4.9	5 and more	Total	Up to 3.9	From 4 to 4.9	5 and more	Total
2004 I	14	55	31	100	59	41	0	100	23	53	24	100
II	14	50	36	100	9	91	0	100	13	58	29	100
III	12	47	41	100	3	97	0	100	8	71	21	100

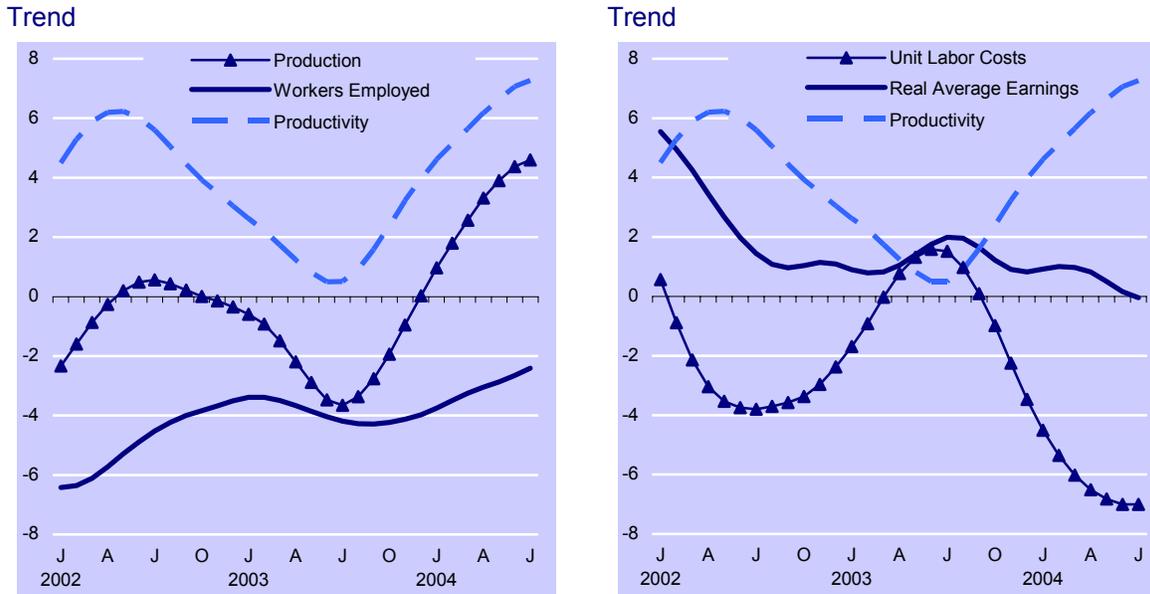
Source: Prepared by Banco de México with data from the Ministry of Labor.

### II.3.2.2. Earnings and Productivity

During January-July 2004, *maquiladora*, manufacturing *non-maquiladora*, and retail unit labor costs (ULC) exhibited negative annual variations. Such results were due to the fact that labor productivity in the above activities had a positive trend during the period by exhibiting an average increase more than proportional to that exhibited by real average earnings.

During the first seven months of 2004, labor productivity in the *non-maquiladora* manufacturing industry increased at an average annual rate of 6.5 percent, thus continuing the upward trend exhibited since the second half of 2003. Such results are attributed to manufacturing production's phase of expansion, which has exhibited more strength than employment, as observed in other episodes during the first stages of recovery of such industry. The abovementioned pattern might be due to both an excess of installed capacity and a more intensive use of existing labor. In the first seven months of the year, gains in labor productivity compensated the increases in real average earnings (Graph 15). The latter prompted unit labor costs to remain on a downward trend by decreasing 5.5 percent on average during the same period (Table 9). Should the strength of manufacturing production continue, employment would recover and therefore be reflected in slower productivity growth.

**Graph 15 Non-maquiladora Manufacturing Industry**  
Earnings, Labor Productivity and ULC  
Annual percentage change



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

Labor productivity in the *maquiladora* industry exhibited positive growth, averaging 4.1 percent between January and July 2004. Nonetheless, such trend began to slow down in April (Graph 16). The tight link between *maquiladora* employment and production explains such results. During the referred period, *maquiladora* real average earnings rose 1.0 percent on average. Considering productivity, unit labor costs fell -3.0 percent (Table 9).

**Table 9 Earnings, Labor Productivity, and ULC by Economic Sectors**  
Annual percentage change

	Non-maquiladora Industry			Maquiladora Industry			Retail		
	Labor Productivity	Real Average Earnings	ULC	Labor Productivity	Real Average Earnings	ULC	Labor Productivity	Real Average Earnings	ULC
<b>2003</b>									
Jan-Jul	1.3	1.3	-0.1	-0.6	-0.4	0.2	3.6	3.5	0.0
Jan-Dec	1.8	1.2	-0.9	-0.1	0.0	0.0	5.6	3.0	-2.3
<b>2004</b>									
Jan	3.6	1.0	-2.5	3.2	2.3	-0.9	7.7	-0.6	-7.7
Feb	5.0	1.3	-3.5	3.0	2.0	-1.0	11.6	1.9	-8.7
Mar	10.9	1.3	-8.6	5.3	2.6	-2.6	9.7	2.0	-7.0
Apr	6.0	1.3	-4.4	5.3	1.6	-3.5	9.0	2.1	-6.3
May	5.0	-0.7	-5.5	4.6	0.2	-4.2	7.8	4.9	-2.7
Jun	8.8	0.5	-7.6	4.1	-0.1	-4.1	5.3	5.4	0.1
Jul	6.2	-0.9	-6.7	3.2	-1.7	-4.7	5.1	4.8	-0.3
Jan-Jul	6.5	0.5	-5.5	4.1	1.0	-3.0	7.9	3.0	-4.7

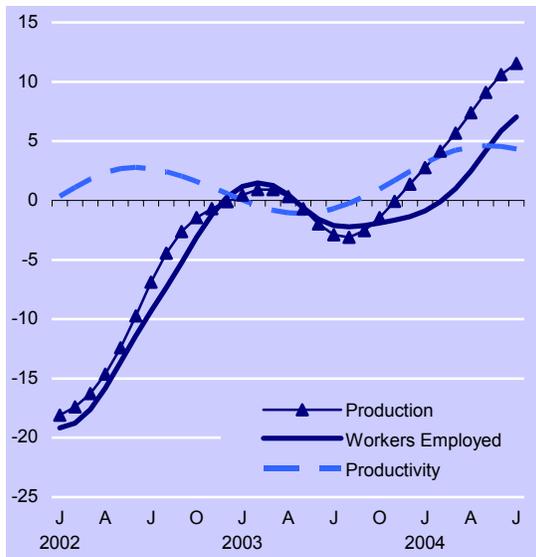
Source: Prepared by Banco de México with data from INEGI.

**Graph 16**

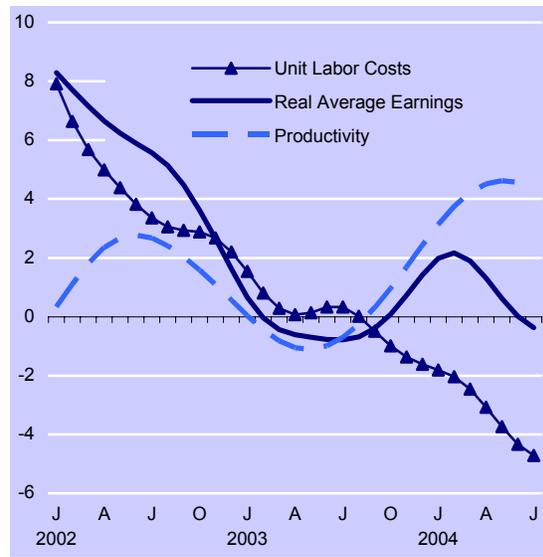
**Maquiladora Industry**

Earnings, Labor Productivity and ULC  
Annual percentage change

Trend



Trend



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

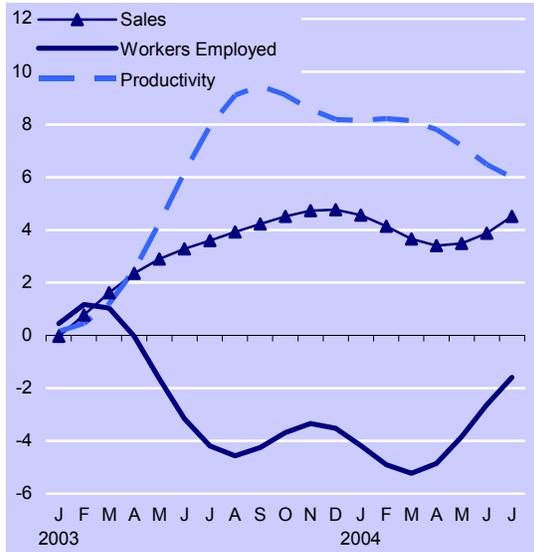
Labor productivity in the retail sector continued the same pattern of positive variations exhibited since the beginning of 2003 by increasing 7.9 percent during the first seven months of 2004. Just as in the previous month, such trend is explained by sales' growth, which has been bolstered by a greater availability of credit. Productivity growth was above increases in real earnings by worker (3.0 percent on average in the first seven months of the year). Consequently, unit labor costs continued to decline (4.7 percent on average from January to July of 2004) [Graph 17].

**Graph 17**

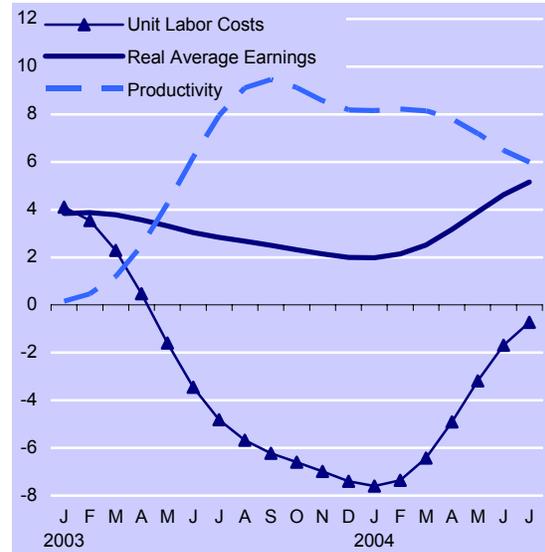
**Retail**

Earnings, Labor Productivity and ULC  
Annual percentage change

Trend



Trend



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

**II.3.2.3. Employment**

The improvement of economic activity during the third quarter of 2004 contributed to the continuous growth in the demand for labor, therefore strengthening employment indicators. During such period, the labor market was characterized by the following aspects: a) higher formal employment, measured both at an annual rate and in relation to the end of the previous month; b) creation of more permanent than temporary jobs in urban areas in the formal sector; and by region, higher job creation in northern cities; and c) a significant recovery in the number of manufacturing workers insured by the IMSS. The unemployment rate in urban areas rose; however, such results were mainly attributed to an increase in Mexico City’s unemployment rate.

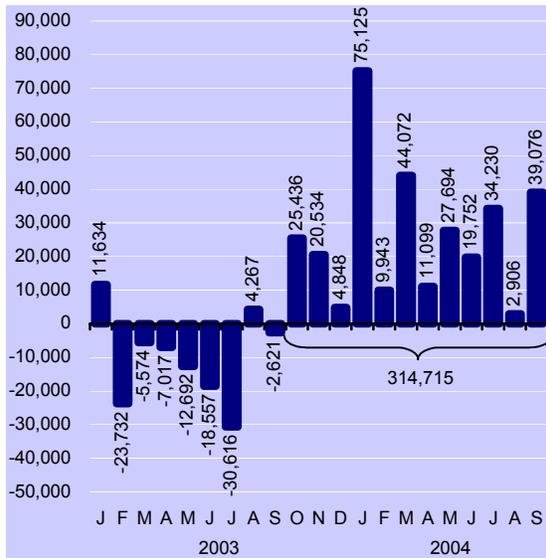
At the end of September 2004, 12,552,022 workers were insured by the IMSS (permanent and temporary in urban areas), 137,208 above those recorded at the end of the second quarter of the year and 312,093 above those of September 2003. The latter figure included 214,426 permanent jobs (69 percent) and 97,667 temporary (31 percent) in urban areas. September was the twelve month in a row recording an increase in seasonally adjusted data for the number of workers insured by the IMSS (314,715 new formal jobs). However, despite such improvement, September

figures for the number of workers insured by the IMSS were below those recorded at the end of 2000 (Graph 18).

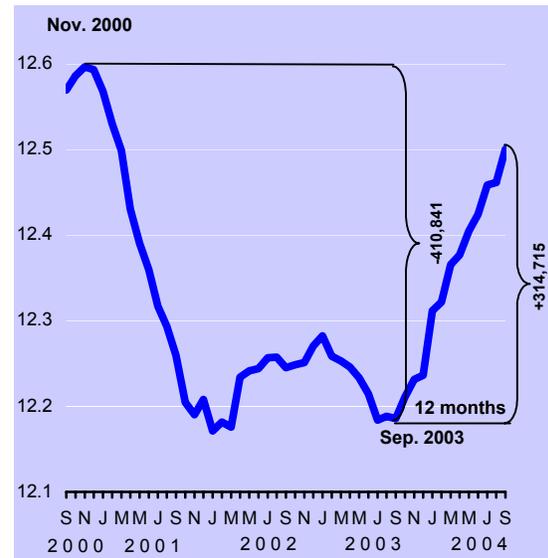
**Graph 18 Workers Insured by the IMSS: Permanent and Temporary in Urban Areas**

Seasonally adjusted figures

a) Workers Insured by the IMSS  
Monthly variation



b) Million Workers Insured



Source: IMSS. Seasonal adjustments by Banco de México.

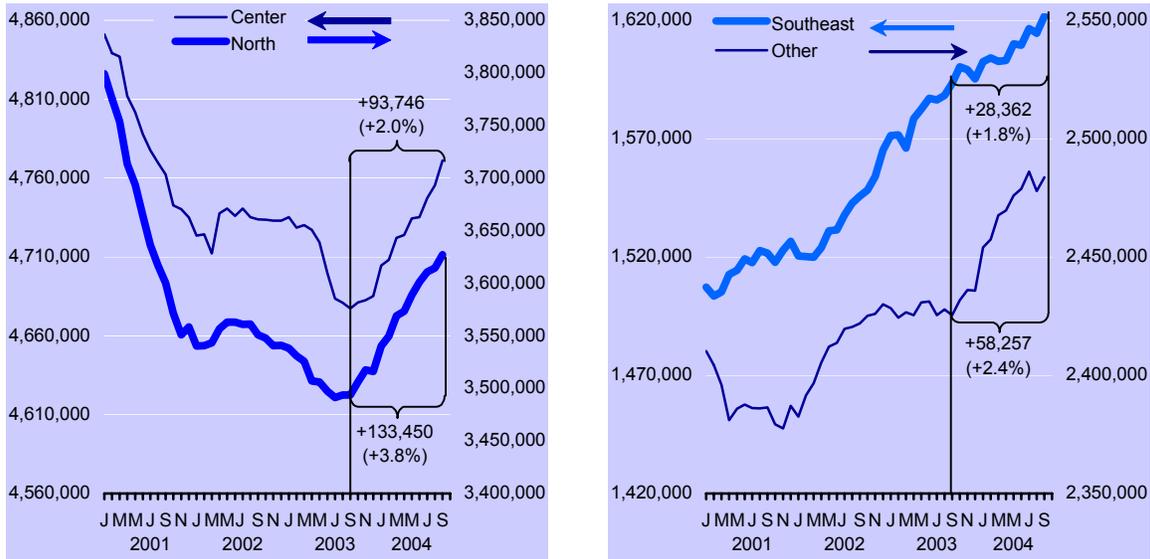
The improvement of formal employment in 2004 has included most sectors, especially manufacturing. In the first nine months of the year (from the end of December 2003 to September 2004), 125 thousand posts were created in the manufacturing sector: 68 thousand in metal products, machinery and equipment; 18 thousand in textiles and apparel; and 17 thousand in chemicals and plastics. Despite such improvement, at the end of September, formal employment in such sector, measured with seasonally adjusted data, fell by 702 thousand workers as compared with its maximum level of November 2000.

During the first nine months of the year, job creation exhibited more strength in northern cities (Graph 19) due mainly to increased U.S. demand. Employment in the *maquiladora* export industry improved significantly in 2004. Considering seasonally adjusted data, such improvement, which began in August 2003, translated into 81,893 workers at the end of July 2004, thus implying an accumulated increase of 7.8 percent during that period.

**Graph 19**

**Formal Employment by Regions\***

Number of workers insured and seasonally adjusted figures

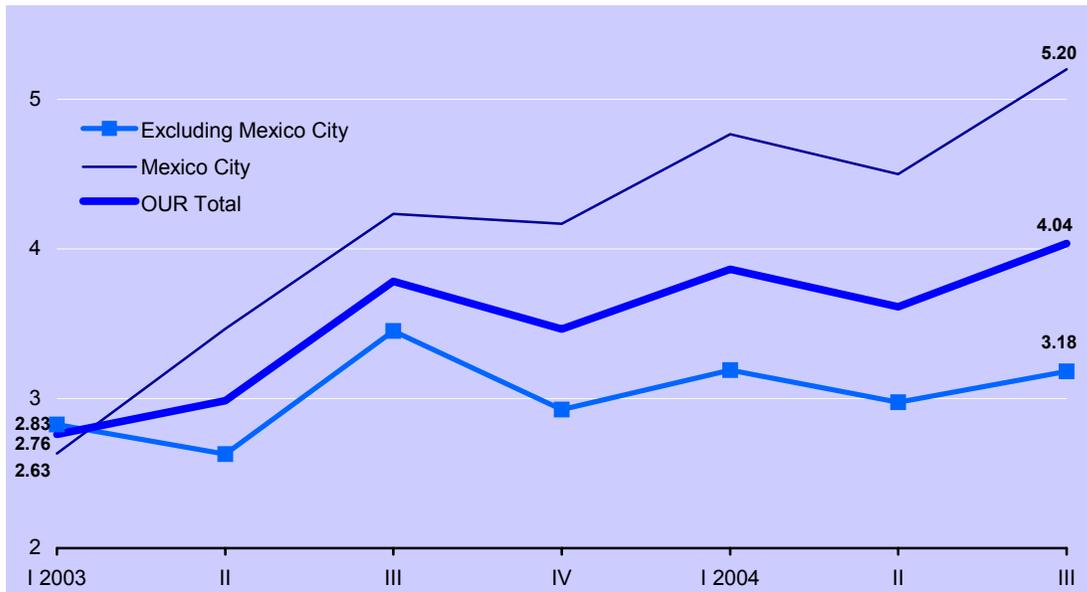


\* The Center region includes Mexico City, Guanajuato, Hidalgo, Estado de México, Morelos, Puebla, Querétaro and Tlaxcala; the Northern region includes Baja California, Baja California Sur, Coahuila, Chihuahua, Nuevo León, Sonora and Tamaulipas; the Southeast region includes Campeche, Chiapas, Guerrero, Oaxaca, Quintana Roo, Tabasco, Veracruz and Yucatán; The other include Aguascalientes, Colima, Durango, Jalisco, Michoacán, Nayarit, San Luis Potosí, Sinaloa and Zacatecas.  
Source: IMSS. Seasonal adjustments and regional classification by Banco de México.

Higher job creation in the formal sector has not translated into lower unemployment rate in urban areas. In fact, during the third quarter such indicator, which includes 32 urban areas throughout the country, was 4.04 percent (on average), above the 3.61 percent average recorded in the second quarter of the year. Mexico City's unemployment rate mainly accounted for such increase by following an upward trend in 2003 and 2004 (Graph 20). Excluding Mexico City, the unemployment rate in 2004 increased slightly.

Graph 20

### Open Unemployment rate (Including / Excluding Mexico City) Percent



Source: Figures for total open unemployment rate in urban areas and in Mexico City are drawn from INEGI. Unemployment rate figures excluding Mexico City are prepared by Banco de México with data from INEGI.

### II.3.3. Aggregate Supply and Demand

Economic activity continued to gain strength during the third quarter of 2004. In that period, indicators for both aggregate demand and production rose significantly at an annual rate. The latter fostered the continuous recovery of demand for labor in the formal sector.

During the third quarter of 2004, economic activity was characterized by the following: i) GDP grew significantly at an annual rate; ii) all aggregate demand components recovered; iii) domestic expenditure grew at an annual rate above that of GDP, due to significant consumption and investment expenditure growth; iv) investment grew more vigorously in the second half of the year than in the first half; v) external demand was the strongest component of aggregate demand; vi) industrial production grew at a higher pace; vii) manufacturing growth included more divisions and was fostered by the recovery of production for the foreign market; and viii) business climate and business confidence indicators weakened.

During the third quarter, external conditions continued to have a positive effect on the Mexican economy. Available information suggests that U.S. GDP recovered after having slowed in the previous quarter. The strength of external demand was reflected in higher non-oil exports during the quarter (13.9 percent). This allowed for an increase in both industrial and manufacturing production and in higher job creation, which, in turn, encouraged domestic spending. Furthermore, the high value of crude oil exports and the significant amount of workers' remittances helped to maintain consumption growth and also fostered investment.

Available indicators of economic activity development in the third quarter of 2004 reveal the following:

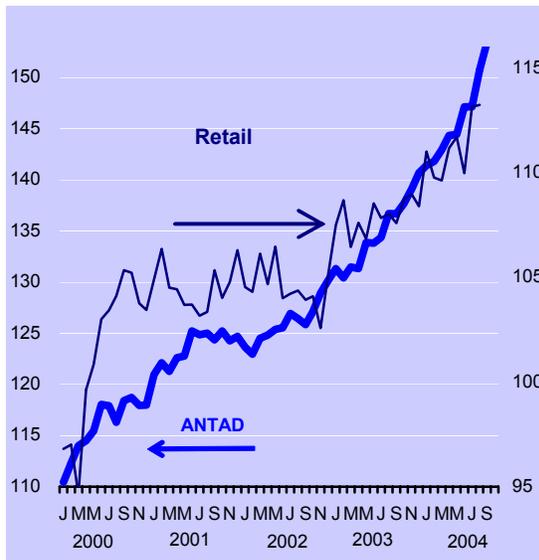
- (a) Regarding consumption growth: i) during July-August retail sales rose 4.5 percent at an annual rate, thus accumulating twenty consecutive months of positive growth; ii) ANTAD sales grew at an annual rate of 9.9 percent (Graph 21), above those of the first and second quarters (8.6 and 8.8 percent, respectively); car retail sales rose at an annual rate of 8.3 percent in the third quarter of 2004. Such results mainly reflected a significant purchasing of imported vehicles.

**Graph 21**

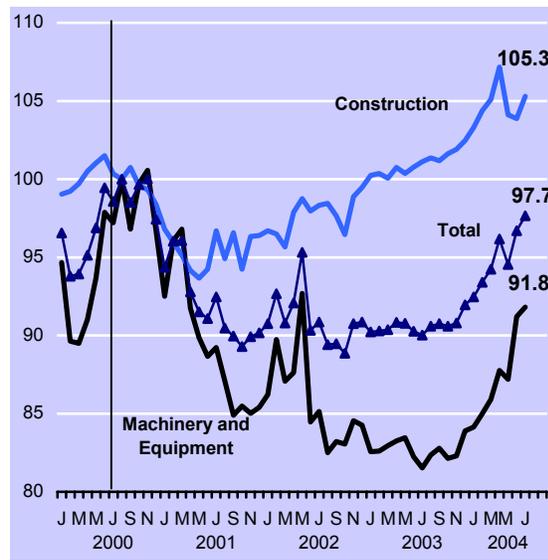
**Consumption and Investment Expenditure Indicators**

Seasonally adjusted figures

a) Retail Sales  
1994=100



b) Gross Fixed Investment  
August 2000=100

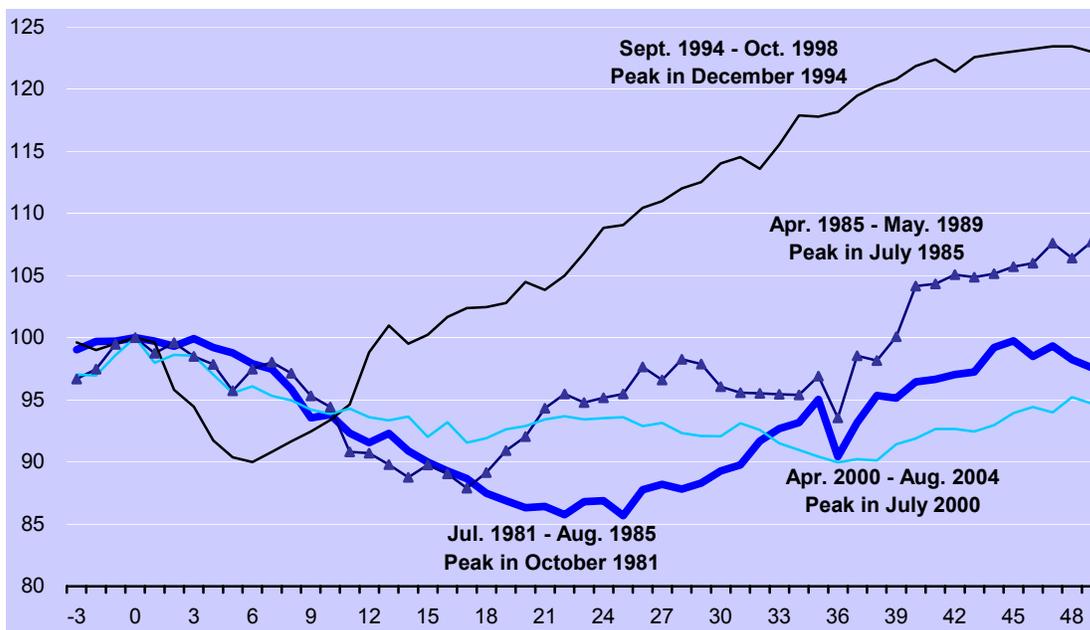


Source: INEGI and ANTAD. Seasonal adjustments by Banco de México.

- (b) Annual growth in investment expenditure rose in the third quarter. In July, investment grew at an annual rate of 7 percent (4.5 and 5.8 percent during the first and second quarters, respectively) and, with seasonally adjusted data, accumulated eight positive monthly variations in the last nine months. Imports of capital goods grew at an annual rate of 14.7 percent in the third quarter. Investment in construction continued to expand by growing at an annual rate of 4.59 percent during July-August. Such results were due to increased construction in housing and in public infrastructure. During the third quarter, housing credit (both for residential and social housing) granted by financial intermediaries expanded markedly.
- (c) Regarding production, the Global Indicator of Economic Activity (*Indicador Global de Actividad Económica, IGAE*) grew at annual rate of 3 percent in July due to the expansion of the industrial and services sectors, while the agriculture sector contracted. Agriculture results were due to the fall at an annual rate in cultivated land during the Spring-Summer cycle. This did not mirror weak agriculture activity but rather than crops were raised early (in the previous months) to take advantage of the higher humidity conditions.

**Graph 22 Manufacturing Production**

Seasonally adjusted figures and indexes = 100 at the highest peak of each production cycle



- (d) During July-August, industrial and manufacturing production grew at an annual rate of 4.6 and 5.1 percent, respectively. Production in both sectors began to recover since October 2003. In fact, with seasonally adjusted data, production's accumulated increase up to August 2004 was of 5.2 and 5.1 percent, respectively. Notwithstanding the above, August production was still 1.8 and 5.3 percent, respectively, below its maximum level of July 2000. During such period, textile and apparel, and the automotive industries declined 20.6 and 13.7 percent, respectively. Despite the recent recovery in manufacturing production, it still remains below figures recorded in other cycles of economic activity during the last twenty years (Graph 22).<sup>7</sup>
- (e) Car production fell during 2001-2003 and also during the first half of 2004, thus contrasting with the annual expansion at an annual rate of 6.6 percent exhibited during the third quarter of the year. Such meager improvement gains relevance considering the significant share of the automotive industry in manufacturing production.
- (f) Business Confidence and Business Climate indicators weakened (quarterly comparison). Private Sector Economic Analysts' Business Confidence index fell 6.6 percent as compared with its level in the second quarter, while the Consumer Confidence and Manufacturing Firms' Indexes did so by 2.6 and 0.6 percent, respectively.

During the third quarter, the significant growth in private consumption, which is the main component of domestic demand, was fueled by the following factors: greater availability of financing from commercial banks and chain stores; higher real average earnings in different sectors; increased employment in the formal sector; and a significant amount of workers' remittances, destined by households mainly to consumption expenditure. Regarding financing, credit from commercial banks to households has grown at a real annual rate above 30 percent in 2004, while the number of credit cards has nearly doubled in the last three years, from 7 to 13.3 million per month in August.

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<sup>7</sup> Considering the manufacturing sector, the recovery of the *maquiladora* industry is more significant when export rather than production figures are considered.

After having fallen for three consecutive years, investment expenditure strengthened in the first three quarters of 2004. During the third quarter, it was close to its maximum level of August 2000. A factor limiting a more robust recovery of this type of expenditure has been the lack of progress in pending structural reforms. Answers drawn from Banco de México's surveys of manufacturing businesses, foreign investment firms, and private sector economic analysts repeatedly concur that such factor is the country's main obstacle to raise investment. Should such reforms be implemented, significant progress in economic sector's productivity and competitiveness would be attained.

During the third quarter of 2004, exports of goods and services, aggregate demand's item that expanded the most during such period, contributed significantly to annual GDP growth. Such results were due to the positive behavior of external demand, from both the U.S. and other countries. Thus, at the third quarter of 2004, exports of goods and services accumulated four consecutive quarters with positive annual variation.

The above developments allow for anticipating that during the third quarter of 2004 GDP might have grown nearly 4 percent at an annual rate.<sup>8</sup> Considering seasonally adjusted data, this would imply that GDP grew significantly during the quarter (nearly 0.4 percent at a quarterly rate), although below its level in the first and second quarters of the year (1.3 and 1.1 percent, respectively).

As for aggregate demand's effect on prices, such pressures could arise at different stages throughout the economy's cyclical recovery, depending on the pace at which the slack in different sectors production capacity narrows. The strength of aggregate demand could affect prices in certain sectors or divisions more than in others. In addition, some producers could already be close to facing conditions that would allow them to increase their prices more easily. An environment where aggregate demand grows vigorously enables supply shocks to affect the formation of inflation expectations and, from there, consumer prices.

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<sup>8</sup> Latest official available information on GDP and on aggregate supply and demand refers to the second quarter of 2004. In that period, exports of goods and services, and private consumption exhibited significant growth (14.4 percent and 5.4 percent, respectively). Gross investment growth gained more strength (5.8 percent), which was reflected in private and public investment annual increases of 6.8 and 1.6 percent, respectively.

### **II.3.4. Balance of Payments and Capital Flows**

During the reference period, the external sector of the Mexican economy was characterized by the following aspects: i) a significant annual increase in merchandise exports (both oil and non-oil); ii) imports' rapid increase at an annual rate, and the noteworthy recovery in capital good imports; iii) moderate trade and current account deficits; iv) a very positive performance of workers' remittances; v) a reduced surplus in the capital account; and vi) a small reduction in net international reserves.

Mexico's foreign trade continued to benefit from the positive development of external demand, which raised manufacturing exports significantly. Such dynamics translated, considering imported goods for export production, into a sharp increase in foreign purchases of intermediate goods. Furthermore, the improvement of domestic economic activity and expenditure was reflected in higher merchandise imports. International oil markets continued to be characterized by the high prices of crude oil, which, in turn, raised Mexican crude oil exports' value significantly.

The trade deficit was 2.101 billion US dollars in the third quarter of 2004. During such period, merchandise exports rose at an annual rate of 16.3 percent, as a result of increased crude oil and non-oil exports (35.1 and 13.9 percent, respectively). Regarding the latter, exports of manufactured goods grew at an annual rate of 13.8 percent. On the other hand, merchandise imports increased 17.1 percent. Corresponding increases in intermediate, consumer, and capital good imports were 16.8, 21.1, and 14.7 percent, respectively. After having fallen for three years in a row, imports of capital goods recovered in 2004. Foreign trade results with seasonally adjusted data were also positive: during the reference period, crude oil exports increased further, while non-oil exports grew at the same pace exhibited in the first half of the year (Graph 23). Imports' components also continued their upward trend.

Graph 23

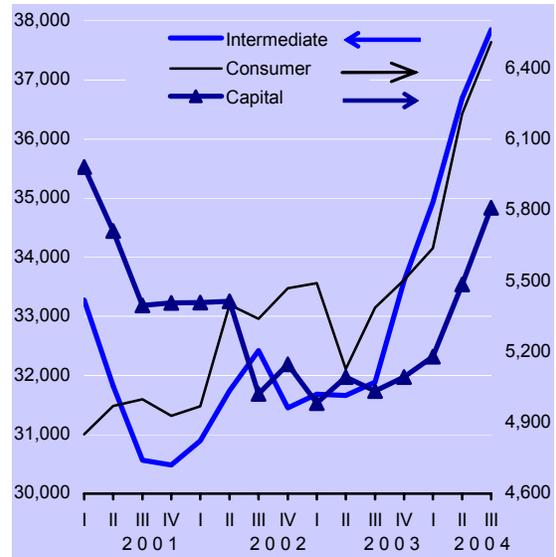
Foreign Trade

Seasonally adjusted series, million US dollars per quarter

a) Exports



b) Imports



Source: Banco de México.

Merchandise exports to the U.S. exhibited a substantial annual increase during July-August 2004 (13.3 percent). Nonetheless, just as in the first half of the year, they increased less vigorously than total exports from the rest of the U.S. trading partners (19.9 percent). Consequently, Mexican exports lost share in U.S. total imports, from 10.73 percent in July-August 2003 to 10.20 percent in the same period of 2004 (Table 10). The outstanding performance of U.S. imports from China, which rose significantly at an annual rate of 30.98 percent in July-August, deserves mention. In the last three years, Mexican automotive exports to the U.S. have not exhibited positive results. Excluding automotive and crude oil exports to the U.S., Mexican exports to that country rose 18.53 percent, a slightly lower rate than the one exhibited by exports from other U.S. trading partners (19.92 percent).

**Table 10** **U.S. Imports**  
Percent

	Share				Annual percentage changes: July-August 2004				
	2002	2003	Jul-Aug 2003	Jul-Aug 2004	Total	Crude Oil	Total excluding Crude Oil	Automotive	Total excluding oil and automotive
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>19.22</b>	<b>26.80</b>	<b>18.51</b>	<b>11.96</b>	<b>19.80</b>
Total excluding Mexico	88.41	89.02	89.27	89.80	19.93	28.38	19.17	14.82	19.92
Total excluding Mexico and China	77.63	76.89	76.31	75.56	18.05	28.44	16.95	14.82	17.40
1. Canada	18.00	17.63	16.51	16.69	20.51	28.47	19.86	17.60	20.65
2. China	10.78	12.13	12.96	14.24	30.98	0.07	31.02	--	31.02
<b>3. Mexico</b>	<b>11.59</b>	<b>10.98</b>	<b>10.73</b>	<b>10.20</b>	<b>13.32</b>	<b>17.08</b>	<b>12.86</b>	<b>0.68</b>	<b>18.53</b>
4. Japan	10.46	9.39	9.15	8.69	13.22	--	13.22	8.09	16.52
5. Germany	5.38	5.42	5.20	5.28	21.12	--	21.12	25.84	18.84
6. United Kingdom	3.51	3.40	3.28	2.89	5.28	--	-2.58	-4.08	-2.34
7. South Korea	3.06	2.96	2.87	3.04	26.63	--	26.63	31.02	25.41
8. Taiwan	2.77	2.51	2.59	2.43	12.05	--	12.05	21.32	11.59
9. France	2.43	2.32	2.29	2.01	4.60	--	4.60	--	4.60
10. Malaysia	2.07	2.02	2.17	1.99	9.25	-45.73	10.64	--	10.64
Total 10 countries	70.05	68.77	67.74	67.47	18.74	31.62	18.24	12.23	19.81

Source: Prepared by Banco de México with data from the U.S. Department of Commerce.

In the third quarter of 2004, revenues from workers' remittances totaled 4.541 billion US dollars (an annual increase of 20.3 percent). In the first nine months of the year, revenues from remittances reached 12.419 billion US dollars (an annual increase of 23.8 percent). Such results stemmed from 37.9 million transactions, averaging 328 US dollars each. During the reference period, the value of remittances accounted for 81 percent of the value of crude oil exports and 87 percent of the *maquiladora* trade surplus.

The abovementioned information, together with that available regarding other items of the current account of the balance of payments, allow for estimating that the current account deficit would be around 2.2 billion US dollars in the third quarter of 2004. Such deficit is very similar to that of the same quarter of 2003 (2.114 billion). Thus, the accumulated deficit in the first nine months of 2004 would total 4.5 billion US dollars, below the 5.7 billion recorded in the same period of 2003.

During the third quarter of 2004, the capital account (including errors and omissions) is expected to have recorded a small inflow of resources (0.7 billion US dollars). Such result was influenced by a moderate inflow of foreign investment, which showed positive inflows in both direct and portfolio investment. Two public sector bond placements were made during the quarter: a) a 30-year global bond of the Federal Government for 1.5 billion US dollars; resources from such placement will be used for the payment of external liabilities due in 2005, which were originally contracted in less favorable conditions; and b) a PEMEX placement for 1.750 billion US dollars. In addition, the private sector made

three placements of securities in the international markets for a total amount of 854 million US dollars and an average maturity of 6.3 years.

Summing up, during the third quarter of 2004, Mexico's balance of payments exhibited a moderate current account deficit of 2.2 billion US dollars, a small net inflow of resources in the capital account of 0.7 billion US dollars (including errors and omissions), and a slight reduction in net international reserves of 1.513 billion US dollars.

## **II.4. Monetary Policy**

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### **II.4.1. Monetary Policy Actions**

Throughout the year, monetary policy has faced different challenges such as:

- (a) Containing the effects of international commodity price increases to inflation expectations and wage negotiations.
- (b) Limiting inflation pressures that could originate from the economy's cyclical recovery.
- (c) Fostering an orderly adjustment of the economy to an environment of tighter global monetary conditions.

During the third quarter of 2004 some of these factors increased their upward incidence on prices, while others diminished. Nonetheless, the net effect of such factors led to a significant increase in CPI inflation (in September, annual inflation reached 5.06 percent).

As previously mentioned in this Report, the rise in inflation is mainly attributed to the different supply shocks that have affected several CPI subindexes throughout the year. Energy, metal, and livestock goods exhibited the highest and most persistent price increases in international markets. In light of such developments, production costs of different CPI items that use this type of goods as inputs have been significantly affected, thus making CPI inflation escalate.

Under such conditions, where external shocks have been the main determinants of the inflation upsurge and, given their nature, should only have a temporary effect on inflation, it is

important to further review the considerations determining monetary policy response.

As mentioned in previous Reports, both the source and characteristics of inflation pressures must be identified. When such pressures arise from the supply side they usually reflect changes in relative prices, which affect inflation temporarily. In this case, the stance of monetary policy should remain unchanged; nevertheless, the referred shocks must be monitored so that they do not contaminate the process of price formation in the economy (second round effects). For an economy that still has not achieved its long-term inflation target, such recommendation must consider that monetary policy has to maintain a more restrictive stance to foster disinflation. On the other hand, when pressures originate from the demand side, the monetary authority should tighten monetary policy to prevent an overall upward price movement of goods and services (Box 4).

In the last years, the world economy has undergone changes in production structure and demand for inputs, which have led to significant changes in relative prices (mainly reflected in commodity price increases). In economies like the Mexican, which, due to their size in international commodity markets, cannot affect the prices of such goods, the above developments originate temporary inflation pressures.

## Box 4

## Inflation Pressures and Monetary Policy Conduct

Monetary policy conduct relies mainly on the assessment of inflation pressures given that the central bank's response to such pressures depends on the latter's sources and characteristics. Since they can affect inflation differently, inflation pressures must be analyzed according to their sources (demand or supply).

Demand-related inflation pressures originate from expenditure growth and, therefore, are generalized. Consequently, they do not affect the price of a product or sector in particular. Therefore, when pressures come from the demand side, the monetary authority is expected to tighten its monetary policy stance in order to offset their effect on inflation; otherwise, they could have a prolonged effect on inflation.

On the other hand, inflation pressures associated with changes in production costs of certain goods, either due to changes in international prices or to aspects of a sector in particular, are known as supply shocks. This type of pressures usually affects one or several prices. In general terms, such shocks have a once-and-for-all (or limited) effect on goods' prices, associated with a change in relative prices (first round effects) and, therefore, affect inflation only temporarily. Should this be the case, two aspects must be considered when implementing monetary policy.

First, the monetary authority should keep monetary policy unchanged, given that such shocks are transitory and their effects on inflation disappear gradually without affecting inflation's level in the medium term. On the contrary, should the monetary authority try to prevent CPI inflation originated by such shocks from increasing temporarily, monetary policy would need to be tightened so inflation of other type of goods that were not affected by the referred shocks decreases and offsets the increase in CPI inflation generated by the item affected by such shocks. Nonetheless, since supply shocks have a temporary effect on CPI inflation, such measure implies limiting economic activity unnecessarily. Therefore, policy recommendation is to wait until the effect on inflation disappears. However, if the economy has not yet converged to its long-term target, such recommendation must be tone down. In this case, the monetary authority should tighten monetary policy further in order to contribute to disinflation.

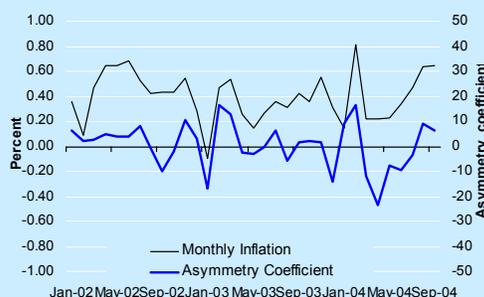
Second, the monetary authority must monitor the development of inflation expectations and, in general terms, the process of price determination of the economy. If the temporary increase in inflation should lead to an upward revision in medium and long-term inflation expectations (which, in turn, leads to generalized revisions on prices; i.e. second round effects), inflation could return to its original level once the effect of the supply shocks has disappeared. In this case, the monetary authority should restrict its monetary policy stance to prevent an overall upward price movement and make both inflation and its expectations return to their original level.

During 2003 and 2004, price increases in several commodities in the international markets have raised food, metal and energy prices in Mexico and other countries.

One way of demonstrating supply-side inflation pressures is through a statistical analysis of the distribution of monthly variations in the relative prices of each item included in the CPI. In general terms, supply shocks affect the relative prices of one or several items. Such changes are reflected in the different moments of the distribution. For example, if the relative price of one or more items increases significantly in response to the supply shock, the asymmetry coefficient of such distribution also increases considerably. On the contrary, if the increase in inflation comes from demand, i.e. it is an

overall upward price movement (present in many items), no significant or extreme variations in the relative price of items would appear. In this case, the asymmetry coefficient of the distribution of relative prices' monthly variations should not change. Thus, when inflation pressures come from the supply side, significant changes, together with changes in inflation (in the same direction) are observed in the asymmetry coefficient of such distribution.

**Graph 1**  
Monthly Inflation and Asymmetry Coefficient of Distribution of Relative Prices' Monthly Variation \*

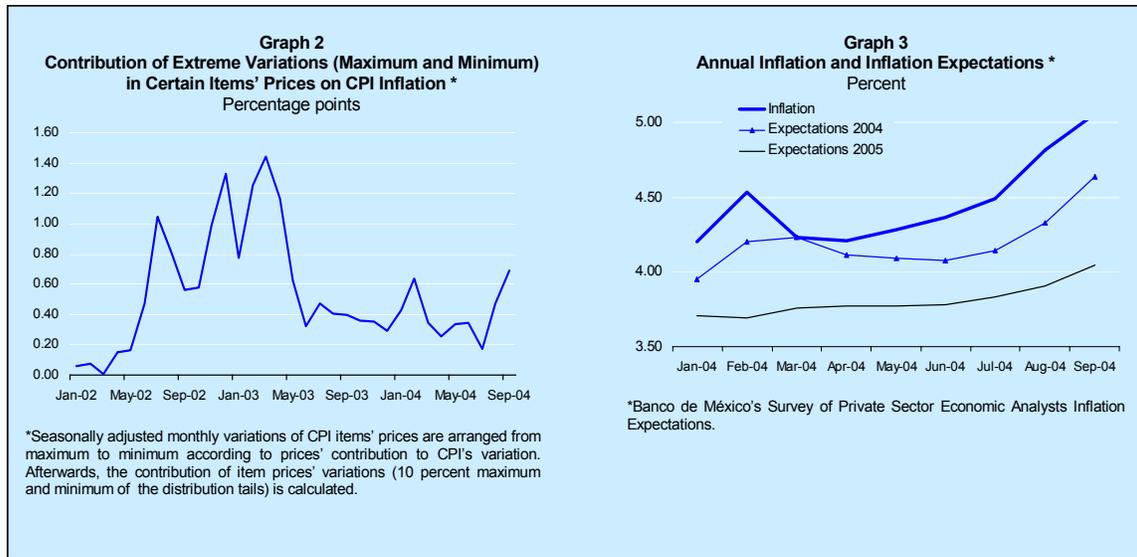


\*Seasonally adjusted data weighted by incidence.

Graph 1 reveals that the recent increases in CPI inflation have coincided with an increase in the asymmetry coefficient of the distribution of relative prices' variations (correlation coefficient of 0.59 from January 2002 to September 2004). Such results indicate that during 2004 the economy has been subject to significant inflation pressures from the supply side.

An additional exercise that illustrates the impact of supply shocks to CPI inflation consists of calculating the effect of extreme monthly variations in the price of the items included in the CPI (which are associated with the changes in relative prices) on inflation. Graph 2 shows that during 2004, the upward effect of price variations of the 10% maximum of the right tail of the distribution on inflation have been more significant than the downward effect of the variations of the 10% minimum of the left tail of the distribution. Such results reveal that during the year CPI inflation has been affected significantly by the positive variations in relative prices.

As inflation has risen as a result of supply shocks, CPI inflation expectations for the short (2004) and medium (2005) terms have also increased (Graph 3). This confirms that supply-side inflation pressures have contaminated inflation expectations. In light of such events, the Board of Governors of Banco de México has tightened its monetary policy stance so that both inflation and inflation expectations resume their downward path to the 3 percent target.



Two issues must be underlined regarding such considerations. First, given the nature of the referred shocks, prices in the subindexes of government-administered and livestock goods, and of the food core subindex, have been affected the most. And second, despite the fact that prices of other CPI subindexes have not been affected considerably, inflation expectations for the medium and long terms have been contaminated.

Consequently, the monetary authority must act in a timely manner to contain the effect of such pressures on inflation expectations; otherwise, the price formation process in the economy could be affected negatively.

The fact that the Mexican economy is at the highest phase of its economic cycle has worsened the inflation outlook in 2004 and also facilitated the transmission of external pressures to other prices.

Finally, the current tightening in world financial conditions must be considered when analyzing the development of monetary policy conduct in Mexico. Although the outlook of a moderation in U.S. aggregate demand growth has created expectations that the change to tighter monetary conditions will occur at a gradual pace and will be less volatile than expected a few months ago, such perception may change rapidly.

Summing up, in a context where domestic aggregate demand grows vigorously, the recent behavior of primary commodity prices has made inflation rise constantly during the year and also started to contaminate inflation expectations for the medium and long terms (Graph 24).

Consequently, the Board of Governors of Banco de México has restricted the monetary policy stance throughout the year. During July-September it increased the *corto* on three occasions: on July 23, from 37 to 41 million pesos; on August 27, to 45 million pesos, and on September 24, to 51 million pesos. In addition, the Central Bank announced that, until deemed necessary, domestic monetary conditions are expected to at least mirror the higher astringency conditions prevailing in the U.S.

**Graph 24 Inflation Expectations: Banco de México's Survey**

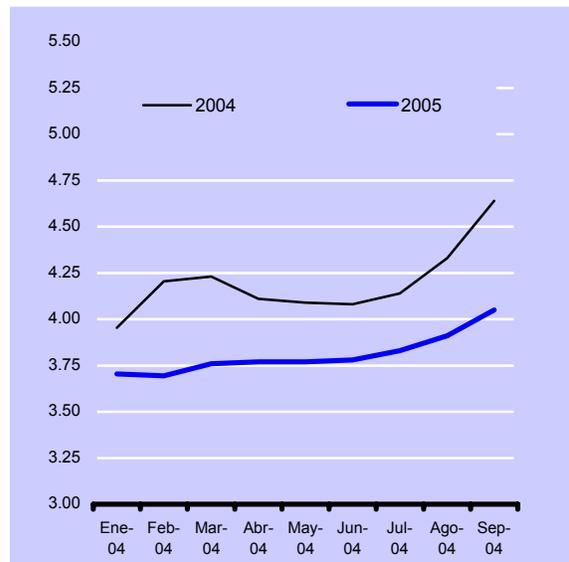
a) Inflation Expectations for the following 12 months and average for 2005-2008

Annual percentage



b) Inflation expectations for 2004 and 2005

Annual percentage



As a result of such actions, short-term domestic interest rates increased significantly (at the end of the quarter, the bank's funding rate reached 7.62 percent, 289 basis points above its lowest level during the year), while longer term yields have decreased as compared with those observed at the end of the second quarter (Graph 25). Thus, in the last months, the yield curve has "flattened".

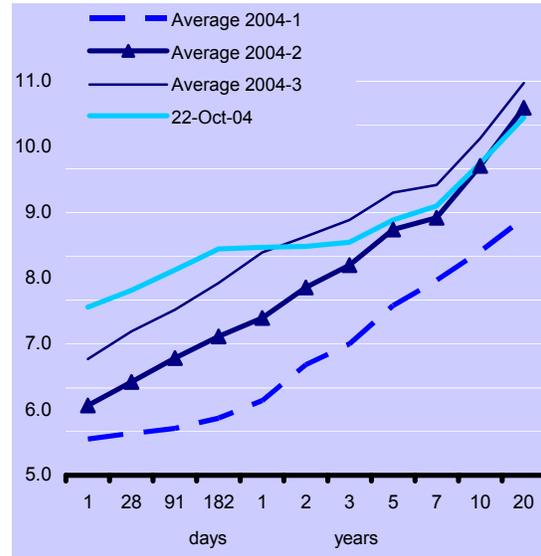
Although external financial conditions, which have fostered capital flows to Mexico, partially explain the increased demand for long-term instruments and the decline in their corresponding yields, Banco de México's efforts to restrict its monetary policy stance and thus anchor inflation expectations have been key in this process.

**Graph 25 Interest Rates in Mexico**

**a) Bank Funding and Changes in the *Corto* Annual percentage**



**b) Yield Curve in Mexico Annual percentage**



Note: The discontinuous line represents a 4mp increase in the *corto*, while the continuous line, a 6mp increase.

Given the various inflation pressures and the increase in inflation expectations for different terms, Banco de México reiterates its commitment to adopt the necessary measures to make inflation resume its path to the 3 percent target.

## II.5. Monetary and Credit Aggregates

### II.5.1. Monetary Base, Net Domestic Credit, and Net International Assets

During the first nine months of 2004, the monetary base increased, on average, 14 percent at an annual rate, 3.1 percentage points below the observed rate in the same period of 2003.<sup>9</sup> As stated in previous inflation reports, such results point to a reduction in the remonetization process due to the downward trend exhibited by interest rates in the last years.

During the third quarter of 2004, international assets rose by 1.8 billion US dollars, accumulating at September 30, 2004 a stock of 62.3 billion US dollars. During the same period, the monetary base increased by 1.9 thousand million pesos. As a result,

<sup>9</sup> Variations calculated based on a daily stocks' average.

Banco de México's net domestic credit decreased by 18.4 thousand million pesos in the third quarter of the year (Table 11).

**Table 11** **Monetary Base, Net International Assets and Net Domestic Credit**  
Million

	Stocks		Flows in 2004			Accumulated at Sep. 30, 2004
	At Dec. 31, 2003	At Sep. 30, 2004	Quarter			
			I	II	III	
(A) Monetary Base (Pesos)	303,614	280,789	-36,190	11,422	1,942	-22,825
(B) Net International Assets (Pesos) <sup>1/ 2/</sup>	663,657	709,711	28,771	-13,209	20,313	35,875
Net International Assets (US dollars) <sup>2/</sup>	59,059	62,319	2,646	-1,186	1,800	3,260
(C) Net Domestic Credit (Pesos) [(A)-(B)] <sup>1/</sup>	-360,043	-428,923	-64,960	24,631	-18,371	-58,700
(D) International Reserves (US dollars) [(E)-(F)] <sup>3/</sup>	57,435	57,615	1,614	79	-1,513	180
(E) Gross Reserves (US dollars)	59,028	62,276	2,631	-1,183	1,800	3,248
PEMEX			3,268	2,484	5,102	10,855
Federal Government			880	-1,446	-2,585	-3,151
Sale of US dollars <sup>4/</sup>			-1,938	-1,892	-1,430	-5,260
Other <sup>5/</sup>			421	-329	712	804
(F) Liabilities with less than six months to maturity (US dollars)	1,593	4,661	1,017	-1,262	3,313	3,068

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/ As defined by Banco de México's Law.

4/ Daily sales of US dollars according to the mechanism to slow the pace of international reserve accumulation (see Exchange Commission's Press Release of March 20, 2003).

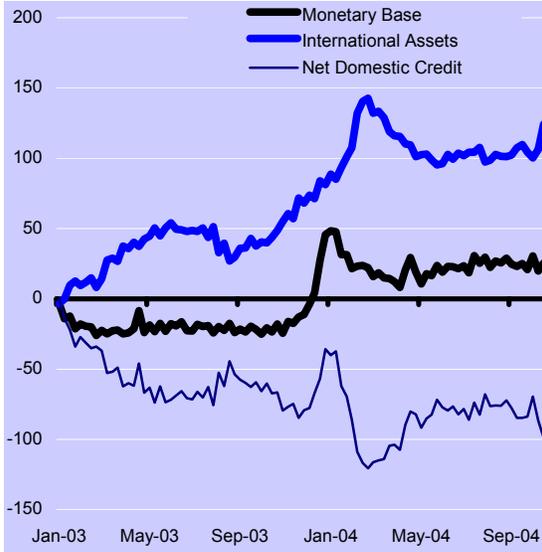
5/ Includes yields on net international assets and other transactions.

International reserves<sup>10</sup> contracted by 1.513 billion US dollars during July-September, due to a 3.313 billion US dollar increase in less-than-six-months-to-maturity central bank liabilities, and a 1.8 billion US dollar accumulation in gross reserves during the reference period. Such accumulation was due mainly to PEMEX's sale of US dollars to Banco de México (5.102 billion), the purchasing of US dollars by the Federal Government (2.585 billion), and the sale of US dollars (1.430 billion) via the mechanism to slow the pace of international reserve accumulation. As mentioned in previous inflation reports, the sale of US dollars has allowed for slowing the pace of international reserve accumulation (Graph 26).

<sup>10</sup> As defined by Banco de México's Law.

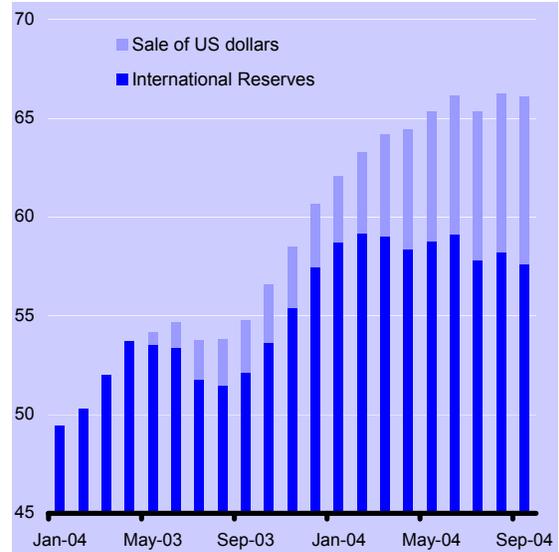
**Graph 26 Monetary Base and International Reserves**

a) Monetary Base, International Assets, and Net Domestic Credit  
 Effective flows accumulated since 2003  
 Thousand million pesos



b) Stock of International Reserves and Sale of US dollars

Billion US dollars

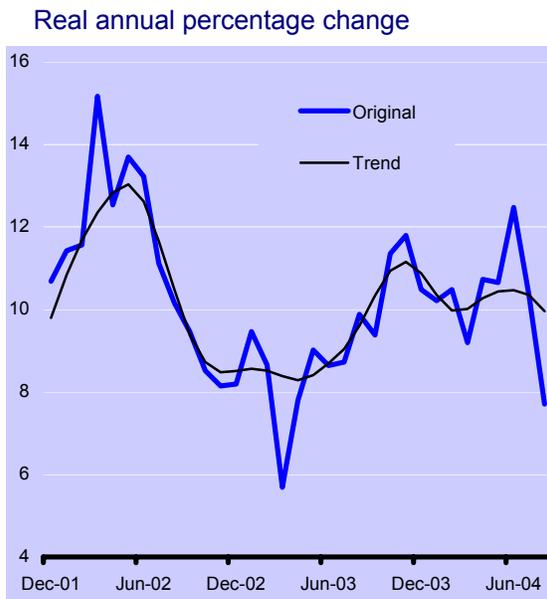


### II.5.2. Monetary Aggregates and Financing

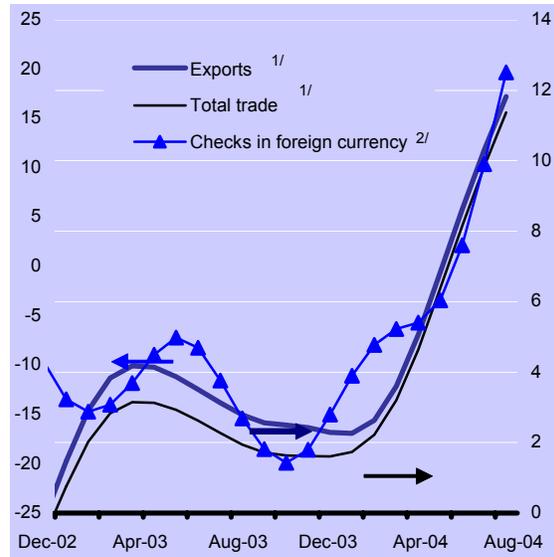
During July and August the narrow monetary aggregate M1 increased by 10.3 and 9.3 percent in real terms, respectively, while its domestic currency component followed a downward trend (Graph 27a). In contrast, checking accounts in foreign currency have increased recently, due partly to foreign trade growth (Graph 27b).

**Graph 27 Monetary Aggregate M1**

a) Monetary Aggregate M1 in Pesos



b) Checking Accounts in Foreign Currency and Foreign Trade  
Annual variation of trend series in US dollars



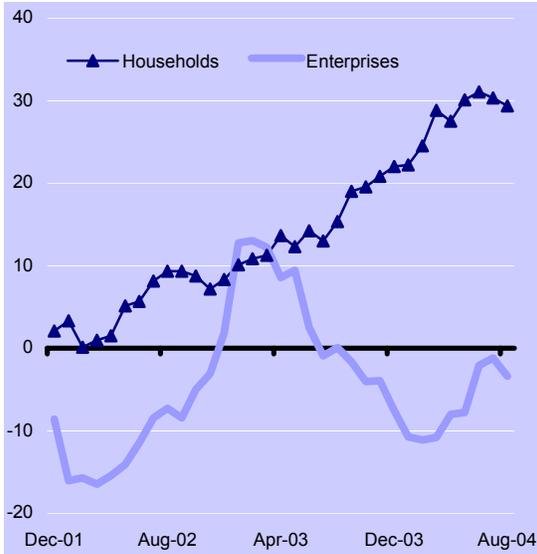
1/ 12-month accumulated flows.  
2/ Stocks at end of period.

As pointed out in this Report, the greater availability of credit in the Mexican economy has contributed to the continuous growth in expenditure, especially consumption expenditure. Commercial bank's credit to households has expanded in the last years, exhibiting an annual real variation of 29.4 percent in August 2004 (Graph 28a).<sup>11</sup> Within the components of household credit (granted by banks and other financial intermediaries), mortgage credit deserves mention. In particular, this type of credit granted by commercial banks rose at an annual real rate of 18.8 percent in August, while that by mortgage SOFOLES did so by 26.1 percent (Graph 29a). The expansion of mortgage credit has boosted construction significantly (Graph 29b). On the other hand, commercial banks financing to enterprises remains in a slump. Enterprises' most significant domestic source of alternative financing came from the debt market. As a result, during the third quarter of 2004, corporate debt placements resumed their pace of growth (Graph 28b).

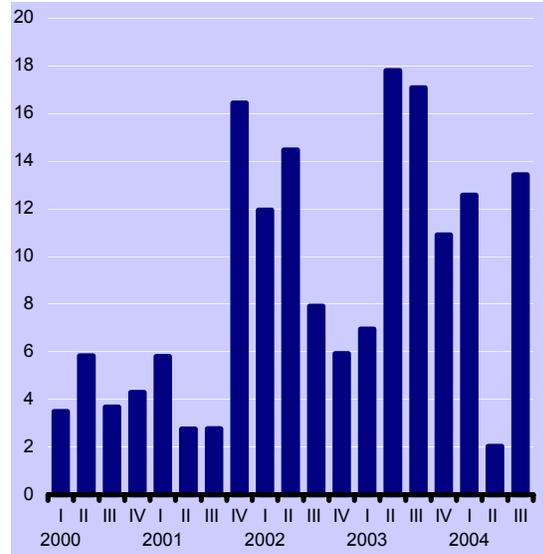
<sup>11</sup> Includes total direct lending to consumption and housing, and credit granted indirectly by commercial banks to households through other intermediaries.

**Graph 28 Commercial Bank Lending to the Private Sector and Issuance of Private Securities**

a) Bank Lending to the Private Sector <sup>1/</sup>  
Annual real percentage change



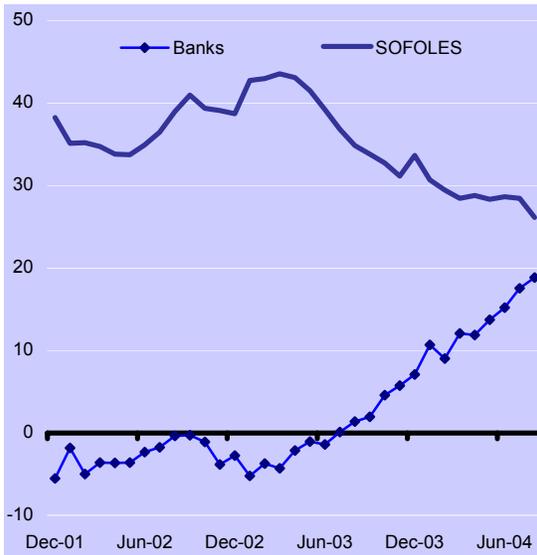
b) Quarterly Issuance of Medium-term Private Securities  
Thousand million pesos



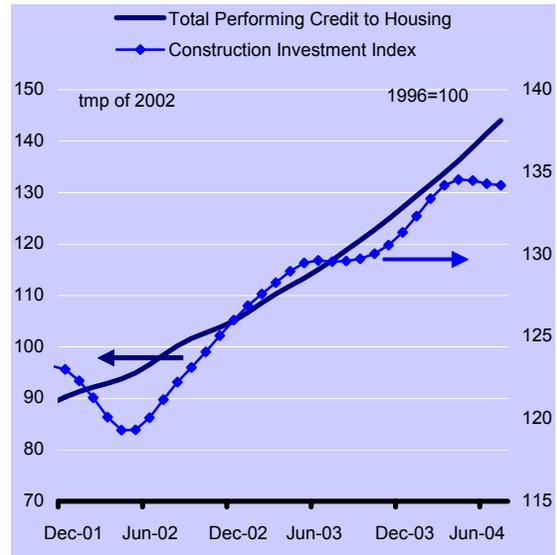
<sup>1/</sup> Lending to households includes total direct lending to consumption and housing, and commercial bank's lending to households through other intermediaries. Financing to the private sector includes total direct financing to the private sector and individuals with business activity, and indirect lending.

**Graph 29 Housing Credit Indicators**

a) Banks' Direct Performing Credit and Performing Portfolio of Mortgage SOFOLES  
Annual real percentage change



b) Housing Credit and Construction Investment Index  
Trend series



Source: INEGI and Banco de México.

### III. Private Sector Outlook for 2004-2005<sup>12</sup>

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#### III.1. Forecasts for Economic Activity and for Different Determinants of Inflation

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During the third quarter of 2004, private sector economic analysts revised their forecasts for the main macroeconomic variables in 2004, in general terms, as follows: a) expected inflation for 2004 was revised upward; b) GDP growth forecast for 2004 was revised slightly upward; and c) business confidence and business climate indicators exhibited weak results. September forecasts were as follows: i) GDP is expected to grow 4.02 percent in 2004, above the 3.93 percent expected in June's survey (Table 12), and 3.74 percent in 2005; ii) private consumption is expected to grow 4.24 percent, above the 4.01 percent forecasted in June; the forecast for private investment was also revised upward, from 5.4 percent to 6.05 percent; iii) 380 and 451 thousand jobs are expected to be created in the formal sector in 2004 and 2005, respectively; iv) expectations regarding interest rates for the following months were revised slightly upward; v) the peso exchange rate for the end of 2004 is anticipated to remain practically unchanged, at the level forecasted in June; and vi) moderate trade and current account deficits are expected for 2004.

The average level of Private Sector Economic Analysts' Business Confidence Index fell as compared with that of the second quarter. As in the previous surveys, analysts concurred on the need to advance in structural change measures, which, among other benefits, would induce greater investment levels.

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<sup>12</sup> Unless otherwise stated, forecasts reported in this section are drawn from Banco de México's monthly Survey of Private Sector Economic Analysts' Forecasts.

**Table 12 Private Sector Economic Analysts' Forecasts: June and September 2004<sup>1/</sup>**

	June 2004	September 2004		June 2004	September 2004
<b>Real GDP Growth in Mexico</b>			<b>Exchange Rate (Pesos/US dollar, year-end)</b>		
2004	3.93%	4.02%	Banxico Survey 2004	11.59	11.58
2005	3.82%	3.74%	Futures <sup>2/</sup>	11.81	11.45
<b>Trade Deficit (Million US dollars)</b>			<b>Mexican Crude Oil Mix (Average US dollars per barrel)</b>		
2004	6,580	6,439	Banxico Survey 2005	11.95	11.92
2005	9,701	9,924	Banxico Survey 2004	27.75	30.55
<b>Current Account Deficit (Million US dollars)</b>			<b>Wage Increases</b>		
2004	11,215	9,455	August 2004	4.30%	n.a.
2005	14,588	13,803	September 2004	n.a.	4.55%*
<b>Foreign Direct Investment (Million US dollars)</b>			<b>Business Climate</b>		
2004	15,115	15,327	1998=100**	154.1	144.0
2005	13,613	13,431			
<b>Real GDP and Industrial Production Growth in the U.S. in 2004 and 2005</b>					
<b>GDP Growth in 2004</b>			<b>GDP Growth in 2005</b>		
Banxico Survey	4.57%	4.28%	Banxico Survey	3.68%	3.60%
Consensus Forecasts <sup>3/</sup>	4.7%	4.3%	Consensus Forecasts <sup>3/</sup>	3.8%	3.5%
Blue Chip Economic Indicators <sup>4/</sup>	4.7%	4.3%	Blue Chip Economic Indicators <sup>4/</sup>	3.7%	3.6%
<b>Industrial Production in 2004</b>			<b>Industrial Production in 2005</b>		
Blue Chip Economic Indicators <sup>4/</sup>	5.0%	4.8%	Blue Chip Economic Indicators <sup>4/</sup>	5.1%	4.9%

n.a. not available.

1/ Unless otherwise stated, data is drawn from Banco de México's monthly Survey of Private Sector Economic Analysts' Forecasts.

2/ Exchange rate futures as of June 30 and October 4, 2004.

3/ *Consensus Forecasts* (June 14 and September 13, 2004).

4/ Blue Chip Economic Indicators (June 10 and September 10, 2004).

\*/ Data from August 2004 Survey.

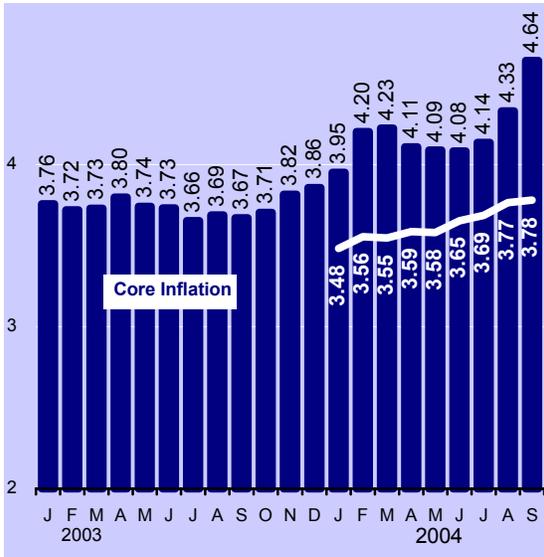
\*\*/ Average level in second and third quarters.

### III.2. Inflation Expectations

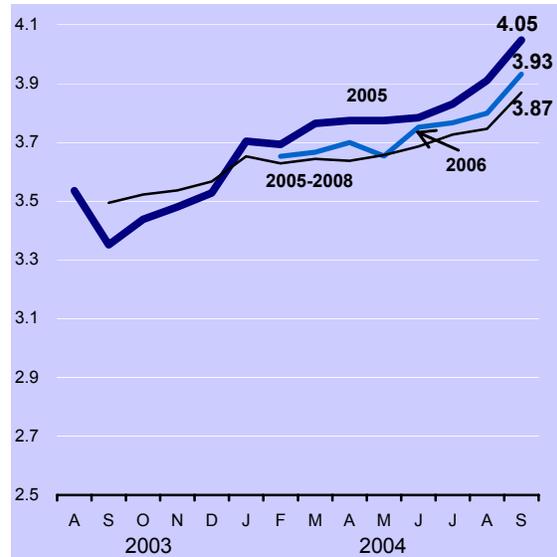
During the third quarter, private sector economic analysts revised their inflation expectations. In the survey conducted in September, their forecasts were as follows: i) CPI inflation for 2004 is expected to be 4.64 percent, above June's 4.08 percent; ii) Core inflation is expected to be 3.78 percent at the end of the year, above June's 3.65 percent; and iii) inflation expectations for the following twelve months, for 2005, 2006, and for the average in 2005-2008, were revised upward to 4.04, 4.05, 3.93 and 3.87 percent, respectively.

**Graph 30 Private Sector Economic Analysts' Forecasts for Inflation in 2004-2008**

**a) CPI and Core Inflation in 2004**  
Percent



**b) Average Inflation for Short and Long Terms**  
Percent



## IV. Balance of Risks and Final Remarks

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Banco de México's scenario for the remainder of 2004 and for 2005 is based on the following assumptions:

- (a) The U.S. economy is expected to continue growing, albeit at a slower rate than that exhibited at the beginning of the year. Main economic analysts' current forecasts for growth in the U.S. are 4.4 percent for 2004 and 3.5 percent for 2005. Industrial production is anticipated to grow at a higher rate than GDP: 4.7 and 4.6 percent in 2004 and 2005, respectively.
- (b) In recent months, international financial conditions have been characterized by the perception that the transition to tighter monetary conditions will take place more gradually than expected during the second quarter. This has brought about a reduction in yields for longer term instruments, which, in turn, has fostered significant capital flows to the emerging economies. The Mexican economy has received significant resources from oil revenues and from workers' remittances. Both factors are expected to continue to contribute to increase domestic expenditure for the remainder of 2004 and in 2005.

Based on such considerations, and on most recent information on the performance of the Mexican economy, Banco de México's scenario for the end of 2004 and for 2005 is as follows:

**Economic Growth:** Real GDP growth estimates remained unchanged for 2004: between 3.75 and 4.25 percent, and between 3.5 and 4.0 percent for 2005.

**Employment:** Approximately 380 and 460 thousand jobs are expected to be created in the formal sector in 2004 and 2005, respectively.

**Current Account:** The current account deficit is expected to remain at moderate levels, around 1 percent of GDP in 2004 and between 1.5 and 2.0 percent of GDP in 2005.

**Inflation:** In order to evaluate the outlook for inflation in the short and medium terms, the likely behavior of commodity prices (which have recently exhibited significant increases) must be analyzed.

The fact that some commodity prices could eventually stabilize was pointed out in the previous Inflation Report. Such prevision was based on two factors:

- (a) First, that the Chinese economy would begin growing at a more moderate pace.
- (b) Second, that given the higher margins of commodities in international markets, their supply should increase gradually.

This scenario was based on the path of commodity futures prices during the second quarter of 2004. However, in the third quarter, some of these prices began to exhibit additional increases, therefore affecting inflation in Mexico.

Certain factors, such as the fall in prices of some grains and cereals, might contribute to create more favorable international conditions for primary commodity prices in the following months. This should enable the prices of different processed and livestock goods to decline.

Nonetheless, it is still very difficult to assess the outlook for prices in these markets mainly because of two factors.

On the one hand, recent indicators of the Chinese economy suggest that it has been slowing its growth rate only moderately. Thus, the fact that its demand for commodities could continue pressuring commodity prices should not be discarded.

On the other, despite the perception that the world economy will slow down in 2005, oil prices in cash and futures' markets have not declined. This is due to the fact that oil markets have been significantly affected by supply factors such as reduced idle capacity and geopolitical risks.

Summing up, given the higher prices of certain primary goods, together with the perception that the world economy will grow more slowly and information from futures' markets, it is probable that the outlook for inflation associated with commodity prices will improve, at the margin, slightly in 2005 in relation to 2004.

The outlook for inflation in Mexico for the following months will also depend on the interaction between supply shocks and aggregate demand. Under such setting, as idle capacity in different sectors narrows, it is more feasible that a higher number of producers will be in a better position to raise their prices more easily. In this regard, it is clear that the vigorous growth of domestic expenditure facilitates the contagion of inflation expectations due to the price increases originated by supply shocks.

Thus, the outlook for inflation must consider monetary policy's reactions to such conditions. As mentioned in other sections, the Central Bank has been tightening its monetary policy stance throughout the year and, under the current environment, it will maintain such stance for as long as it is necessary.

Monetary policy is known to act through different channels and with some lag. Nonetheless, its main objective is to prevent external inflation pressures from contaminating inflation expectations and, consequently, the process of price determination of the economy.

Based on the above considerations, the expected scenario for the following months for the different CPI subindexes is as follows:

- (a) Annual core merchandise inflation is expected to continue to be affected by higher food prices. Food inflation apparently is easing in some countries. In the U.S., it rose from 0.91 percent in October of 2002 to 4.08 percent in May of 2004, and then down to 3.37 percent in September. Nonetheless, since food prices in Mexico have a lagged response to international price increases, the former are likely to continue to rise for sometime.
- (b) The annual variation of services core inflation is expected to decrease slightly and then follow a horizontal path. In order for this condition to materialize, the temporary increases in CPI inflation originated by supply shocks should not contaminate wage negotiations.

Based on the above, in the following months, the annual variation of the core price index is expected to follow a slight upward trend but remaining below 4 percent, and then, by the beginning of the second quarter of 2005, resume its downward trend. Since the annual variation of the services core subindex is expected to exhibit smaller reductions, the path of total core

inflation will depend on a greater scale on the development of core merchandise inflation.

As for the non-core price index, the significant price increases in some perishable goods (such as tomato) and in certain items of the subindex of goods and services regulated by the public sector (which took place at the beginning of the year) are expected to revert in the following months. Nonetheless, in order for non-core inflation to decline more markedly, international livestock and energy prices must ease. Regarding the latter, it is important that administrative decisions concerning the determination of certain energy prices take into consideration the inflation target. If the current trend continues, gas prices and high consumption electricity tariffs will reach in December 2004 an annual growth rate of 18.64 percent and 19.71 percent, respectively. Finally, it is necessary that prices and tariffs of goods and services regulated by the public sector do not increase sharply at the beginning of 2005.

In light of the above, CPI inflation is expected to remain at levels close to those observed during the last months, in line with the latest forecasts from private sector analysts, and to resume its downward trend by the second quarter of 2005.

The magnitude and intensity of supply shocks have raised inflation above its 3 percent target, affecting medium and long-term inflation expectations. As previously mentioned, in the following months, total core inflation is expected to be determined mainly by the behavior of core merchandise inflation, given that services inflation is anticipated to follow a horizontal path. In light of such developments, Banco de México's Board of Governors has adopted several measures to restrict its policy stance in order to prevent wage negotiations and the price determination process from being contaminated by such shocks. Moreover, should further inflation pressures arise or the effects of current shocks intensify, the Board of Governors will continue to act accordingly.

The expected macroeconomic scenario is subject to several risks. Since the external environment has affected significantly the development of both GDP growth and inflation in Mexico, the main risks stem from the change in external conditions.

The main risk faced by the Mexican economy is that U.S. growth weakens more than currently anticipated by the main economic analysts. Among other factors, the higher prices of crude oil and oil by-products, which are likely to prevail, could contribute to such risk. Under such conditions, the Mexican economy could

be affected in two ways: on the one hand, the demand for Mexican exports would be reduced, thus affecting the outlook for growth and employment; on the other, inflation pressures from electricity, gasoline and gas prices would worsen.

Another external risk factor is that inflation pressures from aggregate demand intensify in the U.S. and throughout the world. Such scenario would lead to two problems: on the one hand, a new international cycle of rising interest rates would generate higher volatility in international financial markets, once more affecting emerging economies' conditions to access external financing; on the other, such scenario would imply that the higher demand for primary goods (energy-related goods and others) would continue, therefore raising their international prices.

Until now, the performance of the world economy has fostered Mexico's cyclical recovery. However, no significant progress has been made in strengthening the domestic sources of growth, and, therefore, the country's potential has not been used to its full capacity. Mexico's downgrade in different international indicators of country's competitiveness and attractiveness to investors reveals the high cost of postponing the required economic and institutional reforms. Therefore, it is necessary to create public awareness that as several nations have aggressively inserted themselves into the new global economy and implemented significant changes in their economies, the first generation of reforms must be renewed to increase the flexibility and competitiveness of the productive sector. The failure to do so will lead to a loss of share of Mexican products in international markets, therefore reducing Mexico's allure as an investment receptor, and mostly, canceling the opportunity to create more stable and better-paid jobs.

Finally, regarding domestic risk factors, as the expansion phase of the business cycle consolidates, wage agreements and the price determination process of the economy are more likely to be affected by the referred supply shocks.

Consequently, Banco de México has adopted a restrictive monetary policy stance. The Central Bank's objective is to secure price stability and, in turn, ensure the basic conditions of certainty needed for production and investment. The consolidation of price stability is a gradual process and, therefore, the temporary shocks that have affected inflation must be evaluated in a medium-term horizon. Thus, although the persistent and unexpected supply shocks during this year have complicated the reduction of inflation, Banco de México reiterates its commitment to abate it, and make

prices resume their downward path towards the inflation target. Only that way it would be possible to lay the groundwork for permanent stability, which together with the structural and institutional reforms, will contribute to make investments safer and more profitable, raise productivity, and improve, in a sustained fashion, Mexicans' welfare.

## V. Calendar of Monetary Policy Announcements for 2005

The Board of Governors of Banco de México determined that from January 2003 onward, monetary policy actions will be announced on pre-established dates and published in the Inflation Report of the third quarter of the previous year. Following is the calendar of monetary policy announcements, monthly press releases, and inflation reports for 2005.<sup>13</sup>

**Table 13**

**Calendar of Monetary Policy Announcements for 2005**

Month	Monetary Policy Announcements	Press Releases	Publication of Inflation Reports
January	14, 28	28	31 <sup>1/</sup>
February	11, 25	25	
March	11, 23 <sup>2/</sup>	23	
April	8, 22	22	27
May	13, 27	27	
June	10, 24	24	
July	8, 22	22	27
August	12, 26	26	
September	9, 23	23	
October	14, 28	28	31
November	11, 25	25	
December	9	9	

1/ Includes Monetary Program for 2005.

2/ Corresponds to the previous working day to the date set by the guidelines for determining the calendar dates for monetary policy announcements.

<sup>13</sup> The Inflation Report of July-September 2002 includes the criteria and guidelines for determining calendar dates for monetary policy announcements and monthly press releases.