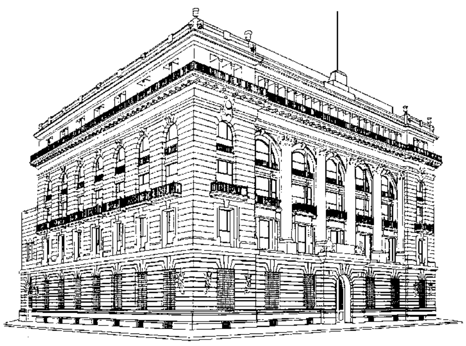
Inflation Report
October – December 2002
and
Monetary Program
for 2003



BANCO DE MEXICO

JANUARY 2003

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FOREWARNING

Unless otherwise stated, this document has been prepared using data available as of January 24th, 2003. Figures are preliminary and subject to change.

Banco de México has always given the utmost importance to the publication of information that will help decision-making and allow the public to evaluate the execution of its policies. This text is provided only as a convenience to the reader, and discrepancies could eventually arise from the translation of the original document into English. The original and unabridged Inflation Report in Spanish is the only official document.

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I. Introduction

Throughout 2002 the evolution of the Mexican economy was less favorable than anticipated at the beginning of the year. Mexican GDP is estimated to have expanded around 1.1 percent, below the figure of 1.5 percent mentioned in the Monetary Program for 2002. As in previous years, the trajectory of the main economic variables in the United States was the most important determinant of economic activity in Mexico. Although, in 2002, GDP expanded at a higher rate in the United States than had been expected at the start of the year (2.4 vs. 0.7 percent), industrial output declined more than had been forecasted (-0.7 vs. -0.4 percent). The latter had an adverse impact on Mexican economic growth due to the fact that industrial output represents Mexico's main link, through trade, with economic activity in the United States.

It is important to mention that, for the second consecutive year, both the external sector and investment made negative contributions to economic growth, while the latter was once again sustained by consumption. The weakness of investment is particularly worrisome because it undermines the future expansion of capacity and the modernization of production infrastructure.

The slow expansion of the economy in 2002 was accompanied by practically no job creation. Furthermore, the unemployment rate continued on an upward trend, which indicates that underemployment and informal employment as well as the desertion of workers from the labor force could not offset the impact of scant job creation in the formal sector. Thus, job creation, with the dual purpose of recovering job losses and finding places for new entrants to the labor market, remains one of the most important challenges for the Mexican economy in the next few years.

Annual CPI inflation rose from 4.4 percent at the end of 2001 to 5.7 percent in December 2002. This increase and the deviation from the 4.5 percent target can be totally explained by the significant rebound in the annual inflation of prices of goods administered[1] and regulated by the public sector and prices of agricultural products. Meanwhile, the decline in core inflation and

[1] In particular, residential electricity and domestic gas.

the education subindex responded to the reduction of medium-term inflationary pressures.

Given this scenario, monetary policy focused on preventing any contagion effects on inflation expectations and core inflation. It should be mentioned that the efforts carried out over the last few years on the inflation and fiscal fronts have allowed real interest rates to come down to nearly minimum historic levels. The latter has influenced significantly the recovery of credit for consumption and, therefore, the increase of this type of expenditures. This has been the main factor supporting economic growth over the last two years.

Economic recovery in the United States during 2003 (especially in its industrial sector) is expected to have a positive impact on the Mexican economy, firstly via a rebound in the industrial export sector. Subsequently, this will bring about a reactivation in consumption, investment and employment. Although forecasts point to a more vigorous economic expansion in 2003, growth will be below its potential for the third consecutive year and will still not be sufficient to recover the levels of per capita income in Mexico at the end of 2000 or the number of jobs lost since then. In consequence, domestic sources of growth need to be stimulated through advances in the agenda of proposed structural reforms set forth by the Federal Government.

Regarding the course of annual inflation in 2003, CPI inflation is expected to decrease as of the second quarter, narrowing the gap that currently exists with core inflation and with the medium and long-term inflation targets. Core inflation is also expected to decline gradually throughout the year. Although the Board of Governors of Banco de México considers that the current stance of monetary policy is consistent with the attainment of the target, the risks are upward biased. In response to this, the monetary authority will assess continually the strength of inflationary pressures and will act decisively should it anticipate or detect any shocks that could make inflation deviate from the objective.

II. Inflation Report: October-December 2002

II.1. Recent Developments in Inflation

The path of prices during the fourth quarter of 2002 meant the annual inflation target (4.5 percent) was surpassed for the first time during the last four years. In line with expectations, core inflation remained relatively constant during the quarter, ending the year below 4 percent. The disparity between the evolution of the CPI and the core price index responded mainly to two factors: first, a rise in the annual growth of the subindex of prices administered or regulated by the public sector and, second, increases in the prices of agricultural products. For example, if administered and regulated prices had increased at a rate of 4.5 percent, annual CPI inflation would have been 4.6 percent. During the quarter, the most important events regarding price behavior were the following:

(a) A significant rise in annual CPI inflation;

(b) Annual core inflation decreased slightly. As for its components, the increase in the annual growth of prices of tradable goods was offset by a fall in that of services;

(c) Annual inflation of goods and services whose prices are administered and regulated by the public sector went up due to the drastic increase in prices of residential electricity and domestic gas; and

(d) The prices of agricultural products showed their distinctive volatile behavior, therefore reverting the low levels of annual inflation displayed by this item during the preceding quarter.

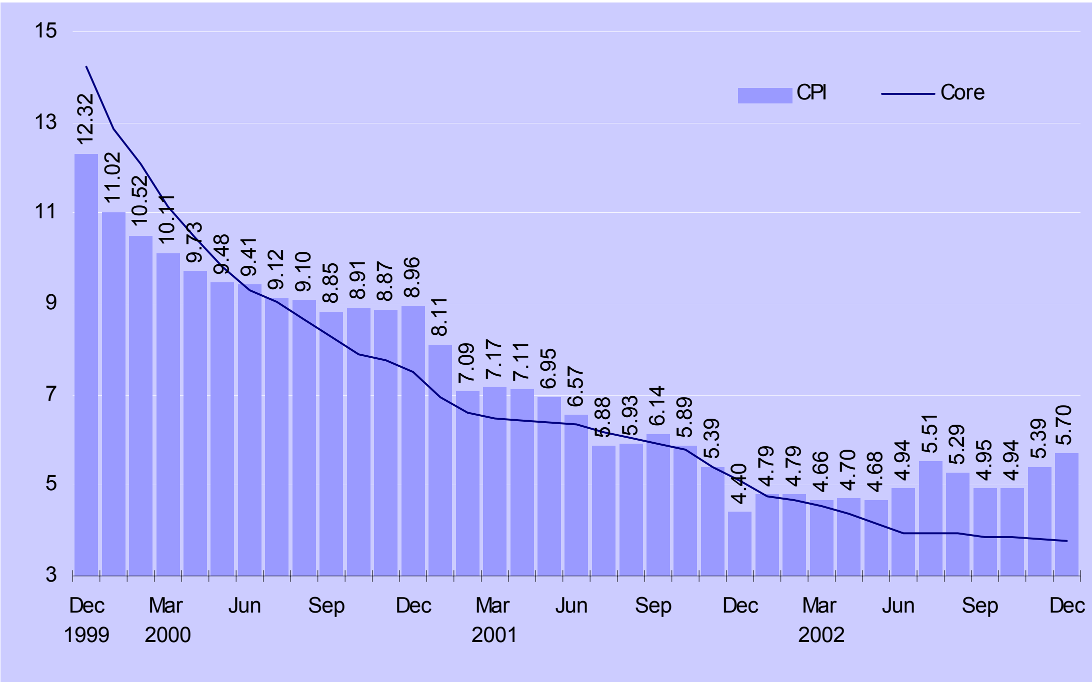
II.2. Behavior of Several Inflation Indicators

II.2.1. Annual Inflation of the Consumer Price Index and Core Price Index

At the end of the fourth quarter of 2002, CPI inflation was 5.7 percent, 0.75 percentage points above its level at end-September (Graph 1).

Graph 1 **Consumer Price Index and Core Price Index**

Annual percentage change



Core inflation fell slightly in the fourth quarter of 2002 and there was no contagion from the increase in headline inflation or from the depreciation of the exchange rate that began in April. Thus, the path of headline inflation during the quarter was determined by the price subindexes that are excluded from core inflation calculations.

During the period covered by this Report, inflation of the subindex of prices administered or regulated by the public sector went up for the fourth consecutive quarter (Table 1). On this occasion the increase stemmed from the rise in prices of domestic gas[2] and residential electricity, which had a substantial impact on the CPI due to their relative weight in the index[3].

Meanwhile, inflation of agricultural products also contributed to the upturn in headline inflation during the last quarter of 2002 (Table 1).

Table 1 **Price Indexes: CPI, Core, Agricultural Products, Education and Tradable Goods, and Services Administrated and Regulated by the Public Sector**

Percent

	Annual Variations			Quarterly Variations		
	Dec 2002 Dec 2001	Sep 2002/ Sep 2001	Dec 2001/ Dec 2000/	Dec 2002/ Sep 2002	Sep 2002/ Jun 2002	Dec 2001 Sep 2001
CPI	5.70	4.95	4.40	1.69	1.27	0.97
Core	3.77	3.85	5.08	0.71	0.63	0.78
Tradable Goods	1.95	1.85	3.85	0.55	0.17	0.46
Services	6.23	6.61	6.87	0.89	1.17	1.26
Agricultural Products	8.65	2.38	1.35	6.22	2.23	0.10
Fruits and Vegetables	22.23	5.90	-5.97	14.22	3.79	-1.04
Meat and Eggs	-0.10	0.04	6.84	0.72	1.15	0.86
Education	10.04	10.10	14.02	0.00	8.76	0.05
Administered or Regulated	10.96	9.23	2.21	4.07	1.06	2.45
Administered	16.84	12.93	-1.26	8.46	1.85	4.83
Regulated	6.12	6.41	5.13	0.39	0.41	0.66

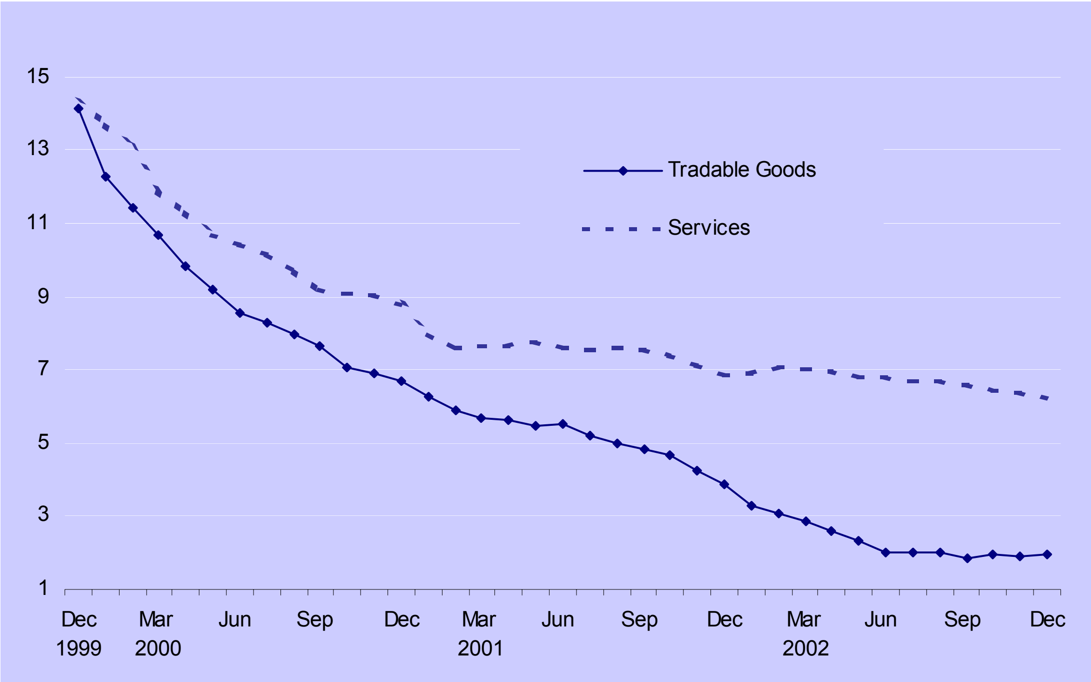
Although core inflation of tradable goods was much lower than that of the rest of the goods in the economy, it remained practically unchanged from September to December of 2002 (Graph 2). This indicates that the depreciation of the exchange rate, which began in the second quarter of the year, has not yet had a noticeable impact on domestic prices.

[2] The increase in domestic gas prices coincided with rises in its import price.

[3] The weights of domestic gas and residential electricity in the CPI are 1.84 and 2.27 percent, respectively.

Graph 2 **Core Price Indexes for Tradable Goods and Services**

Annual percentage change



In the fourth quarter of 2002, core inflation of services registered its most pronounced decrease of the year, 0.38 percent (Graph 2). Nevertheless, this fall was not widespread in the services sector as evidenced by the behavior of housing prices, which rose throughout the year. This trend persisted between September and December and thus a reduction of 0.66 percentage points in the inflation of the remaining core services was observed (Box 1).

II.2.2. Monthly Inflation of the Consumer Price Index and Core Price Index

During the last few weeks of 2002, CPI inflation experienced the characteristic rebound associated with the Christmas season. Although this increase was larger than on other occasions, the trend series for headline inflation declined, thereby confirming the transitory nature of the aforementioned rise (Graph 3).

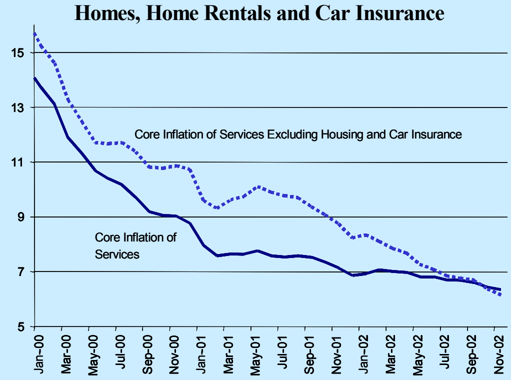
Box 1

Core Inflation of Services

Annual core inflation of services had a relatively rigid downward behavior throughout 2002. This was not a widespread phenomenon in this sector but mainly the consequence of price increases in three items: owner-occupied homes[1], home rentals and car insurance.

After comparing the performance of the annual core inflation of services with a measurement that excludes inflation of those three items, it can be seen that the second one declined more markedly than the first during 2002 (Graph 1). This suggests that the relative stability of core inflation of services has not been a distinctive phenomenon in the entire sector.

GRAPH 1
Annual Core Inflation of Services and Annual Core Inflation of Services Excluding Owner-occupied Homes, Home Rentals and Car Insurance



An assessment of the performance of the core index of services reveals that its relative stability in 2002 was due mostly to the rise in the annual inflation of owner-occupied homes and home rentals. The weights of both items in this index are very high (36.79 and 7.75 percent, respectively). Increases in the prices of car insurance also influenced this behavior. Although the weights of the latter are not very high (1.36 percent), the subindex grew significantly in annual terms compared to the fall observed in the previous year.

In 2002, core inflation of services went down 0.64 percentage points. This difference resulted from the positive contribution of owner-occupied homes, home rentals and car insurance (0.52 percentage points), and a negative one from the rest of the items that make up the core price index of services (1.15 percentage points) [Table 1]. However, it should be mentioned that although the annual inflation of car insurance, owner-occupied homes and home rentals experienced an upturn in 2002, it started from a lower level than that of the rest of the services included in the index. In other words, in previous years, the prices of these three items had contributed significantly to the abatement of inflation.

TABLE 1
Annual Core Inflation of Services: Incidence of Selected Items

	Annual Inflation Dec 2001 A	Annual Inflation Dec 2002 B	Difference Annual Inflation (B-A)	Difference Structure
Core Inflation of Services	6.87	6.23	-0.64	-0.64
Car Insurance	-8.39	4.49	12.88	0.18
Owner-occupied Homes	5.74	6.36	0.62	0.23
Home Rentals	6.03	7.41	1.38	0.11
Other Services	8.23	6.01	-2.22	-1.15 [1/]

[1/] Calculated as a residual.

The behavior of prices of car insurance can be explained by the different changes in the variables that influence the formation of prices in that sector, with no particular one being the main cause. Among the relevant variables are: the change in concentration in the car insurance market, and changes in the car accident rate as well as in the services included in car insurance policies.

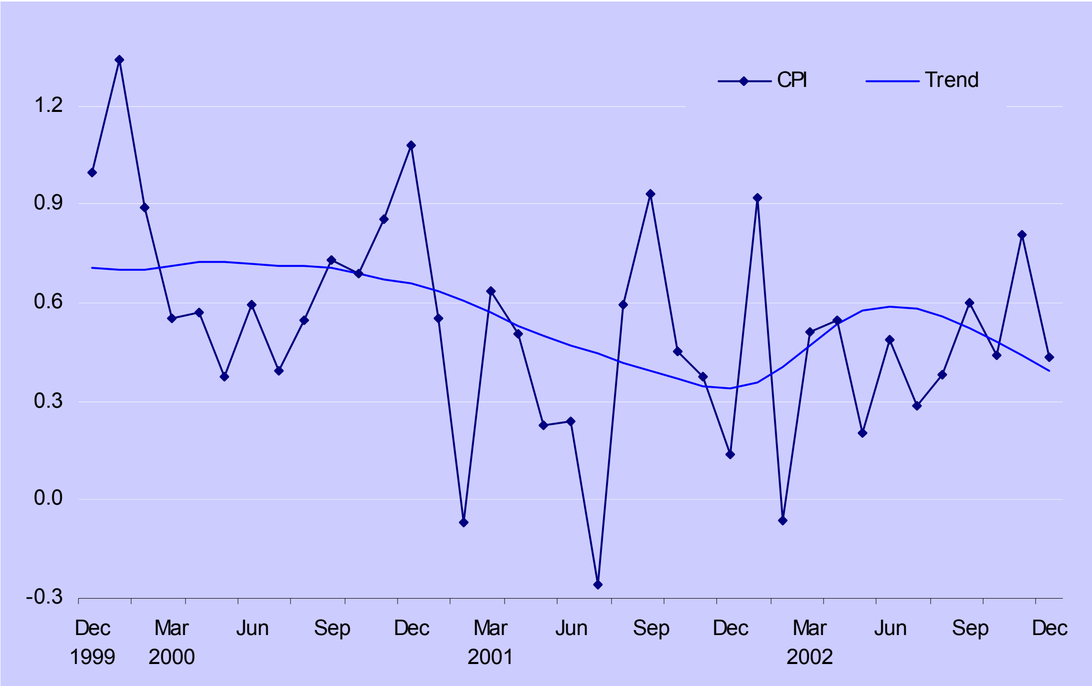
The historical behavior of the subindex of car insurance prices and the evolution of prices of goods and services covered by this type of insurance suggests that the upward movement of inflation in 2002 is unlikely to be repeated in 2003.

Likewise, the annual rate of growth of housing prices (owner-occupied and rented) in 2002 might have resulted from a combination of factors. Among the most important are: the realignment of relative prices in housing in relation to their long-term level (fueled by a lagged effect of economic recovery); and the decline of real interest rates which may have created pressures on real estate prices. An additional effect could also have been the greater macroeconomic stability achieved in recent years, since it allows economic agents to invest with a long-term horizon. It is important to stress that unlike prices of car insurance, future developments in annual inflation of housing are more uncertain because prices in this sector depend on a variety of factors that might interact and give rise to relatively long cycles.

[1] Rent imputed to homes occupied by their owners.

Graph 3 **Consumer Price Index**

Monthly percentage change



Unlike the fourth quarter of 2001, in October-December of 2002 inflation was higher than what private sector economic specialists had anticipated (Table 2).

Table 2 **Observed and Expected Monthly Inflation**

Percent

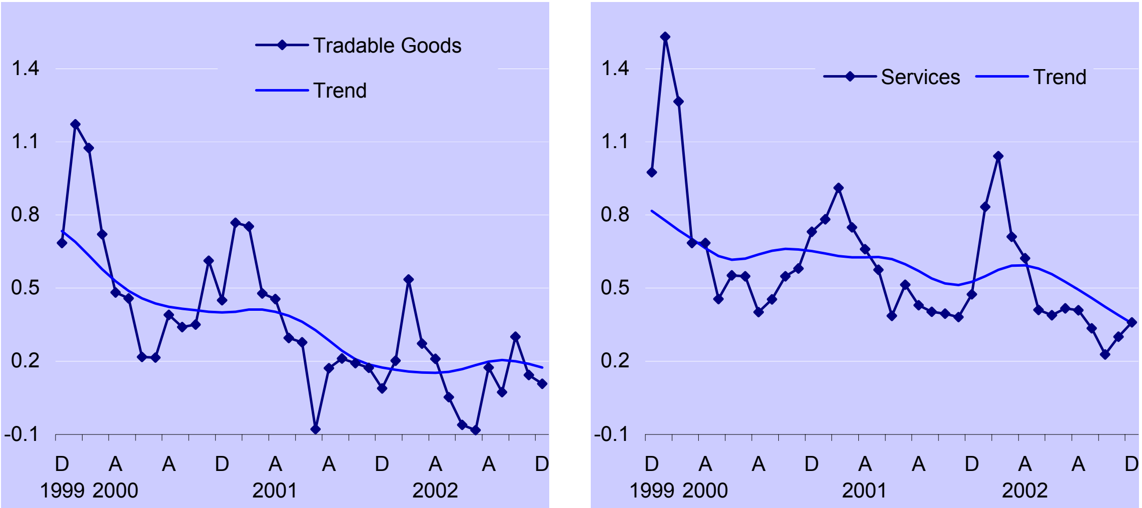
	2002		2001	
	Observed	Expected 1/	Observed	Expected 1/
October	0.44	0.29	0.45	0.60
November	0.81	0.34	0.38	0.68
December	0.44	0.42	0.14	0.87

1/ Expected inflation at the end of the previous quarter according to the Survey on Private Sector Economic Analysts' Expectations undertaken by Banco de México.

In the last quarter of 2002, the trend series for core inflation of tradable goods decreased and that for services also fell considerably. This result points to a change in the contribution of prices of core tradable goods and services to subsequent falls in core inflation (Graph 4).

Graph 4 **Core Price Indexes for Tradable Goods and Services**

Monthly percentage change



II.2.3. Producer Price Index (PPI)

At the end of the fourth quarter of 2002, the annual growth of the Producer Price Index (PPI) excluding oil and services was 6.29 percent, 2.10 percentage points higher than its level at end-September. This rebound was mainly associated with rises in the prices of electricity and liquid gas, and the depreciation of the exchange rate. It is important to mention that, in the past, increases in annual PPI inflation excluding oil and services have usually been followed by rises in CPI inflation. However, with a few exceptions, this has not been observed to date. The latter phenomenon is similar to the absence of a passthrough effect of exchange rate fluctuations to domestic prices and might suggest that economic agents expect such movements will not be repeated. As a result, medium-term inflation expectations remained unchanged.

II.3. Main Determinants of Inflation

In this section the main factors that affected inflation will be analyzed. First, the international environment will be examined. Next, the path of wages and productivity along with the evolution of aggregate supply and demand will be reviewed and finally, the behavior of prices administered or regulated by the public sector will also be assessed.

II.3.1. International Environment

During the fourth quarter of 2002, the evolution of the external variables that influence the performance of the Mexican economy was, in general, not very benign. The weak pace of economic activity in the United States and Europe, and external political events – tensions in the Middle East, elections in Brazil and anti-government demonstrations in Venezuela– contributed to a climate of instability. Moreover, international oil prices were highly volatile in the last quarter of the year, although their average did not differ substantially from that of the previous quarter.

II.3.2. Evolution of the United States Economy

The uncertain recovery of the United States' economy continued during the fourth quarter of 2002. In particular, labor market indicators worsened in the period, while the likelihood of war with Iraq continued to depress expectations of a more vigorous economic rebound. Based on these factors, the Federal Reserve, in its meeting of November, announced a 50-basis point cut in its federal funds rate objective. Although there were some more positive signs in December, it is difficult to assess the strength of the upturn and analysts have still not included these developments in their most recent growth forecasts for 2003.

The growth rate of real GDP in the United States[4] was 4 percent in the fourth quarter of 2002. This represented a substantial increase compared to the figure of 1.4 percent posted in the third quarter. However, as will be mentioned below, this increase was brought about by transitory factors and therefore, did not lead to significant changes in growth forecasts for the year as a whole. The main contributions to growth during the third quarter came from private consumption and government expenditures, which rose 4.2 and 2.9 percent, respectively. Although the accumulation of business inventories also contributed to the expansion of GDP, it was lower than in previous quarters (0.58 percentage points, compared to 1.31 in the second quarter and 2.6 in the first).

The main coincident and leading indicators of aggregate supply and demand in the United States registered relatively low levels in the fourth quarter of 2002, hence suggesting that the economic upturn weakened. Nevertheless, in December some of these indicators showed positive changes which led to a cautious optimism among some analysts. The following are the most

[4] Refers to annualized seasonally adjusted quarterly GDP growth.

outstanding features (positive and negative) of the recent outlook for the United States' economy:

(a) Real private consumption expanded at monthly rates of 0.2 and 0.5 percent in October and November, respectively;

(b) The monthly growth of the industrial output index (seasonally adjusted figures) was -0.5, 0.1 and 0.2 percent in October, November and December, respectively. This implied a fall of 2.4 percent at an annualised monthly rate;

(c) New purchase orders for manufactured goods (seasonally adjusted figures) posted monthly rates of 1.4 percent in October and -0.8 percent in November. Meanwhile, the corresponding figures for durable goods were 1.7 and -1.5 percent;

(d) Average new housing construction reached 1.677 million units in October and November (annual and seasonally adjusted figures), 1.2 percent lower than in the third quarter;

(e) Stock market indexes recovered some lost ground during the fourth quarter. Thus, the Dow Jones Index, which had reached 7,528 points on October 4th, ended December at 8,342 points;

(f) Michigan University's consumer confidence index was at a level of 84 points in the fourth quarter (87 points in December), below its average of 87 points during the third quarter;

(g) The Institute for Supply Management's indicator recorded 48.5, 49.2 and 54.7 points in October, November and December, respectively, after having remained at between 49.5 and 50.5 points in the third quarter;

(h) Personal disposable income expanded at a monthly rate of 0.3 percent in November, after having grown 0.2 percent in both of the two previous months;

(i) In December, wholesale sales rose 0.5 percent at a monthly rate. The average monthly variations of wholesale sales increased from –0.9 percent in the third quarter to 0.7 percent in the fourth;

(j) Average mortgage interest rates continued to fall and the indexes for loan and mortgage refinancing applications have remained high;

(k) Car and light truck sales reached 18.2 million units in December 2002[5];

(l) At the end of December, the four-week moving average for new unemployment claims reached 419 thousand[6];

(m) Non-farm payroll registered average monthly variations of –17 thousand jobs in the October-November period [7];

(n) The index for the number of hours worked in the non-farm private sector remained constant during October-November. Meanwhile, the unemployment rate was 6 percent in November and December[8]; and

(o) In November, purchase orders for capital goods not associated with national defense (excluding airplanes) posted a monthly rate of –2.6 percent[9].

Forecasts for annual growth in the United States' economy in the fourth quarter of 2002 are marginally above one percent at an annual rate. If these predictions prove to be correct, the economy's performance would be less favorable than during the third quarter due mainly to several factors that could have caused demand from the fourth quarter to come forward into the third quarter. As was the case, for example, with the incentives offered by automobile manufacturers and distributors whose sales rose strongly in the third quarter[10]. Taking the above quarterly forecasts into account, analysts estimate a real GDP growth of 2.4 percent for the entire year (Table 3).

5 In the preceding months average sales were 15.6 million.

6 This figure is 42 thousand claims higher than the average at end-November.

7 This variable rose by 58 thousand in the previous quarter.

8 This rate is 0.3 percentage points higher than the average observed in August-October.

9 In the period from September to November of 2002 average monthly growth was –0.5 percent, after having been –0.4 percent in the three previous months.

10 Although many of these incentives remained in the fourth quarter of 2002, new car sales declined during the period (picking up substantially in December).

Table 3 **Forecasts for GDP Growth in the United States**

Annual percentage change

	Start of October 2002		Start of January 2003	
	IV/2002	2002	IV/2002	2002
Consensus Forecasts [1/]	n.a.	2.4	n.a.	2.4
Deutsche Bank	1.9	2.3	1.3	2.4
Goldman Sachs	2.0	2.4	0.5	2.4
JP Morgan	2.0	2.5	1.0	2.4

1/ Consensus Forecasts of October 7, 2002 and January 13, 2002. Since the quarterly forecasts correspond to a survey undertaken in a date different from that in the Table, no reference is made to the quarterly forecast in this document.

The pending recovery of the labor market continues to be one of the main weaknesses of the economic upturn. During the fourth quarter, employment in non-farm sectors fell by 120 thousand jobs and in December the open unemployment rate was 6 percent (0.4 percentage points higher than in September). Moreover, at the end of December new unemployment claims were still hovering around 400 thousand per week, without showing any signs of a downward trend.

Furthermore, the likelihood of war between the United States and Iraq continues to be an additional risk factor that could hinder economic recovery due to, among other reasons, its possible impact on oil prices and consumer confidence.

After having maintained its federal funds rate objective unaltered during the year, the Federal Reserve decided to reduce it to 1.25 percent (50 basis points) on November 6, 2002. This decision was influenced by three factors: the slowdown of consumption, rising unemployment and sharp falls in the stock market indexes. The balance of risks suggested a reduction of interest rates due to the absence of inflationary pressures.

II.3.3. Developments in the Rest of the World's Economies

Similar to that in the United States, the recovery in the euro zone has been slower than anticipated mostly because of domestic factors. Thus, analysts estimate annual growth rates of 1.3 and 0.3 percent for the last two quarters of 2002, and of 0.8 percent for the year as a whole in this region. The unemployment rate, which reached 8.4 percent in October (10 percent in Germany in November), had a negative impact on household consumption. The low level of economic activity could not be alleviated by countercyclical fiscal policies due to the restrictions imposed by the Maastricht Treaty.

Inflation in the euro zone was 2.3 percent at year-end 2002, marginally above the upper limit of the European Central Bank (ECB) target. Given the weak recovery of member countries as well as the appreciation of the currency vis-à-vis the US dollar, the ECB cut its reference interest rate by 50 basis points (to 2.75 percent).

The main short-term indicators for the Japanese economy suggest its performance was generally unfavorable during the fourth quarter. The unemployment rate reached 5.5 percent in October, its highest level up to that date in 2002. For these reasons, the most important analysts expect a 0.5 percent contraction of real GDP in 2002 and a decline of one percent at an annual rate in the consumer price index.

The recently industrialized Southeast Asian economies performed favorably in the third and fourth quarters of 2002, the strength of the Chinese economy being specially noteworthy. This result was achieved despite the weak economic recovery in G-7 countries, which constitute the main market for Asian exports. As for the group of countries known as the "Asian tigers"[11], analysts estimate an average real economic growth of 4.2 percent and an inflation of 1.7 percent in 2002.

The year 2002 proved to be a difficult one for Latin America. At the end of December analysts forecasted that the region's GDP would decrease 1.1 percent in real terms, while average inflation would go up 10 percentage points compared to its level in 2001.

The main focus of attention in Latin America during the fourth quarter was Brazil, whose instability in the second half of 2002 was a source of contagion for the region. Nonetheless, there has been a recent improvement in market perceptions attributed to president elect da Silva's intentions to implement prudent macroeconomic policies. In this context of improved confidence, on December 19th the IMF completed the first review of its contingency agreement with Brazil and released approximately 3 billion US dollars.

Although Brazil's main political risk factor seems to have been overcome, the most important analysts are still concerned

[11] South Korea, China, the Philippines, Hong Kong, Indonesia, Malaysia, Singapore, Thailand and Taiwan.

about its public debt, which requires strict fiscal discipline if it is to be controlled. Economic specialists forecast the Brazilian economy will grow at a real rate of 1.3 percent and inflation will be 12 percent in 2002.

Although the perspectives for a sustained recovery still appear to be far away in Argentina, the opinion that the economy has hit bottom is gaining ground. The most positive result during the fourth quarter was that the country's nominal economic variables (exchange rate and inflation) maintained the stability attained in the previous quarter. Regarding the real sector, signs of recovery are beginning to appear. Nonetheless, real GDP is expected to fall 12 percent in 2002.

There was renewed uncertainty in Venezuela during the fourth quarter. The country's domestic problems had substantial international repercussions when the state-owned oil company joined the national strike called by the opposition in December, thereby contributing to an increase in international oil prices. Analysts estimate a contraction of 6.7 percent and an inflation of 34 percent for the Venezuelan economy in 2002.

II.3.4. Oil Prices

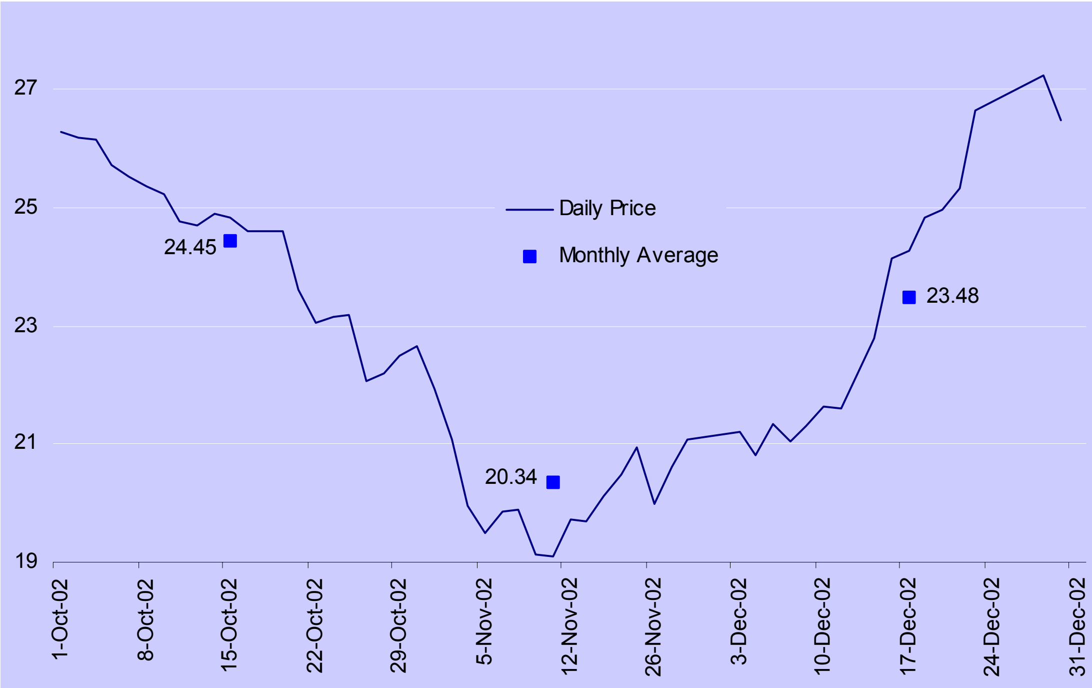
In the fourth quarter of 2002, the average price of WTI oil was 28.35 US dollars per barrel, similar to that of the third quarter.

The fall in oil prices during the first half of the fourth quarter responded to an overestimation of growth in world crude oil inventories (due to expectations that OPEC member countries were supplying more than the market required). However, subsequent corrections in those estimates helped to revert the aforementioned reduction in oil prices. The main cause of higher oil prices during the second half of the quarter was the national strike in Venezuela, which also included the state-owned oil company. Moreover, concerns over the likelihood of an attack by the United States on Iraq and a particularly cold northern winter added to upward pressures on oil prices.

During October-December the average price of the Mexican oil export mix was 22.61 US dollars per barrel, 1.24 dollars less than in the previous quarter. At the end of December this price reached 24.47 US dollars, while the average for the year as a whole was 21.56 dollars (Graph 5).

Graph 5 **Mexican Oil-Export Mix Price**

US dollars per barrel



Source: REUTERS

II.3.5. Wages, Salaries and Employment

During October-December of 2002 indicators of wages, salaries and employment posted mixed results. On the one hand, increases in contractual wages returned to the downward trend observed during the first quarter. On the other hand, formal employment fell while the different unemployment rates remained at levels close to those seen during the previous quarter. Although the drop in formal employment responded to seasonal factors, its seasonally adjusted series also reveal a substantial reduction in the creation of formal jobs.

As expected, during the fourth quarter the annual growth of productivity decreased while unit labor costs went up. This reflected the cyclical nature of productivity gains, slower industrial activity and uncertainty surrounding economic recovery.

As a result, the upturn of the Mexican labor market in 2002 was not sufficient to offset the reversal it experienced in 2001. The growth of formal employment was practically nil while the main unemployment indicators deteriorated. Although nominal contractual wage increases eased, the spread between them and inflation expectations still remains wide. Furthermore, given the high degree of uncertainty surrounding economic recovery and slower industrial activity in the United States, contractual wage increases granted during 2002 forestalled the creation of additional jobs.

II.3.5.1. Wages

In October 2002 nominal wages per worker posted annual variations between 7.7 and 11.7 percent, thus implying real increases from 2.7 to 6.5 percent (Table 4). The growth of nominal and real wages in the in-bond industry was slower than in the previous quarter. Meanwhile, nominal and real wage increases in the manufacturing industry and in the commerce sector were substantially higher than those observed in the third quarter.

Table 4 **Compensations per Worker**

Annual percentage change

	Nominal								Real							
	2002							Average Jan-Oct 2002	2002							Average Jan-Oct 2002
	Apr	May	Jun	Jul	Aug	Sep	Oct		Apr	May	Jun	Jul	Aug	Sep	Oct	
Manufacturing Industry	8.9	8.6	4.7	6.0	5.7	5.6	7.7	7.3	4.0	3.7	-0.2	0.4	0.4	0.6	2.7	2.3
In-bond Industry	11.4	10.2	9.4	10.5	8.9	9.0	7.7	10.3	6.4	5.3	4.3	4.7	3.4	3.8	2.7	5.1
Commerce	14.0	6.7	5.9	8.8	8.2	7.1	11.7	8.6	8.9	2.0	0.9	3.1	2.7	2.0	6.5	3.5

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

In October, productivity in the sectors analyzed posted annual variations between –1.4 percent and 5.1 percent while unit labor costs remained at an interval between –2.3 and 8 percent. In the same month, average productivity gains were enough to offset the upward trend of real wages in the manufacturing and in-bond industries but not in the commerce sector. As a result, unit labor costs rose in the latter sector (Table 5).

Table 5 **Output per Worker and Unit Labor Costs**

Annual percentage change

	Output per Worker								Unit Labor Costs							
	2002							Average Jan-Oct 2002	2002							Average Jan-Oct 2002
	Apr	May	Jun	Jul	Aug	Sep	Oct		Apr	May	Jun	Jul	Aug	Sep	Oct	
Manufacturing Industry	16.5	6.7	4.3	6.7	4.8	3.7	5.1	5.5	-10.7	-2.8	-4.3	-5.9	-4.2	-2.9	-2.3	-3.0
In-bond Industry	3.5	2.8	3.0	5.9	0.8	1.4	4.3	2.0	2.8	2.4	1.3	-1.1	2.7	2.4	-1.5	3.1
Commerce	3.7	-1.3	-5.1	0.0	-2.6	-3.6	-1.4	-2.3	5.0	3.3	6.3	3.1	5.4	5.9	8.0	5.9

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

As for average productivity and employment in the non in-bond manufacturing industry, in October the results were as follows: average productivity continued to stabilize while the expansion of employment persisted. Moreover, the average growth of the Industrial Output Volume Index that began to level off after June remained practically unchanged in October-November.

II.3.5.2. Contractual Wages

During the fourth quarter of 2002, the average growth of nominal contractual wages was 4.9 percent. This result was lower than in the previous quarter, meaning that this variable went back to the downward trend it had shown in the first half of 2002.

Just as in previous months, nominal contractual wages rose at higher rates in the manufacturing industry than in any other sector (Table 6). Although productivity growth has been higher in this sector of the economy, such phenomenon could be transitory.

Contractual wage increases were considerably higher in private companies than in public enterprises during the fourth quarter of 2002 (Table 6).

Table 6 **Contractual Wages by Sectors and Type of Company**

Annual percentage change

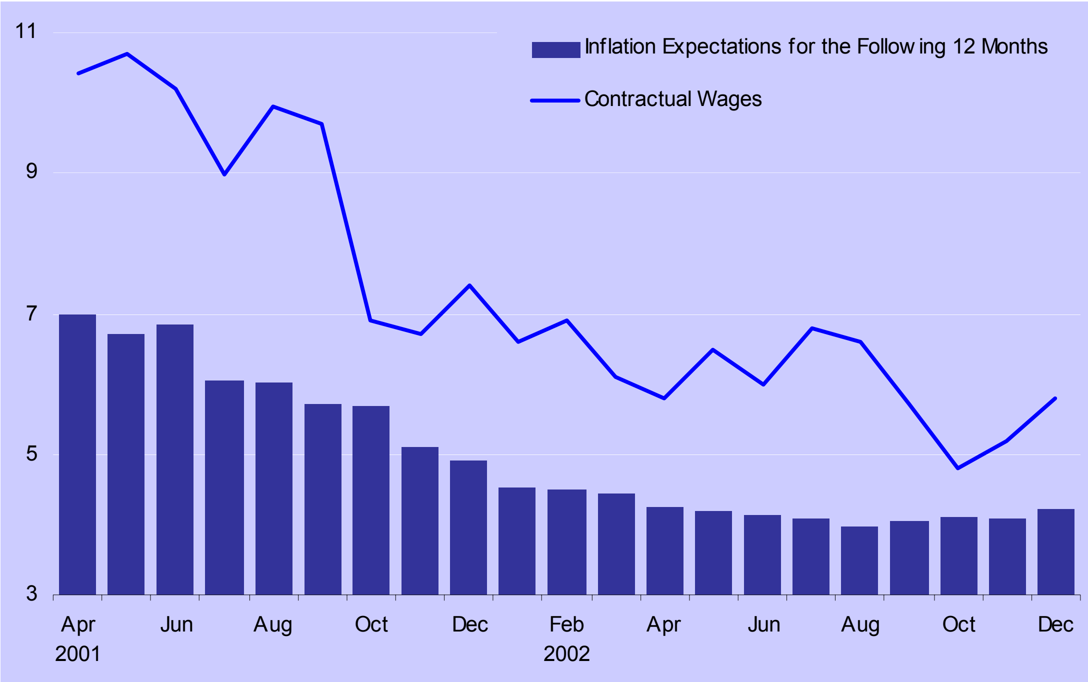
	2002									
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average Jan-Dec
Total	5.8	6.5	6.0	6.8	6.6	5.7	4.8	5.2	5.8	5.8
Manufacturing Industry	6.6	6.4	6.5	7.0	6.8	5.7	6.1	5.0	5.9	6.2
Other Sectors	5.6	6.6	5.8	6.5	6.4	6.2	4.6	5.3	5.7	5.5
Private Companies	6.0	6.5	6.2	6.8	6.6	6.3	5.8	5.4	5.8	6.4
Public Enterprises	5.5	5.1	4.7	6.4	5.5	5.5	4.5	4.3	7.0	4.9

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

The average gap between nominal contractual wage increases and expected inflation for the following twelve months was 0.8 percent in the fourth quarter of 2002 (Graph 6). This gap was wider than the 2.1 percent figure observed in the third quarter. The average spread has therefore moved from 2.7 percent in 2001 to 1.6 percent in 2002.

Graph 6 **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 narrowing of the gap between nominal contractual wage increases and expected inflation is still unsufficient. Only when wages become more consistent with sustainable labor productivity gains will it be possible to expect a more vigorous recovery of employment.

II.3.5.3. Employment

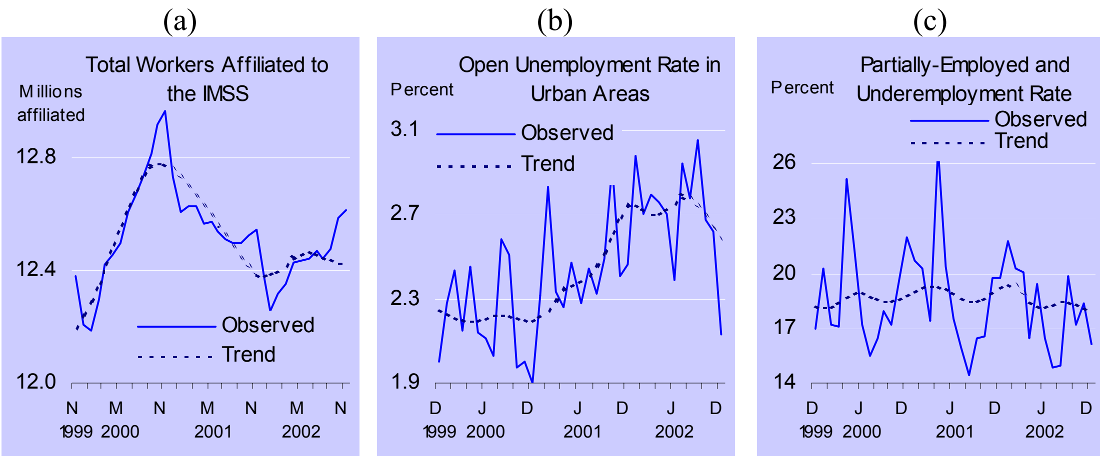
During the quarter covered by this Report, employment indicators displayed an unfavorable behavior compared to the previous period. Throughout the year, employment in Mexico was characterized by the slow expansion of formal employment and the worsening of the main indicators of unemployment compared to their levels in 2001. In particular, the number of permanent and temporary urban employees affiliated to the Mexican Social Security Institute (IMSS) increased by only 61,945 individuals, after having fallen by almost 383 thousand in 2001. Furthermore, the average open unemployment rate went up from 2.5 percent in 2001 to 2.7 percent in 2002.

At the end of December 2002, the number of temporary and permanent urban employees affiliated to the IMSS was 12,225,582 individuals (Graph 7a). It is important to mention that there were nearly 79 thousand job losses during October, November and December. However, seasonally adjusted figures for the period reported an increase of around 22 thousand individuals.

During October-December, the main unemployment indicators posted mixed results compared to those observed at the end of the previous quarter. Thus, the average open unemployment rate was 2.5 percent, while it had been 2.9 percent in the third quarter (Graph 7b). Meanwhile underemployment (less than 35 hours worked per week) and unemployment was 17.2 percent, comparing unfavorably with 16.6 percent registered in the third quarter (Graph 7c).

Graph 7 **Employment and Unemployment Indicators**

Trend Series



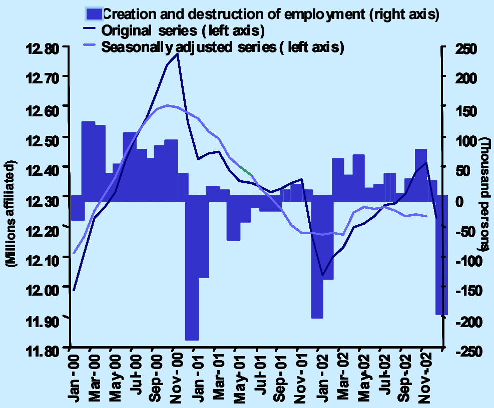
Source: IMSS and INEGI.

In sum, the labor market was weak in 2002. This was partly a result of weaker than expected industrial activity and uncertainty regarding the recovery of the economy. However, the high growth rate of wages in relation to foreseeable gains in productivity has hindered job creation. Under the current environment characterized by high uncertainty regarding future developments in productivity, Banco de México reiterates the convenience of easing the pace of growth of nominal wages so they can act as the adjustment variable in the labor market (Box 2). Furthermore, it is important to emphasize the need for a labor reform that would allow more flexibility in the labor market and foster a greater expansion of formal employment.

Box 2
Evolution of Employment in Mexico during 2001-2002

In 2002, formal employment (measured by the number of permanent and eventual workers affiliated to the IMSS) grew at a moderate pace (only 62 thousand jobs were created) after having experienced a decline of 360 thousand workers in 2001. On average, nearly 150 thousand annual jobs were lost during 2001-2002. (Graph 1).

Graph 1
Creation and Destruction of Employment, and Trend Series of Total Workers Affiliated to the IMSS

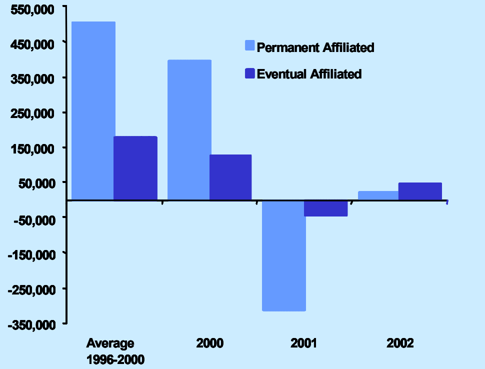


The contraction of formal employment in 2001 and its low expansion in 2002 are attributed to two factors: the lack of vigor of industrial activity in Mexico and increases in real wages above sustainable gains in productivity.

This section shows the patterns of creation and destruction of employment by economic sector and by type of contract as well as the relationship between formal employment and real wage increases.

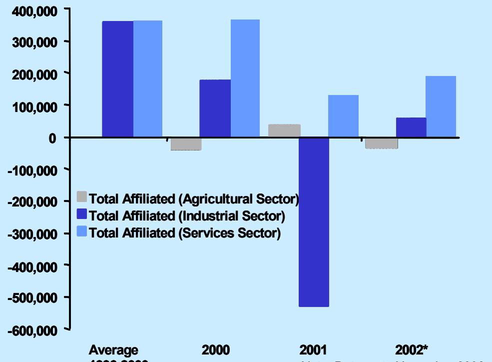
After decomposing the creation and destruction of employment by type of contract (permanent and eventual workers affiliated) it can be seen that during 2001 87% percent of job losses were permanent posts and only 13% corresponded to eventual workers affiliated to the IMSS. In contrast, during the modest recovery of employment in 2002 job creation focused more on eventual (68%) rather than on permanent workers (32%) [Graph 2]. The limited growth in permanent affiliated workers is related to the prevailing uncertainty regarding the recovery of the economy.

Graph 2
Creation and Destruction of Employment (Permanent and Eventual Workers Affiliated to the IMSS)



By economic sector (agricultural, industrial and services sectors), industry accounted for all job losses during the recession in 2001 and was the source of only 24% of the jobs created in 2002. The services sector contributed with 78% of the jobs generated in 2001 and 76% during 2002. Finally, the agricultural sector accounted for 24% of jobs created in 2001 and all job losses in 2002 (in this regard, the share of this sector in the total number of affiliated workers is low). Thus, during 2001 and 2002 the services sector was the main engine that fostered job creation. This partially compensated job losses in the industrial sector (Graph 3).

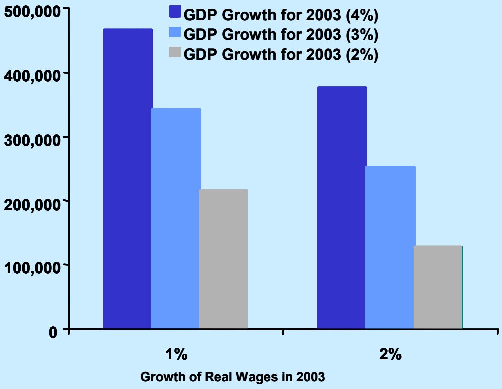
Graph 3
Creation and Destruction of Employment (Total Workers Affiliated to the IMSS by Sectors)



Note: Data up to November 2002.

Although the fall in formal employment in 2001 was more moderate than that observed during the 1994 crisis, it was not associated with a reduction in real wages as in the latter episode. On the contrary, during 2001 the decline in employment was accompanied by an average growth in real average wages of nearly 6%. This can be attributed partially to the fact that the recession in 2001 was not the outcome of an exchange rate or financial crises. Nonetheless, during that same year real wages behaved in a countercyclical manner, therefore making employment fall markedly. During 2002, real average wages continued on an upward trend (albeit at a slower pace than in 2001) leveling off at 3%. This increase is not consistent with the current slack in the labor market or with the reduced growth and high uncertainty regarding the recovery of economic activity in Mexico and the United States.

Graph 4
Estimates of Formal Employment in 2003



A modest job creation is expected to take place in the formal sector in 2003 as a result of both real wage increases above sustainable gains in productivity during 2002-2003 and a less than vigorous economic activity (Graph 4).

The contraction of average real wages that followed the 1994 crisis fostered the recovery of employment. However, inasmuch as it stemmed from a sudden inflationary shock this type of adjustment in real wages is not desirable. In order to create more jobs in the context of low inflation that currently prevails in Mexico, increases in nominal wages must ease and be consistent with the long-term inflation target of Banco de México. Under the present conditions of low growth and high uncertainty regarding the economy and its strength, real wage increases above expected gains in productivity inhibit the creation of jobs. In the past, adjustments in real wages to different shocks to the economy ocurred through changes in inflation; however, nowadays they must be attained through changes in nominal wages in order to prevent sudden variations in employment. Furthermore, to create in the formal sector the jobs demanded by the new entrants to the labor force, the labor market must be more flexible. This will only take place if there is progress in the agenda of structural reforms that will allow the country to increase its productivity.

II.3.6. Aggregate Supply and Demand

During the third quarter of 2002, aggregate supply and demand grew at an annual rate of 2.9 percent. This was the second positive variation after having experienced three consecutive quarters of contraction. When comparing these results with those from the previous quarter it is noteworthy the deceleration in the annual growth of GDP, consumption and investment vis-à-vis the rebound shown by exports and imports. As for output, the annual increase of GDP in the third quarter responded to rises of 0.6 percent in the industrial sector, 1.6 percent in the agricultural, fishing and forestry sector, and 2.6 percent in the services sector [12].

The 1.85 percent annual increase of GDP during the third quarter was lower than in the second quarter (2.1 percent) and than that forecasted in the previous Inflation Report (2 percent). Among the main reasons for this behavior were the deterioration of expectations regarding economic activity in the United States and

[12] Annual growth rates in the industrial sector were as follows: electricity, gas and water (1.6 percent) and manufacturing (0.2 percent), while the mining industry declined (0.6 percent). As for services, transportation, warehousing and communications and financial, insurance and real estate services registered higher annual increases (3.5 and 3.9 percent, respectively) than those for commerce, restaurants and hotels (1.9 percent) and community, social and personal services (1.6 percent).

the significant influence of its industrial sector on the performance of this sector in Mexico; the complex geopolitical situation; the falls in international stock market indexes; and the deterioration of risk perceptions for Latin America. The latter tends to worsen the conditions of external financing for Mexican companies.

An assessment of the evolution of the main components of aggregate supply and demand based on the quarterly variations of seasonally adjusted data is useful to better understand their recent changes. This study indicates that all components, except private investment, decelerated during the third quarter. In particular, the quarterly growth rates of aggregate supply and demand declined from 2 percent in the second quarter to 0.8 percent in the third.

An analysis of the path of GDP using seasonally adjusted figures shows, on the side of production, a reduction in all of its components (agricultural, services and industrial sectors) in the third quarter compared the second. The evolution of seasonally adjusted quarterly rates indicates that the rebound which began in the second quarter of 2002 slowed down during the third (Table 7). This behavior is consistent with the greater than expected weakening of industrial activity in the United States.

Table 7 **Aggregate Supply and Demand in 2000 and 2001**

Percentage change

	Real Annual Percentage Change						Real Quarterly Percentage Change (Seasonally Adjusted Series)				
	2001			2002			2001		2002		
	Annual	III	IV	I	II	III	III	IV	I	II	III
Aggregate Supply	-1.0	-3.4	-3.3	-2.5	2.5	2.9	-1.4	0.1	0.4	2.0	0.8
GDP	-0.3	-1.5	-1.6	-2.0	2.1	1.8	-0.4	-0.2	0.2	1.2	0.8
Imports	-2.9	-8.0	-7.7	-3.8	3.6	5.5	-4.0	1.1	1.1	4.0	0.9
Aggregate Demand	-1.0	-3.4	-3.3	-2.5	2.5	2.9	-1.4	0.1	0.4	2.0	0.8
Total Consumption	2.8	1.1	1.8	-1.5	2.3	1.7	-0.1	0.0	-0.1	1.5	0.0
Private	3.4	1.6	1.5	-1.5	2.9	1.9	-0.2	0.1	0.1	1.7	0.0
Public	-1.4	-3.5	3.3	-1.1	-1.6	-0.6	0.8	-0.1	-1.1	-0.4	-0.4
Total Investment	-5.9	-8.9	-9.1	-6.9	2.7	-0.8	-2.7	-1.3	1.5	2.2	-1.4
Private	-5.1	-1.3	-12.8	-5.9	1.2	-1.6	-1.2	-1.9	0.2	1.0	1.5
Public	-9.6	-38.0	6.6	-13.3	13.6	4.2	-10.8	2.3	9.3	8.5	-15.5
Exports	-5.1	-9.5	-10.9	-5.8	3.3	6.7	-3.4	-0.9	1.8	3.6	2.8

Source: Banco de México and INEGI.

Preliminary data on domestic demand and production during the fourth quarter of 2002 suggests that economic recovery continues, although at a slower pace. In this respect, the following are noteworthy:

(a) In November retail sales fell 2.2 percent compared to their level during the same month of 2001. This result also represents a decline from the 0.2 percent increase registered in October[13];

(b) Domestic wholesale sales of vehicles (cars and trucks) rose at an annual rate of 3.2 percent during the fourth quarter, after falling 2.6 percent in the third. This increase stemmed from a 15.6 percent rise in imported vehicle sales and a 11.1 percent decline in vehicles produced in Mexico;

(c) Although total financing to the private sector has continued to decline (at a real annual rate of 5.2 percent in December), performing credit (an indicator of new loans) has picked up in the last few months (9.1 percent in real terms in December). During 2002, accumulated flows of credit for consumption amounted to 0.38 percentage points of GDP. The latter mainly responded to the growth of credit granted by banks via credit cards; and

(d) In October, gross fixed investment declined at an annual rate of 1.4 percent[14];

As for production, evidence from available indicators suggests that the rate of growth was not robust:

(a) The annual growth of the Global Economic Indicator (*Indicador Global de Actividad Económica, IGAE*) was 0.9 percent in November. According to its seasonally adjusted monthly figures, the IGAE was -0.7 percent in November and –0.6 percent in October;

(b) Industrial output expanded at annual rates of 1.5 and –0.5 percent in October and November, respectively. The corresponding seasonally adjusted monthly figures were 0.8 and -0.3 percent; and

(c) Imports and non-oil exports increased at more subdued annual rates during the fourth quarter.

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13 According to seasonally adjusted series prepared by Banco de México, during November retail sales fell at a monthly rate of 1.3 percent, contrasting with the 0.2 percent increase posted in October.

14 Meanwhile, seasonally adjusted figures for gross-fixed investment indicate it decreased 0.2 percent in October compared to its level during the previous month, after having fallen 1.6 percent in September.

Based on the above information, Banco de México estimates that economic activity, at both annual and seasonally adjusted quarterly rates, was moderate during the fourth quarter of 2002. This was due to the negative impact of declining industrial output in the United States coupled with weak private consumption and investment. Moreover, the contribution of public expenditure to economic growth is expected to have been relatively low. On the basis of this information, it is anticipated that during the fourth quarter of 2002 real GDP grew at an annual rate of nearly 2 percent. As a result, the annual average increase of real GDP for the year as a whole would be close to one percent.

II.3.7. Balance of Payments, Capital Flows and Exchange Rate

In the fourth quarter of 2002, both imports and exports posted lower annual variations than those registered in the third quarter, with imports showing the sharpest decline. Exports increased 5.6 percent and imports 3.3 percent at annual rates[15]. In consequence, the accumulated trade deficit for the fourth quarter was 17.9 percent smaller than that during the same period of the previous year.

Similar to the preceding quarter, in the last quarter of 2002 both imports and exports continued to show slightly lower monthly variations than those observed at the onset of the year (Graph 8). This points to a weakening of external demand during the last few months. Meanwhile, the corresponding trend series indicates that the upward path of the monthly non-oil deficit has reverted (Graph 9).

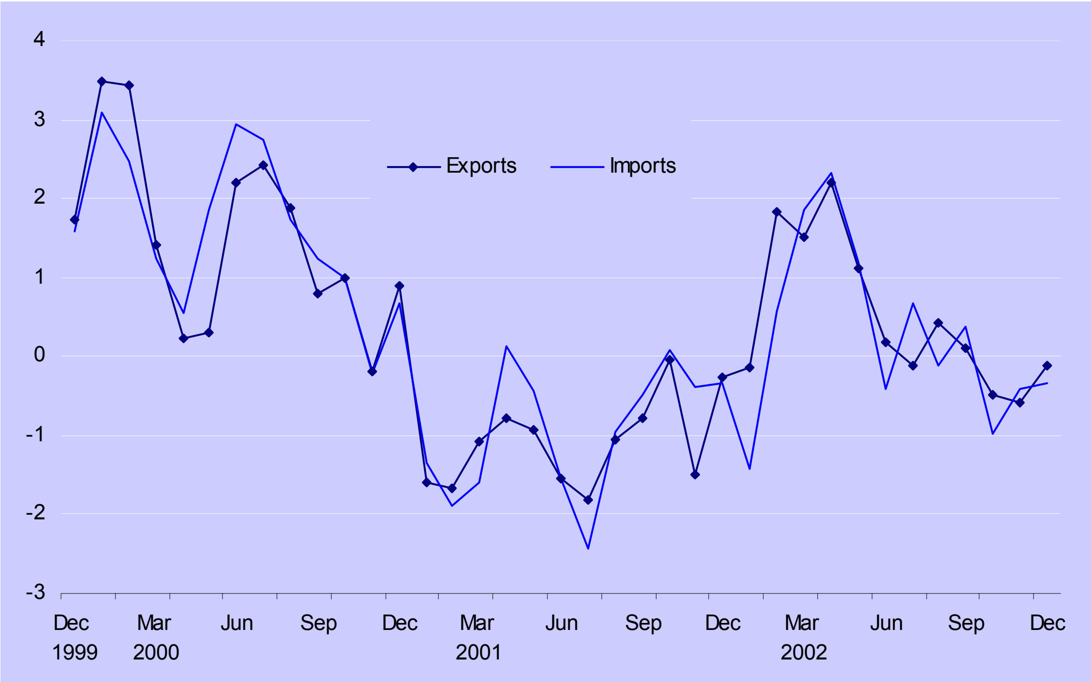
Based on the above information, the current account deficit for the fourth quarter of 2002 is estimated to have been around 5.4 billion US dollars and approximately 15 billion for the entire year. This deficit accounted for 2.4 percentage points of GDP in 2002 compared to 2.9 points in 2001.

Thus, the sharpest slowdown in imports in relation to exports as well as the low levels of public and private debt service contributed to moderate the demand for external financing.

[15] In the third quarter of 2002 the corresponding rates were 6.2 and 5.2 percent.

Graph 8 **Exports and Imports: Seasonally Adjusted Series**

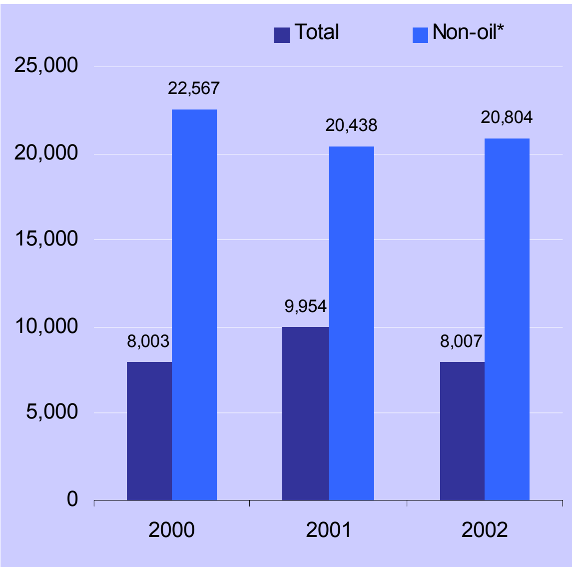
Monthly variation (3-month moving average)



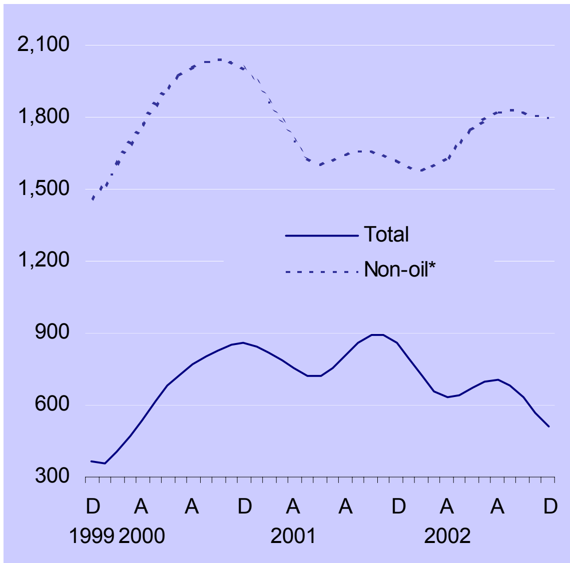
Graph 9 **Trade Deficit: Total and Excluding Oil**

Million US dollars

January-December



Trend



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

As for the capital account, the foreign direct investment (FDI) operations that took place in the last quarter of 2002 are noteworthy: the acquisition and capitalization of BITAL by the Hong Kong Shanghai Bank Corporation, and Pepsi Bottling's purchase of Pepsi Gemex. Moreover, PEMEX's placement of bonds for 1 billion US dollars on the international markets and the Federal Government's placement of UMS bonds for 750 million US dollars maturing in 2031 should also be mentioned. During the same period, flows of portfolio investment were negative, around 700 million US dollars. Based on the above information, the surplus of the capital account (including errors and omissions) is estimated at 8.4 billion US dollars.

During the fourth quarter of 2002 a negative environment prevailed in international capital markets. However, the conditions faced by emerging economies in those markets improved throughout the period compared to the third quarter. Likewise, country risk indicators improved substantially, particularly those for Brazil and Mexico[16] (Table 8). The evolution of capital flows to Latin American countries and Mexico during 2002 shows that the Mexican economy maintained a privileged position in the context of a difficult external environment.

Table 8 **Country Risk Indicators for Latin America (Global EMBI)**

Basis points

	2001				2002			
	I	II	III	IV	I	II	III	IV
Latin America	757	787	1,069	888	688	1,034	1,316	981
Argentina	967	1,050	1,615	5,363	5,030	7,078	6,475	6,342
Brazil	805	844	1,163	864	716	1,560	2,412	1,460
Chile	189	169	220	175	120	209	218	176
Colombia	645	528	615	508	511	592	1,066	633
Ecuador	1,366	1,303	1,516	1,233	1,037	1,262	1,975	1,801
Mexico	408	307	427	306	249	323	435	329
Panama	n.a.	n.a.	n.a.	n.a.	347	466	561	446
Peru	650	632	669	521	409	628	880	609
Dominican Rep.	n.a.	n.a.	n.a.	446	313	383	521	499
Uruguay	n.a.	251	299	284	525	869	1,643	1,228
Venezuela	877	847	997	1,130	898	1,113	1,166	1,131

Source: JP Morgan. End-quarter Index.

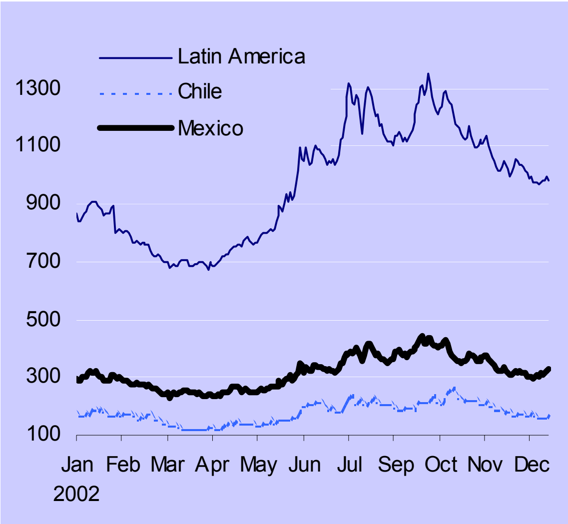
The decline of country risk indicators for Latin America and Mexico during the fourth quarter was mainly a result of the following factors:

(a) Reduced risk aversion in international capital markets (Graph 10).

[16] International Monetary Fund (2002), Global Financial Stability Report, December, p. 52.

Graph 10 **Country Risk Indicators for Mexico and Latin America and Yield of Corporate Debt in the United States**

Basis points



Source: Bloomberg and JP Morgan.

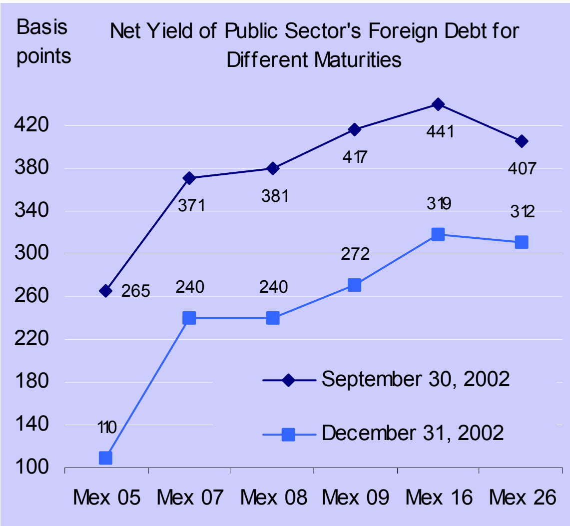
(b) Emerging economies' government or corporate bond yields did not fully reflect the rise in long-term interest rates in the United States; and

(c) Easing of tensions in the international markets after Brazil's new administration stressed its commitment to reduce inflation, maintain a prudent fiscal stance and respect its financial obligations.

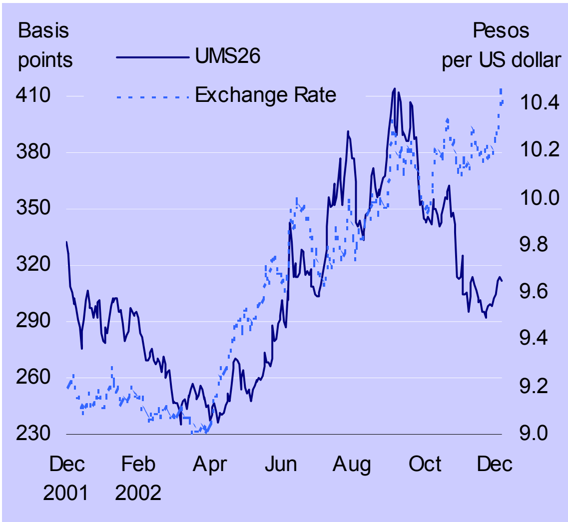
From the end of September to December 31st, net yields on UMS26 bonds fell around 96 basis points, while the Mexican peso depreciated 1.8 percent vis-à-vis the US dollar. This contrasts with the positive correlation between peso rates and country risk indicators for Mexico seen historically and in previous quarters (Graph 11). Furthermore, the link between the exchange rate and stock market indexes in the United States, which tend to reflect expectations regarding economic developments in that country, was also weaker in the last quarter of 2002 than in the previous two quarters. Thus, while the Dow Jones index rose 9.9 percent between the end of September and the end of December, the peso depreciated slightly against the US dollar (Graph 12a). One of the reasons that could explain the differences between fluctuations in the exchange rate and country risk indicators and expectations regarding the future performance of the United States' economy, is the re-emergence of a positive correlation between peso/US dollar and US dollar/euro exchange rates. The latter correlation was observed in the first two quarters of 2002 but not during July-September. In this respect, the depreciation of the peso vis-à-vis the US dollar during the last quarter of 2002 was accompanied by a depreciation of the US dollar against the euro of 6.3 percent (Graph 12b). As mentioned in some detail in the Inflation Report for April-June 2002, the correlation between the peso/US dollar and US dollar/euro rates could be associated with the substantial flow of financial resources from the United States to Mexico. Should there be a decline in capital flows to the United States (which increases the cost of financing for U.S. companies) FDI to Mexico would be adversely affected.

Graph 11 **Country Risk Indicators for Mexico and Exchange Rate**

Basis points



Basis points and pesos per US dollar

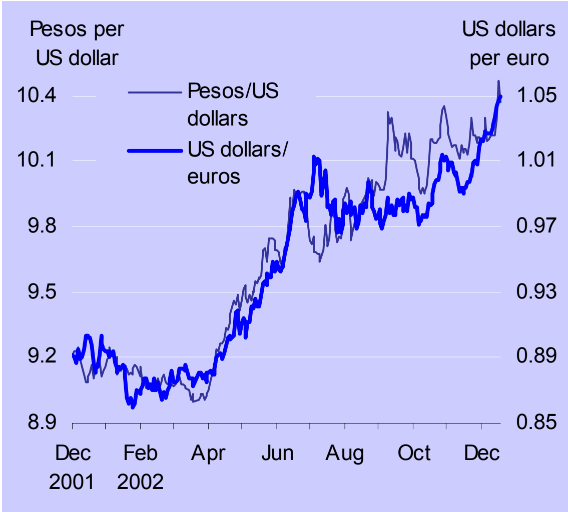


Source: Bloomberg and Banco de México.
Note: The net yield of the UMS26 bond is the difference between its gross yield and that of a U.S. government bond of similar maturity.

Graph 12 **Exchange Rate of the US dollar Vis-à-Vis the Euro and Peso Vis-à-Vis the US dollar, and Dow Jones Index**

a)

b)



Source: Reuters and Banco de México.

Nevertheless, as pointed out in previous Inflation Reports, the correlation between the Mexican peso and different financial variables has been unstable or short-lived. Moreover, it could have stemmed from speculative behavior, above all if there was a lack of liquidity in the exchange market as seen in the last few weeks of December. Fluctuations in the peso/US dollar exchange rate might have also responded to fundamental factors that affect the behavior of real variables, which in the long run, determine the equilibrium level of the exchange rate in real terms. The most important of these factors are:

(a) Risks concerning the recovery of the United States economy in 2003. In particular, those surrounding the geopolitical conditions and those linked to a slowdown of consumption and a delayed upturn in investment expenditures;

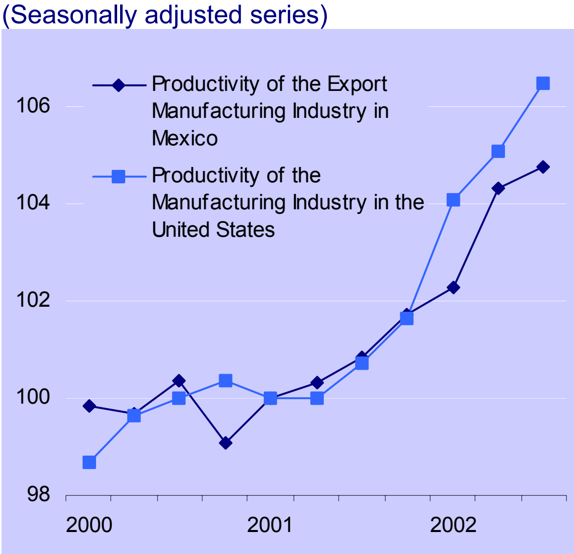
(b) The faltering belief among investors that the pending structural reforms needed by the Mexican economy to reach higher levels of productivity and economic growth will be implemented;

(c) The disparity between productivity in the Mexican manufacturing export sector and productivity in the United States' manufacturing sector observed throughout 2002 (Graph 13a); and

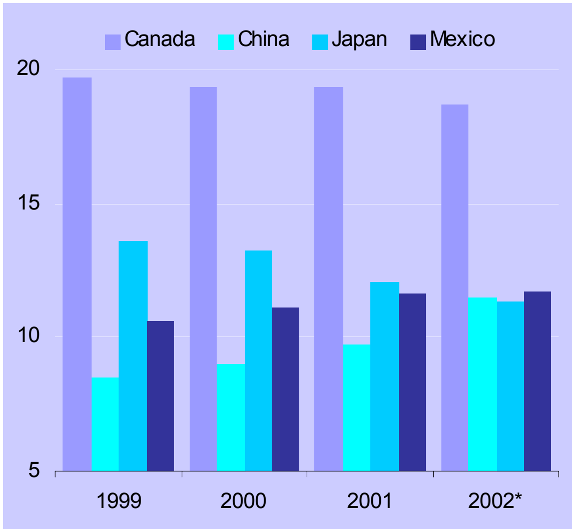
(d) The intense competition faced by Mexican exports in the United States. In this regard, the increasing share of Chinese-made goods in United States' non-oil imports is noteworthy. From 1999 to 2001 this share increased 1.2 percentage points, from 8.4 to 9.6 percent, while imports from Mexico rose almost one percentage point, from 10.6 to 11.4 percent. Moreover, a comparison of the trade flows in the January-November period of 2001 and 2002 shows that in the latter the share of U.S. imports from China grew 1.7 percentage points whereas that corresponding to Mexico did so in only 0.2 percentage points (Graph 13b). Although the aforementioned data does not point to a clear loss of market for Mexican exports, it does suggest that penetration has weakened. Furthermore, the indicators of competitiveness for the Mexican economy calculated by several institutions reveal a decline in the last years (Box 3).

Graph 13 **Index of Productivity in Mexico and in the United States and Share of Non-oil Exports from Canada, China, Japan and Mexico in Non-oil Imports to the United States**

a) 1st Quarter Index 2001=100
(Seasonally adjusted series)



b)
Per cent



Source: U.S. Department of Commerce and Banco de México.
The index of productivity in the export manufacturing industry is constructed by weighting the indexes of productivity of the in-bond and non in-bond industries according to their share in manufacturing exports.
* January-October.

Box 3

Competitiveness of the Mexican Economy

The ability of an economy to compete in the highly integrated global market is extremely important for development. Related to this concern, several international organizations have published in recent years the results of comparative studies that measure the competitiveness of different countries.

In 2002, Mexico ranked 45th out of 80 countries in the scale of global competitiveness for growth prepared by the World Economic Forum (WEF). This indicator measures a given country's characteristics that promote growth in the medium-term. The level of the indicator is obtained as the average of three scales: technological advances, macroeconomic conditions and quality of public institutions. The literature on economic development conceives these factors as the three fundamental pillars to attain sustainable growth.

Mexico ranked 21st (macroeconomic environment), 47th (technological advances), and 58th (public institutions) place in the three subscales of the global index. In other words, although fiscal and monetary policies have been consolidated, the country lags behind in those areas related to the agenda of pending structural reforms.

Table 1

Rankings in the Scale of Global Competiteveness for Growth (Selected Countries)

	1996	1997	1998	1999	2000	2001	2002
Brazil	48	42	46	51	46	44	46
South Korea	20	21	19	22	29	23	21
Chile	18	13	18	21	28	27	20
Greece	39	48	44	41	34	36	38
Hungary	46	46	43	38	26	28	29
Mexico	**33**	**33**	**32**	**31**	**43**	**42**	**45**
Poland	44	50	49	43	35	41	51
Czech Republic	35	32	35	39	32	37	40
Tailand	14	18	21	30	31	33	31
Venezuela	47	47	45	50	54	62	68

Source: World Economic Forum.

In a horizon of several years, Mexico's relative position in the scale of global competitiveness deteriorated, falling from 33th to 45th place in 1996-2002. Nonetheless, from 2001 to 2002 it improved its relative position in the subindex of macroeconomic conditions (with an upgrade of 15 places) owing to the orderly way in which it has faced the recent global recession. This partially offset the decline it experienced in the scales of technological advances and institutional quality, 3 and 11 positions, respectively.

Part of the downgrade in the relative position of Mexico might have been expected due to the inclusion of new countries in the list[1]. However, these methodological changes do not explain why Mexico has lost ground against other countries that were included in the sample from the beginning such as Chile, Greece and Hungary, which have advanced or at least have not moved down in the list as Mexico did. It should be mentioned that over the last years some countries that have surpassed or come close to Mexico's position in this scale such as Hungary and the Czech Republic have undergone a process of structural reforms (including the modernization of its judiciary system) prior to their entry to the European Union.

Since 1998, the WEF also publishes a scale of microeconomic competitiveness. This indicator measures the fundamentals that explain the level of per capita income or productivity (in contrast to the index of global competitiveness, which evaluates economic growth capacity). Such fundamentals are the sophistication of economic agents and the quality of the business environment. In this scale, Mexico moved from 39th to 55th place. Nevertheless, this fall apparently is more related to the changes in the set of countries under comparison. After analyzing exclusively the countries that appeared since the first year of publication of this index, Mexico only declined two positions between 1998 and 2002.

As for microeconomic competitiveness, the WEF makes an interesting observation by mentioning that the current conditions that determine the productivity of Mexico's private sector are less favorable than would have been expected given the country's average income. In terms of the two components that make up the index, Mexico ranks 60th place in the scale that measures the conditions for productive activity and 45th in that corresponding to the sophistication of private agents. This suggests that the existent lags in microeconomic areas such as physical infraestructure, regulation, financial markets and human capital formation prevent increases in mean income and also the preservation of its current levels. Today, these are still pending issues in the agenda of structural reforms.

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[1] In 1996 the scale included 49 countries compared to 80 in 2002. Several of them have been included in the list with very favorable rankings, therefore downgrading the position of the rest of the countries. This shift should not be interpreted as an adverse change in the relative position of the countries that descend in the scale if the new country would have obtained a high ranking had it been included in the index from the onset.

II.3.8. Prices Administered and Regulated by the Public Sector

In the fourth quarter of 2002, the subindex of prices administered and regulated by the public sector rose. As it occurred in previous quarters, the upturn in the annual inflation of this subindex is explained by the increase in administered prices, mainly those pertaining to residential electricity and domestic gas. Meanwhile, annual inflation of regulated prices declined during the quarter.

In October, November and December electricity tariffs registered monthly increases of 4.93, 16.81 and 0.85 percent, much higher than those observed during the same months of 2001 (3.82, 15.08 and 0.68 percent, respectively). Thus, the rise in tariffs of electricity for residential use determined by the Federal Government in January of 2002 resulted in higher headline inflation from February onwards. In addition, the price of domestic gas went up at a monthly rate of 6.70, 1.25 and 2.26 percent during the referred period.

II.3.9. Transitory Factors that Affected Inflation

The annual inflation of the subindex of agricultural prices went up 6.27 percentage points attributed mainly to higher annual inflation of fruits and vegetables. Increases in the prices of zucchini and tomato were outstanding, rising 117.04 and 70.22 percent, respectively, from September to December 2002. This was mainly due to the adverse effects of out of season rains and frost on crops in some regions of the country. The rise in the prices of both of these products accounted for 87 percent of the upward movement in the index of agricultural products during the period.

II.3.10. Summary

In the fourth quarter of 2002, annual headline inflation rose, ending the year above the target for the first time since 1998. In contrast, annual core inflation remained relatively stable, being less than 4 percent at year-end.

The contribution of annual core inflation to annual overall inflation increased, albeit marginally. This was mainly the result of higher annual inflation of tradable goods, which was partly offset by a reduction in that of services. Thus, the rise in headline inflation basically responded to the performance of the non-core CPI components.

The subindex whose behavior had the strongest influence was that of agricultural products. This was mainly caused by price rises in certain goods. Moreover, the subindex of prices administered and regulated by the public sector also rose substantially as a result of increases in prices of domestic gas and residential electricity (Table 9).

Table 9 **Differences with the 2002 Target and Contribution of the CPI Price Indexes: Core, Agricultural Products, Education and Prices Administered and Regulated**

Annual percentage change

	Annual Inflation December 2002	Difference wth the Annual Target of 4.5%	Weight	Composition of the Difference
CPI	5.70	1.20	100.00	1.20
Core	3.77	-0.73	69.56	-0.46
Education	10.04	5.54	5.20	0.28
Agricultural Products	8.65	4.15	8.07	0.32
Administered and Regulated	10.96	6.46	17.16	1.06
Administered	16.84	12.34	7.77	0.91
Electricity	34.97	30.47	2.27	0.66
Domestic Gas	25.93	21.43	1.84	0.38
Gasoline	0.80	-3.70	3.66	-0.13
Regulated	6.12	1.62	9.39	0.15

In conclusion, the price behavior of a reduced number of non-core goods hindered the attainment of the inflation target in 2002. If prices administered and regulated had grown at an annual rate of 4.5 percent, CPI inflation in December would have ended at 4.6 percent.

II.4. Monetary Policy During the Fourth Quarter of 2002

In the following section the reasons which prompted the Board of Governors of Banco de México to increase the level of the "short" on December 6th will be analyzed. In addition, a brief assessment of the evolution of private sector inflation expectations and of interest rates is also presented. The behavior of these variables complements the information derived from the level and modifications to the "short" to evaluate monetary conditions. Finally the path of the monetary base together with other monetary and credit aggregates will also be reviewed.

II.4.1. Monetary Policy Actions

On December 6, 2002 the level of the “short” was raised from 400 to 475 million pesos. This monetary policy measure, like the increase in the “short” from 300 to 400 million pesos adopted at the end of September, was taken with a forward looking approach. The decision to tighten monetary policy responded to the following motives: to induce a downward movement in inflation expectations in the medium run and foster the monetary conditions necessary so that annual increases in consumer prices converge with the annual inflation target of 3 percent for 2003.

In the fourth quarter of 2002 annual inflation rose more than anticipated. Although average inflation expectations at end-September for December 2002 were 4.98 percent, CPI inflation actually increased 5.70 percent. Nevertheless, the behavior of the core prices index and contractual wage increases during 2002 indicate that the economy moved a step forward towards price stability.

The main priority of monetary policy was to prevent any contagion effects on inflation expectations for 2003 and on the path of core inflation. It should be remembered that inflation expectations had declined at the start of 2002. However, the upward trend of headline inflation during the rest of the year began to induce a certain downward rigidity in inflation expectations and, eventually, led to an increase in forecasts for year-end 2003.

Despite the widening of the “short” on September 23rd, expected inflation for 2003 reached 4.14 percent at end-November, a level above Banco de México’s variability interval for the inflation target (Graph 14a). Likewise, the deviation of private sector analysts’ forecasts in November 2002 from the inflation objective for 2003 was wider than that observed in the same month during the last three years (Graph 14b).

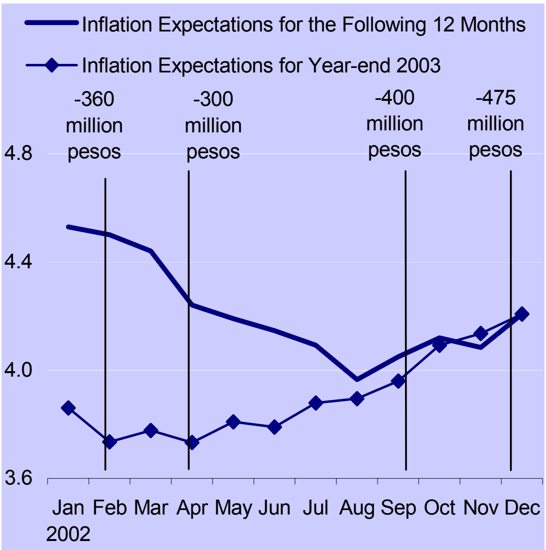
In light of this unfavorable trend, the Board of Governors of Banco de México considered prudent to further increase the “short” from 400 to 475 million pesos on December 6th. This was a preventive action whose objective was to ensure the attainment of the inflation target for 2003.

The monetary policy measures adopted since September have affected financial conditions in Mexico. In order to conduct a more integral assessment of the performance of the Mexican financial markets in the last quarter of 2002 two factors should be remembered. First, during such period emerging economies benefited from the positive developments in several countries in Latin America that had been subject to significant financial pressures. Second, there was a reduced risk aversion in developed countries, which brought about an improvement in the availability of financing for emerging markets.

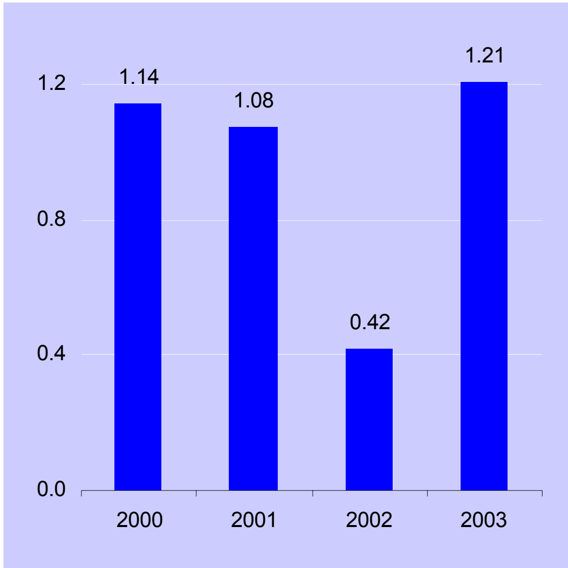
Graph 14 **Inflation Expectations, Accumulated Balances Objective ("Short") and Differences Between Inflation Targets and Inflation Expectations on December of the Previous Year**

Percentage Points

a) Inflation Expectations and Target



b) Differences



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

Just as in the third quarter of 2002 Mexico experienced slight contagion from political and financial instability in Latin America, in recent months it has benefited from improvements in the international financial environment and the relative stability of other countries in the region. The fact that country risk perceptions for Mexico fell around 100 basis points in the last quarter of the year is also significant[17].

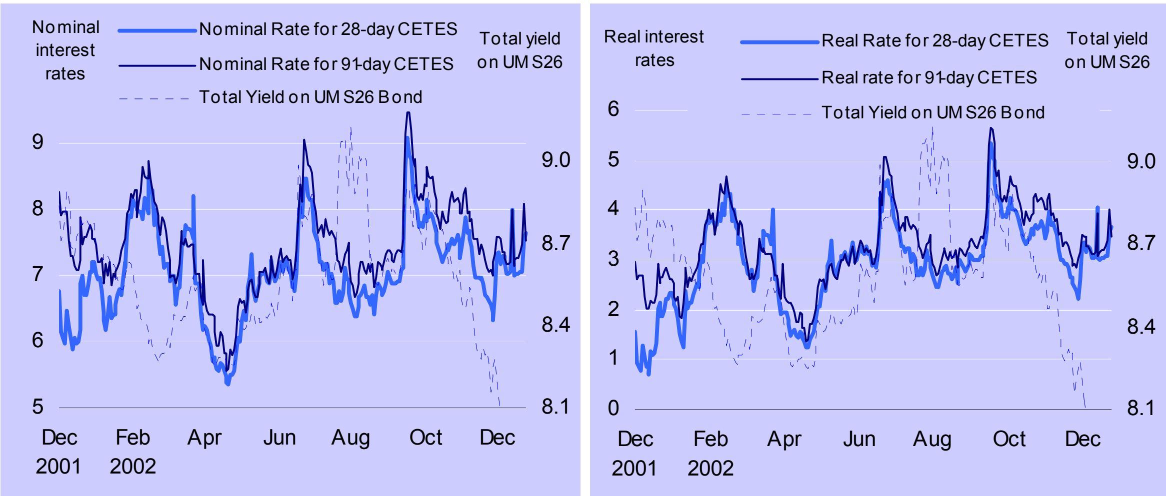
In response to the behavior of country risk, interest rates on instruments denominated in Mexican currency also decreased (Graph 15). However, domestic financial markets reacted to the widening of the "short" at the start of December as anticipated. Domestic interest rates increased in the days following the

[17] Calculated as the difference between yields on Mexican sovereign bonds placed abroad and United States' Treasury bonds.

monetary policy action. The upward movement took place differentially according to the maturity of the instrument. For example, a comparison of daily "overnight" interest rates in the five days preceding the decision to tighten monetary policy with those in the five days after the decision shows they went up 67 and 80 basis points in the banking and government markets, respectively. Meanwhile, average yields on 28 and 91-day CETES rose 74 and 37 basis points. As a result, the yield curve flattened, indicating that the market assumed monetary policy actions would have the desired effect and interest rates would decline in the future. Thus, during the quarter, although nominal and real interest rates fell in line with the improvement in country-risk perceptions, the decline was smaller than that suggested by the historical relationship of both variables. The latter is attributed to the intensification of the monetary restrictions during the last months of the year.

Graph 15 **Nominal Interest Rates, Real Interest Rates[1/] and Total Yield on UMS26 Bond**

Percent



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

II.5. Monetary and Credit Aggregates

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

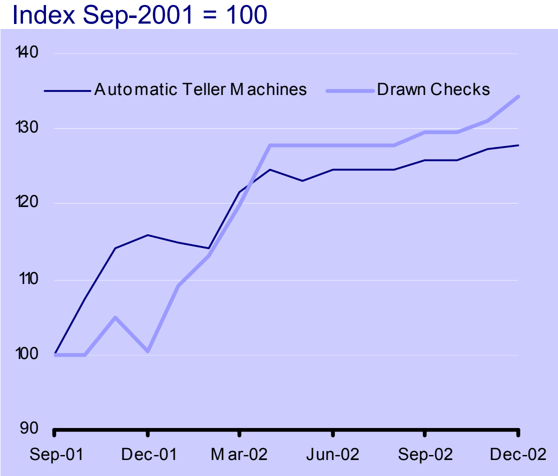
The stabilization process has led to lower inflation and falling interest rates, bringing about changes in the demand for means of payment. This has contributed to the remonetization process of the last few years.

By the end of 2002 the stock of the monetary base was 263.9 thousand million pesos, which meant an annual increase of 17 percent and a remonetization[18] of 9.5 percent. Compared to the forecast published in the Monetary Program, base money posted a year-end deviation of 6.4 percent (4.6 percent on average during the year).

The process of remonetization has been bolstered by macroeconomic factors associated with a change in the revenue strategies of credit institutions who have tended to charge more for the financial services they offer (Graph 16a). This banking policy has induced a greater use of cash by their customers in order to reduce the cost of withdrawals (Graph 16b). As a result, the annual growth of checking accounts in domestic currency has been adversely affected by higher commissions for the use of checks. Should this or other similar phenomenon persist, there will likely be further changes in the demand for monetary base not related to the usual macroeconomic variables. Likewise, the expansion of the informal economy could also be another factor that has influenced the unexpected growth of the monetary base.

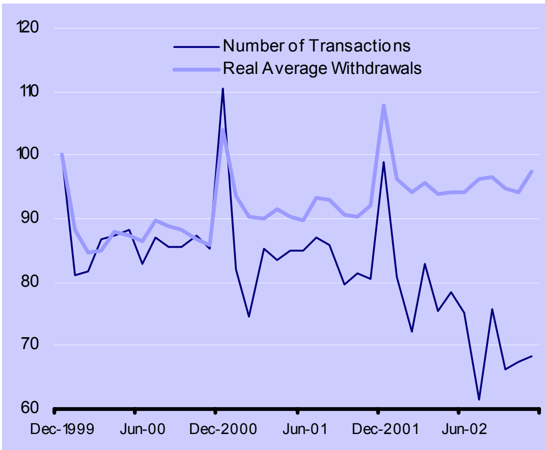
Graph 16 Indicators of Usage Cost of Financial Services

a) Cash Withdrawal Charges
Index Sep-2001 = 100



Source: Data from CONDUSEF.

b) Automatic Teller Transactions
Index Dec-1999 = 100



Source: Data from PROSA.

During the fourth quarter of 2002 Banco de México's stock of net international assets rose 3.985 billion US dollars, ending the

[18] Calculated as the percentage variation of the monetary base above inflation and estimated real GDP growth (considering stocks at the end of the period).

year at 50.722 billion. The main source of this buildup was PEMEX who sold 8.189 billion US dollars to Banco de México while the Federal Government purchased 4.437 billion.

Although net domestic credit rose 12,064 million pesos in the fourth quarter of 2002, for the year as a whole it contracted 20,893 million pesos, reflecting the sterilization of net international assets (Table 10).

Table 10 **Monetary Base, Net International Assets and Net Domestic Credit**

	Stocks		Effective Flows				
	By Dec. 31, 2001	By Dec. 31, 2002	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Accumulated by Dec. 31, 2002
(A) Monetary Base (Pesos)	225,580	263,937	-9,272	-4,416	-899	52,943	38,356
(B) Net International Assets (Pesos) 2/	411,315	529,503	13,497	-5,838	10,711	40,879	59,249
Net International Assets (US dollars) 2/	44,857	50,722	1,453	-680	1,107	3,985	5,865
Variation of Net International Assets			*1,453*	*-680*	*1,107*	*3,985*	*5,865*
PEMEX			*3,382*	*302*	*1,826*	*2,679*	*8,189*
Federal Government			*-2,004*	*-1,856*	*-1,441*	*864*	*-4,437*
Other			*75*	*874*	*722*	*442*	*2,113*
(C) Net Domestic Credit (Pesos) [(A)-(B)] 1/	-185,735	-265,566	-22,769	1,422	-11,610	12,064	-20,893
Memorandum:							
(D) International Reserves (US dollars) 3/	40,880	47,984	1,349	494	2,385	2,876	7,104

1/ In the estimation of effective flows in pesos of net international assets, the exchange rate applied is that associated to the transaction giving rise to the flow.
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.

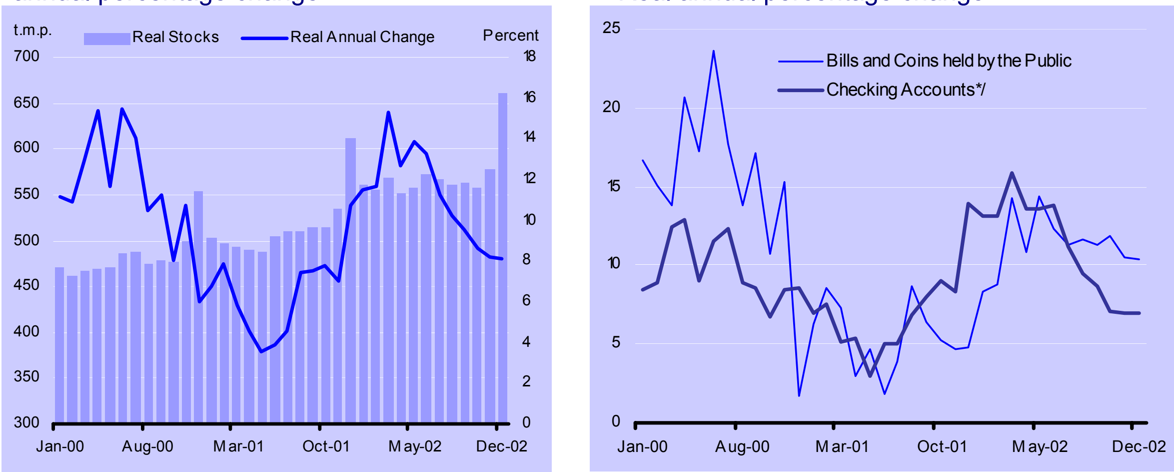
II.5.2. Monetary Aggregates

Although the annual variation of bills and coins remained relatively stable during the fourth quarter of 2002, the real growth rate of M1 in domestic currency fell from 13.3 to 8.1 percent during the second semester. In particular, the increase in checking accounts in domestic currency slowed down significantly (Graph 17).

Graph 17 **Monetary Aggregate M1 in Pesos**

Real stocks in thousand million pesos and real annual percentage change

Main components
Real annual percentage change



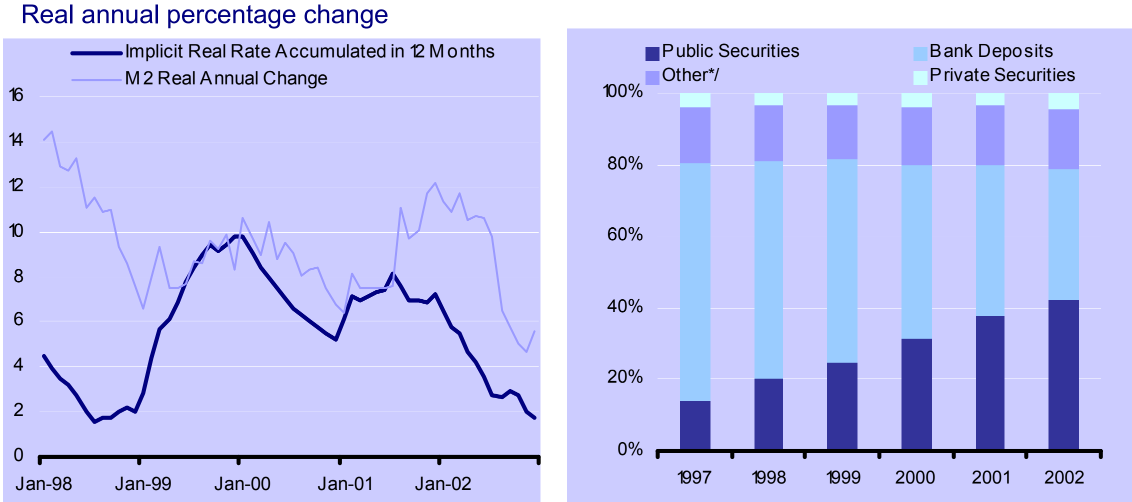
*/ Including checking accounts and current account deposits.

Likewise, the growth rate of the broad monetary aggregate M2 declined markedly throughout 2002 (annual real increase of 5.6 percent in December). This can mostly be explained by the fall in the yields of domestic financial instruments (Graph 18a).

Graph 18 **Monetary Aggregate M2**

a) M2 and Implicit Rate[1/]
Real annual percentage change

b) Percentage structure



1/ Weighted average of CPP and of implicit interest rates of government securities.
*/ Includes bills and coins held by the public and SAR funds other than SIEFORES' investment in public and private securities.

Along with its slower expansion, financial saving has also undergone drastic changes in its structure that deserve mention (Graph 18b):

(a) A greater participation of saving via the purchase of securities (public and private) and, therefore, a reduction of that corresponding to bank deposits. The latter registered a real annual contraction of 4.5 percent in December;

(b) In 2002, one third of the increase in saving came from the SAR; and

(c) In the same year, 67 percent of the growth in financial saving was channeled to public securities[19].

Not all the components of bank deposits declined. Commercial banks have sought to reduce time deposits (channeling them to investment fund deposits) and increase liquid deposits, particularly checking accounts[20]. This led to a reduction in the cost of bank deposits during 2002[21].

II.5.3. Financing to the Private Sector

During the second half of 2002, the stock of performing credit[22] granted by commercial banks to the private sector showed a slight upturn. Nonetheless, total financing to the private sector[23] currently accounts for only 11.7 percent of GDP, its lowest level since 1989[24].

Credit granted by commercial banks to housing and to non-bank intermediaries remained stagnant. In contrast, credit channeled to consumption was vigorous, posting a real annual growth of 36.2 percent in December (Table 11). The monetary and fiscal efforts of the last few years have enabled interest rates to currently reach nearly historical minimums. This has had a substantial impact on the recovery of credit for consumption and, thereby, encouraged economic growth. Moreover, credit granted to

[19] Includes securities issued by the Federal Government, Banco de México, IPAB, states and municipalities and the FARAC.

[20] Liquid deposits represented 67 percent of total bank deposits during 2002, while accounting for only 46 percent in 1999.

[21] One indicator of the decrease is the average cost of bank deposits (C*osto de Captación Promedio, CCP*) paid by commercial banks, which was 35 basis points lower than 28-day CETESs yields in 2001, while in 2002 the differential was 92 basis points.

[22] Excluding portfolio transferred to UDIs Trusts and portfolio rights transferred to IPAB-FOBAPROA.

[23] Includes the portfolio associated with restructuring programs.

[24] Excluding the portfolio associated with restructuring programs, bank financing to the private sector accounted for 9.1 percent of GDP in 2002, a similar level to that observed in the mid eighties.

firms continued to rebound, registering an accumulated flow of 32.4 million pesos between July and December.

Table 11 **Commercial Banks' Performing Credit to the Private Sector**

Own portfolio 1/

	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02
	Real Annual Percentage Change							
Total	**7.1**	**2.0**	**1.9**	**0.8**	**-3.4**	**1.0**	**2.8**	**9.1**
Consumption	37.5	33.9	27.2	32.5	24.1	33.6	42.5	36.2
Housing	-12.0	-8.7	-7.8	-5.6	-4.3	-3.1	-1.1	-3.6
Corporations	5.6	-1.0	-2.2	-4.8	-9.1	-4.8	-2.4	6.6
Non-bank Financial Intermediaries	39.8	21.7	51.6	28.3	17.5	16.8	-9.5	2.3

1/ Does not include portfolio transferred to UDIs trusts and portfolio rights transferred to the IPAB-FOBAPROA. Includes intervened commercial banks and those classified as having a "special status".

An additional factor, partly attributable to the reduction of inflation and domestic interest rates, is that most of the financing to the private sector in 2002 came from domestic sources, particularly via the placement of private securities[25]. This differs from the pattern observed in the recent past, when external savings were the main source of financing. More specifically, during the third quarter of 2002 there was a substitution of external liabilities that translated into reduced exposure to exchange rate risks (Table 12).

Table 12 **Domestic and External Financing to the Private Sector**

Flows in million pesos

	1999	2000	2001	2002				Accumulated
				I	II	III	Jan-Sep	1999-Sep 2002
Domestic	-35,071	57,536	17,426	-4,422	23,606	21,388	40,572	80,463
Performing Credit	-31,576	26,019	-1,506	-12,994	14,299	9,392	10,697	3,634
Securities	-3,495	31,517	18,932	8,572	9,307	11,996	29,875	76,829
External	68,469	68,314	54,198	13,974	3,962	-14,745	4,386	195,367
Loan and Deposit Liabilities	26,155	43,578	40,040	-38	10,514	-6,431	4,319	114,092
Securities Issued Abroad	42,315	24,736	14,158	14,012	-6,552	-8,314	66	81,275
Total	**33,398**	**125,850**	**71,624**	**9,552**	**27,567**	**6,643**	**44,957**	**275,830**

It is important to mention that, although the corporate debt market has become a significant source of financing for this sector, these resources are concentrated in a relatively small number of large companies.

Finally, firms in developing countries are usually only able to choose between very short-term liabilities in domestic currency or longer-term liabilities in foreign currency. The greater

[25] Among these, Stock Certificates (*Certificados Bursátiles*) are noteworthy for their flexibility as instruments for obtaining resources through the debt market. They registered an increase of 28.2 thousand million pesos between January and September of 2002.

macroeconomic stability in Mexico has undoubtedly enabled companies to make debt placements at longer terms in domestic currency[26].

[26] The average placement maturity of private and public debt has doubled in the last two years.

III. Private Sector Outlook for 2003[27]

During October-December of 2002, private sector analysts revised their forecasts on the main macroeconomic variables for 2003 as follows: lower GDP growth and higher inflation.

III.1. Forecasts for the Main Determinants of Inflation

Private sector analysts estimate that the United States and Mexico will have a lower GDP growth in 2003 than anticipated in the previous Inflation Report. Regarding economic growth in 2002, although most analysts adjusted their forecasts for the United States slightly upward, from 2.4 to 2.5 percent, in response to higher growth in that country during the third quarter, they revised their estimates downward, from 2 to 0.9 percent for the fourth quarter. They also lowered their estimates for annual growth of GDP in that country during 2003 from 3 to 2.7 percent (Table 13). As for Mexico, analysts reduced their estimates for real GDP growth in 2002 and 2003, from 1.6 to 1.1 percent and from 3.8 to 3.2 percent, respectively. The only variable with a favorable forecast was the price of the Mexican oil export mix for 2003.

Estimates for the exchange rate at the end of 2003 were modified upward. Regarding contractual wages, it is expected that nominal increases will experience a slight decline in January and February of 2003 compared to December 2002.

Indicators of the business climate and confidence levels are more optimistic than in September of 2002. Thus, in December 64 percent of the analysts surveyed were of the opinion that the business climate for the next semester will improve, while 25 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 following: the weakness of external markets and of the world economy (26 percent of responses); the weakness of the domestic market (14 percent of responses); domestic political

[27] 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.

uncertainty (9 percent of responses); international political instability, uncertainty concerning the domestic economic environment and the fiscal policy being implemented (7 percent of responses for each of these three factors).

Table 13 **Private Sector Expectations: September and December 2002[1/]**

	September	December		September	December
Real GDP Growth in Mexico			**Exchange Rate**		
			(Pesos per US dollar, Year-end)		
2002	1.58%	1.14%	2003 Survey BANXICO	10.39	10.51
2003	3.84%	3.16%	Futures[3/]	11.22	11.17
Trade Deficit			**Mexican Oil Mix**		
(Million US dollars)			(Average US dollars per barrel)		
2002	8,716	8,095	2003 Survey BANXICO		19.08
2003	11,822	10,600	Futures[6/]	21.54	24.14
Current Account Deficit			**Wage Increases**		
(Million US dollars)					
2002	17,274	15,762	For January 2003		5.5%
2003	20,446	18,490	For February 2003		5.3%
Foreign Direct Investment			**Business Climate**		
(Million US dollars)			Will improve	60.0%	64.3%
2002	13,147	12,925	Will remain the same	36.7%	25.0%
2003	14,177	13,691	Will worsen	3.3%	10.7%
Real GDP Growth in the U.S.					
2002 Survey BANXICO	2.4%	2.5%	2003 Survey BANXICO	3.0%	2.7%
Consensus Forecasts[2/]	2.4%	2.4%	Consensus Forecasts[2/]	3.0%	2.7%
Brokerage Firms (Average)[4/]	2.4%	2.4%	Brokerage Firms (Average)[4/]	2.8%	2.6%
IV Q. Brokerage Firms (Average)[5/]	2.0%	0.9%	I Q. Brokerage Firms (Average)[5/]	2.6%	2.2%
			II Q. Brokerage Firms (Average)[5/]	3.4%	3.2%
			III Q. Brokerage Firms (Average)[5/]	3.7%	3.7%
			IV Q. Brokerage Firms (Average)[5/]	3.7%	3.6%

1/ Unless otherwise stated, data is drawn from the Survey of Private Sector Economic Analysts' Expectations undertaken every month by Banco de México.
2/ October 7th 2002 and January 13th 2003 issues of the *Consensus Forecast*.
3/ Exchange rate futures of September 30th and December 31st 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 future prices of the WTI oil (December 30th) and the price of the Mexican oil mix on that same date.

III.2. Inflation Expectations

Forecasts for monthly inflation in January, February and March of 2003 were 0.59, 0.30 and 0.33 percent, respectively.

As for year-end annual inflation, estimates went from 3.96 percent in September to 4.21 percent in December. Expectations regarding core inflation at year-end 2003 were 3.48 percent and those for headline inflation in the following twelve months increased from 4.05 percent in September to 4.21 percent in December. Forecasts for overall inflation at year-end 2004 were

3.76 percent (Graph 19). Therefore, CPI inflation expectations for 2003 and 2004 remain above target.

Graph 19 **Evolution of Inflation Expectations**

Annual percentage change

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

IV. Monetary Program for 2003

Banco de México's monetary policy regime has been adjusted in response to changing circumstances in the Mexican economy. This process of gradual change has led to a more effective and transparent monetary policy.

As part of the evolution of the inflation targeting regime, the Board of Governors of Banco de México made four important decisions in 2002: i) a long-term inflation objective was set based on the CPI; ii) from 2003 onwards the target will be 3 percent; iii) a variability interval of plus/minus one percent was established around that target; and iv) monetary policy decisions will be announced on predetermined dates and will be accompanied by press releases explaining the reasons that motivate any changes to the monetary policy stance.

The Inflation Reports for the second and third quarters of 2002 contain a description of the developments in monetary policy as well as the factors that the Board of Governors of Banco de México took into consideration when adopting the main elements of the inflation targeting regime to be implemented during 2003.

IV.1. Elements of the Monetary Program

The main components of the Monetary Program for 2003 are the following:

(a) The inflation target;

(b) The framework for the implementation of monetary policy;

(c) The framework for the analysis of the economic environment and inflationary pressures; and

(d) The policy of communicating with the public.

IV.1.1. Program Objectives

As specified in the Constitution, Banco de México's main objective is to ensure the stability of the Mexican currency's purchasing power. In other words, the task set before the Central

Bank is to ensure low and stable inflation in order to improve the well being of the population. Banco de México is also committed to promote the development of the financial system and to ensure that the payment systems function correctly. These latter objectives are achieved through regulation and supervision. The Inflation Report for the second quarter of 2002 established the long-term objective for inflation that will guide the Board of Governors' decisions. The long-term objective is to attain from December 2003 onwards an annual inflation of 3 percent. Considering the uncertainty involved in this process, the target was established along with a variability interval of plus/minus one percentage points.

The behavior of inflation in 2003 is expected to differ from that of the last years when sharp declines in the growth of the core tradable goods index greatly contributed to falling CPI inflation[28]. In contrast, the low levels of inflation in core tradable goods during the past months mean these prices are unlikely to make a significant contribution to the abatement of headline inflation in 2003.

As a result, the challenge for monetary policy throughout 2003 will be centered on the evolution of the core inflation of services. The growth rate of prices for services is anticipated to decline more than in 2002. However, in order for this to occur, those items associated with housing must continue on a downward path. Banco de México estimates that from the second quarter of 2003 onwards, non-core inflation will begin to converge rapidly towards core inflation levels. This along with a gradual decline in core inflation will place consumer prices on a path consistent with the 3 percent target by the end of 2003.

IV.1.2. Monetary Policy Implementation

In Mexico, monetary policy is conducted in an environment where the exchange rate and interest rates are freely determined by financial markets.

In order to signal its monetary policy intentions, Banco de México announces on a daily basis the level of the accumulated balance of total daily balances held by commercial banks at the Central Institution for the end of the computation period. For example, a zero accumulated balances objective indicates the

[28] The passthrough from exchange rate fluctuations to prices has been less intense than before. This is a symptom of greater credibility in the floating exchange rate regime. In this context, short-term movements in the exchange rate are seen as part of the inherent volatility of the currency market and are not assumed to be permanent.

Central Bank's intentions to fully satisfy the demand for currency at market interest rates, and therefore to supply the necessary resources for the entire banking sector so that the latter does not incur in overdrafts or accumulated unwanted positive balances at the end of the period.

A negative accumulated balances objective, i.e., a "short", reflects the Central Bank's intention not to supply the banking sector with all the funds requested at market interest rates. This action forces some credit institutions to obtain part of the funds required through an overdraft in their current accounts. Disregarding the possible effects of other variables, such action leads to a rise in interest rates, as financial institutions attempt to avoid paying the high rate charged on overdrafts in their current accounts at the end of the period by obtaining the needed funds from the money market. This situation signals the market that Banco de México has adopted a restrictive monetary policy stance[29].

Ocassionally, the market-determined interest rate might not be consistent with the attainment of the inflation target. Should this be the case, Banco de México would tighten the stance of monetary policy by increasing the "short".

IV.1.3. Analysis of the Economic Environment, Inflationary Pressures and the Communication Policy

The monetary policy actions implemented by the Central Bank influence the behavior of prices with a considerable lag and a high level of uncertainty. Therefore, in order to attain its objectives, the monetary authority bases its decisions on a very careful and continuous analysis of inflationary pressures[30]. This analysis is made public via the different publications of Banco de México.

IV.2. Outlook for 2003 and Balance of Risks

The performance of the Mexican economy in 2003 will be strongly conditioned by the recovery in the United States. In addition, the conditions governing the availability of external

[29] Banco de México does not withdraw money from circulation when it adopts a negative accumulated balances objective as it always seeks to provide sufficient credit to satisfy the demand for bills and coins. The difference lies in the fact that when this objective is negative part of the credit is granted at higher than market rates as a result of an overdraft in the current account of one or more commercial banks.

[30] The appendix of this Report includes monthly forecasts for the monetary base that can be used as one of several references for following monetary policy.

financing are expected to remain similar to those in 2002. A forecast of the external conditions and the main Mexican macroeconomic variables in 2003 is presented in the following pages. Finally, the most important elements of risk that are foreseen are also outlined. Should they materialize, the expected base scenario would indeed be affected.

IV.2.1. International Environment

After the erratic and sluggish expansion of the world economy and that of the United States in 2002, the recovery of both is expected to strengthen during 2003 despite the significant risks surrounding it. Forecasts regarding the consolidation of an upturn in economic activity in the United States in 2003 are based on the following factors:

(a) The significant monetary and fiscal measures implemented in 2002 oriented to prompt a more vigorous recovery of economic activity. Furthermore, at the start of January 2003, the United States Government announced a multiannual fiscal stimulus package whose effects should begin to be felt in the current year[31];

(b) The soundness of the United States economy's fundamentals during the phases of downturn in 2001 and slow recovery in 2002 staved off the more intense effects from these cycles on corporate, bank and consumers' balance sheets; and

(c) The fact that inflationary pressures in the United States are currently under control means any tightening of monetary policy will be gradual and take place after the second half of 2003, once recovery is underway.

Forecasts point to an upturn of the United States economy during the first quarter of 2003 that will become more evident from the second semester onwards. The world economy is also expected to pick up after the second quarter of 2003. As for developed countries, both the IMF and the Consensus Forecast anticipate stronger growth even in Japan. Regarding emerging markets, predictions are for an economic rebound in Latin America and continued expansion in Asian countries (Table 14).

[31] The stimulus package extends unemployment benefits and implies a reduction of nearly 98 billion US dollars in the tax burden for 2003.

Table 14 **Forecasts for GDP Growth in 2002 and 2003**

Annual percentage change

	2002		2003	
	IMF	Consensus Forecast	IMF	Consensus Forecast
World	2.8	1.7	3.7	2.3
Industrialized Economies	1.7	1.8	2.5	2.3
USA	2.2	2.4	2.6	2.7
Japan	-0.5	-0.3	1.1	0.4
Germany	0.5	0.3	2.0	0.9
France	1.2	1.0	2.3	1.7
Italy	0.7	0.4	2.3	1.5
United Kingdom	1.7	1.6	2.4	2.3
Canada	3.4	3.3	3.4	3.2
Rest of the w orld	2.6	n.a.	3.3	n.a.
Euro Zone	0.9	0.8	2.3	1.5
Asia RIEs 1/	4.7	1.9 2/	4.9	2.3 2/
Latin America	-0.6	-1.2 3/	3.0	2.2 3/

Source: World Economic Outlook (IMF), September 2002 and Consensus Forecast, December 2002.
1/ Recently-industrialized economies.
2/ Includes Pacific-Asian countries.
3/ Data from the IMF includes 14 Latin American countries while that from the Consensus Forecast covers the American Continent excluding Canada and the United States.

Given the significance of developments in the United States economy and oil prices for the economic evolution of Mexico, their outlook for 2003 is carefully examined below.

IV.2.1.1. Expected Evolution of the United States Economy and Oil Prices

According to the main indicators, the rebound of economic activity in the United States weakened during the fourth quarter of 2002. Nonetheless, some of the figures for December suggested there would be an upturn in growth during the first quarter of 2003.

On the other hand, some negative aspects concerning the evolution of the United States economy have been detected lately. Although these have not modified significantly the expectations that the economic upturn will strengthen in 2003, they constitute evidence of the fragile recovery in economic activity[32].

Should war between Iraq and the United States occur, it will probably be short-lived and will not cause sharp increases in the price of oil. This will reduce uncertainty in international markets, particularly in the United States which will, in turn, help

[32] Available data suggests a decline in consumer confidence in January 2003. Thus, Michigan University's confidence index declined from 86.7 points in December to 83.7 in January. However, mortgage application and refinancing indexes continued to grow. Finally, in mid January, the four-week average of new unemployment claims ended at around 390 thousand.

boost consumer and business confidence so expenditure patterns would return to levels consistent with the consolidation of an upturn in economic activity in that country.

The reference scenario is subject to risks that could hamper the recovery of the United States economy in 2003. Among these the following deserve mention:

(a) According to some analysts there is a possibility that the war could turn out to be more complicated than expected, which might have significant negative effects on the performance of the United States and the world economy. In this regard the following are worth mentioning:

- If there was a longer than expected conflict with Iraq, it could lead to a sustained rise in oil prices with damaging effects on economic recovery in the United States and the rest of the world[33]. Furthermore, there is a possibility that Iraqi oil production will be seriously depleted after a war. In consequence, the participation of other oil producers will be needed to maintain world supply consistent with falling prices.

- The likelihood that the conflict will exacerbate religious and ethnic struggles in the Middle East and extend to other countries in the region, further sharpening the prevailing geopolitical tensions.

(b) The weakness of the labor market in the United States is a factor of vulnerability that forestalls the upturn in consumption;

(c) The negative effects on consumption of an increase in the personal savings rate due to the loss of wealth;

(d) The delay in the recovery of investment spending and new hires by companies as they are waiting for signs of a more robust recovery of aggregate demand; and

(e) The harmful effects that a sudden correction of the external disequilibria in the United States economy could have on the international financial markets.

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[33] The most critical scenarios outlined by some analysts imply temporary hikes in oil prices of up to 60 US dollars. For further details, see the document published by the American Academy of Arts and Sciences titled *War with Irak: Consequences and Alternatives*, available at http//www.amacad.org/ publications/monographs/War_with_Iraq.pdf

Analysts surveyed in the Consensus Forecast of December anticipate an annual growth of 2.7 percent for the United States economy in 2003. This figure is very similar to the IMF's forecast (2.6 percent). They also expect that following an annual quarterly increase of nearly one percent during the fourth quarter of 2002, recovery in the United States will begin in the first quarter of 2003 and intensify in the remainder of the year (Table 15).

Table 15 **Forecasts for GDP Growth in the United States in 2003**

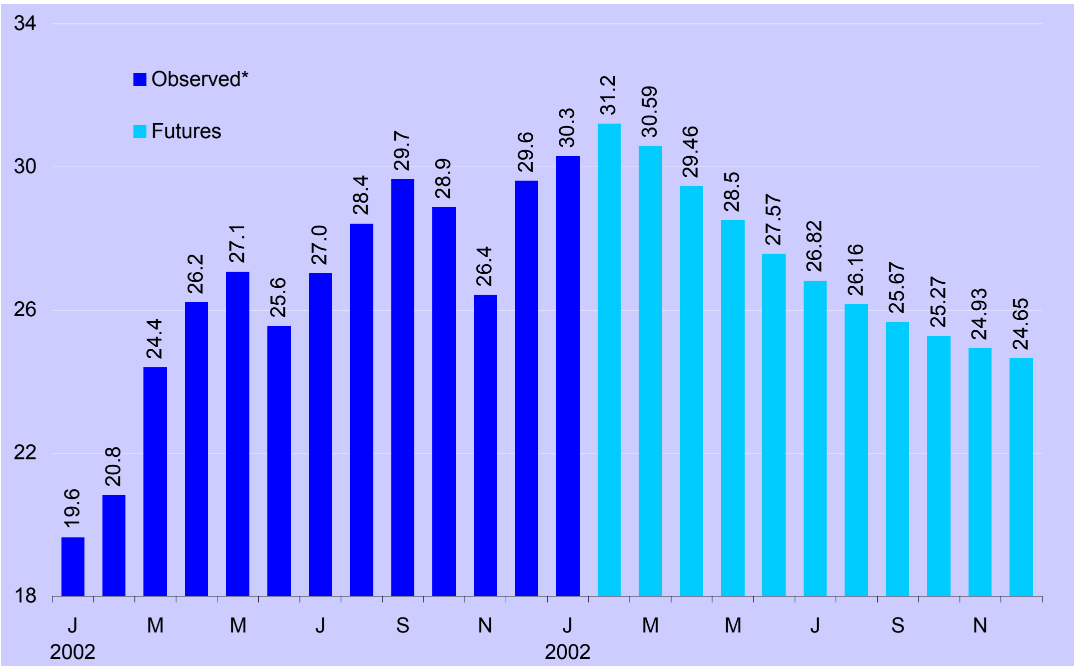
Annualized quarterly percentage change

	2003.I	2003.II	2003.III	2003.IV
Consensus Forecast	2.4	3.2	3.6	3.6
Deutsche Bank	2.0	4.0	4.0	3.9
Goldman Sachs	1.5	2.5	3.0	3.5
JP Morgan	3.0	3.0	4.0	3.5

According to the base scenario, an eventual war between the United States and Iraq will have moderate and transitory effects on the price of oil. The behavior of oil prices is expected to be similar to that observed during the Gulf War in 1990 (Graph 20).

Graph 20 **West Texas Intermediate (WTI) Oil Price for 2002 and 2003**

US dollars per barrel



Source: Reuters.
* Daily average price. Data up to January 9, 2003.

Nonetheless, the path of oil prices will be subject to a high degree of uncertainty.

Based on the above, the assumptions behind Banco de México's forecasts concerning the evolution of the external environment were modified only slightly from those published in the Inflation Report for June-September 2002:

(a) Expectations for 2003 regarding GDP growth in the United States were revised downwards from 2.8 to 2.7 percent. Meanwhile, estimates for industrial output moved from 3.1 to 2.4 percent;

(b) Given the recent volatility of oil prices and the high degree of uncertainty regarding the year 2003, Banco de México considered it appropriate to maintain assumptions for the price of the Mexican oil export mix of 17 US dollars per barrel; and

(c) Conditions governing the Mexican economy's access to international financial markets are expected to be similar to those experienced during 2002.

The approval of the Federal Budget, the Federal Revenues Law and several fiscal measures by Congress in mid-December does not represent a fundamental change in the assumptions used by Banco de México when preparing its forecast for the main economic variables in 2003. Just as in the previous year, the Federal Budget once again incorporated automatic stabilizers that, should the revenues estimated for 2003 do not materialize, provide the Ministry of Finance with the authority to cut down expenditures and thereby ensure the attainment of the targeted deficit (0.5 percent of GDP). The programmed reduction in the public deficit will contribute to lower public sector's financial requirements in the future, which, in turn, will gradually improve the soundness of public finances.

IV.2.2. Expected Evolution of the Main Macroeconomic Variables in 2003

The course of the Mexican economy during 2003 will be strongly conditioned by the following factors:

(a) The pace of the recovery of the U.S. economy, specially of its industrial sector, and the intensity with which this recovery is transmitted to the industrial and export sectors in Mexico;

(b) The evolution of oil prices;

(c) The conditions of external financing for Mexico; and

(d) The advance in the agenda of pending structural reforms required by the Mexican economy.

The rebound of economic growth in the United States will first be transmitted to Mexico through a recovery of exports and industrial activity, which will likely foster stronger consumption and investment in Mexico. Moreover, the recovery of industrial activity will be accompanied by increased imports. It is therefore foreseeable that both private sector consumption and investment will contribute to the upturn of GDP growth in Mexico. In particular, a recovery in consumption is expected to occur in the first quarter of the year, intensifying in the three remaining quarters as a result of the moderate increase in formal employment and the continuing expansion in credit for consumption. Regarding investment, a significant upturn is also expected from the first quarter of 2003 driven by increases in public investment and, to a lesser extent, by the recovery of economic activity in both the United States and Mexico.

Based on the described scenario and on available information on the evolution of the economy in the fourth quarter of 2002, Banco de México prepared the following forecasting exercise of the main macroeconomic variables for 2003.

Economic Growth: The economy is expected to grow approximately 3 percent. In the first half of 2003, the annual growth of GDP will be influenced by the statistical effects of the Easter vacation period (in 2002 it took place in March but in 2003 it will occur in April). As a result, average growth during the first two quarters of the year will be around 2.5 percent. In the second half of the year, the average annual rate of increase of GDP is expected to be close to 3.5 percent.

As mentioned earlier in this Report, productivity gains in Mexican manufacturing exports were lower than those observed in the United States' manufacturing industry. In recent years, Mexican exports have faced more competition in the U.S. market while other countries have increased their penetration. In addition, indexes regarding the competitiveness of the Mexican economy, calculated by different international institutions, have also deteriorated over the last few years. These factors could have a negative impact not only on the recovery of growth in 2003 but also on the potential expansion of the Mexican economy.

Employment: Since increases in contractual wages have eased only slightly despite the prevailing slack in the labor market, the recovery of economic activity will not be accompanied by a substantial improvement in employment. Moreover, it is very likely that the 4.5 percent rise in minimum wages will set a lower limit for contractual wage revisions. Thus, the modest downward trend of contractual wage increases will have an adverse effect on job creation in the formal sector. It should be remembered that at the start of an economic rebound output normally expands without having immediate increases in the demand for labor. In consequence, the creation of formal jobs in 2003 will be much lower than the expansion of the labor force. In this regard, it is estimated that around 300 thousand formal jobs will be created between December 2002 and December 2003 (Box 2).

Current Account: In light of estimates that foresee that the initial impulse for GDP expansion will stem from the external sector, the recovery of domestic spending will only induce a modest widening of the current account deficit, which will reach nearly 3 percent of GDP.

Inflation: As for the expected path of CPI inflation and its subindexes, the following developments are noteworthy:

(a) Headline inflation will likely tend to converge towards core inflation and the inflation target from the second quarter on mainly as a result of the following factors:

- The statistical effects derived from increases in residential electricity prices applied in February and March of 2002 will disappear from the second quarter onwards.

- Inflation of the subindex of agricultural products is expected to decline slightly from March 2003 onwards. In particular, inflation of these prices is expected to decrease in January, rebound in February and fall again in March. February's increase arises from the statistical effect of the decline in agricultural prices registered during the same month of 2002 on annual inflation.

(b) It is very unlikely that inflation of the core subindex of tradable goods will experience further reductions in 2003 given the low levels it has already reached. Meanwhile, estimates for core inflation of services are that it will register a decline throughout the year and probably intensify during the second quarter. The latter is partly based on expectations that the upturn in housing prices that began in the middle of 2001 will start to revert in the second quarter. Furthermore, prices for the rest of services will continue on the same downward path shown over the last few years. In order for this to take place contractual wage settlements must be based on a combination of reasonable estimates for labor productivity gains and inflation expectations consistent with the 3 percent target.

(c) The path of inflation of the non-core subindexes is subject to a great deal of uncertainty. As seen in 2002, it is crucial that administered and regulated prices be determined in line with the inflation target. The Ministry of Finance recently announced that public prices will rise 2.7 percent on average in 2003. The expected inflation of goods included in the subindex of administered and regulated prices is the only item to consider when estimating the impact of increases in public prices on CPI inflation. This is due to the fact that some public prices correspond to goods that are inputs in the production process and, therefore, are included in the producer price index and not in the CPI. On the basis of this consideration, Banco de México estimates that core inflation of the subindex of prices administered and regulated by the public sector will be around 3.5 percent in 2003. On a merely a statistical basis, annual inflation of the aforementioned subindex is expected to decline after the first quarter. Furthermore, due to its link with international energy prices, the price of gas could increase in the first months of the year and then decrease in summer. Meanwhile, gasoline prices are anticipated to fall throughout the year. Finally, prices regulated by the public sector and education prices will come down slightly during 2003.

IV.2.3. Balance of Risks

The base scenario reveals an unusual degree of uncertainty due to the presence of several risks. Among the external ones are:

(a) A weaker than expected recovery of the United States economy or, in an extreme case, another recession. The latter could occur should any of the following materialize:

- A prolongued war with Iraq that extends to other countries in the region. This could affect oil prices, geopolitical stability and stock markets;

- A substantial decline in private consumer spending as a consequence of the recent loss of wealth suffered by households in the United States and a sudden correction in the low levels of saving in that country. Moreover, the latter could further delay firms' investment expenditure; and

- A rapid adjustment in the United States' current account deficit. This would have a significant impact on dollar exchange rates and, most likely, be accompanied by increased volatility in international capital markets.

(b) A contraction of capital flows to the emerging economies, specially to Latin American countries. This could be brought about by a combination of worsening financial and political difficulties in some countries in the region and an unstable international environment.

Economic recovery in Mexico would clearly be hampered if any of the above scenarios materialize. However, their impact on inflation would be ambiguous. On the one hand, lower than expected economic growth would weaken inflationary pressures, while on the other, unfavorable disturbances in exports, economic activity and international capital markets could widen the external deficit. The latter could lead to a depreciation of the exchange rate and also induce additional inflationary pressures in the presence of a significant recovery in the passthrough of fluctuations in the exchange rate to domestic prices.

The main domestic risks that could affect the base scenario are:

(a) Slow progress in the implementation of structural reforms in 2003 could lead to downward revisions in growth expectations in the medium and long terms;

(b) The absence of the downward inflection in wage increases needed to significantly reduce core inflation of services;

(c) A more moderate than expected job creation in the formal sector of the economy which will have adverse effects on the recovery of consumption; and

(d) A significant recovery in the intensity of the passthrough of fluctuations in the exchange rate to prices, which has weakened considerably over the last few years.

The lack of progress in the agenda of structural reforms required by the Mexican economy has negative effects on domestic and foreign investment and at the same time jeopardizes the future growth of productivity, employment and real wages. Besides, such delay limits the country's economic capacity to generate domestic sources of growth and prevents the authorities from implementing countercyclical policies, which are extremely important in the context of a weak world economy. A clear example of this are recent developments in the Canadian economy, which after having carried out far reaching fiscal, monetary and labor reforms has freed itself from the effects of the negative performance of the economy of its main trading partner, the United States (Box 4).

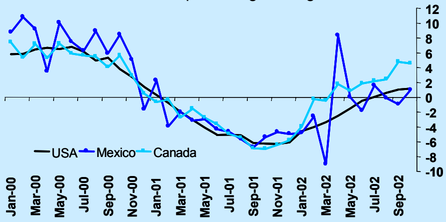
The above, coupled with a deterioration of perceptions regarding the soundness of public finances in the context of slower than expected growth, could make the Mexican economy vulnerable to speculative pressures that would undermine a recovery. Combined with insufficient easing in contractual wage rises, this would lead to a much smaller increase in employment than the already modest forecast included in the base scenario and also widen the existing gap between labor supply and job creation in the formal sector of the economy. Moreover, should the phenomena described in (b) materialize, a more restrictive monetary policy would have to be implemented to attain the inflation target of 3 percent at year-end.

Over the next few months, the Board of Governors of Banco de México will continue to carefully analyze the behavior of the main determinants of inflation. Based on their evolution and, consequently, of inflationary pressures that may be identified, the Central Bank will determine the monetary policy actions necessary to accomplish the inflation objective set forth for 2003 and subsequent years.

Box 4
The Canadian Economy in the Midst of the United States' Slowdown

Since the first quarter of 2000, NAFTA countries have experienced a syncronized downturn in economic growth. The high level of economic integration of Canada and Mexico with the United States is reflected in the high correlation of their indexes of manufacturing production.

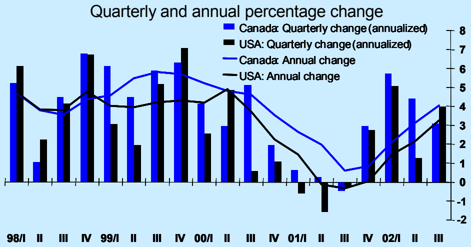
Graph 1
Manufacturing Production
Annual percentage change



Source: Banco de México, Statistics Canada, and U.S. Federal Reserve Board.

Out of the three countries, Canada had the best performance during the recent downward cycle. While GDP in the United States registered three consecutive quarters of contraction, Canada experienced a downturn in economic activity without posting negative annual variations in GDP or lower levels of investment. Furthermore, during 2002 its recovery was more vigorous than that of the United States and its rate of growth was the highest of all G-7 countries. As a result, during the recession period in the United States, Canada's economy slowed down less markedly than that of Mexico despite the fact that Canadian exports to the United States account for 34% of its GDP while those of Mexico represent 26%.

Graph 2
Gross National Product: Canada-USA
Quarterly and annual percentage change



Source: Statistics Canada and BEA.

The recent behavior of the Canadian economy differs not only from that of Mexico but also from its own experience in past economic cycles. The change in the cyclical pattern is attributed to the set of reforms implemented during the last decade.

At the beginning of the nineties Canada experienced a long and severe recession fueled by that of the United States as well as its own substantial macroeconomic disequilibria accumulated in the past. The high ratio of public debt to GDP stemmed from the continuous fiscal deficits of previous years. Inflation remained high and there was a loss of competitiveness due to rising unit labor costs. Moreover, unemployment reached 12%, slightly below its maximum historic level.

These disequilibria led the Canadian government to implement an ambitious program of economic reestructuring to raise productivity and promote financial stability. Such program included as its main elements: reforms in the labor market and in the public pensions system, tax changes, trade and financial liberalization, adoption of the inflation-targeting framework, and fiscal deficit controls (in 1992 it reached 9 points of GDP). Although this drastic program of adjustment reduced the pace of growth of Canada in the first half of the nineties, it set the foundations for the country's good performance in the following years.

Regarding labor, the excessive generosity of the Canadian unemployment insurance during the seventies and eighties created considerable distortions in the labor market that led to high levels of structural unemployment.

The purpose of the labor reform was to improve the flexibility and efficiency of this market. In order to do so, unemployment benefits were cut down and the "rule of intensity" (penalties for frequent users of unemployment insurance) was introduced. The existing distortions were succesfully eliminated, therefore reducing the natural rate of unemployment and raising labor force participation.

Fiscal efforts translated into budget equilibrium in 1997 and a surplus of 3.6 points of GDP in 2000 (with a primary surplus close to 7 points of GDP). Furthermore, the debt to GDP ratio went from 76 points in 1995 to 50 points in 2002, a level below the average in G-7 countries.

Regarding monetary policy, in 1991 the Bank of Canada adopted an inflation-targeting framework. This scheme was applied initially as a band centered in an inflation of 5% with an interval of plus/minus 1% and a downward trend. Later, in 1995, when inflation reached nearly 3%, an interval between 1 and 3% was adopted as the target and efforts to achieve greater transparency in the monetary policy framework were also intensified.

The attainment of positive GDP growth rates in Canada in the midst of the recent global downturn is explained by the soundness of its economy as a result of all the reforms undertaken. The correction of the fiscal deficit and the existence of a large surplus in the current account (4.7 percent of GDP in the first quarter of 2001) gave economic policy a considerable margin to operate. As described below:

- Fiscal consolidation led to the setting of a policy to reduce tax rates in 2000, which, albeit not programmed as a countercyclical measure, boosted consumption and private investment.
- The credibility of the Central Bank due to the attainment of the inflation targets allowed the Bank of Canada to ease monetary policy. Low interest rates stimulated domestic demand while an orderly and moderate depreciation of the exchange rate induced a positive contribution of the external sector to growth.

The structural reforms apparently raised the growth potential of Canada's GDP. Furthermore, by mitigating the existent rigidities in the labor market they also favored the expansion of employment as well as the growth in households' income, which is evidenced by the strength of domestic demand.

The above reforms allowed fiscal and monetary policies to react in a timely and countercyclical manner, thus laying the foundations that enabled Canada to decouple from a very intense global slowdown.

V. Final Remarks

The weakness of the world economy, specially that of the United States, continued to have an adverse impact on the Mexican economy. GDP is estimated to have grown around one percent in 2002 thereby evidencing a decline in GDP per capita for two consecutive years. Another extremely worrisome aspect of the present economic environment is insufficient job creation. Although this has been a consequence of sluggish economic growth it has also been influenced by the fact that contractual wage settlements have not been based on reasonable estimates for labor productivity gains and on inflation expectations consistent with the target.

Just as in 2001, the Mexican economy could not decouple from the influence of the weak international economic environment. Nevertheless, its strengths allowed it to maintain orderly conditions in the financial markets and avoid contagion from other economies in the region that experienced high levels of volatility[34]. As a result, the global slowdown has had less impact in Mexico than in other countries.

In 2002, for the first time in four years, annual CPI inflation was above the objective. This behavior responded to increases in the subindexes of administered and regulated prices and of prices of agricultural products. Nonetheless, core inflation remained on its downward path throughout the year mainly as a result of the following:

- A substantial decline in annual core inflation of tradable goods and the absence of a passthrough from the depreciation of the exchange rate to this subindex; and

- The downward rigidity of the annual inflation of services due to the fact that decreases in the corresponding subindex were limited by the rebound in inflation of housing and by contractual wage increases.

In 2002, monetary policy focused on preventing any contagion effects on medium-term inflation expectations associated

[34] Among the most outstanding elements of strength are the solvency of the public finances, the abatement of inflation, the soundness of the financial system and the fact that the public sector's external financing requirements for 2003 have already been satisfied.

with the increase in headline inflation, and on further reducing inflation in the services sector. During 2003, monetary policy will continue to face these pressures. Should these persist, they could forestall the attainment of the inflation objective for 2003. Based on these considerations, the Board of Governors of Banco de México will continue to permanently assess the evolution of the economy and, in particular, the expected behavior of inflation in order to keep the monetary conditions in line with the target.

The forecasts presented in this document point to an upturn of economic activity in 2003. Nevertheless, growth and job creation will be modest. If this occurs, per capita GDP at year-end 2003 will still be lower than that registered at the end of 2000 and formal employment will be at levels similar to those observed in that year. Furthermore, the reduced penetration of Mexican exports in the United States during 2002 coupled with the deterioration in the indexes of competitiveness of the Mexican economy indicate a likely decrease in its potential growth. Under such a scenario it is worth stressing the importance of resuming, as soon as possible, the modernization process of the country's economic structure in order to create investment opportunities, raise labor productivity, generate well paid jobs, accelerate output growth and, thereby, improve in a significant and lasting manner the well-being of the population.

Appendix: Forecast of the Demand for Monetary Base in 2003

The assessment of a wide range of economic indicators is a fundamental part of the inflation targeting regime adopted by Banco de México. In this respect, although the growth of the monetary base is not an objective for the Central Bank, in order to provide information that could be useful for monetary policy evaluation the expected monthly path of the stock of the monetary base for 2003 is presented below[35] (Table 16). This forecast is compatible with the following assumptions: GDP growth of 3 percent in real terms; annual inflation of 3 percent; and remonetization of 7.5 percent. Based on the above, the monetary base stock by December 31, 2003 is expected to be 300.9 thousand million pesos, a figure 14 percent higher than that observed on the same date of 2002. Confidence interval limits, considering one standard deviation of the residuals of the model, correspond to stocks of 309.9 and 291.9 thousand million pesos[36].

The independent variables used in the model to estimate the demand for base money are: economic activity, interest rates, the lags of the dependent variable, variables explaining the presence of remonetization in a scenario of declining inflation, and a set of dummy variables that try to capture all seasonal effects. As has been mentioned in previous occasions, the path of the monetary base is very difficult to specify for the following reasons: a) the basic assumptions used in monetary base forecasts may not materialize; b) the relationship between the demand for base money and the variables explaining its evolution can change over time[37]; c) the presence of extraordinary events could lead to transitory changes in the demand for base money[38]; and d) unusual seasonal effects.

[35] For information on the daily path of the stock of the monetary base consistent with this monthly forecast please refer to Banco de México's web page (www.banxico.org.mx Economic and Financial Indicators, Table "Observed and Forecasted Monetary Base").

[36] Plus/minus 3 percent of the forecasted year-end stock.

[37] For example, technological innovation, changes in payment practices or the expansion of the informal economy could influence the demand for cash.

[38] For example, the uncertainty related to the Y2K problem created a temporary increase in the demand for bills and coins (see Monetary Program 2000, Banco de México).

Table 16

Forecast for the Monetary Base in 2003

Stocks at end-month in thousand million pesos

January	246.6
February	240.5
March	239.5
April	244.4
May	245.5
June	244.7
July	247.2
August	246.0
September	244.1
October	248.7
November	262.0
December	300.9