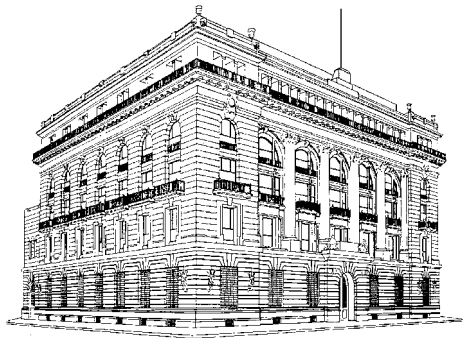


# Inflation Report

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July – September 2002



BANCO DE MEXICO

OCTOBER 2002

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*BOARD OF GOVERNORS*

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## **FOREWARNING**

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*Unless otherwise stated, this document has been prepared using data available as of October 25, 2002. Figures are preliminary and subject to change.*



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## I. Introduction

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This document presents Banco de México's assessment which served as the basis for monetary policy decisions in July-September 2002. The scenario for the Central Bank's forecasts for the remainder of 2002 and 2003 concerning the path of inflation and economic activity as well as the balance of risks, are also outlined.

At the end of September, annual CPI inflation remained at practically the same level it had been at the end of June while core inflation declined slightly. During the third quarter, annual CPI inflation was highly volatile, in contrast to the stable behavior of core inflation. This path was consistent with that forecasted in the Inflation Report for the April-June quarter. Thus, the fluctuations in annual overall inflation mainly responded to variations in the sub-indexes of prices for agricultural goods, administered goods and education services. Meanwhile, annual core inflation of goods fell slightly during the third quarter despite the depreciation of the exchange rate, which suggests that, up to now, there is no evidence of passthrough effects from the depreciation of the exchange rate to domestic prices.

On September 23 the Board of Governors of Banco de México decided to raise the level of the "short" from 300 to 400 million pesos. This decision was forward looking and in response to the need to modify monetary conditions in order to attain the 3 percent inflation target by end-2003, notwithstanding the restrictions that the following factors have imposed on the expected evolution of inflation: a) the downward rigidity of inflation expectations for 2003; b) the relatively stable behavior of core inflation of services; c) the insufficient moderation of nominal contractual wage increases; and d) the volatile international environment.

During the third quarter of 2002, in general, the Mexican economy's behavior responded to the following factors: the slowdown of industrial output in the United States and growing concerns over the future course of its economy; increased risk aversion in international capital markets; deteriorating country risk perceptions for Latin America; and prevailing pessimism concerning the future of structural reforms in Mexico. It is,

however, worth mentioning that even in the face of international financial volatility and the weakness of the world economy, the domestic financial markets have behaved favourably. As a result of the adverse factors mentioned above, annual GDP is estimated to have been around 2.0 percent in the third quarter, lower than had originally been anticipated. Thus, job creation slowed and the unemployment rate increased during the third quarter. In sum, the incipient recovery that had begun in the first few months of the year weakened during the period covered by this Report.

As for the remainder of 2002, core inflation is expected to remain relatively constant and overall inflation will, therefore, be determined by the path of agricultural goods prices –difficult to specify due to their volatility– as well as by the trajectory of prices administered or regulated by the public sector –influenced by movements in some products’ international prices, such as gas. However, it is important to remember that during the last few months of 2001, the growth rate of prices of agricultural products was unusually low and prices administered or regulated by the public sector decreased. As a result, an upward impact of statistical nature could take place at year-end. In other words, the phenomenon that allowed annual overall inflation to end the year below target and below core inflation in 2001 would tend to push overall inflation above core inflation in the current year. It is also worth mentioning that the unanticipated rise in administered prices that took place at the beginning of 2002 represented one initial influence in the deviation from its target.

Should annual inflation diverge from the 4.5 percent objective, it would be entirely attributable to the factors mentioned above and would, therefore, be transitory. If public sector prices are set with the intention of attaining an inflation of no more than 3 percent in 2003, overall inflation could rapidly converge with core inflation in the first half of next year.

This issue of the Inflation Report includes a section that explains that from 2003 on, the Board of Governors of Banco de México will announce its monetary policy decisions on predetermined dates. It also discusses the Board of Governors’ reasons for introducing additional communication mechanisms in order to increase the frequency and timeliness of the information provided to the public. The Board of Governors of Banco de México harbors the conviction that this will help to increase the effectiveness of its monetary policy and consolidate the achievements made in reducing inflation during the last few years.

## II. Recent Developments in Inflation

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During the third quarter of 2002, prices followed a trajectory consistent with that forecasted in the previous Inflation Report. While annual CPI inflation fluctuated, annual core inflation remained stable. Nonetheless, both indicators ended the quarter at a level similar to that posted at end-June. Thus, the volatility of annual overall inflation mainly reflected the path of those price sub indexes that are excluded from core inflation calculations. During July-September, the most noteworthy events regarding price behavior were as follows:

- (a) Annual CPI inflation ended practically at the same level seen in June while core inflation decreased slightly;
- (b) Notwithstanding the depreciation of the exchange rate during the third quarter, annual core inflation of goods fell;
- (c) Annual core inflation of services also declined. Throughout the year, annual inflation of this subindex experienced a moderate decrease mainly as a result of rising prices in three of its components: owner occupied homes, home rentals and car insurance;
- (d) Annual inflation of the subindex of prices administered by the public sector continued to go up, reaching 12.93 percent by the end of the third quarter, the highest figure for any of the main CPI components;
- (e) Although annual inflation of educational services went down, it still remains significantly above headline and core inflation;
- (f) Annual inflation of the main CPI components registered fluctuations as a result of the recently updated weights of the CPI; and
- (g) Although annual PPI inflation excluding oil and services went up during the period, there is no evidence of a passthrough effect on the CPI.

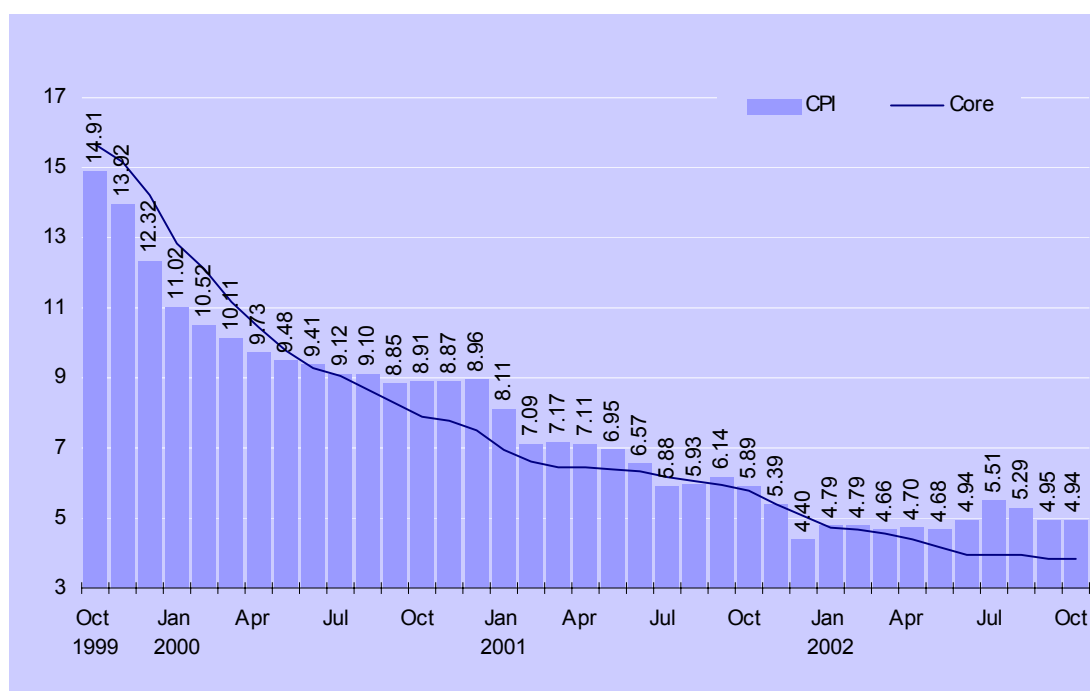
## II.1. Evolution of Several Inflation Indicators

The evolution of the main price indexes during the July-September quarter of 2002 will be analyzed in the following pages.

### II.1.1. Annual Inflation of the Consumer Price Index and Core Price Index

At the end of the third quarter of 2002, overall inflation was 4.95 percent, 0.01 percentage points above its level at end-June (Graph 1). However, as had been anticipated in the Inflation Report for the second quarter, the growth rate of the CPI fluctuated during the period, increasing 0.57 percentage points in July and gradually declining in the following two months. This behavior was due to movements in the subindexes of agricultural products and of prices administered by the public sector.

**Graph 1** National Consumer Price Index and Core Price Index  
Annual percentage change



In line with expectations, core inflation decreased slightly to 3.85 percent in September, 0.11 percentage points lower than in June (Graph 1). The reduction mostly took place in September and

was less than that observed during the previous quarter, which explains why the growth of the core price subindex for services remained relatively stable while annual inflation of goods reached a very low level. For the third consecutive quarter core inflation was lower than headline inflation and, as a consequence, the gap between them has increased slightly.

In the third quarter of 2002, the inflation of the subindex for prices administered by the public sector went up once again and was 12.93 percent in September, which compared unfavourably to the 7.27 percent registered in June (Table 1). On this occasion the increase stemmed from the 16.27 percentage point increase in the price of domestic gas that took place between June and September. On the other hand, the rate of increases in the prices of private education and agricultural products declined substantially in the period covered by this Report. In the first case from 13.16 percent in June to 10.10 percent in September and in the second from 5.15 to 2.38 percent.

**Table 1 Price Indexes: CPI, Core, Agricultural Products, Education and Administered or Regulated by the Public Sector**

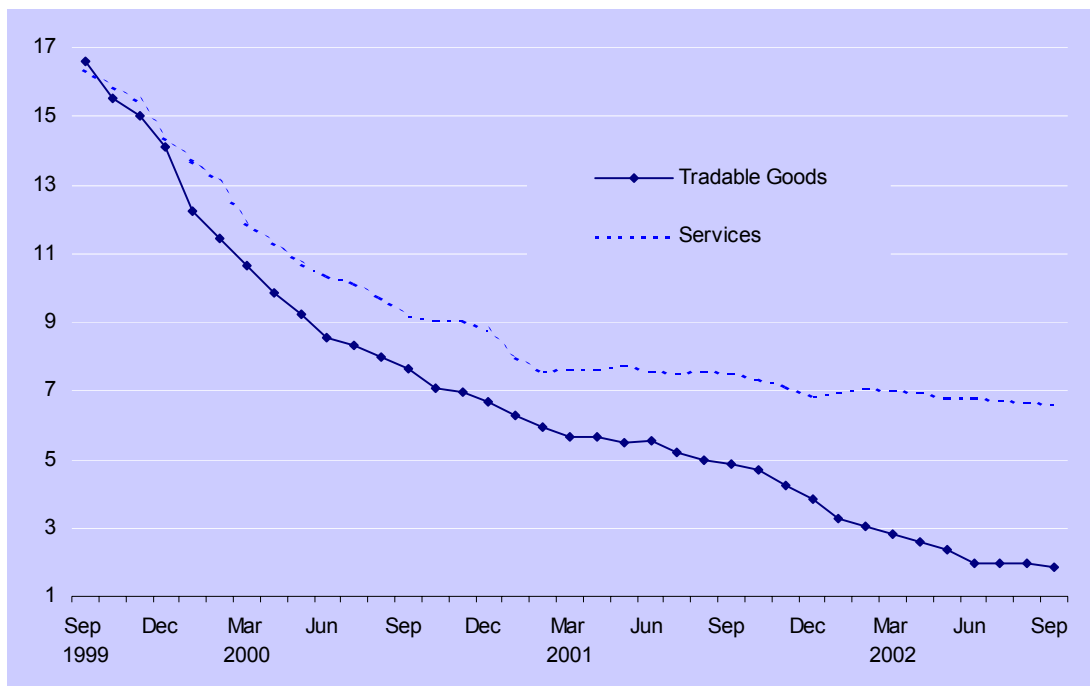
Percent

	Annual changes			Quarterly changes		
	Sep 2002/	Jun 2002/	Sep 2001/	Sep 2002/	Jun 2002/	Sep 2001/
	Sep 2001	Jun 2001	Sep 2000	Jun 2002	Mar 2002	Jun 2001
CPI	4.95	4.94	6.14	1.27	1.24	1.27
Core	3.85	3.96	5.93	0.63	0.71	0.73
Tradable Goods	1.85	1.99	4.85	0.17	0.20	0.31
Services	6.61	6.81	7.52	1.17	1.43	1.35
Agricultural Products	2.38	5.15	6.63	2.23	5.27	4.99
Fruits and Vegetables	5.90	12.82	5.91	3.79	16.34	10.58
Meat and Eggs	0.04	0.42	7.13	1.15	-1.25	1.54
Education	10.10	13.16	14.06	8.76	0.20	11.78
Administered and Regulated	9.23	6.93	5.06	1.06	0.95	-1.07
Administered	12.93	7.27	2.59	1.85	1.00	-3.26
Regulated	6.41	6.66	7.01	0.41	0.91	0.64

Core inflation of goods remained stable in the first two months of the quarter and decreased in the third, despite the depreciation of the exchange rate that took place during this and the previous quarter. Thus, the rate of growth of the core price subindex for goods decreased from 1.99 percent in June to 1.85 percent in September, suggesting that the passthrough effect of fluctuations in the exchange rate to these prices has weakened.

Meanwhile, core inflation of services declined slowly, similar to that posted in the second quarter, remaining at a higher level than core inflation of goods (Graph 2). At the close of the third quarter core inflation of services was 6.61 percent, 0.20 percentage points lower than at the end of the second quarter.

**Graph 2** **Core Price Index for Tradable Goods and Services**  
Annual percentage change



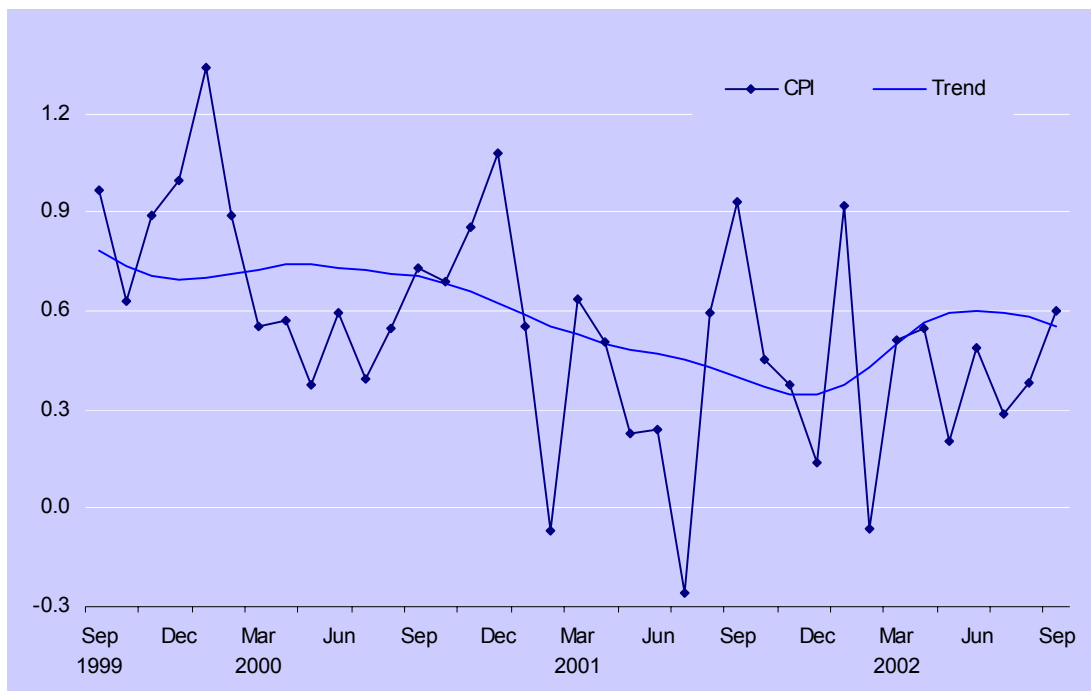
Core inflation of goods fell 2 percentage points during the first nine months of the year, while in the same period core inflation of services decreased only 0.26 percentage points. The downward rigidity of inflation in the services sector was not widespread and was concentrated in a small number of areas: car insurance, owner occupied homes and home rentals. In the case of car insurance, annual inflation between December 2001 and September 2002 rose 14.17 percentage points, the increase for owner occupied homes in the same period was 0.59 percent and for home rentals 1.61 percent. Although the rebound in both owner occupied and rented homes was not very drastic, their substantial weight in the CPI makes them important (owner occupied homes 11.97 percent and home rentals 2.52 percent). In contrast to this, the inflation of the remaining services included in the price

subindex fell 1.65 percentage points between December 2001 and September 2002.

### II.1.2. Monthly Inflation of the Consumer Price Index and Core Price Index

Overall inflation in July, August and September of 2002 was 0.29, 0.38, and 0.60 percent, respectively (Graph 3). The figure for July was significantly higher than that registered during the same month of 2001 (-0.26 percent). However, in August and September the increases were lower than those observed in the corresponding months of the previous year. The path of monthly headline inflation reverted from its trajectory in the previous quarter.

**Graph 3** Consumer Price Index  
Monthly percentage change



CPI inflation in the July-September period was higher than had been expected by private sector analysts at the start of the quarter. As will be shown later in this Report, this had a negative impact on inflation expectations for year-end 2002 (Table 2).

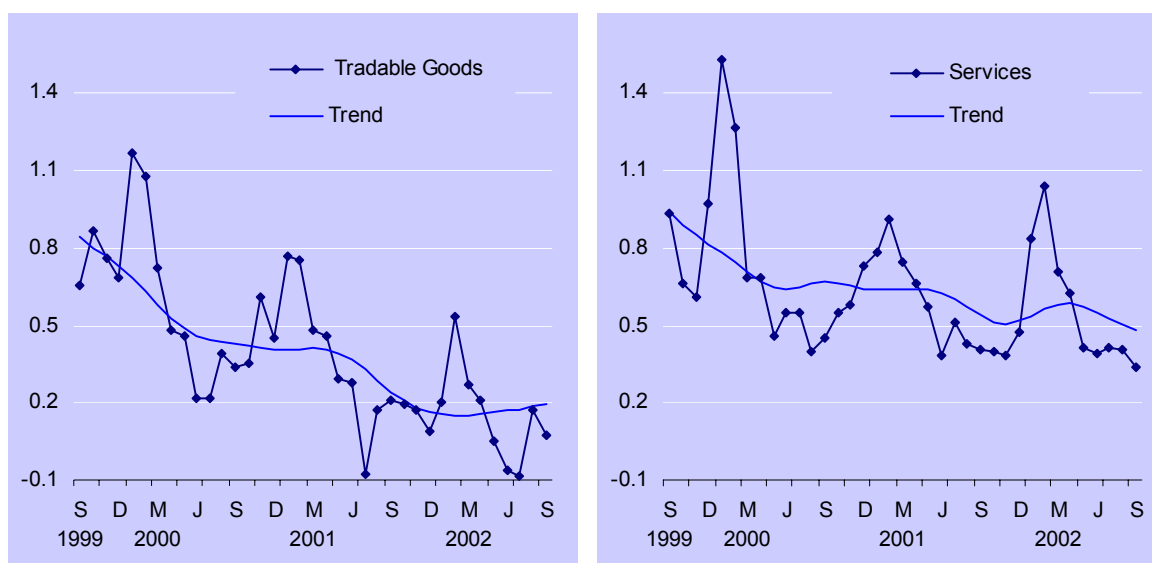
**Table 2** **Expected and Observed Monthly Inflation**  
Percent

	2002		2001	
	Observed	Expected <sup>1/</sup>	Observed	Expected <sup>1/</sup>
July	0.29	0.22	-0.26	0.41
August	0.38	0.32	0.59	0.48
September	0.60	0.50	0.93	0.78

<sup>1/</sup> Forecasts for inflation at the end of the second quarter according to the Survey of Private Sector Economic Analysts' Expectations undertaken by Banco de México.

In the third quarter of 2002, the trend series for core inflation of goods increased, while that for services declined (Graph 4).

**Graph 4** **Core Price Indexes for Tradable Goods and Services**  
Monthly percentage change



### II.1.3. Producer Price Index (PPI)

At the end of the third quarter of 2002, the annual growth of the Producer Price Index (PPI) excluding oil and services was 4.19 percent, implying a 0.33 percentage point increase over its level in the previous quarter. This rebound was associated with the depreciation of the exchange rate between July and September this year due to the fact that the goods exports included in this index are



valued in dollars. In the past, changes in annual PPI inflation excluding oil and services have preceded movements in the core subindex for goods. Nevertheless, there is still no evidence that the upturn in inflation of this index has had a passthrough effect on goods' inflation.

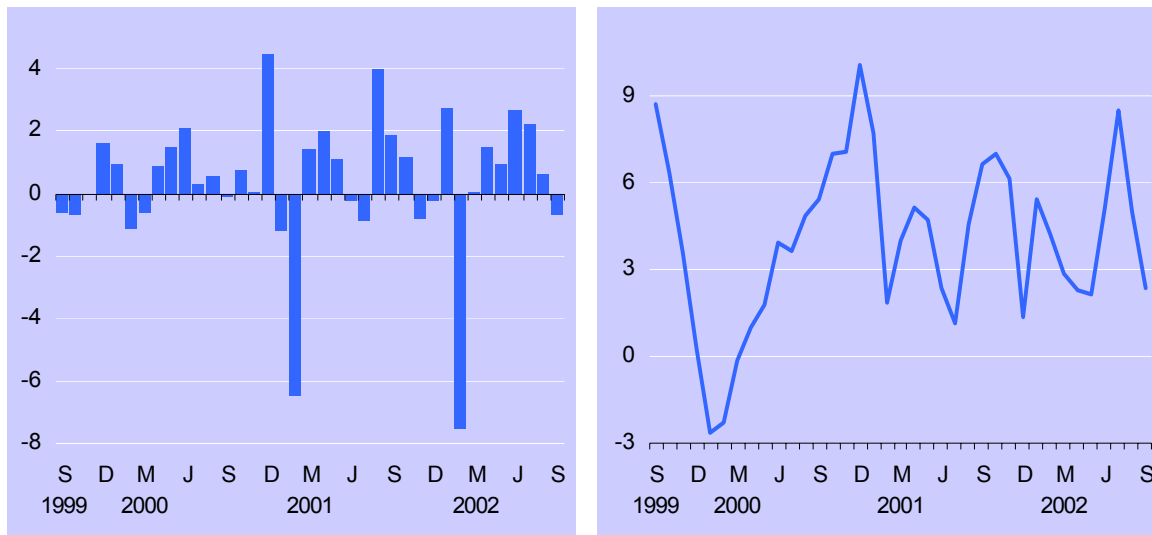
**II.1.4. Transitory Factors that Affected Inflation**

The subindex of prices of agricultural goods continued to be highly volatile during the quarter covered by this Report and the increase that this subindex underwent in the second quarter reverted. In September, the annual inflation of this item was 2.38 percent, while in June and March it had been 5.15 and 2.85 percent, respectively (Graph 5). This reversion was mainly due to the negative monthly inflation registered by this subindex during September. The 15.64 percent fall in the price of tomato significantly influenced this result due to its volatility and its weight in the subindex. Moreover, the prices of the following products also posted significant reductions during the quarter: green tomato (10.35 percent) and potato (7.92 percent).

**Graph 5 Agricultural Prices Index**

Monthly percentage change

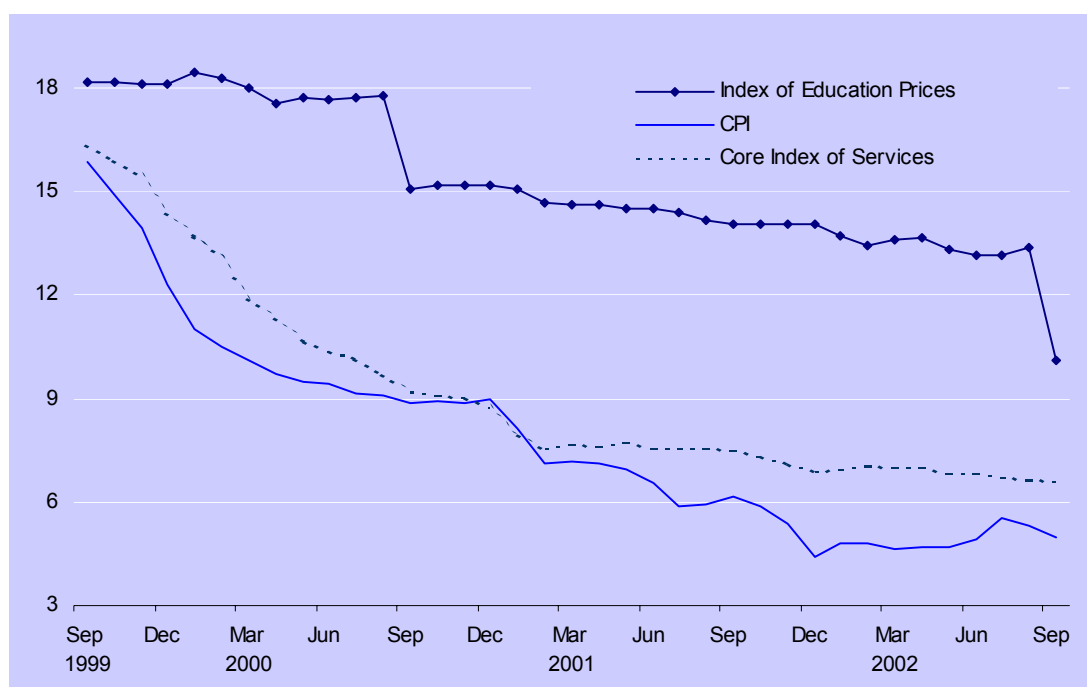
Annual percentage change



In September 2002 the annual growth of the price subindex for education services was 10.10 percent, 3.96 percentage points less than in the same month of 2001 (Graph 6). Although this was a substantial and more pronounced reduction than that

observed the previous year, the annual inflation of this subindex remains considerably higher than CPI inflation and core inflation of services. The high annual growth rate of prices for education services cannot be explained by a lag in their relative prices, due to the fact that they are at one of their historically highest levels. It could, however, be in response to a substantial increase in the demand for private education, a possibility that merits more detailed analysis.

**Graph 6** **Index of Education Prices, CPI, and Core Index of Services**  
Annual percentage change



## II.2. Main Determinants of Inflation

The evolution of the international environment will be examined first due to its effects on Mexico's external accounts and its influence on the behavior of the exchange rate, output, aggregate demand and prices. Next, the path of wages and productivity will be reviewed, as both are direct determinants of unit labor costs, which have an important influence on the inflation process. Third the evolution of aggregate supply and demand will be described. The analysis of these variables allows inflationary

pressures derived from excess aggregate demand to be identified. The latter also affects the behavior of the current account, which will be studied separately. Then, the performance of the items that make up the capital account will be examined. Finally, the behavior of prices administered or regulated by the public sector will be assessed due to their direct and significant incidence on CPI inflation.

### **II.2.1. International Environment**

During the third quarter, the evolution of the external variables that influence the Mexican economy was generally unfavorable. On balance, the behavior of the main indicators of economic activity in the U.S. was negative. Although recovery in that country continued moving forward, it has been sluggish and clouded by an environment of growing uncertainty. In particular, in the last few months financial markets in the U.S. and in other countries have experienced significant falls, which has led to concerns about the future behavior of consumers. Moreover, perspectives for Latin America, especially for MERCOSUR members, remained weak during the third quarter. The main positive development –in the short run– that served as a counterbalance for these unfavourable effects was the rise in oil prices. Thus, the price of the Mexican oil mix reached 23.95 U.S. dollars on average during the period, an increase of nearly 7 percent compared to the second quarter.

#### **II.2.1.1. Oil Prices**

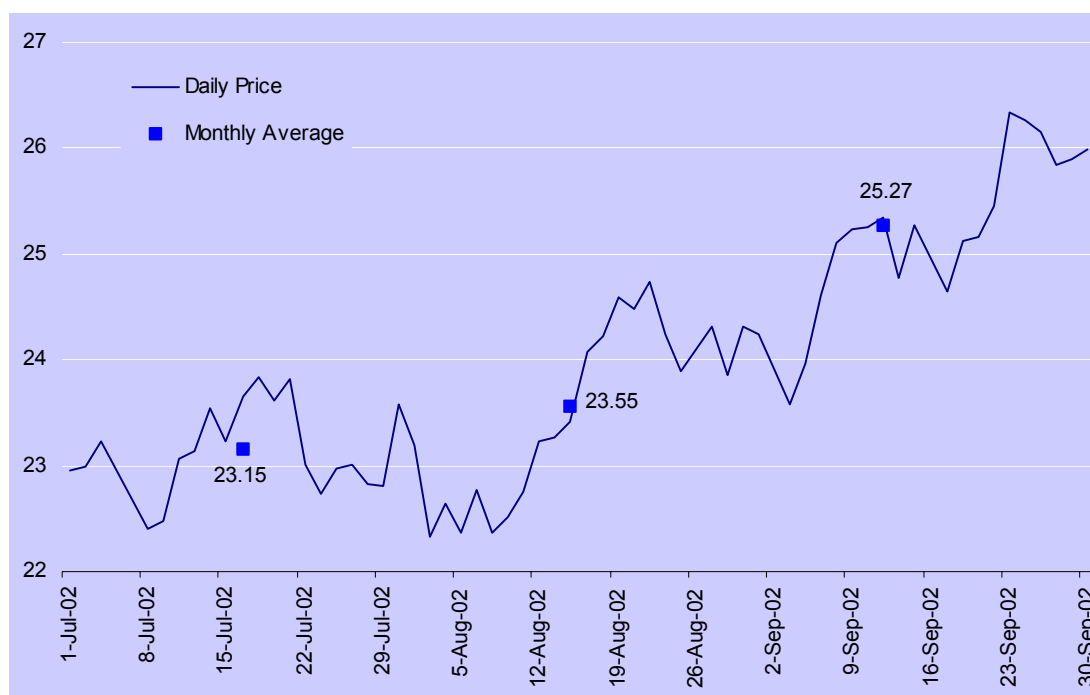
In the third quarter of 2002, the average price of WTI oil was 28.35 dollars per barrel, 2.06 dollars higher than in the second quarter and 2.02 dollars above average future prices contracts on June 24 for delivery in July, August and September. For most of the third quarter, movements in these prices redounded in an upward trend. As a result, at the end of September, the price of WTI oil reached 30.62 dollars per barrel, far higher than the 26.27 dollars it had registered towards the end of June 2002 for delivery in September this year.

Perhaps the main factor behind rising oil prices during the period has been the growing possibility of a military attack by the United States on Iraq. However, some analysts have pointed to more “fundamental” factors, among which the following are outstanding: the strong demand for fuel in the United States during the summer months; the relatively low level of inventories of several products in that country (especially oil for heating, that

should increase as autumn approaches); OPEC's decision, taken in mid September, not to increase production; and the temporary reduction of crude oil extraction in the Gulf of Mexico as a consequence of hurricane Isidore.

During July-September 2002 the average price of the Mexican oil export mix was 23.95 dollars per barrel, 1.52 dollars more than in the previous quarter. At the end of September this price was 25.98 dollars, 3.37 dollars above its level at end-June. During the third quarter, the spread between the Mexican oil export mix and the WTI fluctuated between 3.62 and 6.17 dollars per barrel, being the widest at the end of August (Graph 7).

**Graph 7** Price of Mexico's Crude Oil Export Mix  
US dollars per barrel



Source: Reuters.

#### II.2.1.2. Evolution of the United States' economy

The upturn in the United States' economy weakened in the third quarter of 2002. Although the rate of growth of real GDP will surely surpass the level observed during April-June, the factors driving this expansion are mostly transitory or weak. Moreover, new threats to recovery emerged during the third quarter. The

likelihood of war against Iraq has exacerbated the fragility of the financial markets, whose accumulated falls seem already to have begun to have an adverse affect on household consumption. Several analysts' base scenarios still consider a recovery of the U.S. economy, yet they predict that the upturn will be less vigorous and will face greater downside risks than in the previous quarter. For these reasons, the Federal Reserve's reference interest rate has remained unchanged throughout the year. However, analysts foresee further cuts to this monetary policy instrument and have revised their growth forecasts for the last two quarters of 2002 downwards.

The growth rate of real GDP in the United States<sup>1</sup> was 1.3 percent in the second quarter of 2002. This represented a more marked deceleration compared to the first quarter and market expectations of a few months ago. As in January-March, the main contributions to growth during the second quarter derived from private consumption, the recovery of business inventories and government expenditures. However, these were less robust than in the first quarter. In particular, during the second quarter private consumption and government expenditures grew 1.8 and 1.4 percent, respectively, while in the first quarter they had increased 3.1 and 5.6 percent.

The evolution of the main coincident leading indicators of aggregate supply and demand in the United States was mixed in the third quarter of 2002. The following are among the most outstanding features (both positive and negative) of the recent outlook for the United States' economy:

- (a) A significant deterioration in consumer confidence. Michigan University's confidence index moved from an average of 94 units in the second quarter of 2002 to 87 in the third;
- (b) The Institute for Supply Management's survey, a leading indicator of industrial activity, reached relatively low levels of 50.5, 50.5, and 49.5 percent in July, August and September, respectively. In contrast to this, the figure for June had been 56.2 percent;
- (c) New orders for durable goods posted monthly rates of 8.6 and -0.6 percent in July and August, respectively;
- (d) The monthly growth rate of the industrial output index (seasonally adjusted figures) dropped from 0.6 percent in

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<sup>1</sup> Refers to annual seasonally adjusted GDP growth.

June to 0.4 percent in July, to -0.3 percent in August and -0.1 percent in September;

- (e) Stock market indexes fell sharply throughout the third quarter. This can be attributed, among other factors, to the scandals surrounding fraudulent accounting practices in some of the most important corporations in the United States and to growing concerns about an attack on Iraq. As a result, the Dow Jones Index reached 7,528 points on October 4th, its lowest level for the last five years;
- (f) Average new housing construction was 1.627 million units in July and August (annual and seasonal figures), very close to the level of 1.667 million observed during the second quarter;
- (g) Real private consumption expanded at monthly rates of 0.4, 1.0 and 0.3 percent in June, July and August, respectively. The seasonally adjusted wholesale sales index behaved similarly, growing 1.4, 1.2, and 0.6 percent in the same months. In September retail sales fell 1.2 percent; and
- (h) Business inventories grew at positive rates between the second and the third quarter. Thus, firm's inventories rose 0.3 and 0.4 percent, respectively in June and July, while those of wholesalers increased 0.4 and 0.6 percent. Nevertheless, in August they lost impetus, with firms' inventories decreasing 0.1 percent and those of wholesalers growing 0.2 percent.

Table 3

**Growth Forecasts for the United States Economy**

Annual percentage change

	Start of July 2002		Start of October 2002	
	III/2002	2002	III/2002	2002
Consensus Forecasts <sup>1/</sup>	n.a.	2.8	n.a.	2.4
Deutsche Bank	4.2	3.0	3.0	2.3
Goldman Sachs	2.5	2.5	3.5	2.4
JP Morgan	4.0	2.8	4.0	2.5

<sup>1/</sup> July 8<sup>th</sup> and September 9<sup>th</sup> 2002 *Consensus Forecasts*. Since the quarterly forecasts correspond to a survey carried out on a date different from that of the *Consensus Forecasts*, no reference is made to the quarterly forecast in this document.

Forecasts for the growth of the United States' economy in the third quarter of 2002 are between 3 and 4 percent (at an annual

rate). Although this outcome would be more favourable than that observed in the second quarter, it would partly originate from temporary factors. One of the most important of these was high car sales in July and August stemming from attractive incentive packages offered by both carmakers and dealerships. Many of these sales probably represented advanced purchases and it is, therefore, unlikely that they will remain at such high levels. Likewise, the growth of the economy in the third quarter might have been influenced by favorable developments in the trade balance, brought about by a temporary decline in non-oil imports and increased aircraft exports. Taking into account the transitory nature of these factors, analysts expect real growth of between 2.3 and 2.5 percent for the year as a whole, implying a downward revision from their forecasts three months earlier. In particular, in its *World Economic Outlook* published in September, the IMF reduced its growth estimates for the United States' economy for 2002 and 2003 from those it published in April by 0.1 and 0.8 percentage points, respectively<sup>2</sup> (Table 3). As a consequence, during the remainder of the year, the contribution to growth of the different components of demand can be expected to change as follows:

- (a) Private consumption's contribution to GDP growth could continue to diminish. Despite rising housing values, an essential component of households' net worth, the wealth-income ratio has continued to decline due to the sharp falls in the stock market indexes. As a result, there are indications that many households are trying to increase their rate of saving and readjust this ratio<sup>3</sup>;
- (b) The moderate upturn in private investment foreseen by some analysts seems unlikely. Although the capital-GDP ratio has fallen, firms' idle capacity is still relatively high. This hampers the sound recovery of investment, even in the context of low interest rates, especially given the fact that recession was caused by a contraction of desired investment;

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<sup>2</sup> The modest reduction of the IMF's official forecast for 2002 can be explained by the low frequency of its studies. Estimates in April's *World Economic Outlook* included growth expectations for the first quarter (around 5.1 percent) that were surpassed by preliminary data (up to 6.1 percent) published after that edition of the *World Economic Outlook*. Based on this preliminary information, market analysts revised their growth forecasts for the year upwards. Final estimates for economic growth in the first quarter, published in September's *World Economic Outlook*, have returned to similar levels as those observed in April (5 percent), contributing to downward revisions of analysts' forecasts for the year. Because the *World Economic Outlook's* forecast was not raised, it does not need to be revised downwards in the same way as private sector analysts' expectations.

<sup>3</sup> However, mortgage refinancing indexes reached historic maximums in September. The importance of this lies in the fact that many refinancing agreements have been made in a way that increases household debt, providing them with more liquidity with which to finance consumption.

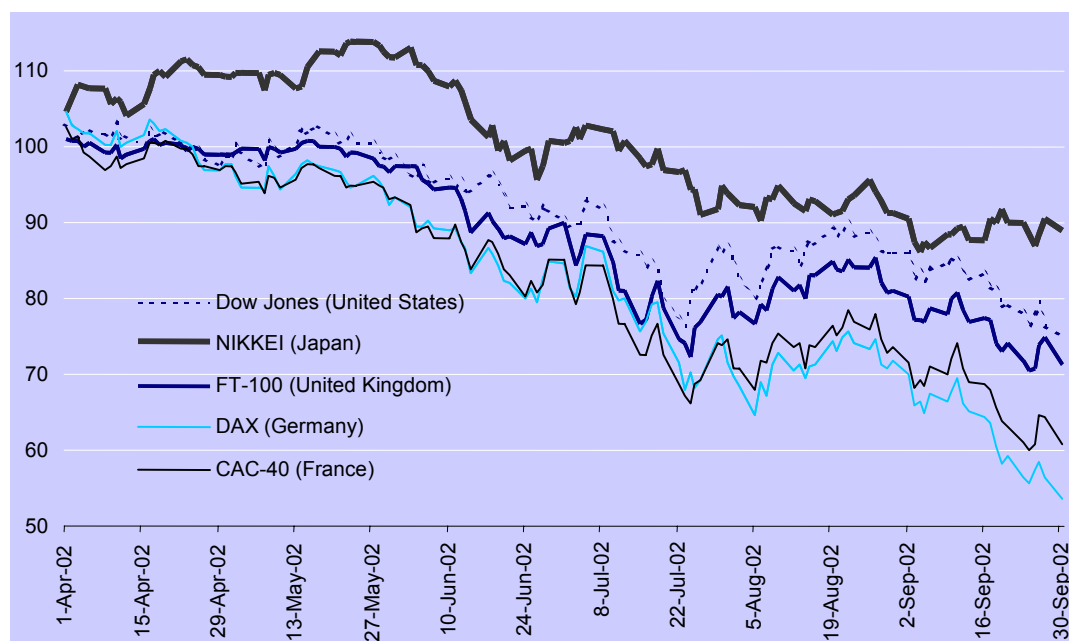
- (c) Inventory accumulation will continue to contribute to GDP growth, but will probably be less noticeable during the remainder of the year than in the first half of 2002; and
- (d) The expansionist bias of fiscal policy could intensify as a result of increases in public expenditures associated with a war against Iraq (the eventual cost of this military operation is a motive of speculation among observers). Some recent forecasts point to a Federal public deficit of around 2 percent of GDP in 2002.

One of the main sources of uncertainty regarding the economic upturn is the ambiguous evidence surrounding a recovery in the labor market. The open unemployment rate in the United States has gradually decreased, reaching 5.6 percent in September, 0.3 percentage less than in June. However, the average number of unemployment claims, which had been 387 thousand per week in July (the same level as at the end of June), rose to 397 thousand in August and to 425 thousand in September. Likewise, non-agricultural employment, after having risen by over 100 thousand jobs in August, fell by 43 thousand jobs in September. The weakness of the labor market's recovery represents an additional risk factor for private consumption forecasts.

Another risk factor that could hinder economic rebound, is the growing likelihood of war between the United States and Iraq. Although government expenditures would increase as a result of this conflict, it would also cause oil prices to rise. Faced with this outlook, the financial markets, already buffeted by a wave of scandals involving corporations, fell sharply in September (Graph 8). As has been mentioned, the loss of financial wealth is beginning to have an adverse impact on consumption. Furthermore, it is extremely difficult to predict the likely costs or duration of a war.



**Graph 8** **Stock Market Indexes in the United States, Japan, Germany, France and United Kingdom**  
(January 2, 2002=100)



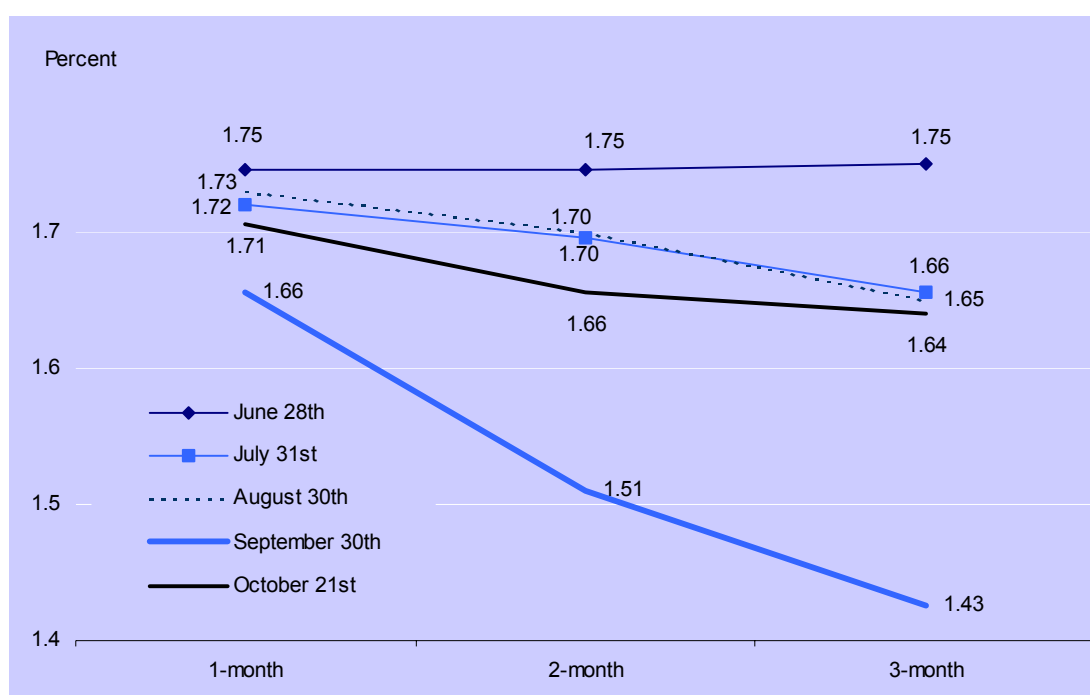
Source: Reuters.

The Federal Reserve kept its federal funds rate target unaltered in the first nine months of 2002. However, this decision is compatible with the changing outlook observed throughout the year. Thus, during January-March, as economic indicators more and more clearly suggested that the economy would rebound in the first quarter, the Federal Reserve decided to cease lowering interest rates. In the second and third quarters of 2002 the recovery was accompanied by signs of weakness, especially in the labor and financial markets. In this period the Federal Reserve's decision not to raise interest rates was initially based on low prevailing levels of inflation in the United States<sup>4</sup>, the sluggish recovery of employment and concerns over the possible effects of eventual negative shocks to demand. In June, two additional factors were taken into consideration in the Federal Reserve's estimates: the depreciation of the U.S. dollar vis-à-vis the euro and volatility in the stock markets stemming from corporate scandals. More recently, the downturn in consumption and the persistent falls in the stock market indexes have begun to push the balance of risks

<sup>4</sup> The Consumer Price Index rose 1.7 percent between August of 2001 and the corresponding month of 2002; core inflation during the same period was 2.4 percent.

into the negative, as seen by the fact that some members of the Federal Open Market Committee disagreed with majority opinion in September's meeting. Due to mixed news regarding the evolution of the United States' economy, analysts' opinions are divided over a possible further reduction to the Federal Reserve's reference interest rate in the near future. This has been reflected in changes in federal fund rate futures in that country (Graph 9).

**Graph 9** United States' Federal Funds Rate Future Contracts in 2002 (End-month)  
Percent



Source: Bloomberg.

### II.2.1.3. Developments in the Rest of the World's Economies

Similar to the United States, recovery in the euro zone has been slower than originally expected. In the previous quarter, analysts forecasted real growth rates of around 3.7 percent for the last two quarters of 2002, meaning GDP would increase 1.3 percent for the year as a whole. In contrast to this, the most recent estimates point to growth rates of a little over 2.5 percent in the last two quarters, meaning predictions for 2002 as a whole would come down to less than 1 percent. Among the most important factors behind this increased pessimism is the weakness of external

demand for euro area products due to the sluggish United States' economy and the appreciation of the euro in real terms. An additional factor seems to be the concern about the possibility of war between Iraq and the United States, which has aggravated the decline of stock market indexes as well as business and consumer confidence indicators (Table 4).

As for annual inflation, rising oil prices have helped to keep it hovering above 2 percent, the upper limit of the European Central Bank (ECB) target. Given the appreciation of the euro and renewed uncertainty over the United States and the euro zone's pace of recovery, analysts expect the ECB to cut its reference interest rate in the near future.

Table 4

**IMF Forecasts for Gross Domestic Product Growth**

Percentage change

	2000	2001	2002 <sup>ef</sup>	2003 <sup>ef</sup>
World	4.7	2.2	2.8	3.7
Advanced Economies	3.8	0.8	1.7	2.5
United States	3.8	0.3	2.2	2.6
Japan	2.4	-0.3	-0.5	1.1
Germany	2.9	0.6	0.5	2.0
France	4.2	1.8	1.2	2.3
Italy	2.9	1.8	0.7	2.3
United Kingdom	3.1	1.9	1.7	2.4
Canada	4.5	1.5	3.4	3.4
Rest of the World	5.3	1.6	2.6	3.3
European Union	3.5	1.6	1.1	2.3
RIE <sup>1/</sup> of Asia	8.5	0.8	4.7	4.9
Latin America	4.0	0.6	-0.6	3.0
Argentina	-0.8	-4.4	-16.0	1.0
Brazil	4.4	1.5	1.5	3.0
Chile	4.4	2.8	2.2	4.2
Mexico	6.6	-0.3	1.5	4.0
Uruguay	-1.4	-3.1	-11.1	-4.5
Venezuela	3.2	2.8	-6.2	2.2

Source: World Economic Outlook, September 2002. IMF.

<sup>ef</sup> estimated.<sup>1/</sup> Recently Industrialized Economies.

In recent months, unlike in Europe and the United States, signs of economic recovery continued and even improved in Japan—a country whose growth prospects are still extremely modest. Fueled by exports, and, to lesser extent, a slight upturn in private consumption, GDP grew at an annual rate of 2.6 percent in the second quarter and a similar expansion is expected in the last two quarters of the year. In this scenario, GDP is expected to decrease

0.5 percent in 2002 and will remain on course to grow more than one percent in the coming year<sup>5</sup>. Nevertheless, the rebound of the Japanese economy faces several risks. The external risks are derived from the slow recovery in other industrialized countries coupled with high oil prices. In addition, there are domestic factors: concern that faster non-performing loan payments by commercial banks could lead to mergers or closures of small and medium companies that could, in turn, lead to job losses. In this respect, unemployment remained at 5.4 percent during May and August, after having been 5.3 and 5.2 percent in the first few months of the year. Meanwhile, fiscal policy continues to be focused on reducing the government's deficit, meaning the Central Bank would have to respond to any eventual interruption of the economic recovery. Due to the fact that monetary policy has reached the limit of its capacity to reduce nominal interest rates, the Bank of Japan has decided to purchase, if necessary, company stocks held by commercial banks in order to aid these institutions and improve their liquidity.

The recently industrialized Southeast Asian economies continued to perform favorably in the third quarter of 2002 as they maintained their high level of exports and industrial output. In fact, some market analysts believe this group of countries has managed to isolate itself from the negative trends observed in many other regions, especially in the United States and Europe. The most cautious of analysts forecast growth rates for these countries in 2002 of over 3 percent (Taiwan, Indonesia), 4 percent (Malaysia, Thailand, Philippines, Singapore) and even 6 percent (Korea, China). Nonetheless, the performance of these economies is still closely linked with their exports to more developed countries<sup>6</sup>. For this reason they are exposed to risks originating from the global downturn and the likelihood of additional increases in oil prices.

In Latin America the main focus of attention in the third quarter was Brazil where there had been a noticeable deterioration of its financial indicators. This was a source of contagion for other Latin American countries' government bonds, even those who have obtained investment grade. Thus, the EMBI for Chile and Mexico, which had been 265 and 143 basis points, respectively at the end of May, reached 436 and 218 basis points by the close of September<sup>7</sup>.

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<sup>5</sup> It is important to mention that, despite the improved outlook for Japan, estimated annual growth for 2002 is now less than in the previous quarter. This stems from the significant downward revision of growth forecasts during the first quarter associated with methodological changes.

<sup>6</sup> Although it may not seem so, developed countries continue to be the main source of demand for most of these countries' exports. This appearance is due to the fact that industrial integration processes are, increasingly, such that many of these countries' exports go through China for final assembly before arriving at their final destination.

<sup>7</sup> EMBI+ for Mexico and Global EMBI for Chile.

The main signs of Brazil's crisis of confidence are the depreciation of the real and higher country risk perception. During the third quarter, its currency fell more than 20 percent vis-à-vis the dollar, from 2.83 to 3.74 reals. At the end of September, the average EMBI+ spread for Brazil reached 2,395 basis points, considerably higher than its level during the Brazilian crisis in 1999.

Most analysts attribute the deterioration of Brazil's country risk perception to political factors and concerns over its public debt. Furthermore, the current bias in developed countries which consider sovereign debt renegotiation as an efficient means of resolving financial crises and the Argentine government's announcement that it would defer debt payments have adversely affected Brazil's country risk perception. In particular, the growing conviction that the Labor Party will win the forthcoming presidential elections and the belief that they are not sufficiently committed to fiscal and monetary policies agreed with the IMF has worried investors. According to the most important analysts, Brazil's public debt will remain manageable if fiscal discipline continues. However, the government's growing financial costs stemming from increased country risk perception weaken the trajectory of the public debt, which threatens the solvency of government finances and makes ever more drastic cuts necessary. Nonetheless, analysts forecast growth of around 1.5 percent in 2002, similar to that observed in 2001, and inflation of close to 7 percent, above the Brazilian Central Bank's 5.5 percent upper target limit.

The perspectives for a recovery still appear to be far away in Argentina. Real GDP is expected to decrease around 15 percent this year, while unemployment reached 22.5 percent in May. There were few signs of economic recovery during the third quarter and political uncertainty at all levels still hinders the creation of an appropriate strategy to deal with the crisis<sup>8</sup>. In particular, unstable economic policy decisions in Argentina continue to undermine negotiations with the IMF. Perhaps the most positive result during the third quarter was the stability of the country's nominal economic variables. Thus, the exchange rate remained virtually unchanged at close to 3.75 pesos per dollar, while average monthly inflation dropped from 6 percent in the second quarter to 2.3 percent in the third. Nonetheless, this stability is based on the strong limits imposed on the private sector's liquidity by the government's freeze (*corralito*) on bank deposits. In this context, it

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<sup>8</sup> For example, in August the Supreme Court declared the 13 percent cuts to wages and pensions in the public sector announced at the beginning of 2001 as unconstitutional and ordered the government to make the corresponding back payments.

is worth mentioning that on September 10th the government announced that some bank deposits (those of no more than 7,000 pesos) would be available from October<sup>9</sup> onwards and that there would be a new phase of voluntary “swapping” of frozen bank deposits for government bonds.

The outlook is also gloomy for most of the rest of Latin America. Analysts predict that real GDP for the region as a whole will decrease in 2002 and that average inflation will rebound. The most extreme examples of recession, other than Argentina, can be found in Uruguay and Venezuela (growth expectations of -11.1 and -6.2 percent, respectively)<sup>10</sup>. In general, the current account deficits of Latin American countries will be lower in 2002. However, in most of the region this result will originate from the scarcity of external financing and will only reflect significant improvements in exports in a few countries. Economic woes contribute to public discontent which hampers economic reform and capital inflows, consequently external financing is limited even further and this undermines economic growth.

## **II.2.2. Compensations, Wages and Employment**

During the July-September quarter, the different indicators of compensations, wages and employment pointed to a change of labor market conditions. On the one side, the downward trend experienced by the growth in contractual wages during the first half of 2002 reverted. At the same time, the pace of job creation eased and the different rates of unemployment worsened compared to their levels in the previous quarter. On the other hand, productivity gains in the manufacturing sector continued while increases in nominal wages and unit labor costs fell. Given the weakness of the economy and greater uncertainty concerning its recovery, it is unlikely that the favourable evolution of the latter two variables will persist. The balance of these trends is negative, thus employment is not likely to experience a robust recovery in the short term.

### **II.2.2.1. Compensations**

In July 2002 nominal wages per worker showed annual increases between 6.5 and 10.5 percent,<sup>11</sup> registering average

<sup>9</sup> Equivalent to almost 1,870 US dollars at exchange rate on the last day of September.

<sup>10</sup> According to September's edition of the IMF's World Economic Outlook.

<sup>11</sup> From this Quarterly Inflation Report on the Index of Construction Industry Activity will cease to be used as it is deemed to contain serious deficiencies.

annual percentage changes between 7.6 and 10.9 percent and real increases ranging from 2.6 to 5.8 percent during January-July (Table 5). Both nominal and real wage rises were generally lower in July than during the second quarter of 2002, a result consistent with the slack in the labor market.

**Table 5** **Compensations per Worker**  
Annual percentage change

	Nominal								Real							
	2002							Average Jan-Jul 2002	2002							Average Jan-Jul 2002
	Jan	Feb	Mar	Apr	May	Jun	Jul		Jan	Feb	Mar	Apr	May	Jun	Jul	
Manufacturing Industry	10.2	8.3	6.6	9.3	8.4	4.5	6.5	7.6	5.1	3.3	1.8	4.4	3.5	-0.4	1.0	2.6
In-bond Industry	14.7	12.0	8.7	11.4	10.2	9.4	10.5	10.9	9.4	6.9	3.9	6.4	5.3	4.3	4.7	5.8
Commerce	8.3	9.4	5.6	14.0	6.7	5.9	8.8	8.3	3.3	4.4	0.9	8.9	2.0	0.9	3.1	3.3

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

During the same month productivity went up between 0 and 7.0 percent while changes in unit labor costs fluctuated in an interval from -5.6 to 3.1 percent. During January-July, average productivity gains in the manufacturing industry were enough to offset the upward trend of real wages. However, in the in-bond industry and the commerce sector this did not occur and, consequently, unit labor costs rose in both areas of economic activity (Table 6).

**Table 6** **Output per Worker and Unit Labor Costs**  
Annual percentage change

	Output per Worker								Unit Labor Costs							
	2002							Average Jan-Jul 2002	2002							Average Jan-Jul 2002
	Jan	Feb	Mar	Apr	May	Jun	Jul		Jan	Feb	Mar	Apr	May	Jun	Jul	
Manufacturing Industry	3.3	5.7	-1.8	16.6	6.5	4.3	7.0	5.8	1.8	-2.3	3.7	-10.5	-2.8	-4.5	-5.6	-3.0
In-bond Industry	-0.4	0.6	-2.1	3.5	2.8	3.0	4.5	1.7	9.8	6.2	6.1	2.8	2.4	1.3	0.2	4.0
Commerce	-4.2	-2.1	-5.9	3.7	-1.3	-5.1	0.0	-2.2	7.9	6.6	7.2	5.0	3.3	6.3	3.1	5.6

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

The productivity gains and reduced growth of nominal compensations as well as unit labor costs during the third quarter do not suggest that the favorable evolution of these indicators will continue in the future for three reasons. Firstly, the increased

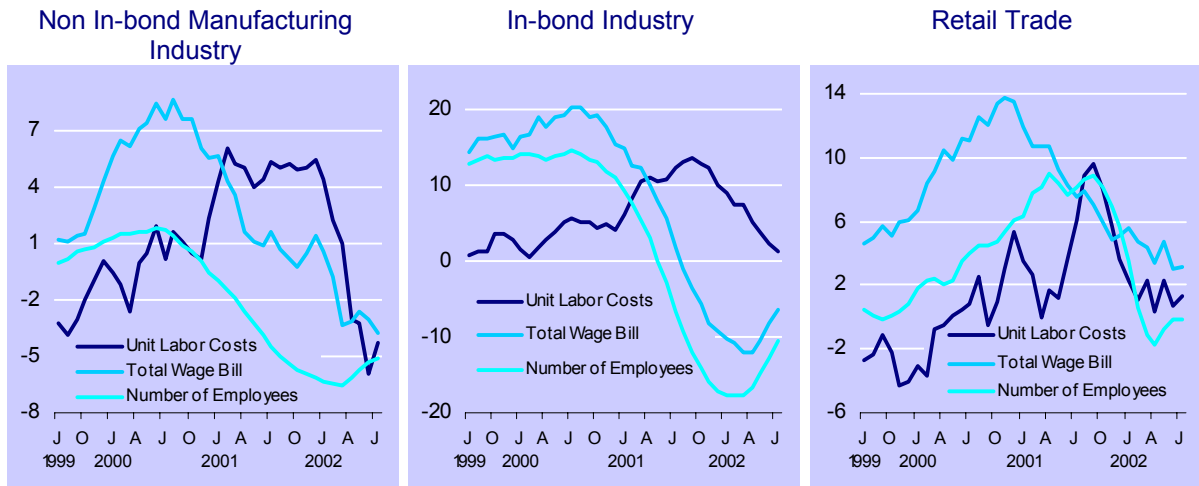
productivity in the second and third quarters partly responded to cyclical factors. As was described in the previous Inflation Report, in the initial stage of economic recovery, employment grows less than output, causing productivity to rise. Secondly, firms' recent cost cutting efforts, which have contributed to productivity gains, can only go so far. Thirdly, there are signs that point to a weakening of economic activity in the next few months. Thus, it would not be reasonable to expect that favorable trends will persist in the near future.

During the second and third quarters of 2002, the total wage bill and the number of people employed continued to decline at annual rates, although they have begun to level off and in some cases even revert. However, as in the case of productivity and unit labor costs, it is highly unlikely that this favorable trend will persist due to the existence of evidence pointing to a downturn in industrial output in the next few months and uncertainty surrounding recovery.

In July, the total wage bill and the number of employees in the non in-bond manufacturing industry registered average annual rates of -3 and -4.6 percent, respectively. In the in-bond export sector, annual changes in both aggregates were -6.3 and -8.3 percent. Meanwhile, the total wage bill and the number of employees in the commerce sector posted average rates of 3.17 and -0.13 percent during the same period. In all cases, the referred changes were very similar to those observed in the second quarter of 2002 (Graph 10).



**Graph 10** **Total Wage Bill, Number of Employees and Unit Labor Costs**  
Annual percentage change



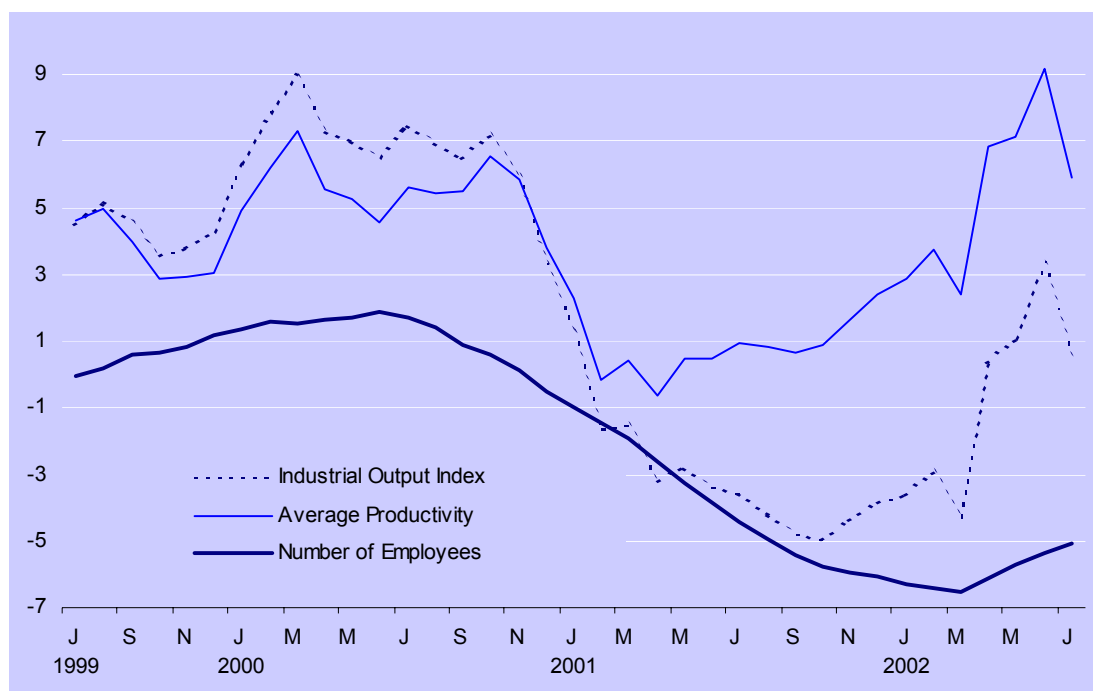
Source: Banco de México and INEGI.

Regarding output, average productivity and employment in the non in-bond manufacturing industry, in the third quarter increases in average productivity persisted at the same time as the number of employees continued to fall at an annual rate. Nonetheless, the average growth of the Volume of Industrial Output Index began to level off after June (Graph 11). The latter was partly in response to less vigorous industrial activity in the United States and the consequent reduction in Mexican exports to that country. The uncertainty surrounding the rebound of the Mexican and the world economy makes it difficult to predict the future evolution of industrial output and employment in Mexico.

Graph 11

**Output, Average Productivity and Number of Employees in the Non In-bond Manufacturing Industry**

Annual percentage change of the 3-month moving average



Source: INEGI.

In short, most of the indicators for compensations, wages and employment examined in this section suggest a weakening of prevailing labor market conditions. It is, therefore of utmost importance –as has been reiterated in previous Inflation Reports– that nominal wages become more flexible and adjust to market conditions. This would not only enable greater job creation, but also prevent sudden changes in the labor force.

#### II.2.2.2. Contractual Wages

The average growth of nominal contractual wages was 6.1 percent during the period reported. Thus, average nominal contractual wage increases in July, August and September were 6.8, 6.6 and 5.7 percent, respectively. It is important to mention that the growth of contractual wages in the period was higher than the figure of 6.0 percent registered during the second quarter of 2002, interrupting the downward trend this variable had shown since the second quarter of 2001.

In the third quarter nominal contractual wages rose at higher rates in the manufacturing industry than in any other sector, with an average spread of 1 percent (Table 7). Although productivity growth has been higher in the manufacturing industry than in the other industries, the latter is mainly a cyclical phenomenon. For this reason, the rebound in the growth rate of nominal contractual wages in the manufacturing industry during July and August is a cause for concern as it does not reflect the current slack in the labor market.

**Table 7** **Contractual Wages by Sectors**

Annual percentage change

	2002									
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep*	Average
Total	6.6	6.9	6.1	5.8	6.5	6.0	6.8	6.6	5.7	6.2
Manufacturing Industry	7.0	6.9	6.2	6.6	6.4	6.5	7.0	6.7	5.7	6.4
Other sectors	6.4	6.8	6.0	5.6	6.6	5.8	6.5	6.4	6.2	6.1

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

\* Preliminary data.

Regarding contractual wages by type of company, private firms posted average increases of 6.5 percent while public enterprises recorded 5.4 percent (Table 8).

**Table 8** **Contractual Wages by Type of Company**

Annual percentage change

	2002									
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
Total	6.6	6.9	6.1	5.8	6.5	6.0	6.8	6.6	5.7	6.2
Private companies	6.8	7.0	6.5	6.0	6.5	6.2	6.8	6.6	6.3	6.5
Public enterprises	5.3	5.3	5.4	5.5	5.1	4.7	6.4	5.5	5.5	5.4

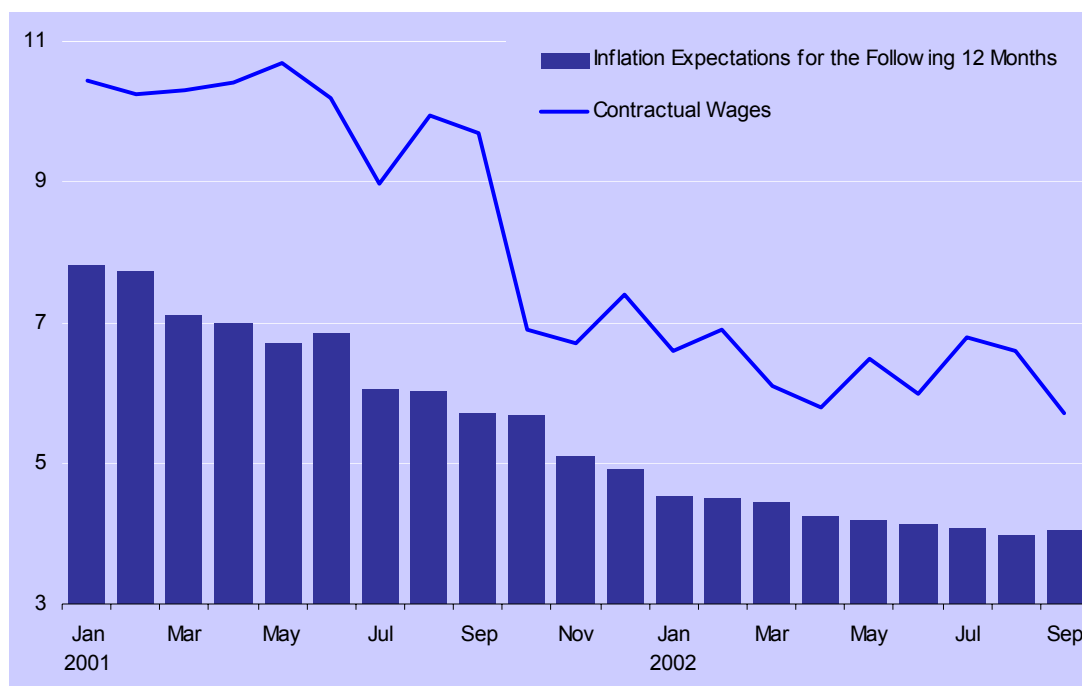
Source: Ministry of Labor.

The average gap between nominal contractual wage increases and expected inflation for the following twelve months was 2.2 percent in the third quarter (Graph 1). This gap was wider than the figure of 1.8 percent observed in the second quarter of this year and also represented the largest spread since the last quarter of 2001.

Graph 12

**Contractual Wages and Inflation Expectations for the Following 12 Months**

Annual percentage change



Source: Survey of Private Sector Economic Analysts' Expectations, Banco de México; and Ministry of Labor.

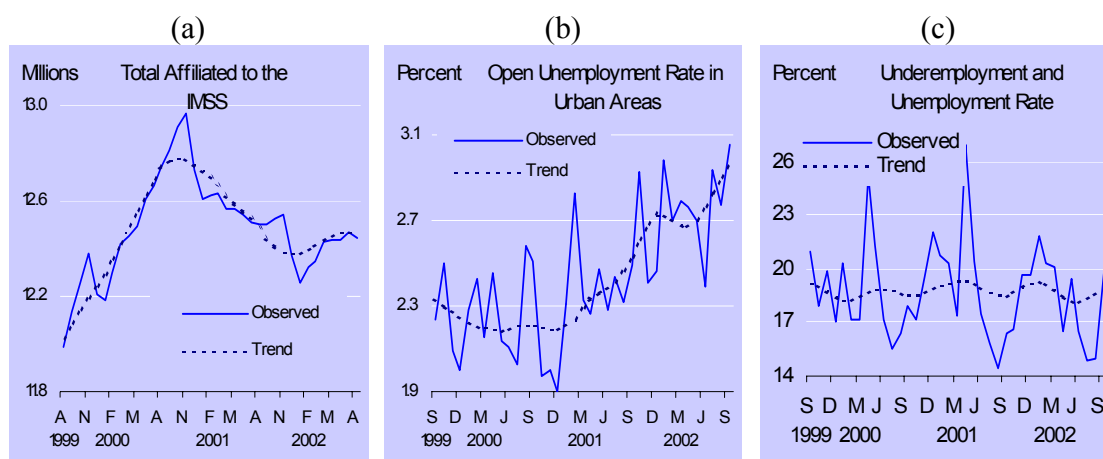
The widening of the gap interrupted the downward trend that had begun in the first quarter of 2002. In this context it is important to emphasize that contractual wage increases, including recent settlements, are still above expected inflation. Given the uncertainty about the future of productivity, the increase in anticipated real wages implied by such contractual wage revisions seems questionable. Thus, in order to generate the necessary jobs to satisfy the needs of an expanding labor force and recover jobs lost in 2001, wage rises must be more consistent with current labor market conditions. This can only be achieved by easing nominal wage increases and reducing rigidities in the market.

### II.2.2.3. Employment

During the third quarter of 2002, the different employment indicators behaved unfavorably. On the one hand, the formal employment rate decreased compared to its level in the previous quarter. On the other, open unemployment rates rose above levels recorded in the second quarter of 2002.

Regarding formal employment, the number of permanent and temporary urban employees affiliated to the Mexican Social Security Institute (IMSS) at the end of September was 12,304,586 individuals, around 141 thousand above the total recorded at year-end 2001 (Graph 13a). It is important to mention that around 71,744 new jobs were created during July, August and September, comparing favourably with the more than 19 thousand jobs lost during the same period of 2001.

**Graph 13**                      **Employment and Unemployment Indicators**  
Trend Series



Source: IMSS and INEGI.

Nonetheless, almost 32 thousand less jobs were created in the third quarter than during April-June. Moreover, seasonally adjusted series for permanent and temporary urban employees affiliated to the IMSS contracted by around 28 thousand individuals during the quarter covered by this Report, comparing unfavorably with the increase of over 82 thousand registered in the second quarter of 2002.

One significant difference in the pattern of job creation in the formal sector during 2002 compared to what occurred in the period directly after the exchange rate crisis of 1994 lies in the type of predominant contract (permanent and temporary affiliates). After the crisis most of the jobs created were for permanent affiliates while the modest recovery of employment observed in the present year has favored temporary affiliates. This could be in response to the uncertainty surrounding the current economic rebound and the strength of the construction sector.

Regarding job creation and losses by sector, information is only available for permanent jobs in the industrial and services sectors, while in the agricultural sector there is data for both permanent and temporary employment. Thus, during the third quarter the number of permanent employees affiliated to the IMSS in the services sector grew by approximately 60 thousand individuals. From this increase, more than 23 thousand stemmed from the commerce sector. This is in contrast to the almost 51 thousand jobs created in the services sector during April-June 2002. On the other hand, employment in the agricultural sector contracted by over 56 thousand jobs, similar to the figure for the previous quarter of approximately 65 thousand job losses. Finally, the number of jobs in the industrial sector expanded by almost 14 thousand, much less than the 60 thousand jobs created in the second quarter.

In short, the growth of formal employment has eased considerably. In particular, reduced expansion of formal jobs in the industrial sector suggests that this has derived from economic slowdown in the United States. Given the uncertainty surrounding the future path of output, which to some extent depends on an upturn of the United States and the rest of the world's economies, the deceleration of employment is not expected to revert during the next few months.

In the third quarter of 2002, the main unemployment indicators also deteriorated compared to their level at the end of the previous quarter. Thus, the average open unemployment rate was 2.9 percent, while it had been 2.6 percent in the second quarter. Furthermore, during the period analyzed the trend series for open unemployment maintained an upward path (Graph 13b).

It is important to mention that the deterioration in this area was confirmed by both seasonally adjusted and trend series for unemployment. In particular, during the third quarter of 2002 seasonally adjusted series showed an unemployment rate of 2.9 percent, after having registered 2.6 percent in the second quarter. Meanwhile, trend series showed a 2.9 percent unemployment rate while in the April-June period this had been 2.7.

During the first nine months of 2002 average underemployment (less than 35 hours worked per week) declined. This rate was 16.6 percent in the third quarter, comparing favourably to the 20.7 percent registered in the first quarter and the 17.5 percent posted in the second (Graph 13c).

Unemployment was higher for women than for men in the third quarter of 2002. The average rate of unemployment among women was 3.1 percent while for men it was 2.8 percent. Meanwhile, the average duration of unemployment increased and the percentage of individuals unemployed for more than five weeks moved from 44.2 percent in the second quarter to 45.8 percent in the third.

Employment in the formal sector remained practically unchanged during the third quarter. One indirect way of measuring employment in this sector is via the percentage of the Economically Active Population (EAP) that does not receive any benefits. On average this indicator was 48.3 percent during the second quarter and 48.8 percent in July-September.

In sum, some signs of weakness in the labor market became evident during the third quarter of 2002. In this respect, formal job creation declined while the open unemployment rate increased compared to levels observed in the second quarter. Finally, nominal wage increases were higher than during the second quarter, reverting the downward trend they had shown since the start of 2001.

Although the growth of nominal compensations and unit labor costs continued to ease, at the same time as productivity maintained its upward path, it is unlikely that the favorable evolution of these variables will persist in the near future. This conclusion is based on two factors. Firstly, observed productivity gains can mostly be attributed to cyclical phenomenon and not to improvements in the production process. Secondly, the uncertainty that has emerged concerning the pace of recovery in the next few months. As a result, the balance of risks is unfavorable.

### **II.2.3. Aggregate Supply and Demand**

During the second quarter of 2002 aggregate supply and demand posted an annual increase of 2.5 percent, the first positive number after three consecutive quarters of contraction. On the aggregate supply side, GDP and imports of goods and services registered annual increases of 2.1 and 3.6 percent, respectively. As for aggregate demand, its three main components showed annual positive changes which compared favorably to those seen in the previous quarter. During the period reported, exports of goods and services rose 3.3 percent; investment increased 2.7 percent; and consumption went up 2.3 percent.

During the second quarter, exports of goods and services as well as investment registered positive growth rates, after having fallen at annual rates for four consecutive quarters.

Furthermore, it is worth mentioning that the increase in the annual rate of consumption responded to a 2.9 percent rise in private consumption. The latter is in contrast to the 1.5 percent fall this component registered in the first quarter. The acquisition of non-durable goods and services as well as consumer durables rose substantially, 2.3 and 9.3 percent respectively, in the second quarter. Increased consumption of consumer durables originated from purchases of vehicles and wooden furniture, among others, as well as of electrical appliances. Meanwhile, public sector consumption contracted 1.6 percent at an annual rate during the period analyzed. The growth of investment responded to increases of 1.2 percent in private investment and 13.6 percent in public sector investment.

The expansion of GDP and its components in the second quarter was influenced by the upward effect of seasonal factors related to the Easter vacation. Although in 2001 this took place in April, in 2002 it was in March. As a result, there were 77 business days in the second quarter of 2002, while in the corresponding quarter of the previous year there had been only 73.

The 2.1 percent annual increase of GDP in the second quarter was higher than estimated in the previous Inflation Report (1.8 percent). This can mainly be explained by the fact that both consumption and investment grew more than had been expected.

An assessment of the evolution of the main components of aggregate supply and demand with seasonally adjusted data confirms that economic recovery is underway, as signaled by first quarter figures. Thus, the quarterly growth rates of aggregate supply and demand rose from 0.5 percent in the first quarter to 1.9 percent in the second. On the aggregate supply side, the expansion was due to increases in GDP and imports, while on the aggregate demand side, it was derived from exports, consumption and investment (Table 9).



**Table 9** **Aggregate Supply and Demand in 2001 and 2002**  
Percentage Change

	Real annual percentage change						Real annual percentage change (seasonally adjusted series)				
	2001			2002			2001			2002	
	Annual	II	III	IV	I	II	II	III	IV	I	II
Aggregate Supply	-1.0	0.2	-3.4	-3.3	-2.5	2.5	-0.9	-1.3	0.1	0.5	1.9
GDP	-0.3	0.1	-1.5	-1.6	-2.0	2.1	-0.4	-0.2	-0.4	0.2	1.2
Imports	-2.9	0.6	-8.0	-7.7	-3.8	3.6	-2.0	-4.1	1.0	1.2	4.1
Aggregate Demand	-1.0	0.2	-3.4	-3.3	-2.5	2.5	-0.9	-1.3	0.1	0.5	1.9
Total Consumption	2.8	3.1	1.1	1.8	-1.5	2.3	-0.1	-0.2	0.1	0.0	1.4
Private	3.4	4.1	1.6	1.5	-1.5	2.9	-0.2	-0.2	0.1	0.1	1.6
Public	-1.4	-3.2	-3.5	3.3	-1.1	-1.6	0.3	0.2	0.4	-1.1	-0.3
Total Investment	-5.9	-5.5	-8.9	-9.1	-6.9	2.7	-2.7	-2.4	-0.7	0.8	2.1
Private	-5.1	-5.2	-1.3	-12.8	-5.9	1.2	-2.2	-0.6	-2.1	-0.1	0.7
Public	-9.6	-7.6	-38.0	6.6	-13.3	13.6	-5.5	-12.3	7.3	5.7	9.3
Exports	-5.1	-1.7	-9.5	-10.9	-5.8	3.3	-1.9	-2.9	-1.2	1.8	3.3

Source: Banco de México and INEGI.

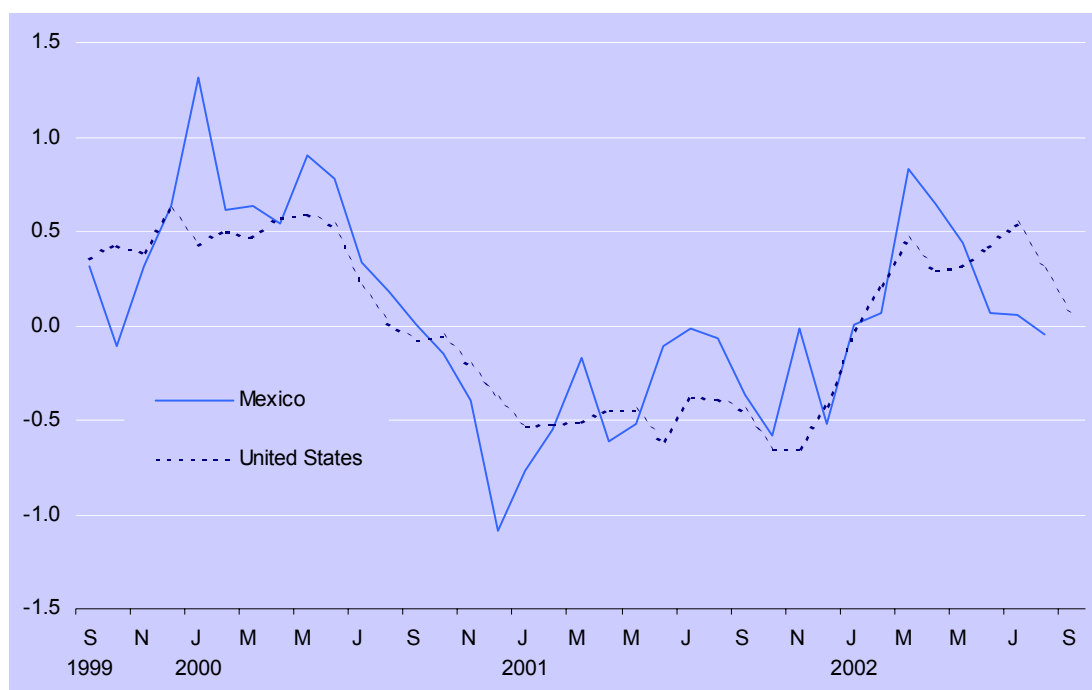
Available information regarding aggregate demand and production in the third quarter of 2002 indicates that economic recovery has continued. Nevertheless, it also suggests that the upturn in economic activity might be taking place at a slower pace than that observed in the second quarter. This diagnosis is based on the following factors:

- (a) The annual growth of the Global Economic Indicator (*Indicador Global de Actividad Económica, IGAE*) was 1.3 percent in August. This increase was smaller than the 2.7 percent recorded in July and represented the fifth consecutive month that this indicator has shown positive annual variations. Moreover, in the July-August period industrial output rose 1.3 percent at an annual rate, a figure that compared favorably with the average annual stagnation observed in the two previous months. However, seasonally adjusted monthly data for the IGAE in July and August were 0.05 and -0.15 percent, respectively, below June's figure of 0.15 percent;
- (b) Industrial output in the United States decreased 0.3 percent in August compared to the previous month. Thus, the average monthly growth of this item during the July-August period was 0.1 percent, below the figure of 0.5 percent registered in the two previous months. This has negative implications for expectations regarding industrial

output in Mexico due to the high level of synchronization it has shown with its counterpart in the United States (Graph 14);

**Graph 14 Industrial Output Index in Mexico and the United States**

Monthly percentage change (seasonally adjusted series: 3-month moving average)



Source: Banco de México and United States Federal Reserve System.

- (c) Retail sales rose 0.6 percent at an annual rate in August, comparing unfavorably with the 2.1 percent increase registered the previous month. Meanwhile, wholesale sales declined 10.0 percent, more than the figure of 5.2 percent observed in July. Notwithstanding the aforementioned, seasonally adjusted figures for wholesale sales in August show they decreased to levels observed in July. Thus, for the third consecutive quarter these sales posted negative variations;
- (d) In the July-August period, total sales reported by members of the National Association of Self-service and Department Stores (*Asociación Nacional de Tiendas de Autoservicio y Departamentales, ANTAD*) increased 3.8 percent at an average annual rate, higher than the 3.1

percent registered during the second quarter of the year. However, seasonally adjusted figures indicate that the average monthly growth of 0.5 percent recorded in the July-August period represents only a slight improvement over the 0.4 percent posted in the previous quarter;

- (e) In the third quarter, domestic sales and output in the auto industry increased less vigorously than in the second. Annual variations of domestic sales decreased from 31 percent in the second quarter to -2.6 percent in the third, while the growth rate of output declined from 7.5 to 1.2 percent in the same period;
- (f) In July the annual growth rate of gross fixed investment was 0.6 percent, comparing with the 2.4 percent reduction in the previous month. Seasonally adjusted figures for gross fixed investment indicate an increase of 0.8 percent in July after a 4.8 percent contraction in June. Furthermore, the monthly variation registered in July was higher than the -0.2 percent monthly average observed during the second quarter;
- (g) Seasonally adjusted figures indicate that output in the in-bond industry increased 2.1 percent in August compared to the previous month and its 0.77 percent monthly variation in July-August was lower than the 1.0 percent registered in the second quarter;
- (h) In the third quarter, the number of workers affiliated to the IMSS continued escalating, especially in September. However, this was mainly in response to the seasonality of this variable. Seasonally adjusted figures show a decrease in the number of affiliated workers in August (0.1 percent) and September (0.2 percent);
- (i) The coincident indicator published by INEGI recorded a monthly increase of 1.0 percent in July, which was below the average monthly variation of 0.4 percent observed in the second quarter. Meanwhile, the leading indicator showed a monthly increase of 0.2 percent in July, after having fallen 0.9 percent the previous month; and
- (j) In September, expectations among private sector economic analysts regarding the business climate were less optimistic than in previous months. Moreover, in July and August, the confidence index of manufacturing

companies decreased slightly, after having remained practically unchanged in July.

Based on available information, Banco de México estimates real GDP grew at an annual rate of around 2.0 percent during the third quarter of 2002, while its seasonally adjusted figures imply positive quarterly growth slightly lower than in the previous quarter. On the other hand, private consumption likely expanded at an annual rate of 2.0 percent and investment probably remained practically unchanged.

#### **II.2.4. Balance of Payments, Capital Flows and Exchange Rate**

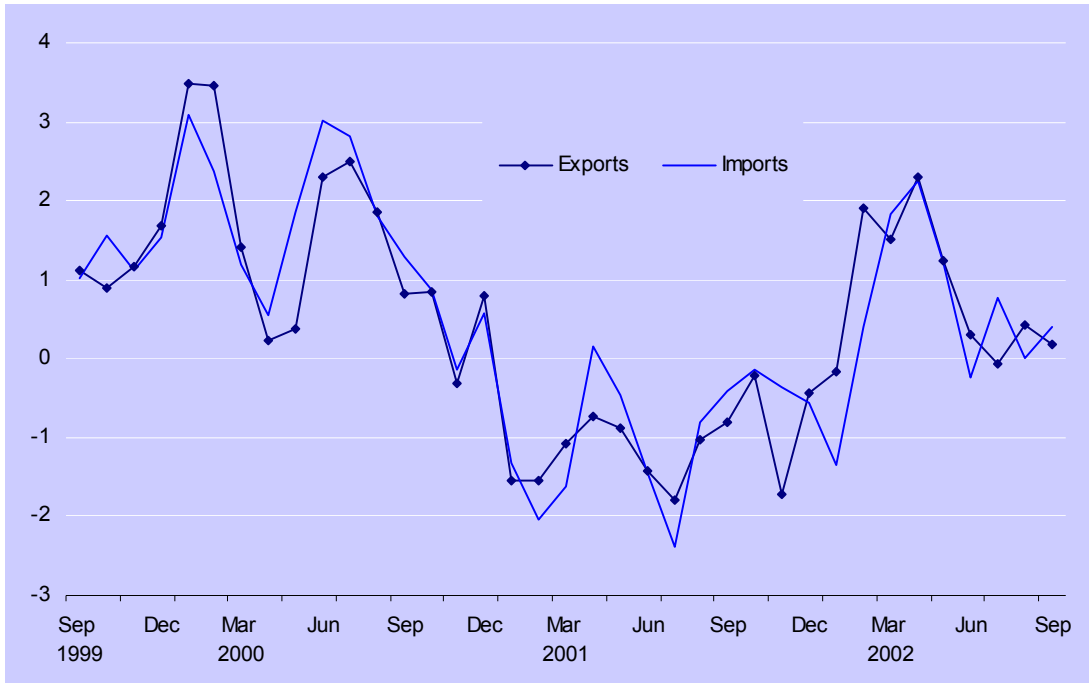
Both imports and exports posted annual positive variations during July-September 2002, being more vigorous for the latter. In this quarter, exports rose 6.2 percent and imports increased by 5.2 percent compared to the same period in the previous year. Furthermore, the correlation between the evolution of imports and exports that has been observed in previous quarters continued during the period (Graph 15). As a consequence of this, the accumulated trade deficit was 16.2 percent below that registered in the corresponding period of 2001 while the accumulated total and non-oil deficits during the first nine months of 2002 were 21.0 and 1.0 percent lower than in the same period of the previous year. Meanwhile, trend series indicate that during the third quarter the monthly total and non-oil deficits continued on the upward trajectory that started in the second quarter (Graph 16). Based on this information, the current account deficit is estimated to have been 3.3 billion dollars in the third quarter of 2002 and approximately 10 billion dollars in the first nine months of the year.

The recovery of exports, the modest rebound in the demand for imported goods, rising oil prices and the low level of the private and public external debt service are the factors that explain why the demand for foreign resources did not grow significantly during the period. The results of the current account allowed an orderly adjustment to the volatility prevailing in the international capital markets during the third quarter.

As for the capital account, a reduction of portfolio investment inflows took place during the third quarter, mainly due to higher risk aversion prompted by the worsening international environment. It is estimated that the capital account surplus

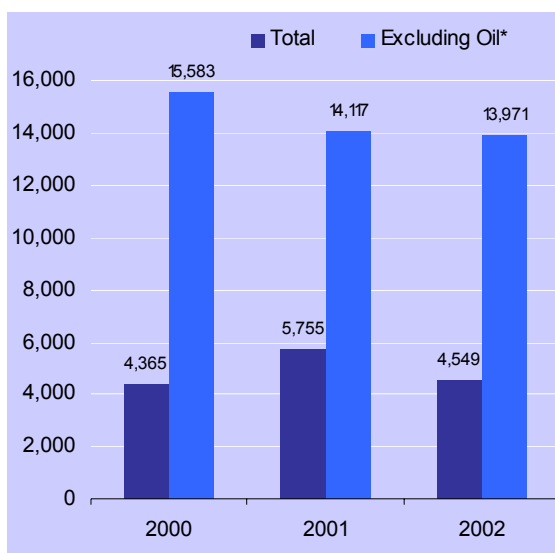
amounted to nearly 5.7 billion U.S. dollars (including errors and emissions).

**Graph 15** Exports and Imports: Seasonally Adjusted Series  
Monthly variation (3-month moving average)

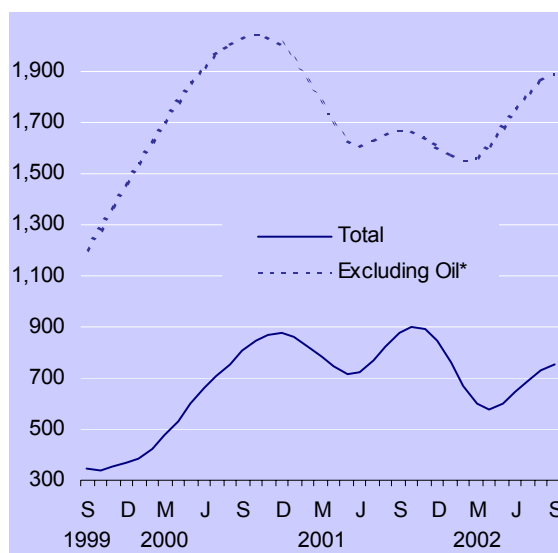


**Graph 16** **Trade Deficit: Total and Excluding Oil**  
Million US dollars

January-September



Trend



\* Excluding oil exports and gasoline, butane and propane gas imports.

Capital inflows to Mexico during the third quarter had a relatively positive outcome, in light of the generalized contraction of these flows to other Latin American countries. However, capital flows to other emerging markets have rebounded. In this respect, private capital inflows to Latin America are expected to fall from 22.8 billion dollars in 2001 to just 10.3 billion in 2002. Likewise, it is anticipated that net flows of Foreign Direct Investment towards the region will drop from 66.9 billion dollars in 2001 to 40.4 billion this year, while net flows of portfolio investment will total one billion dollars after having fallen by 2.2 billion dollars in 2001 (Table 10)<sup>12</sup>.

<sup>12</sup> International Monetary Fund (2002), World Economic Outlook, September.

Table 10

**Capital Flows: Emerging Economies**

Billion US dollars

	2000	2001	2002 <sup>e</sup>
<b>Total<sup>1/</sup></b>	29.5	40.2	82.9
<b>Africa</b>	7.8	8.2	9.8
<b>Asia<sup>2/</sup></b>	-7.8	11.0	30.2
<b>Middle East and Turkey<sup>3/</sup></b>	-22.0	-41.8	-10.8
<b>Countries in transition</b>	6.4	18.9	27.6
<b>Latin America</b>	45.1	43.9	26.1
Private Capital Net Flow s <sup>4/</sup>	48.6	22.8	10.3
Net Foreign Direct Investment	64.7	66.9	40.4
Net Portfolio Investment	4.7	-2.2	1.0
Other Net Private Flow s	-20.8	-41.9	-31.1
Government Net Flow s	-3.5	21.1	15.8

SOURCE: International Monetary Fund, (2002), World Economic Outlook, September.

e/ Estimates.

1/ Including net foreign direct investment, net portfolio investment and other short and long-term flows such as private and government loans.

2/ Excluding Hong Kong.

3/ Also includes Israel and Malta.

4/ Due to data limitations, certain government flows may be included in the item Other Net Private Flows.

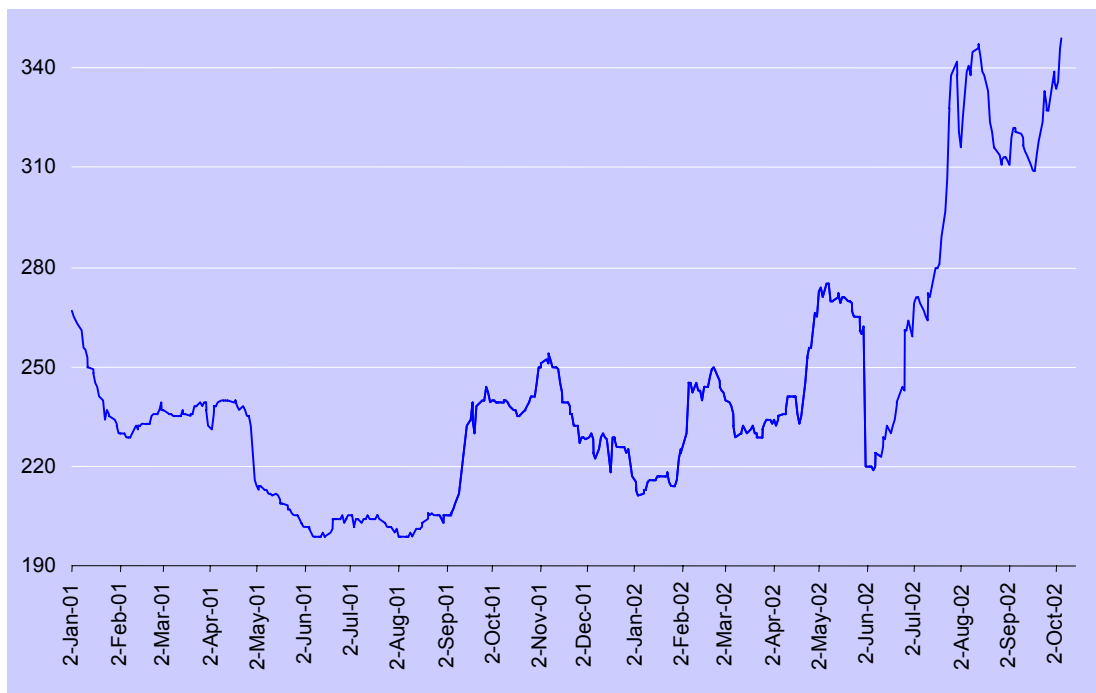
An examination of the evolution of capital flows to Latin America during the first nine months of 2002 together with the outlook described above, shows that figures for the Mexican economy are outstanding and that it has maintained a privileged position in an unfavorable environment.

Among the most important factors that account for the reduction of capital inflows to the region in the third quarter the following are noteworthy:

- (a) Higher risk aversion in the international capital markets had an adverse impact on the stock market and on corporate and government bond markets. This has led to a deterioration of country risk indicators for emerging economies and increases in corporate debt yields in developed countries (Graph 17). The greater risk aversion in the international capital markets has originated from the following:
- Less optimism about world economic recovery, particularly regarding the United States.
  - Inherent difficulties in financing the growing United States' current account deficit.

- Worsening problems in the Brazilian economy as well as the lack of a solution to the crisis in Argentina and its contagion to Uruguay.
- Geopolitical uncertainty stemming from Middle East tensions, the possibility of war against Iraq and the conflict between India and Pakistan.
- The scandals concerning corporate accounting practices during the current year.

**Graph 17** Net Yield on the BBB Corporate Debt in the United States  
Basis points

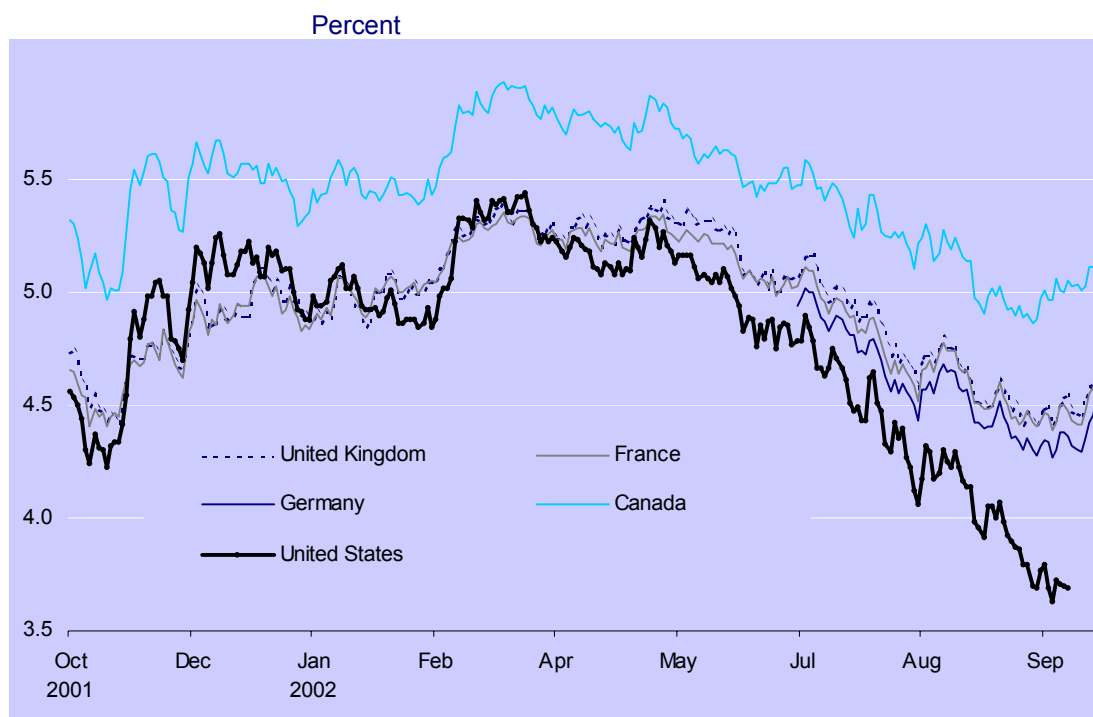


Source: Bloomberg.

- (b) Increased country risk in emerging economies has been brought about by the continuing long-term interest rate reductions in developed countries during 2002. This has not been totally reflected by downward movements in emerging countries' corporate and government bond yields, which has led to increases in country risk indicators. Furthermore, the spreads of long-term yields for developed countries have widened (Graph 18);



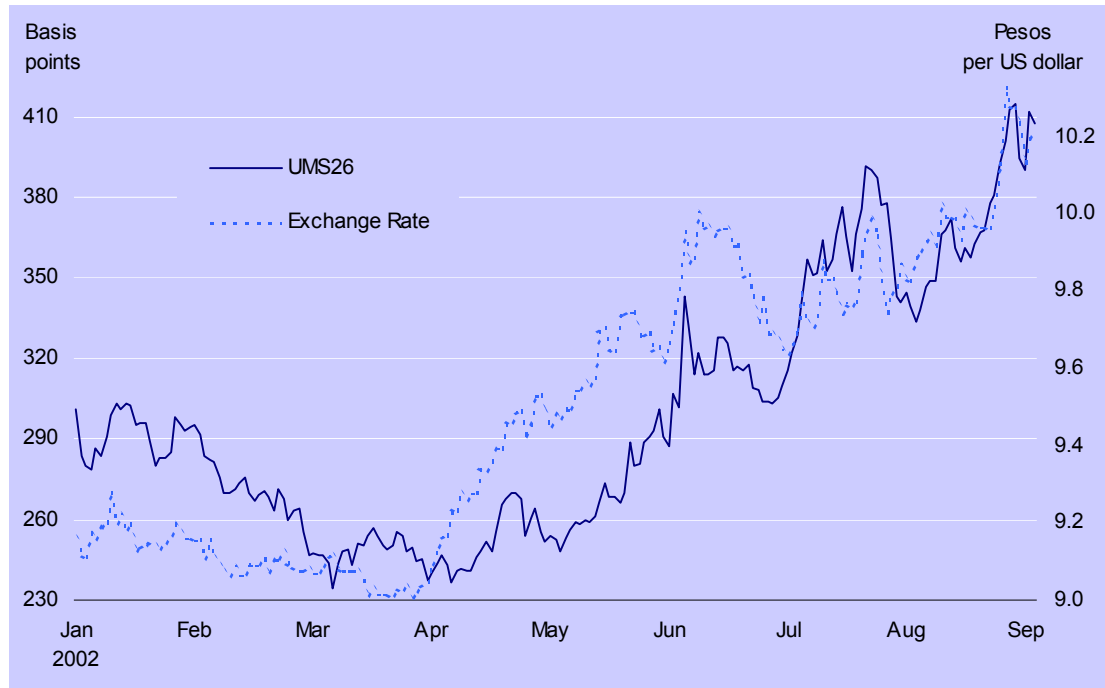
**Graph 18** Long-term Nominal Interest Rates: Germany, Canada, France, United States and United Kingdom



Source: Bloomberg.

- (c) The current bias in favor of sovereign debt renegotiation as an efficient means of resolving financial crises;
- (d) In Mexico's case, tempered optimism regarding economic recovery in the United States has had an adverse impact on investors' expectations for country risk and the peso's exchange rate vis-à-vis the dollar (Graph 19). This is due to the close relationship between the evolution of the Mexican economy and that of the United States; and
- (e) The faltering belief among investors that pending structural reforms will be implemented due to prevailing political tensions in Mexico.

**Graph 19 Net Yield on UMS26 Bonds and Exchange Rate**

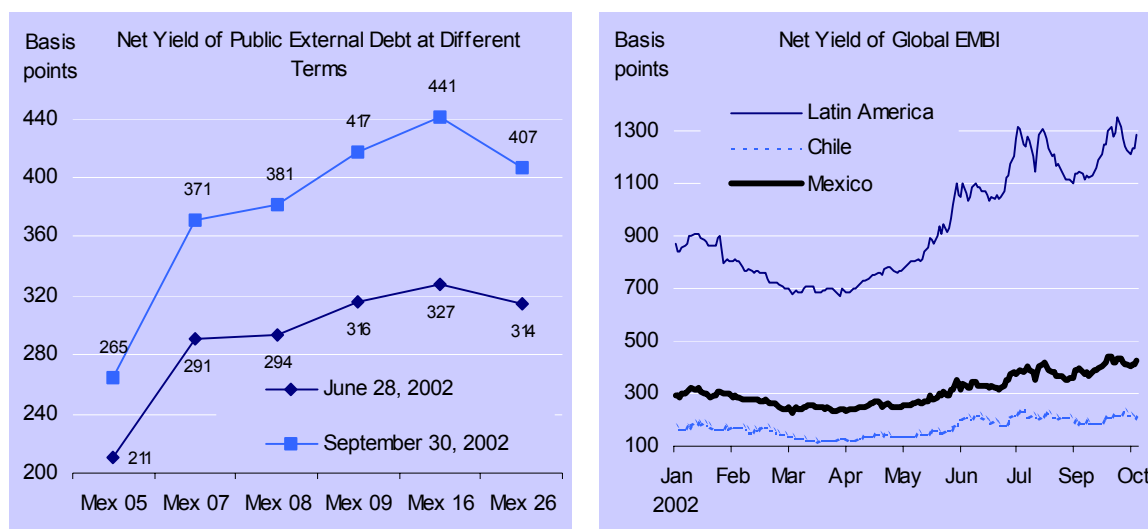


Source: Bloomberg and Banco de México.

Note: The net yield of the UMS26 bond is the difference between its gross yield and the yield on U.S. government bonds with similar time to maturity.

The factors described above led to a significant deterioration in country risk indicators for Latin America and Mexico during the third quarter (Graph 20 and Table 11).

**Graph 20 Country Risk Indicators for Mexico and Latin America**  
Basis points



Source: Bloomberg and Banco de México.  
Note: The net yield of the UMS26 bond is the difference between its gross yield and the yield on U.S. government bonds with similar time to maturity.

**Table 11 Country Risk Indicators for Latin America (Global EMBI)**  
Basis Points

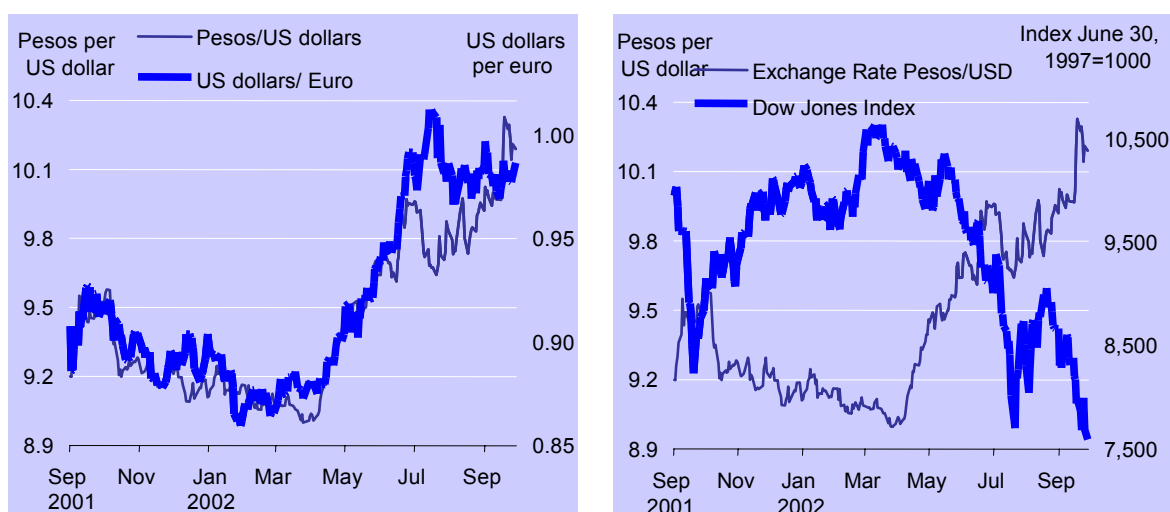
	2001				2002			
	I	II	III	IV	I	II	III	15-Oct
Latin America	757	787	1,069	888	688	1,034	1,316	1,252
Argentina	967	1,050	1,615	5,363	5,030	7,078	6,475	6,413
Brazil	805	844	1,163	864	716	1,560	2,412	2,317
Chile	189	169	220	175	120	209	218	252
Colombia	645	528	615	508	511	592	1,066	967
Ecuador	1,366	1,303	1,516	1,233	1,037	1,262	1,975	1,924
Mexico	408	307	427	306	249	323	435	386
Panama	n.a.	n.a.	n.a.	n.a.	347	466	561	498
Peru	650	632	669	521	409	628	880	826
Dominican Rep.	n.a.	n.a.	n.a.	446	313	383	521	438
Uruguay	n.a.	251	299	284	525	869	1,643	1,509
Venezuela	877	847	997	1,130	898	1,113	1,166	1,083

Source: JP Morgan. End-quarter Index.

As for the evolution of the exchange rate, it is worth mentioning that the positive correlation of the peso vis-à-vis the movements of the US dollar/euro rate that had been observed in recent months ceased. As discussed in the previous Inflation Report, the correlation between peso/dollar and dollar/euro exchange rates responded to several factors, which can be

explained by the close relationship between the supply of financial resources to Mexico and those directed towards the United States. However, that Report has also signalled the possibility that this correlation could be transitory. Thus, between end-June and September the peso depreciated 2.4 percent against the US dollar while the latter appreciated 0.5 percent vis-à-vis the euro. During the period under analysis, the path of the exchange rate was more closely linked to the behavior of country risk indicators and to expectations on the future course of the United States economy (Graph 21).

**Graph 21 Dow Jones Index, Exchange Rate of the Peso Vis-à-Vis the US dollar and US dollar Vis-à-Vis the Euro**



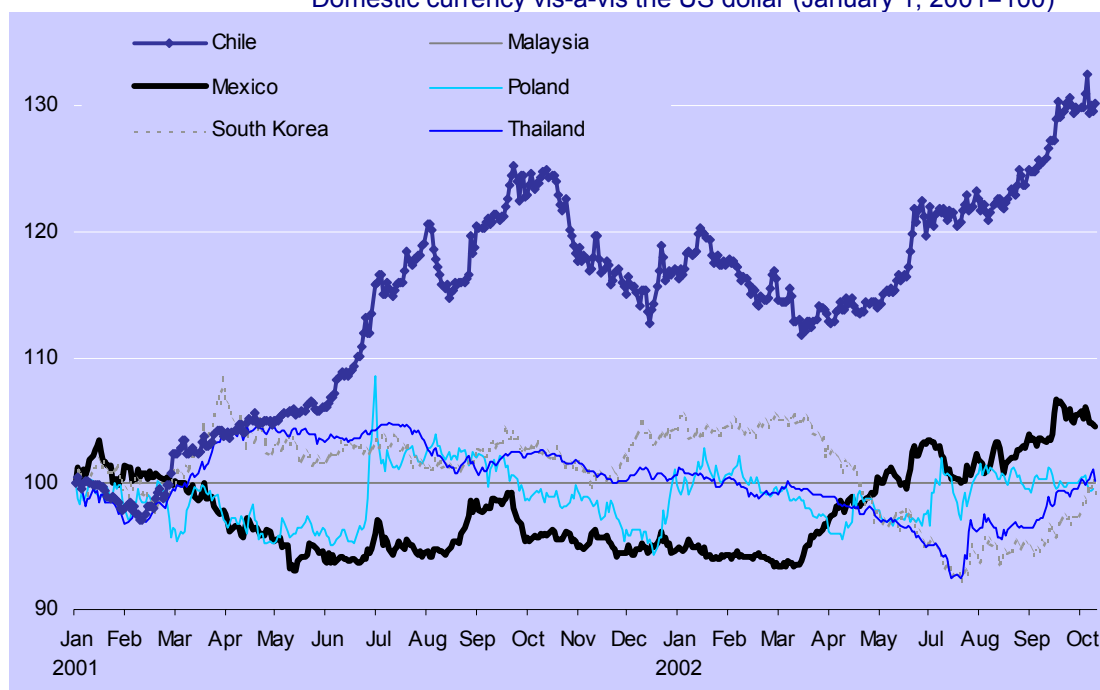
Source: Reuters and Banco de México.

Furthermore, it is important to mention that the behavior of the Mexican peso over the last two years has not been qualitatively different from that of the currencies of other emerging economies that have received investment grade (Graph 22).

Graph 22

**Exchange Rate for Chile, South Korea, Malaysia, Mexico, Poland and Thailand**

Domestic currency vis-à-vis the US dollar (January 1, 2001=100)



Source: Bloomberg.

**II.2.5. Prices Administered or Regulated by the Public Sector**

In September of 2002, the subindex of prices administered or regulated by the public sector increased at an annual rate of 9.2 percent. Annual inflation of this subindex was higher than the 6.9 percent registered at the end of the previous quarter. This upward movement responded to the rise in the prices of electricity for residential use during July, August and September, and in domestic gas during September.

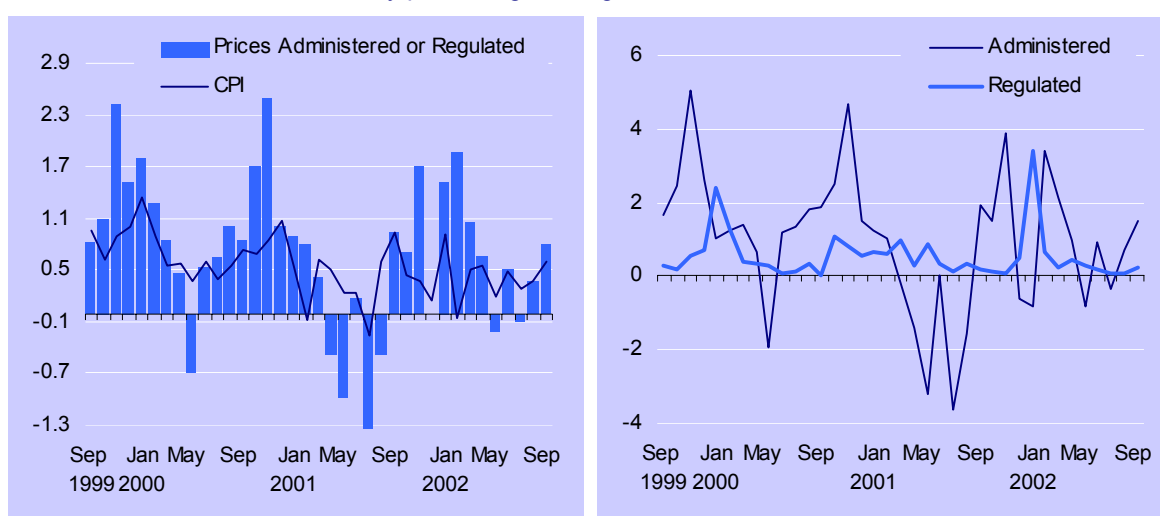
In July, August and September the monthly inflation of the subindex of prices administered or regulated by the public sector<sup>13</sup> was -0.11, 0.37 and 0.80 percent, respectively (Graph 23).

<sup>13</sup> The basket of the subindex of prices administered by the public sector includes gasoline, domestic gas and residential electricity. Products whose prices are regulated by the public sector are international long distance telephone calls, taxi fares, city bus fares, subway or electric transportation fares, Inter-city bus services, parking lots, automobile ownership taxes, local phone services, highway tolls, domestic long distance phone calls, phone line installation and service fees, oil and lubricants, and duties and licences. From June gasoline was divided into two separate components: low and high octane

It is worth pointing out that the monthly increases of this subindex during July and August were above those observed in the same months of 2001<sup>14</sup>. This led to a 4.2 percentage point increase in the subindex of administered or regulated prices compared to its level during the same period of the previous year.

**Graph 23 Subindex of Prices Administered or Regulated by the Public Sector and CPI**

Monthly percentage change



The growth of the aforementioned subindex during the period analyzed mainly originated from the behavior of administered prices. In July, August and September these prices posted monthly variations of  $-0.36$ ,  $0.71$  and  $1.49$  percent, respectively. Meanwhile, regulated prices registered monthly increases of  $0.10$ ,  $0.09$  and  $0.22$  percent in the same months.

The upward behavior of administered prices can be attributed to the substantial rise in the price of electricity for residential use, which posted monthly increases in July, August and September of  $0.92$ ,  $1.32$  and  $0.74$  percent, respectively. In July, August and September of 2001 the monthly growth of these prices was  $0.72$ ,  $.92$  and  $0.71$  percent. It is important to emphasize the possibility that the monthly inflation of electricity prices could also increase in the fourth quarter due to the cancellation of summer subsidies on prices of electricity for residential use applied in warmer zones of the Mexican republic during April and May.

gasoline. Furthermore, domestic gas and fuel were integrated to form one component (gas).

<sup>14</sup> Monthly variations in July, August and September of 2001 were  $-1.51$ ,  $-0.48$  and  $0.93$ , respectively.

Finally, it is important to point out that during September, domestic gas prices went up 5.05 percent in relation to August. This monthly increase, the sharpest since May 2002, contributed to higher inflation in the subindex of prices administered or regulated during September. The rise in the price of domestic gas partly responded to the increase in international gas prices which are used as a reference.

#### **II.2.6. Summary**

Annual overall inflation was highly volatile in July-September of 2002, ending the quarter at a similar level to that registered in the previous quarter. Meanwhile, annual core inflation was stable during the period, falling slightly in September. Fluctuations in annual CPI inflation during the quarter were in response to changes in the subindex of prices excluded from core inflation calculations. Thus, developments in the annual inflation of the subindex of administered prices were unfavorable, while the growth of the subindex of regulated prices declined slightly. On the other hand, annual inflation of the subindexes for agricultural goods and education services fell substantially.

The decline of annual core inflation of goods continued in the quarter covered by this Report, despite the depreciation of the exchange rate. Meanwhile, annual core inflation continued to decline, if only moderately. As a result, annual core inflation of services has accumulated a substantially lower reduction than that of goods. Nonetheless, this has not become generalized in the services sector and can be explained by the upturn in annual inflation of items with significant weight in the subindex (owner occupied homes and home rentals), or whose prices increased considerably (car insurance).

Finally, available information indicates that the recovery of economic activity and employment that began in the second quarter continued in the third, but at a slower pace than had been anticipated. This, coupled with the world economy's weakness, suggests that Mexico's growth will remain below its potential for longer than expected.

### III. Monetary Policy During the Third Quarter of 2002

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In the following section the reasons which prompted Banco de México to increase the level of the “short” on September 23rd will be discussed. In addition, a brief assessment of the evolution of inflation expectations and of both nominal and real interest rates is also presented. The behavior of these variables complements the appraisal of monetary conditions regarding the level and modifications of the “short”. Finally the path of the monetary base together with other monetary and credit aggregates will be reviewed.

#### III.1. Monetary Policy Actions

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During the first half of 2002 Banco de México decided to increase the “short” on February 8th and later reduce it on April 12th down to its previous level. The restrictive monetary policy stance was intensified in order to prevent a likely deterioration of inflation expectations and forestall any contagion effects on headline inflation. This, given the inflationary impact that could arise from the partial elimination of the subsidy on prices of electricity for residential use that went into effect on February 8th. The reduction of the “short” on April 12 basically responded to the following reasons: i) the expected contagion did not materialize, i.e., there were no second round inflationary pressures associated with the rise in the aforementioned public prices; ii) contractual wage increases had begun to ease since the first quarter; and iii) the perception that the slack in the labor market would contribute to moderate increases in wages during the following months.

The evolution of prices and private sector inflation expectations during the first nine months of 2002 confirm that the appropriate monetary policy actions were taken in a timely manner. Between December of 2001 and September this year, annual core inflation fell 1.23 percentage points while inflation expectations for the following twelve months decreased 0.87 percentage points. Nevertheless, during the same period contractual wage increases did not ease as had been expected (Graph 24).

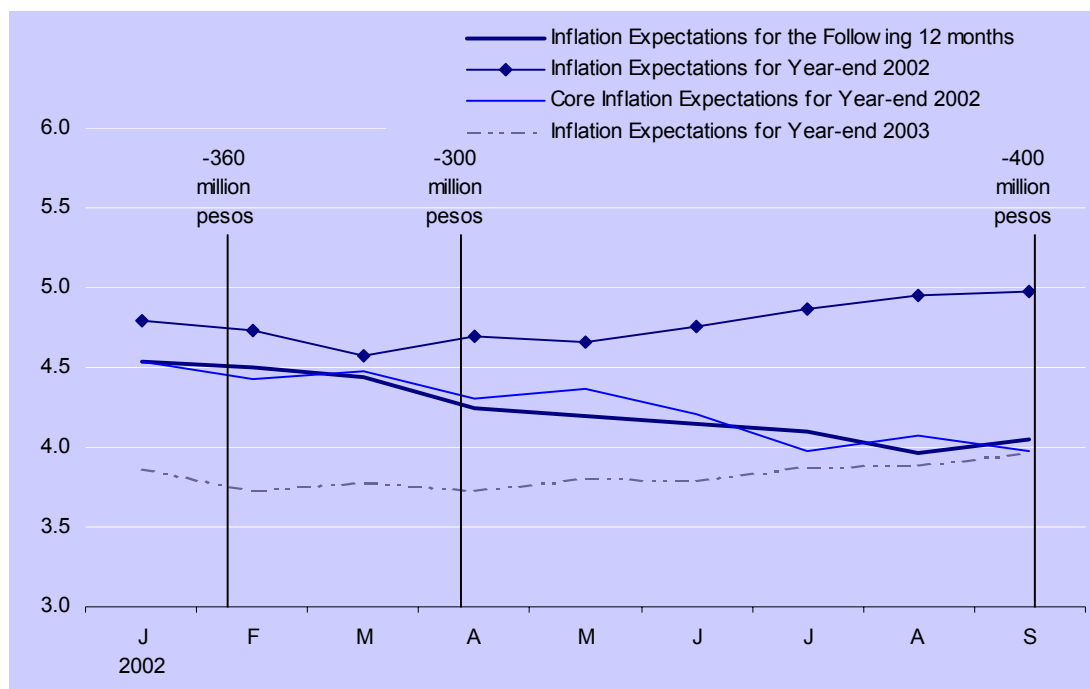
On September 23rd the Board of Governors of Banco de México decided to raise the level of the “short” from 300 to 400



million pesos. This decision was forward looking and consistent with the need to modify monetary conditions in order to attain the 3 percent target by end-2003, given the rigidity of inflation expectations for that year, the lack of downward flexibility of nominal wage increases, and the volatility of the financial markets. The following are the main factors that led to this monetary policy action:

- (a) Annual CPI inflation rose from 4.40 percent in December of 2001 to 4.95 percent in September of 2002. In the same period, annual core inflation fell from 5.08 to 3.85 percent. This implied that the increase in average annual CPI inflation originated from the fact that inflation of the subindexes of prices that are excluded from core inflation calculations (prices administered or regulated by the public sector, agricultural prices and prices of education services) had an upward effect that was not totally offset by reductions in the annual growth of the core inflation index. In particular, from December of 2001 to September of 2002 annual inflation of the subindexes of prices of goods administered or regulated by the public sector rose from 2.21 to 9.23 percent while the annual inflation of the subindex for agricultural goods' prices moved from 1.35 to 2.38 percent;
- (b) The volatility in the international and domestic financial markets during September increased uncertainty surrounding the attainment of inflation targets;
- (c) The performance of CPI inflation described in previous paragraphs of this Report influenced inflation expectations for 2002, which before the widening of the "short" had been substantially higher than 4.5 percent. Fortunately, their behavior did not contaminate inflation expectations for 2003, indicating that market analysts considered the rise in headline inflation was transitory and, consequently, that medium-term inflation trends would not be affected. However, inflation forecasts for 2003 have not decreased and are still considerably above the 3 percent target;

**Graph 24** Inflation Expectations and Accumulated Balances Objective (“Short”)



Source: Survey of Private Sector Economic Analysts' Expectations, Banco de México.

- (d) Meanwhile, during the first nine months of 2002, annual inflation of the core subindex of services, which makes up 32.5 percent of the CPI, went down from 6.87 percent in December of 2001 to 6.61 percent in September of 2002. In the same period, contractual wages did not adjust to the prevailing slack in the labor market. Greater downward flexibility of contractual wage settlements is fundamental to attaining a faster decline of inflation in the services sector. For this reason, falls in annual core inflation have mostly been sustained by declines in the annual growth of the core goods subindex –which decreased from 3.85 percent in December of 2001 to 1.85 percent in September of 2002. The low level of core inflation of goods in the last few months confirms that the passthrough of exchange rate fluctuations to domestic prices has been considerably weaker than in the past;
- (e) As a result of the low levels of core goods inflation it is reasonable to expect that this variable –which represents 37 percent of the CPI– will not make a significant contribution to the reduction of inflation in 2003. Thus,

the decline of core inflation next year will need to be sustained to a greater extent by reductions in core inflation of services and for this reason it is crucial that contractual wage revisions are based on inflation expectations that are in line with the 3 percent target for 2003. In order for this to take place it is essential to avoid contamination of inflation expectations for 2003 from the upward revisions registered in this year's forecasts; and

- (f) Analysis of the determinants of inflation indicated that in August-October annual CPI inflation would retake its downward path. However, as a consequence of the unusually low monthly growth registered during November and December of 2001<sup>15</sup>, it is likely that CPI inflation will rebound slightly in the last two months of the year and then revert during the first months of 2003. On the other hand, annual core inflation is expected to remain relatively stable for the remainder of the year.

Thus, the Board of Governors of Banco de México decision to increase the "short" to 400 million pesos was taken in order to induce a correction of medium term inflation expectations, contribute to an orderly adjustment of domestic financial markets and help bring contractual wage revisions in line with inflation objectives and prevailing labor market conditions.

Although at the time of publishing this Report there were no signs of contagion of inflation expectations for 2003, they remained at levels above the target for next year. Likewise, the downward rigidity of core inflation of services and of contractual wage revisions are additional factors that could jeopardize the attainment of the inflation target. To comply with the target in 2003, monetary conditions need to be more restrictive in order to send a clear signal to the market that Banco de México will act accordingly.

On a somewhat different topic, Banco de México considered necessary for credit institutions to make a new mandatory deposit at the Central Bank amounting to 150,000 million pesos as from September 26<sup>th</sup>. This action was based on the fact that financial programming pointed to an expansion of liquidity in the next few months stemming from Central Bank operations with the Federal Government sector and amortization of regulation bonds.

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<sup>15</sup> The increases mainly originated from monthly falls in the price index for agricultural goods in November and December of 2001 of 0.8 and 0.2 percent, respectively.

The above replaced credit institutions' existing deposit at the Central Bank which totaled 95,396 million pesos and was cancelled on the aforementioned date. The characteristics of the new deposit were as follows:

- (a) The term would be indefinite and the amount would be determined according to each bank's liabilities.
- (b) The interest rate would be linked to the bank funding rates published by Banco de México on a daily basis, capitalized daily and paid every 28 days.

It should be emphasized that this new deposit did not modify the monetary policy stance of Banco de México<sup>16</sup>.

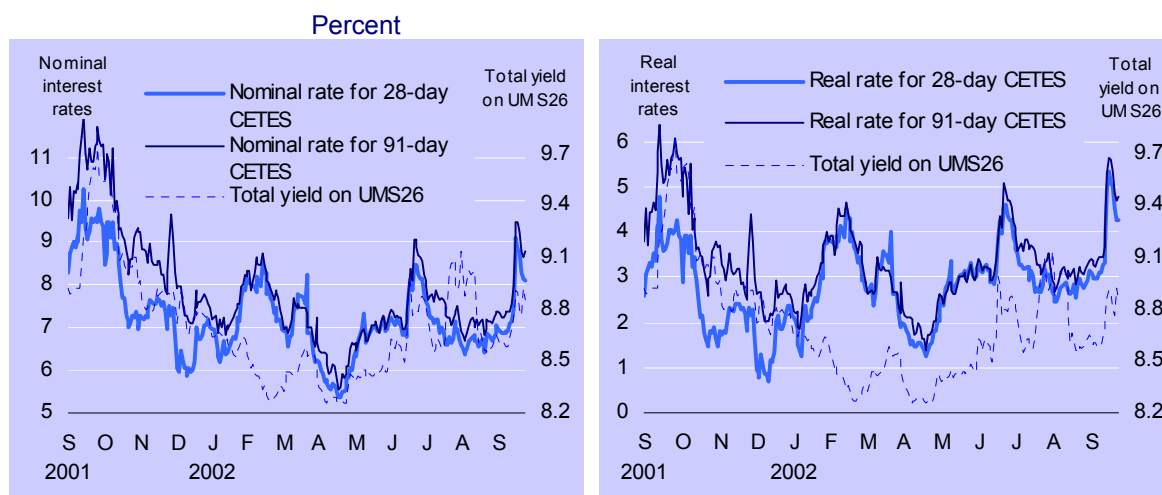
During the third quarter, the adverse international environment facing all emerging economies persisted at the same time as hopes of a more robust recovery of the United States economy faded. This had a negative impact on growth expectations for the Mexican economy. Furthermore, risk factors on emerging economies' government bonds rose substantially while stock market indexes in the United States continued to fall.

The adverse international environment has influenced both the exchange rate and interest rates on Mexican bonds placed abroad. The latter has led to a considerable increase in domestic interest rates at the end of the quarter. Moreover, in September the market began to show concerns over the likely effects of a depreciation of the exchange rate on inflation at the same time as perceptions that the annual inflation target for 2002 would not be met. This could contaminate medium term inflation expectations and, as a consequence, the public began to anticipate increases in the "short". These factors brought about a rise of 139 basis points in the funding rate between 12<sup>th</sup> and 23<sup>rd</sup> of September. As previously mentioned, the widening of the "short" came into force on September 23<sup>rd</sup> and induced an additional upward effect on domestic interest rates, which rose 90 basis points in the five business days before and after the increase of this instrument. Moreover, at the end of the quarter, interest rates seem to have reflected concerns over a possible strike in PEMEX and that wage revisions resulting from this dispute could hamper the disinflation process (Graph 25).

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<sup>16</sup> Banco de México, Press Release August 28th, 2002.

**Graph 25** **Nominal Interest Rates, Real Interest Rates<sup>1/</sup> and Total Yield on UMS26 Bonds**



1/ Nominal interest rates deflated by inflation expectations for the following 12 months.

In its analysis of inflation perspectives for 2003, the Board of Governors of Banco de México has taken into account the net balance of positive and negative effects flowing from international and domestic disturbances, the recent evolution of inflation and inflation expectations observed during the last few months. In this way, the decision to increase the “short” at the end of the third quarter was consistent with the need to create the conditions necessary to attain the 3 percent objective for headline inflation by end-2003. Thus, as long as there are no disproportionate rises in public sector prices and tariffs, and the international environment remains relatively stable, a substantial reduction of annual CPI inflation as well as an additional fall of core inflation can be expected during the first half of 2003. This will allow inflation to move into line with the 3 percent objective adopted for the end of next year.

## III.2. Monetary and Credit Aggregates

### III.2.1. Monetary Base, Net Domestic Credit and Net International Assets

During July-September 2002, the average growth of the stock of the monetary base at an annual rate (17.8 percent) was higher than that observed in the previous quarter (15.3 percent).

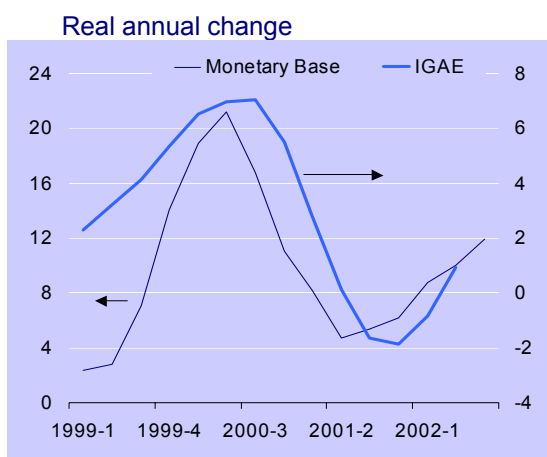
The deviation of this stock from the forecast published in the Monetary Program was 5.1 percent on average and at the end of the quarter 6.6 percent.

Although this deviation is more than twice the upper limit of the confidence interval established at the beginning of the year, available information suggests that it could be transitory. This follows from the fact that even though the seasonal behavior of the monetary base has decoupled from the pattern foreseen (obtained from historic data), it has been similar to that observed in 2001.

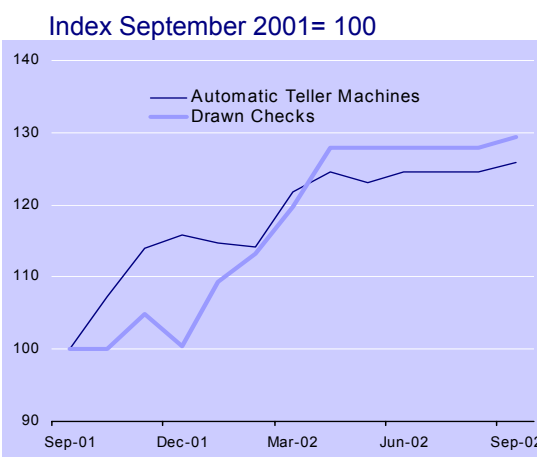
A strong relationship exists between economic activity, interest rates and the demand for bills and coins in the medium term (Graph 26a). At present, the incipient recovery of the economy and lower interest rates compared to last year's have raised the demand for base money. However, other factors can affect the amount of bills and coins demanded by the public, among these are higher bank charges for cash withdrawals from automatic teller machines or for issuing checks (Graph 26b). Consumers try to reduce these costs by making less frequent but larger average withdrawals from automatic teller machines. Because the aforementioned costs have not risen recently, their impact can be considered as only temporary and they are not expected to continue to drive faster monetary base growth.

**Graph 26 Monetary Base**

**a) Monetary Base and Economic Activity <sup>1/</sup>**



**b) Average Cost of Cash Withdrawals**



<sup>1/</sup> Trend series of the IGAE calculated by INEGI.  
Source: Banco de México, INEGI and CONDUSEF.

In the third quarter of 2002, the stocks of Banco de México's net international assets increased 1,107 million US

dollars, amounting to 46,737 million dollars at the end of the period. The Central Bank's main source of foreign exchange is PEMEX and the main user of these resources is the Federal Government. Thus, during the quarter PEMEX sold 1.826 billion US dollars to Banco de México while the Federal Government purchased a slightly smaller amount of foreign currency totalling 1.441 billion dollars.

Meanwhile in the July-September period, Banco de México's net domestic credit shrank 11.6 thousand million pesos, accumulating a contraction of 33 thousand million pesos in the first nine months of the year (Table 12).

**Table 12** **Monetary Base, International Assets and Net Domestic Credit**  
Millions

	Stocks		Effective flows			
	by Dec. 31, 2001	By Sep. 30, 2002	1Q	2Q	3Q	Accumulated by September 30, 2002
(A) Monetary Base (Pesos)	225,580	210,994	-9,272	-4,416	-899	-14,587
(B) Net International Assets (Pesos) <sup>2/</sup>	411,315	478,115	13,497	-5,838	10,711	18,370
Net International Assets (US dollars) <sup>2/</sup>	44,857	46,737	1,453	-680	1,107	1,880
<b>Change in Net International Assets</b>			<b>1,453</b>	<b>-680</b>	<b>1,107</b>	<b>1,880</b>
<i>PEMEX</i>			3,382	302	1,826	5,510
<i>Federal Government</i>			-2,004	-1,856	-1,441	-5,301
<i>Other</i>			75	874	722	1,671
(C) Net Domestic Credit (Pesos) [(A)-(B)] <sup>1/</sup>	-185,735	-267,121	-22,769	1,422	-11,610	-32,957
<b>Memorandum:</b>						
(D) International Reserves (US dollars) <sup>3/</sup>	40,880	45,108	1,349	494	2,385	4,228

1/ In the estimation of the effective flows in pesos of net international assets, the exchange rate applied is that associated to the transaction giving rise to the flow. The difference between net international asset stocks in pesos does not correspond to the concept of effective flows due to the fact that stocks are valued at the daily exchange rate. This also explains why the differences between net domestic credit stocks do not match the reported effective flows.

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

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

### III.2.2. Monetary Aggregates

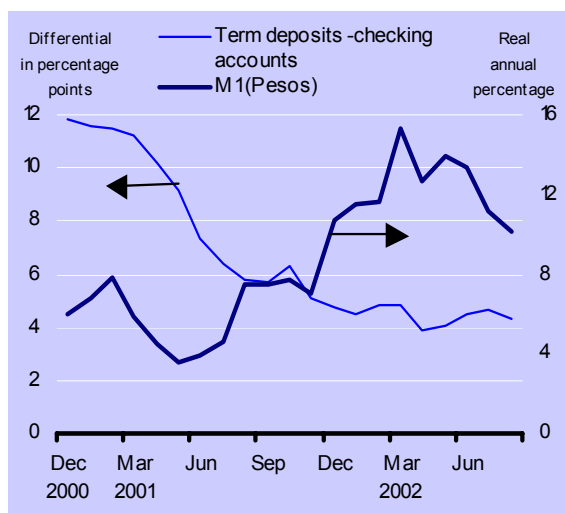
The average stock of narrow money (M1) went up 11.8 percent in real terms during the third quarter (Table 13). Increased demand for means of payment is partly related to the fall of interest rates which reflect the opportunity cost of maintaining liquid assets. Moreover, the spread between the yield on time deposits

and checking accounts has narrowed (Graph 27a). In general, the latter has led to a larger share of liquid deposits (checking and payroll accounts) in total bank deposits.

Notwithstanding the above, the real annual growth of M1 in domestic currency has declined considerably since March 2002. As a consequence, the velocity of circulation of this aggregate slowed (Graph 27b).

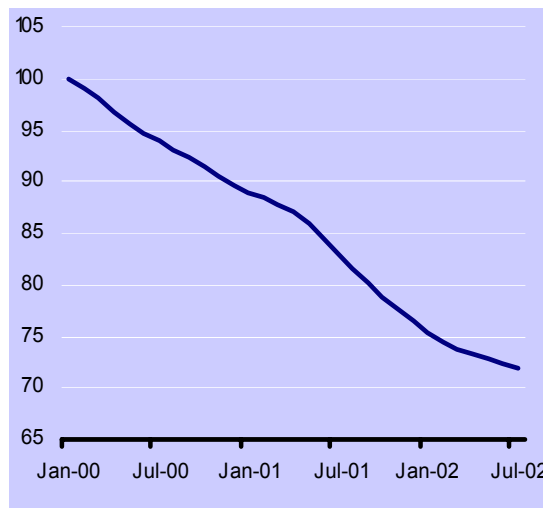
**Graph 27 Money Supply in Pesos**

**a) Money Supply in Pesos and Interest Rate Differential on Bank Deposits**  
Real annual change and differential in percentage points



**b) Currency Velocity\***

Index January 2000=100



\*Currency velocity is defined as the coefficient IGAE/ stock of M1.

The behavior of M1 has also been influenced by the fact that the upward impact of deposits in checking accounts denominated in foreign currency associated with the acquisition of Banamex by Citigroup began to dissipate in August<sup>17</sup>.

<sup>17</sup> See "Inflation Report: July-September 2001".



Table 13

**Monetary Aggregates**

Real annual percentage change of the average stock

	2001	2002		
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
<b>M 1</b>	<b>13.86</b>	<b>17.22</b>	<b>17.52</b>	<b>11.76</b>
Bills and Coins Held by the Public	4.88	10.46	12.52	11.41
Checking Accounts (Pesos)	9.11	11.95	11.27	7.23
Checking Accounts (Foreign Currency)	64.88	59.87	58.58	23.02
Current Account Deposits	16.67	22.49	23.57	20.11
<b>M 4</b>	<b>10.41</b>	<b>9.70</b>	<b>9.25</b>	<b>6.75</b>
Bank Deposits	1.34	-3.48	-7.14	-9.04
Public Securities <sup>1/ 2/</sup>	25.15	25.80	27.91	21.31
Private Securities <sup>2/</sup>	-1.55	17.68	24.78	40.04
Other Housing and Retirement Funds <sup>3/</sup>	13.75	12.60	11.68	11.45
<b>Memorandum :</b>				
M4 excluding SAR <sup>4/</sup>	7.47	6.66	6.49	4.06

1/ Including Federal Government securities, BPAS, BREMS, PICS and other securities issued by states and municipalities.

2/ Including securities held by the SIEFORES.

3/ Including housing funds and retirement funds held by Banco de México.

4/ Does not include public and private securities held by the SIEFORES as well as other housing and retirement funds.

The growth of the broad monetary aggregate (M4), composed of domestic financial instruments, has continued to decline (Table 13). In general, this behavior can be explained by reduced yields on financial instruments. One way of studying the impact of falling interest rates on financial saving<sup>18</sup> is by calculating variations in balances derived from interest reinvestment<sup>19</sup> (Graph 28). This exercise shows that the impact of reduced interest rates alone, would reduce the growth of M4 by one half.

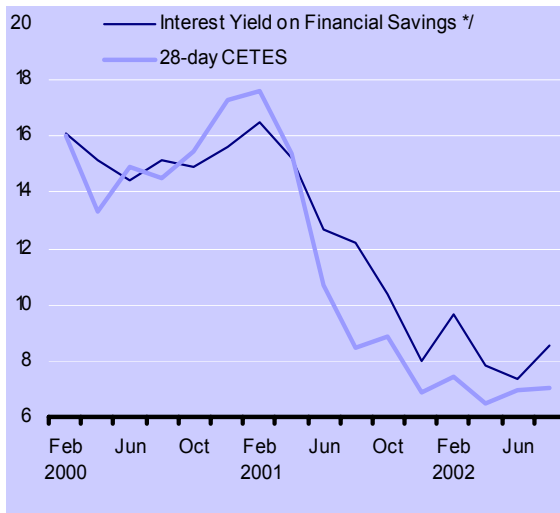
It is important to point out that the way in which interest rate movements affect the evolution of M4 also depends on the pattern of revisions in financial instrument yields, meaning the behavior described above will probably take place with a certain lag. In addition to interest rates, there are other factors that undoubtedly influence the evolution of financial saving, one of the most important being economic activity.

<sup>18</sup> In the context of monetary aggregates, financial saving is defined as the broad monetary aggregate (in this case, M4) excluding bills and coins held by the public.

<sup>19</sup> In order to separate the accumulated interest component, the yield for total financial saving was obtained, made up of the average interest on time deposits (CCP) and interest rates implicit on government securities. This yield was then used to calculate the rise in financial saving explained by reinvested interest.

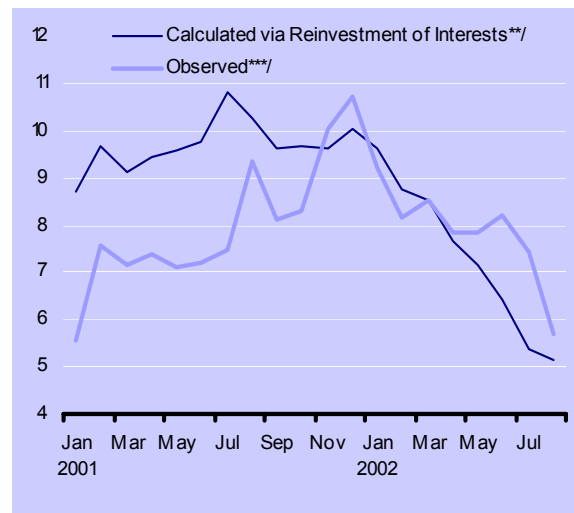
**Graph 28 Financial Savings**

**a) Interest Yield on Financial Savings and 28-day CETES**  
Annual percentage



**b) Real Annual Change of Financial Savings**

Percent



\*/ Weighted average of the CCP and interest yield on government securities.

\*\*/ As from the balance of December 2000.

\*\*\*/ Does not include the effects of the transaction BANAMEX-Citigroup.

Among the components of M4, the reduction of bank deposits in real terms has been outstanding and in contrast to the growth of holdings of private and public securities. The latter is attributable to financial institutions' substitution of bank time deposits for investment fund deposits (Table 14).

**Table 14 Financial Group Deposits: Term Deposits and Investment Funds in 2002**

Thousand million pesos

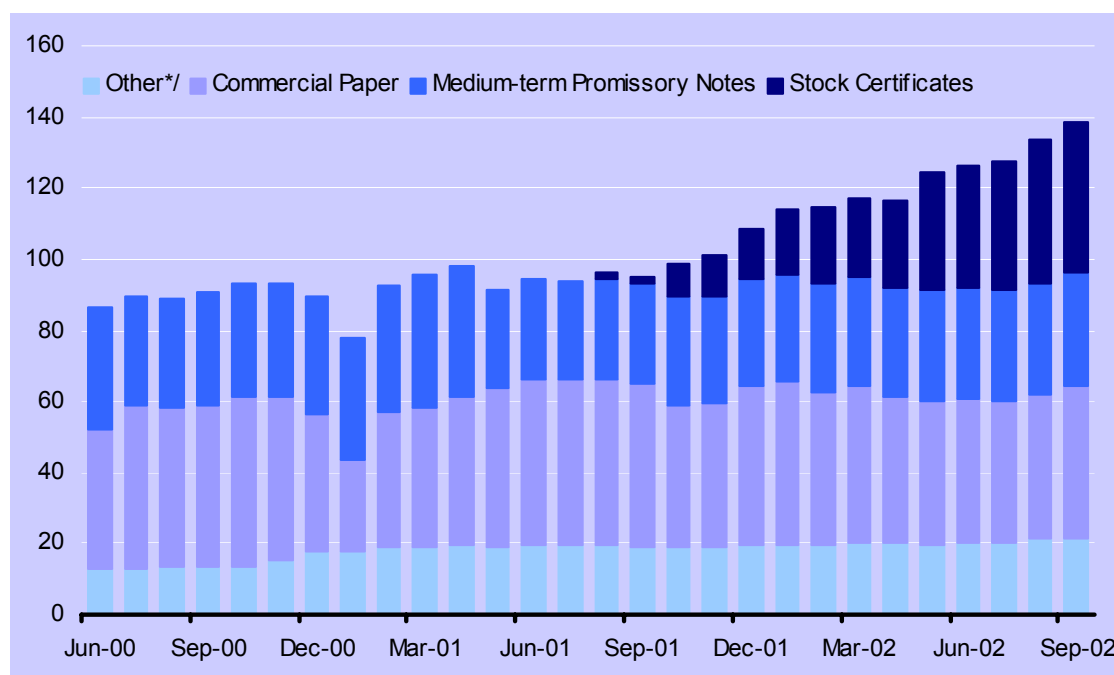
	Balance by August	Accumulated change by August 2002
Bank Deposits	493.9	-43.5
Investment Funds Deposits by Financial Groups	273.4	29.9

At the close of September the real annual growth of private securities was 48.1 percent. The strength of stock

certificates was outstanding and they have been the most popular instrument among firms for issuing of medium term debt. The latter accounted for 30.5 percent of the stock of domestic financial saving in September, only marginally lower than commercial paper (30.9 percent of the total) (Graph 29).

**Graph 29****Private Securities**

Stocks in thousand million pesos



\*/ Including participation certificates, mortgage bonds, non-collateralized bonds, short-term stock certificates and long-term promissory notes.

**III.2.3. Financing to the Private Sector**

Information available up to September 2002 indicates that although direct performing credit<sup>20</sup> granted by commercial banks to the private sector remains depressed, it showed signs of recovery during the third quarter of the year. During that period credit flows amounted to 14.1 thousand million pesos (Table 15). Mortgages as well as credit granted to non-bank financial institutions remained lackluster while credit to consumption grew, and financing to the private firms began to show signs of an incipient recovery (7.3 thousand million pesos during the quarter).

<sup>20</sup> Excluding portfolio transferred to UDIs Trusts and portfolio rights transferred to the IPAB-FOBAPROA.

**Table 15** **Commercial Banks' Performing Credit to the Private Sector**  
Own portfolio <sup>1/</sup>

	Stocks in thousand million pesos					Quarterly Flows Jul-02 Sep-02	Real annual percentage change Sep-01 Sep-02
	Jun-01	Sep-01	Dec-01	Jun-02	Sep-02		
<b>Performing Credit</b>	<b>377.9</b>	<b>384.3</b>	<b>393.5</b>	<b>400.6</b>	<b>414.7</b>	<b>14.1</b>	<b>2.8</b>
Consumption	44.7	46.3	53.5	62.7	69.1	6.4	42.3
Housing	47.7	47.1	47.5	48.5	48.7	0.2	-1.4
Corporations and Individuals with Entrepreneurial Activity	266.9	269.4	265.2	266.5	273.8	7.3	-3.2
Non-bank Financial Intermediaries	18.6	21.6	27.3	22.8	23.1	0.3	2.1

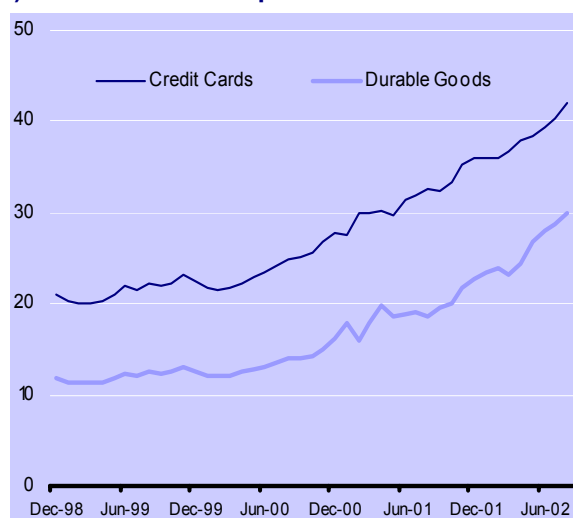
<sup>1/</sup> Does not include portfolio transferred to UDIs trusts and portfolio rights transferred to the IPAB-FOBAPROA. Includes commercial banks intervened and classified adversely.

It is worth mentioning that the expansion of consumer credit has been generalized. Thus, the real annual growth of both credit channelled to consumer durables and through credit cards increased substantially in August (22.7 and 52.6 percent, respectively). Meanwhile, regarding mortgage lending, SOFOLES now manage a larger portfolio than the performing credit, excluding restructuring programs, of commercial banks (Graph 30).

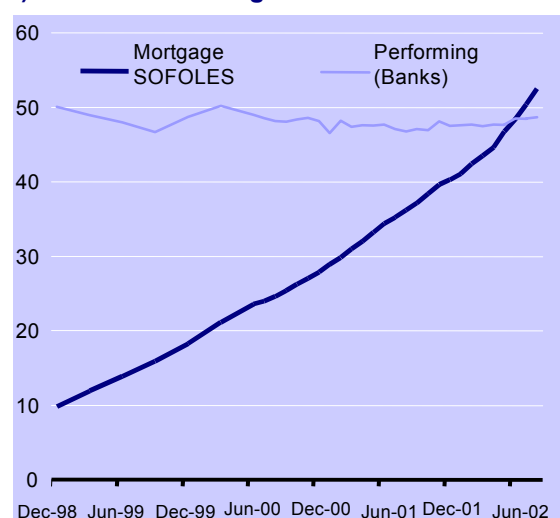
**Graph 30** **Credit for Consumption and Housing Granted by Commercial Banks and SOFOLES <sup>1/</sup>**

Nominal stocks in thousand million pesos

**a) Credit for Consumption**



**b) Credit for Housing**



<sup>1/</sup> SOFOLES information corresponds to net credit portfolio registered by Mexico's Association of Financing Companies with Limited Responsibility (*Asociación Mexicana de Sociedades Financieras de Objeto Limitado, AMSOFOL*).

Furthermore, data for the balance of payments and the domestic credit market shows financing granted to firms has undergone structural changes. During the second quarter of 2002, external financing declined while financing obtained from domestic sources increased (Table 16).

**Table 16** **Domestic and External Financing to the Private Sector**  
Quarterly flows in million pesos

	2001				2002	
	I	II	III	IV	I	II
<b>Domestic</b>	4,465	253	3,141	9,566	-4,422	23,606
Performing Credit	-1,467	1,617	2,545	-4,201	-12,994	14,299
Securities	5,932	-1,364	596	13,767	8,572	9,307
<b>External</b>	17,246	1,344	7,758	28,682	13,631	-590
Liabilities (Loans and Deposits)	2,851	-1,751	12,977	26,289	-381	7,612
Securities Issued Abroad	14,395	3,095	-5,219	2,394	14,012	-8,202
<b>Total</b>	<b>21,712</b>	<b>1,597</b>	<b>10,900</b>	<b>38,248</b>	<b>9,209</b>	<b>23,016</b>

Lending rates for the different credits granted by commercial banks have remained practically constant since the start of the year, still showing a wide spread between them and borrowing rates (Table 17).

**Table 17** **Lending and Borrowing Interest Rates**  
Annual percentage

	2000	2001	2002	
	December	December	June	September
<b>Lending Rates</b>				
Credit Cards	44.88	35.64	35.21	35.52
Fixed-rate Mortgages	n.e	18.43	16.58	16.58
Commercial Paper	18.26	7.73	8.62	8.49
MXA-1 Rating	18.22	7.83	8.41	8.11
MXA-2 / 3 Rating	19.35	9.88	10.47	9.66
28-day CETES	17.05	6.29	7.30	7.34
<b>Borrowing Rates</b>				
CCP (Pesos)	15.55	6.49	6.15	5.97
28-day Promissory Notes	9.44	3.08	3.25	3.07
Checking Accounts	5.53	2.38	2.34	2.29

Source: Banco de México and INFOSEL.

## IV. Private Sector Outlook for 2002<sup>21</sup>

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Throughout July-September 2002, private sector analysts revised their forecasts as follows: lower GDP growth and higher inflation.

### IV.1. Forecasts for the Main Determinants of Inflation

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In general, forecasts about the economies of the United States and Mexico have deteriorated, compared to those mentioned in the previous Inflation Report. In particular, most private sector analysts revised their estimates for growth in the United States economy in 2002 and 2003 downward, to 2.4 and 3 percent, respectively (Table 18). They also expect real GDP in Mexico during 2002 to increase 1.58 percent, a slightly lower estimate than that published in June. The only variable with a favorable forecast was the price of the Mexican oil export mix for 2002.

Exchange rate expectations were modified upwards. Also, surveyed analysts foresee a small increase –in relation to September– in the nominal contractual wage revisions for October and November.

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<sup>21</sup> Unless otherwise stated, all forecasts reported in this section are drawn from the Survey of Private Sector Economic Analysts' Expectations undertaken each month by Banco de México.

**Table 18 Private Sector Expectations: June and September 2002<sup>1/</sup>**

	June	September		June	September
<b>Real GDP Growth in Mexico</b>			<b>Exchange Rate</b>		
			(Pesos per US dollar, Year-end)		
2002	1.60%	1.58%	2002 BANXICO Survey	9.80	10.06
2003	4.00%	3.84%	Futures <sup>3/</sup>	10.34	10.39
			2003 BANXICO Survey	10.18	10.39
			Futures <sup>3/</sup>	10.92	11.22
<b>Trade Deficit</b>			<b>Mexican oil mix</b>		
(Million US dollars)			(Average US dollars per barrel)		
2002	10,444	8,716	2002 BANXICO Survey	19.97	21.23
2003	13,042	11,822	Futures <sup>6/</sup>	20.73	22.22
			2003 Futures <sup>6/</sup>	n.a.	21.54
<b>Current Account Deficit</b>			<b>Wage Increases</b>		
(Million US dollars)					
2002	18,979	17,274	October 2002	n.a.	5.95%
2003	21,864	20,446	November 2002	n.a.	5.90%
<b>Foreign Direct Investment</b>			<b>Business Climate</b>		
(Million US dollars)					
2002	13,592	13,147	Will improve	80.0%	60.0%
2003	14,462	14,177	Will remain the same	16.7%	36.7%
			Will worsen	3.3%	3.3%
<b>Real GDP Growth in the U.S.</b>					
2002 BANXICO Survey	2.6%	2.4%	2003 BANXICO Survey	n.a.	3.0%
Consensus Forecasts <sup>2/</sup>	2.7%	2.4%	Consensus Forecasts <sup>2/</sup>	3.6%	3.0%
Brokerage Firms (Average) <sup>4/</sup>	2.8%	2.4%	Brokerage Firms (Average) <sup>4/</sup>	n.a.	2.8%
III Q Brokerage Firms (Average) <sup>5/</sup>	3.6%	3.5%			
IV Q Brokerage Firms (Average) <sup>5/</sup>	3.6%	2.0%			

1/ Unless otherwise stated, data was drawn from the Survey of Expectations of Private Sector Economic Analysts undertaken every month by Banco de México.

2/ July 8<sup>th</sup> and October 7<sup>th</sup> issues of the *Consensus Forecasts*.

3/ Exchange rate futures of June 23<sup>rd</sup> and September 30<sup>th</sup> 2002.

4/ Average Forecasts of Deutsche Bank, Goldman Sachs and JP Morgan's Brokerage Firms.

5/ Annualized quarterly change.

6/ The price of the Mexican oil mix corresponds to the difference between the price futures of the WTI oil (September 30<sup>th</sup>) and the price of the Mexican oil mix on that same date.

Indicators of the business climate and confidence levels displayed less optimism than during June 2002. Thus, 60 percent of the analysts surveyed were of the opinion that the business climate for the next semester would improve, while 37 percent mentioned that it would remain unchanged and the rest believed it would deteriorate.

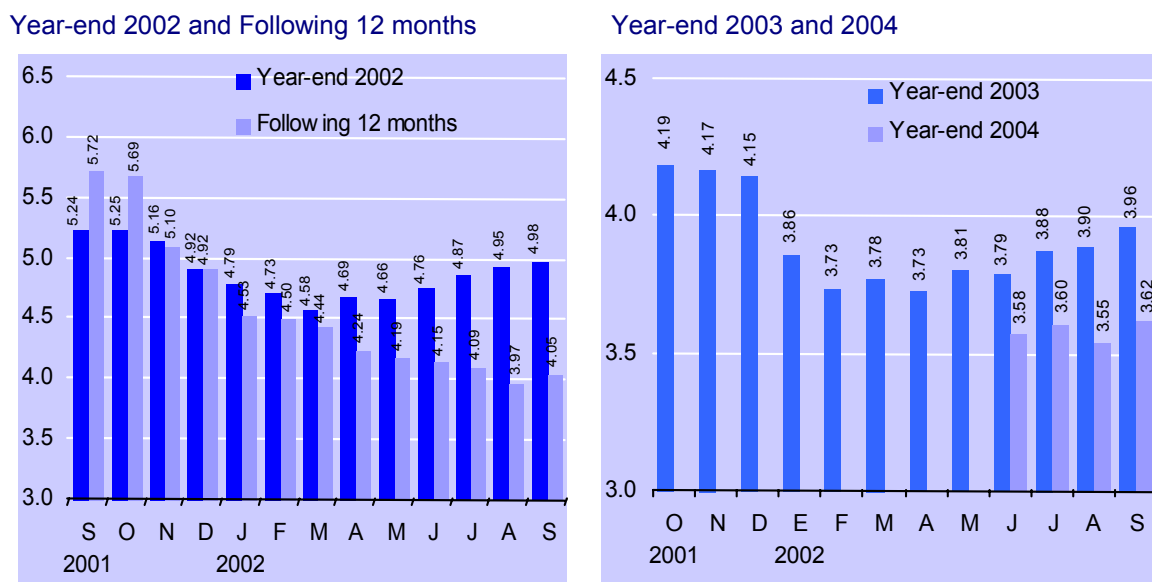
According to analysts who took part in the survey the main factors that could hinder economic growth over the next six months are: the weakness of external markets and of the world economy (31 percent of responses); international financial instability (14 percent of responses); domestic political uncertainty (11 percent of responses); international political instability (8 percent of responses); and uncertainty concerning the domestic economic situation (7 percent of responses).

## IV.2. Inflation Expectations

Analysts' monthly inflation expectations for October, November and December of 2002 were 0.29, 0.34 and 0.42 percent, respectively.

Annual expected inflation for year-end 2002 rose from 4.76 percent in June to 4.98 percent in September. However, core inflation estimates for December 2002 went down from 4.20 percent in June to 3.97 percent in September, while inflation expectations for the following twelve months fell from 4.15 percent in June to 4.05 percent in September. Inflation expectations for 2003 and 2004 are 3.96 and 3.62 percent, respectively (Graph 31). The upward revision of CPI inflation expected for 2002 reflected its higher than anticipated increase during the third quarter and does not imply any modification in medium-term CPI inflation expectations. This is confirmed by the fall in core inflation and overall inflation estimates for the next twelve months. Nonetheless, inflation forecasts for year-end 2003 rose slightly during the third quarter and remain above the corresponding objective.

**Graph 31 Evolution of Inflation Expectations**  
Annual percentage change



Source: Survey of Expectations of Private Sector Economic Analysts, Banco de México.



## V. Announcements of Monetary Policy Decisions

### V.1. Evolution of the Monetary Policy Scheme

After the adoption of a floating exchange rate regime as a result of the balance of payments crisis of 1994-1995, the exchange rate ceased to function as the instrument of monetary policy that guided inflation expectations towards the targets set by the monetary authority. Under such circumstances, the timely application of monetary policy instruments to attain the targets became the nominal anchor of the economy.

Owing to the need to establish a visible and strict nominal anchor, a limit on the growth of the Central Bank's net domestic credit was set as a monetary policy guide in 1995<sup>22</sup>. It is worth clarifying that, at the time, neither this limit on net domestic credit nor the growth of the monetary base were thought of as a rule that could be used in a quasi-automatic manner for conducting monetary policy. The monetary authority was well aware of the limitations thereof. In addition, the Monetary Program for 1995 established a discretionary use of policy instruments in order to induce movements in real financial variables and inflation expectations which determine monetary conditions in such a way as to enable the proposed targets to be met. Thus, the first element of the monetary program fulfilled the basic function of establishing a strict commitment to limiting the main source of inflation: excessive expansion of domestic credit. The second element was the discretionary management of the terms for granting domestic credit, within the limits established by the first element, to bring price behavior in line with the inflation target adopted for that year.

Furthermore, in order to have a framework that would allow the exchange rate and interest rates to be determined freely by the market, Banco de México took two major operational decisions: i) the introduction of a "zero-average reserve requirement" regime and ii) the use of the accumulated balance objective for current accounts held by the banks at the Central Bank as the instrument of monetary policy. Through the latter mechanism, Banco de México would send signals to the financial

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<sup>22</sup> This limit derived from the growth of the monetary base and an assumed zero accumulation of international reserves during the year.

markets without predetermining interest rate or exchange rate levels<sup>23</sup>.

The effectiveness of the “short”<sup>24</sup> to modify the behavior of interest rates has been proved in various studies<sup>25</sup>. Under an accumulated balances framework, interest rates are determined by the interaction of participants in the market and by the discretionary decisions of the monetary authority. There is also evidence that the aforementioned interaction has caused real interest rates to be influenced by the traditional variables that guide all central banks actions –outstanding among which is the deviation of inflation expectations from the established target– and that real interest rates have, in turn, affected the behavior of aggregate demand, credit and inflation expectations<sup>26</sup>. Moreover, the “short” has proven to be a very efficient instrument to allow a spontaneous distribution of the adjustment to external and domestic shocks between the exchange rate and interest rates. This characteristic is of utmost importance to an economy like Mexico’s which has been subject to a high degree of volatility and to an intense passthrough of exchange rate fluctuations to domestic prices.

Although a short-term interest rate objective may be a more easily understood policy instrument, as attested by its broad use worldwide, the accumulated balances’ scheme and the use if the “short” have been effective, given the conditions of volatility that have affected the Mexican economy. The Board of Governors has been evaluating the convenience of adopting an interest rate objective as an operational instrument. On this account the Board considers that the reduced volatility experienced by domestic markets brings us closer to a situation in which the necessary conditions to migrate would be met. Nonetheless, given the high degree of uncertainty currently affecting international markets and the vulnerability of domestic markets stemming from structural problems in Mexico’s public finances, the adoption of an interest rate instrument is not likely to take place in the near future.

<sup>23</sup> For a detailed explanation of this mechanism, refer to Banco de México’s Annual Report, 1996, Appendix 4.

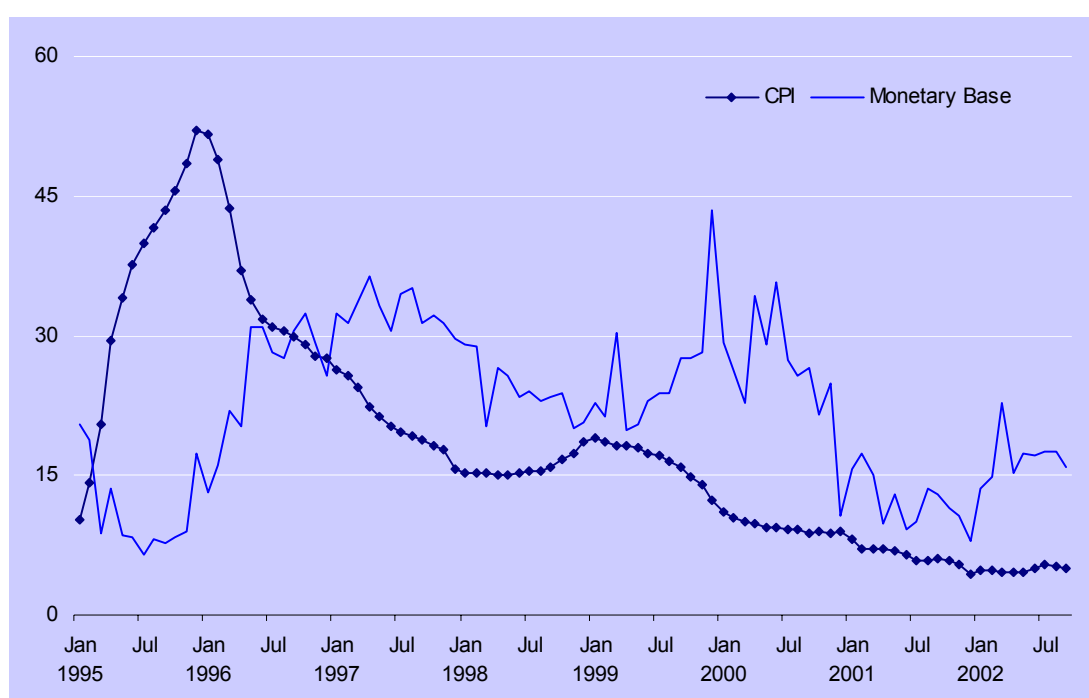
<sup>24</sup> It is important to remember that the “short” is the amount of monetary base Banco de México supplies to the market in a 28-day period at rates equivalent to two times the average primary 28-day Cetes yields auctioned during the period of accumulated balance measurement. See Inflation Report, January-March 2000, (page 23), October-December 2001 (page 72 to 75) and October-December 2002 (page 76 to 78).

<sup>25</sup> Castellanos, S. (2000), “El Impacto del “Corto” en la Estructura de Tasas de Interés” (available only in Spanish), Research Paper 2000-1, June, Banco de México.

<sup>26</sup> Martínez, L., Sánchez, O. and Werner, A., (2001), “Considerations on the Conduction of Monetary Policy and Transmission Mechanisms in Mexico”, Research Paper 2001-2, March, Banco de México.

In the years following the balance of payments crisis of 1994-1995, inflation fell considerably and economic stability was strengthened. Furthermore, these years showed that as inflation declined the relationship between money and prices becomes more uncertain due to the remonetization process that took place in response to the consolidation of the downward trend in inflation (Graph 32).

**Graph 32**                      **Consumer Price Index and Monetary Base**  
Annual percentage change



The absence of a stable or close relationship between the monetary aggregates and inflation has led many of the world's central banks to reduce the emphasis placed on the evolution of such aggregates as the basis for the analysis and evaluation of inflationary pressures<sup>27</sup>. As a result, in recent years, the careful study of several indicators that provide information on inflation has been emphasized. This procedure corresponds to the second element of Banco de México's policy, introduced in the Monetary Program for 1995, i.e., the discretionary use of policy instruments in

<sup>27</sup> Mishkin, F. (2000) "From Monetary Targets to Inflation Targets: The Lessons from Industrialized Countries", in *Stabilization and Monetary Policy: The International Experience*. Paper presented at Banco de México's 75<sup>th</sup> Anniversary, November 14-15, 2000, Banco de México.

order to induce monetary conditions enabling the proposed targets to be met.

Due to the fact that Mexico and other countries' experiences have shown that the path of the monetary base does not provide accurate information about current or medium term inflation trends, the monetary policy framework has been modified. The objective has been to increase monetary policy effectiveness and transparency given the changes in the Mexican economy over the last seven years. The modification has led to a gradual convergence towards the current inflation-targeting regime, formally adopted in the Monetary Program for 2001. A key element of this transition have been the efforts undertaken since 1999 to improve the transparency, the communication with the public and the accountability of the Central Bank.

The most important features of the inflation-targeting regime, which is based on the implementation of discretionary monetary policy actions in order to attain inflation targets, are as follows:

- (a) The recognition of price stability as a fundamental objective of monetary policy;
- (b) The announcement of explicit medium and long inflation targets;
- (c) The existence of an autonomous monetary authority;
- (d) The transparent conduction of monetary policy, supported by a communication strategy regarding the objectives, plans and decisions made by the monetary authority;
- (e) The analysis of all sources of inflationary pressures, in order to evaluate future price growth trends; and
- (f) The use of alternative inflation indicators, such as core inflation, in order to identify factors that have a transitory effect on inflation and to identify medium-term price growth trends.

One element in the convergence of Banco de México's monetary policy regime towards an inflation targeting scheme in recent years, is that monetary policy actions in Mexico have been based on exhaustive and continuous analysis of those variables that have a bearing on the behavior of inflation and that are used to

make price growth forecasts<sup>28</sup>. When this analysis has indicated that accumulated inflationary pressures are incompatible with the targets, the monetary policy stance has been tightened by increasing the “short” in order to induce the monetary conditions required to re-establish compatibility between inflation forecasts and inflation targets. The increase in real interest rates and the improvement of inflation expectations, induced by an enlargement of the “short”, influence price behavior, albeit with considerable lags and through various channels. The latter are known as monetary policy transmission mechanisms<sup>29</sup>.

Another element of Banco de México’s monetary policy consisted of setting medium and long-term inflation objectives to guide monetary policy actions. The adoption of this scheme stems from the Board of Governors’ conviction that, since monetary policy actions have a lagged effect on inflation, any appropriate strategy for abating and ensuring that it will remain at low and stable levels must go beyond the immediate horizon. Based on these considerations, in January 1999 the Board of Governors of Banco de México set forth, as a medium-term target, the convergence with the inflation prevailing in Mexico’s main trading partners by year-end 2003. Intermediate inflation objectives were set in order to provide short-term references in the path towards price stability. More recently, the Board of Governors set an inflation target for 2003 and defined the long-term inflation objectives that will guide monetary policy actions in the following years. This target signals that monetary policy will be geared to attaining annual CPI inflation of 3 percent in 2003 and the years following it. Furthermore, the Board of Governors decided to establish a variability interval of plus/minus one percentage points around this objective<sup>30</sup>.

Increased transparency was another important feature of monetary policy’s evolution. This decision was based on the recognition that the complexity of monetary policy transmission channels, and the uncertainty as to the relative importance of each of them, means economic agents need to know the elements that

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<sup>28</sup> This analysis includes the study of the evolution of core inflation. Core inflation is a more accurate indicator of inflation trends and its likely future path due to that fact that CPI inflation is affected in the short term by transitory movements in its more volatile components. The methodology Banco de México employs to calculate core inflation and its use in the formulation of monetary policy decisions is explained in more detail in the Inflation Report: January-March 2000, pp. 53-59; and in the Inflation Report for January-March 2001, p. 31.

<sup>29</sup> For a detailed explanation of monetary policy transmission mechanisms see the Inflation Report: April-June 2000, p. 40.

<sup>30</sup> For a detailed explanation about establishing the long-term inflation target, see the Inflation Report: April-June 2002.

Banco de México uses to analyze inflationary pressures and prevailing monetary conditions. Thus, in order to provide participants in the market with improved information upon which to base their judgments of the monetary authorities' actions, the Board of Governors of Banco de México decided to publish quarterly Inflation Reports from 2000. Each of these Reports describes the evolution of inflation, analyzes the factors affecting it and evaluates monetary policy during the period. This practice represents an important stride in the transparency of Banco de México's monetary policy.

As the previous paragraphs show, the different elements that make up the present monetary policy framework have been incorporated over the last seven years. These developments originate from the objective of making monetary policy more effective and more transparent, which have resulted in the convergence towards an inflation targeting scheme.

One procedure used by several central banks, which contributes to maintaining a close communication with the public and to reducing uncertainty, consists of announcing on predetermined dates the decision, as well as the reasons behind it, to modify or not the monetary policy stance. Announcements are made at regular intervals throughout the year on predetermined dates.

Some central banks set the dates of announcements of their monetary policy decisions to coincide with meeting of their decision-making bodies. However, others do not apply such rules due to the need to carry out a continuous assessment of the behavior of inflation, the factors that could affect its future path and the monetary policy stance consistent with the inflation targets.

Based on careful analysis of its own and other countries' experiences, the Board of Governors of Banco de México has considered that since inflation and uncertainty on the evolution of the economy have been significantly reduced, it is convenient to announce its monetary policy decisions on predetermined dates. The adoption of a calendar for those policy decisions is an additional element of the ongoing transformation of Banco de México's monetary policy framework.

The calendar will help mitigate the uncertainty regarding the timing of the monetary authority's decision to modify its policy instrument. As a result public debate would turn to the monetary policy stance itself. This will foster a more efficient operation of the financial markets. Moreover, the announcement of monetary

policy decisions on predetermined dates will allow the Central Bank to inform the public on a regular and timely basis on the factors that could be influencing the current behavior of inflation, the balance of risks regarding the future path of inflation, and the reasons supporting the decision to modify or not the monetary policy stance. The Board of Governors believes that such a practice will foster a better understanding by the public of central bank actions and at the same time contribute to improve market participant's capacity to foresee the likely changes of the monetary policy stance. The adoption of the aforementioned calendar will not only improve the transparency of monetary policy but also help to reinforce the effectiveness of policy measures.

Based on the above, the Board of Governors of Banco de México has decided that decisions regarding the monetary policy stance adopted during 2003 and the following years will be announced on specific dates. The calendar for next year is presented below. In addition, the Board of Governors decided to publish a monthly press bulletin that will provide the public, on a regular and timely basis, information on the reasons that motivate the modification or not of the monetary policy stance. Nonetheless, similar to other central banks, Banco de México retains the faculty to alter the monetary policy stance in dates different from those set in the calendar, should there be exceptional circumstances that might require the Central Bank's intervention.

Below is a description of the factors that have been taken into consideration by the Board of Governors in its decisions regarding the following: i) the adoption of a calendar for monetary policy decisions; and ii) the guidelines to determine the aforementioned dates.

## **V.2. Considerations for Adopting a Calendar to Announce Monetary Policy Decisions**

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At present, the Board of Governors meets on a daily basis. The main goal of these meetings is to analyze information pertaining to the evolution of inflation, the economy, and the financial markets, and to assess the monetary policy stance in light of the inflation objectives. The Board of Governors may announce at any time a modification of the monetary policy stance. The decision is made public at 12.00 A.M.

The current framework under which the Board of Governors operates has proven effective in conducting monetary policy and attaining the targets. Nonetheless, given the advances in

the disinflation efforts and reduced uncertainty regarding the evolution of the economy, Banco de México's need to retain the flexibility to modify the monetary policy at any time has eased substantially. For this reason, the Board of Governors of Banco de México considers that in the present context it is convenient to implement a calendar of predetermined dates for announcements of its monetary policy decisions.

Among the advantages of adopting a calendar are the following:

- (a) It provides more certainty to the public on the monetary policy stance and on the desirable path of interest rates in the short term;
- (b) It emphasizes the Board of Governors' medium term perspective for monetary policy decisions. Announcements made at regular intervals will prevent such decisions from being associated by some market participants with certain phenomena that could affect inflation in a transitory way, with fluctuations in any specific market (such as the exchange rate market), or with the release of specific economic data;
- (c) It will allow the monetary authority to inform the public in a regular and timely manner on the balance of risks behind the stance of monetary policy. This is due to the fact that announcements will be accompanied by additional communication in the form of a press release through which Banco de México will provide the public with information on the reasons that motivate the modification or not of the monetary policy stance. Hopefully this will strengthen communication between the Central Bank and the public, which, in turn, will improve the transparency of monetary policy operations; and
- (d) Intervals between the predetermined dates for monetary policy announcements will allow the public to feel safe in the knowledge that the monetary authority has sufficient time to carry out a detailed analysis of inflationary pressures in light of the inflation targets.

Among possible disadvantages of this procedure, the following are worth mentioning:

- (a) The relative loss of Banco de México's current flexibility to modify the monetary policy stance at any time; and



- (b) The likelihood of volatility in financial markets around the predetermined dates for monetary policy announcements.

Regarding the first of the above, it is important to mention that as inflation has declined and the Mexican economy has become more stable, the need to retain a high level of flexibility to alter the monetary policy stance at any time has decreased. In the context of greater stability, changes in monetary conditions, that require monetary policy modifications, occur more gradually, reducing the need for Banco de México to make frequent modifications to its monetary stance. Furthermore, the present floating exchange rate and interest rate regimes allow adjustments to take place in the market without a modification of the monetary policy instrument.

As for the second, studies carried out in countries whose central banks had adopted a calendar for monetary policy announcements show that financial markets have not experienced greater volatility on the days surrounding announcements dates<sup>31</sup>. The absence of excessive fluctuations in financial markets around the pre-established dates is mostly due to the use of additional communication mechanisms that provide the public with information on the behavior of inflation, its likely future evolution and the reasons behind the decisions to modify or not the stance of monetary policy. Thus, financial market participants are in a better position to anticipate possible changes in monetary policy.

Based on the above, the Board of Governors believes that reduced inflation, increased certainty regarding the evolution of the main economic variables and the stability of the economy, mean the adoption of a calendar for monetary policy decisions is advisable.

Therefore, the Board of Governors has determined that as from January 2003 all announcements of the decisions regarding the stance of monetary policy will be made on pre-established dates. From then on, these will be presented to the public with the publication of the Inflation Report for the third quarter of the previous year. The monetary authority decided to retain the faculty to alter the monetary policy stance in dates different from those set in the calendar, should there be exceptional circumstances that might require the Central Bank's intervention. In addition, the

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<sup>31</sup> See, for the United States: Kuttner, K. (2001), "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market", *Journal of Monetary Economics*, (47), pp. 523-544; and for the case of the European Central Bank: Gaspar, V., Pérez-Quiroz, G., y Sicilia, J., (2001), "The ECB Monetary Policy Strategy and the Money Market", Working Paper No. 69, July, European Central Bank.

Board of Governors will continue with the present scheme of daily meetings in order to evaluate, on a day to day basis, in light of the targets, the factors that condition the current behavior of inflation, and the stance of monetary policy.

### V.3. Considerations for Determining a Calendar to Announce Monetary Policy Decisions

Once the calendar for monetary policy decisions had been approved it was necessary to define the following points: i) the frequency of announcements; and ii) the dates on which announcements would be made. In this respect, the Board of Governors of Banco de México considered the following factors:

- (a) International experience shows most central banks that use a calendar for monetary policy have established between eight and twenty-four announcements per year (Table 19);

Table 19

#### Number of Announcements on Monetary Policy per Year in Several Countries

Country	Announcements on Monetary Policy per Year
Australia <sup>1/</sup>	11
European Central Bank <sup>2,3/</sup>	11
Brazil	12
Canada <sup>2/</sup>	8
Chile	12
United States	8
Israel	12
Japan	24
New Zealand	8
Peru <sup>2/</sup>	12
Poland	12
United Kingdom	12
Czech Republic	12
South Korea	12
Sweden	8
Thailand	8

1/ No announcement is made in January.

2/ Announcements do not coincide with the meetings of the decision-making authorities.

3/ No announcement is made in August. The authorities' meetings are held every two weeks.

- (b) Dates should not coincide with the publication of other information. However, given the large volume of economic and financial data generated worldwide and in

Banco de México, it is impossible to find such dates. The best alternative is to define a rule by which to determine regular intervals between announcements (for example, every four weeks, the last Monday of each month, etc.);

- (c) Given the quantity and the detail of information that must be analyzed in order to formulate decisions about the stance of monetary policy, announcement dates need to be sufficiently separated.
- (d) The frequency of the dates should grant Banco de México the flexibility it needs to act in a timely manner if modifications to the monetary stance are required.

Based on the above, the Board of Governors agreed on the following general rules for the preparation of a calendar for monetary policy announcements:

- (a) Twenty-three dates during the year will be established to announce decisions regarding the stance of monetary policy. Although the stability of the Mexican economy has strengthened in recent years, some degree of volatility still remains that could make it necessary to modify the policy stance with some frequency;
- (b) Announcement dates will be set according to a constant rule of frequency; and
- (c) A press release will be made each month explaining the adopted monetary policy decisions to the public and updating the balance of risks.

The above criteria was taken into account when preparing the following guidelines for determining the dates on which monetary policy decisions and monthly press bulletins will be published:

- (a) Two types of announcements on monetary policy decisions will be made each month. Specifically:
  - End-month announcement: An announcement on whether or not the monetary policy stance is modified will be made on the Friday preceding the last Monday of every month,<sup>32</sup> except in December, when it will be

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<sup>32</sup> This announcement does not take place on the last Friday of each month due to the fact that in the months when the Inflation Report is published the latter would come out after the press release. Thus, the last Friday could fall on the last day of the month meaning the press bulletin and the Inflation Report would be published on the same day.

made ahead of time. Likewise, a press bulletin will be released specifying the motives behind Banco de México's decisions;

- Mid-month Announcement: Eleven additional dates will be established when intermediate announcements will be made, on the Fridays at the mid-point of the interval between end-month announcements. No intermediate announcement will be programmed in December. Intermediate announcements will only be accompanied by a press release should there be a decision to modify the monetary policy stance; and
  - All announcements will be made by electronic and other means at 9.00 A.M.
- (b) The release of the quarterly Inflation Report will occur on the last Monday, Tuesday or Wednesday of January, April, July and October; and
- (c) Once the third quarter Inflation Report for a given year has been published, the annual calendar for announcements of monetary policy decisions, monthly press bulletins and the quarterly Inflation Reports will be available to the public on Banco de México's web page.

Below is the calendar of announcements of monetary policy decisions, press releases on monetary policy and quarterly Inflation Reports for 2003 (Table 20).

Table 20

**Calendar for Announcements of Monetary Policy Decisions, Press Releases on Monetary Policy and Quarterly Inflation Reports in 2003**

Month	Monetary Policy Announcements	Press Releases	Publication of Inflation Reports
January	10, 24	24	29 <sup>1/</sup>
February	7, 21	21	
March	14, 28	28	
April	11, 25	25	29
May	9, 23	23	
June	13, 27	27	
July	11, 25	25	30
August	8, 22	22	
September	12, 26	26	
October	10, 24	24	29
November	7, 21	21	
December	11	11	

<sup>1/</sup> Includes the Monetary Program for 2003.

It is important to emphasize that the monthly publication of press bulletins explaining the reasons behind the stance of monetary policy will allow the Central Bank to provide information about policy decisions in a more timely manner than at present. Banco de México currently reports the conduction of monetary policy through its Inflation Reports or the press releases that accompany periodic announcements of modifications in the stance of monetary policy. As a consequence the adopted procedures will help to cover the empty spaces in Banco de México's current communication with the public.

According to the aforementioned guidelines, Banco de México should explain the reasons behind its monetary policy stance to the public at least once every month. In this way the Central Bank will keep the public informed about the balance of risks and any possible changes to it that could influence the future path of inflation. This differs from the current procedure where the Central Bank only provides information to the public about its decisions when it needs to modify the monetary policy stance. Thus, the relevance of the new procedure lies in the recognition that it is equally important to explain to the public the reasons why monetary policy is modified or not, providing relevant information about the conduction of monetary policy in both cases.

The Board of Governors of Banco de México holds the conviction that this new addition to its monetary policy strategy will strengthen the achievements of the last few years regarding the abatement of inflation and economic stability. Furthermore, the Board of Governors will continue to analyze the evolution of the economy and the results obtained by monetary policy. Based on these studies and the experience of other central banks, Banco de México will continue to adapt its monetary policy scheme in order to improve the transparency and effectiveness of its policies.

## VI. Balance of Risks and Conclusions

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During the third quarter of 2002, the evolution of the Mexican economy was conditioned by the following factors:

- (a) The slowdown in industrial output in the United States and growing concerns regarding the future course of economic activity in that country;
- (b) Volatility in the stock markets world wide, higher risk aversion and the deterioration of country risk perception for emerging markets, especially for Latin America. This, in response to the deepening of the Argentinean crisis and the intensification of financial problems in Brazil;
- (c) A complex geopolitical scenario;
- (d) Pessimism regarding the progress of structural reforms in Mexico; and
- (e) Uncertainty resulting from the threat of a strike at PEMEX.

It is estimated that the annual GDP growth rate in the third quarter was 2.0 percent (below expectations), mainly due to the downturn in industrial production experienced in the United States, which had a negative effect on the same activity in Mexico. From the second to the third quarter the average monthly growth of seasonally adjusted figures for industrial output fell from 0.41 to 0.04 percent in the United States and from 0.1 to 0.2 percent in Mexico<sup>33</sup>. Likewise, the main components of domestic demand also seem to have decelerated during the third quarter, above all in their seasonally adjusted series. All these factors signal a weakening of the modest recovery which began at the start of 2002. Moreover, in the third quarter, as this Report shows, the growth of employment eased while unemployment rose.

As a consequence of the aforementioned external and domestic factors, during July-September the unfavorable behavior of domestic financial markets persisted. In this regard, the following facts are outstanding:

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<sup>33</sup> Using data for August.

- (a) Country risk, measured by the spread between the yield of the EMBI+ index and a long-term U.S. government bond, increased 113 basis points;
- (b) The exchange rate depreciated 2.5 percent; and
- (c) The Mexican stock market index fell 11.3 percent.

As in the second quarter of 2002, there was no evidence during the third quarter confirming that exchange rate depreciation has influenced the behavior of domestic prices. Thus, annual core inflation of goods continued on its downward path and was 1.85 percent at end-September. Likewise, annual core inflation of services also declined in the third quarter, although it still remains at high levels and has only registered a modest decrease throughout the year. The latter is mainly the result of increases in annual inflation of housing and car insurance. Furthermore, the downward rigidity of services inflation has also been due to real wage increases that are not consistent with sustainable productivity gains. Notwithstanding the aforementioned, annual core inflation continued to fall during July-September.

As previously mentioned, the rise in the annual inflation of the subindex of prices administered or regulated by the public sector was high enough to offset falls in the annual growth of the core prices subindexes for agricultural products and education services. As a consequence, annual CPI inflation ended the quarter at practically the same level as in June.

For the remainder of 2002, the evolution of the Mexican economy will be influenced by external factors, particularly by economic growth in the United States and by the cost and availability of external financing. Following are the main assumptions that support Banco de México's base scenario regarding the evolution of the international environment during the last quarter of the year:

- (a) The forecast for economic growth in the United States in 2002 was revised downwards, from 2.7 percent in the previous Inflation Report to 2.4 percent at present. This implies an expansion of 3.0 percent in the second quarter<sup>34</sup>. Meanwhile, anticipated growth for industrial output in that country during 2002 decreased from 0.2 to -0.4 percent. As a result, industrial output in the United

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<sup>34</sup> Compared with the second quarter of 2001.

States is estimated to increase 2.8 percent in the fourth quarter<sup>35</sup>;

- (b) Based on WTI futures prices and assuming a similar spread between them and the price of the Mexican oil export mix to that observed during the last few months, the average price of the Mexican mix is expected to be around 21.7 dollars per barrel; and
- (c) Given the difficulties in forecasting the behavior of international financial markets and the absence of domestic factors that could bring about a significant improvement in country risk perception, a conservative assumption is that the conditions for access to international capital markets will continue under the terms prevailing over the last few weeks. Furthermore, short-term interest rates in the United States are expected to decline in the near future.

Taking into account the above assumptions and available information concerning the evolution of the Mexican economy in the third quarter of the year, a forecasting exercise of the main macroeconomic variables for the remainder of 2002 was carried out. The main results are listed next:

**Economic Growth:** Estimates for economic growth in 2002 were revised downwards, to approximately 1.3 percent. Available information suggests that real annual GDP growth during the third quarter was around 2.0 percent. Furthermore, the evolution of the main determinants of economic growth is expected to be less vigorous in the last quarter.

**Current Account:** The expected current account deficit in 2002 was modified, to below 3 percent.

**Inflation:** For the remainder of 2002, core inflation is expected to be relatively constant. Therefore, headline inflation will be determined by the path of the prices of agricultural products –difficult to predict given their volatility– and by the evolution of prices administered or regulated by the public sector –influenced by fluctuations in the international prices of certain products such as domestic gas. In any case, it should be remembered that during the last two months of 2001, the prices of agricultural products were unusually low, and administered prices experienced a negative variation in December. As a result, this could translate into an upward statistical effect in year-end 2002. The phenomenon

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<sup>35</sup> Compared to the fourth quarter of 2001.



that allowed overall inflation to finish below the target in 2001 and lower than core inflation would probably tend to raise overall inflation above core inflation levels in 2002. It is also important to mention that the unforeseen hike in administered prices that occurred at the beginning of 2002 was a factor that from the onset prompted a deviation from the target.

Should annual inflation deviate from the 4.5 percent objective, it will be entirely due to the factors already mentioned, and therefore it would be short-lived. If public prices are set in order to achieve an inflation of 3 percent in 2003, overall inflation will probably converge towards core inflation in the first half of 2003.

As mentioned in this Report, monetary policy has a considerable lagged effect on the evolution of prices in the economy. Thus, in the third quarter of 2002 the monetary policy stance was oriented towards consolidating a monetary environment consistent with achieving the long-term inflation objective by December 2003. In the last quarter of this year, monetary policy decisions will undoubtedly continue to be guided by the aforementioned objective. Thus, in order to decide the proper course of action, forecasts on the evolution of the main macroeconomic variables in 2003 must be relied on.

Assumptions for real GDP and industrial output in the United States during 2003 were revised downwards from 4.2 and 3.5 percent, respectively in the previous Inflation Report to 2.8 and 3.1 percent at present. The main economic analysts in the United States believe that a war with Iraq is highly likely in the next few months and that the conflict will be short-lived. Should this occur it would lead to a further temporary increase in oil prices and uncertainty in financial markets. These factors would have an adverse impact on world economic recovery.

On the other hand, due to the high volatility of oil prices and increased uncertainty of estimates concerning this price for 2003, Banco de México preferred to base its macroeconomic forecasts on the Federal Government's prudent and conservative estimate for the Mexican oil export mix in 2003 of 17 dollars per barrel. As a consequence, expectations regarding economic growth in Mexico were revised downwards from 4 percent in the previous Inflation Report to around 3 percent at present. As for inflation, forecasts indicate that the current stance of monetary policy is consistent with the decline of inflation in 2003 and with achieving the target. However, the 3 percent objective for annual headline

inflation is ambitious and requires considerable efforts in the following areas:

- (a) The substantial decline in annual core inflation during 2002 was mainly in response to a significant fall in the growth of the subindex for goods, which due to its already low levels will most probably not decrease in 2003. Thus, the reduction of core inflation next year will mainly have to rely on the decline of inflation of services. Therefore, contractual wage increases will have to be compatible with the 3 percent target for inflation and sustainable labor productivity gains;
- (b) The setting of prices administered or regulated by the public sector needs to be consistent with the inflation objective; and
- (c) Despite its volatility, the evolution of the subindex of agricultural prices must be in line with the inflation target.

The base scenario for the remainder of 2002 and for 2003 implies an average GDP growth of approximately 1.4 percent of Mexico's economy during 2001-2003, significantly below potential. This would be accompanied by scant job creation. The main cause of sluggish growth in the Mexican economy is the weakness of the global economy. Nonetheless, in order to stave off external influences it is necessary to strengthen domestic sources of growth via the implementation of pending structural reforms that contribute to productivity gains and improve market flexibility.

The base scenario for the remainder of 2002 and 2003 is subject to an unusually high degree of uncertainty due to the significant risks surrounding the world's economic recovery. Among the most relevant of these risks the following are noteworthy:

- (a) That economic growth in the United States turns out to be lower than anticipated, and in a very extreme case, that the economy undergoes another recession. This scenario could take place should there be a wide and drawn out conflict with Iraq or if the downward adjustment in the growth rate of consumption in the United States is more pronounced than anticipated; and
- (b) That an additional contraction of capital flows to the Latin American economies should take place, as a result of an environment of growing financial problems.

The likelihood of the first of these risks taking place has increased during the last few months in light of the evolution of some economic indicators in the United States and as a result of falling stock markets, which deeply affected consumer confidence, coupled with decreases in confidence indexes and industrial output. Thus, perceptions that the United States' economy might suffer another downturn and return to a path of sluggish growth or even recession are gaining ground. The latter is aggravated by persistent macroeconomic imbalances. In particular, the low level of saving and a large current account deficit represent important sources of vulnerability. Any sudden corrections would severely affect the price of the US dollar and most likely lead to increased volatility in international capital markets.

Instability in Brazil and the bias among G-7 governments in favor of debt restructuring programs to solve crises in emerging market have also raised the risk for investing in developing countries.

The materialization of either scenario will probably hinder economic growth in Mexico. However, the effects on inflation would be ambiguous. Even though slower economic growth may lead to a weakening of inflationary pressures in the first scenario, the unfavorable effect on exports and economic activity in Mexico could widen the external deficit. Furthermore, in both scenarios there would be less demand for the country's assets. These factors could cause a depreciation of the exchange rate, paving the way to additional inflationary pressures.

The main domestic risks that could affect Banco de México's central scenario are as follows:

- (a) That the lack of progress in the agenda of pending structural reforms should cause a downward revision of growth expectations for the Mexican economy over the medium and long terms. As mentioned previously, this risk has increased as the external stimulus that substantially benefited the Mexican economy from 1996 to 2000 has weakened considerably;
- (b) That the current period of low economic growth in Mexico's economy and the absence of a full-fledged fiscal reform should affect the perception regarding the solvency of the public finances;
- (c) That a more intense passthrough of exchange rate fluctuations to domestic prices should occur; and

- (d) That the moderation of wage increases needed to significantly reduce core inflation of services should not be attained.

The lack of progress in pending structural reforms and the vulnerability of public finances, worsen the adverse effects of sluggish growth and financial instability in the international environment. This paralysis hinders both domestic and foreign investment flows, which affect economic growth, employment and real wages. The combination of an environment of low growth and fiscal vulnerability could eventually erode the financial strengths of Mexico's economy, making it vulnerable to episodes of speculative pressures.

Furthermore, should any of the phenomena described in (c) and (d) above occur, a more restrictive monetary policy would be needed to attain the 3 percent inflation target at year-end 2003.

It should be stressed that even under the outlined base scenario, the attainment of the long-term inflation target for year-end 2003 is a very ambitious goal.

The present external environment, characterized by growing uncertainty, complicates even more the assessment and the implementation of economic policies. Therefore, the modification of the inflation-targeting framework presented in this document should help mitigate the uncertainty regarding the precise dates of the monetary policy decisions and the reasons that support them, and will also contribute to improve their effectiveness. During the coming months, the Board of Governors of Banco de México will continue to assess the behavior of the main determinants of inflation for the remainder of 2002 and for 2003. Based on the evolution of those factors and, consequently, of inflationary pressures in the short and long-term that may be identified, the Central Bank will determine the monetary policy actions necessary to accomplish the targets.