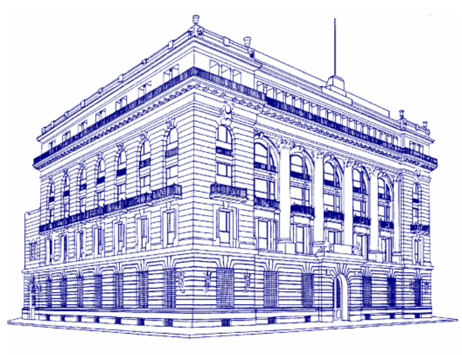
Addendum to the Inflation Report

July – September 2009



BANCO DE MEXICO

DECEMBER 2009

FOREWARNING

This text is provided for the reader's convenience only. Discrepancies may eventually arise from the translation of the original document into English. The original and unabridged Addendum to the Inflation Report in Spanish is the only official document.

Unless otherwise stated, this document has been prepared using data available as of December 1, 2009. Figures are preliminary and subject to change.

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Addendum to the Inflation Report July – September 2009

1. Introduction

The Inflation Report of July - September 2009 reported exclusively on the state of the Mexican economy during that period. After the Mexican Congress approved in November 17 the final version of the 2010 federal budget, composed of the Federal Revenues Law (*Ley de Ingresos de la Federación*, LIF-2010) and the Federal Expenditures for 2010 (*Presupuesto de Egresos de la Federación*, PEF-2010),[1] in this Addendum to the aforementioned report, Banco de México releases its macroeconomic forecasts for the next quarters as well as the corresponding balance of risks.

Information known after publishing the previously mentioned inflation report reveals an economic environment characterized by an expansion of economic activity in different world regions, lower world inflation, and a further improvement in financial market conditions. However, there are still significant risks that prevail. In particular, economic activity has not recovered uniformly throughout the world and continues to depend mainly on macroeconomic stimulus and financial system support policies, especially in advanced economies. The strategy of withdrawing these stimulus measures continues to be a cause of concern. On the one hand, there is the risk that premature withdrawal could stall economic recovery, while delaying withdrawal too much could give rise to inflationary pressures and to the upsurge of price bubbles for different assets. Finally, it is worth mentioning that the world economy is expected to undergo a modest recovery in view of the deleveraging process that aims at reestablishing the soundness of financial systems and adjusting household and firms' balance sheets to long-term sustainable positions, mainly in the U.S.

As foreseen in the July - September 2009 Inflation Report, economic activity in Mexico reached a turning point at the start of the third quarter this year, leading to a 2.9 percent increase in seasonally adjusted GDP during that period as compared with the previous quarter. Other timely indicators of production and aggregate demand components, and various forward-looking and leading indicators, are in line with this change of trend and suggest that Mexico will continue growing during the fourth quarter. Under this environment of world economic recovery, these indicators also suggest that economic activity in Mexico will register positive growth in 2010 and 2011. Nevertheless, economic activity is still relatively weak and a full return to the levels observed prior to the global crisis will probably take some time.

Annual headline inflation continued to decline between September and the first two weeks of November 2009, following the downward pattern exhibited since the start of the year. This behavior is in line with Banco de México's forecasts published in the Inflation Reports of the first two quarters of the year and which were originally shown in the January - March 2009 Inflation Report. The disinflationary process continued to be widespread across all CPI subindices and in all regions of the country. The factors behind this performance are the same as those mentioned in the Inflation Report for the third quarter of the year: first, the fading of the supply shocks that took place during 2008 and which affected food prices and public transportation fares; second, the policy for administered prices which limited the increases in energy prices during 2009; third, sluggish economic

[1] See Ministry of Finance press release of November 19, 2009 "Approval of the 2010 Economic Program".

activity; and, fourth, the greater exchange rate stability and the absorption of most of the pass-through of the exchange rate to consumer prices. The decline in inflation during the last few weeks has also been induced by the price behavior of fruits and vegetables.

In view of the expected impact of the tax modifications approved by the Mexican Congress and the anticipated changes in administered prices and local government prices and fees (regulated prices), the forecast for annual headline inflation has been revised upwards in this document. The effect of the tax changes on inflation is expected to be relatively small, while that stemming from possible changes in goods and services with administered prices and in local prices and fees is expected to be of greater magnitude. In particular, average headline inflation is forecasted to be between 4.75 and 5.25 percent during the fourth quarter of 2010 and converge to the 3 percent target during the last quarter of 2011. This forecast therefore takes into account a temporary rebound in headline inflation next year, which will then revert in 2011. Inflation during 2010 is basically expected to respond to the following: first, the temporary impact of the change in the tax structure on annual inflation; second, the anticipated increase in the growth rate of goods and services with administered and regulated prices due, among other factors, to the considerable gap that currently exists between the domestic and international prices of both gasoline and propane; and, third, the slackened economic conditions which are expected to continue next year.

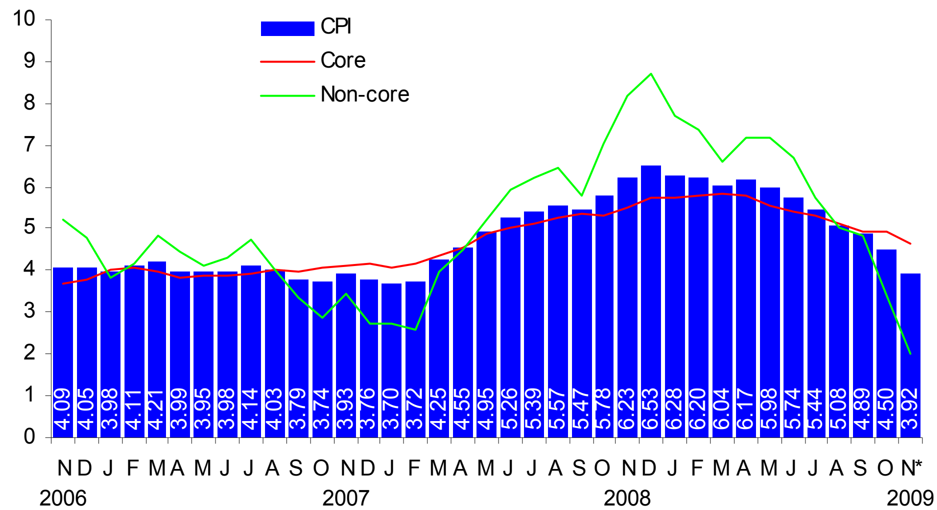
Summing up, inflation has decreased in 2009, although more sharply during the last months of the year. Nevertheless, the tax changes recently approved by the Mexican Congress, together with the possible pattern of goods and services with administered and regulated prices will have direct and indirect effects on inflation in 2010 and therefore influence the balance of risks. Although these prices will increase one time only and the output gap will be wide in 2010, Banco de México will remain attentive to ensure that other prices are not contaminated and medium-term inflation expectations remain well anchored.

Following these developments, Banco de México's Board of Governors kept the target for the Overnight Interbank Rate unchanged at 4.5 percent and signaled that its future monetary policy actions will be in line with the above mentioned balance of risks in order to meet the 3 percent target for annual inflation.

2. Recent Developments in Inflation

During the first two weeks of November 2009, annual headline inflation was 3.92 percent, 0.97 percentage points below the 4.89 percent observed in September (the last figure published in the Inflation Report of July - September 2009), and representing an accumulated reduction of 2.61 percent for the year to date given that annual inflation was 6.53 percent in December 2008 (Graph 1). The general decline in the growth rate of prices continued in all CPI subindices and in all regions of the country. The path followed by inflation during 2009 has therefore been in line with Banco de México's forecasts published in the inflation reports of the first three quarters of the year and which were originally released in the Inflation Report of January - March 2009.

Graph 1
Consumer Price Index
Annual change (percent)



*/ Figure corresponds to the first two weeks of November 2009.

The Inflation Report of July - September 2009 stated that the downward trend followed by inflation had mainly been due to a combination of four factors: i) the absorption of the supply shocks that took place in 2008 and which particularly influenced the prices of processed foods and livestock products and public transportation fares; ii) the policy of public prices associated with the freezing of domestic gasoline prices as well as the reduction of other energy prices during 2009; iii) the prevailing weakness of the economy, which was most clearly reflected in the price formation process in the services sector; and, iv) the greater stability of the exchange rate which buoyed the downward trend followed by CPI's remaining merchandise group.

These factors continued having an influence on the disinflationary process between September and the first two weeks of November as did the behavior of the annual growth of fruits and vegetables' prices, which fell from 20.28 to 4.32 percent during the same period.

The recent behavior of different indicators that provide information on inflation shows that inflation continued to fall widespread during October and the first two weeks of November. In fact, the rate of growth of prices of a significant number of products continued to decline.

As for forward-looking indicators on inflation, the consensus among economic agents' expectations for inflation obtained from different surveys of private sector economic analysts suggests that inflation will continue to fall during the rest of the year.[2]

However, economic analysts' expectations on inflation for the end of 2010 have continued to been revised upwards recently. Information obtained by Banco de México from its monthly survey of private sector economic analysts' expectations shows that analysts revised their forecasts upwards from 4.28 percent in September to 4.86 percent in November. During the same months, their forecasts for core inflation were revised from 4.09 to 4.51 percent, while those for non-core inflation, from 4.85 to 5.90 percent.[3] As stated in the Inflation Report of July - September 2009, the deterioration of inflation expectations for 2010 is attributed to the anticipated effects of the recently approved tax measures as well as the changes expected in the policy of goods and services with administered and regulated prices.

As pointed out in this document, many of these measures are expected to affect inflation only temporarily. This view is in line with the recent behavior of economic analysts' inflation expectations for the medium term, which have exhibited smaller changes in recent weeks than those for shorter terms. Average inflation expectations for the following 5 to 10 years remain around 3.5 percent.

[2] According to Banco de México's monthly survey, economic analysts' expectations on annual headline inflation for the end of 2009 were revised downwards from 4.29 percent in September to 4.02 percent in November. Meanwhile, inflation expectations from Infosel survey were revised downwards from 4.17 percent in October 23 to 3.87 percent in November 27.

[3] According to Infosel survey, the consensus of expectations on headline inflation for the end of 2010 rose from 4.30 percent in October 23 to 4.77 percent at November 27. The consensus of expectations on core inflation also did so from 4.03 to 4.50 percent, while those for non-core inflation, from 5.10 to 5.57 percent.

3. Main Determinants of Inflation

3.1. External Conditions

The latest information confirms that world economic activity continued to improve during the third quarter. GDP grew in both advanced and emerging economies, although more in the latter group.

According to a preliminary report, the U.S. economy grew 2.8 percent in annualized quarterly terms during the July - September period (-2.5 percent in annual terms), after having contracted for four consecutive quarters. This behavior was influenced by the recovery of private consumption –buoyed significantly by government stimulus measures– the improvement of the real estate sector, the increase in public expenditure, and a slowing in the decline of inventories. In the Eurozone, GDP grew 1.5 percent in annualized quarterly terms (-4.1 percent in annual terms), ending five consecutive quarters of contraction. On another front, economic activity in Japan improved as GDP grew 4.8 percent in annualized quarterly terms (-4.5 percent in annual terms).

In general terms, economic activity continued to follow a more favorable pattern in emerging economies (particularly in Asia) than in advanced nations. After having grown considerably during the third quarter (8.9 percent in annual terms), the significant growth of China's industrial production during October is further evidence that the Chinese economy has continued to gain strength. India's economy grew 7.9 percent in annual terms during the July - September period, its largest growth since the first quarter of 2008. During the same period, economic activity in Russia continued to contract, although at a slower pace (-9.0 percent in annual terms). The latest information suggests that Latin American economies also recovered during the July - September period.

Commodity prices rose during October and then stabilized once again in November. On October 21 oil prices reached their highest level in over a year (81 US dollars per barrel in the case of the WTI), and then fluctuated slightly, between 75 and 80 US dollars per barrel.

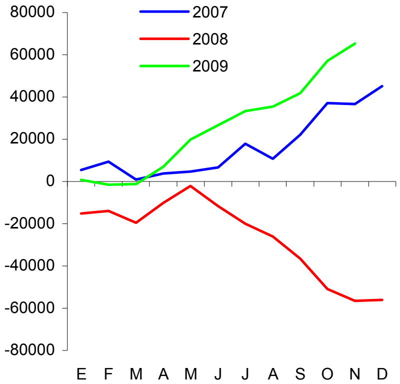
Under these conditions, and given the still substantial idle capacity, world inflationary pressures remained under control. In the U.S., annual CPI inflation was negative in October for the ninth consecutive month (-0.2 percent), although the size of the reduction was smaller than in preceding months. Headline CPI inflation in the Eurozone is estimated at 0.6 percent in annual terms in November, after having registered negative figures for five months. In Japan, consumer prices continued to decline significantly, registering a record fall of -2.5 percent in annual terms during October. Although inflation in emerging economies remained at relatively low levels, the differences are considerable among countries.

The monetary policy stances of practically all advanced and emerging economies remained loose during October and November, while the central banks of some emerging countries made further cuts in their reference interest rates (e.g. Colombia, Hungary, and Turkey). Nevertheless, several countries started or continued the process of withdrawing their monetary stimulus measures. The Reserve Bank of Australia raised its key interest rate for the third consecutive time in November, while the Bank of Israel increased its reference rate for the second time in the last four months. In October, the Norges Bank (Norway's central bank) increased its policy rate and the Central Bank of India hiked its liquidity requirements. The Federal Reserve Bank kept its reference interest rate unchanged in a range between 0 to 25 percentage points, signaling in November that it would maintain this rate low for an extended period as long as there is significant idle capacity and both inflation and inflation expectations remain under control. The European Central Bank, the Bank of England, and the Bank of Japan all left their policy rates unchanged during the referred period.

Conditions in international financial markets continued to improve during October and November, although in a volatile environment. The spread between the three-month London Inter Bank Rate in US dollars (LIBOR) and the indicator of expectations for the U.S. federal funds rate (the Overnight Index Swap, OIS) remained around its lowest levels since the start of the crisis in 2007. Most stock markets continued registering gains in October and November due to lower risk aversion and the search for higher yields. However, some turbulence arose in financial markets towards the end of November in response to the public firm Dubai World and some of its business partners' announcement that they would temporarily suspend debt payments. During October and November, an additional increase in capital flows to emerging economies was observed (Graph 2), to a great extent as a result of many investors desire to take advantage of the short-term benefits from borrowing in currencies such as the US dollar (at very low interest rates and with a tendency to depreciate) and investing these resources in emerging economies with relatively high interest rates. This has raised concerns over both the price increases in some assets and the appreciation of exchange rates, as well as the effects the tightening of monetary policy in advanced economies could have on these flows, especially if it takes place suddenly (Graph 2). The US dollar continued to depreciate against most of the other major currencies due to less risk aversion and expectations that U.S. interest rates would remain low for a long period.

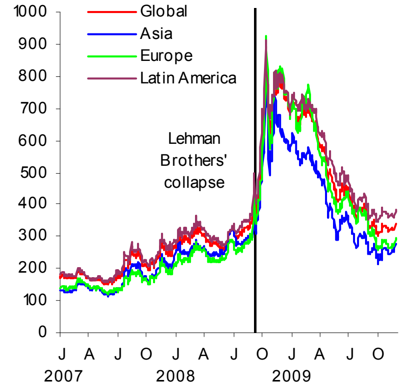
Graph 2
Conditions in International Financial Markets

a) Flow of Funds to Emerging Economies (Bonds and Shares)
Million USD



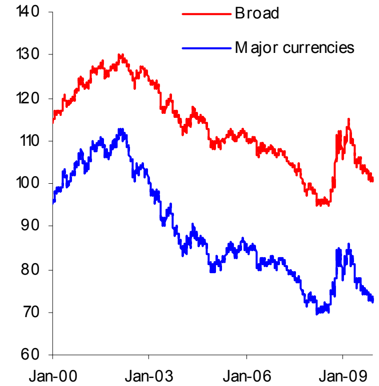
Source: Emerging Portfolio Fund Research.

b) Sovereign Risk Spreads (EMBIs)
Basis points



Source: Bloomberg.

c) Broad Exchange Rate and Major Currencies Index[1/]



Source: Federal Reserve.
1/ Broad index January 1997=100 and main currencies index March 1973=100. An increase in the index equals a US dollar appreciation.

3.2. Developments in the Mexican Economy

3.2.1. Economic Activity

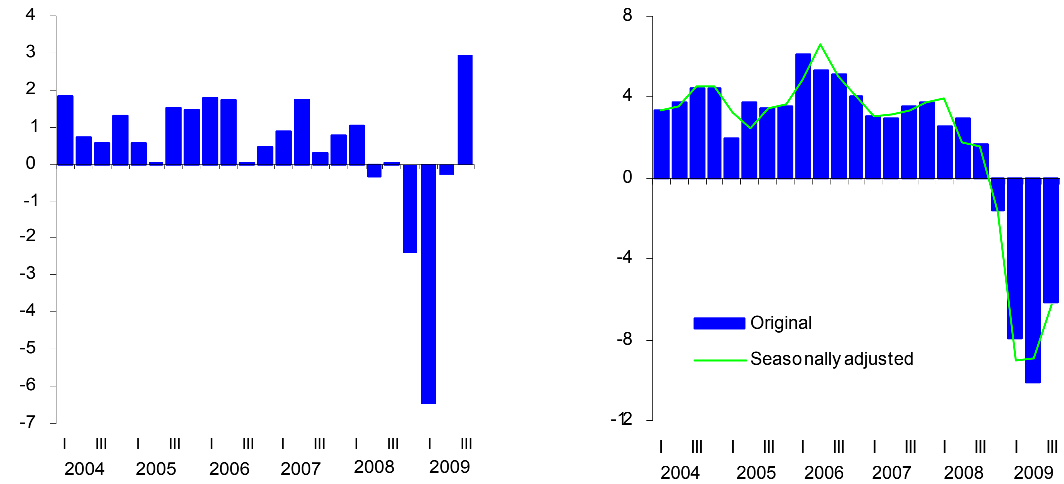
In line with the forecasts included in the Inflation Report of July - September 2009, the latest information indicates that Mexican economic activity reached a turning point at the start of the third quarter of the year and therefore the country's levels of production seem to have entered a new phase of growth. Seasonally adjusted GDP grew in quarterly terms 2.9 percent during the referred period, as compared with the negative figures registered by this aggregate since the second quarter of 2008 (Graph 3). This performance implied that GDP contracted 6.2 percent in annual terms during the third quarter, figure significantly lower than the 9.0 percent observed during the first half of the year.

Both the industrial and services sectors grew in seasonally adjusted terms during the third quarter of the year. These sectors grew 2.1 and 4.0 percent, respectively, as compared with the levels recorded in the preceding quarter (Graph 4). Thus, the trend of the economy's two most important sectors seems to have changed trend during the referred period. Most recent indicators suggest that economic activity will continue on a positive trajectory into the fourth quarter. Among these indicators is the terminal automotive industry, which performed favorably in October, when production and exports registered significant monthly growth in seasonally adjusted terms (11.2 and 12.5 percent, respectively). This industry therefore continued the positive pattern it has exhibited since July this year.

Graph 3
Gross Domestic Product

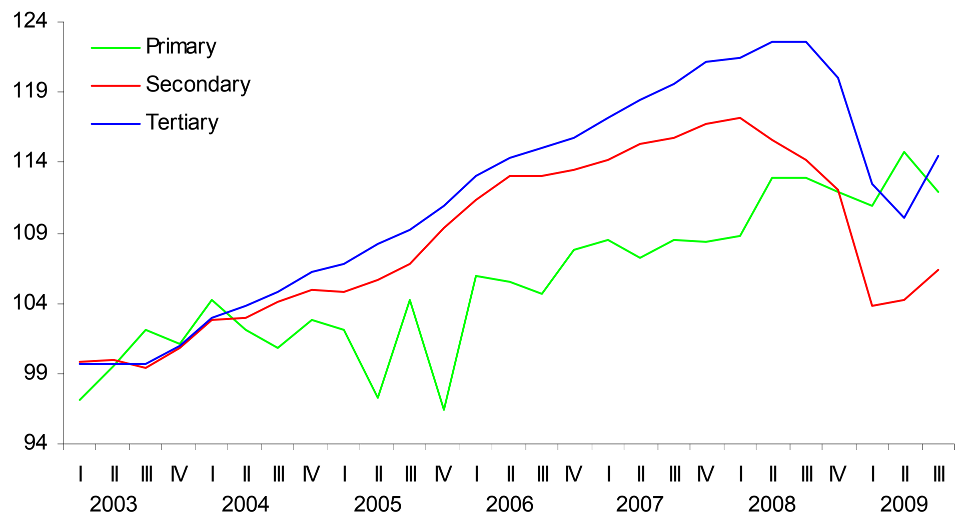
a) Quarterly change (percent); seasonally adjusted figures

b) Annual change (percent)



Source: INEGI.

Graph 4
Primary, Secondary and Tertiary GDP
2003=100; seasonally adjusted figures

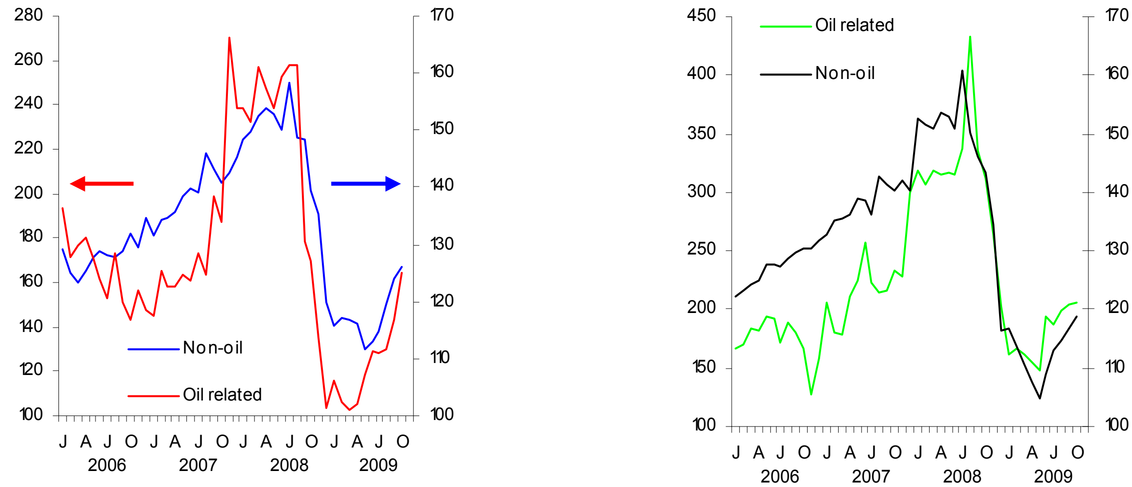


Source: INEGI.

The latest timely indicators on aggregate demand have also been consistent with the economic recovery described above. This has been reflected in most recent information on both consumption and investment, suggesting greater strength in the domestic market as well as in foreign trade since the third quarter (Graph 5). Merchandise exports have exhibited a change of trend in seasonally adjusted terms in recent months in response to the gradual recovery of the external demand that Mexico faces. Meanwhile, imports have also followed a positive trend in the last few months, apparently as a result of an improvement in both domestic spending and economic activity.

Graph 5
Merchandise Exports and Imports
2004=100; seasonally adjusted figures

a) Exports b) Imports



It is important to mention that although the behavior of economic activity during the third quarter partly mirrored the fading of the effects on the economy of the outbreak of the influenza A (H1N1) virus and the restarting of activity in some automotive plants which had been temporarily shut down during the second quarter, economic activity rebounded mainly as a result of the recovery of the world economy. As mentioned, this recovery has been reflected in a greater dynamism of external demand faced by Mexico and has passed on gradually to the domestic market. Thus, in line with the projected world economic growth, the Mexican economy is expected to continue following a positive trend.

3.2.2. Financial Saving and Financing

Although indicators of economic activity have shown signs of recovery, the sources of financial saving in domestic instruments, defined as the difference between the monetary aggregate M4 and the stock of currency outside banks, continue to grow moderately. In October 2009, financial savings grew 8.3 percent in real annual terms, figure similar to that observed in previous months (4.5 percent if the impact of the ISSSTE Law is excluded).

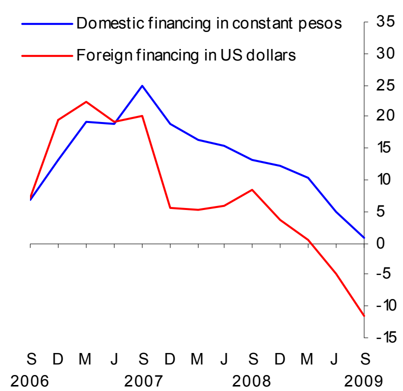
As discussed in the Inflation Report of July - September 2009, and in response to the worsening conditions in financial markets, significant outflows of non-residents' savings were registered from October 2008 until mid 2009. However, during the third quarter of 2009, the improvement of the conditions prevailing in these markets and the greater appetite for risk led to a recovery in these savings. Thus, while between the last quarter of 2008 and the first two quarters of 2009 the stock of non-residents' savings fell by 70.6 thousand million pesos, during the July - October 2009 period it rose by 56 thousand million pesos. Residents' voluntary financial savings continued slowing down in October as a result of the still weak performance of households' voluntary savings.

Financing to non-financial private firms has continued to grow at slower rates. Foreign financing in US dollars to this sector contracted 11.5 percent in annual terms at the end of September 2009 (Graph 6a). Domestic financing to firms also continued to slow down, growing 0.8 percent in real annual terms during the referred period (Graph 6a). In October 2009, commercial banks' performing credit to firms recorded a real annual decline of 3.0 percent (Graph 6b). Meanwhile, improved conditions in the domestic private debt market has allowed for a greater use of this financing by firms. Thus, in October 2009 the stock of private debt issuance grew 8.2 percent in real annual terms (as compared with 2.3 percent during the third quarter of the year, Graph 6c).

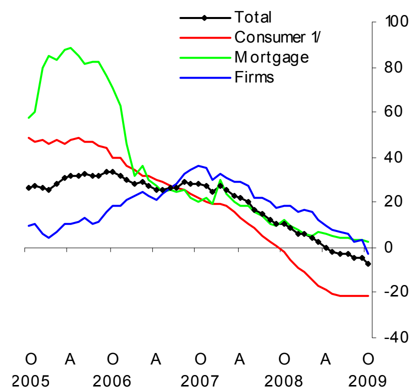
Commercial banks' financing to households continued to shrink, particularly consumer loans (Graph 6b). In October 2009, performing consumer credit registered a real annual negative variation of 21.2 percent (as compared with 21.3 percent during the third quarter of this year). During the same period, commercial banks' performing mortgage loans grew 2.9 percent in real annual terms (as compared with 3.6 percent during the third quarter of 2009). Finally, in September 2009, the adjusted delinquency rates of financing to firms and households remained relatively stable.[4]

Graph 6
Total Financing to Non-financial Private Firms, Commercial Banks' Credit to the Private Sector and Issuance of Private Debt Securities

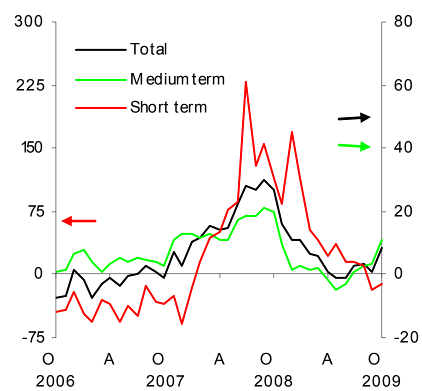
a) Total Financing to Non-financial Private Firms
Annual change in percent



b) Commercial Banks' Performing Loans
Real annual change



c) Private Securities from Non-financial Firms
Real annual change in percent



1/ Since March 2008, commercial banks' consumer loan portfolio is consolidated with its subsidiaries Sofom E.R.

[4] The adjusted delinquency rate is defined as the stock of non-performing loans plus charges or losses acknowledged by banks during the preceding twelve months divided by the sum of total loans plus charges or losses aforementioned (See Financial System Report 2007, p.50 and Box 21; and Inflation Report of July - September 2008).

4. Inflation Forecasts and Balance of Risks

Banco de México's base macroeconomic scenario and an assessment of the main risks associated with it are presented in this section. Forecasts for inflation, GDP growth, employment and external accounts are brought up to date by taking into consideration available information, as well as the possible effects of the recently approved fiscal measures and of the probable pattern of administered and regulated prices of goods and services.

The above mentioned scenario is based on the following considerations:

i) Economic activity in the U.S. is expected to continue recovering during the fourth quarter of this year and in 2010. Nevertheless, analysts estimate a contraction of 2.4 percent in GDP and of 10 percent in industrial production for the entire 2009. In general terms, the recovery of the U.S. economy is expected to be more evident in next year's production figures, with GDP and industrial production growing at 2.7 and 3.9 percent, respectively. However, this scenario is subject to risks. In particular, the recent rebound in economic activity has been highly influenced by temporary factors such as government stimulus measures and the positive contributions of the change in inventories to GDP growth. Furthermore, the continuing contraction of commercial bank credit and the weakness of the labor market could affect the speed of recovery. The withdrawal of fiscal and monetary stimulus measures implemented by the authorities in response to the crisis requires careful planning so that it does not affect negatively the recovery process or lead to a new outbreak of inflation.

ii) The stimulus measures implemented by the authorities in different countries as well as the gradual recovery of the world economy are expected to be reflected in a further improvement in international financial market conditions over the next months. Nevertheless, a new period of uncertainty in these markets cannot be ruled out. In this regard it is worth mentioning that the authorities of the main advanced economies have been pointing out the importance of maintaining stimulus measures for an extended period in order to reduce the risks associated with a sustainable expansive phase of the business cycle in their economies. This has allowed the low cost of taking positions in financial markets to be reflected in the appreciation of different assets and exchange rates, especially in emerging economies. The probable reversal of capital flows as monetary stimulus measures are withdrawn in advanced economies could have a considerably negative impact in emerging economies, particularly if it takes place suddenly.

On the basis of the expected behavior of the world economy and the latest information on Mexican economic activity, Banco de México has forecasted the following scenario for the Mexican economy for the end of 2010 and for the entire 2011:

GDP Growth: the latest information suggests that GDP will have contracted around 7 percent in annual terms in 2009. This figure is in line with the range forecasted in the Inflation Report of April - June 2009 and means that, during the fourth quarter of the year, economic activity will continue to follow a positive trend as compared with the third quarter.

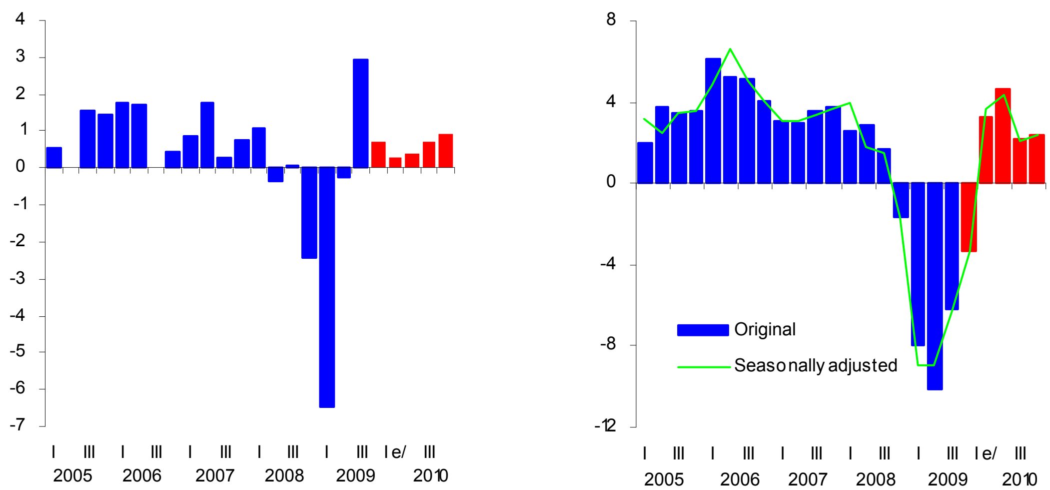
Economic growth in 2010 will be influenced by several factors, including the recovery of the world economy (and, particularly the recent improvement in industrial growth perspectives), as well as the impact of this year's federal budget on production and on the private and public components of aggregate demand. As detailed in the appendix of this document, the total impact of the budget on economic growth in 2010 is expected to be relatively small. This expectation, together with the aforementioned improvement in the forecasts for U.S. industrial production, means that there is no need to modify the scenario for GDP growth published in the Inflation Report of April - June 2009, which anticipated GDP growth of between 2.5 and 3.5 percent in annual terms in 2010. Finally, preliminary inertial projections show that the economy could grow in annual terms between 3 and 4 percent in 2011.

Analyzing in detail the development of the economy implied by the above forecasts, during the fourth quarter of 2009, seasonally adjusted quarterly GDP figures may be influenced by a certain degree of "rebound" from the low levels of economic activity observed in some sectors of the economy during the preceding quarter, although this effect is expected to be smaller than that observed during the third quarter of the year. This quarterly growth, combined with a smaller base of comparison, will lead to a more modest annual contraction of GDP during the fourth quarter of 2009 than that observed during the first three quarters of the year. Productive activity in 2010 is expected to recover in line with the gradual recovery of the world economy and of the domestic market. Under these conditions, quarterly GDP will probably tend to gradually increase its rate of growth (Graph 7a). Nevertheless, given the particularly low levels of activity during the first half of 2009, figures for annual GDP growth are expected to be higher during the first half of 2010 than during the second half of the year (Graph 7b).

Graph 7
Gross Domestic Product
Quarterly change (percent)

a) Quarterly average in percent; seasonally adjusted figures

b) Annual change in percent

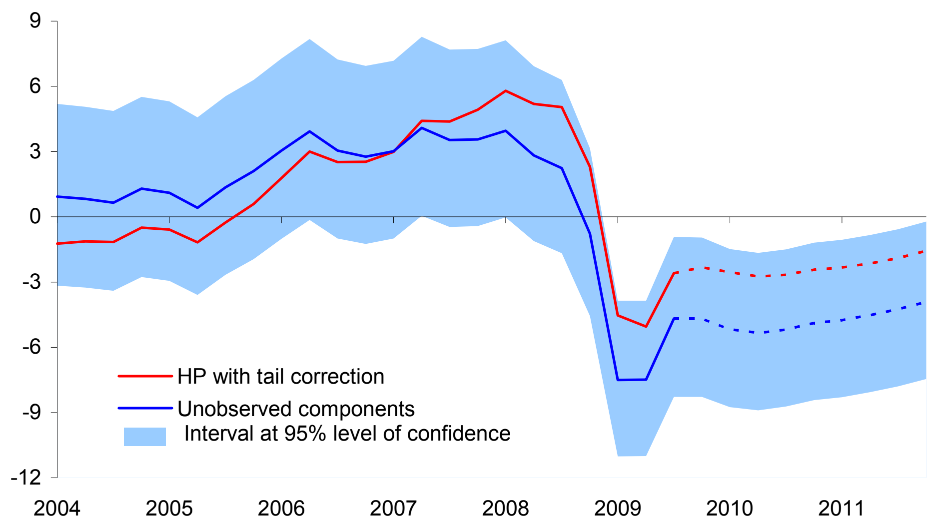


Source: INEGI. Seasonal adjustments up to the fourth quarter of 2010 by Banco de México.
e/ Estimates.

The above forecasts suggest that although the difference between observed and potential GDP (i.e. the output gap) will tend to diminish in the following quarters as a result of economic growth foreseen for the next two years, it will probably remain in negative territory in 2010 and 2011. This implies that slack conditions will prevail in the Mexican economy, which will contribute not only to prevent demand-side inflationary pressures from arising, but also to reduce the impact of the economic program on inflation.

In particular, output gap estimates using both the Hodrick-Prescott filter with tail corrections and a method of unobserved components coincide in suggesting that observed GDP will remain below potential GDP during the next two years (Graph 8).[5] All of the aforementioned reflects expectations that the economy, not only that of Mexico but of the entire world, will recover gradually. This implies that slackened conditions will prevail in the Mexican economy, meaning that not only no demand-side inflationary pressures will arise but that the impact of the federal budget on inflation will also be small.

Graph 8
Output Gap Estimates
Percent



Employment: most recent information on the number of IMSS-insured workers indicates a change of trend in formal employment, meaning that it has continued to contract at slower rates in annual terms. Thus, the number of IMSS-

5 These methodologies are described in the Inflation Report of the second quarter of 2009 (see Banco de México (2009), “Inflation Report, April – June 2009”, p.69). In brief, the Hodrick-Prescott filter with tail corrections (Marcet, A.; M. O. Ravn; 2004, “The H-P Filter in Cross Country Comparisons”, CEPR Discussion Paper 4244, and St-Amant, P.; S. van Norden; 1997, “Measurement of the Output Gap: A Discussion of Recent Research at the Bank of Canada”, Technical report No. 79) is a method of calculating the economy’s potential GDP using a series of observed GDP, correcting the sensitivity of the results in the final part of the sample period. This sensitivity is one of the main limitations of the methodology originally proposed by R. J. Hodrick and E. C. Prescott (1997) “Postwar U. S. Business Cycles: An Empirical Investigation”, Journal of Money, Credit, and Banking, 29. The method of unobserved components consists of extracting signals from an observed output series in order to break it down into two components: one associated with the potential output and another to the business cycle (output gap). Graph 8 shows the method proposed by Kim C. and Nelson, C. (1999) “State-Space Models with Regime Switching”, The MIT Press, chapter 1. This procedure has the advantage of calculating confidence intervals around the output gap estimates at each point in time and therefore allows for inferring if the estimated gap is statistically different from zero.

insured workers is expected to register an accumulated reduction of between 325 and 425 thousand workers at the end of 2009. As a result of the projected economic recovery for 2010, between 300 and 400 thousand formal jobs are expected to be created that year. In light of the above mentioned forecasts for economic growth in 2011, this positive trend is anticipated to continue during that year.

Current Account: the trade balance and the current account deficit are expected to be 0.9 and 0.8 percent of GDP, respectively (around 7.5 and 7 billion US dollars, respectively) in 2009. The fact that despite the significant external shock the Mexican economy faced in 2009, these deficits will have been so small and significantly smaller than those in 2008, reflects the considerable reduction registered in domestic spending and, in turn, in imports of goods and services.

Although external demand is expected to recover in 2010, a stronger domestic demand and its impact on imports will tend to cause the trade balance deficit to increase to 1.3 percent of GDP in that year (12.5 billion US dollars). The current account is expected to register a deficit equal to 1.1 percent of GDP (10.7 billion US dollars), which is also larger than that anticipated for the end of 2009. The fact that the current account deficit is forecasted to be smaller than that of the trade balance reflects expectations that the surplus in the transfers account, resulting from a modest recovery in workers' remittances, will be larger than the sum of the deficit in the factor and non-factor services accounts.

It is important to emphasize that the current account deficit foreseen for 2010 is relatively small. It is possible to expect that the surplus in the capital account (due, among other factors, to the amount of expected foreign direct and portfolio investment flows and to the pattern and expected amount of public sector's net foreign financing) could surpass such deficit. Under these conditions, the Mexican economy is not expected to face financing difficulties in 2010.

It is important to point out that the scenario for 2010-2011 described above is based on the assumption that the world economic environment in general, and the U.S. environment in particular, will gradually improve. This will in turn foster a change of trend in external demand and bolster a more dynamic domestic market. However, this scenario is not free of risks, mainly downward risks. Among them, the following stand out:

a) First, there is some uncertainty about the magnitude and speed of the U.S. economic recovery. In particular, the possibility that the U.S. economy recovers more modestly than analysts anticipate and the negative consequences this could have on the demand for different manufactures cannot be ruled out. This would in turn lead to weaker exports of Mexican manufactured goods. This risk becomes especially relevant after taking into account that the recent upturn in U.S. economic activity has been strongly influenced by temporary factors, and the eventual withdrawal of fiscal and monetary stimulus measures could, in some cases, have an adverse impact on the recovery process.

b) Given the current situation of the main U.S. automobile manufacturers, the future performance of automotive production in that country is highly uncertain and, therefore, so is that of Mexico.

c) Finally, as stated on several occasions, the low potential output growth of the Mexican economy is one of the most important stumbling blocks to achieve high sustainable growth in Mexico. The problem of the Mexican economy's competitiveness becomes even more relevant under the present environment, considering that a possible consequence of the world financial crisis is a reduction in the potential output growth of the U.S. economy.

Inflation: the forecasted path of annual headline inflation for the following two years was revised upwards. This revision takes into account a temporary rebound in headline inflation during 2010, foreseeing that it will peak towards the fourth quarter of that year and place itself on average between the 4.75 and 5.25 percent interval. Inflation will start to decline during the first quarter of 2011, and then converge nearly to its 3 percent target in the last quarter of 2011 (Table 1 and Graph 9). The aforementioned behavior of inflation is expected to mainly respond to the following:

1. The one-off effect on prices of the tax changes included in the recently approved fiscal budget (see Appendix). Even in an environment of slackened economic activity, most of the impact of the tax change on prices will take place during the first quarter of 2010. It is important to point out that the impact on inflation will be temporary and most of it will revert during the first half of 2011.

2. Expectations that inflation of goods and services with administered prices will increase in the following year given the current gap between the domestic and international prices of both gasoline and propane.

   Thus, the forecasts shown in this document consider that goods and services with administered prices will have a growing incidence on inflation in 2010, given that, after having remained unchanged in 2009, it was assumed that in 2010 Magna and Premium-type gasoline prices will grow month over month 6 and 4 cents, respectively, and electricity and propane prices will accumulate an increase of 6 and 5 percent, respectively. These figures contrast with the assumptions of no increases in administered prices in 2010 used to estimate the inflation forecasts published in the Inflation Report of October - December 2008 and which were in effect until the publication of this Addendum. Page 87 of the mentioned report stated that the forecasted pattern of inflation was based, among other factors, on the following:

   "...The federal government's decision to freeze gasoline prices, to reduce LP gas prices by 10 percent and low-tension electricity tariffs by 9 percent. Given the information extracted from futures markets, these prices are not expected to increase in 2010."

   The foreseen increase in energy prices' growth rate during 2010 will contribute to narrow the gap between the domestic and international prices of these fuels. The growth rate of these prices is expected to slow down in 2011 and therefore contribute to reduce inflation levels during that year.

3. A probable increase in the growth rate of goods and services with regulated prices. There have been signs of possible increases in some locally determined prices, such as those put forward in the 2010 Mexico City budget for subway fares and water supply/water service fees.[6] These will tend to have a one-off effect on prices, similar to that associated with the tax changes included in the fiscal measures recently approved. The effects of these price increases on inflation are also expected to fade during the first few months of 2011.

4. In contrast, the slackness that is expected to prevail in the economy will undoubtedly help to offset the upward pressure on inflation generated by the three factors mentioned above.

The overriding factor in the upward revision of forecasts for both inflation and its growing trend throughout 2010 is the expected change in the policy of determining government administered prices and fees (see Appendix). The policy of freezing gasoline prices and reducing propane prices in 2009, together with the new policy for 2010 of raising the prices of these fuels by various cents on a month-to-month basis, means that they will also grow at increasingly higher annual rates during the year. This, together with the expected impact of regulated prices on inflation, implies that non-core inflation will have a relatively higher contribution to headline inflation during the following year.

As for core inflation, it is foreseeable that the changes in the approved fiscal measures will influence the development of this price index. However, the decline in international commodity prices from their record high levels in an environment of greater exchange rate stability will help to reduce core inflationary pressures.

Table 1
Base Scenario Forecast for Annual Headline Inflation
Quarterly average (percent)

Quarter	Forecast Inflation Report I-Q 2009	Forecast Inflation Report II-Q 2009	Forecast Addendum to the Inflation Report III-Q 2009
2009-II	5.50 - 6.00	5.96 1/	5.96 1/
2009-III	4.75 - 5.25	4.75 - 5.25	5.14 1/
2009-IV	4.00 - 4.50	4.00 - 4.50	3.75 - 4.25
2010-I	3.75 - 4.25	3.75 - 4.25	4.25 - 4.75
2010-II	3.25 - 3.75	3.25 - 3.75	4.50 - 5.00
2010-III	3.25 - 3.75	3.25 - 3.75	4.75 - 5.25
2010-IV	3.00 - 3.50	3.00 - 3.50	4.75 - 5.25
2011-I	3.00 - 3.50	3.00 - 3.50	4.50 - 5.00
2011-II	------------	3.00 - 3.50	3.50 - 4.00
2011-III	------------	------------	3.25 - 3.75
2011-IV	------------	------------	2.75 - 3.25

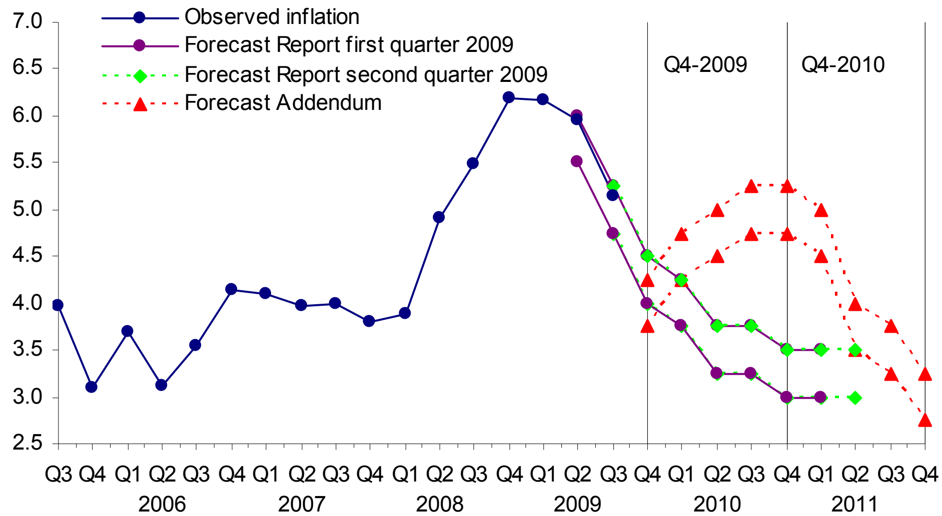
1/ Figure observed.

As mentioned, the forecasts for inflation had remained unchanged since the Inflation Report of the first quarter of 2009. It is important to emphasize that the downward trend followed by inflation has remained within the estimated

[6] Mexico City's Mayor presented the 2010 Budget Proposal to the Mexico City Legislature on November 30, 2009.

intervals. As shown in the forecasting exercise included in this document, at the end of 2009 inflation is expected to be even below the figures originally anticipated in the forecasts that have been valid up to now, with a high probability that this variable will be at levels below 4 percent in December. In an inertial scenario where both the tax structure and the current policy of administered and regulated prices remain unchanged, inflation would be expected to continue adjusting downwards next year.

Graph 9
Forecasts for Annual Headline Inflation
Quarterly average (percent)



The forecast for inflation is not exempt from upward and downward risks, among which are:

i) The contamination of the price formation process due to a temporary rebound in inflation.

ii) A rate of adjustment (upwards or downwards) in administered prices different from that anticipated.

iii) Changes in some government regulated prices and fees different from those foreseen.

iv) A pass-through effect from tax increases to consumer prices different from that estimated.

v) The effects of weather conditions on the supply of fruits and vegetables.

vi) A higher than anticipated world inflation, a phenomenon which would particularly affect the expected disinflationary process for merchandise prices.

vii) A slower or smaller than expected recovery in the Mexican economy, possibly leading to lower-than-anticipated inflation.

The recently approved fiscal measures contribute to clearly improve the structure of public finances. Something similar can be said about the anticipated changes in the policy of goods and services with administered and regulated prices. Nevertheless, the fact that these measures are expected to be effective in raising tax revenues also implies that they will have an impact on consumer prices. In particular, both the tax modifications and the possible adjustments in the policy of regulated prices are expected to have a one-off effect on the CPI and, therefore, to affect inflation temporarily.

The expected change in the policy of goods and services with administered prices, in an environment where the international prices of these products are at higher levels, will also improve the structure of public finances. This will take place in the form of smaller subsidies on the prices of certain goods and services. These adjustments offer the additional benefit of reducing certain microeconomic distortions which tend to lead to an inefficient allocation of resources. Nevertheless, as explained earlier, these measures are also expected to cause an increase in inflation. In this case, the impact on consumer prices is anticipated to take place throughout the year if the policy of raising fuel prices by a certain amount of cents each month is adopted.

The most important factors affecting inflation up to now have been, on the one hand, the effects of the depreciation of the exchange rate and, on the other hand, the slackness that continues to prevail in the Mexican economy. In such an environment, the expected increase in inflation, although temporary, does affect the balance of risks faced by it. Indeed, although the output gap is expected to contribute to offset the effect on consumer prices of the fiscal measures and the adjustments to public prices and fees, it will be of utmost importance for the monetary authority to remain vigilant to ensure other prices are not contaminated. In this sense, in order for annual inflation to resume a downward path and converge to its 3 percent target, it is extremely important that medium-term inflation expectations remain well anchored during the next quarters. This will allow, once the foreseen rebound in inflation has dissipated, inflation to decline sharply at the beginning of 2011 and register more moderate reductions during the second half of that year, until coming close to the 3 percent annual target at the end of 2011.

Appendix Estimating the Effect of the Fiscal Measures for 2010 approved by Congress on both CPI and GDP

The Mexican Congress recently approved the 2010 federal budget, composed of the Federal Revenues Law (*Ley de Ingresos de la Federación*, LIF-2010) and the Federal Expenditures for 2010 (*Presupuesto de Egresos de la Federación*, PEF-2010).[7] The federal budget included changes to several existing taxes, modified the fiscal consolidation program, and introduced a new tax on some telecommunication services. Most of these tax measures are expected to have an impact on the CPI and, to some extent, on GDP growth (although in the latter case, as described at the beginning of this document, higher public expenditure funded by higher tax revenues and an improved outlook for industrial growth in the U.S. imply that the scenario for economic growth in Mexico for 2010, presented in the Inflation Report of April - June, needs no further modification, and thus remains between 2.5 and 3.5 percent for 2010.

Regarding inflation, taxes usually have two types of effects on a price index: a) direct, when the product or service taxed is an item of the price index basket; and, b) indirect, when taxes contribute to raise firms' costs -due to price increases of their production inputs and/or an additional tax burden- and these firms transfer part of these additional costs to consumer prices.

As for GDP, taxes can influence the amount of goods and services that are commercialized via two channels: a) by increasing consumer prices and reducing net producer prices, a tax reduces the quantity bought and sold in the economy of the goods and services that are subject to the aforementioned tax; and, b) on the side of consumption, a reduction in households' disposable income due to a tax might have a negative impact on aggregate demand. However, the decline in aggregate demand stemming from lower private sector spending generated by an upward adjustment in taxes would tend to be offset as tax revenues are used to fund higher government expenditure.

In addition to the tax modifications included in the 2010 federal budget the policy of federal prices and fees as well as some local government prices and fees are also expected to change. Although the exact changes to the policy of prices and fees is yet to be announced, if the policies for goods and services with administered and regulated prices for 2010 differ from those observed in 2009, inflation is expected to be directly affected because these goods and services are included in the CPI basket, and indirectly, because some of these goods and services are used as manufacturing inputs.[8] For this reason, based on some assumptions regarding the evolution of these prices, this Appendix also includes an estimate of their possible impact on the CPI.

The first section of this Appendix describes the most important tax changes included in the 2010 budget, pointing out the type of impact they could

[7] According to the Ministry of Finance press release of November 16, 2009 (Approval of the 2010 Budget), the LIF-2010 was approved on November 5 and the PEF-2010 on November 17.

[8] Public price and fee formation is a central government decision. However, in the case of federal prices and fees, the Economic Policy General Criteria for 2010 states that they will be determined taking into account factors such as the price-cost ratio, domestic and international reference prices, and inflation. In order to avoid sudden shocks on inflation levels, the document also mentions that adjustments will be applied periodically and gradually.

have on the CPI. The second section shows a simple supply and demand model illustrating the effect of a tax on the price and production of a good or service. Using this model as a framework, the third and fourth sections describe an exercise to evaluate the effects of the tax changes and of possible adjustments in government administered and regulated prices and fees on both CPI and GDP.

A.1. Tax Changes for 2010

Tax changes for 2010 which could temporarily affect inflation and economic growth are (Table 2):

i) Value Added Tax (VAT). The general level of VAT was adjusted upwards from 15 to 16 percent, and in Mexico's border, from 10 to 11 percent. This change will have a direct impact on the CPI because a large part of the goods and services included in the CPI basket are subject to this tax.[9]

ii) Excise Tax (*Impuesto Especial sobre Producción y Servicios*, IEPS). This tax was adjusted upwards on several goods and services: in the case of beer, from 25 to 26.5 percent; for beverages with an alcohol content of over 20% G.L., from 50 to 53 percent; and, for tobacco, a fixed level of 4 cents per cigarette or its equivalent in weight.[10] A new IEPS of 3 percent was also set for telecommunication services provided via public networks (except internet, public and rural telephone services, and interconnection services). These services are included in the CPI basket and therefore are expected to directly affect CPI inflation.[11]

iii) Income Tax (*Impuesto Sobre la Renta*, ISR). The corporate income tax was raised from 28 to 30 percent. This change in the tax burden does not have a direct impact on the CPI. However, it is likely that firms will try to transfer part of this additional tax burden to consumers by increasing the prices of their goods and services.[12]

The fiscal consolidation regime for the corporate income tax was also modified, by establishing limits on firms' deferred payments. In the sixth and seventh year, firms must pay 25% of the deferred tax; in the eighth year, 20%; and in the following two years, 15%, so that the fiscal credits are paid up in 10 years at the latest. This change implies that in 2010 firms must pay 25 percent of the tax deferred in 2004 and in previous years. Although it is possible that firms will try to transfer their additional tax burden to consumers by raising the prices of their goods and services, the effect of this measure on prices is highly uncertain.

The maximum marginal income tax rate for individuals was also raised from 28 to 30 percent. This measure affects households' disposable

[9] The fact that VAT can be credited in every stage of production before the final sale means that this tax does not have an indirect effect on prices.

[10] The increase in the tax on beer is temporary due to the fact that it was raised from 25 to 26.5 percent for the period 2010-2011, in 2012 it will be adjusted downwards to 26 percent, and in 2013 it will return to its former 25 percent level. In the case of the tax on tobacco, gradual adjustments of 6, 8, and 10 cents were established in the fixed rate for 2011, 2012 and 2013, respectively.

[11] The IEPS on games and lotteries was also raised from 20 to 30 percent. However, this item is not included in the CPI basket.

[12] The increase in this tax is temporary. This tax will decrease to 29 percent in 2013 and to 28 percent in 2014.

income and could therefore have some influence on consumption and aggregate demand. However, its impact on prices is expected to be very small.

Table 2
Tax Changes for 2010

Item	Rate 2009 (Percent)	Rate 2010 (Percent)	Effect in prices	Type of effect
VAT				
General tax	15.0	16.0	✓	Direct
Tax at border cities	10.0	11.0	✓	Direct
IEPS				Direct
Beer 1/	25.0	26.5	✓	Direct
Alcoholic beverages of more than 20°G.L.	50.0	53.0	✓	Direct
Cigarettes and tobacco 2/	160.0	160.0 plus 4 cents per cigarette	✓	Direct
Games and lotteries	20.0	30.0	-	-
Telecommunications	-	3.0	✓	Direct
ISR				Direct
Individuals (maximum nominal rate) 3/	28.0	30.0	-	-
Firms 3/	28.0	30.0	✓	Indirect
Fiscal consolidation 4/	-	25% (years 6 and 7), 20% (year 8) 15% (years 9 and 10)	Uncertain	Indirect
IETU	17.0	17.5	✓	Indirect
IDE 5/	2.0	3.0	-	-

1/ The tax increase on beer is temporary. It will be adjusted downwards to 26 percent in 2012 and then back to its former 25 percent in 2013.
2/ Tax increases of 6, 8, and 10 cents were also approved for 2011, 2012 and 2013, respectively.
3/ The tax increase is temporary. It will be adjusted downwards to 29 percent in 2013 and then to 28 percent in 2014.
4/ In 2010, it will be mandatory to pay 25 percent of the total differed tax from 2004 and preceding years.
5/ The accumulated amount exempt from this tax was reduced from 25 to 15 thousand pesos per month.
Source: LIF-2010.

iv) Flat rate business tax (*Impuesto Empresarial a Tasa Única*, IETU) will increase from 17 to 17.5 percent in 2010. Since this change had been established since 2007, its impact on the CPI had already been included in the inflation forecasts for 2010 and therefore it is not part of the recently approved federal budget.[13]

A.2. Framework: Tax Incidence[14]

The burden of a tax does not necessarily fall on the agent with the statutory burden. Indeed, taxes can be transferred to other agents. The capability of a producer of a certain good or service to transfer part of the tax to consumers

[13] Another change in the LIF-2010 is the upward adjustment in the tax on cash deposits (*Impuesto a los Depósitos en Efectivo*, IDE) rate (from 2 to 3 percent) and the reduction in the accumulated monthly amount exempt from this tax, from 25 to 15 thousand pesos. This change was not considered in the price estimates because it can be deducted from the income tax and therefore is not considered to raise firms' tax burden.
[14] This section is based on Appendix 2 of Banco de México's Inflation Report of July - September 2007.

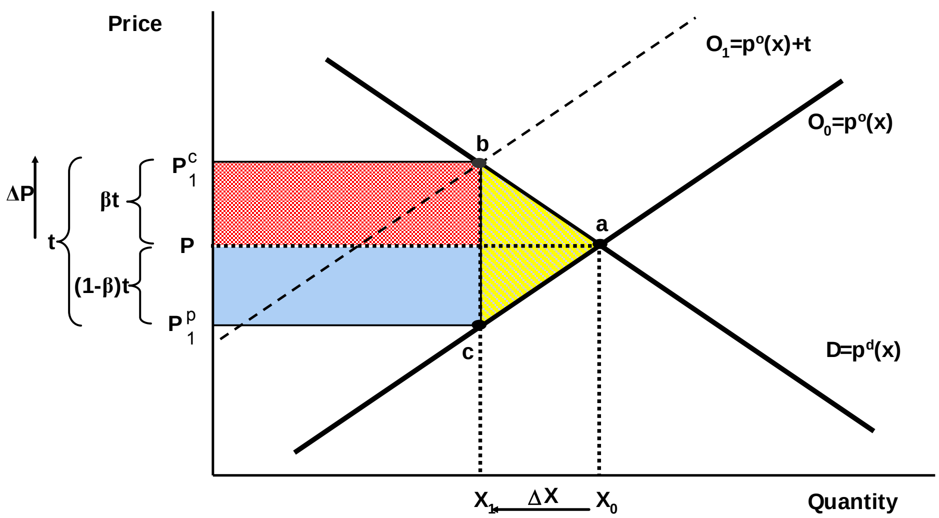
by increasing its price (tax incidence on consumers) depends on market conditions and on the elasticity of the product's supply and demand.[15]

Following is a simple market equilibrium framework (supply and demand) which illustrates the effect of a tax on a product's price and quantity produced. For example, let us consider the case of a unit tax on producers (Graph 10).[16] Starting at an initial equilibrium (point a) in the market, charging a tax (t) is equivalent to a vertical shift in the supply curve by the amount of the tax (from O_0 to O_1). As a result, the quantity produced decreases (from X_0 to X_1) and a difference arises between the price paid by consumers (P_1^c) and that obtained by producers (P_1^p). Thus, it is possible that the increase in consumer prices represents a fraction β (tax incidence) of the tax, while producers absorb a fraction $(1\text{-}\beta)$ of the tax.

Tax incidence will fall more on the market side (supply or demand) with the most inelastic curve. Thus, the smaller the elasticity of demand, the greater the pass-through to consumer prices. On the contrary, the higher the elasticity of demand, the more net prices obtained by producers will be affected by the tax.[17]

Graph 11 shows extreme cases of elasticity of demand (with a given supply curve). When the demand curve is perfectly elastic, there is no pass-through to consumer prices and the tax burden falls entirely on producer prices (β=0). On the other hand, when the demand curve is perfectly inelastic, the incidence is unitary and the tax is passed on entirely to consumer prices (β=1). In general terms, the goods that have close substitutes tend to exhibit a more elastic demand.

Graph 10
Tax Incidence



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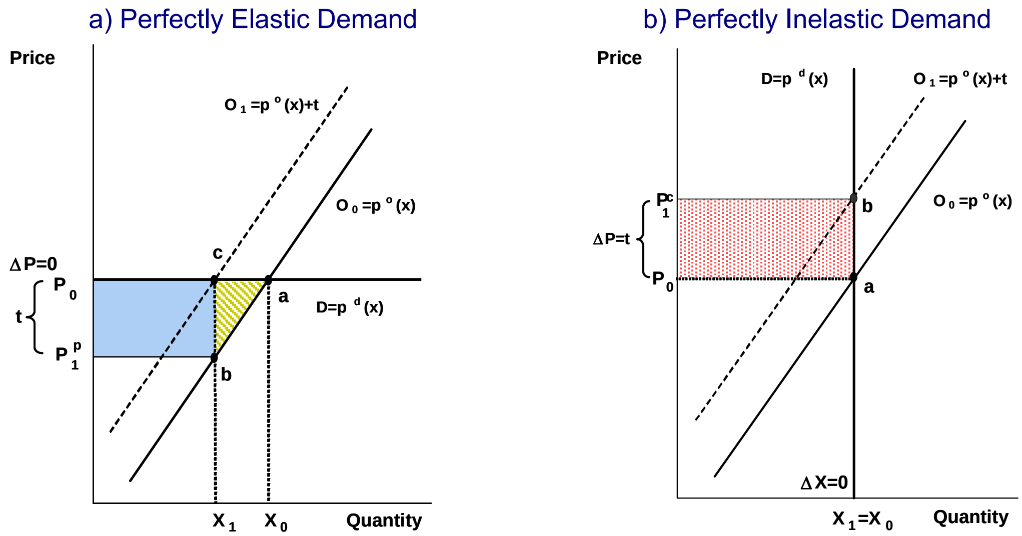
15 The tax incidence herein presented is analyzed only through a partial equilibrium framework, i.e. only the effect of the tax in the analyzed product's market is considered and not the possible effects on the markets of other related goods and services and on the markets of productive factors.

16 Given its relative simple exposition, a unit tax is used. Nevertheless, this analysis also extends to the ad valorem tax.

17 For more details, see Appendix 2 of Inflation Report July – September 2007, Banco de México.

Graph 11
Tax Incidence



Thus, unless the demand curve is perfectly inelastic, a tax will tend to reduce the amount of market equilibrium (from X_0 to X_1). A tax therefore affects the allocation of resources in an economy and, in particular, leads to a reduction in the quantity bought and sold of the taxed good. This in turn can affect GDP growth of the sector which produces the taxed good.

The market framework of Graph 10 shows, in a simplified manner, the elements needed to estimate the effect of a sales tax on a product's price and produced quantity. In particular, the tax rate (t) and the tax incidence on consumers (β) are required. In those cases where the expected impact on prices is identified and estimates on the elasticity of demand are available, it is also possible to estimate the likely reduction in the equilibrium of the quantity produced and consumed as a result of the tax (i.e. it is possible to calculate the difference between X_0 and X_1).

A.3. Estimating the Effect of the Change in Taxes and of Possible Changes in Public Prices and Fees on the CPI

A.3.1. Taxes

In order to calculate the impact of the tax measures included in the 2010 fiscal budget on prices, the tax incidence (β) on the different goods and services subject to tax changes must be determined first. The incidences were calculated using the methodology reported by Aportela and Werner (2002) for the episode of VAT rate adjustment in 1995. This episode is particularly appropriate to estimate a tax incidence on consumer prices because in this case prices followed two different patterns: one at border cities, where the VAT did not change, and another in the rest of the country, where the VAT was adjusted upwards.[18]

It is important to point out that the new estimates presented in this section seek to control for possible differences in the effects on inflation in

[18] See Aportela, F. and A. Werner (2002), "La reforma al impuesto al valor agregado de 1995: efecto inflacionario, incidencia y elasticidades relativas", Documento de Investigación No. 2002-01, Banco de México.

Mexican border cities and in the rest of the country, not generated by the change in the VAT.[19] It is highly probable that the macroeconomic environment, in particular the depreciation of the exchange rate during the year used in these estimates, has influenced prices differently in border cities and in the rest of Mexico. The estimates attempt to control for these effects by using the price behavior of food products and medicines, which could have been affected differently by the prevailing environment, but not by changes in the VAT, because this group of products were taxed with zero VAT in both regions.

The estimated incidences are nevertheless still subject to a high degree of uncertainty mainly as a result of the following:

- The statistical uncertainty inherent in this type of estimates.
- The estimated incidences are based on 1995 market structures, which might have changed.

The second element for estimating the impact on prices is tax rates (t). In the case of the VAT and the excise tax (IEPS), the rates are given directly by the tax modifications.

The corporate income tax and the flat rate business tax do not tax production or sales. However, firms could try to transfer their additional tax burden to consumer prices. The methodology described above can be used to calculate the impact of these taxes on prices, estimating a rate equivalent (t^e) to an ad valorem tax and expressing the additional tax burden (ΔCF) as a proportion of total sales (Y).[20]

$$t^e = \frac{\Delta CF}{Y}$$

Table 3 shows the estimated impact of the tax modifications included in the LIF-2010 on the CPI, measured in basis points (bps). The estimated effect of the change in the VAT on the CPI is of around 35 bps, while that in the IEPS on alcoholic beverages and tobacco is of 5 bps. A 5 bps impact is also expected from the new IEPS on telecommunications.

The statutory tax burden of the corporate income tax does not fall on the final consumers of goods and services and therefore does not affect directly the prices of these products. Nevertheless, an upward adjustment in the income tax does imply a higher tax burden for some firms. On the basis of the above

[19] Estimates of Aportela and Werner (2002) are based on a difference-in-difference methodology. This methodology has some problems if during the periods before and after the “treatment” (increase in the VAT rate at non-border cities) there are factors that affect differently the variable of interest (prices) between the treatment group (non-border cities) and the control group (Mexican border cities).

[20] The statutory burden of the corporate income tax can be distributed among the productive factors, consumers and even other markets of goods and services which are not directly affected by this tax. The partial equilibrium framework here used assumes that the entire effect of this type of tax is absorbed within the market of the good or service in which the taxed firm participates, the tax burden being distributed among producers and consumers. It is therefore assumed that firms attempt to pass on the entire tax burden to prices.

mentioned considerations, this tax is expected to affect indirectly the CPI by 5 bps.[21]

Although the change in the fiscal consolidation regime represents an additional tax burden for some firms which might try to transfer it to consumer prices, the impact of this change is still uncertain. The additional tax burden is independent from current production levels and therefore does not affect firms' marginal price decisions. In light of the uncertain nature of the effect of the change in the fiscal consolidation scheme on prices, it was not included in the estimates of the fiscal measures impact on the CPI.

A.3.2. Public Prices and Fees

Federal administered prices and fees did not increase during 2009. The policy for setting prices and fees in 2010 will affect the CPI to the extent that it differs from that observed in 2009. The prices of low and high-octane gasoline, propane, as well as electricity prices are thus expected to increase. The fact that these goods and services are included in the CPI basket and are also inputs generally used in all economic sectors affects the CPI both directly and indirectly. The direct effect depends on the price, while the 2003 input-output matrix can be used to estimate the indirect impact of fuel prices on firms' cost structure.

As stated previously, up to now there has been no official announcement on the policy for administered prices and fees. Some assumptions have been made regarding these prices, which consider monthly price increases of 6 and 4 cents for Magna and Premium-type gasoline, respectively, while electricity and propane prices are expected to accumulate an increase of 6 percent and 5 percent in 2010, respectively. The total impact (direct and indirect) of these expected price increases would be of around 76 bps (Table 3).

Changes in some local government prices and fees are also expected to take place in 2010, like the increase in subway fares and in water supply/water service fees proposed by Mexico City's Government. For this reason, the anticipated change in local prices and fees is consistent with an additional impact on the CPI of around 44 bps.

Finally, should the approved administered and regulated prices and fees be different from the assumptions presented in this section, the above mentioned estimates will undoubtedly vary.

[21] The upward adjustment in the IETU for 2010 had been established since 2007 and was therefore already included in the inflation expectations and forecasts for 2010 published in previous inflation reports. For this reason, it was not considered as an element of the approved 2010 budget that would affect prices.

Table 3
Estimating the Effect of the Fiscal Measures for 2010 Approved by Congress and the Assumed Changes in Goods and Services with Administered Prices on the CPI
Basis points

Items	Estimate
1. Taxes set in LIF-2010 (a+b+c+d)	**50**
a. VAT increase	35
b. IEPS (excise tax) on beverages and tobacco	5
Beer	2
Alcoholic beverages of more than 20°GL	1
Tobacco (cigarettes)	3
c. IEPS Telecommunications	5
d. ISR (income tax) on firms	5
2. Price and fee policy (e+f)	**76**
e. Direct effect	**62**
Low -octane gasoline	29
High-octane gasoline	3
Gas for residential use	12
Electricity	18
f. Indirect effect	**14**
3. Local prices and fees	**44**
Total effect (1+2+3)	**169**

Note: Total figures may not add due to rounding.

A.3.3. Total Impact on the CPI

On the basis of the aforementioned elements, the impact of the tax measures and the public sector's policy for prices and fees would be of 169 bps.

It is important to mention that these estimates for the CPI do not include possible second round effects on prices, particularly the contamination of the price formation process. If these effects take place, they could lead to changes in inflation expectations and to further increases in the general price level. Under these conditions, the balance of risks would be affected. Although the estimated impact on the CPI will take place one time only, and the output gap will be significantly wide in 2010, Banco de México's Board of Governors will remain attentive that other prices are not contaminated and that medium-term inflation expectations remain well anchored.

A.4. Estimating the Effect of the Fiscal Measures for 2010 on GDP

Based on the supply and demand framework shown in Graph 10, the effect of tax modifications included in the federal budget on Mexican economic activity was estimated using the impact on consumer prices calculated above together with estimates of each economic sector's elasticity of demand. The effect on each sector was calculated as the product of the expected change in a sector's relative price as a result of the federal budget and its elasticity of demand.

In order to formally identify the above mentioned elasticities of demand, equations for GDP by sector were econometrically estimated using models which included an error correction mechanism. The variables included in each equation allow for an approximation of the relevant long-term demand of each sector. In particular, each sector's relative price, private aggregate demand, public expenditure and other factors affecting demand were included as explanatory variables.[22] The elasticity of demand and the expected upward adjustment in consumer prices were used to estimate the reduction of GDP by sector attributable to the tax. Finally, the effects on each sector were added up in order to calculate the impact of these tax changes on total GDP.

The estimated effect on private consumption (and, therefore, on aggregate demand) of the upward adjustment in the income tax for individuals was added to the impact described in the previous paragraph. This effect corresponds to the reduction in households' disposable income originated by the upward adjustment in the income tax on private consumption, which is forecasted using an econometric equation that approximates the country's consumption function.

In this case, the greater revenues obtained by the government as a result of increased taxes will be reincorporated into aggregate demand as public expenditure. Thus, the impact of the taxes on economic growth is expected to be offset by higher public spending. After considering this indirect effect on GDP, the total impact of the approved budget on Mexico's economic growth turns out to be very small. In light of this observation, and since the outlook for growth in the U.S. has improved (with its consequent significant repercussions on the outlook for growth in Mexico), there was no need to modify the scenario for GDP growth, and therefore it was left unchanged as in the Inflation Report of April - June (between 2.5 and 3.5 percent for 2010).

[22] Since both price and amount of equilibrium are determined simultaneously, the method of key variables must be used in order to estimate demand equations consistently. In line with these considerations, the relative wage of each sector was used as an instrument for the corresponding relative prices. These exercises were used to obtain long-run price demand elasticities, which were then used to calculate the budget's impact.