

Inflation Report

July - September 2000

Summary

The document herein summarized presents the analytical considerations upon which monetary policy decisions have been made by Banco de México during the third quarter 2000. In addition to containing the evaluation of several aspects of the Mexican economy's performance that affect inflation, this report includes a new chapter to announce the targets that will guide monetary policy actions for the period 2001-2003.

Recent Evolution of Inflation

In the third quarter of 2000 the evolution of prices was favorable. The following developments deserve particular mention:

- (a) Annual inflation, measured by the National Consumer Price Index (*Indice Nacional de Precios al Consumidor*, INPC), continued to decline, having reached 8.85 percent in September.
- (b) Core inflation maintained its downward trend, both in the services and merchandise sectors. In September, the core inflation index and the merchandise and services subindices posted annual growth rates of 8.26, 7.64 y 9.19 percent, respectively.

Nonetheless, some events that to some extent held back the decline in inflation included the following:

- (a) An increase in the annual growth rate of the agricultural and livestock price sub-index, and the rather stable annual growth rate of the prices of goods and services provided or regulated by the public sector.
- (b) Although the upward trend displayed in the second quarter by the National Producer Price Index (INPP) excluding crude oil and services was interrupted in the third quarter, it has not reversed completely. This

behavior is largely explained by the indirect impact of higher international oil and natural gas prices on some components of this price index.

Main Determinants of Inflation

Some of the main determinants of inflation include exchange rate variations, wage revisions, changes in the prices of goods and services provided or regulated by the public sector, and aggregate demand pressures. In the short-term, inflation is also influenced by transitory and seasonal phenomena such as rises in tuition fees.

In the July-September quarter, the overall evolution of the main external variables affecting the Mexican economy was favorable. This was reflected by the stable behavior of the exchange rate. The most significant positive elements of the external environment included: indications that the United States' economy is gradually slowing down towards a growth rate sustainable over the medium-term; the lack of evidence suggesting possible inflationary pressures in that country; and higher oil prices. Although the latter factor has so far had a beneficial impact — increasing the value of Mexican crude oil exports— should considerable hikes in crude oil prices be observed in the future, the expansion of the world economy could be put in jeopardy and inflationary pressures could surface in the economies of industrialized nations. This potential aftermath would negatively affect the Mexican economy. Furthermore, higher international energy prices have triggered hikes in the domestic prices of natural gas and wholesale energy, thus hindering efforts to bring down inflation.

The external environment affects the performance of the domestic economy through its repercussions on the trade balance, the capital account, and the exchange rate. Specifically, the expansion of the United States' economy in the third quarter of 2000, along with higher international oil prices, have had a positive influence on Mexico's trade balance. In addition, conditions prevailing in international financial markets have also promoted capital flows into the country. Thus, in the July-September period, the exchange rate appreciated with respect to its previous quarter level, and remained below the average level that private sector analysts had projected at the onset of the third quarter. Consequently, the evolution of the exchange rate contributed to the decline in domestic inflation.

In another realm, since late 1998 contractual wage revisions have been negotiated based on excessively high inflation expectations. As a result, real wages have grown beyond the parameters warranted by productivity gains, causing the escalation of unit labor costs. This could eventually translate into additional inflationary pressures.

While employment has continued to expand at a practically constant pace, the open unemployment rate rebounded—notwithstanding the fact that it remains at historically low levels. The rebound could be due to the moderate slowdown of economic activity recently shown by some indicators.

If aggregate demand grows at a faster rate than installed capacity, inflationary pressures may ensue in the medium-term. Available data suggest that the domestic component of aggregate demand and production may already have started to decelerate in the third quarter. However, domestic demand, and consumption in particular, are still growing at very high rates, exceeding the growth rate of production.

The presumption that domestic demand may have expanded at a faster rate than production in the third quarter is supported by the fact that the trade deficit widened between the second and third quarters in spite of larger oil exports. To date, pressures on the trade balance resulting from the robust expansion of aggregate demand have been offset to a large extent by the considerable increase in the value of oil exports and manufactured exports to the United States.

Moreover, the current account deficit has been financed mainly by long-term capital inflows, as in previous years.

There is still no indication that the expansion of domestic demand beyond that of production may have affected the evolution of the prices of most non-tradables. However, the recently observed annual inflation rate for the education sub-index may represent an early sign of the impact domestic demand may be having on the prices of non-tradable goods and services. Likewise, domestic demand pressures may lie behind the rigidity shown by contractual wages and the rise in unit labor costs. Thus, the growth in demand may have been affecting production costs, which could eventually be passed on to consumer prices—especially in the context of economic expansion.

In the third quarter of 2000, the price index of goods and services provided or regulated by the public sector grew at an annual rate close to 12 percent. This figure is considerably higher than the one reported by the INPC for the period. In other words, the prices of those goods and services have risen faster than overall inflation for the second quarter in a row, thus representing an additional inflationary pressure.

Public finances have performed in line with the program outlined at the beginning of the year. Nonetheless, the favorable evolution of the Federal Government's oil proceeds has been partially offset by lower non-recurring revenues.

In the July-September period, the education price index accumulated a 12.2 percent annual increase, as a result of the upward adjustment in tuition fees that takes place at the beginning of each school year. The above figure does not represent a conclusively favorable result when compared to the 14.71 percent rise posted by the education price index in the same quarter of 1999. This is so because the observed decline was less impressive than those posted by the INPC and by the services core inflation index.

In September 2000, the prices of agricultural and livestock products rose significantly less than overall inflation.

Monetary Policy

In the third quarter of 2000, Banco de México decided to tighten its monetary policy

stance. Thus, on July 31st the “short” was widened from 230 to 280 million pesos, and was maintained at that level for the remainder of the quarter.

The tightening of the Central Bank’s monetary policy stance was intended to induce a correction in the growth rate of domestic demand, as well as an improvement in inflation expectations so as to maintain them within a path consistent with the medium-term inflation target.

Inflation expectations for the following twelve months posted a significant reduction soon after the “short” was widened on July 31st, while their downward trend for the current year strengthened. In turn, interest rates on 28 and 91-day Cetes rose by one percentage point between the week before and the week after the monetary adjustment. Nominal and real interest rates on those securities posted additional increases close to 150 and 50 basis points, respectively (as of August 21st and 22nd). A slight downward trend was observed after that, which nevertheless tapered off in late September.

Therefore, the monetary policy actions implemented by Banco de México in the quarter prompted an increase in interest rates and a reduction in the inflation rate expected for this year and for the following twelve months. Nevertheless, inflation expectations are still not completely compatible with the objective of converging with inflation rates prevailing in the economies of Mexico’s main trading partners by year-end 2003.

It has been mentioned in previous issues of this document that the relationship between growth in monetary aggregates and inflation tends to become less stable in the short-term as inflation declines. Therefore, as the fight against inflation has borne fruit, the Central Bank has increasingly used monetary aggregates as an ancillary reference to the analysis of other variables affecting price growth.

As of September 30, 2000, the monetary base stock had contracted by 27,319 million pesos as compared to the 1999 year-end stock. The monetary base path foreseen in the Monetary Program for 2000 contemplated a 30,262 million peso reduction for this period. By the end of the third quarter, a 1.9 percent deviation between the observed stock and the estimated figure was reported. Said deviation was nevertheless below

the ceiling of the corresponding confidence interval for the annual forecast (+/-3.07 percent). So far this year, economic growth, inflation and remonetization have come in at levels different from those originally anticipated. In particular, the economy has expanded more vigorously, and consequently a greater demand for real money balances has ensued. In turn, lower inflation has had two opposing effects on the monetary base: on the one hand, lower inflation has caused a more moderate increase in the public’s demand for nominal money balances; on the other hand, by inducing lower nominal interest rates, it has encouraged a greater remonetization. As a result of the combination of the aforementioned factors, the monetary base average daily stock grew at a 24.7 percent annual rate in September, slightly above the rate anticipated for that month in the Monetary Program (23.1 percent).

Although base money may appear to have been expanding at an excessively fast pace, this can be partly attributed to a purely statistical phenomenon. Since the second semester of 1999, and as a result of lower inflation and interest rates, the Mexican economy has witnessed the acceleration of the remonetization process. Therefore, it is not surprising that high annual growth rates are obtained when comparing the monetary base stocks corresponding to dates after the remonetization against those posted in periods prior to the remonetization. By the end of year 2000, this statistical effect will tend to disappear as the monetary base’s annual growth rate and the remonetization rate decline, in line with the figures anticipated in the Monetary Program for 2000.

Private Sector Expectations

The expectations of most financial analysts regarding the future evolution of the main external variables affecting the Mexican economy have continued to be favorable in general. However, the following forecasts deserve special consideration:

- (a) The estimated growth for the United States’ economy in the third quarter is 5.3 percent. The forecast for the year 2000 as a whole has been revised upward, from 3.6 percent in January to 5.2 percent in September.

- (b) The anticipated average price for the Mexican crude oil export mix is 25.32 dollars per barrel for the fourth quarter, and 20.85 dollars for 2001.

Regarding the exchange rate, the private sector foresees its level to be at 9.53, 9.66 and 9.73 pesos per dollar at the close of October, November and December, respectively. According to the peso's futures price on October 9th, the December 2000 exchange rate is expected at 9.66 pesos per dollar.

As for nominal contractual wages, analysts expect them to rise 11.89 and 11.57 percent in October and November.

Finally, during the quarter economic analysts revised their expected growth rates for economic activity and domestic demand upward. Likewise, indicators of the business climate have shown a considerable improvement since June.

The monthly inflation forecasts for the October-December period obtained by Banco de México in the September survey came in below those reported by the June survey. The most recent forecasts indicate that accumulated inflation for the fourth quarter is estimated at 2.44 percent.

Inflation expectations for the year 2000 as a whole and for the following twelve months were also revised downward in the third quarter, coming in at 8.84 and 8.16 percent, respectively. However, inflation expectations for 2001 have not evolved as favorably, for they have declined less than the former. Inflation expectations for 2001 are a source of concern as they seem to have relatively stagnated at levels incompatible with the Central Bank's medium-term targets.

In conclusion, the private sector's inflation expectations obtained through surveys, as well as those implicit in financial asset prices, indicate that a significant decline in inflation is not foreseen for the following year. Should this perception stick, price formation processes could be affected —as well as those concerning wages— thus amplifying the social cost of attaining the proposed targets.

Assessment of Risks and Conclusions

Although the results so far obtained with regards to inflation are sufficiently good to ensure that the target proposed for year 2000 will

be adequately met, the following considerations are cause for concern:

- (a) The downward inflexibility shown by the annual inflation rate of the price index for goods and services provided or regulated by the public sector, as well as the recent increase in annual inflation posted by the agricultural and livestock price index.

- (b) The 15.08 percent annual increase observed in the education sub-index last September.

Moreover, some elements that had been identified as possible signs that that growth in domestic demand could be affecting production costs intensified in the third quarter. Among these elements, the following stand out:

- (a) Unit labor costs rose in three out of four production sectors for which recent information is available.
- (b) Nominal contractual wage increases have remained practically constant throughout the first nine months of the year, while inflation forecasts have been adjusted downward repeatedly.

For the remainder of 2000 and for next year, Banco de México estimates that the external environment will continue to exert a positive influence on the Mexican economy overall. Nonetheless, in the year 2001 said influence is expected to be less favorable than it has been during the current year. Therefore, the Central Bank's projections are based on the following assumptions:

- (a) The United States' economy will slowdown gradually throughout the remainder of 2000 and 2001. This is expected to forestall the upsurge of additional inflationary pressures in that economy.
- (b) Oil prices will tend to decline during the remainder of 2000 and throughout 2001.

The Mexican economy is expected to remain in a gradual deceleration path as well.

As part of the previously described base scenario, the Central Bank is also assuming that the gap between the inflation target proposed for 2001 and inflation expectations for that year will persist for the remainder of 2000 and the first few months of 2001. This, combined with a growing domestic demand, suggests that the restrictive bias of monetary policy may need to be maintained, and possibly strengthened, in order to attain the proposed targets.

The external environment risk factors that could impinge upon the abatement of inflation and limit economic expansion are the following:

- (a) severe adjustments in oil prices;
- (b) a drastic deceleration in the United States' economy;
- (c) an unanticipated increase in that country's interest rates; and
- (d) a crack in the American stock market.

Should any of these possibilities materialize, foreign currency would become scarcer and, consequently, a depreciation of the peso's real exchange rate would likely ensue. In such a situation, the corresponding adjustment of the nominal exchange rate would be the most appropriate mechanism to move towards a more depreciated equilibrium real exchange rate. However, due to the high correlation that has been observed historically in Mexico between exchange rate fluctuations and inflation, the exchange rate adjustments that could take place would lead to a deterioration in inflation expectations, and ultimately affect the negotiation of all sorts of contracts in the domestic economy. Therefore, the monetary authority will act swiftly should there be any indication that adjustments in the exchange rate may be causing medium-term inflationary expectations to be revised upward or affecting the evolution of the prices of non-tradables.

The corresponding monetary policy actions would not be aimed at defending a specific exchange rate level. However, in light of the considerations presented in the previous paragraph, the revision of inflation expectations that could probably result from an exchange rate depreciation could raise the cost—in terms of inflation—of reaching a new equilibrium real exchange rate. Therefore, Banco de México's interventions would focus on facilitating the necessary adjustment in the real exchange rate at the lowest possible cost in terms of inflation.

In addition, under the aforementioned circumstances, a fiscal adjustment would also be essential. By means of this adjustment, the public sector would contribute to boosting the level of domestic saving required for the Mexican economy to offset a reduction in external financing as well as lower export revenues—from both oil and non-oil exports. If

oil prices were to fall, a fiscal restriction would also be indispensable in order to attain the targets proposed for public finances.

The base scenario assumes that the growth in domestic demand will be corrected in order to limit the expansion of the current account deficit and maintain the latter at a level compatible with the availability of long-term capital flows.

Should the aforementioned domestic risk factors materialize, they might do so simultaneously, because an excessive growth in domestic demand would cause downward rigidity in inflation expectations. In this context, the macroeconomic policy challenge would be to attain a quick reduction in the rate of domestic aggregate spending growth, bringing it down to levels compatible with the Mexican economy's potential growth. The coordinated implementation of fiscal and monetary policies would be crucial to attaining this objective.

In light of the high cost inherent to implementing restrictive monetary or fiscal policies when the external environment deteriorates, and considering the probability that some of the aforementioned shocks may indeed take place, it is highly advisable to use both policies in a preventive fashion.

In particular, a correction in oil prices towards their long-term equilibrium level is only a matter of time. Therefore, Banco de México has urged repeatedly that the sensible course to follow would be to take action as of now in order to curtail the expansion of domestic demand and be better prepared to face a sudden change in the external environment.

Monetary Policy Strategy and Inflation Targets

The main objective of Banco de México's monetary policy is to attain general price stability. The corresponding constitutional mandate is based on the overwhelming domestic and international evidence that shows that high and even moderate inflation has very harmful effects on growth, real wages, job creation, income distribution, public finances and the soundness of credit markets.

Domestic evidence reveals without ambiguity that high inflation and recurrent crises,

caused by flawed economic policies, are the main reasons behind the poor performance of real wages over the last 30 years. Real wages have fallen even below the levels prevailing before the economic expansions that preceded such crises.

It is not unusual for real compensations to deviate from their sustainable long-term trend. This situation may continue until foreign capital flows are interrupted, or even reversed, giving place to balance of payments crises, sharp exchange rate devaluation and surges in inflation. Historically, all these phenomena have severely affected real wages.

When nominal wages increase at a pace incompatible with expected inflation and productivity gains, this can be an early indication of inflationary pressures. Therefore, if real wage gains are to be permanent, it is very important that wage negotiations take expected inflation and feasible productivity gains into consideration.

If wage revisions are incompatible with productivity growth and with inflation targets, the social cost inherent to the disinflation process rises, as firms' production costs increase. Faced with this situation, and having exhausted the possibility for absorbing higher costs by reducing their profits, firms would try to pass higher costs on to the consumer via price hikes. Should the monetary authority accommodate these hikes, inflation would rise, which would in turn reduce or nullify the originally intended improvements in real wages.

By recommending that nominal wage increases be congruent with the inflation targets and with expected productivity gains, Banco de México's ultimate goal is to attain and preserve the economic stability required for a continuous improvement in real wages, and avoid the welfare setbacks and costs brought about by crises. Price stability is not an end in itself; however, by attaining it monetary policy seeks to improve the living standards of the population.

Since inflation in Mexico is still high, the Board of Governors has considered that in order to attain a permanent decline in inflation a gradual strategy is preferable, because it reduces the social costs of the process. Evidence from countries that have abated inflation, having started at levels similar to those observed today

in Mexico, confirms the soundness of the strategy adopted by Banco de México.

A fundamental element determining the costs of the disinflation process is how credible the monetary authority's announcements are to the public. To the extent that these announcements do influence the evolution of prices and wages, economic agents' actions will be compatible with the monetary authority's inflation targets. Therefore, a consensus in this regard would minimize the monetary restraint needed to attain the objective. On the other hand, if economic agents' actions are incompatible with the monetary authority's targets, and prices and wages are therefore determined considering inflation expectations above the official targets, the monetary authority will have to drastically tighten monetary policy.

The best way to improve the public's credibility on the monetary authority's stated objectives is to invariably achieve the proposed goals. Moreover, in order to facilitate the confidence building process, the monetary authority must announce specific targets and act in a timely fashion to guarantee their attainment. Should inflation depart from the short-term target due to factors beyond the control of the monetary authority, the Central Bank must explain in detail the reasons for such deviations. In addition, the monetary authority should make its best effort to estimate the repercussions of its actions as well as the timeframe in which inflation could return to its originally envisaged path.

With this approach in mind, the Board of Governors of Banco de México decided that the Monetary Program for 1999 was to include, in addition to the annual inflation target, a medium-term objective: to converge with the inflation rates prevailing in the economies of Mexico's main trading partners by 2003. Furthermore, the Monetary Program for 2000 announced the publication of quarterly inflation reports.

On this occasion, and in order to provide some parameters to evaluate the conduct of monetary policy in the short- and medium-term, the Board of Governors has decided to set the annual inflation target for 2001 at a rate not to exceed 6.5 percent. In addition, the Central Bank will endeavor to bring the annual INPC inflation rate down to 3 percent by December 2003. In

line with these objectives, the inflation target for 2002—which will be formally announced in due time in the course of next year—should be around 4.5 percent.

Since inflation can be affected in the short-term by factors beyond the monetary authority's control, it is possible that the announced targets could not be attained in any given year. In such circumstances, the medium-term objective shall become the system's nominal anchor; in other words, should the monetary authority acknowledge that the short-term target will not be attained, it will have to simultaneously implement the appropriate actions to achieve the original medium-term objective. These actions would limit the deterioration of inflation expectations and allow the restoration of inflation's downward trend.

The implementation of an extremely restrictive monetary policy can sometimes achieve the desired outcome in the short-term, although at a high social cost or by means of generating disequilibria in some markets. The subsequent correction of these disequilibria would cause future inflationary pressures, making the initial reduction in inflation unsustainable.

The prudent management of public finances has significantly contributed to the attainment of the inflation targets in the last two years. However, the soundness of the fiscal accounts today is partially supported by high oil revenues. This illustrates how vulnerable the macroeconomic framework and further declines in inflation are to a sudden reduction in oil prices. The excessive dependence of public revenues on oil income represents one of the most serious flaws in Mexico's fiscal structure. It is therefore of the utmost importance to reduce the stated dependence and bolster public finances by means of a fiscal reform.

Should price hikes result from the fiscal reform, inflation would temporarily deviate from its proposed target in the short-term. Nevertheless, should the monetary authority's preemptive actions succeed in avoiding the secondary effects, in the medium-term inflation would return to the originally stated objectives. If as a result of the above, the possible short-term revision of inflationary expectations is contained,

the inflation abatement process would be reinforced by a sounder fiscal stance. Therefore, in spite of the short-term effects of fiscal reform on inflation, the feasibility of attaining the medium- and long-term objectives would increase.

The elements that are considered necessary to achieve the inflation target proposed for 2001 and the convergence with the 3 percent inflation objective by 2003 are as follows:

- (a) adjustments in the prices of goods and services provided or regulated by the public sector in line with inflation objectives;
- (b) wage increases in step with sustainable productivity gains and with the inflation target;
- (c) absence of severe external shocks—such as a deterioration in the terms of trade or reductions in the supply of foreign capital—that would require a considerable modification of the real exchange rate; and
- (d) a structurally sound fiscal stance; in this regard, it should be stressed that in order to achieve this objective, an integral fiscal reform will probably be required, which could have short-term upward effects on prices.

Banco de México's quarterly Inflation Reports would include an assessment of the possible consequences of any of these conditions not being met, as well as an estimate of the speed at which the inflationary disruption could be absorbed. Obviously, this exercise would be subject to a considerable degree of uncertainty. In the context of the aforementioned fiscal reform or of adjustments in the prices of goods and services provided or regulated by the public sector, the analysis of core inflation would become increasingly meaningful, since it excludes the direct effects of such disturbances and is very useful to determine the magnitude of the indirect inflationary effects. Also, within this context, monetary policy would most likely have to be tightened in order to bring general inflation back to levels compatible with the medium-term objectives. Thus, the inflation targets' role as the system's nominal anchor would be reinforced and the contamination of medium- and long-term inflation expectations would be avoided.

Inflation Report Summary

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