

# Inflation Report

*October - December 2006*

## Monetary Program

*for 2007*

# Summary

**T**he world economy grew vigorously in 2006. A positive performance is foreseen for 2007, although growth is expected to slow down gradually. As for the U.S., despite a weaker real estate market, the expansion of aggregate demand is expected to continue.

Worldwide inflationary pressures have started to diminish, as a result of both the downward phase of the business cycle currently underway and the reduction in oil prices. In particular, world headline inflation has declined in recent months, and inflation expectations for the medium and long terms remain well anchored. Consequently, market participants and analysts expect the U.S. federal funds rate to remain at its current level in the coming months.

These factors have contributed to the maintenance of favorable financial conditions, as reflected by the low levels of long-term interest rates in the U.S. and the greater appetite for risk in international capital markets.

Under such conditions, during the last quarter of 2006, economic activity in Mexico continued to grow, although slightly below the rate recorded in the first three quarters. On the domestic aggregate demand side, the strength of consumption and the dynamism of investment stand out. As for external demand, its growth rate began to slow down.

During the last months of 2006, diverse supply shocks arose and prompted a rebound in annual headline inflation. These pressures affected both non-core and core inflation. Regarding the former, prices of certain vegetables increased due to adverse weather conditions. As for core inflation, sugar and corn-tortilla price increases stand out. Price increases in corn-tortillas were initially triggered by the rise in corn's international price references. This upward movement was further intensified by some distortions characterizing the corn-tortilla production chain. In this regard, the

federal government implemented several actions to foster a greater supply of corn in order to stabilize prices.

The effects of these shocks were confined to a few products and, although they have implied changes in relative prices, they are not expected to contaminate the price and wage determination processes. Up to now, analysts' inflation expectations for the medium and long terms apparently have not been affected. Nonetheless, given the rebound of inflation, Banco de México's Board of Governors will closely monitor prices and inflation expectations, particularly those for the medium term, as well as their possible effects on wages. As mentioned in Banco de México's press release of January 26, should supply shocks affect these variables negatively, the Board will adjust monetary policy so that inflation can resume its converging trend towards its target.

### ***Recent Developments in Inflation***

During the third and fourth quarters of 2006, certain supply shocks prompted a rebound in annual headline inflation, which ended the year at 4.05 percent (in June and September annual headline inflation recorded 3.18 and 4.09 percent, respectively). Pressures concentrated in a reduced number of items of both core and non-core components.

Annual core inflation reached 3.61 percent in December 2006, figure above those observed in June and September (3.22 and 3.45 percent, respectively). This increase was mainly determined by the behavior of corn-tortilla and sugar prices. In particular, the referred price increases accounted for 70.8 percent of the increase of this indicator during the second half of the year.

The core merchandise and services subindices recorded diverging results during the second half of 2006. The annual variation of the services subindex decreased, mainly as a result of a decline in the

## Summary

growth rate of housing prices. This was due to the price reduction of certain materials manufactured from steel, generated by the fall in the international price references of this metal and to the normalization of steel domestic production. During the second half of 2006, the merchandise subindex grew at a higher annual rate, mainly as a result of price increases in corn-tortillas and sugar. Excluding both items from annual core inflation calculations, and normalizing the weights of the rest of the items that make up this basket, this indicator would have been 3.30 percent (as compared with the 3.61 percent recorded).

In response to the corn-tortilla price increase, in January 18, 2007, the federal government, along with producers and distributors of the corn-tortilla production chain, agreed on several measures to stabilize corn-tortilla prices at a maximum of \$8.50 pesos per kilogram in *tortillerías* (tortilla-manufacturing retailers), and \$6.00 pesos in supermarkets. The federal government also determined that Diconsa would sell corn-tortillas at \$3.50 pesos per kilogram. These measures were complemented with duty-free import quotas for corn, and the setting of maximum prices for corn and corn flour. This agreement will be revised April 30, 2007. Preliminary information suggests that these actions have contributed to limit the increases in corn-tortilla prices.

Between June and December, sugar prices recorded an annual variation from 2.09 to 31.93 percent. The price increase of sugar was not associated with increments in its international price references. In response to the increase, import quotas were authorized as of August 30. In addition, the availability of sugar increased as a result of the sugar cane harvest that began in November. Nonetheless, the decline in sugar prices was limited (in December 2006, sugar domestic prices were above their international references by 136 percent).

Annual non-core inflation was 4.96 percent at the end of 2006, 1.84 percentage points above June figures. Greater pressures on this index were observed during the third quarter of the year, mainly as a result of the price increase in tomato, due to adverse weather conditions. During the fourth quarter, these pressures began to diminish, as the supply of this product began to normalize. Nonetheless, its effect on inflation was partially reverted by a significant increase in onion prices, which recorded an annual variation of 189.09 percent in December. The contribution of onion prices to inflation was of such magnitude that if it were excluded from CPI calculations, and the rest of

the weights of the basket normalized, annual headline inflation would have been 3.83 percent. An additional factor that indirectly limited the decline in non-core inflation during the fourth quarter was the price increase in grains, particularly corn, as these are used to prepare balanced food, which also prompted a rise in poultry and egg prices.

The behavior of the subindex of administered prices was a factor that helped to contain the rise in non-core price inflation during the second half of 2006. The annual growth rate of this subindex reached 4.42 percent at the end of 2006 (in June and September, this figure was 8.18 and 7.29 percent, respectively).

### **Main Determinants of Inflation**

#### *International Environment*

The world economy expanded significantly during the fourth quarter of 2006. Although U.S. GDP growth seems to have been below the rate observed in the first half-of-the-year, incoming information suggests that both Euro area and emerging market economies grew vigorously, while growth in Japan recovered from the slow pace recorded during the third quarter. The decline in oil prices from record highs reached in July alleviated inflationary pressures considerably. In this environment, emerging economies continued to face favorable conditions for international financing and risk premia on bonds from emerging market issuers fell to new historical lows.

#### *Aggregate Demand and Supply in Mexico*

Mexico's economic activity expanded significantly in 2006. GDP growth was the highest in six years and the same results were observed in some of the most important components of aggregate demand. Nonetheless, the dynamism of GDP and demand decreased slightly during the second half of the year and, particularly, during the fourth quarter. The main aspects that characterized aggregate demand in 2006 were: i) both components of aggregate demand -domestic and external- grew significantly at annual rates; regarding domestic demand, consumption expenditure recorded an annual variation that exceeded that observed in the previous five years; ii) investment growth -both public and private- was also high; of its components, imported capital goods exhibited the highest growth rates; and, iii) during the entire year, exports of goods and services showed an increase as compared with 2005.

Domestic expenditure, in particular, private consumption expenditure, was boosted by higher revenues from both workers' remittances and the high surplus of the oil trade balance. Nonetheless, both items lost strength during the second half of the year, especially in the fourth quarter. Private consumption expenditure was also boosted by the improvement of employment, by higher real earnings in some sectors, and by an increase in financing availability from commercial banks, non-bank financial intermediaries, and chain stores.

Output grew vigorously during 2006, in particular, industrial production, although its expansion lost strength during the last months of the year. GDP is expected to have grown at an annual rate above 4 percent during the fourth quarter and approximately 4.8 percent during the entire 2006.

The highest growth exhibited by both GDP and domestic demand in 2006 (as compared with previous years) did not lead to significant pressures on the economy's production capacity use.

#### *Costs and Prices*

During 2006, wage increases negotiated by firms under federal jurisdiction were 4.1 percent (0.3 percentage points below those granted during the previous year).

The subindex of administered prices recorded an annual variation of 4.42 percent at the end of 2006 (8.18 and 7.29 percent in June and September, respectively). The reduction observed during the second half of the year was influenced by the decline in the international prices of several energy products. The decrease in gasoline prices at border cities and the reduction in natural gas prices at the end of the third quarter contributed to the fall in the growth rate of gas for residential use and high consumption electricity tariffs (*Tarifas Eléctricas de Alto Consumo*, DAC).

The subindex of regulated prices recorded an annual variation of 1.83 percent in December 2006. The absence of revisions in public transportation tariffs in cities that have a high weight in the CPI basket contributed to the low level of this indicator during the year.

International prices of grains rose significantly during the fourth quarter of 2006 and their futures suggest that they could remain high for the next year. In contrast, international references of beef and pork meat declined during the September-December 2006 period; nonetheless, futures of both

commodities suggest that these could increase in 2007. International prices of several materials manufactured from steel decreased. Steel domestic prices were also influenced by the settlement of the labor conflict that affected the steel industry between February and September 2006.

#### *Monetary and Credit Aggregates*

During 2006, the monetary base grew on average 16.2 percent in annual terms, above 2005 figures (12.1 percent). Although part of this increase can be explained by the faster rate of growth of the economy, and by the further reduction of interest rates, it could also be reflecting temporary factors like a greater use of cash, which usually is associated with federal elections.

Up to the third quarter of 2006, the annual flow of financing sources accounted for 6.3 percent of GDP. Although this figure is similar to the average observed flows in recent years (6.2 percent between 2003 and 2005), there has been a significant redistribution of resources. Public sector's lesser borrowing requirements have freed resources, which have been shifted to the private sector. Thus, in the last years, the annual flow of financing to firms has increased, accounting for 1.4 percent of GDP up to the third quarter of 2006. The annual flow of financing to households has also increased (2.6 percent of GDP in the third quarter of 2006).

#### *Monetary Policy Actions*

Several supply shocks affected both non-core and core inflation in Mexico in the last months of 2006. Regarding core inflation, the price increases in two items (sugar and corn-tortillas) accounted for more than two thirds of the rebound of core inflation during 2006. As expected, in response to these shocks, inflation expectations for horizons under 12 months were revised upward in the last months of 2006. Nonetheless, those corresponding to longer horizons remained stable during the last quarter of 2006. In particular, Banco de México and Infosel's fourth quarter surveys of expectations for annual headline inflation for the end of 2007, 2008, and for the average of the next four years were around 3.5 percent, levels similar to those observed in the previous quarter. Expectations for annual core inflation for the end of 2007 and 2008 remained around 3.25 percent in the last two quarters of the year.

As a result of the increase in corn-tortilla prices during the first weeks of January 2007, indicators of inflation expectations for horizons below 12 months

## Summary

were revised upward. In particular, those corresponding to headline inflation for the end of 2007 from the Infosel survey were revised, from 3.51 percent in January 5, to 3.67 percent in January 26. Since tortillas are included in the core index, during the same period, expectations for this index for the end of 2007 were revised, from 3.30 to 3.45 percent. However, the revision of expectations for horizons beyond 12 months was significantly smaller. That is, from January 5 to January 26, expectations for headline inflation for the end of 2008 from the Infosel survey were revised from 3.51 to 3.54 percent, while those for core inflation were revised from 3.28 to 3.34 percent. Finally, expectations for average headline inflation for the next four years remained practically unchanged (from 3.47 to 3.46 percent). This suggests that, up to now, analysts expect supply shocks to affect inflation only temporarily.

Under an inflation targeting framework, when inflationary pressures originate from the demand side, the recommended response is that the central bank should tighten its monetary policy stance. In this case, inflationary pressures could be generalized and, if not contained, could lead to a permanent rebound in inflation. When inflation pressures originate from the supply side, they usually reflect changes in relative prices, which should affect inflation temporarily. Since their effects on inflation will disappear, the monetary authority should not try to offset these pressures. However, should these pressures contaminate inflation expectations and, in general, the price setting process, the central bank must tighten monetary policy to prevent further price increases (second round effects).

Based on the aforementioned, Banco de México's Board of Governors decided to leave the monetary conditions unchanged, as specified in its press releases of October, November and December 2006, and January 2007. The overnight bank funding rate thus remained at 7 percent (unchanged as compared with the previous quarter).

During the last quarter of 2006, domestic financial markets benefited from favorable global financial conditions and from greater appetite for risk as compared with previous quarters. As a result of the aforementioned environment and the stability of Mexico's overnight bank funding rate, during the fourth quarter, the yield curve flattened and interest rate spreads in relation to the U.S. decreased. Nonetheless, during the first weeks of January 2007, long-term interest rates in Mexico increased, and therefore, part of the flattening of the yield curve that was observed during the previous quarters reverted.

Despite the aforementioned, domestic spreads between one-day and long-term interest rates (10, 20, and 30 years) remain at relatively low levels.

### **Balance of Risks and Final Remarks**

Based on the abovementioned conditions, and on most recent information on the Mexican economy, Banco de México's baseline scenario for 2007 is as follows:

**GDP Growth:** Between 3.25 and 3.75 percent.

**Employment:** Creation of approximately 750 thousand jobs in the formal sector (number of workers insured by the IMSS).

**Current Account:** Current account deficit of around 1.4 percent of GDP.

**Inflation:** The aforementioned supply shocks could likely affect inflation during the first half of 2007. Consequently, during this period, headline inflation is expected to be between 4 and 4.5 percent, and core inflation could be above 4 percent. Two elements will contribute to this result. First, it is important to remember that both annual headline inflation and annual core inflation were at low levels during the first half of 2006. With this base of comparison, inflation is expected to be high for the same period of 2007. Second, changes in relative prices affect annual inflation during twelve months. Since the increase in corn-tortilla prices is partially reflecting the increase in corn's international references, it will contribute to maintain annual core inflation relatively high during the first half of 2007. The mentioned shocks have affected few products. Therefore, although they have implied changes in relative prices, they are not expected to contaminate the price and wage determination processes of the economy. Thus, both headline and core inflation are expected to close the year at levels between 3.5 and 4 percent. In particular, the following stands out:

a) Annual food inflation, a component of the core subindex, was 5.10 and 6.07 percent at the end of December 2006 and first half of January 2007, respectively, after having reached 3.46 percent in June 2006. This upward trend has not been observed in our main trading partner, and, as mentioned before, it can be accounted for by a reduced number of items, particularly sugar and corn-tortillas. In the next months, as several actions to adjust conditions in both markets take effect, lesser pressures on food prices could be expected. Under this setting, annual food inflation could start to decrease.

b) The annual variation of merchandise prices (excluding food) has remained relatively stable for a long period (around 2 percent).

c) The price subindex of housing services has started to record lower annual variations and these are expected to follow a downward path during 2007. The price subindex for the rest of services is anticipated to record similar annual variations to those observed during 2006 (around 4 percent).

The development of core inflation will depend, mainly, on the path followed by corn-tortilla and sugar prices and, in general, on the behavior of grains' international prices.

d) The rate of growth of the non-core price subindex will continue to be determined, mostly, by the development of the fruits and vegetables price subindex. The volatility of these prices is well known to have a sharp influence on headline inflation.

e) The growth rate of the subindex of administered and regulated prices is expected to follow a similar path as last year, as no significant modifications in the determination of the goods and services prices that compose it are anticipated. Nonetheless, regulated prices could be affected by possible increases in public transportation fares in some cities.

Inflation prospects are subject to the following risks:

i) Although energy prices have declined, they are still high and remain strongly volatile.

ii) International prices of grains have been subject to demand pressures in the last months that could affect certain processed foods and livestock goods. In fact, for some months, food prices have been pushing core inflation upward. This risk gains relevance when considering the importance of these products in the population's consumption basket, and the various distortions that characterize these sectors in Mexico.

iii) The growth rate of services prices remains high.

iv) Inflation expectations are still above the 3 percent target.

Although uncertainty regarding inflation in the short term has increased, analyst expectations for the medium and long terms have remained relatively stable. Nonetheless, contamination risks have increased due to three factors: i) increases in certain products' prices like sugar and corn-tortillas have been significant and have taken place in a disorderly

fashion; ii) currently, international markets perceive further increases in grains reference prices; and, iii) a significant number of supply shocks have taken place since the beginning of last year (domestic prices of steel, tomato, corn-tortillas, sugar, and onion). Therefore, the Board of Governors will remain alert of the price behavior of products other than those mentioned, of inflation expectations (mainly those for the medium term), and their possible impact on wages. Should there be a negative effect of supply shocks on these variables the Board will adjust monetary policy so that inflation can resume its converging path to the target.

Other factors that could mainly affect the base scenario for GDP growth prevail.

i) Economic activity in the U.S. could slow down more than currently expected. Under this scenario, U.S. demand for foreign products would decline, thus affecting significantly Mexican exports.

ii) The risk of a disorderly adjustment in the global imbalances that have been accumulated still prevails. Nonetheless, this is a risk factor for the medium term.

iii) A considerable reduction in oil prices could put pressure on public finances and reduce an important source of financing resources for the economy, therefore affecting growth.

iv) Banco de México has pointed out on several occasions that a risk factor that hampers the possibility to generate higher growth and more and better-paid jobs is the economy's loss of competitiveness. A key element to boost competitiveness and economic development is the structure of incentives in the society. In particular, in the economic front, this structure must include the following elements: i) markets that operate under competitive conditions; ii) flexibility in resource allocation; iii) an institutional framework that can align incentives of the economic agents with higher social-benefit activities (accumulation of physical and human capital, and research and development); and, iv) effective public policies to fight poverty. Up to now, progress in these fronts has been insufficient and has not allowed Mexico to take full advantage of its development opportunities.

### ***Monetary Program for 2007***

Monetary policy in Mexico will be conducted under an inflation targeting framework, which is characterized by: a) the announcement of an explicit multi-annual inflation target; b) a systematic analysis

## Summary

of the current economic conditions and of inflationary pressures; c) a description of the instruments used by the central bank to attain its objectives; and, d) a communication policy that fosters monetary policy's transparency, credibility, and effectiveness.

Banco de México's monetary policy is conducted to attain an annual CPI inflation of 3 percent and to remain permanently around that level. Nonetheless, although monetary policy is implemented to reach this objective, it is subject to a certain degree of uncertainty. This is due to the multiple shocks the economy is exposed to, and to the fact that the relationship between monetary policy actions and its results regarding inflation is imprecise. Therefore, a variability interval of plus/minus one percentage point has been set around the inflation target.

Central bank's monetary policy actions have a lagged effect on the economy, and especially, on the price level. Therefore, to reach the inflation target, the monetary authority must base its decisions on a careful assessment of both the current economic conditions and the outlook for inflation.

Monetary policy decisions are based on a systematic analysis of the current economic conditions and of the inflationary pressures originated by such conditions, using a wide range of variables and indicators, as well as different economic and statistical models. Such analysis allows for identifying the factors that affect the expected development of inflation in order to evaluate their impact on economic agents' inflation expectations and on the price determination process, which are key elements to determine the monetary policy stance.

Banco de México implements monetary policy through different instruments that allow the central bank to communicate its monetary policy stance. Banco de México has two main instruments to induce changes in this stance: a) the setting of explicit references for monetary conditions, and, b) the *corto*. Through the former, Banco de México has been able to signal more clearly its monetary policy stance. Nonetheless, the *corto* remains an available monetary policy instrument that can be used by the Board of Governors whenever deemed convenient.

In order to attain price stability through an inflation targeting framework, the central bank must clearly communicate to the public its objectives, strategy and instruments. The announcement of inflation targets is important as it facilitates the convergence of economic agents' expectations to the targets. This responds to the central bank's commitment to take

the necessary measures to attain its inflation target. Transparency in monetary policy decisions has allowed Banco de México's Board of Governors to explain the reasons supporting its actions. Such transparency generates more certainty among the public and fosters the attainment of the central bank's objectives. Greater transparency, together with communication policy, have contributed to strengthen the accountability of the central bank.