# REPORT ON MONETARY POLICY FOR 1998



Governor

GUILLERMO ORTIZ MARTINEZ

**DEPUTY GOVERNORS** 

GUILLERMO GÜEMEZ GARCIA JESUS MARCOS YACAMAN JUAN JOSE SIDAOUI DIB In compliance with Article 51, Section I, of the Banco de México Law, the Board of Governors of this Institution hereby presents this exposition on the monetary policy for the period January 1st. to December 31st., 1998 to the Federal Executive and the Congress of the Union.

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#### I. INTRODUCTION

During 1997, the country's main macroeconomic variables showed, in general, a favorable evolution. This is evident when considering the following:

- a) GDP and employment indicators grew at a faster pace. The first concept is estimated to have risen at an annual rate of 7.3 percent, while in the formal sector of the economy, more than 600, 000 employements were created;
- b) Investment grew faster than GDP (at an estimated 20.3 percent rate), a phenomenon that favored further economic development;
- c) Even if consumption figures showed a significant recovery, its growth (an estimated annual 5.4 percent) was smaller than that of economic activity, which led to a rise in domestic savings;
- d) The inflation figure for 1997 (15.7 percent), remained quite close to the original 15 percent goal;
- e) The public's inflationary expectations adjusted downwards, which allowed for significant nominal and real interest rate reductions;
- f) Export growth continued to be quite vigorous (15 percent during 1997) and it is expected that the current account deficit will turn out to be slightly higher than the figure estimated in the 1997 economic program;
- g) Capital inflow composition was satisfactory, as foreign direct investment and medium and long term private foreign debt prevailed over short term portfolio investment;

- h) Banco de Mexico's international asset accumulation (13,511 million dollars) was considerably larger than expected (2,500 million dollars); and,
- i) Last, but not least, the great discipline of public finances.

All these elements, together with a favorable international environment, gave the foreign exchange market considerable stability.

The factors mentioned above distinctly show that the Mexican economy's strength is not merely circumstantial, but that important progress in its fundamental aspects has been achieved. Among these elements, the strengthening of investment and savings, which in turn, suggests a greater future impulse to economic growth, employment, labor productivity and real wages, stands out. The sustained decline in inflation, inflationary expectations and interest rates, not only support the investment process but have also eased the adjustment of over-indebtedness afflicting households and companies alike, which, in turn has increased their expenditure capacity.

However, even though the 1997 current account deficit was greater than in 1996, it was easily financed through direct foreign investment, totalling an estimated 5,000 million dollars, well above the current account deficit. Furthermore, long term capital inflows and those channeled through the stock market allowed for an important international asset accumulation, which helped to strengthen our external payment capacity. During the last months, all these factors have coincided with a small net amortization of foreign held investments in domestic currency-denominated debt instruments. The stock of this kind of investment in the country barely exceeds, to date, two billion dollars, quite a small balance compared to a level of more than thirty billion dollars at the end of 1994. The floating exchange rate regime has contributed to limit the attractiveness of this sort of investment in the country.

The macroeconomic framework just described, already evident from the beginning of the fourth quarter of 1997, allowed then to envisage a promising economic environment for

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1998, whose main features would lie in an accelerated growth of GDP -above 5 percentdecreasing inflation and a surplus in the balance of payments (which would in turn reflect on a net foreign asset accumulation). This setting was also based on expectations of a favorable external environment, particularly concerning the rate of economic growth of our main trading partner -the United States- and a reasonable degree of liquidity and stability in the international financial markets.

Nevertheless, the international environment has suffered, without warning, substantial changes in the last months. Thailand's financial crisis, which began in July 1997, spread to other Asian countries at such an unusual speed that, at the end of the year, Indonesia, the Philippines, Malaysia, Singapore, Taiwan, Hong Kong and Korea had also been touched. This situation has also had a significant impact on Japan and Brazil. A clear evidence that such a virulent crisis was not expected emerges from the evolution in the last three months of the International Monetary Fund's 1998 economic growth forecast for these countries. In October1997, the IMF anticipated a 5.8 percent economic growth for the group of countries mentioned above; three months later, it has adjusted its forecast to only 2.8 percent, although private analysts believe it is going to be lower than that figure.

The Asian economies' collapse can be briefly explained as follows: during a relatively long period (from the end of the eighties to the beginning of 1997) these economies attracted massive amounts of short-term capital, out of which, a good part went to the financial system. The area's financial institutions then channeled an important share of these funds to highly risky investment projects, mainly in the real estate sector. The prices of said assets started to rise disproportionately, attracting more investment into this sector. Such investments were guaranteed with resources from the domestic financial markets. The price bubble reached exaggerated levels, so that, in the end, there had to be a market correction to burst said bubble. This generated a considerable disparity between the credits' worth and the value of the guarantees (since property price fell), which started to reflect in substantial rises in the non-performing debt portfolio as well as in a growing weakness of the financial system. These economies had also, as one of their main features, predetermined exchange rate regimes which are very difficult to support, in case of pressures, if the financial system is weak (This should remind the Mexican situation at the end of 1994). Under such circumstances, the interest rate increases required to support the exchange rate can hardly take place, because they would generate a crisis in the financial system. Unfortunately, the region's foreign exchange markets were under strong pressure during mid-1997, mainly due to disruptions in the terms of trade. Considering the difficulties faced by these countries in order to support their respective exchange rates, given the weakness of their financial systems, speculation against their currencies intensified, making the collapse of their foreign exchange schemes inevitable. Paradoxically, this last element led the financial system to still a deeper crisis.

The Asian crisis can have a twofold influence on the Mexican economy: first, through the trade balance. The Asian crisis has brought a substantial real appreciation of the domestic currency with respect to those of the Asian countries that compete against us in the United States market, which will hinder the growth of some of our exports there and could potentially encourage our imports. Moreover, it is considered that the Asian crisis will significantly lower the growth of the industrialized economies, including that of the United States, lowering the demand growth of our products abroad. Second, the effects of the Asian crisis on our economy are made evident through the impact on the capital inflows into Mexico. The existence of factors that could potentially encourage capital inflows into the country (such as the relative strength of the Mexican economy) does not prevent the presence of other elements that could potentially deter this inflow (such as a worldwide asset deflation that would substantially lower capital exports from industrialized countries). This is why it might be premature to make any judgements about the situation, but in any case, it would be wise to assume that, during 1998, the international financial markets will be more volatile and that Mexico's access to foreign resources will not be as easy as during 1997. Thus, depending on the deepness and duration of the Asian crisis, lower economic growth could be seen, as well as a higher current account deficit and additional inflationary pressures.

This environment, albeit different from the one taken into account when drafting the Executive's document *Criterios Generales de Política Económica para 1998* (General Economic Policy Criteria for 1998), does not nullify the macroeconomic framework considered in it. Thus, given the possibility of a more volatile and difficult international environment than originally expected, it is desirable that the economic policy measures to be implemented during the year are more flexible, more coordinated and directed towards the continuation of the strengthening efforts of our national economy. This way, the country will be in better condition to absorb, at the least possible cost, potential disruptions from abroad.

It should be bore in mind that, during the recent months, the destabilizing events faced by the international financial markets resulting from the Asian economies' crisis, along with the fall of the international oil price have had, to date, limited effects on the domestic economy. This is due to the fact that the disruptions emerged at a moment when the Mexican economy is fundamentally healthy as well as to the fact that there have been timely adjustments to economic policy. The latter was made evident last January 14, when an adjustment to public spending -for an amount equivalent to 0.4 percent of GDP-was decided to offset the effects of the fall in the export crude oil price on public revenues. Nevertheless, the great external volatility that our economy is facing can affect the behavior of the main macroeconomic variables generating imbalances whose redressment could call for the adoption of additional measures.

Considering the above mentioned facts, Banco de México's monetary policy program for 1998 takes into account the possibility of having to implement this program under a considerably volatile international environment. Therefore the program anticipates the application of specific rules to avoid the creation of excess money supply and, most importantly under the present circumstances, to make use of the possibility of adjusting monetary policy trough discretionary actions implemented by the central bank (by adopting either "long" or "short" positions) as precaution against the possible effects of the unsettling disruptions that could affect the country. The adding of this last element to the monetary program is explained by the fact that, except for very few occasions, monetary policies supported exclusively with automatic implementation rules do not seem to have been enough to contain financial turbulence from appearing from time to time, either slowing down the stabilization process or risking the achieved stability. Thus, the monetary program includes a flexible element, allowing the monetary authority to react in the face of unexpected circumstances with a greater probability of reaching a sustainable abatement of the rate of inflation.

To achieve and sustain a lower inflation, particularly under circumstances of great uncertainty in the global economy, monetary policy actions must count with the support of other economic policy elements, such as the fiscal component, wages, trade and structural change. If there is no coordination among the different aspects of economic policy, the monetary authority's actions might generate unnecessary disturbances to economic activity. In fact, there are instances in which it becomes easier to absorb the impact of certain disruptions through adjustments in some measures of economic policy different from the monetary sphere.

Banco de México is not the only central bank whose main assignment lies in abating inflation. During the last years, central banks in several other countries have been granted autonomy in the performance of their duties having been assigned a mission similar to that of Banco de México. This convergence of opinions as to which should be the main task of a modern central bank is not a mere coincidence. It is a consequence of the idea, extensively validated by the experiences of numerous countries, that the best way a central bank can effectively contribute to economic growth, to employment creation and to the recovery of real wages -in brief, to the population's welfare-, lies in the implementation of a monetary policy aimed at lowering inflation.

Economic growth primarily depends on the amount of available inputs, on technology and on the efficiency of the legal framework. In this context, it should be brought to mind that investment in physical and human capital, as well as the creation and implementation of technological innovations, are influenced by the macroeconomic climate, and particularly by the inflation level and by inflationary expectations. A high and escalating inflation discourages saving and investment because of its destructive effect on interest rates. Furthermore, high interest rates brought about by rising inflation not only affect investment in new projects, but also the indebted companies' and the household's spending capacity.

However, the only effective formula found to steadily lower interest rates has been to implement a monetary policy oriented to foster the stability of the general price level. In times of price stability, nominal interest rates tend to be lower than in inflationary times, because savers do not require compensation for the deteriorated real value of the resources they have lent. Another reason why not only nominal interest rates, but also real rates tend to be lower in times of stability is that under those circumstances, it is easier to forecast more precisely the future price level. Consequently, investors do not require a risk premium in case the price level turns out to be higher than expected. Thus, a monetary policy embracing the principle of lowering inflation leads to higher economic growth.

However, it is not exclusively through lowering interest rates that a monetary policy concentrated on abating inflation contributes to economic growth. On one hand, once a substantial degree of price stability is consolidated over time, it is possible that fixed rate, long term funding might materialize. These funds are particularly useful to foster housing and industrial infrastructure investment. Additionally, the lower real interest rate volatility resulting from stability, favors a better evaluation of investment projects' costs and benefits. As uncertainty over projects' profitability decreases, more investments are undertaken. Lastly, a stable environment favors fewer shifts in relative prices, which in turn fosters a more efficient allocation of productive factors, avoiding distortions in their remuneration.

An extremely important element should be added to the previous argument: lowering inflation works towards employment and real wages recovery. In fact, by encouraging decreasing interest rates and fostering domestic savings, stability is an incentive to invest in productive infrastructure and technology. Running these facilities and using a better

technology will in turn raise real wages by generating more labor demand and increasing labor productivity.

There are two reasons why avoiding inflation recurrence is not only an economic goal but also a social one. It is common knowledge that a sustained rise in prices brings about a substantially regressive income and wealth redistribution. It is more harming to those who have less. In inflationary periods, and particularly when inflation is severe, prices tend to rise faster than wages, as it has been observed in our country as well as everywhere else. At the same time, the loss of money's purchasing power has its hardest effects on those who are poorer, who usually keep a high percentage of their income in bills and coins and normally do not have access to investment formulae allowing them to remain protected against this loss. Inflation has severe social effects through the creation of an unfair resource shift from one person to another. All these adverse consequences of inflation have been observed in the countries that have suffered it. Mexicans also have recently suffered the evil consequences of inflation.

The conclusion that emerges from the above mentioned arguments is that striving to abate inflation must be considered, undoubtedly, as one of the main objectives of the economic strategy. To this respect, almost every country shares the opinion that monetary policy is the natural instrument to carry out this task and the central bank is the State's institution commited to accomplishing such objective. The reason for this lies in that, in the long term, inflation is a monetary phenomenon.

From an empirical point of view, the long term direct relationship between the expansion rate of the monetary base and inflation, once the changes in the velocity of money and of the economy's production volume are taken into account, has been largely validated. This correlation exists because the central bank, unlike other credit granting institutions, has the singular power to provide unlimited financing without having to raise the corresponding funds. Thus, the central bank can increase, in nominal terms, the purchasing power of economic agents even if they do not increase their production.

However, it is well known that when demand for goods and services grows, while supply remains unchanged, prices tend to rise, turning into greater inflation.

Unfortunately, when the starting point relates to moderate or high inflationary levels, the task of abating inflation is more complicated than it would appear at first sight. In the short term, efforts in this direction can be affected by a series of elements of economic, political and social nature out of the monetary authority's control. Among these factors can be found:

- (a) inflation inertia, which is mainly caused by the inflationary history of the country in question and that has an effect on the building of expectations about the future level of the price index;
- (b) the administrative fixing of certain key prices in the economy (which in the Mexican case would mainly be minimum wages and prices and tariffs for public goods and services) which can be inconsistent with the predetermined inflation objective; and
- (c) certain developments that could deteriorate the terms of trade and, in general, bring about changes in the equilibrium relative prices.

A central bank could certainly restrict its monetary policy stance with the purpose of counteracting inflationary pressures that could result, in the short term, from one or several of the factors mentioned above. Nevertheless, such a reaction, in a context where economic agents do not adjust either their expectations proportionally or their price and wage decisions in response to the authority's actions, might have a bearing on labor, financial and certain inputs' (such as electricity and gasoline) costs, too high in real terms for the companies. Profit margins would decrease, even to become negative, along with the fact that domestic producers would be seen losing competitiveness vis à vis the rest of the world. All this would lead to lower investment, employment and economic activity, with potentially high costs on social welfare. It is precisely the high costs that would, under the circumstances mentioned above, together with attempts to accelerate inflation

reduction that would explain the tendency of central banks to adjust the intensity of their policies aimed at price stabilization.

Based on this, it should be emphasized that, to lower inflation avoiding at the same time the social cost of this task, it is necessary that other aspects of economic policy, besides monetary policy, also focus on the same objective. Should this coordination among the diverse aspects of economic policy be absent, the process of price stabilization can lose effectiveness and even generate unnecessary costs. The conclusion is clear: a monetary policy against inflation is a necessary, but not sufficient, element to reach the best outcome in the fight against price rises.

During 1997, the elements and policies consistent with inflation abatement were effectively combined in Mexico. The outcomes on the subject of inflation validate this view: the yearly rate of change of the general price index was 15.7 percent, quite close to the 15 percent goal set at the beginning of the year and substantially lower than the level at the close of 1996, which reached 27.7 percent. This 12 percentage point reduction is still more significant if related to a real GDP growth which is estimated at 7.3 percent, the highest rate of economic growth in the last sixteen years. This is the kind of outcomes that validate the view held by Banco de México's Board of Governors that only through providing price stability can monetary policy make its largest contribution to the country's economic development.

Another outstanding development in the macroeconomic environment during 1997, was the great resilience shown by the Mexican economy in the face of the considerable instability of the international financial markets during the second semester of last year. This instability was mainly caused by the crises in several Asian countries. Table 1 shows how the main emerging countries performed, during the second semester of 1997, in the following variables: exchange rate of their domestic currency related to that of the United States, interest rates and price indices of their respective stock exchanges. The Table shows the considerable stability of said figures in the case of Mexico. This can be attributed to the presence of three main factors:

- (a) the consistency in the economic program implemented during 1997;
- (b) the freedom in interest rate determination and,
- (c) the floating exchange rate regime.

Given their relevance, it is convenient to broaden the understanding of the stabilizing virtues that floating exchange rate and interest rate policies show when there is capital flight. With a floating exchange rate and free setting of interest rates, such as the ones implemented in Mexico, it is logical to expect selling of domestic currency denominated assets as well as US dollar purchases made by investors which in turn should bring about a rise in interest rates as well as in the exchange rate, assuming that other elements remain constant. The automatic changes in these variables have the virtue of adjusting the short term capital flows. In fact, when there are stimuli towards capital outflows, exchange as well as interest rates adjust simultaneously to discourage the sale of domestic currency denominated assets through a lowering of their price and a raise in that of the foreign currency. This price adjustment continues until capital outflows finally stop. Symmetrically, the opposite happens to the above mentioned variables when the stimuli work towards capital inflows.

TABLE 1 FINANCIAL INDICATORS OF CERTAIN ASIAN AND LATIN AMERICAN COUNTRIES From July 1st, 1997 to January 19, 1998

	Exchange rate variation <sup>1</sup>	Stock market variation <sup>2</sup>	Interest rate variation <sup>3</sup>
Hong Kong	-0.14%	-38.05%	653
Argentina	0.00%	-23.19%	375
Brazil	3.99%	-27.15%	1,995
Venezuela	4.41%	-22.25%	38
Chile	9.70%	-38.39%	70
Japan	12.05%	-28.07%	18
Ecuador	12.93%	-0.01%	650 <sup>4/</sup>

Colombia	21.41%	-3.64%	180	
Singapore	21.58%	-44.90%	225	
Philippines	55.63%	-59.56%	131	
Malaysia	64.56%	-66.82%	233	
South Korea	78.42%	-60.90%	1,110	
Thailand	114.14%	-62.74%	-225	
Indonesia	321.46%	-85.76%	1,975	
Mexico	3.29%	2.49%	-255	

1 Domestic currency per dollar. Positive sign indicates a depreciation.

2 Dollars

3 Base point changes

4 As of January 1998

Source: Bloomberg

Of course, the rise in interest rates given capital outflows are not desirable. But as has been observed repeatedly in the past, it is wise to accept temporary raises in interest rates which will allow to continue on the path towards stability. Only stability can lead to low and sustainable real and nominal interest rates. If, attempting to avoid interest rate increases, Banco de México relaxed its stance on monetary policy, inflation would go higher and, still worse, inflationary expectations would deteriorate. The outcome, not immediately but subsequently, would reflect in higher real and nominal interest rates. This would be so because if interest rates were to remain unchanged for a certain period, investors could sell their holdings of debt instruments without penalizing their price. Under these conditions, investors would be encouraged to quickly close their positions and use the pesos received from such a transaction to buy foreign currency. This would contribute to further depreciate the exchange rate giving way to still greater inflation.

In a situation where there is massive asset selling, under a floating exchange rate regime, the exchange rate depreciation complements the interest rate adjustment. The devaluating exchange rate will put a price on speculation against the domestic currency. Under circumstances such as the one previously described, foreign currency purchases can lead the exchange rate to exaggerated levels. Given the fact that these levels are inconsistent with the fundamentals of the economy, the domestic currency value will sooner or later tend to recover, inflicting considerable losses to those who acquired high priced foreign currency. This has been the Mexican experience in several instances since the establishment of the floating exchange rate regime.

A floating exchange rate has another virtue related to the little or no compromising of the country's international reserves. The preservation of these reserves reduces country risk and allows an increase in the possibilities of refinancing our external liabilities, which in turn, gives those who hold Mexican foreign debt more security.

During 1998, Banco de México, through the execution of a free exchange and interest rate determination policy, will contribute to lower inflation to 12 percent, which is the level established as the objective for the year in the document titled *Criterios Generales de Política Económica* (General Criteria for Economic Policy) submitted to Congress by the Executive on November, 1997. This is the best contribution a central bank can make to foster a more efficient performance of the economy, employment creation, an enhancement of income distribution throughout the country and, in general, to raise the living standards of the population.

Before presenting the 1998 monetary program, the next section makes a brief assessment of the outcomes for 1997 with regard to both the monetary and the inflationary aspects.

#### II. ASSESSMENT OF THE 1997 MONETARY PROGRAM

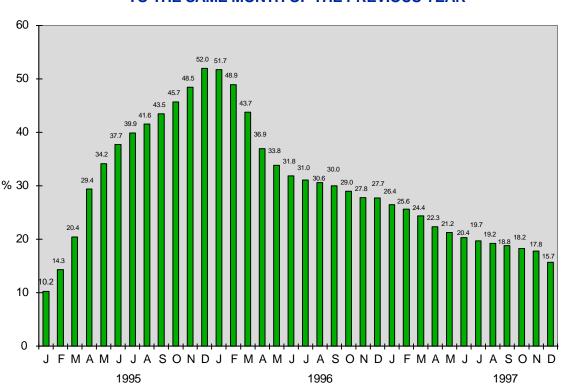
This section intends to present an assessment of the 1997 monetary program. The primary objective of this program was to contribute to the abatement of the annual inflation rate down to 15 percent for the close of 1997.

The program consisted of the following elements:

- a) In the original version of the program, Banco de México made the commitment not to carry out open market transactions with the purpose of generating positive accumulated balances in the current accounts that credit institutions hold with the central bank, that is, Banco de México commited to avoid the use of "longs". This measure was adopted with the purpose of dissipating any possible doubt as to whether it would adopt an expansive monetary policy in anticipation of the June 1997 federal elections. Temporarily dispensing with the use of this instrument was suspended last September, in response to the reasons exposed below.
- b) With the purpose of providing the public with an element of information and analysis during 1997, Banco de México decided to publish the daily expected path of the monetary base for that year consistent with a 15 percent inflation objetive and with the materialization of the assumptions adopted for GDP growth, interest rates and remonetization.
- c) With the intention of assuring that no inflationary pressures would generate from an undue expansion of the net domestic credit of the central bank, quarterly limits to its variation were incorporated into the monetary program.
- d) A minimum net international asset accumulation commitment was established.
- e) Lastly, it was envisaged that Banco de México might change the conditions of its domestic credit provision, putting the banking system "short", with the purpose of fostering an orderly operation of the exchange and money markets.

The assessment of the 1997 monetary program can be carried out from the perspective of the accomplishment of its primary objective, which is that monetary policy should contribute to abate inflation down to 15 percent in 1997. In that year, annual inflation declined 12 percentage points (see Chart 1), from 27.7 percent in December of 1996 to

15.7 percent in December of 1997. This last figure is very close to the original 15 percent objective.



#### CHART 1

#### CONSUMER PRICE INDEX PERCENTAGE CHANGE WITH RESPECT TO THE SAME MONTH OF THE PREVIOUS YEAR

Although the CPI increase from January to December 1997 is quite close to the annual 15 percent objective, the relative stability shown by the exchange rate might have led to expect a larger decline in inflation. In fact, through the use of econometric simulation models, the estimate for cumulative inflation over the period from January to December coherent with the behavior observed in the exchange rate, would have been 13.3 percent. According to this information, the CPI increase during 1997 could be said to have been 2.4 percentage points above the expected figure given the exchange rate behavior (15.7 percent minus 13.3 percent). The following factors explain this difference:

- a) Over the months from January to December of 1997, the prices for some basic goods and services, both private and public, showed increases well above those originally anticipated. The most remarkable instances were: local telephone services (62.5 percent), automobile insurance and ownership tax (47.1 percent), medicines (25.9 percent), household gas (29.1 percent) and tortillas (24.4 percent). Table 2 shows the impact of each of these unexpected price increases on their expected rise for 1997. As can be observed in this Table, the unexpected change of the CPI brought about by the items mentioned above explains 1.3 percentage points of the 15.7 observed inflation.
- b) It is hypothesized that, during the first months of 1997, some prices might have not reflected the relative stability of the exchange rate. This is so because some prices might have been set, in the context of a greater aggregate demand, based on exchange rate expectations that turned out to be well above the actual values<sup>1/</sup>. This hypothesis is based on the fact that, from January to December 1997, the actual inflation for tradeable goods reached 15.3 percent, above the 12.8 percent estimate resulting from the use of a model that explains the behavior of the tradeable goods prices subject to, among other variables, the trend in the exchange rate. This fact could account for 0.9 percentage points in the actual inflation during 1997.

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<sup>1/</sup> Although these expectations declined throughout the year.

Thus, it is deemed possible that the factors mentioned above account for 2.2 percentage points of the CPI increase over the January-December period. Therefore, these items explain almost all of the unexpected inflation, which reached 2.4 percentage points.

#### TABLE 2 PERCENTAGE CHANGE OF CERTAIN PRICES OF BASIC GOODS AND THEIR INFLATIONARY IMPACT

January-December 1997			
			Unexpected Change
ITEM	Actual Change (%)	Expected Change (%)	Impact on CPI
			(percentage points)
Local telephone service	62.5	15.0	0.33 <sup>1/</sup>
Automobile ownership			
tax and insurance	47.1	15.0	0.32
Household gas	29.1	12.8	0.29
Medicines	25.9	12.8	0.15

January-December 1997

Net impact, considering the decline on long distance rates

24.4

Tortilla

TOTAL

In any case, there has been significant progress in the fight against inflation, a progress achieved through the coherence among the different aspects of economic policy, including monetary policy.

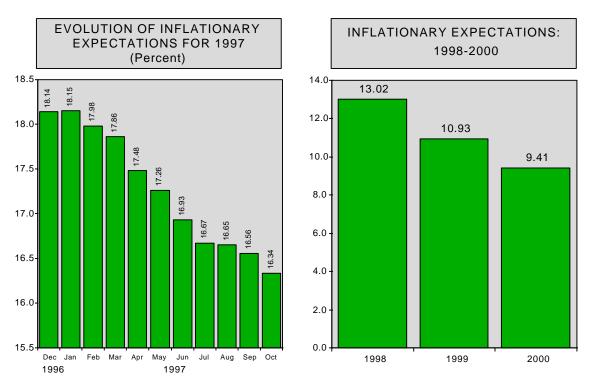
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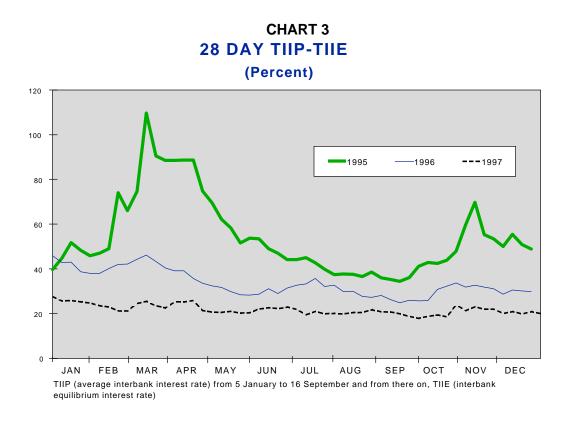
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The coherence of the adopted policies has been effective to achieve a decrease of inflationary expectations. Chart 2 shows the evolution of inflationary expectations for the close of 1997 over that same year (December 1997 with respect to that same month of the previous year), according to the average opinion of approximately thirty analysts surveyed each month by Banco de México. The decreasing trend of this forecast is clear. On that same chart, the average inflationary expectations for the period 1998-2000 according to the analysts surveyed on December 1997, are also shown. In this case, there is also a clearly declining trend.

As a result of the abatement of inflation, of the downward adjustment in the inflationary expectations and of the relative stability of the exchange rate, interest rates considerably decreased during 1997 (see Chart 3).



#### CHART 2 EXPECTED INFLATION: 1997-2000



During the course of 1997, not only did the interest rate level decrease, but also its variability. This is visible in Table 3, showing the average interest rates for Cetes with 28 day maturity<sup>2</sup>, for several years, along with this rate's variability (measured as the standard deviation and the variation coefficient). The variability in rates observed for 1997 was the lowest since 1990.

CETES INTEREST RATES1990-1997 Weekly data				
Period	Average	Standard Deviation	Variation Coefficient	
	(1)	(2)	(2)/(1)	
Jan. 1990-Dec 1990	34.8	7.7	0.22	
Jan. 1991-Dec 1991	19.3	2.6	0.13	
Jan. 1992-Dec 1992	15.7	2.3	0.15	
Jan. 1993-Dec 1993	14.9	1.9	0.13	
Jan. 1994-Dec 1994	14.0	3.5	0.25	
Jan. 1995-Dec 1995	48.7	14.3	0.29	
Jan. 1996-Dec 1996	31.3	6.2	0.20	
Jan. 1997-Dec 1997	19.8	1.9	0.10	

## TABLE 3 **AVERAGE AND VARIABILITY OF 28-DAY**

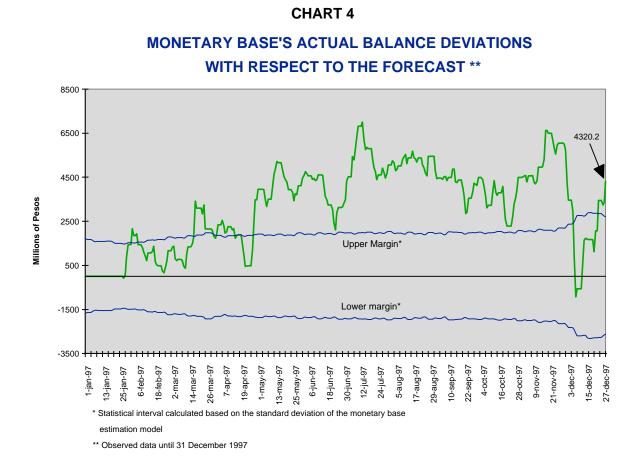
The observed declines in interest rates as well as their variability during 1997, were the factors that contributed significantly to the increase in economic activity and employment. This only confirms that the best contribution monetary policy can make to economic development and population's welfare is to concentrate on fighting inflation.

The execution of the 1997 monetary program can also be analyzed from the point of view of the evolution of the monetary base, of the net international assets, of the net domestic credit and of certain discretionary actions adopted by Banco de México.

<sup>&</sup>lt;sup>2</sup>/ The 28 Cetes rate was used instead of the TIIE because the former's time series allows for a broader multiannual comparison.

#### a) Monetary Base

As part of the 1997 monetary program, Banco de México published a forecast for the daily path followed by the monetary base for that same year. During most of 1997, and particularly since the end of April, this monetary aggregate exceeded the band within which it was expected to fluctuate according to said forecast (see Chart 4).



With the purpose of assessing whether the described behavior of the monetary base had an inflationary impact, it is necessary to determine whether excess liquidity was created.

It should be pointed out that Banco de México operated the consolidated balance of banks' deposits applying a zero balance objective every day of 1997. In other words, the

central bank did never generate a "long" (or a "short") position, but kept a neutral monetary stance. Consequently, the observed evolution of the monetary base was not the product of a relaxation in monetary policy, but of a larger than expected increase in the demand of base money. These are the following hypotheses that explain this phenomenon:

- 1) Economic growth for the year (expected to reach 7.3 percent) was greater than forecasted (4.5 percent).
- 2) Interest rates declined more than expected at the time the monetary program was drafted. The original assumption considered a 28-day average Cetes rate for 1997 of 21.8 percent. The actual average was 19.8 percent. Lower rates determine a lower opportunity cost for holding bills and coins. Companies and individuals will feel less pressured to invest their cash balances.
- Easter vacations, political campaigning expenses, Procampo and certain public holidays generated presumably temporary deviations during some specific periods of the year.
- 4) Last, during 1997, there was a fast increase of the banking system's cash-in-vault balances (which is a component of the bills and coins in circulation). This responded primarily to the substantial impulse the banking system is giving to savings accounts that allow cash withdrawals through the use of a debit card instead of checks. Other elements that might be temporarily causing banks to keep an increased level of cash -in-vault balances is the expansion of cash dispensers, the number of banks' branches and their geographical coverage as well. This factors might possibly induce a temporary increase in demand for cash from the banking system, while it identifies more exactly the new demand patterns adopted by the public. Once this is done, banks could be expected to reduce their cash holdings.

The impact of the aforementioned items on primary money demand was not completely assessed when estimates for its path were made for this year. At the close of 1997, the deviation between the actual and the forecasted path reached 4.32 billion pesos, close to 90 percent of which is explained by faster economic expansion and lower interest rates. It would be very difficult to quantify how the rest of the items contributed to this deviation. But, anyway, the unexplained part would fall into the limits of the confidence interval originally estimated.

Another element validating the idea that the deviation of the monetary base with respect to the expected amount was a consequence of a higher demand for bills and coins, is that the economic variables that would have reflected the presence of an excess money supply did not behave as it would have been expected if this surplus had actually existed. The exchange rate was relatively stable and interest rates showed a general downward trend. But, most importantly, the path followed by inflation behaved approximately according to expectations. Subsequently, interest rates decreased gradually in general terms. All of this would not have happened if the central bank had created excess liquidity. In light of the circumstances mentioned above, the institution did not deem it necessary to adopt a restrictive monetary policy endeavoring to reach a convergence (or at least an approach) of the observed and the forecasted path of the monetary base.

#### b) Net International Assets

During the time elapsed between the last day of 1996 and the close of December 1997, net international assets showed an increase of 13,511 million dollars. This increase was substantially above the minimum amount envisaged in the monetary program for 1997 (2,500 million dollars). Two reasons account for this international asset accummulation:

- i) a high level of foreign currency revenues as a result of operations with PEMEX;
- ii) substantial increases in the foreign currency purchasing program by means of the option mechanism, which give credit institutions the right to sell dollars to Banco

de México if certain conditions are satisfied. This last item naturally reflects the considerable liquidity that was one of the international financial markets' features during 1997 and that seems to have substantially decreased in 1998.

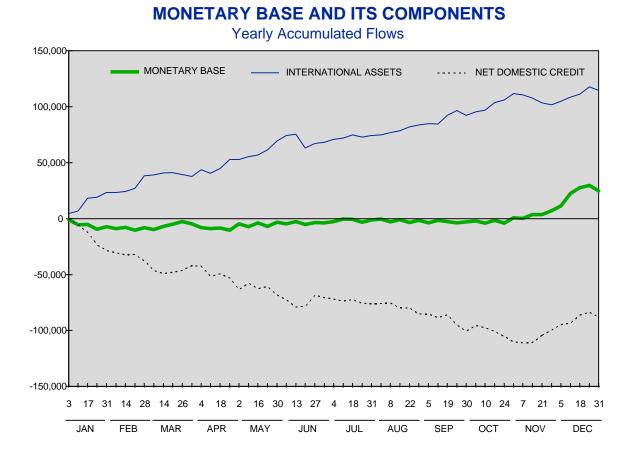
#### c) Net Domestic Credit

Net domestic credit is defined as the difference between the monetary base and the net international assets<sup>3</sup>. Consequently, the evolution of this concept is explained by the development of both the monetary base and the net international assets. Although the monetary base increased more than expected during 1997, international assets rose in a much higher proportion, which resulted in a decline of the net domestic credit of the central bank (see Chart 5)

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<sup>&</sup>lt;sup>3/</sup> Net international assets are defined as gross reserves plus more than six months' maturity credit agreements with central banks minus liabilities with the International Monetary Fund and less than six month maturity liabilities resulting from agreements with other central banks.

#### CHART 5



Therefore, during 1997 net domestic credit was maintained below the limits established in the monetary program for that year. Given that net domestic credit and international asset variations combined in order to produce the desired amount of base, it can be affirmed that the decline in net domestic credit did not imply any monetary restriction.

#### d) Discretionary Actions Adopted by Banco de México

Although during 1997 there were no situations that called for the use of "shorts" or "longs" (the instruments through which the central bank can adjust its monetary policy position more easily), the central bank was forced to make certain adjustments to its monetary policy because, on certain occasions, given the existing conditions in the financial markets, interest rates did not behave as envisaged. In particular, during the first

semester of the year, there were periods during which the domestic currency appreciated and, at the same time, during several of these periods the interbank interest rates not only did not decline, but even increased.

In light of the above, in mid-April, Banco de México introduced several adjustments with the purpose of restoring the correct operation of the money market. The measures Banco de México adopted were as follows:

1) Increase its resources through the selling of government paper and decrease them through deposits coming from credit institution. This way, Banco de México could continue to drain liquidity, but giving the counterparts of the respective operations, government paper that is a liquid asset with a secondary market. This measure helped reduce inflationary pressures on interbank interest rates, not only because the lack of liquidity premium that the institutions tried to obtain from Banco de México was eliminated, but also because the new mechanism allows banks to refinance, in the secondary market, any deposits they might establish at the central bank.

2) Some elements of the zero-average requirement mechanism were adjusted, enlarging the daily negative balances that the credit institutions' accounts are allowed to reach with Banco de México without generating interest and that can be compensated against positive balances generated in the course of other days. This measure relatively favored the smaller intermediaries. The enlargement of these limits allows for an easier arbitrage of the differences between the interest rates over time, tending to reduce their volatility. It is worth mentioning that, with the purpose of sustaining the higher competitiveness in the money market achieved with the enlargement of the said limits, last May a consequent action was taken also applying said limits to the positive balances. Thus, the limits in both directions were made symmetrical.

3) With the purpose of reinforcing the aforementioned measures, the central bank established, on one occasion, a ceiling on rates for 24 hour open market operations. This

limit was maintained for only one business day since it was sufficient to reestablish orderly conditions in the money market.<sup>4/</sup>

It is worth mentioning that, immediately after Banco de México adopted said measures, interest rates showed a downward adjustment. The positive effect of these measures was due to the fact that its application was perceived by the market as a sign from the central bank that, from its point of view, very short term interest rates had reached excessive levels.

The establishment of an interest rate ceiling contributed to achieve the desired effect. Nonetheless, its worth noting the inconveniences that might arise from the frequent or constant use of such measure. While effective, the influence of the market forces on the determination of the interest rates is almost completely eliminated, with possible damage to the role that these forces play in both deposit-taking and in resource allocation and for the equilibrium in other markets.

An alternative to combat excessively high interest rate levels is the use of the "long" position. As it can be recalled, in January of 1997 the Board of Governors decided on the advisability of temporarily dispensing with the use of "longs". Therefore, said instrument could not be used during the first semester of that year. Yet, the reasons that led the Board of Governors to make that decision were completely overcome in last September.

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<sup>4/</sup> The measures mentioned in items 1) and 2) are still in force.

Therefore, at that time, the temporary suspension of the use of "longs" was cancelled. The announcement of this measure slightly lowered interest rates and the exchange rate depreciated starting from fairly low levels. It is worth noting that, during the last quarter of the year, the use of "longs" was not deemed necessary.

#### **III.MONETARY PROGRAM FOR 1998**

#### 1. Objective of the Program.

The primary objective of the 1998 monetary program is to contribute to the abatement of the inflation rate down to 12 percent. This percentage refers to the December 1998 general price level increase versus the level of the same month during the previous year. A monetary policy aimed at the achievement of said objective, in combination with the measures envisaged in the document titled Criterios Generales de Política Económica para 1998 (General Criteria for Economic Policy for 1998) and taking into consideration the recent fiscal policy adjustments, could probably generate a real increase in GDP of approximately 5 percent.

#### 2. Preliminary Remarks.

The terms on which the objective of the monetary program for 1998 is stated establish that monetary policy **will contribute** to the abatement of inflation down to 12 percent, since it tries to stress the fact that even if a prudent monetary policy is an indispensable element in the fight against inflation, it generally does not suffice to achieve the desired outcome. The above is the acknowledgment that monetary policy needs the cooperation from other elements of economic policy to achieve the abatement of inflation that society demands.

In particular, it is necessary that fiscal policy maintains the discipline shown during the past years so that it does not generate inflationary pressures. It is also important that said policy does not contribute to the creation of unsustainable imbalances in the balance

of payments' current account as well as in the real exchange rate, which could, in the end, force a reversion of the recent achievements in the inflationary front. Finally, fiscal policy must be flexible to be able to contribute in the absorption of external shocks that would otherwise have serious inflationary and external balance repercussions.

It is worth noting that the economy could face disruptions that would require certain relative price adjustments. For example, it is possible that currency depreciations in some Asian countries or changes to the domestic terms of trade would make an adjustment to the relative price between tradeable and non tradeable goods necessary in Mexico. There is also the possibility of introducing changes to the relative prices of the economy through fiscal and trade policy measures, as it happens when rises to the prices of some goods or public services -or prices subject to governement control- are decreed. Although necessary to reestablish equilibrium in some markets, said adjustments in relative prices usually have an immediate inflationary impact, due to the fact that an important group of goods' services' and factors' prices, do not have downward flexibility. Under these circumstances, Banco de México could not avoid the direct impact over the general price level of said adjustments. This reaction of the central bank responds to the fact that the monetary policy actions it would generally adopt will not be immediately evident on inflation, so, if unexpected developments related to the the trend of price increase were to be immediately counteracted, the required change in monetary policy would have reached such magnitude that the social costs would be considerable.

What Banco de México would indeed do in response to price increases associated to the relative price adjustments would be to try to prevent the secondary impact of said increases from affecting the dynamics of the underlying inflation and inflationary expectations<sup>5/</sup>. This implies that, in face of the relative prices' adjustment process, monetary policy would contribute to correct the macroeconomic imbalances found along the way in striving not to create an inflationary spiral.

Banco de México acknowledges that even if, for most sectors, real wages are starting to recover, the starting level was quite low. There is no doubt that real wages are expected to increase, but still more important is the fact that they rise sustainably. Nevertheless, this can only be achieved through sustained advances in labor productivity, which can only be reached in a stable environment and not through administrative or stubborn measures.

Therefore, to achieve the abatement of inflation and to stimulate an increase in real wages, it is convenient that wage adjustments be consistent with the envisaged inflationary objectives as well as with labor productivity evolution. It is worth emphasizing, as much as necessary, that this gives the possibility of an accelerated fall in inflation, which in turn, fosters a sustainable increase in the real income of workers as well as in the creation of new employment sources. In fact, by inducing a decline in interest rates and encouraging domestic saving, stability stimulates investment in productive facilities and technology which will, in turn, increase real wages as it generates higher labor

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<sup>5/</sup> Most central banks in the world proceed in this way.

demand, giving way to labor productivity increases. In a context of declining inflation, due to a restraining policy of wage increase, the rise in employment, together with the consequent increase in real wages translates into a higher income for workers.

It must be pointed out that Banco de México will fundamentally act with the objective of achieving **sustainable** inflationary reductions. Achieving a prompt and substantial decline in inflation is rather easy. Yet, only under very special conditions, absent in the present Mexican situation, can this be achieved without creating considerable imbalances in other sectors of the economy that, in the end, would make progress in the abatement of inflation unsustainable. This is why the Board of Governors is convinced that the only path to follow is the one that allows for a sustainable decrease inflation.

In this regard, as the monetary program is implemented, the performance of variables such as capital inflows, real exchange rate and current account deficit -elements that under certain circumstances could make domestic financial markets unstable, nullifying inflationary gains achieved along the way- will be closely monitored. Monetary policy will respond to the developments in said variables only in limited cases in which it has the ability to affect them -which will only take place when an undesirable behavior of such variables responds to an imbalance or disruption of monetary nature- and, always consistent with its primary objective of striving to achieve sustainable inflationary abatement.

It can be deduced from the above that there will be cases in which the undesirable evolution of the real exchange rate, capital inflows and the current account balance responds to non monetary phenomena, in which case other economic policies, particularly fiscal policy, must adjust to avoid destabilizing imbalances.

In any case, it must be bore in mind that the floating exchange and interest rate regime valid in México offer a certain protection against the generation of considerable external imbalances. Flotation has the great virtue of reducing the probability of the exchange rate deviating, in a persistent and considerable way, from the levels that in different periods

are consistent with the fundamentals of the economy. Under such a regime, as opposed to one where the exchange rate is administered, the monetary authority does not have to determine the equilibrium exchange rate -quite a dificult task- not only for a given moment in time, but under no circumstances. The same applies for interest rates, since they timely adjust to the current market conditions without intervention from the central bank, which is extremely useful in a volatile financial market environment.

The existence of a floating regime makes it difficult to expect the appearance of an unsustainable current account deficit or significant deviations of the real exchange rate from its equilibrium level, most likely because short term capital inflows are discouraged under such a regime. It must not be forgotten that flexibility in exchange and interest rates have proved to be a very efficient monetary arrangement to absorb disturbances coming from volatile foreign financial markets. This is why the Board of Governors is convinced of the virtues inherent to operating in a context of free floating exchange and interest rates.

#### 3. Elements of Monetary Policy for 1998.

The exclusive faculty of issuing currency distinguishes a central bank from any other financial institution. This power must be excercised in a very conservative way, because it might otherwise generate the most primary cause of inflation: excess supply of primary money. These will immediately raise the public's inflationary expectations, which will, in turn, result in exchange rate depreciations, interest rate increases, higher nominal wages and rises in the prices of goods and services. This is why the Board of Governors has established, as one of the fundamental elements of its monetary program for 1998, a basic operational rule that highly assures that this central bank will not create a monetary base surplus. This rule is as follows:

First fundamental element of the Monetary Program: As a general rule, Banco de México wil adjust, on a daily basis, the supply of primary money in a way that such supply matches the demand for base money. Any unintentional money market diequilibrium resulting from estimation errors of the daily demand for base money, will be corrected through immediate open market operations. In fact, this represents the commitment of the central bank to keep, in general, a neutral monetary policy.

This basic operational rule means, in more technical terms, that in the daily determination of its open market operations, the central bank will pursue, as a general rule, the objective of zero accumulated current account balances that commercial banks hold with this central bank. It also implies that Banco de México will sterilize the monetary impact that can derive from variations in the net international assets, the loans granted to FOBAPROA and from operations that the Treasury carries out in the account it holds with Banco de México.

As can be recalled, in March of 1995, the central bank decided to adopt a reserve requirement mechanism called "zero average reserve requirement mechanism". According to this scheme, debtor balances posted at the close of each day in the current accounts of credit institutions with Banco de México must be offset within 28-day periods, by posting, on other days creditor

balances of at least equal amounts in the same accounts. The non-compliance with the stated requirement makes infringing banks pay a penalty, calculated on the basis of its accumulated shortfall and applying an interest rate equivalent to twice the prevailing 28-day Cetes level<sup>6/</sup>. It is worth mentioning that banks' creditor balances posted at the close of each day in their current account in Banco de México are not remunerated so these institutions have no incentive to keep during that period an average positive balance in their accounts. Presumably, banks will try to have zero accumulated balances at the close of each 28-day period. Which will, in principle,<sup>7/</sup> be possible if Banco de México daily applies its basic operational rule.

The strict application of this basic operational rule would imply that Banco de México passively accommodates any demand of monetary base, which could be the source of some problems. In particular, the central bank could eventually be satisfying a demand for money consistent with a higher than expected inflation pattern.

To detect this situation and act in consequence, Banco de México would daily compare the observed path of the base with one that is, in principle, consistent with the inflation objective

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<sup>&</sup>lt;sup>6/</sup> It should be mentioned that, in order to avoid said scheme from inducing an excessive volatility on 24-hour wholesale money maket interest rates, limits have been established for the positive and negative balances of the credit institutions' accounts which qualify for the monthly average. When a credit institution, at the day's closing, shows an overdraft above the negative balance limit, twice the Cetes rate is immeditaley charged. In turn, when at the close of a particular day, the current account balance of a certain bank is positive and above the positive balance limit, the excess on the limit is not considered on the calculation of the accumulated balance for the reporting period, that is, it does not help to compensate other days' overdrafts.

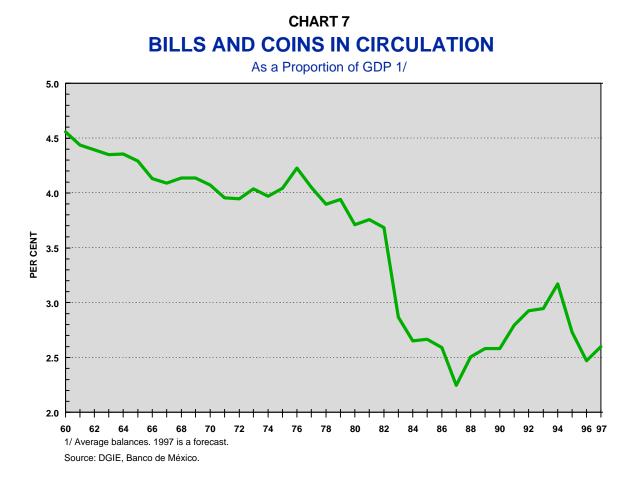
<sup>&</sup>lt;sup>7/</sup> This means in the absence of distortions in the money market which do not occur very frequently.

for that year. This last path is very difficult to determine in such a way that it has annual validity, due to de following factors: (a) the relationship between inflation and base money can change over time; (b) the basic assumptions made to forecast base demand for the year (related to the GDP growth and interest rate behavior) may not materialize, and (c) the relationship between base demand and the variables that explain its behavior might also change over time. For this reason, Banco de México must evaluate the divergences between the observed and estimated base path along with other indicators that could give more information about the evolution of future inflation, such as the exchange rate, the available measures of inflationary expectations, contractual wages and the level of economy overheating (that is, the relationship between potential and observed GDP).

With certain caveats, the Board of Governors has decided to publish again the daily path of the monetary base that, given the information available in January 1998, is consistent with the inflationary objective for the year, as long as the assumptions mentioned below are materialized. This path is shown in Chart 6. Such a path reflects the sharp seasonality of the demand for bills and coins in circulation in México.



According to the economic program for 1998, a reduction in inflation and a fall in interest rates can be expected over the year. These factors might foreseeably stimulate monetary base demand because they reduce the opportunity cost of keeping bills and coins. This will bring about an increase in base demand above the one that could arise only from an increase in prices and real GDP. In other words, a remonetization is again expected for 1998. In fact, this phenomenon is expected to prevail for some more years, due to the fact that the proportion of bills and coins in circulation to nominal GDP is still bellow its lowest historical levels. (See Chart 7)



Specifically, Banco de México estimates that during 1998 the monetary base will rise 22.5 percent with respect to the end of 1997. The expected growth of the base is greater than the figure resulting from the combination of the 1998 projections for real GDP (5 percent) and inflation (12 percent), because of a remonetization of 4.2 percent of the total base at the close of 1997 (108,891 million pesos, m.p.). However, it should be brought to attention that remonetization for 1997 reached 4.3 percent, which is why expected remonetization for 1998 is close to the 1997 figure, even though a smaller abatement of inflation is expected. It should be remembered that remonetization has a lagging response to interest rate evolution as well as to inflationary expectations, so that the favorable performance of these variables on the close of 1997, will partially reflect in the 1998 remonetization. Anyway, it is important to mention that, given the fact that Banco de México generally satisfies monetary base demand,

if this demand does not increase so as to generate a remonetization as the one mentioned above, this central bank would not increase money supply in order to cover the gap.

The annual base flow estimate reaches 24,600 m.p. which in turn results in a 133,400 m.p. balance for the close of 1998 (see Annex). The confidence interval for the figure of the monetary base stock for the close of 1998, taking into consideration one standard deviation of the residuals of the estimated model, is placed between 136,800 m.p. and 130,000 m.p.

Due to the difficulty of estimating a monetary base path for 1998 consistent with the inflationary objective of 12 percent and with annual validity, the announced path does not constitute a formal policy objective. Its usefulness lies mainly on the fact that it would be a signal of alert in case there were important deviations between the observed and the announced base paths. Banco de México will evaluate such deviations and only in case they respond to circumstances implying additional inflationary pressures, Banco de México would be expected to adopt a restrictive position. In this sense, the announced base path is a tool of the first fundamental element of the monetary program.

Banco de México is capable of adjusting primary money supply to its demand by means of variations either in its domestic credit or its net international assets. The central bank has relatively more control over its domestic credit. This is why, using it wrongly is, potentially, the easiest way to generate an excess in the monetary base. In response to these considerations, and with the purpose of giving additional assurance that no inflationary pressures will surge, Banco de México has decided to again incorporate quarterly limits to the domestic credit variations. These limits represent an additional complement to the first fundamental element of the monetary program.

Given the definition of domestic credit as the difference between monetary base and net international assets, its quarterly variation limits are a consequence of the evolution of these two variables. The expected variation of the monetary base, as mentioned before, depends on the anticipated GDP trajectories, interest rates and inflation. Such expected variation is depicted in Chart 6. On the other hand, the commitment of a minimum increase of the net international assets (one billion dollars) is determined based on the exchange transactions expected to be carried out by Banco de México with the Federal Government and Pemex as well as foreign currency purchases that will probably be made with regard to the exercise of options to sell dollars held by credit institutions to the central bank.

In case the base demand surpasses the one considered in the established limits to the variations of domestic credit, the surplus could only be accommodated through an accumulation of net international assets above the established minimum.

It should be stressed that the limit on the growth of the central bank's net domestic credit is a ceiling rather than a target. The actual increase in said credit will be less to the extent that monetary expansion stemming from the accumulation of international assets surpasses the forecasted minimum.

The monetary authorities have estimated that the availability of a greater amount of international assets, will contribute to further strengthen Mexico's external financial position, what is particularly important in the present highly volatile environment registered in the international financial markets. More solidity in that front will allow the country to continue having access to foreign resources, under favorable conditions with regard to the cost and maturity of foreign financing. This is why an important part of the monetary program for 1998 consists of the commitment to generate a minimum net international asset accumulation.

Table 4 shows the quarterly limits on the variations of net domestic credit for 1998 and the commitment towards a minimum accumulation of net international assets.

### TABLE 4 QUARTERLY LIMITS ON THE VARIATIONS OF NET DOMESTIC CREDIT FOR 1998 Accumulated Effective Flows in Millions

MINIMUM INCREASES IN THE NET MONETARY LIMITS ON THE INTERNATIONAL ASSETS BASE VARIATIONS OF NET DOMESTIC CREDIT 1/ QUARTERLY PESOS<sup>2/</sup> DOLLARS PESOS PESOS (2) (1) (3) (3) - (2)L 0 0 -11,900 -11,900Ш 200 1,748 -8,400 -10,148 Ш 500 4,370 -11,000 -15,370 IV 1.000 8.740 24.600 15,860

<sup>1</sup> If the limit is negative, it means that domestic credit will fall for at least the estimated amount.

If the limit is negative, it means that domestic credit will fall for at least the estimated amou <sup>2</sup> Using an average yearly exchange rate of 8.74 pesos per dollar.

It is worth pointing out that domestic credit being the difference between monetary base and net international assets, said credit could decrease when assets increase without it translating into a base contraction. Consequently, such decrease in domestic credit, if produced, would not imply a restriction to the economy, since the absorption of pesos resulting from such decrease, will be compensated with money injection stemming from foreign currency purchases by the central bank.

Although the first fundamental element of the monetary program and its complementary measures prevent Banco de México from producing an excess monetary base supply, regretfully, they can not guarantee by themselves the achievement of the desired abatement of inflation. This is due to the fact that, even if Banco de México limits daily primary money supply variations in order to satisfy the changes in the base demand, some additional inflationary pressures could appear from elsewhere. For example, external distortions could cause a depreciation in domestic currency; increases in average contractual wages could be greater than the inflation objective plus the productivity gains which would not only

compromise the efforts to abate inflation but also the sustainable gains in real wages; the growth of the monetary base could be validating an inflation greater than expected, due either to the growth of such aggregate at an excessive rate or to a change in the relationship between the monetary base and prices which would unexpectedly accelerate the rate of economic expansion, in such way that GDP would temporarily grow at rates higher than its potential, which in the end would bring higher inflation. This could be due, among other factors, to an expansive fiscal policy.

The aforementioned developments could, all by themselves, induce rises in interest rates which would tend to mitigate undesirable inflationary pressures. However, it could also happen that the automatic adjustment of said rates would not suffice to assure a reasonable behavior of inflation. In these cases, Banco de México would examine its monetary policy stance modifying said position from neutral to a restrictive one.

Banco de México can tighten its monetary policy stance leaving the banking system "short", which is the same as if the central bank operated with an objective of negative accumulated balances. When the system is put "short", the central bank exerts a certain upward influence on interest rates. Such influence is produced, above all, because of the signal that is sent to the market through such action; a signal that gives the idea that the central bank considers that interest rates must rise.

Past experience suggests that changes on the "short" have greater influence on interest rates than the "short" itself. It is important to mention that the central bank could adopt a "short" not only to support the battle against inflation, but also to combat certain disorderly situations in the exchange or money markets (when the exchange rate rapidly depreciates in a very short period or when interest rates are at an unusually low level)

Banco de México must also have the power to relax its monetary policy position. This could be convenient if: (a) the evolution of inflation indicates high probabilities that, if everything stays the same, the relevant inflationary rate would be much higher than the inflationary objective; (b) the existence of abnormally high interest rates attracting very short term foreign capital which, in turn, tend to cause an unsustainable real and nominal appreciation of the exchange rate. Such appreciation could in the short term bring about an accelerated decrease in inflation, at the expense of a much higher imbalance in the current account financed with highly volatile foreign resources. These resources could promptly revert, causing important financial market instability as well as the disappearance of the reduction in inflation attained so far. Banco de México must also have the power to relax its monetary policy position to be able to combat certain abnormal behaviors in interest rates caused by temporary distortions in the money market.

Banco de México would adopt a more relaxed monetary policy stance through the use of "longs", which would be the equivalent to the central bank operating in the open market with an objective of positive accumulated balances in the total current accounts that credit institutions hold with the central bank. Through the use of "longs", the central bank signals the market that, according to its opinion, interest rates must be lowered.

What was mentioned above can be summarized as follows: Banco de México needs to have the power to discretionally adjust its monetary policy position from neutral to restrictive or relaxed, according to the circumstances. This gives way to the second fundamental element of the monetary program for 1998:

Second fundamental element of the Monetary Program for 1998: Banco de México will hold the right to adjust the stance of monetary policy, by either tightening it up or relaxing it in face of unanticipated events. This means that monetary policy will be symmetric in terms of the discretionary actions that could be taken, if necessary, during the year.

According to the above, there could be periods during the year in which Banco de México chose to carry out its open market transactions with a negative accumulated balance objective of banks' current accounts in Banco de México, that is, the adoption of "shorts". The "shorts" will signal the market that Banco de México considers advisable to raise interest rates, leaving the exact size of the adjustment in the hands of the market. Banco de México could also

modify the magnitude of the "shorts" which would mean a restrictive monetary policy in a different degree. The central bank would mainly use the "shorts", adopting a restrictive monetary policy position, under the following circumstances:

- a) When future inflationary pressures, inconsistent with the achievement of the inflation objective, are detected. Unexpected future inflationary pressures could result, among other factors, from the behavior of the exchange rate, unit labor costs, monetary aggregates, excess aggregate demand and from unexpected adjustments to the prices of public goods or services subject to official control. In this last case, Banco de México will adjust its monetary stance with the sole purpose of preventing, if necessary, the secondary or indirect repercussions from the adjustments to the dynamics of inflation. Adjustments in monetary policy would strive to prevent the deterioration of decreasing inflationary expectations.
- b) When it is deemed necessary to encourage orderly conditions in exchange and money markets.

On the other hand, circumstances could arise in which it would be deemed advisable to relax the monetary policy position. In these cases Banco de México would operate with a positive objective of accumulated balances that would imply that the market is left "long". The "longs" would pressure interest rates downward. Banco de México could implement the "long" in case:

- the behavior of very short term interest rates is not consistent with the evolution of the exchange rate, in particular, under situations in which the value of the domestic currency is increasing and there exist no inflationary pressures additional to those envisaged in the economic program;
- ii) the evolution of inflation is so favorable that there were high and well founded probabilities that the price increase turns out to be clearly below the established objective;

- an appreciation of the exchange rate (real and nominal) considered unsustainable due to the fact that it derives from excessive short term capital inflows into the money market and, finally;
- iv) that increases in interest rates merely attributed to the creation of disorderly situations in the money market.

Once the conditions that might result in some adjustment of monetary policy are dissipated, Banco de México would return to its neutral position.

It is advisable to make some additional comments and clarifications with regard to the potential use of "longs" and "shorts":

- 1. There is an unavoidable complication when implementing monetary policy: the central bank actions do not have an immediate impact on inflation. This forces the central bank to concentrate in evaluating the possible consequences of what is happening today in relation to future inflation, so that, if needed, it tried to influence the evolution of said inflation by monetary policy actions. So it should come as no surprise if Banco de México determines, sometime in the future, a certain adjustment to its monetary policy position in cases where inflationary pressures are not imminent.
- 2. It should be emphasized that if an unexpected expansion in fiscal policy which created an excess in aggregate demand appeared, bringing along the consequent inflationary pressures, Banco de México will not accommodate them.
- 3. There could be external disturbances that meant an imminent depreciation of the real equilibrium exchange rate, which in turn would surely bring about a nominal depreciation in the domestic currency. In these cases, the central bank would tend to tighten monetary policy only to lessen the indirect inflationary effects of the nominal depreciation, thus facilitating the necessary adjustment of the real exchange rate.

- 4. It is worth mentioning that through the use of "longs" Banco de México will not inject important amounts of funds to the market. The primary objective will be to send information into the market about the monetary policy stance, the same as as it happens with the use of "shorts". The adoption of a "long" is interpreted as a certain relaxation of monetary conditions. This must, in principle, lead to lower interest rate levels. Therefore, increases in the "long" must be interpreted as more relaxed monetary conditions, which will lead to lower interest rates. It is estimated that for the "long" to carry out its objetive, the creation of insignificant liquidity surpluses will suffice. The generation of abundant liquidity surpluses could paradoxically have the opposite effect, because they will be susceptible of being interpreted as an excessively expansive policy. In such case, inflationary expectations will deteriorate and interest rates will tend to rise.
- 5. Short term capital income is a reason for concern for the authorities because they can induce easily reversible exchange rate appreciations. In the monetary policy execution scheme adopted by Mexico, the use of "long" is the most ideal formula to discourage short term capital inflows into the country. Yet, the use of "longs" will be inefficient in preventing the appreciation of the real exchange rate if this is caused by direct foreign investment, foreign investment in the stock market or by medium or long term private indebtedness abroad, since these capital movements respond to long term expectations about the Mexican economy. This capital income responds to factors that are practically unaffected by the use of the monetary policy instruments. It is important to keep in mind the limited ability of monetary policy to influence the real exchange rate.
- 6. Another phenomenon that is a cause for concern and, therefore, possible volatility in the financial markets, is the growth of the current account deficit. The instability in the financial markets induced by such phenomenon could be considerable, and therefore worrying, specially for the central bank. However, thought should be given to the ability of the exchange and monetary policies to do something in this regard.

- . The broadening of the current account deficit tends to be matched with a rise in the real exchange rate, due to the fact that both phenomena are, as a general rule, consequences of a same cause: net foreign capital inflows. Therefore, the ability of monetary policy to influence the current account balance depends fundamentally on its capacity to modify capital inflows. From item (5) above, it can be concluded that only when the current account deficit is the consequence of short term capital inflows channeled into the money market, can monetary policy have some influence on the evolution of said deficit.
  - . Fiscal policy can indeed be more effective in controlling the current account deficit. Higher public sector saving reduces total spending in the economy. Reducing total spending, lowers, in turn, the current account deficit.

\* \* \*

The fact that the fundamental components of Banco de México's monetary policy are supported by the signals the central bank sends to the market, stands out from the previously mentioned arguments. Therefore, it is indispensable that the central bank operate as transparently as possible. Thus, this is the source of the third fundamental component of the monetary program for 1998:

Third fundamental element of the Monetary Program for 1998: Banco de México will continue to pursue an active communication policy in order to keep the public informed about the use of monetary policy instruments by this institution, as well as on the scope of monetary policy, in general. In addition, Banco de México expresses its commitment to stay alert to detect negative developments in the economic environment and to continue conducting its operations in a transparent fashion.

### **IV. FINAL CONSIDERATIONS**

As has been the case in previous years, the primary purpose of the 1998 monetary program of Banco de México is to contribute to the abatement of inflation, with a 12 percent target for the current year. The institution's perseverance to reach this goal not only responds to its obligation to comply with a Constitutional mandate, but also to the fact of having assimilated overwhelming empirical evidence, from domestic experience as well as from many other countries, pointing out that inflation tends to be quite an important recessionary factor.

It should be bore in mind that no country has achieved sustainable economic growth through money supply expansion. In this regard, the evidence is quite clear: if encouraging economic growth were possible through a greater money supply and if central banks were to have unlimited capacity of credit expansion, there would be no logical reason for the existence of recessions, lagging economic development and the searing poverty affecting many countries, ours included. In fact, in countries, like Mexico, with a long history of inflation, not even in the short-term should such relationship exist. The population has learned that a monetary policy tolerating inflation gives way to a possibly accelerated price increase so that, when such a policy is implemented, the population immediately adjusts their inflationary expectations towards increasing levels. In the end, these expectations make themselves evident not only through higher inflation, but also through capital flight, exchange rate depreciation, higher nominal and real interest rates and, inevitably, through a negative impact on the GDP expansion rate.

The Board of Governors stresses its conviction that the ultimate objective of monetary policy is to contribute in the achievement of the highest sustainable growth in real GDP. However, only by means of fighting against price increases can the central bank best contribute to achieve economic expansion, employment creation and real wage recovery. The Board is also convinced that in performing its primary task it should particularly bear the following in mind:

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- (a) The environment within which the monetary program is to be implemented. Monetary policy is not implemented in a vacuum. The influence of the domestic macroeconomic climate, as well as the conditions of the global economy, particularly with regard to the international financial markets, determine the execution of monetary policy. As it has been stressed throughout this document, during 1998 relatively adverse conditions can be foreseen, arising from the Asian crisis and the fall in the export price of oil. Facing these circumstances, monetary policy management should show its pragmatism in the following instances:
  - Flexibility in monetary policy, in such way that the central bank can readily react in the face of any unexpected developments that might occur and that could affect the decreasing trend in inflationary expectations in the medium term;
  - Coordination of monetary policy with other elements of economic policy, particularly the fiscal component, reflecting the acknowledgment that monetary policy can not achieve the goal of abating inflation on its own.
  - And last, a constant monitoring of the macroeconomic environment. It is well known that in the presence of a continuously changing environment, the central bank must be very alert so as to detect any destabilizing disturbance and act accordingly, individually and in coordination with other public entities if needed.
- (b) React in the face of relative price disruptions. The considerable currency depreciation of the Asian countries in crisis, the fall in the price of oil and the possible unexpected variations in the prices of certain goods and services which carry an important weight in the CPI, can call for adjustments in domestic relative prices. This situation would first have an immediate impact on the general price level. Banco de México could try to counteract these inflationary impacts in the very short term, but it would not be practical. This is so due to the fact that the required monetary restriction would have to be of such magnitude that it would bring about unnecessary disruptions to the real economy in the short term. What the central bank would indeed do would be to strive towards making the direct variations to the CPI have a once and for all impact, leaving

unaffected the behavior of what could be called the underlying inflation. This, with the purpose of leaving the decreasing medium term inflationary expectations unaffected.

(c) Sustainable abatement of inflation. Banco de México will act primarily aiming for sustainable decreases in inflation. It is relatively easy to achieve a large and rapid fall of inflation. But only under very special conditions, absent in the present Mexican situation, can the former be reached without inflicting serious disruptions to other aspects of the economy, which, in the end, would make the progress in the fight against inflation unsustainable. That is why the Board of Governors of this Institution is convinced that the path to follow is that which allows to steadily decrease inflation. In this regard, as the monetary program is implemented the performance of such variables as capital inflows, real exchange rate and current account deficit -elements that under certain circumstances could make domestic financial markets unstable, nullifying the inflationary gains achieved along the way- will be closely monitored. It should not be forgotten that the floating exchange and interest rate regimes presently applied in Mexico offer protection against generating large imbalances in these variables.

In the course of 1998, Banco de México as far as its authority is concerned, will also implement actions aimed at reinforcing our financial system, in accordance with Article 2 of the law governing this institution. Our experience in 1994, as well as more recently that of the Asian countries, shows that a fundamental element in the achievement of continuous economic development, is counting upon a strong financial system. This is why, from a cautious point of view, it is advisable that any country, anytime, should insist on the reinforcement of its financial system. In this regard, concerning the Mexican situation, it would be important to increase the efforts to make the monitoring of financial institutions more efficient. It would also be advisable to adapt the legal framework so that it can increasingly conform to the strictest global standards thus easing the banking system's capitalization mechanisms. Special emphasis will be made before the relevant authorities about the advisability of substantially enhancing the operation of the country's judicial system.

### ANNEX

# **MONETARY PROGRAM FOR 1998**

Daily Forecast of the Stock of the Monetary Base ( Billions of Pesos )

DAYS	JAN	FEB	MAR	APR	MAY	JUN
1	108.7	98.3	97.0	96.8	98.1	99.2
2	108.1	97.1	95.8	98.7	98.1	97.8
3	108.1	95.7	94.4	99.5	98.1	97.4
4	108.1	95.7	94.0	99.5	97.6	98.2
5	105.4	95.7	94.8	99.5	97.6	98.5
6	103.0	95.8	95.0	98.5	96.1	98.5
7	101.7	95.8	95.0	99.1	96.2	98.5
8	101.8	95.8	95.0	99.9	97.0	97.1
9	101.8	94.2	93.8	99.9	97.0	95.9
10	101.8	92.9	92.7	99.9	97.0	96.1
11	101.8	93.2	93.3	99.9	95.5	98.2
12	100.7	95.5	96.1	99.9	94.5	100.3
13	100.0	96.8	97.8	98.0	95.0	100.3
14	100.5	96.8	97.8	96.8	97.3	100.3
15	101.7	96.8	97.8	96.3	98.6	100.2
16	101.8	95.7	96.7	96.9	98.6	98.6
17	101.8	94.3	95.3	97.0	98.6	97.9
18	101.8	93.8	94.9	97.0	97.2	98.8
19	99.9	94.6	95.8	97.0	95.5	99.2
20	98.0	94.8	96.1	95.5	95.0	99.2
21	96.9	94.8	96.1	93.8	95.8	99.2
22	97.1	94.8	96.1	92.9	96.0	97.6
23	97.2	93.6	94.8	93.6	96.0	96.3
24	97.2	92.6	93.4	93.9	96.0	96.0
25	97.2	93.1	93.2	93.9	95.1	97.9
26	96.0	95.5	94.9	93.9	94.6	99.9
27	95.0	97.0	96.6	93.4	95.7	99.9
28	94.9	97.0	96.6	93.4	98.7	99.9
29	96.9		96.6	95.4	100.3	100.4
30	98.3		97.0	98.1	100.3	100.4
31	98.3		96.9		100.3	

### ANNEX

## **MONETARY PROGRAM FOR 1998**

Daily Forecast of the Stock of the Monetary Base	
(Billions of Pesos)	

DAYS	JUL	AUG	SEP	OCT	NOV	DEC
1	99.9	101.2	99.8	98.8	102.6	109.7
2	101.1	101.2	98.5	99.2	102.6	110.2
3	102.0	100.0	98.9	99.2	101.4	112.9
4	102.0	98.2	99.0	99.2	100.3	114.9
5	102.0	97.4	99.0	97.9	100.7	114.9
6	101.1	98.2	99.0	96.5	101.0	114.9
7	100.1	98.4	97.6	95.9	101.0	115.4
8	100.3	98.4	96.0	96.8	101.0	116.0
9	102.1	98.4	95.7	97.4	99.5	117.8
10	103.7	97.2	97.2	97.4	98.7	122.0
11	103.7	96.2	98.9	97.4	99.5	127.5
12	103.7	96.7	98.9	96.4	102.2	127.5
13	103.2	99.1	98.9	96.0	104.0	127.5
14	102.9	100.5	99.2	97.1	104.0	130.6
15	102.6	100.5	98.8	99.2	104.0	132.2
16	103.2	100.5	98.8	100.1	103.2	133.5
17	103.2	99.4	99.2	100.1	102.4	136.9
18	103.2	97.8	99.0	100.1	102.7	139.3
19	103.3	97.1	99.0	98.7	104.8	139.3
20	101.5	97.9	99.0	97.4	104.8	139.3
21	99.8	98.2	97.1	96.9	104.8	137.9
22	98.9	98.2	95.3	97.6	104.8	136.4
23	99.5	98.2	94.3	98.3	103.4	136.0
24	99.8	96.8	95.4	98.3	102.5	137.7
25	99.8	95.6	96.5	98.3	102.9	137.7
26	99.8	95.5	96.5	97.4	106.3	137.7
27	98.6	97.6	96.5	96.7	109.4	137.7
28	97.8	99.7	96.5	97.6	109.4	134.5
29	98.3	99.7	96.9	100.3	109.4	132.4
30	100.2	99.7	97.7	102.6	110.1	132.4
31	101.2	99.8		102.6		133.4

 <sup>1/</sup> Although these expectations declined throughout the year.
<sup>2/</sup> The 28 Cetes rate was used instead of the TIIE because the former's time series allows for a broader multiannual comparison.

- <sup>3/</sup> Net international assets are defined as gross reserves plus more than six months' maturity credit agreements with central banks minus liabilities with the International Monetary Fund and less than six month maturity liabilities resulting from agreements with other central banks.
- The measures mentioned in items 1) and 2) are still in force.

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<sup>&</sup>lt;sup>5/</sup> Most central banks in the world proceed in this way.

<sup>&</sup>lt;sup>6/</sup> It should be mentioned that, in order to avoid said scheme from inducing an excessive volatility on 24-hour wholesale money maket interest rates, limits have been established for the positive and negative balances of the credit institutions' accounts which qualify for the monthly average. When a credit institution, at the day's closing, shows an overdraft above the negative balance limit, twice the Cetes rate is immeditaley charged. In turn, when at the close of a particular day, the current account balance of a certain bank is positive and above the positive balance limit, the excess on the limit is not considered on the calculation of the accumulated balance for the reporting period, that is, it does not help to compensate other days' overdrafts.

<sup>&</sup>lt;sup>7/</sup> This means in the absence of distortions in the money market which do not occur very frequently.